gtlab

Vibration
Pressure
Force
Acoustic emission

Sensors
Instruments
Software

CATALOG 2023

Research Laboratory gtlab

Sensors, instruments and software for the analysis of vibration parameters, pressure, force, acoustic emission. From development to production.

R&Ds ON YOUR PRD

Each product name in the gtlab catalog is the result of the company's proactive research and development work..

We are all ready to help you in drafting the PRD

PRODUCTION CAPACITY

Over 30 years
experience in the development and production of piezoelectric sensors and electronic devices.

Over 1000
types of products

From 2 weeks
Development of sensors, devices and software modules

3 years
Verification interval for charge and IEPE sensors:

Evidence, certificates, patents

Our products have passed all necessary tests and are covered by Measurement Instruments, Customs Union Technical Regulations certificates.
Original solutions are protected with patents.

LLC «GTLab»

Nizhny Novgorod region, Sarov,
Shvernika street

8 83130 49444
info@gtlab.pro
order@gtlab.pro (for requests)

ISO 9001 : 2015
ГОСТ РВ 0015-002-2012

CONTENTS

PRODUCT NAMING CONVENTION

Sensors

Example:

1

Measured parameter or operating principle:

1 – vibration acceleration
2 – vibration speed
3 – vibration displacement
4 – force
5 – dynamic pressure
6 – static-dynamic pressure
7 – acoustic emission
8 – eddy current

2

Output signal:

V – voltage
C – charge
A – current
D – digital

3

Sensor type:

0 – reference
1 – general purpose
2 – industrial
3 – shock
4 – high-sensitive
5 – general purpose quartz
6 – shock pulses
7 – underwater
8 – wireless

4

Sensor model and number of measuring axes:

01 ... 49 single-component
50 ... 89 three-component
90 ... 99 two-component

1C201HA-2.M.PB/2/10

5

Cable output direction:

Т – вертикальный
Н – горизонтальный

6

Cableная заделка:

A - all-in-one
M - all-in-one in metal hose
X - split (where x is - cable connector code, see Table 2, page 318)

7

Coefficient(numeric value):

For vibration sensors - coefficient of conversion to mV/g (pC/bar)
For pressure sensors, upper range limit in bar-s (for IEPE)

8

Additional cable protection properties (for non-separable cable terminations):

M – metal sleeve
B – metal sleeve electrically insulated
C – braided

9

Connector type (for fixed cable termination):

X – connector at the end of the cable termination (where x is - cable connector code, see Table 2, page 318)

10

Length of the high-temperature part of the cable (for non-separable cable terminations):

/XX -meters

11

Length of the anti-vibration part of the cable (for fixed cable terminations):

/XX - meters

Vibration acceleration sensor (accelerometer) with charge output, industrial, single-component, with horizontal cable outlet, termination not split, conversion coefficient - 100 mV/g, cable in metal sleeve, ending with connector 2РМД18КПН4Г5В1, having high-temperature part with length of 2 m and antivibration part in metal sleeve with length of 10 m.

Signal generators

A

1

Features:
0 - matching
1 - conversion
2 - commutation
3 - eddy current
4 - acoustic emission
5 - equivalents
6 - vibration controllers

2

Model
01 ... 19 – voltage
20 ... 29 – charge
30 ... 39 – universal
40 ... 59 – charge and voltage
60 ... 79 – current
80 ... 99 – digital

Example: A002 – matching signal generator, voltage.

Measuring devices

D

1

Features
0 - adc
1 - vibrometers
2 - eddy current
3 - control modules
4 - measuring complexes

2

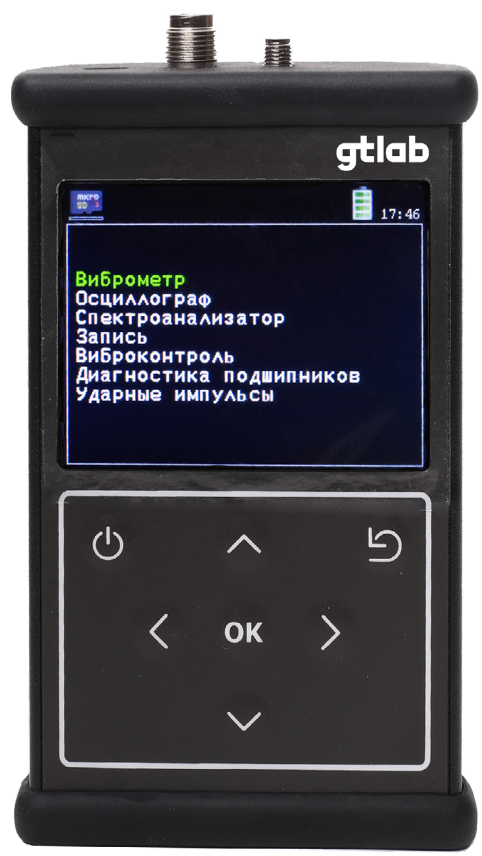
Model
01 ... 19 voltage
20 ... 29 charge
30 ... 39 charge differential
40 ... 59 charge and voltage
60 ... 79 current
80 ... 99 digital

Example: D141 – vibrometer, for sensors with charge output and IEPE standard voltage output.

Calibrators

S

Example: S01 – portable calibrator



COMPLEMENTARY PRODUCTS TABLE

Complementary goods are several goods or services that complement each other and are used simultaneously.

SENSORS	ACCESSORIES	SIGNAL GENERATORS	VIBRATION CONTROLLERS VIBROMETERS	Measuring devices
1C101XX (page 23-25)	M0105(i), M0305(i), M0505, W01, K01 B0101, B0102, B0103	A120-XX-XX, A121-XX-XX, A122-XX-XX, A126, A127, A128(-3), A129(-3), A141, A142	A621, A634, A635 D141, D142	D001, D003, D004, D005, D006, D007, D008-XX, D009-XX (via charge signal conditioner or vibration controller)
1C102XX (page 26-27)				
1C103XX (page 28-31)				
1C104XX (page 32)		A1211		
1C151XX (page 33-34)	M0205(i), M0405, W01, K12, B0102	A120-XX-XX, A121-XX-XX, A122-XX-XX, A126, A127, A128(-3), A129(-3), A141, A142	A621, A634, A635 D104 (via charge signal conditioner)	D001, D003, D004, D005, D006, D008-XX, D010-16 (via charge signal conditioner or vibration controller)
1C152HA (page 35)	P0005, M0305(i), M0105(i), W01, B0101, B0102, R21, R22			
1C155XX (page 36-37)	M0405			
1C201XX (page 38)	B02, 3 screwa M4 × 12	A123-XX; A124-XX-XX; A 125-XX-XX A126; A127	A621, A634, A635	D001, D003, D004, D005, D006, D007, D008-XX, D009-XX, D010-16 (via charge signal condi-tioner or vibration controller)
1C202XX (page 39)	4 screwa M3 × 14			
1C203XX (page 40)	B02, 3 screwa M4 × 12			
1C204XX (page 41)	4 screwa M3 × 14			
1C205XX (page 42)	B02, 3 screwa M4 × 12			
1C206XX (page 43)				
1C210TA (page 44)	4 screwa M3 × 14			
1C221HA (page 45)	W01	A120-XX-XX, A121-XX-XX, A122-XX-XX, A126, A127, A128(-3), A129(-3), A141, A142	A621, A634, A635 D141, D142	
1C290HA (page 46)				
1C301HA (page 47)	M0105(i), M0305(i), B0101	A120-XX-XX, A121-XX-XX, A122-XX-XX, A126, A127, A128(-3), A129(-3), A141, A142	A621, A634, A635 D104, D141, D142	D001, D003, D004, D005, D006, D007, D008-XX, D009-XX, D010-16 (via charge signal condi-tioner or vibration controller)
1C302HA (page 48)	W01			
1C303HA (page 49)				
1C304HA (page 50)	M0105(i), M0305(i), B0101			
1C305HA (page 51)				
1C306HA (page 52)	M0105(i), M0305(i), M0505, B0101, B0102			
1C307TB (page 53)	W01, M0303(i)			
1C351HA (page 54)	M0305(i), screw M3 × 8		A621, A634, A635 D104 (via charge signal conditioner)	D001, D003, D004, D005, D006, D008-XX, D010-16 (via charge signal conditioner or vibration controller)
1C401HB (page 55)	M0205(i), M0405, M0505, W01	A120-XX-XX, A121-XX-XX, A122-XX-XX, A126, A127, A128(-3), A129(-3), A141, A142	A621, A634, A635 D141, D142	D001, D003, D004, D005, D006, D007, D008-XX, D009-XX, D010-16 (via charge signal condi-tioner or vibration controller)
1C402HB (page 56)				
1C403HS (page 57)		A1221		
1C702TA (page 58)	M0105(i), M0205(i), M0505, W01, B0101, B0102	A120-XX-XX, A121-XX-XX, A122-XX-XX, A126, A127, A128(-3), A129(-3), A141, A142	A621, A634, A635 D141, D142	D001, D003, D004, D005, D006, D007, D008-XX, D009-XX, D010-16 (via charge signal condi-tioner or vibration controller)

1V001HB (page 59)	M0105(i), M0205, M0505, W01	A002-XX, A003-XX, A004-XX A141, A142	A631, A632, A633, A634, A635 D101, D104, D141, D142	D001, D003, D004, D005, D006, D007, D008-XX, D009-XX
1V101XX (page 60-62)	M0105(i), M0205(i), M0505, W01, B0101, B0102, K01			
1V102XX (page 63-65)	M0105(i), M0305(i), M0505, W01, B0101, B0102, K01			
1V103XX (page 66-67)	P0005, W01, R22			
1V104HA (page 68)				
1V105HA (page 69)	M0105(i), M0205(i), M0505, B0101, B0102			
1V106HB (page 70)	M0303(i), W01			
1V107XX (page 71)	W01			
1V108XX (page 72-73)	W01, R22			
1V151XX (page 74-75)	M0205(i, M0405, W01, K12	A002-XX, A003-XX, A004-XX A141, A142	A631, A632, A633, A634, A635 D104	D001, D003, D004, D005, D006, D008-XX, D010-16
1V152XX (page 76-78)	M0105(i), M0205(i), M0505, W01, K12, R23			
1V153HC (page 79)	M0105, M0205, M0405, M0505, W01, K12			
1V154HC (page 80)	M0405, W01, K12, R23			
1V155HC (page 81)	M0205(i), M0405, W01, K12, R22			
1V157HC (page 82)	screw M3 × 23, M0105(i), M0205(i), M0505, W01			
1V158HA (page 83)	M0105(i), M0205(i), M0505, W01, K12, R23			
1V201XX (page 84-85)	M0406, W01	A002-XX, A003-XX, A004-XX A141, A142	A631, A632, A633, A634, A635 D101, D104, D141, D142	D001, D003, D004, D005, D006, D007, D008-XX, D009-XX
1V202XX (page 86-88)	M0206(i), M0506, B0102, W01			
1V203XX (page 89-91)	M0406, W01			
1V206HM-10 (page 92)	B02, 3 screwa M4 × 14			
1V208XX (page 93)	M0408, W01, screw M8 × 40	—	A633	—
1V209XX (page 94)	B02, 3 screwa M4 × 14	A002-XX, A003-XX, A004-XX A141, A142	A631, A632, A633, A634, A635 D101, D104, D141, D142	D001, D003, D004, D005, D006, D007, D008-XX, D009-XX
1V211TT (page 95)	M0206(i), M0506, B0103, W01	—	A633	—
1V212TH (page 96)		A002-XX, A003-XX, A004-XX A141, A142	A631, A632, A633, A634, A635 D101, D104, D141, D142	D001, D003, D004, D005, D006, D007, D008-XX, D009-XX
1V213HH (page 97)	M0406, W01			
1V214HH (page 98)	M0206(i), M0506			
1V221HP-10 (page 99)	B02, 3 screwa M4 × 12	—	—	—
1V222HP-10 (page 101)	4 screwa M3 × 16			
1V223HP-10 (page 99)	B02, 3 screwa M4 × 12			
1V224HP-10 (page 101)	4 screwa M3 × 16			
1V242XX (page 103)	M0206(i), M0506, B0103, W01	A002-XX, A003-XX, A004-XX A141, A142	A631, A632, A633, A634, A635 D101, D104, D141, D142	D001, D003, D004, D005, D006, D007, D008-XX, D009-XX
1V251XX-100 (page 104)	4 screwa M3 × 16	A002-XX, A003-XX, A004-XX A141, A142	A631, A632, A633, A634, A635 D104	D001, D003, D004, D005, D006, D007 , D008-XX, D010-16
1V252XX (page 105)	4 screwa M3 × 16, B0204	—	—	—
1V253XX (page 106)	4 screwa M3 × 16, B0204	—	—	—

1V265HN (page 107)	screw M6 (non - falling), M0406, W01	A002-XX, A003-XX, A004-XX A141, A142	A631, A632, A633, A634, A635 D104	D001, D003, D004, D005, D006, D007, D008-XX
1V266HN (page 108)	M0406, W01			
1V290HA (page 109)	—	A002-XX, A003-XX, A004-XX A141, A142	A631, A632, A633, A634, A635 D104	D001, D003, D004, D005, D006, D007, D008-XX, D009-XX
1V295HT (page 110)	screw M6 (non - falling), M0406, W01			
1V296HT (page 111)	M0406, W01			
1V301HA (page 112)	W01	A002-XX, A003-XX, A004-XX	A631, A632, A633, A634, A635 D101, D104, D141 , D142	D001, D003, D004, D005, D006, D007, D008-XX, D009-XX
1V302HA (page 113)	M0105(i), M0305(i), M0105, M0305, B0101			
1V303TB (page 114)	M0406, M0506			
1V304HA-0.5 (page 115)	W01			
1V305TB (page 116)	M0206,M0506			
1V401HS (page 117)	M0405, P0505, P0505i, P0506, P0508	A004-XX	A631, A632, A633, A634, A635 D101, D104, D141, D142	D001, D003, D004, D005, D006, D007, D008-XX, D009-XX
1V421TA (page 118)	—	—	—	—
1V601XX-01 (page 119)	B0306	—	A631, A632, A633, A634, A635 D101, D104, D141, D142	D001, D003, D004, D005, D006, D007, D008-XX, D009-XX
1V601XX-02 (page 119)	B0308			
1V601XX-03 (page 119)	B03516			
1V701TA (page 120)	P0505, P0505i, P0506, P0508	A002-XX, A003-XX, A004-XX	A631, A632, A633, A634, A635 D101, D104, D141, D142	D001, D003, D004, D005, D006, D007, D008-XX, D009-XX
1V702TA (page 121)				
1V703TA (page 122)	—			
1V751HA (page 123)	P0505, P0505i, P0506, P0508		A631, A632, A633, A634, A635, D104	D001, D003, D004, D005, D006, D007, D008-XX
1V752HA (page 124)	—			
1D251XX (page 125)	—	—	D181	—
1D252XX (page 126)				
1D401XX (page 127)	P0505, P0505i, P0506, P0508	—	—	—
1D402XX (page 128)				
1D851 (page 129)	—	—	—	—
1D852 (page 130)				
1A202XX (page 134)	M0206(i), M0406, M0506, B0506,P0506, P0608, P0606	—	A631, A632	—
1A204XX (page 134)	B02, 3 screwa M4 × 12			
1A206XX (page 134)	M0408, W01, screw M8 × 40			
2A201XX (page 138)	M0206(i), M0406, M0506, B0506,P0506, P0608, P0606	—	A631, A632	—
2A202XX (page 138)				
2A203XX (page 138)	3 screwa M4 × 12			
2A204XX (page 138)				
2A205XX (page 138)	M0408, W01, screw M8 × 40			
2A206XX (page 138)				

2A251XX (page 140)	M0206(i), M0406, M0506, B0506,P0506, P0608, P0606	—	A631, A632	—
2A252XX (page 140)				
2A253XX (page 140)	3 screwa M4 × 12			
2A254XX (page 140)				
2A255XX (page 140)	M0408, W01, screw M8 × 40			
2A256XX (page 140)				
2V201XX (page 141-142)	3 screwa M4 × 12, B02	A003-XX	A634, A635 (via charge signal conditioner))	—
2V202XX (page 143-145)				
2V203TH (page 146)	M0206(i), M0406, M0506, B0506	—	—	
2V221HH (page 147)	B0201, B0203			
2V222HH (page 148)	B0204			
2A231TP (page 150)	M0406	A182	—	—
3A201XX (page 154)	M0206(i), M0406, M0506, B0506,P0506, P0608, P0606	—	A631, A632	—
3A203Hx (page 154)	B02, 3 screwa M4 × 12			
3A205Hx (page 154)	M0408, W01, screw M8 × 40			
3V201HP (page 155)	M0305	—	—	—
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4C102HB (page 162)	Two load nuts M6, pin M5			
4C103HB (page 163)	Two load nuts M12×1,25, pin M12×1,25			
4C104HB (page 164)	Two load nuts M18 × 1,6, pin M18 × 1,5			
4C105HB (page 165)	P0506f			
4V101HB (page 166)	Pin P0505	A002-XX, A003-XX, A004-X-XA141, A142	A631, A632, A633, A634, A635 D101, D104, D141, D142	D001, D003, D004, D005, D006, D007, D008-XX, D009-XX
4V102HB (page 167)	Two load nuts M6, pin M5			
4V103HB (page 168)	Two load nuts M12×1,25, pin M12×1,25			
4V104HB (page 169)	Two load nuts M18 × 1,6, pin M18 × 1,5			
4V105HB (page 170)	P0506f			
5C101XX-250-XX (page 173-174)	R01	A120-XX-XX, A121-XX-XX, A122-XX-XX, A126, A127, A128(-3), A129(-3), A141, A142	—	D001, D003, D004, D005, D006, D007, D008-XX, D009-XX (via charge signal conditioner or vibration controller)
5C102XX-2500-XX (page 175,177)	R02			
5C102XX-250-XX (page 176-178)				
5C103XX-6000-2 (page 179-180)	R03			
5C104TB-1200-7 (page 181)	R06			
5C201TA-XX-XX (page 182)	—	A123-XX; A124-XX-XX; A 125-XX-XX	D104 (via charge signal conditioner))	D001, D003, D004, D005, D006, D007, D008-XX, D009-XX (via charge signal conditioner or vibration controller)
5C202TA-250-20 (page 183)	—	A120-XX-XX, A121-XX-XX, A122-XX-XX, A126, A127, A129(-3), A141, A142		
5C203HH-XX-XX (page 184)	—	A123-XX; A124-XX-XX; A 125-XX-XX		

5V101XX (page 185-186)	R01	A120-XX-XX, A121-XX-XX, A122-XX-XX, A126, A127, A128(-3), A129(-3), A141, A142	—	D001, D003, D004, D005, D006, D007, D008-XX, D009-XX
5V110XX (page 187-188)	R02			
5V120XX (page 189)	mounting nut M14×1,25			
5V121XX (page 190-191)				
5V122XX (page 192)				
5V123XX (page 193)				
6V201TP-XX (page 195)	M0406, W01	A002-XX, A003-XX, A004-XX	A631, A632, A633, A634, A635 D101, D104, D141, D142	D001, D003, D004, D005, D006, D007, D008-XX, D009-XX
6V201TP-XX-5 (page 195)				
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6V202TP-XX-5 (page 196)				
7C101XX (page 198-199)	B7401, B7501	A005, A421,A422	—	D002 (via charge signal conditioner)
7C102HA (page 200)	B7400, B7500	A005, A421-01,A422		
7C102HB (page 201)	B7401, B7501			
7C103HX (page 202-204)		A005, A421-02,A422		
7C104XX (page 204-205)	—	A005, A421-03,A422		
7C105XX (page 206-207)	—	A005, A421-04,A422		
7C201TA (page 208)	B7520	A005, A422		
7V104TA (page 209)	—	A401		D002
7V201TA (page 210)	B7520			
8V91D (page 211)	K20	—	D141 , D142	D001, D003, D004, D005, D006, D007, D008-XX, D009-XX
8V91F (page 212)				

Accelerometers

With charge output
With voltage output
With digital output
With current output

ACCELEROMETERS

Electromechanical transducers for for vibration and shock acceleration measurement.

With charge output

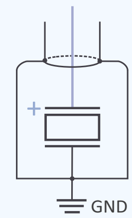
Accelerometers for extreme applications: high temperature, high intensity shock acceleration in a wide frequency range.

General purpose

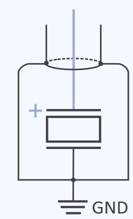
Measurement of parameters of medium-and high-intensity vibration processes.

Single-component

Series 1C101 **Series 1C102**



Series 1C103 **Series 1C104**



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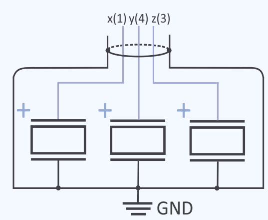
Three-component

Series 1C151 **Series 1C152** **Series 1C155**



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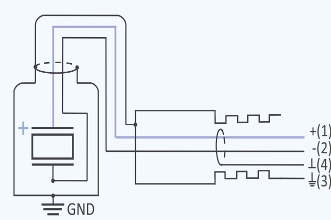
Industrial

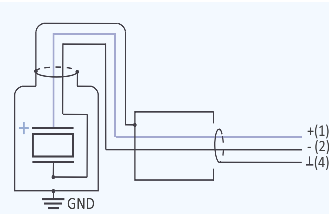
Industrial equipment condition monitoring in strong industrial interference environments.

Series 1C201 **Series 1C202** **Series 1C205** **Series 1C206** **Series 1C210**



With flexible cable in metal sleeve after transition bushings

Series 1C201 **Series 1C202** **Series 1C205** **Series 1C206** **Series 1C210**



With flexible cable without metal sleeve after adapter bushing

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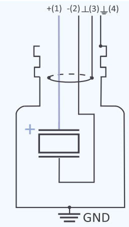
Series 1C203HM **Series 1C204HM**



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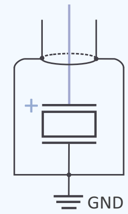
Series 1C221



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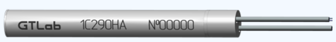
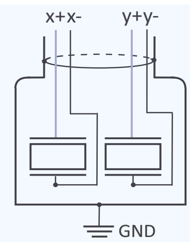
two-componen



Series 1C290



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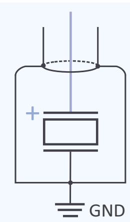
Shock

Measurement of parameters of high-intensity shock processes.

Single-component



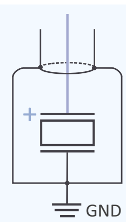

1C301 **1C302** **1C303** **1C304**



Pages:: 47-50



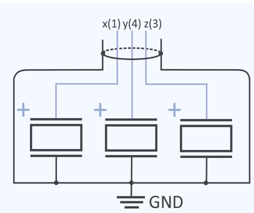
1C305 **1C306** **1C307**



Pages:: 51-53

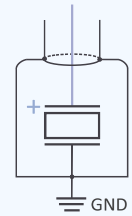
Three-component

1C351



Pages:: 54

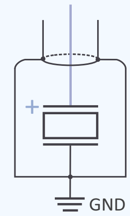
High-sensitive



1C401 1C402 1C403

Pages:: 55-57

Underwater



1C702

Pages:: 58

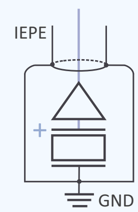
With voltage output

Accelerometers with increased noise immunity.

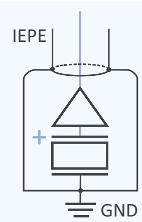
General purpose

Measurement of parameters of vibration processes
(in multichannel systems, modal analysis, analysis in industrial sanitation)

Single-component



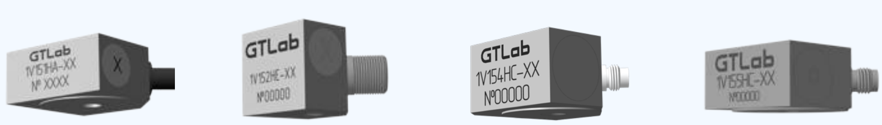
Series 1V101 Series 1V102 Series 1V103 Series 1V104 Series 1V105

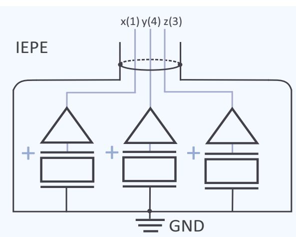


Series 1V106 Series 1V107 Series 1V108

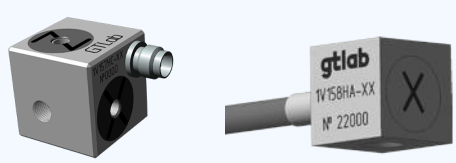
Pages:: 59-73

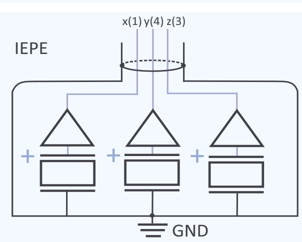
Three-component





Series 1V151 Series 1V152 Series 1V154 Series 1V155

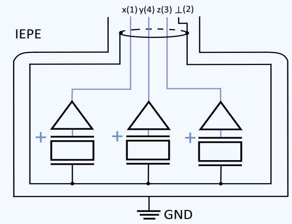




Series 1V157 Series 1V158

Pages:: 74-83

Series 1V153



Pages:: 79

Industrial

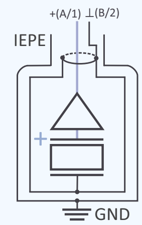
Industrial equipment condition monitoring in conditions of strong industrial interference

Series 1V201

Series 1V202

Series 1V203

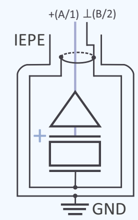
Series 1V211



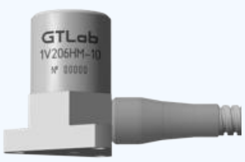
Series 1V212

Series 1V213

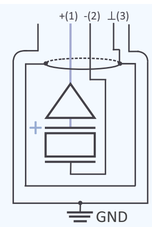
Series 1V214



Page 84-97



Series 1V206



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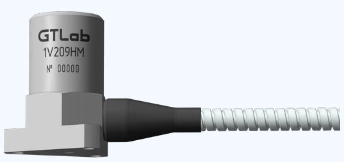
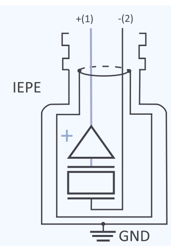


Series 1V209HM



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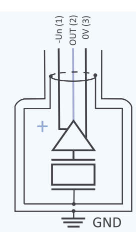
With negative supply

Series 1V208XX



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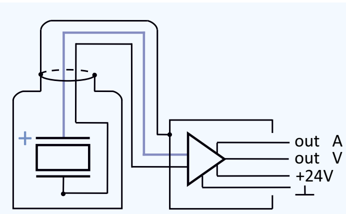
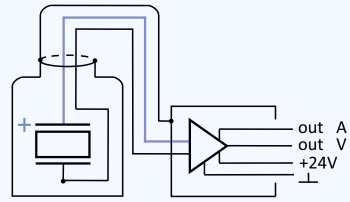
Series 1V221XX **Series 1V223XX**



Pages:: 99

Series 1V222XX **Series 1V224XX**

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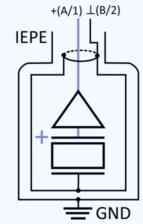
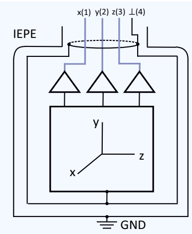


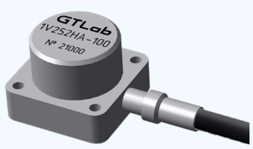
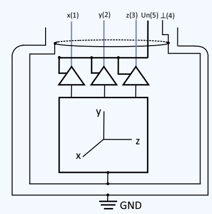
Series 1V242XX

Page 103

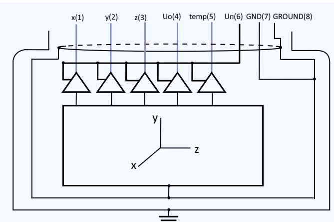
Series 1V251XX

Page 104

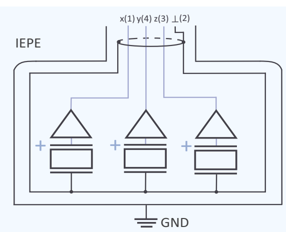
Series 1V252XX

Page 105

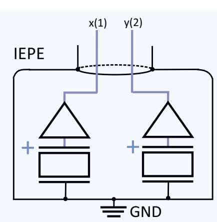
Series 1V253XX

Page 106



Series 1V265XX **Series 1V266XX**

Page 107



Series 1V290XX

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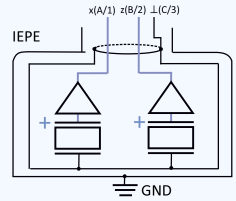
Series 1V295XX

Series 1V296XX



Page 110-111

Shock

Measurement of parameters of high-intensity shock processes.

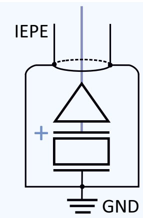
1V301HA

1V302HA

1V303HA

1V304HA

1V305TB

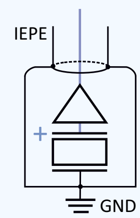


Page 112-116

High-sensitive

Measurement of Low-pass filterparameters in low-intensity vibration processes.

Series 1V401HS-XX



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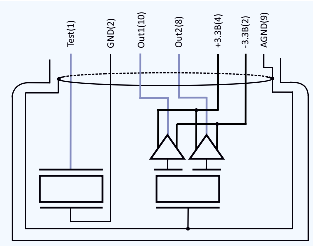
Series 1V421TA



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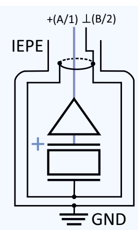
Shock pulses

Series 1V601TA-XX

Series 1V601TH-XX

Series 1V601TH-XX



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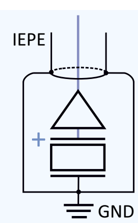
Underwater

Series 1V701TA

Series 1V702TA



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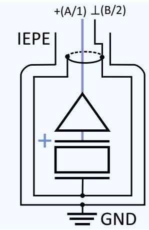
Series 1V703HA



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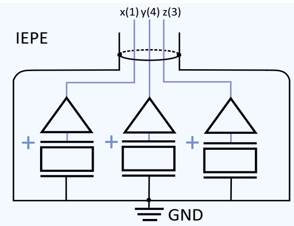
Three-component

Series 1V751HA

Series 1V752HA



Page 123-124

High-sensitive

Accelerometers with built-in ADC.

Industrial

1D251HA

1D252HM

Modbus
RS485

Page 125-126

High-sensitive

1D401HC

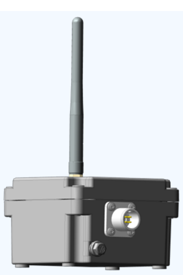
1D401HA

1D402HA

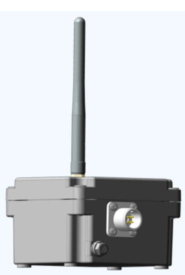
USB

Pages:: 127-128

Wireless



1D851

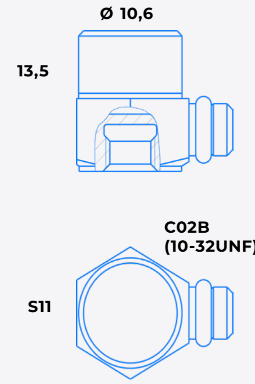


1D852

wi-fi

Pages:: 129-130

Accelerometer
1C101HB-XX



	1C101HB	-01
Sensitivity (± 20%, pC/(m·s⁻²))	1	
Transverse sensitivity, %	< 5	
Measurement range, m/s²	± 100 000	
Maximum shock limit (peak value), m/s²	± 150 000	
Temperature range, °C	–60 ... +150	
Frequency range (uneven frequency response ± 1 dB), Hz	0,5 ... 16 000	
Resonant frequency, kHz	> 50	
Electric capacity, pF	800 ... 1100	
Insulation resistance under normal conditions, MOhm	> 10 000	
Housing material	stainless steel	titanium alloy
Weight (without cable), g	10	7,6
Supplied accessories	cable 03B1B1 (as per customer's request) pin P0505	

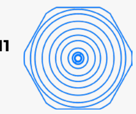
Accelerometer

1C101TB-XX

C02B
(10-32UNF)

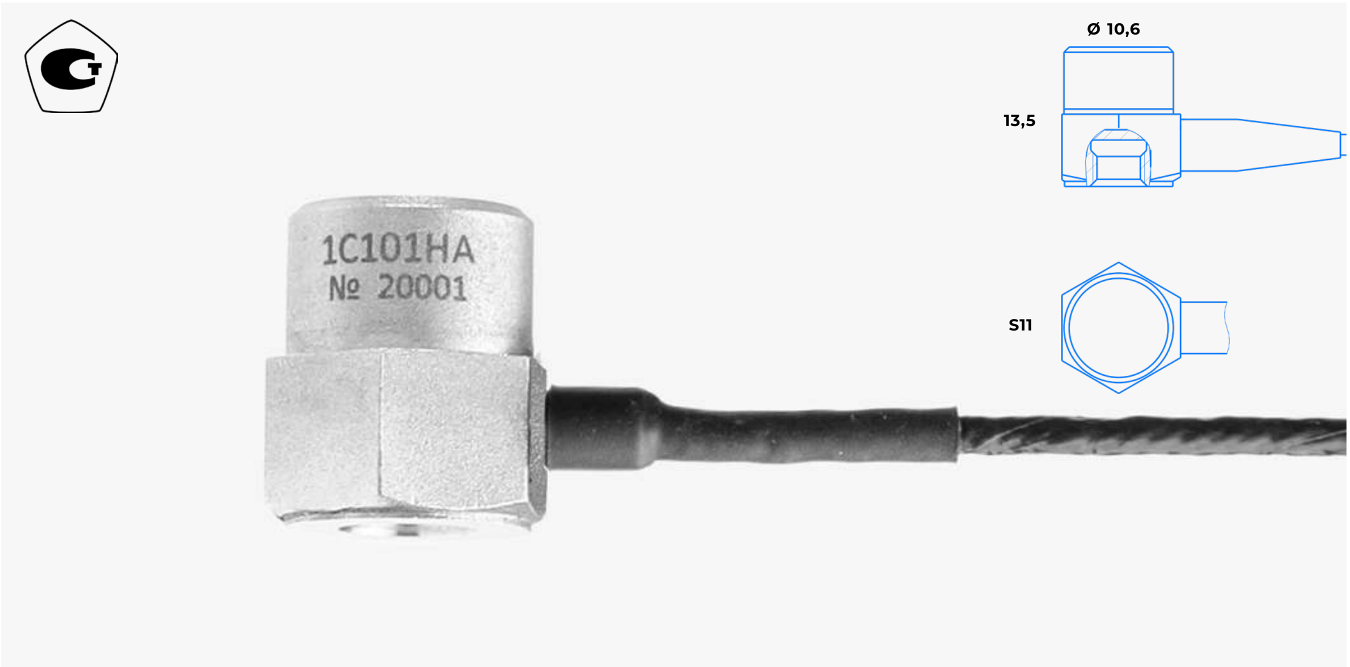
21

S11



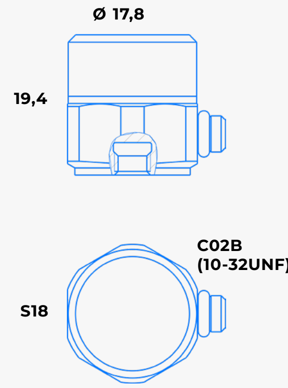
	1C101TB	-01
Sensitivity (± 20%, pC/(m·s–2)	1	
Transverse sensitivity, %	< 5	
Measurement range, m/s²	± 100 000	
Maximum shock limit (peak value), m/s²	± 150 000	
Temperature range, °C	–60 ... +150	
Frequency range (uneven frequency response ± 1 dB), Hz	0,5 ... 16 000	
Resonant frequency, kHz	> 50	
Electric capacity, pF	800 ... 1100	
Insulation resistance under normal conditions, MOhm	> 10 000	
Housing material	stainless steel	titanium alloy
Weight (without cable), g	10	7,6
Supplied accessories	cable 03B1B1 (as per customer's request) pin P0505	

Accelerometer
1C101HA-XX



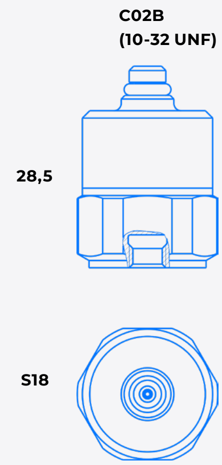
	1C101HA	-01
Sensitivity (± 20%, pC/(m·s⁻²))	1	
Transverse sensitivity, %	< 5	
Measurement range, m/s²	± 100 000	
Maximum shock limit (peak value), m/s²	± 150 000	
Temperature range, °C	–60 ... +150	
Frequency range (uneven frequency response ± 1 dB), Hz	0,5 ... 16 000	
Resonant frequency, kHz	> 50	
Electric capacity, pF	800 ... 1100	
Insulation resistance under normal conditions, MOhm	> 10 000	
Housing material	stainless steel	titanium alloy
Weight (without cable), g	10	7,6
Supplied accessories	pin P0505	

Accelerometer
1C102HB



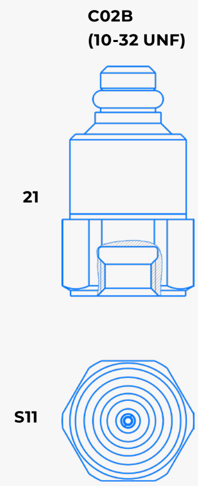
	1C102HB
Sensitivity (± 20%, pC/(m·s^{-2})	10
Transverse sensitivity, %	< 5
Measurement range, m/s^2	± 15 000
Maximum shock limit (peak value), m/s^2	± 50 000
Temperature range, °C	–60 ... +150
Frequency range (uneven frequency response ± 1 dB), Hz	0,5 ... 8 000
Resonant frequency, kHz	> 20
Electric capacity, pF	1000 ... 1500
Insulation resistance under normal conditions, MOhm	> 10 000
Housing material	stainless steel
Weight (without cable), g	40
Supplied accessories	cable 03B1B1 (as per customer’s request) pin P0505

Accelerometer
1C102TB



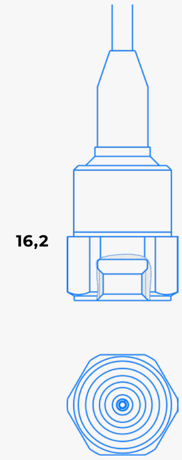
	1C102TB
Sensitivity (± 20%, pC/($m \cdot s^{-2}$))	10
Transverse sensitivity, %	< 5
Measurement range, m/s^2	± 15 000
Maximum shock limit (peak value), m/s^2	± 50 000
Temperature range, °C	–60 ... +150
Frequency range (uneven frequency response ± 1 dB), Hz	0,5 ... 8 000
Resonant frequency, kHz	> 20
Electric capacity, pF	1000 ... 1500
Insulation resistance under normal conditions, MOhm	> 10 000
Housing material	stainless steel
Weight (without cable), g	40
Supplied accessories	cable 03B1B1 (as per customer's request) pin P0505

Accelerometer
1C103TB, 1C103TB-01



	1C103TB	-01
Sensitivity (± 20%, pC/(m·s⁻²))	1	
Transverse sensitivity, %	< 5	
Measurement range, m/s²	± 100 000	
Maximum shock limit (peak value), m/s²	± 150 000	
Temperature range, °C	–60 ... +250	
Frequency range (uneven frequency response ± 1 dB), Hz	0,5 ... 16 000	
Resonant frequency, kHz	> 50	
Electric capacity, pF	700 ... 1 000	
Insulation resistance under normal conditions, MOhm	> 10 000	
Housing material	stainless steel	titanium alloy
Weight (without cable), g	10	7,6
Supplied accessories	cable 03B1B1 (as per customer's request) pin P0505	

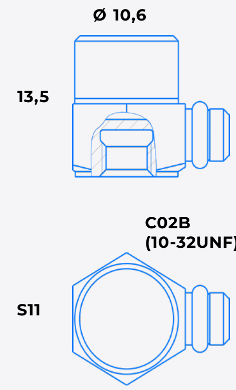
Accelerometer
1C103TA, 1C103TA-01



1C103TA		-01
Sensitivity (± 20%, pC/(m·s^{-2}))	1	
Transverse sensitivity, %	< 5	
Measurement range, m/s^2	± 100 000	
Maximum shock limit (peak value), m/s^2	± 150 000	
Temperature range, °C	–60 ... +250	
Frequency range (uneven frequency response ± 1 dB), Hz	0,5 ... 16 000	
Resonant frequency, kHz	> 50	
Electric capacity, pF	700 ... 1 000	
Insulation resistance under normal conditions, MOhm	> 10 000	
Housing material	stainless steel	titanium alloy
Weight (without cable), g	10	7,6
Supplied accessories	pin P0505	

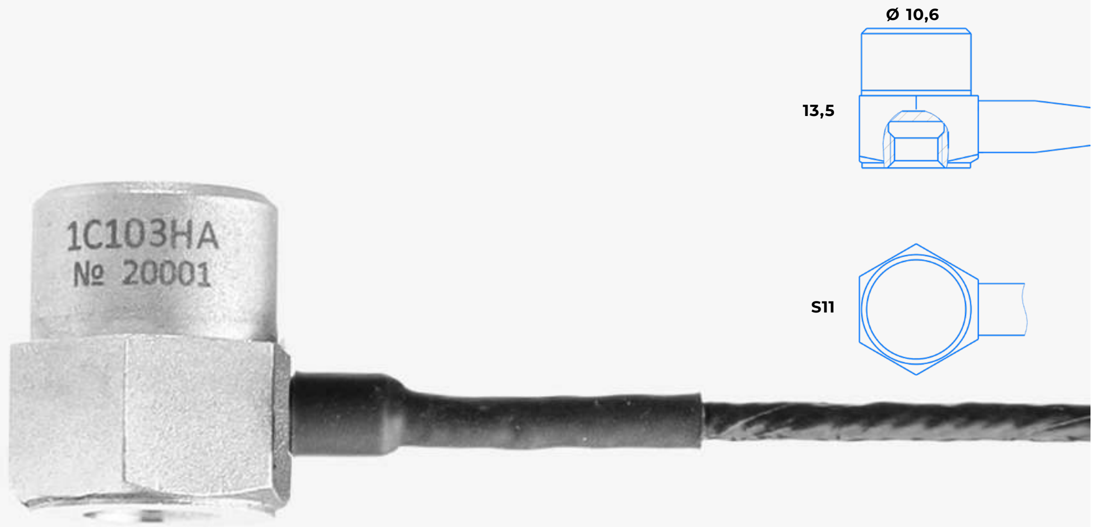
Accelerometer

1C103HB, 1C103HB-01



	1C103HB	-01
Sensitivity (± 20%, pC/(m·s⁻²))	1	
Transverse sensitivity, %	< 5	
Measurement range, m/s²	± 100 000	
Maximum shock limit (peak value), m/s²	± 150 000	
Temperature range, °C	–60 ... +250	
Frequency range (uneven frequency response ± 1 dB), Hz	0,5 ... 16 000	
Resonant frequency, kHz	> 50	
Electric capacity, pF	700 ... 1 000	
Insulation resistance under normal conditions, MOhm	> 10 000	
Housing material	stainless steel	titanium alloy
Weight (without cable), g	10	7,6
Supplied accessories	cable 03B1B1 (as per customer's request) pin P0505	

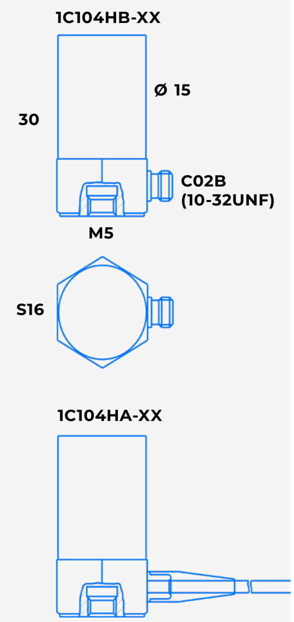
Accelerometer
1C103HA, 1C103HA-01



1C103HA		-01
Sensitivity (± 20%, pC/(m·s⁻²))	1	
Transverse sensitivity, %	< 5	
Measurement range, m/s²	± 100 000	
Maximum shock limit (peak value), m/s²	± 150 000	
Temperature range, °C	–60 ... +250	
Frequency range (uneven frequency response ± 1 dB), Hz	0,5 ... 16 000	
Resonant frequency, kHz	> 50	
Electric capacity, pF	700 ... 1 000	
Insulation resistance under normal conditions, MOhm	> 10 000	
Housing material	stainless steel	titanium alloy
Weight (without cable), g	10	7,6
Supplied accessories	pin P0505	

Accelerometer

1C104HB-XX, 1C104HA-XX

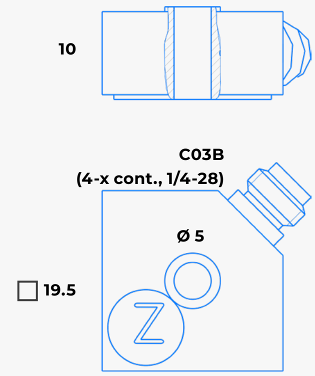


1C104HB/HA		-01
Sensitivity (± 20%, pC/(m·s⁻²))	17,3	
Transverse sensitivity, %	≤ 6	
Measurement range, m/s²	± 500	
Нелинейность АХ, %	≤ 3	
Maximum shock limit (peak value), m/s²	± 1 000	
Temperature range, °С	–196... +150	
Frequency range (uneven frequency response ± 1 dB), Hz	2 ... 5 000	
Resonant frequency, kHz	25	
Electric capacity, pF	4 000	
Insulation resistance under normal conditions, MOhm	> 10 000	
Housing material	stainless steel	titanium alloy
Weight (without cable), g	75	< 50
Supplied accessories	cable 03B1B1 (as per customer's request) pin P0505	
Feature	operation with A1211 signal conditioner providing normalized (± 2 %) voltage conversion ratio	

Accelerometer
1C151HA

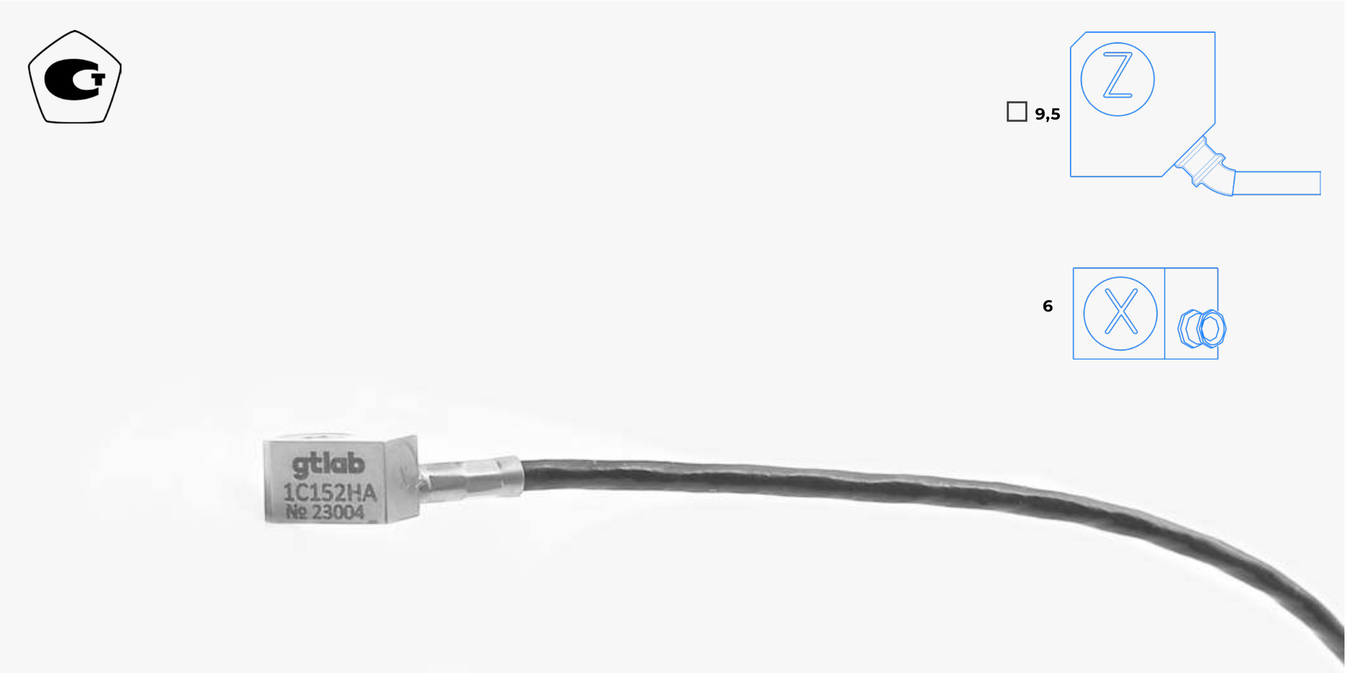
	1C151HA
Sensitivity (± 20%, pC/(m·s^{-2}))	1
Transverse sensitivity, %	< 5
Measurement range, m/s^2	± 25 000
Maximum shock limit (peak value), m/s^2	± 100 000
Temperature range, °C	–60 ... +150
Frequency range (uneven frequency response ± 1 dB), Hz	0,5 ... 10 000
Resonant frequency, kHz	> 30
Electric capacity, pF	800 ... 1 100
Insulation resistance under normal conditions, MOhm	> 10 000
Housing material	titanium alloy
Weight (without cable), g	17
Supplied accessories	screw M5 × 15

Accelerometer
1C151HC



	1C151HC
Sensitivity (± 20%, pC/(m·s⁻²)	1
Transverse sensitivity, %	< 5
Measurement range, m/s²	± 25 000
Maximum shock limit (peak value), m/s²	± 100 000
Temperature range, °C	–60 ... +150
Frequency range (uneven frequency response ± 1 dB), Hz	0,5 ... 10 000
Resonant frequency, kHz	> 30
Electric capacity, pF	800 ... 1 100
Insulation resistance under normal conditions, MOhm	> 10 000
Housing material	titanium alloy
Weight (without cable), g	17
Supplied accessories	cable 41C1B3 (as per customer's request) screw M5 × 15

Accelerometer
1C152HA

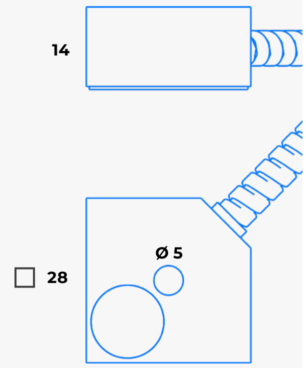


	1C152HA
Sensitivity (± 20%, pC/(m·s^{-2}))	0,2
Transverse sensitivity, %	< 5
Measurement range, m/s^2	± 30 000
Maximum shock limit (peak value), m/s^2	± 100 000
Temperature range, °C	–60 ... +150
Frequency range (uneven frequency response ± 1 dB), Hz	5 ... 20 000
Resonant frequency, kHz	> 60
Electric capacity, pF	600 ... 900
Insulation resistance under normal conditions, MOhm	> 10 000
Housing material	titanium alloy
Weight (without cable), g	3

Accelerometer
1C155HA

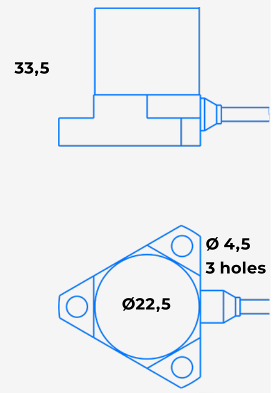
	1C155HA
Sensitivity (± 20%, pC/(m·s⁻²))	0,1
Transverse sensitivity, %	< 5
Measurement range, m/s²	± 10 000
Maximum shock limit (peak value), m/s²	± 50 000
Temperature range, °C	–60 ... +250
Frequency range (uneven frequency response ± 1 dB), Hz	0,5 ... 10 000
Resonant frequency, kHz	> 30
Electric capacity, pF	200 ... 300
Insulation resistance under normal conditions, MOhm	> 10 000
Housing material	stainless steel
Weight (without cable), g	86
Supplied accessories	screw M5 × 20

Accelerometer
1C155HM



	1C155HM
Sensitivity (± 20%, pC/(m·s^{-2}))	0,1
Transverse sensitivity, %	< 5
Measurement range, m/s^2	± 10 000
Maximum shock limit (peak value), m/s^2	± 50 000
Temperature range, °C	–60 ... +250
Frequency range (uneven frequency response ± 1 dB), Hz	0,5 ... 10 000
Resonant frequency, kHz	> 30
Electric capacity, pF	200 ... 300
Insulation resistance under normal conditions, MOhm	> 10 000
Housing material	stainless steel
Weight (without cable), g	86
Supplied accessories	screw M5 × 20

Accelerometer
1C201HA-XX

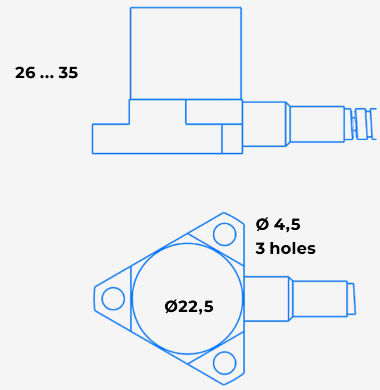


1C201HA	-2	-5	-10
Sensitivity (± 20%), pC/(m·s^{-2})	0,2	0,5	1 п
Transverse sensitivity, %	< 5		
Measurement range, m/s^2	± 50 000	± 30 000	± 10 000
Maximum shock limit (peak value), m/s^2	± 50 000		
Temperature range, °C	–60 ... +400		
Frequency range (uneven frequency response ± 1 dB), Hz	2 ... 12 000	2 ... 10 000	2 ... 8 000
Resonant frequency, kHz	> 36	> 30	> 24
Electric capacity (without cable), pF	500 ... 700		
Insulation resistance under normal conditions, MOhm	> 100		
Housing material	stainless steel		
Explosion-proof	1Ex ib IIB T6...T1 Gb		
Weight (without cable), g	100		
Supplied accessories	3 screwa DIN 404 M4 × 12 A2		

Accelerometer
1C202HA-XX

1C202HA	-2	-5	-10
Sensitivity (± 20%), pC/(m·s^{-2})	0,2	0,5	1
Transverse sensitivity, %	< 5		
Measurement range, m/s2	± 50 000	± 30 000	± 10 000
Maximum shock limit (peak value), m/s^2	± 50 000		
Temperature range, °C	–60 ... +400		
Frequency range (uneven frequency response ± 1 dB), Hz	2 ... 12 000	2 ... 10 000	2 ... 8 000
Resonant frequency, kHz	> 36	> 30	> 24
Electric capacity (without cable), pF	500 ... 700		
Insulation resistance under normal conditions, MOhm	> 100		
Housing material	stainless steel		
Explosion-proof	1Ex ib IIB T6...T1 Gb		
Weight (without cable), g	120		
Supplied accessories	4 screwa DIN 404 M3 × 16 A2		

Accelerometer
1C203HM-XX



1C203HM	- 10	- 20	- 50	- 100	- 250	- 500
Sensitivity (± 20%, pC/(m·s^{-2}))	1	2	5	10	25	50
Transverse sensitivity, %	< 5					
Measurement range, m/s^2	± 20 000	± 15 000	± 12 000	± 10 000	± 8 000	± 5 000
Maximum shock limit (peak value), m/s^2	± 50 000				± 20 000	± 20 000
Temperature range, °C	–60 ... +250					
Frequency range (uneven frequency response ± 1 dB), Hz	2 ... 12 000		2 ... 10 000	2 ... 8 000	2 ... 6 000	2 ... 5 000
Resonant frequency, kHz	> 36		> 30	> 24	> 18	> 15
Electric capacity (without cable), pF	5 000 ... 6 000					
Insulation resistance under normal conditions, MOhm	> 1 000					
Housing material	stainless steel					
Explosion-proof	1Ex ib IIB T6... T1 Gb					
Weight (without cable), g	80	80	90	90	110	130
Supplied accessories	3 screwa DIN 404 M4 × 12 A2					
Cable version(Y)	B - metal hose C - braided cable					

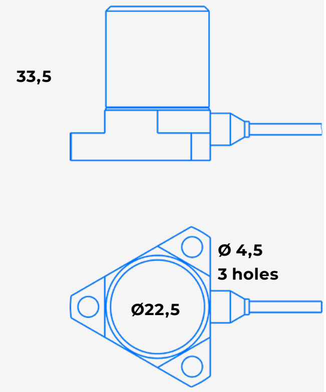
Accelerometer
1C204HM-XX

1C204HM	-10	-20	- 50	- 100	- 250	- 500
Sensitivity (± 20%, pC/(m·s⁻²)	1	2	5	10	25	50
Transverse sensitivity, %	< 5					
Measurement range, m/s²	± 20 000	± 15 000	± 12 000	± 10 000	± 8 000	± 5 000
Maximum shock limit (peak value), m/s²	± 50 000					
Temperature range, °C	–60 ... +250					
Frequency range (uneven frequency response ± 1 dB), Hz	2 ... 12 000		2 ... 10 000	2 ... 8 000	2 ... 6 000	2 ... 5 000
Resonant frequency, kHz	> 36		> 30	> 24	> 18	> 15
Electric capacity (without cable), pF	5 000 ... 6 000					
Insulation resistance under normal conditions, MOhm	> 1 000					
Housing material	stainless steel					
Explosion-proof	1Ex ib IIB T6...T1 Gb					
Weight (without cable), g	110	120	130	140	150	160
Supplied accessories	4 screwa DIN 404 M3 × 16 A2					
Cable version(Y)	B - metal hose C - braided cable					

Accelerometer
1C205HA-XX

1C205HA	-2	-5
Sensitivity (± 20%), pC/(m·s^{-2})	0,2	0,5
Transverse sensitivity, %	< 5	
Measurement range, m/s^2	± 10 000	
Maximum shock limit (peak value), m/s^2	± 50 000	
Temperature range, °C	–60 ... +600	
Frequency range (uneven frequency response ± 1 dB), Hz	3 ... 3 000	2 ... 1 500
Resonant frequency, kHz	> 8	> 5
Electric capacity, pF	400 ... 800	
Insulation resistance under normal conditions, MOhm	> 100	
Housing material	stainless steel	
Weight (without cable), g	95	110
Supplied accessories	3 screwa DIN 404 M4 × 12 A2	

Accelerometer
1C206HA



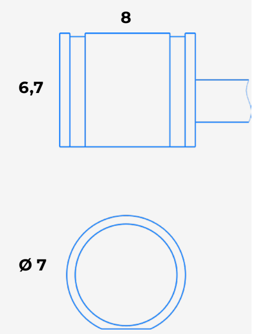
	1C206HA
Sensitivity (± 20%), pC/(m·s⁻²)	10
Transverse sensitivity, %	< 5
Measurement range, m/s²	± 10 000
Maximum shock limit (peak value), m/s²	± 50 000
Temperature range, °C	–60 ... +250
Frequency range (uneven frequency response ± 1 dB), Hz	2 ... 8 000
Resonant frequency, kHz	> 24
Electric capacity (without cable), pF	5 000 ... 6 000
Insulation resistance under normal conditions, MOhm	> 1000
Housing material	stainless steel
Weight (without cable), g	90
Supplied accessories	3 screwa DIN 404 M4 × 12 A2

Accelerometer
1C210TA-XX

1C210TA	-2	-5	-10
Sensitivity (± 20%), pC/($m \cdot s^{-2}$)	0,2	0,5	1
Transverse sensitivity, %	< 5		
Measurement range, m/s^2	± 50 000	± 30 000	± 10 000
Maximum shock limit (peak value), m/s^2	± 50 000		
Temperature range, °C	–60 ... +400		
Frequency range (uneven frequency response ± 1 dB), Hz	2 ... 12 000	2 ... 10 000	2 ... 8 000
Resonant frequency, kHz	> 36	> 30	> 24
Electric capacity (without cable), pF	500 ... 700		
Insulation resistance under normal conditions, MOhm	> 100		
Housing material	stainless steel		
Explosion-proof	1Ex ib IIB T6...T1 Gb		
Weight (without cable), g	100	110	120
Supplied accessories	4 screwa DIN 404 M5 × 12 A2		

Accelerometer

1C221HA-XX



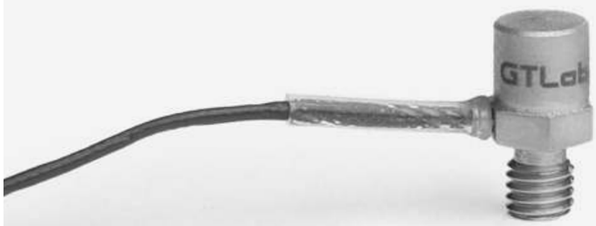
	1C221HA
Sensitivity (± 20%), pC/(m·s⁻²)	0,2
Transverse sensitivity, %	< 5
Measurement range, m/s²	± 10 000
Maximum shock limit (peak value), m/s²	± 50 000
Temperature range, °C	–60 ... +300
Frequency range (uneven frequency response ± 1 dB), Hz	5 ... 10 000
Resonant frequency, kHz	> 30
Electric capacity, pF	500 ... 900
Insulation resistance under normal conditions, MOhm	> 100
Housing material	stainless steel
Weight (without cable), g	2,5

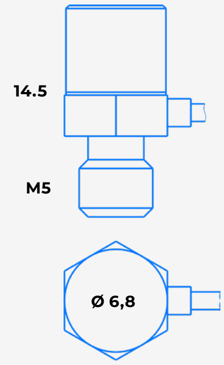
Accelerometer

1C290HA, 1C290HA-01

	1C290HA	-01
Sensitivity (± 30%), pC/(m·s^{-2})	0,5	
Transverse sensitivity, %	< 15	
Measurement range, m/s^2	± 50	
Maximum shock limit (peak value), m/s^2	± 200	
Temperature range, °C	–60 ... +600	
Frequency range (uneven frequency response ± 3 dB), Hz	5 ... 500	
Resonant frequency, kHz	> 1,5	
Electric capacity, pF	1,5 ... 2,0	
Insulation resistance under normal conditions, MOhm	> 1 000	
Housing material	stainless steel	
Weight (without cable), g	16	

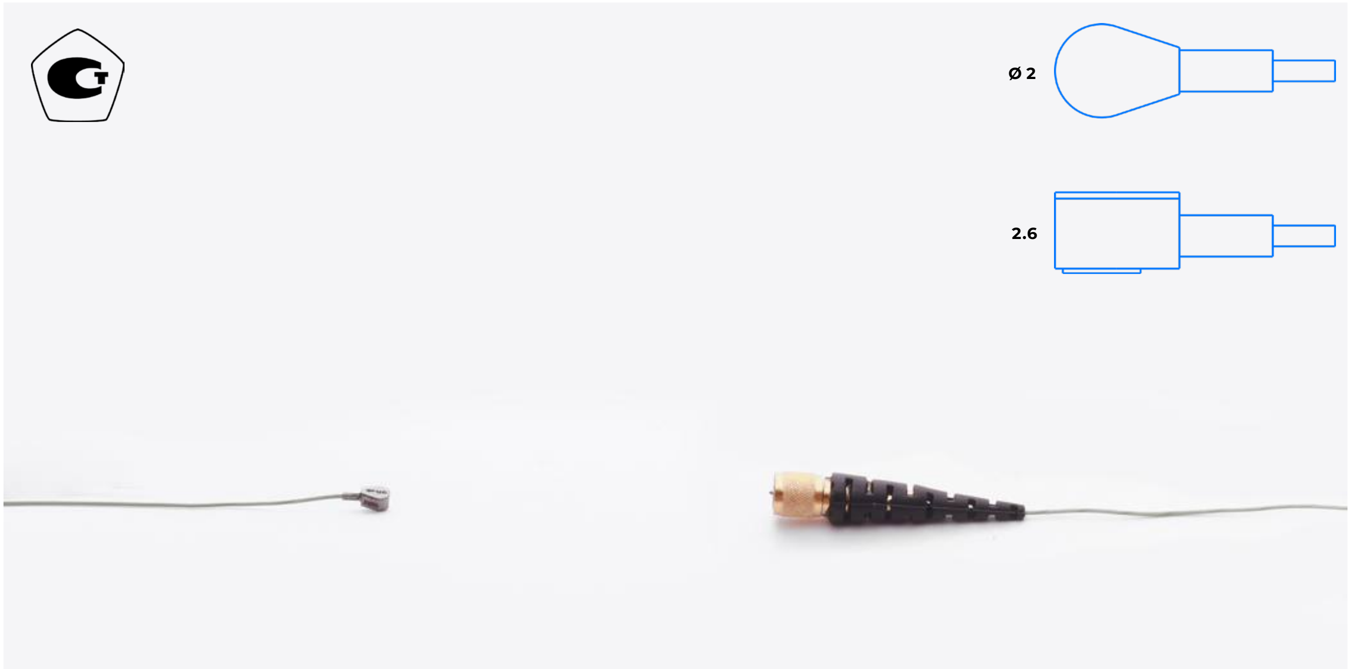
Accelerometer
1C301HA





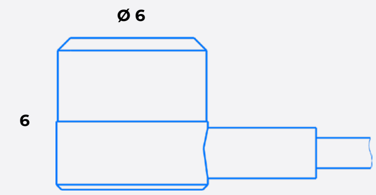
	1C301HA
Sensitivity (± 30%), pC/(m·s⁻²)	0,0025
Transverse sensitivity, %	< 5
Measurement range, m/s²	± 1 000 000
Maximum shock limit (peak value), m/s²	± 1 500 000
Temperature range, °C	–60 ... +200
Frequency range (uneven frequency response ± 1 dB), Hz	20 ... 50 000
Resonant frequency, kHz	> 150
Electric capacity, pF	200 ... 300
Insulation resistance under normal conditions, MOhm	> 10 000
Ambient temperature effect coefficient, %/ °C	< 0,02
Housing material	stainless steel
Weight (without cable), g	2,6

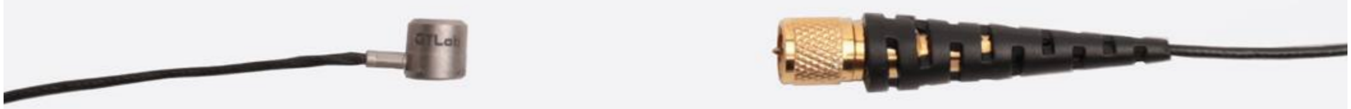
Accelerometer
1C302HA



1C302HA	
Sensitivity (± 30%), pC/(m·s^{-2})	0,02
Transverse sensitivity, %	< 5
Measurement range, m/s^2	± 200 000
Maximum shock limit (peak value), m/s^2	± 500 000
Temperature range, °C	–60 ... +150
Frequency range (uneven frequency response ± 1 dB), Hz	20 ... 30 000
Resonant frequency, kHz	> 90
Electric capacity, pF	400 ... 500
Insulation resistance under normal conditions, MOhm	> 1 000
Housing material	stainless steel
Weight (without cable), g	0,15

Accelerometer
1C303HA, 1C303HA-01





	1C303HA	-01
Sensitivity (± 30%), pC/(m·s^{-2})	0,2	
Transverse sensitivity, %	< 3	
Measurement range, m/s^2	± 100 000	
Maximum shock limit (peak value), m/s^2	± 200 000	
Temperature range, °C	–60 ... +150	
Frequency range (uneven frequency response ± 1 dB), Hz	5 ... 20 000	
Resonant frequency, kHz	> 60	
Electric capacity, pF	600 ... 800	
Insulation resistance under normal conditions, MOhm	> 10 000	
Housing material	stainless steel	titanium alloy
Weight (without cable), g	1,2	0,9

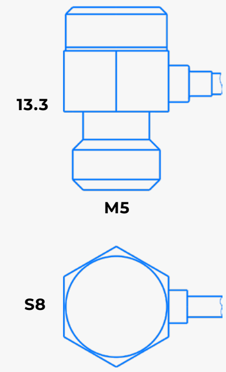
Accelerometer

1C304HA, 1C304HA-01

	1C304HA	-01
Sensitivity (± 30%), pC/(m·s⁻²)	0,1	
Transverse sensitivity, %	< 3	
Measurement range, m/s²	150 000	
Maximum shock limit (peak value), m/s²	± 500 000	
Temperature range, °C	–60 ... +150	
Frequency range (uneven frequency response ± 1 dB), Hz	5 ... 23 000	
Resonant frequency, kHz	> 70	
Electric capacity, pF	600 ... 800	
Insulation resistance under normal conditions, MOhm	> 10 000	
Housing material	stainless steel	titanium alloy
Weight (without cable), g	1,4	1,1

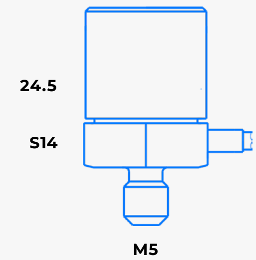
Accelerometer

1C305HA



	1C305HA
Sensitivity (± 30%), pC/(m·s^{-2})	0,2
Transverse sensitivity, %	< 5
Measurement range, m/s^2	± 100 000
Maximum shock limit (peak value), m/s^2	± 200 000
Temperature range, °C	–60 ... +150
Frequency range (uneven frequency response ± 1 dB), Hz	3 ... 20 000
Resonant frequency, kHz	> 60
Electric capacity, pF	650... 850
Insulation resistance under normal conditions, MOhm	> 10 000
Housing material	stainless steel
Weight (without cable), g	3,5

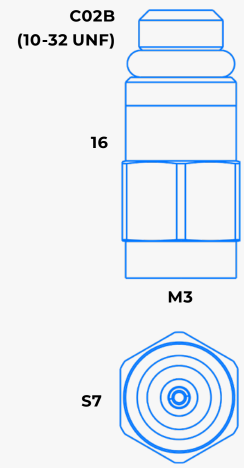
Accelerometer
1C306HA, 1C306HA-01



	1C306HA	-01
Sensitivity (± 30%), pC/(m·s⁻²)	0,03	
Transverse sensitivity, %	< 5	
Measurement range, m/s²	+ 1 000 000 (- 100 000)	
Maximum shock limit (peak value), m/s²	± 1 500 000	
Temperature range, °C	–60 ... +200	
Frequency range (uneven frequency response ± 1 dB), Hz	2 ... 20 000	
Resonant frequency, kHz	> 60	
Electric capacity, pF	200... 300	
Insulation resistance under normal conditions, MOhm	> 10 000	
Housing material	stainless steel	titanium alloy
Weight (without cable), g	22	13

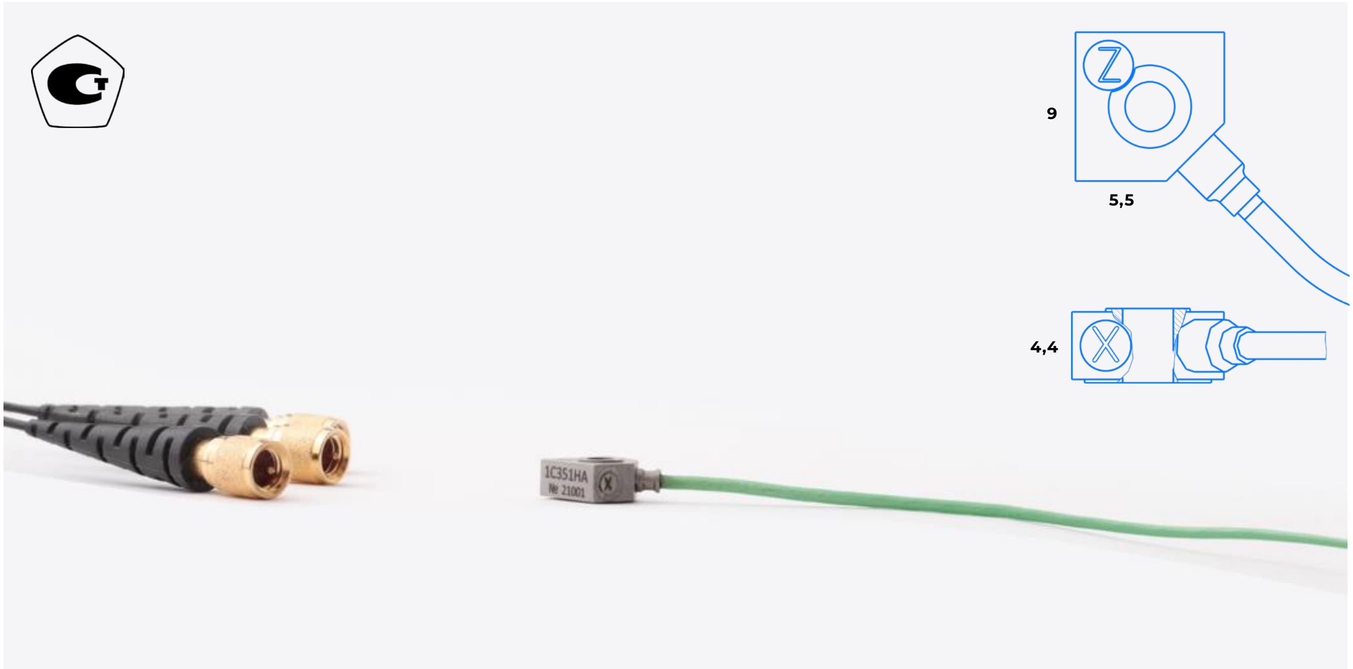
Accelerometer

1C307TB



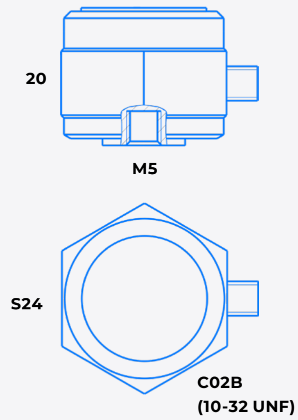
1C307TB	
Sensitivity (± 20%), pC/(m·s⁻²)	0,3
Transverse sensitivity, %	< 5
Measurement range, m/s^2	± 25 000
Maximum shock limit (peak value), m/s^2	± 50 000
Temperature range, °C	–60 ... +200
Frequency range (uneven frequency response ± 1 dB), Hz	2 ... 16 000
Resonant frequency, kHz	≥ 50
Electric capacity, pF	500... 800
Insulation resistance under normal conditions, MOhm	> 10 000
Housing material	titanium alloy
Weight (without cable), g	2
Supplied accessories	cable 03B1B1 (as per customer's request) pin P0303
Feature	is the functional analog of PCB 357B14

Accelerometer
1C351HA-XX



	1C351HA	-01
Sensitivity (± 30%), pC/(m·s⁻²)	0,02	
Transverse sensitivity, %	< 5	
Measurement range, m/s²	± 200 000	
Maximum shock limit (peak value), m/s²	± 400 000	
Temperature range, °C	–60 ... +150	
Frequency range (uneven frequency response ± 1 dB), Hz	20 ... 30 000	
Resonant frequency, kHz	> 90	
Electric capacity, pF	400 ... 500	
Insulation resistance under normal conditions, MOhm	> 1 000	
Housing material	stainless steel	titanium alloy
Weight (without cable), g	2,3	1,9
Supplied accessories	screw ISO 7380 M3 × 8	

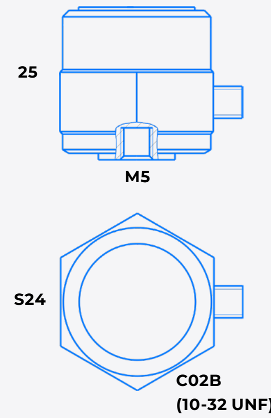
Accelerometer
1C401HB-XX



1C401HB	-200	-300
Sensitivity (± 20%), pC/(m·s⁻²)	20	30
Transverse sensitivity, %	< 10	
Measurement range, m/s²	± 4 000	
Maximum shock limit (peak value), m/s²	± 60 000	
Temperature range, °C	–60 ... +150	–60 ... +100
Frequency range (uneven frequency response ± 1 dB), Hz	0,1 ... 3 000	
Resonant frequency, kHz	> 10	
Deformation sensitivity, m/s² /10⁻⁶	< 0, 001	
Electric capacity, pF	1500 ... 2000	3 000 ... 4 000
Insulation resistance under normal conditions, MOhm	> 10 000	
Ambient temperature effect coefficient, %/ °C	± 0,2	
Housing material	stainless steel	
Weight (without cable), g	40	
Supplied accessories	cable 03B1B1 (as per customer's request) pin P0505	

ПАТЕНТ
НА ИЗОБРЕТЕНИЕ

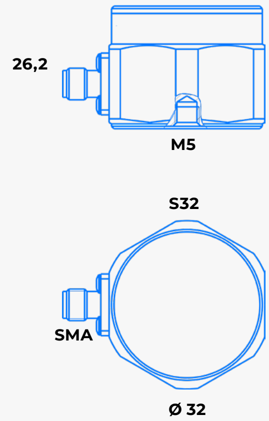
Accelerometer
1C402HB-XX



1C402HB	-500	-1000
Sensitivity (± 20%), pC/(m·s^{-2})	50	100
Transverse sensitivity, %	< 10	
Measurement range, m/s^2	± 3 000	
Maximum shock limit (peak value), m/s^2	± 40 000	
Temperature range, °C	–60 ... +150	–60 ... +100
Frequency range (uneven frequency response ± 1 dB), Hz	0,1 ... 3 000	
Resonant frequency, kHz	> 10	
Deformation sensitivity, m/s^2 /10^{-6}	< 0, 001	
Electric capacity, pF	3 000 ... 4 000	6 000 ... 8 000
Insulation resistance under normal conditions, MOhm	> 10 000	
Ambient temperature effect coefficient, %/ °C	± 0,2	
Housing material	stainless steel	
Weight (without cable), g	60	
Supplied accessories	cable 03B1B1 (as per customer's request) pin P0505	

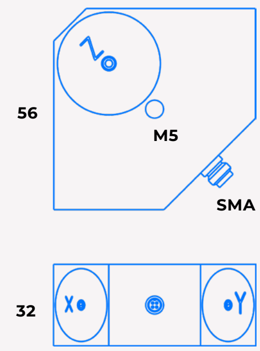
ПАТЕНТ
НА ИЗОБРЕТЕНИЕ

Accelerometer
1C403HS



1C403HS	
Sensitivity (± 20%), pC/(m·s⁻²)	100
Transverse sensitivity, %	< 5
Measurement range, m/s²	± 100
Maximum shock limit (peak value), m/s²	± 1 000
Temperature range, °C	–60 ... +150
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 10 % ▪ uneven frequency response ± 5%	 0,004 ... 3 000 0,01 ... 1 600 0,02 ... 1 200
Resonant frequency, kHz	> 6
Deformation sensitivity, m/s²/10⁻⁶	< 0, 0005
Electric capacity, pF	1 800 ... 2 300
Insulation resistance under normal conditions, MOhm	> 20 000
Ambient temperature effect coefficient, %/ °C	± 0,2
Housing material	stainless steel
Weight (without cable), g	145
Supplied accessories	cable 03S1D1 (as per customer's request) pin P0505

Accelerometer
1C451HN-XX

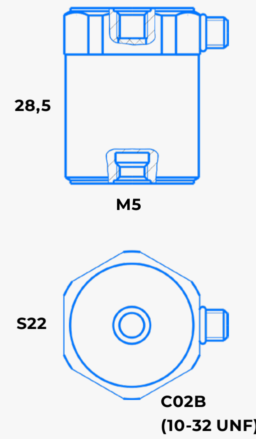


1C451HN	-500	-1000
Sensitivity (± 20%), pC/(m·s⁻²)	50	100
Transverse sensitivity, %	< 5	
Measurement range, m/s²	± 100	± 50
Maximum shock limit (peak value), m/s²	± 1 000	
Temperature range, °C	–60 ... +150	
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 10 % ▪ uneven frequency response ± 5%	 0,004 ... 3 000 0,01 ... 1 600 0,02 ... 1 200	 0,004 ... 2 000 0,01 ... 1 200 0,02 ... 800
Resonant frequency, kHz	> 6	
Deformation sensitivity, m/s² /10⁻⁶	< 0, 0005	
Electric capacity, pF	1 800 ... 2 300	
Insulation resistance under normal conditions, MOhm	> 20 000	
Ambient temperature effect coefficient, %/ °C	± 0,2	
Housing material	stainless steel	
Weight (without cable), g	450	550
Supplied accessories	cable 56N1D3 (as per customer’s request) screw M5*40	

Accelerometer
1C702TA

1C702TA	
Sensitivity (± 20%), pC/(m·s^{-2})	10
Transverse sensitivity, %	< 5
Measurement range, m/s^2	± 15 000
Maximum shock limit (peak value), m/s^2	± 50 000
Temperature range, °C	–60 ... +150
Frequency range (uneven frequency response ± 1 dB), Hz	1 ... 6 000
Resonant frequency, kHz	> 15
Electric capacity, pF	1000 ... 1500
Insulation resistance under normal conditions, MOhm	> 10 000
Underwater measurements to depth, m	150
Housing material	stainless steel
Weight (without cable), g	40
Supplied accessories	cable 03B1B1 (as per customer's request) pin P0505

Accelerometer
1V001HB-XX



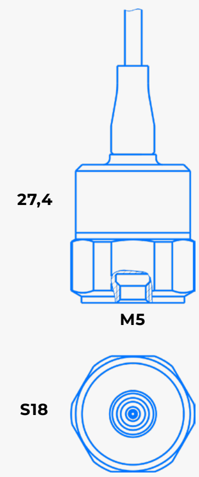
	1V001HB
Коэффициент преобразования (±2%), mV/(m·s^{-2})	1
Transverse sensitivity, %	< 3
Measurement range, m/s^2	± 500
Maximum shock limit (peak value), m/s^2	± 50 000
Temperature range, °C	–55 ... +125
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,3 ... 18 000 0,5 ...12 000 1 ... 7 000
Resonant frequency, kHz	> 36
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s^2	< 0,002
Output impedance, Ohm	< 100
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20
Constant output voltage level, V	8 ... 13
Ambient temperature effect coefficient, %/ °C	± 0,03
Run mode setting time, s	4
Housing material	stainless steel
Weight (without cable), g	66
Supplied accessories	cable 03B1D1 (as per customer's request) pin P0505

Accelerometer

1V101HB-XX

1V101HB	-100	-500	-1000
Sensitivity, mV/(m·s^{-2})	10	50	100
Transverse sensitivity, %	< 5		
Measurement range, m/s^2	± 500	± 100	± 50
Maximum shock limit (peak value), m/s^2	± 25 000		
Temperature range, °C	–55 ... +125		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,2 ... 12 000 0,5 ...6 300 1 ... 4 800		
Resonant frequency, kHz	> 20		
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s^2	< 0,0005	0,0004	0,0003
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Run mode setting time, s	4		
Housing material	stainless steel		
Weight (without cable), g	42		
Supplied accessories	cable 03B1D1 (as per customer's request) pin P0505		

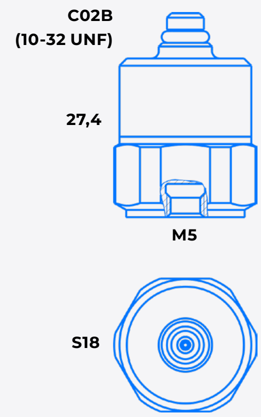
Accelerometer
1V101TA-XX



1V101TA	-100	-500	-1000
Sensitivity, mV/(m·s⁻²)	10	50	100
Transverse sensitivity, %	< 5		
Measurement range, m/s²	± 500	± 100	± 50
Maximum shock limit (peak value), m/s²	± 25 000		
Temperature range, °C	–55 ... +125		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,5 ... 8 000 1 ...5 000 2 ... 3 000		
Resonant frequency, kHz	> 15		
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,0005	0,0004	0,0003
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Run mode setting time, s	4		
Housing material	stainless steel		
Weight (without cable), g	42		
Supplied accessories	pin P0505		

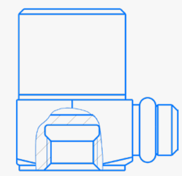
Accelerometer

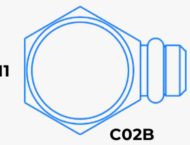
1V101TB-XX



1V101TB	-100	-500	-1000
Sensitivity, mV/(m·s^{-2})	10	50	100
Transverse sensitivity, %	< 5		
Measurement range, m/s²	± 500	± 100	± 50
Maximum shock limit (peak value), m/s²	± 25 000		
Temperature range, °C	–55 ... +125		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,2 ... 12 000 0,5 ... 6 300 1 ... 4 800		
Resonant frequency, kHz	> 20		
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,0005	0,0004	0,0003
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Run mode setting time, s	4		
Housing material	stainless steel		
Weight (without cable), g	42		
Supplied accessories	cable 03B1D1 (as per customer's request) pin P0505		

Accelerometer
1V102HB-XX



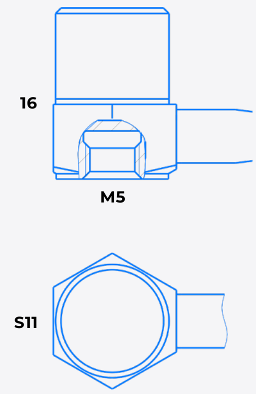


1V102HB	-1	-2	-5	-10	-100	-500
Sensitivity, mV/(m·s^{-2})	0,1	0,2	0,5	1	10	50
Transverse sensitivity, %	< 5					
Measurement range, m/s^2	± 50 000	± 25 000	± 10 000	± 5 000	± 500	± 100
Maximum shock limit (peak value), m/s^2	± 100 000					
Temperature range, °C	–55 ... +125					
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 3 ... 30 000 5 ... 23 000 10 ... 14 000		 0,2 ... 24 000 0,5 ... 16 000 1 ... 10 000			
Resonant frequency, kHz	> 70		> 50			
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s^2	< 0,05	< 0,03	< 0,01	< 0,005	< 0,0035	< 0,002
Output impedance, Ohm	< 100					
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20					
Constant output voltage level, V	8 ... 13					
Ambient temperature effect coefficient, %/ °C	± 0,2					
Run mode setting time, s	4					
Housing material	stainless steel(titanium alloy) (as per customer's request)					
Weight (without cable), g	10 (stainless steel) 7 (titanium alloy)					
Supplied accessories	cable 03B1D1 (as per customer's request) pin P0505					

Accelerometer
1V102TB-XX

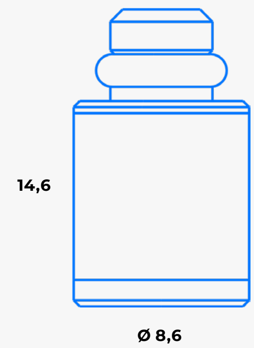
1V102TB	-1	-2	-5	-10	-100	-500
Sensitivity, mV/(m·s⁻²)	0,1	0,2	0,5	1	10	50
Transverse sensitivity, %	< 5					
Measurement range, m/s²	± 50 000	± 25 000	± 10 000	± 5 000	± 500	± 100
Maximum shock limit (peak value), m/s²	± 100 000					
Temperature range, °C	–55 ... +125					
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 3 ... 30 000 5 ... 23 000 10 ... 14 000		 0,2 ... 24 000 0,5 ... 16 000 1 ... 10 000			
Resonant frequency, kHz	> 70		> 50			
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,05	< 0,03	< 0,01	< 0,005	< 0,0035	< 0,002
Output impedance, Ohm	< 100					
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20					
Constant output voltage level, V	8 ... 13					
Ambient temperature effect coefficient, %/ °C	± 0,2					
Run mode setting time, s	4					
Housing material	stainless steel(titanium alloy) (as per customer's request)					
Weight (without cable), g	10,5 (stainless steel) 7,5 (titanium alloy)					
Supplied accessories	cable 03B1D1 (as per customer's request) pin P0505					

Accelerometer
1V102HA-XX



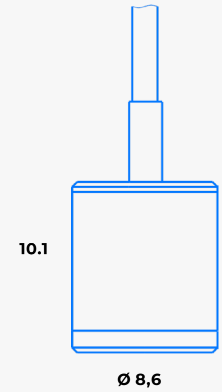
1V102HA	-1	-2	-5	-10	-100	-500
Sensitivity, mV/(m·s⁻²)	0,1	0,2	0,5	1	10	50
Transverse sensitivity, %	< 5					
Measurement range, m/s^2	± 50 000	± 25 000	± 10 000	± 5 000	± 500	± 100
Maximum shock limit (peak value), m/s^2	± 100 000					
Temperature range, °C	–55 … +125					
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 3 … 30 000 5 … 23 000 10 … 14 000		 0,2 … 24 000 0,5 … 16 000 1 … 10 000			
Resonant frequency, kHz	> 70		> 50			
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s^2	< 0,05	< 0,03	< 0,01	< 0,005	< 0,0035	< 0,002
Output impedance, Ohm	< 100					
Power: ▪ voltage, V ▪ current, mA	 + (18 … 30) 2 … 20					
Constant output voltage level, V	8 … 13					
Ambient temperature effect coefficient, %/ °C	± 0,2					
Run mode setting time, s	4					
Housing material	stainless steel(titanium alloy) (as per customer's request)					
Weight (without cable), g	10 (stainless steel) 7 (titanium alloy)					
Supplied accessories	pin P0505					

Accelerometer
1V103TB-XX



1V103TB	-1	-10	-100
Sensitivity, mV/(m·s⁻²)	0,1	1	10
Transverse sensitivity, %	< 5		
Measurement range, m/s^2	± 50 000	± 5 000	± 500
Maximum shock limit (peak value), m/s^2	± 100 000		
Temperature range, °C	–55 ... +125		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 3 ... 27 000 5 ... 18 000 10 ... 11 000	 2 ... 22 000 5 ... 15 000 10 ... 9 000	
Resonant frequency, kHz	> 55	> 45	
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s^2	< 0,03	< 0,01	< 0,005
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Run mode setting time, s	4		
Housing material	titanium alloy		
Weight (without cable), g	2	2,5	
Supplied accessories	cable 02B1D1 (as per customer's request)		

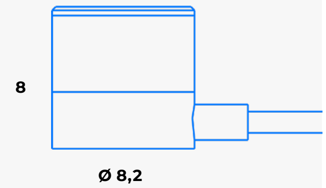
Accelerometer
1V103TA-XX



1V103TA	-1	-10	-100
Sensitivity, mV/(m·s^{-2})	0,1	1	10
Transverse sensitivity, %	< 5		
Measurement range, m/s^2	± 50 000	± 5 000	± 500
Maximum shock limit (peak value), m/s^2	± 100 000		
Temperature range, °C	–55 ... +125		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 3 ... 27 000 5 ... 18 000 10 ... 11 000	 2 ... 22 500 5 ... 15 000 10 ... 9 000	
Resonant frequency, kHz	> 55	> 45	
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s^2	< 0,03	< 0,01	< 0,005
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Run mode setting time, s	4		
Housing material	titanium alloy		
Масса (без кабеля), g	2	2,5	

Accelerometer

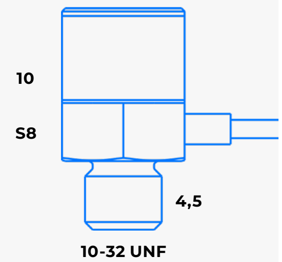
1V104HA-XX



1V104HA	-1	-10	-100
Sensitivity, mV/(m·s⁻²)	0,1	1	10
Transverse sensitivity, %	< 5		
Measurement range, m/s²	± 50 000	± 5 000	± 500
Maximum shock limit (peak value), m/s²	± 100 000		
Temperature range, °C	–55 … +125		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 4 … 30 000 5 … 18 000 10 … 11 000	 2 … 22 500 5 … 15 000 10 … 9 000	
Resonant frequency, kHz	> 55	> 45	
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,03	< 0,02	< 0,01
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 … 30) 2 … 20		
Constant output voltage level, V	8 … 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Run mode setting time, s	4		
Housing material	titanium alloy		
Масса (без кабеля), g	2		

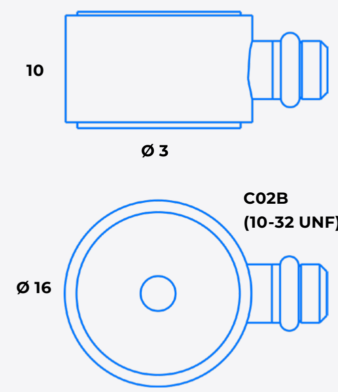
Accelerometer

1V105HA-XX



1V105HA	-1	-10	-100
Sensitivity, mV/(m·s^{-2})	0,1	1	10
Transverse sensitivity, %	< 5		
Measurement range, m/s^2	± 50 000	± 5 000	± 500
Maximum shock limit (peak value), m/s^2	± 100 000		
Temperature range, °C	–55 ... +125		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 1 ... 30 000 4 ... 18 000 10 ... 12 000	 1 ... 24 000 4 ... 15 000 10 ... 10 000	
Resonant frequency, kHz	> 60	> 50	
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s^2	< 0,03	< 0,02	< 0,01
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Run mode setting time, s	4		
Housing material	titanium alloy		
Weight (without cable), g	2,4	2,6	

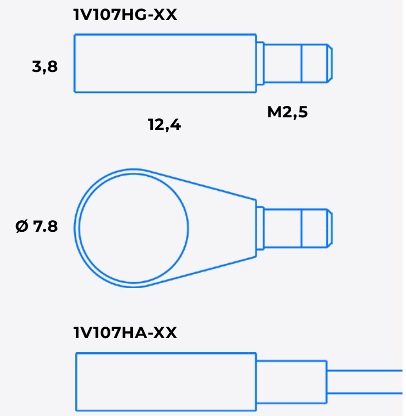
Accelerometer
1V106HB-XX



1V106HB	-10	-100	-500
Sensitivity, $mV/(m \cdot s^{-2})$	1	10	50
Transverse sensitivity, %	< 5		
Measurement range, m/s^2	± 5 000	± 500	± 100
Maximum shock limit (peak value), m/s^2	± 5 000		
Temperature range, °C	–55 ... +125		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,3 ... 20 000 0,5 ... 12 000 1 ... 10 000		 0,3 ... 15 000 0,5 ... 10 000 1 ... 8 000
Resonant frequency, kHz	> 40		> 30
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s^2	< 0,005	< 0,004	< 0,002
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Ambient temperature effect coefficient, %/ °C, %/°C	± 0,2		
Run mode setting time, s	4		
Housing material	titanium alloy		
Weight (without cable), g	7,4		8,5
Supplied accessories	cable 03B1D1 (as per customer's request) screw A2 M3-6g × 14		
Feature for executions: -10, - 100	contains no magnetic materials		-

Accelerometer

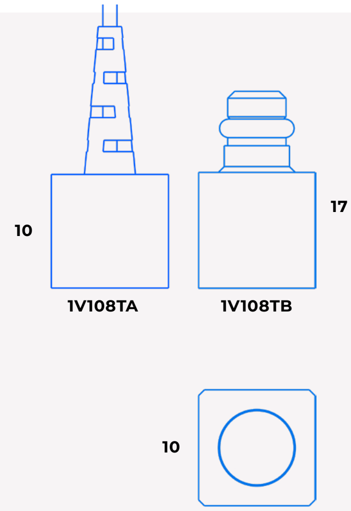
1V107HG-XX, 1V107HA-XX



1V107HG/HA	-10	-30	-100
Sensitivity (± 15), mV/(m·s^{-2})	1	3	10
Transverse sensitivity, %	< 5		
Measurement range, m/s²	± 5 000	± 1 600	± 500
Maximum shock limit (peak value), m/s²	± 100 000		
Temperature range, °C	–55 ... +125		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,3 ... 20 000 0,5 ... 15 000 1 ... 10 000		 0,3 ... 15 000 0,5 ... 10 000 1 ... 6 000
Resonant frequency, kHz	> 50		> 30
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,02		< 0,01
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Run mode setting time, s	4		
Housing material	stainless steel		
Weight (without cable), g	1,7		2
Supplied accessories	cable 02G1D1 (as per customer's request)		

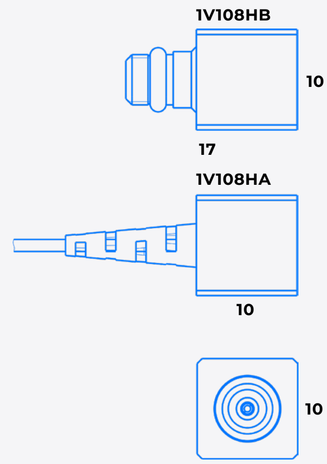
Accelerometer

1V108TB-XX, 1V108TA-XX



1V108TB/TA	-10	-100	-500
Sensitivity (± 15), mV/(m·s^{-2})	1	10	500
Transverse sensitivity, %	< 5		
Measurement range, m/s^2	± 5 000	± 500	± 100
Maximum shock limit (peak value), m/s^2	± 10 000		
Temperature range, °C	–55 ... +125		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,2 ... 22 500 0,5 ... 15 000 1 ... 10 000		
Resonant frequency, kHz	> 45		
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s^2	< 0,005	< 0,003	< 0,002
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Run mode setting time, s	4		
Housing material	titanium alloy		
Weight (without cable), g	5		
Supplied accessories	cable 02B1D1 (as per customer’s request)		

Accelerometer
1V108HA-XX, 1V108HB-XX



1V108HA/HB	-10	-100	-500
Sensitivity (± 15), mV/(m·s^{-2})	1	10	500
Transverse sensitivity, %	< 5		
Measurement range, m/s²	± 5 000	± 500	± 100
Maximum shock limit (peak value), m/s²	± 10 000		
Temperature range, °C	–55 ... +125		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,2 ... 22 500 0,5 ... 15 000 1 ... 10 000		
Resonant frequency, kHz	> 45		
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,005	< 0,003	< 0,002
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Run mode setting time, s	4		
Housing material	titanium alloy		
Weight (without cable), g	5		
Supplied accessories	cable 02B1D1 (as per customer's request)		

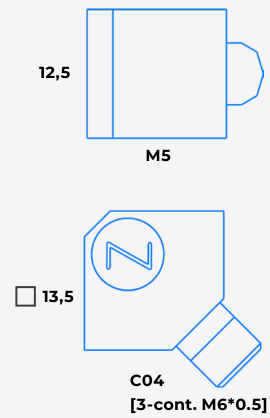
Accelerometer
1V151HA-XX

1V151HA	- 10	-100	-500
Sensitivity, mV/(m·s⁻²)	1	10	50
Transverse sensitivity, %	< 5		
Measurement range, m/s²	± 5 000	± 500	± 100
Maximum shock limit (peak value), m/s²	± 10 000		
Temperature range, °C	–55 ... +125		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,3 ... 22 500 0,5 ... 15 000 1 ... 9 000		
Resonant frequency, kHz	> 45		
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,005	< 0,003	< 0,002
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Run mode setting time, s	4		
Housing material	titanium alloy		
Weight (without cable), g	26		
Supplied accessories	screw ISO 7380 M5 × 16		

Accelerometer
1V151HC-XX

1V151HC	- 10	-100	-500
Sensitivity, mV/(m·s⁻²)	1	10	50
Transverse sensitivity, %	< 5		
Measurement range, m/s²	± 5 000	± 500	± 100
Maximum shock limit (peak value), m/s²	± 10 000		
Temperature range, °C	–55 ... +125		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,3 ... 22 500 0,5 ... 15 000 1 ... 9 000		
Resonant frequency, kHz	> 45		
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,005	< 0,003	< 0,002
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Run mode setting time, s	4		
Housing material	titanium alloy		
Weight (without cable), g	26		
Supplied accessories	cable 41C1D3 (as per customer's request) screw ISO 7380 M5 × 16		

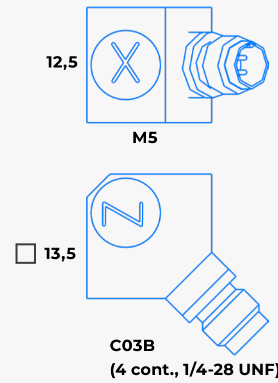
Accelerometer
1V152HE-XX



1V152HE	- 1	- 10	-30	-100
Sensitivity, mV/(m·s^{-2})	0,1	1	3	10
Transverse sensitivity, %	< 5			
Measurement range, m/s^2	± 10 000	± 5 000	± 1600	± 500
Maximum shock limit (peak value), m/s^2	± 10 000			
Temperature range, °C	–55 ... +125			
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,3 ... 22 500 0,5 ... 15 000 1 ... 9 000			
Resonant frequency, kHz	> 45			
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s^2	< 0,05	< 0,02	< 0,015	< 0,01
Output impedance, Ohm	< 100			
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20			
Constant output voltage level, V	8 ... 13			
Ambient temperature effect coefficient, %/ °C	± 0,2			
Run mode setting time, s	4			
Housing material	titanium alloy			
Weight (without cable), g	9			
Supplied accessories	cable 41E1D3 (as per customer's request) pin P0505			

Accelerometer

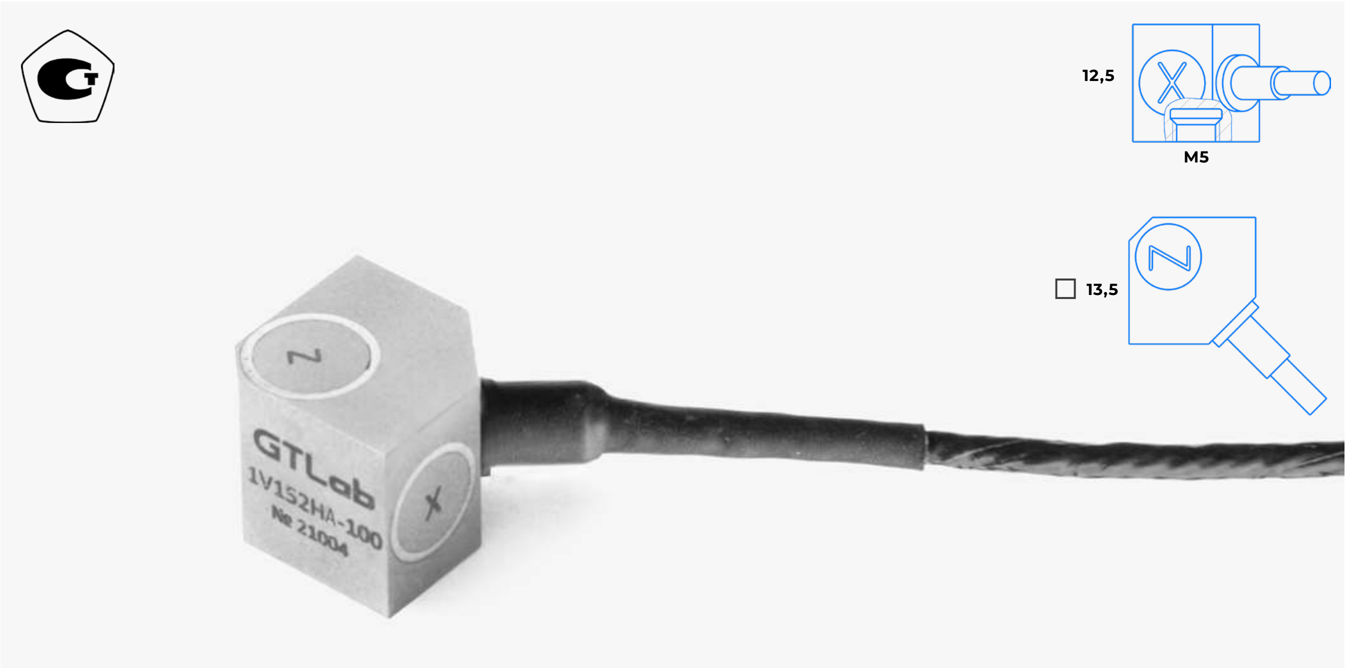
1V152HC-XX



1V152HC	**- 1**	**- 10**	**-30**	**-100**
Sensitivity, mV/(m·s^{-2})	0,1	1	3	10
Transverse sensitivity, %	< 5			
Measurement range, m/s^2	± 10 000	± 5 000	± 1600 m/s^2	± 500
Maximum shock limit (peak value), m/s^2	± 10 000			
Temperature range, °C	–55 ... +125			
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,3 ... 22 500 0,5 ... 15 000 1 ... 9 000			
Resonant frequency, kHz	> 45			
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s^2	< 0,05	< 0,02	< 0,015	< 0,01
Output impedance, Ohm	< 100			
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20			
Constant output voltage level, V	8 ... 13			
Ambient temperature effect coefficient, %/ °C	± 0,2			
Run mode setting time, s	4			
Housing material	titanium alloy			
Weight (without cable), g	9			
Supplied accessories	cable 41C1D3 (as per customer's request) pin P0505			

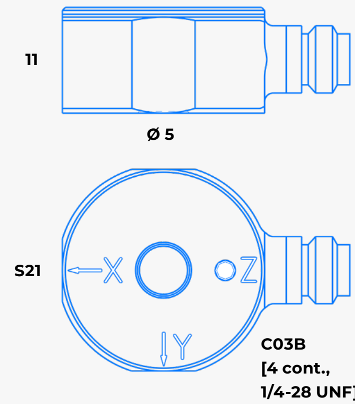
Accelerometer

1V152HA-XX



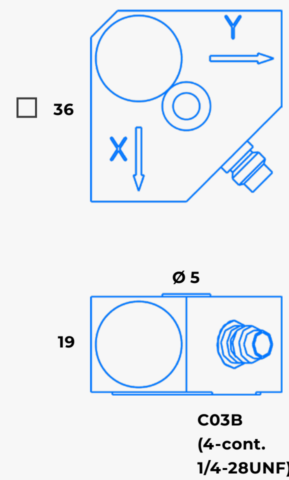
1V152HA	- 1	- 10	-30	-100
Sensitivity, mV/(m·s^{-2})	0,1	1	3	10
Transverse sensitivity, %	< 5			
Measurement range, m/s^2	± 50 000	± 5 000	± 1600	± 500
Maximum shock limit (peak value), m/s^2	± 100 000			
Temperature range, °C	–55 ... +125			
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,3 ... 22 500 0,5 ... 15 000 1 ... 9 000			
Resonant frequency, kHz	> 45			
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s^2	< 0,05	< 0,02	< 0,015	< 0,01
Output impedance, Ohm	< 100			
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20			
Constant output voltage level, V	8 ... 13			
Ambient temperature effect coefficient, %/ °C	± 0,2			
Run mode setting time, s	4			
Housing material	stainless steel			
Weight (without cable), g	12			
Supplied accessories	pin P0505			

Accelerometer изолированный
1V153HC-XX , 1V153HC-XX-01



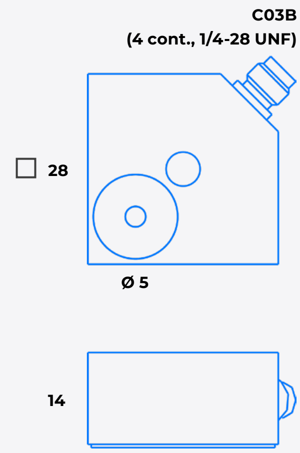
1V153HC	- 10 - 10-01	-30 -30-01	-50 -50-01	-100 -100-01
Sensitivity, mV/(m·s^{-2})	1	3	5	10
Transverse sensitivity, %	< 5			
Measurement range, m/s2	± 5 000	± 1600	± 1000	± 500
Maximum shock limit (peak value), m/s^2	± 30 000			
Temperature range, °C	–55 ... +125			
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	0,3 ... 10 000 0,5 ... 6 000 1 ... 4 000			
Resonant frequency, kHz	> 18			
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s^2	< 0,02	< 0,015	< 0,012	< 0,01
Output impedance, Ohm	< 100			
Power: ▪ voltage, V ▪ current, mA	+ (18 ... 30) 2 ... 20			
Constant output voltage level, V	8 ... 13			
Electrical insulation from the case, Ohm	> 10 000			
Ambient temperature effect coefficient, %/ °C	± 0,2			
Run mode setting time, s	4			
Housing material	titanium alloy / stainless steel(for execution -01)			
Weight (without cable), g	15 / 22 (for execution -01)			
Supplied accessories	cable 41C1D3 (as per customer's request), screw M5 ×16			

Accelerometer
1V154HC-XX



1V154HC	-100	-500	-1000
Sensitivity, mV/(m·s⁻²)	10	50	100
Transverse sensitivity, %	< 5		
Measurement range, m/s²	± 500	± 100	± 50
Maximum shock limit (peak value), m/s²	± 20 000		
Temperature range, °C	–55 ... +125		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,2 ... 10 000 0,5 ... 6 000 1 ... 4 000		
Resonant frequency, kHz	> 18		
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,0005	0,0004	0,0003
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Run mode setting time, s	4		
Housing material	titanium alloy		
Weight (without cable), g	115		
Supplied accessories	cable 41C1D3 (as per customer's request) screw M5 × 25 A2		

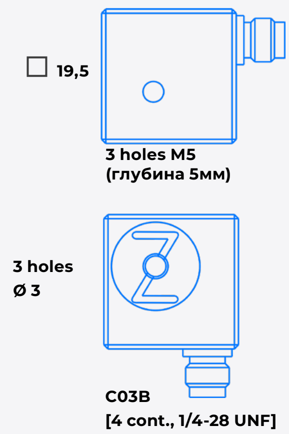
Accelerometer
1V155HC-XX



1V155HC	- 10	-30
Sensitivity, mV/(m·s⁻²)	1	3
Transverse sensitivity, %	< 5	
Measurement range, m/s²	± 5 000	± 1600
Maximum shock limit (peak value), m/s²	± 10 000	
Temperature range, °C	–55 ... +125	
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	0,3 ... 22 500 0,5 ... 15 000 1 ... 9 000	
Resonant frequency, kHz	> 45	
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,01	< 0,007
Output impedance, Ohm	< 100	
Power: ▪ voltage, V ▪ current, mA	+ (18 ... 30) 2 ... 20	
Constant output voltage level, V	8 ... 13	
Ambient temperature effect coefficient, %/ °C	± 0,02	
Run mode setting time, s	4	
Housing material	titanium alloy	
Weight (without cable), g	50	
Supplied accessories	cable 41C1D3 (as per customer's request) screw M5 × 20	

Accelerometer

1V157HC-XX

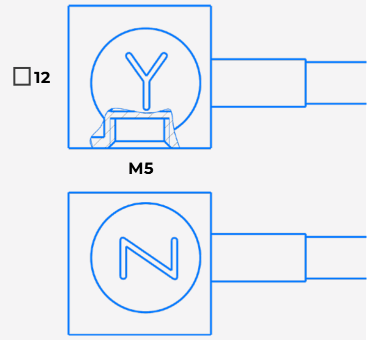


ПАТЕНТ
НА ИЗОБРЕТЕНИЕ

1V157HC	- 10	- 30	-100	-500	-1000
Sensitivity, mV/(m·s⁻²)	1	3	10	50	100
Transverse sensitivity, %	< 5				
Measurement range, m/s²	± 5 000	± 1 600	± 500	± 100	± 50
Maximum shock limit (peak value), m/s²	± 10 000			± 5 000	
Temperature range, °C	–55 ... +125				
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,2 ... 15 000 0,5 ... 10 000 1 ... 6 000			 0,2 ... 10 000 0,5 ... 6 000 1 ... 4 000	
Resonant frequency, kHz	> 30			> 20	
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,01	< 0,008	< 0,005	< 0,002	
Output impedance, Ohm	< 100				
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20				
Constant output voltage level, V	8 ... 13				
Ambient temperature effect coefficient, %/ °C	± 0,2				
Run mode setting time, s	4				
Housing material	stainless steel				
Weight (without cable), g	60			65	
Supplied accessories	cable 41C1D3 (as per customer's request), screw M3 ×23A2 DIN912, pin P0505, hexagonal wrench 2,5 mm.				
Features	possibility of mounting on: - screw M3 - pin P0505 - glue				

Accelerometer

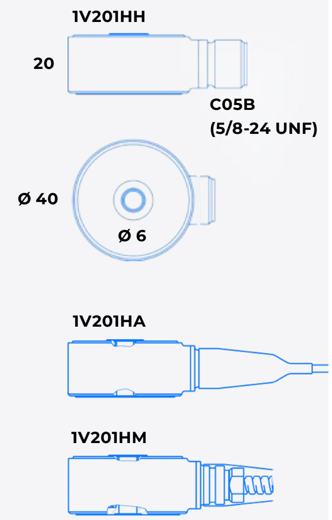
1V158HA-XX



1V158HA	-1	-10	-30	-50	-100
Sensitivity, mV/(m·s⁻²)	0,1	1	3	5	10
Transverse sensitivity, %	< 5				
Measurement range, m/s²	± 50 000	± 5 000	± 1 600	± 1 000	± 500
Maximum shock limit (peak value), m/s²	± 10 000				
Temperature range, °C	–55 ... +125				
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,5 ... 15 000 1 ... 10 000 2 ... 6 000				
Resonant frequency, kHz	> 30				
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,05	< 0,01	< 0,009		< 0,008
Output impedance, Ohm	< 100				
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20				
Constant output voltage level, V	8 ... 13				
Ambient temperature effect coefficient, %/ °C	± 0,2				
Run mode setting time, s	4				
Housing material	titanium alloy				
Weight (without cable), g	6,5	7,5			
Supplied accessories	pin P0505				

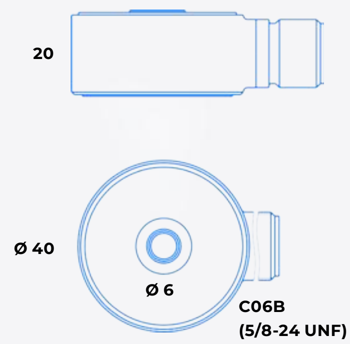
Accelerometer

1V201HH-XX, 1V201HA-XX /(T), 1V201HM-XX /(T)



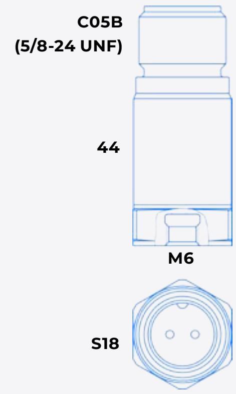
1V201HH/HA/HM	-10 (T) (FOR EXECUTION -HA, -HM)	-30 (T) (FOR EXECUTION -HA, -HM)	-100 (T) (FOR EXECUTION -HA, -HM)
Sensitivity, mV/(m·s^{-2})	1	3	10
Transverse sensitivity, %	< 5		
Measurement range, m/s^2	± 5 000	±	± 500
Maximum shock limit (peak value), m/s^2	± 10 000		
Temperature range, °C	–55 ... +125 –40 ... +125 (for execution (T))		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,3 ... 15 000 0,5 ... 9 000 1 ... 6 000		
Resonant frequency, kHz	> 30		
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s^2	< 0,002		
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Run mode setting time, s	4		
Conversion coefficient on temperature (±2 %), mV/ °C	10 (for execution (T))		
Constant output voltage level on temperature (temperature 0°C), mV	500 (for execution (T))		
Explosion-proof	0Ex ia IIC T6...T4 Ga		
Housing material	stainless steel		
Weight (without cable), g	86		
Supplied accessories	cable 03H1A2 (as per customer's request, for execution -HH) screw M6-8g × 30		

Accelerometer
1V201HT-XX(T)



1V201HT	-10(T)	-30(T)	-100(T)
Sensitivity, mV/(m·s⁻²)	1	3	10
Transverse sensitivity, %	< 5		
Measurement range, m/s²	± 5 000	± 1 600	± 500
Maximum shock limit (peak value), m/s²	± 10 000		
Temperature range, °C	–40 … +125		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,3 … 15 000 0,5 … 9 000 1 … 6 000		
Resonant frequency, kHz	> 30		
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,002		
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 … 30) 2 … 20		
Constant output voltage level, V	8 … 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Conversion coefficient on temperature (±2 %), mV/ °C	10		
Constant output voltage level on temperature (temperature 0°C), mV	500		
Run mode setting time, s	4		
Explosion-proof	0Ex ia IIC T6...T4 Ga		
Housing material	stainless steel		
Weight (without cable), g	86		
Supplied accessories	cable 56T1A3 screw M6-8g × 30		

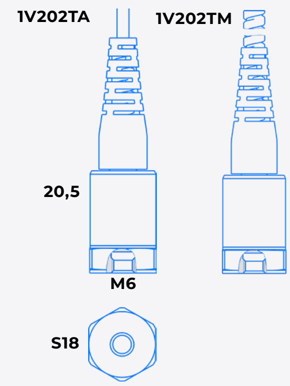
Accelerometer
1V202TH-XX



1V202TH	-10	-30	-100
Sensitivity, mV/(m·s⁻²)	1	3	10
Transverse sensitivity, %	< 5		
Measurement range, m/s²	± 5 000	± 1600	± 500
Maximum shock limit (peak value), m/s²	± 10 000		
Temperature range, °C	–55 ... +125		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,3 ... 15 000 0,5 ... 9 000 1 ... 7 000		
Resonant frequency, kHz	> 30		
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,002		
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Run mode setting time, s	4		
Explosion-proof	0Ex ia IIC T6...T4 Ga		
Housing material	stainless steel		
Weight (without cable), g	48		
Supplied accessories	cable 56H1A2 (as per customer's request) pin P0606		
Feature	functional counterpart of the firm Bently Nevada BN200350		

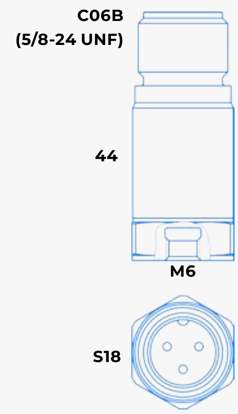
Accelerometer

1V202TA-XX/(T), 1V202TM-XX /(T)



1V202TA/TM	-10 / (T)	-30 / (T)	-100 / (T)
Sensitivity, mV/(m·s^{-2})	1	3	10
Transverse sensitivity, %	< 5		
Measurement range, m/s^2	± 5 000	± 1600	± 500
Maximum shock limit (peak value), m/s^2	± 10 000		
Temperature range, °C	–55 ... +125 –40 ... +125 (for execution (T))		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,3 ... 15 000 0,5 ... 9 000 1 ... 7 000		
Resonant frequency, kHz	> 30		
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/^{s2}	< 0,002		
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Conversion coefficient on temperature (±2 %), mV/ °C	10 (for execution (T))		
Constant output voltage level on temperature (temperature 0°C), mV	500 (for execution (T))		
Run mode setting time, s	4		
Explosion-proof	0Ex ia IIC T6...T4 Ga		
Housing material	stainless steel		
Weight (without cable), g	48		
Supplied accessories	pin P0606		

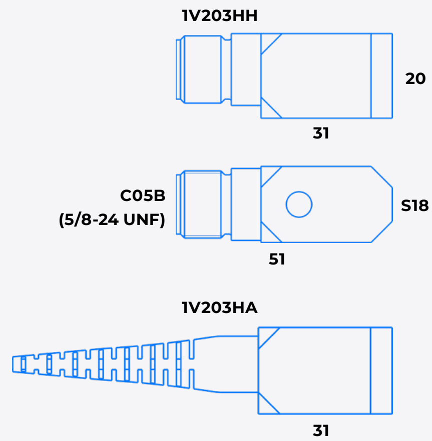
Accelerometer
1V202TT-XX(T)



1V202TT	-10(T)	-30(T)	-100(T)
Sensitivity, mV/(m·s⁻²)	1	3	10
Transverse sensitivity, %	< 5		
Measurement range, m/s²	± 5 000	± 1600	± 500
Maximum shock limit (peak value), m/s²	± 10 000		
Temperature range, °C	–40 ... +125		
▪ Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,3 ... 15 000 0,5 ... 9 000 1 ... 7 000		
Resonant frequency, kHz	> 30		
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,002		
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Conversion coefficient on temperature (±2 %), mV/ °C	10		
Constant output voltage level on temperature (temperature 0°C), mV	500		
Run mode setting time, s	4		
Explosion-proof	0Ex ia IIC T6...T4 Ga		
Housing material	stainless steel		
Weight (without cable), g	48		
Supplied accessories	cable 56T1A3 (as per customer's request) pin P0606		

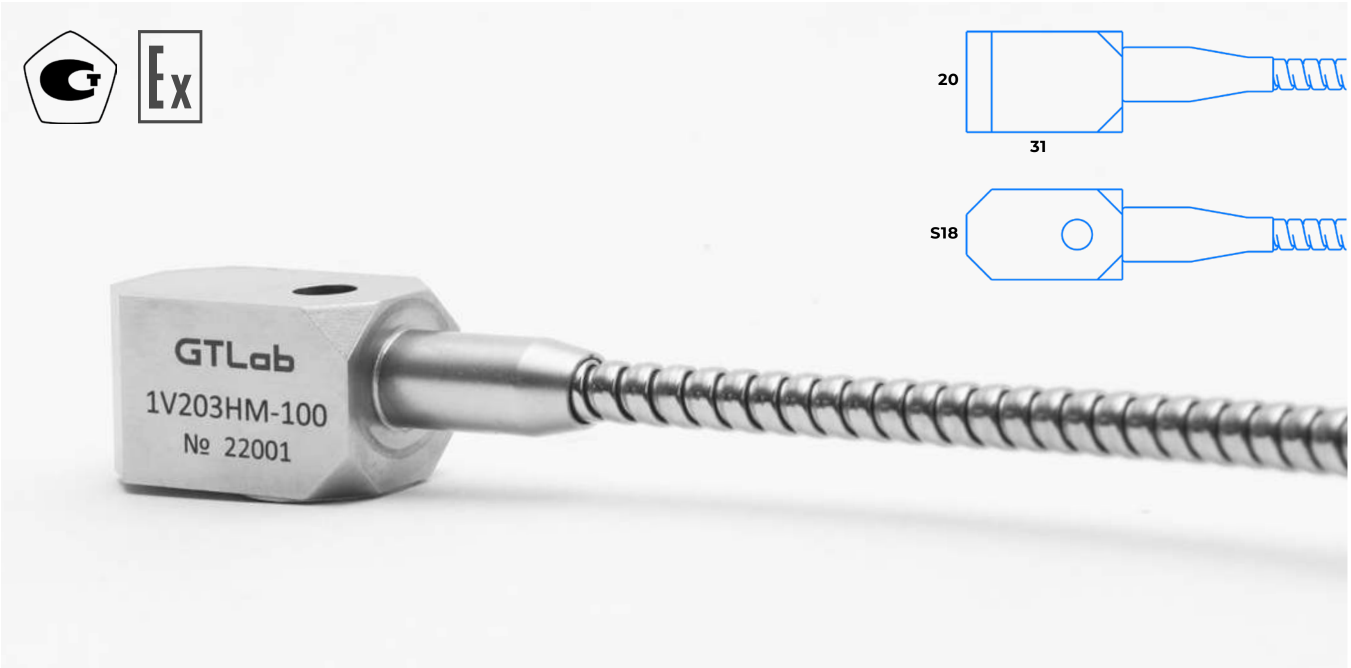
Accelerometer

1V203HH-XX, 1V203HA-XX



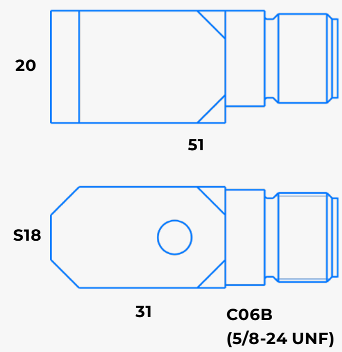
1V203HH/HA	-10	-30	-100
Sensitivity, mV/(m·s^{-2})	1	3	10
Transverse sensitivity, %	< 5		
Measurement range, m/s^2	± 5 000	± 1 600	± 500
Maximum shock limit (peak value), m/s^2	± 10 000		
Temperature range, °C	–55 … +125		
▪ Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,3 … 15 000 0,5 … 9 000 1 … 4 000		
Resonant frequency, kHz	> 30		
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s^2	< 0,002		
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 … 30) 2 … 20		
Constant output voltage level, V	8 … 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Run mode setting time, s	4		
Explosion-proof	0Ex ia IIC T6…T4 Ga		
Housing material	stainless steel		
Weight (without cable), g	70		
Supplied accessories	cable 56H1A2 (as per customer's request) screw M6-8g × 30		

Accelerometer
1V203HM-XX/(T)



1V203HM	**-10 / (T)**	**-30 / (T)**	**-100 / (T)**
Sensitivity, mV/(m·s^{-2})	1	3	10
Transverse sensitivity, %	< 5		
Measurement range, m/s^2	± 5 000	± 1 600	± 500
Maximum shock limit (peak value), m/s^2	± 10 000		
Temperature range, °C	–55 ... +125 –40 ... +125 (for execution (T))		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,3 ... 15 000 0,5 ... 9 000 1 ... 4 000		
Resonant frequency, kHz	> 30		
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s^2	< 0,002		
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Conversion coefficient on temperature (±2 %), mV/ °C	10 (for execution (T))		
Constant output voltage level on temperature (temperature 0°C), mV	500 (for execution (T))		
Run mode setting time, s	4		
Explosion-proof	0Ex ia IIC T6...T4 Ga		
Housing material	stainless steel		
Weight (without cable), g	70		
Supplied accessories	screw M6-8g × 30		

Accelerometer
1V203HT-XX(T)



1V203HT	-10(T)	-30(T)	-100(T)
Sensitivity, $mV/(m \cdot s^{-2})$	1	3	10
Transverse sensitivity, %	< 5		
Measurement range, m/s^2	± 5 000	± 1 600	± 500
Maximum shock limit (peak value), m/s^2	± 10 000		
Temperature range, °C	–40 ... +125		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,3 ... 15 000 0,5 ... 9 000 1 ... 4 000		
Resonant frequency, kHz	> 30		
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s^2	< 0,002		
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Conversion coefficient on temperature (±2 %), mV/ °C	10		
Constant output voltage level on temperature (temperature 0°C), mV	500		
Run mode setting time, s	4		
Explosion-proof	0Ex ia IIC T6...T4 Ga		
Housing material	stainless steel		
Weight (without cable), g	70		
Supplied accessories	cable 56T1A3 (as per customer's request), screw M6-8g × 30		

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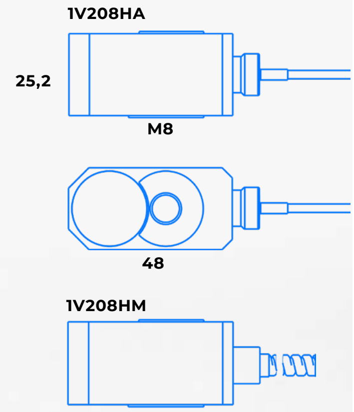
Accelerometer

1V206HM-10

1V206HM	-10
Sensitivity, mV/($m\cdot s^{-2}$)	1
Transverse sensitivity, %	< 5
Measurement range, m/s^2	± 4 000
Maximum shock limit (peak value), m/s^2	± 5 000
Temperature range, °C	–60 ... +150
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,4 ... 12 000 1 ... 8 000 2 ... 5 000
Resonant frequency, kHz	> 25
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s^2	0,005
Output impedance, Ohm	< 100
Power: ▪ voltage, V ▪ current, mA	 + (9 ... 30) 2 ... 5
Constant output voltage level, V	5 ... 6
Run mode setting time, s	4
Ambient temperature effect coefficient, %/ °C	± 0,2
Electrical strength of insulation between contacts 3,4, kV	1
Housing material	stainless steel
Weight (without cable), g	95
Supplied accessories	3 screwa M4 × 14

Accelerometer
1V208HA-100, 1V208HM-100

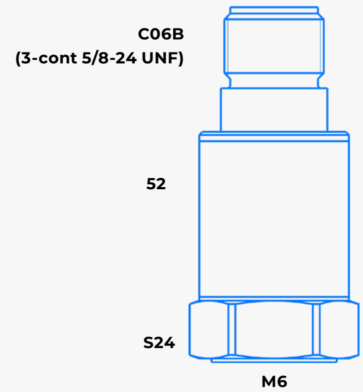


1V208HA/HM	-100
Sensitivity ± 5%, mV/(m·s^{-2})	10
Transverse sensitivity, %	< 5
Measurement range, m/s^2	± 500
Maximum shock limit (peak value), m/s^2	± 5 000
Temperature range, °C	–50 … +125
Pyrosensitivity, g/ °C: ▪ from 4 Hz	0,01
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	1,5 … 12 000 2 … 10 000 4 … 7 000
Resonant frequency, kHz	30
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s^2	<0,002
Output impedance, Ohm	<5
Supply voltage, V	-(18 … 30)
Consumed current, mA	< 5
Constant output voltage level, V	-10 … -14
Run mode setting time, s	4
Ambient temperature effect coefficient, %/ °C	± 0,2
Electrical insulation between housing and cable conductors, V	500
Explosion-proof	0Ex ia IIC T6...T4 Ga
Housing material	stainless steel
Weight (without cable), g	160
Supplied accessories	screw M8 × 40

Accelerometer
1V209HM-XX, 1V209HA-XX

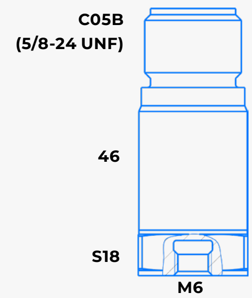
1V209HM/HA	-10	-30	-100
Sensitivity, mV/(m·s–2)	1	3	10
Transverse sensitivity, %	< 5		
Measurement range, m/s2	± 5 000	± 1 600	± 500
Maximum shock limit (peak value), m/s2	± 5 000		
Temperature range, °C	–55 … +125		
Pyrosensitivity, g/ °C: ▪ from 0,2 Hz ▪ from 3 Hz	 0,002 0,0005		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,3 … 12 000 0,5 … 8 000 1 … 5 000		
Resonant frequency, kHz	> 25		
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	0,005	0,002	
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 … 30) 2 … 20		
Constant output voltage level, V	8 … 13		
Run mode setting time, s	4		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Electrical insulation between housing and cable conductors, V	500		
Explosion-proof	0Ex ia IIC T6…T4 Ga		
Housing material	stainless steel		
Weight (without cable), g	90		
Supplied accessories	3 screwa M4 × 14		

Accelerometer
1V211TT-100



1V211TT	-100
Sensitivity ± 5%, mV/(m·s^{-2})	10
Transverse sensitivity, %	< 5
Measurement range, m/s^2	± 500
Maximum shock limit (peak value), m/s^2	± 5 000
Temperature range, °C	–50 ... +125
Pyrosensitivity, g/ °C: ▪ from 4 Hz	0,01
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 10%	10 ... 15 000 30 ... 10 000
Resonant frequency, kHz	>30
Noise level, root mean square value (10 Hz ÷ 15 kHz), m/s^2	<0,0004
Output impedance, Ohm	<5
Supply voltage, V	- (18 ... 30)
Consumed current, mA	<5
Constant output voltage level, V	-8 ... -10
Run mode setting time, s	4
Ambient temperature effect coefficient, %/ °C	± 0,2
Electrical insulation between housing and cable conductors, V	500
Explosion-proof	0Ex ia IIC T6...T4 Ga
Housing material	stainless steel
Weight (without cable), g	70
Supplied accessories	cable 56T1A4 (as per customer's request) pin P0608
Feature	functional counterpart of the firm Bently Nevada BN330400

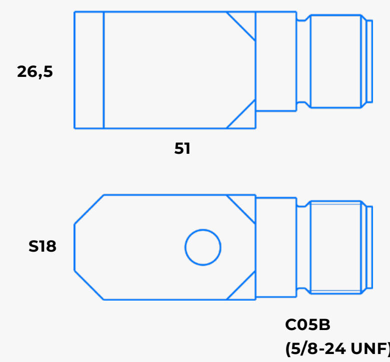
Accelerometer
1V212TH-10



1V212TH	-10
Sensitivity, mV/(m·s^{-2})	1
Transverse sensitivity, %	< 5
Measurement range, m/s^2	± 5 000
Maximum shock limit (peak value), m/s^2	± 10 000
Temperature range, °C	–55 ... +150
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,3 ... 15 000 0,5 ... 9 000 1 ... 7 000
Resonant frequency, kHz	> 30
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s^2	< 0,002
Output impedance, Ohm	< 100
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20
Constant output voltage level, V	8 ... 13
Ambient temperature effect coefficient, %/ °C	± 0,2
Run mode setting time, s	4
Explosion-proof	0Ex ia IIC T6...T3 Ga
Housing material	stainless steel
Weight (without cable), g	52
Supplied accessories	cable 56H1A2 (as per customer's request) pin P0606

Accelerometer

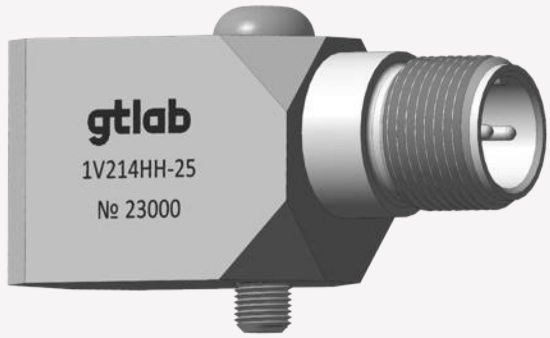
1V213HH-XX

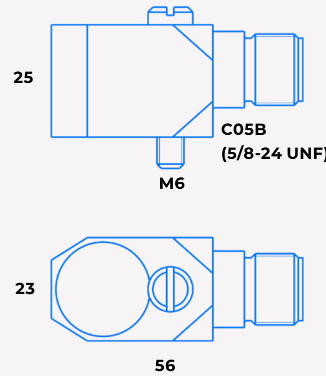


1V213HH	-10	-100
Sensitivity, mV/(m·s⁻²)	1	10
Transverse sensitivity, %	< 5	
Measurement range, m/s²	± 5 000	± 500
Maximum shock limit (peak value), m/s²	± 50 000	± 5 000
Temperature range, °C	–55 ... +150	
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 10 % ▪ uneven frequency response ± 5%	 0,8 ... 25 000 1 ... 20 000 2 ... 12 000	 0,8 ... 15 000 1 ... 12 000 2 ... 10 000
Resonant frequency, kHz	> 50	> 15
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,003	< 0,0005
Output impedance, Ohm	< 100	
Amplitude nonlinearity, %	≤ 1	
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20	
Constant output voltage level, V	8 ... 13	
Ambient temperature effect coefficient, %/ °C	± 0,2	
Influence coefficient of base deformation, (m/s²)/ μ·ε	<0,5	
Run mode setting time, s	4	
Degree of protection from external influences	≥ IP68	
Explosion-proof	0Ex ia IIC T6...T3 Ga	
Housing material	stainless steel	
Weight (without cable), g	70	80
Supplied accessories	cable 56H1A2 (as per customer's request), screw M6-8g × 30	

Accelerometer

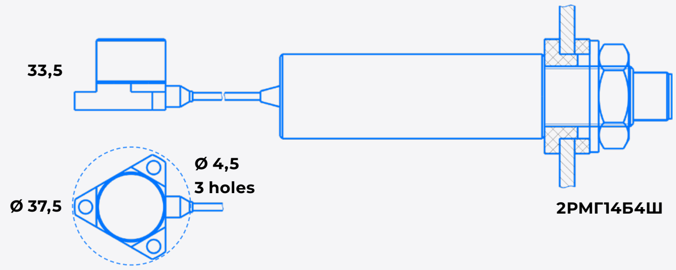
1V214HH-25





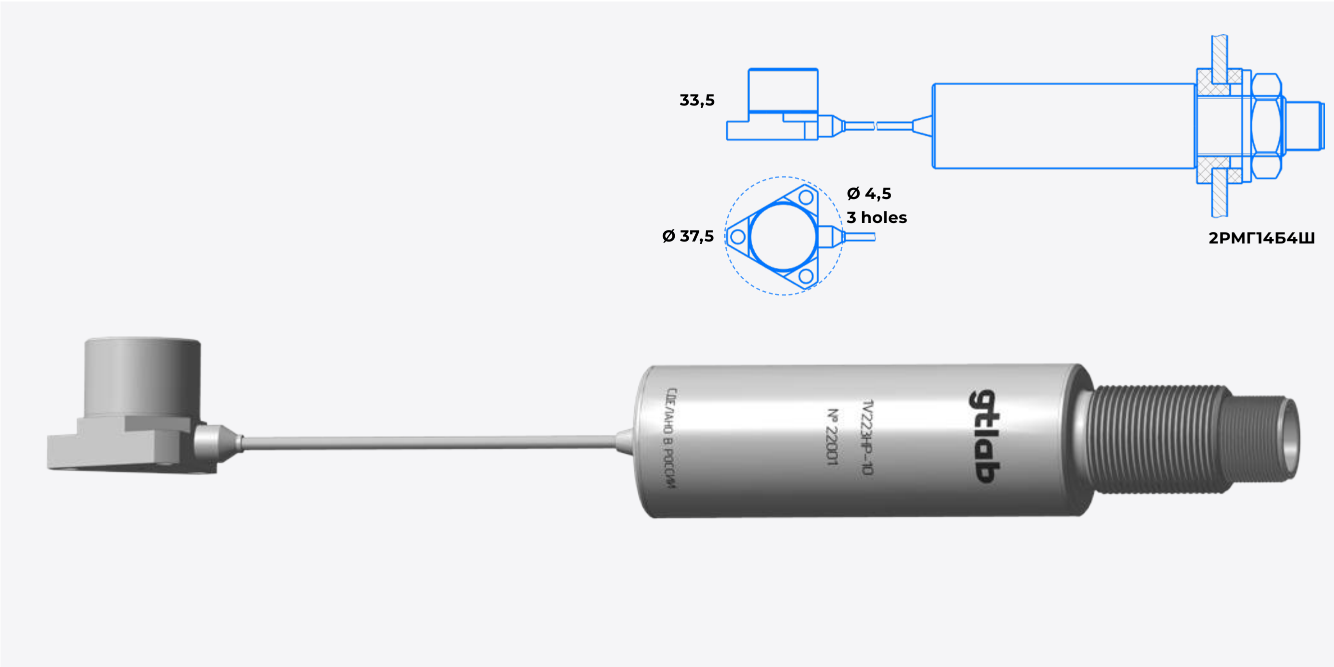
1V214HH	-25
Sensitivity ± 10%, mV/(m·s^{-2})	2,5
Transverse sensitivity, %	< 5
Measurement range, m/s^2	± 2 000
Maximum shock limit (peak value), m/s^2	± 10 000
Temperature range, °C	–196 ... +125
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 4 ... 1 500 7 ... 1 000 10 ... 400
Resonant frequency, kHz	> 20
Noise level, root mean square value (2 Hz ÷ 10 kHz), m/s^2	$1 \cdot 10^{-2}$
Output impedance, Ohm	< 100
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20
Constant output voltage level, V	7 ... 11
Ambient temperature effect coefficient, %/ °C	± 0,03
Run mode setting time, s	< 3
Housing material	stainless steel
Weight (without cable), g	180
Supplied accessories	cable 03H1A2 (as per customer's request), screw M6-8g × 32

Accelerometer
1V221HP-10, 1V223HP-10



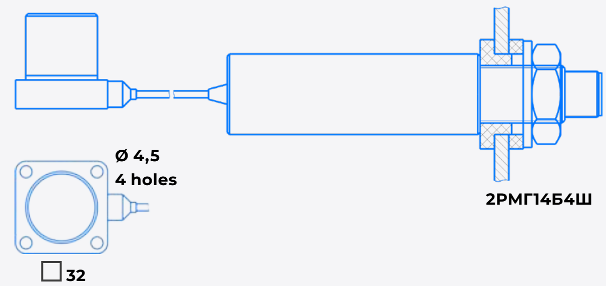
	1V221HP-10	1V223HP-10
Output acceleration:		
Sensitivity ± 5%, mV/(m·s⁻²)	1	
Measurement range, m/s²	± 5 000	
Maximum shock limit (peak value), m/s²	± 10 000	
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 10 ... 8 000 20 ... 5 000 40 ... 3 000	
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	0,15	
Output speed:		
Sensitivity ± 5%, mV/(mm/s)	4	
Range of measured speeds, mm/s	0,1 ... 1 270	
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 5%	 25 ... 2 000 40 ... 1 000	
Noise level, root mean square value (5 Hz ÷ 2 kHz), mm/s	0,05	
General requirements:		
Resonant frequency, kHz	> 15	
Transverse sensitivity, %	< 5	
Temperature range, °C	–60 ... +400	
Temperature range electronic unit, °C	–40 ... +125	
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20	 – (18 ... 30)
Constant output voltage level, V	+ (10 ± 2)	– (10 ± 2)
Output impedance, Ohm	< 100	
Run mode setting time, s	4	
Ambient temperature effect coefficient, %/ °C	± 0,05	

Accelerometer
1V221HP-10, 1V223HP-10 (continuation)



Explosion-proof	0Ex ia IIC T6...T4 Ga
Housing material,	stainless steel
Weight (without cable), g	95
Supplied accessories	3 screwa DIN M4 × 12 A2

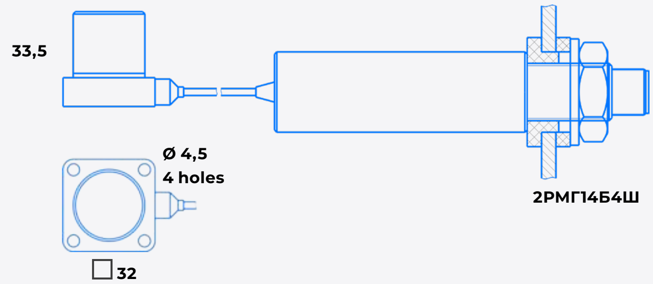
Accelerometer
1V222HP-10, 1V224HP-10



	1V222HP-10	1V224HP-10
Output acceleration:		
Sensitivity ± 5%, mV/(m·s⁻²)	1	
Measurement range, m/s²	± 5 000	
Maximum shock limit (peak value), m/s²	± 10 000	
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 10 ... 8 000 20 ... 5 000 40 ... 3 000	
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	0,15	
Output speed:		
Sensitivity ± 5%, mV/(mm/s)	4	
Range of measured speeds, mm/s	0,1 ... 1 270	
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 5%	 25 ... 2 000 40 ... 1 000	
Noise level, root mean square value (5 Hz ÷ 2 kHz), mm/s	0,05	
General requirements:		
Resonant frequency, kHz	> 15	
Transverse sensitivity, %	< 5	
Temperature range, °C	–60 ... +400	
Temperature range electronic unit, °C	–40 ... +125	
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20	 – (18 ... 30)
Constant output voltage level, V	+ (10 ± 2)	– (10 ± 2)

Accelerometer

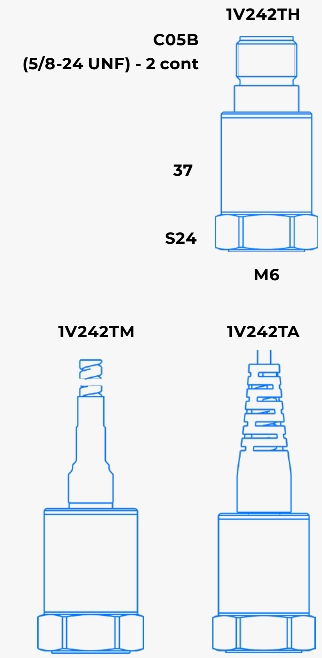
1V222HP-10, 1V224HP-10 (continuation)



Output impedance, Ohm	< 100
Run mode setting time, s	4
Ambient temperature effect coefficient, %/ °C	± 0,05
Explosion-proof	0Ex ia IIC T6...T4 Ga
Housing material	stainless steel
Weight (without cable), g	125
Supplied accessories	4 screwa DIN404 M3 × 16

Accelerometer

1V242TH-XX, 1V242TA-XX, 1V242TM-XX



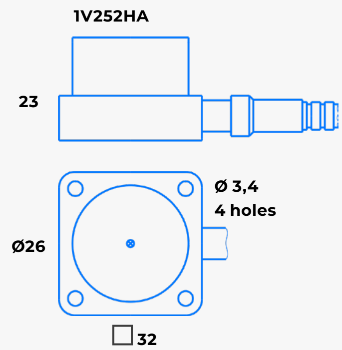
1V242TH/TA/TM	-100	-200	-500
Sensitivity, mV/(m·s⁻²)	10	20	50
Transverse sensitivity, %	< 5		
Measurement range, m/s²	± 500	± 250	± 100
Maximum shock limit (peak value), m/s²	± 4 000		± 2 000
Temperature range, °C	–55 ... +125		
Pyrosensitivity, g/ °C: ▪ from 0,2 Hz ▪ from 3 Hz	 0,002 0,0005		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,04 ... 7 500 0,1 ... 5 000 0,2 ... 3 000	 0,04 ... 6 000 0,1 ... 4 000 0,2 ... 2 400	0,04 ... 4 000 0,1 ... 2 500 0,2 ... 1 600
Resonant frequency, kHz	> 12		> 8
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	0,0001		
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Run mode setting time, s	10		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Explosion-proof	0Ex ia IIC T6...T4 Ga		
Housing material	stainless steel		
Weight (without cable), g	93		110
Supplied accessories	cable 56H1A2 (as per customer's request, for execution -TH) pin P0606		

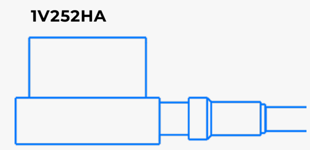
Accelerometer

1V251HM-100, 1V251HA-100

1V251HM/HA	- 100
Sensitivity, mV/(m·s⁻²)	10
Transverse sensitivity, %	< 5
Measurement range, m/s²	± 500
Maximum shock limit (peak value), m/s²	± 10 000
Temperature range, °C	–40 ... +125
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%dB	 0,5 ... 2 400 1 ... 800 2 ... 500
Resonant frequency, kHz	> 5
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,01
Output impedance, Ohm	< 500
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20
Constant output voltage level, V	8 ... 13
Ambient temperature effect coefficient, %/ °C	± 0,1
Run mode setting time, s	4
Housing material	stainless steel
Weight (without cable), g	90
Supplied accessories	4 screwa DIN 404 M3 × 16

Accelerometer
1V252HM-100, 1V252HA-100

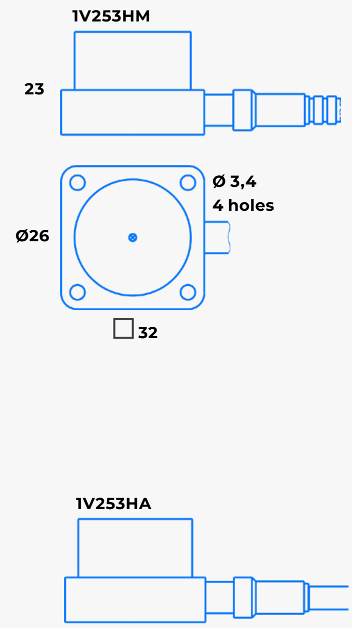




1V252HM/HA	- 100
Sensitivity, mV/(m·s^{-2})	10,2
Transverse sensitivity, %	< 3
Measurement range, m/s^2	± 196
Maximum shock limit (peak value), m/s^2	± 20 000
Temperature range, °C	–40 ... +125
Frequency range (uneven frequency response ± 1 dB), Hz	0 ... 1 000
Resonant frequency, kHz	> 5
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s^2	< 0,01
Output impedance, Ohm	< 100
Supply voltage, V	4,5 ... 25
Consumed current, mA	< 10
Offset voltage at 0 g less, mV	± 40
Ambient temperature effect coefficient, %/ °C	± 0,05
Run mode setting time, s, мс	< 10
Housing material	stainless steel
Weight (without cable), g	90
Supplied accessories	4 screwa DIN 404 M3 × 16

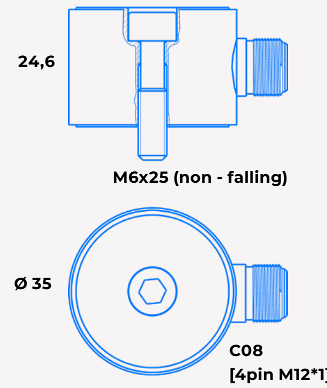
Accelerometer

1V253HM-20, 1V253HA-20



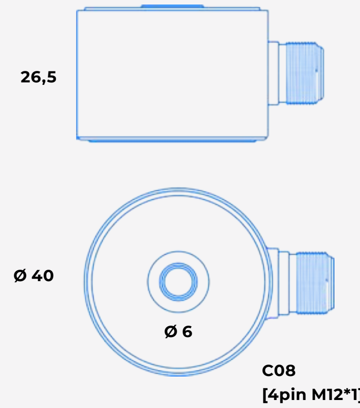
1V253HM/HA	- 20
Sensitivity ± 10%, mV/(m·s⁻²)	2,04
Transverse sensitivity, %	< 3
Measurement range, m/s²	± 392
Maximum shock limit (peak value), m/s²	± 20 000
Temperature range, °C	–40 ... +85
Frequency range (uneven frequency response ± 1 dB), Hz	0 ... 1 000
Resonant frequency, kHz	> 5
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,05
Output impedance, Ohm	< 100
Reference voltage, V	1,8 ± 0,18
Consumed current, mA	<3
Supply voltage, V	3 ... 5,5
Constant output voltage level, V	0,9 ± 0,09
Temperature sensor output relative to 967 mV at 25 °C, mV/°C	3
Ambient temperature effect coefficient, %/ °C	± 0,05
Run mode setting time, s,	<10
Housing material	stainless steel
Weight (without cable), g	90
Supplied accessories	4 screwa DIN 404 M3 × 16

Accelerometer
1V265HN-XX



1V265HN	-10	-30	-100
Sensitivity (± 20%), $mV/(m \cdot s^{-2})$	1	3	10
Transverse sensitivity, %	< 5		
Measurement range, m/s^2	± 5 000	± 1 600	± 500
Maximum shock limit (peak value), m/s^2	± 10 000		
Temperature range, °C	–55 ... +125		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,5 ... 7 000 1 ... 5 000 2 ... 3 000		
Resonant frequency, kHz	> 15		
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s^2	< 0,005		
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Run mode setting time, s	4		
Explosion-proof	0Ex ia IIC T6...T4 Ga		
Housing material	stainless steel(12X18H10T ГОСТ 5632-2014)		
Weight (without cable), g	88		
Supplied accessories	cable 56N1D2 (as per customer's request), screw M6-8g × 25 (non - falling)		
Built-in overvoltage protection, V	to 50		

Accelerometer
1V266HN-XX

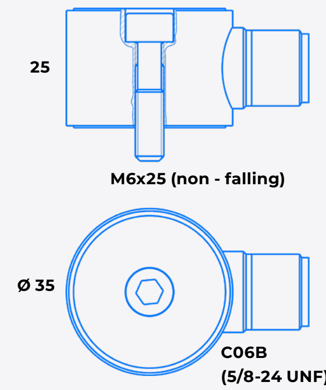


1V266HN	-10	-30
Sensitivity, mV/(m·s⁻²)	1	3
Transverse sensitivity, %	< 5	
Measurement range, m/s²	± 5 000	± 1 600
Maximum shock limit (peak value), m/s²	± 50 000	± 15 000
Temperature range, °C	–55 ... +150	
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 10 % ▪ uneven frequency response ± 5%	 0,8 ... 25 000 1 ... 20 000 2 ... 12 000	 0,8 ... 20 000 1 ... 15 000 2 ... 10 000
Resonant frequency, kHz	> 50	> 30
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,005	< 0,015
Output impedance, Ohm	< 100	
Amplitude nonlinearity, %	≤ 1	
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20	
Constant output voltage level, V	8 ... 13	
Ambient temperature effect coefficient, %/ °C	± 0,2	
Influence coefficient of base deformation, (m/s²)/ μ·ε	<0, 5	
Run mode setting time, s	4	
Degree of protection from external influences	≥ IP68	
Explosion-proof	0Ex ia IIC T6...T3 Ga	
Housing material	stainless steel	
Weight (without cable), g	≤ 100	≤ 110
Supplied accessories	cable 56N1D2 screw M6-8g × 30	

Accelerometer
1V290HA-XX

1V290HA	- 10 - 10-01 - 10-02	-100 -100 -01 -100 -02
Sensitivity ± 10%, mV/(m·s⁻²)	1	10
Transverse sensitivity, %	< 5	
Measurement range, m/s²	± 1 000	± 500
Nonlinearity of amplitude characteristics, %	± 5	
Maximum shock limit (peak value), m/s²	± 2 000	
Temperature range, °C	–55 ... +125	
Frequency range, Hz: ▪ uneven frequency response ± 3 dB	1 ... 1 000	
Resonant frequency, kHz	> 2	
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,02	< 0,01
Output impedance, Ohm	< 100	
Power: ▪ voltage, V ▪ current, mA	+ (18 ... 30) 2 ... 20	
Constant output voltage level, V	8 ... 13	
Ambient temperature effect coefficient, %/ °C	± 0,2	
Run mode setting time, s	4	
Housing material	stainless steel	
Weight (without cable), g	8,8	

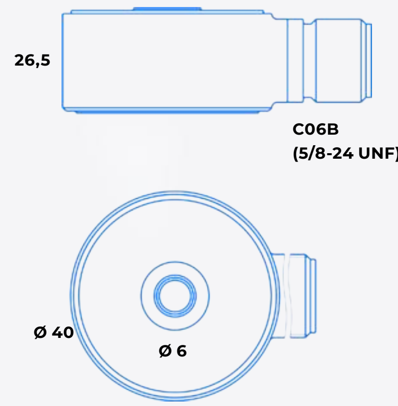
Accelerometer
1V295HT-XX



1V295HT	-10	-30	-100
Sensitivity (± 20%), mV/(m·s⁻²)	1	3	10
Transverse sensitivity, %	< 5		
Measurement range, m/s²	± 5 000	± 1 600	± 500
Maximum shock limit (peak value), m/s²	± 10 000		
Temperature range, °C	–55 ... +125		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,5 ... 7 000 1 ... 5 000 2 ... 3 000		
Resonant frequency, kHz	> 15		
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,005		
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Run mode setting time, s	4		
Explosion-proof	0Ex ia IIC T6...T4 Ga		
Housing material	stainless steel(12X18H10T ГОСТ 5632-2014)		
Weight (without cable), g	88		
Supplied accessories	cable 56T1D2 (as per customer's request), screw M6-8g × 25 (non - falling)		
Built-in overvoltage protection, V	до 50		
Feature	functional counterpart of the firm PCB 605B01		

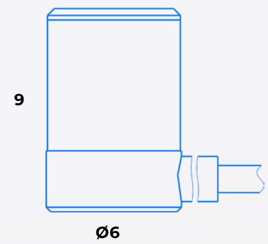
Accelerometer

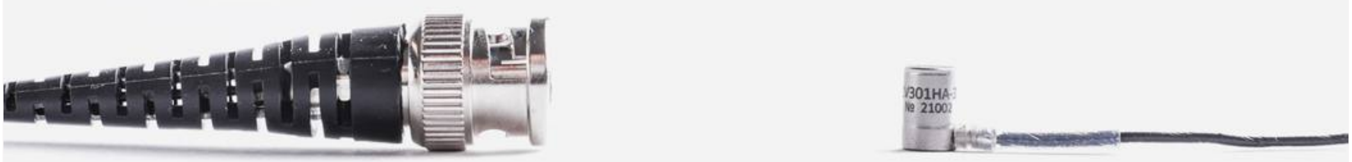
1V296HT-XX



1V296HT	-10	-30	-100
Sensitivity, mV/(m·s⁻²)	1	3	10
Transverse sensitivity, %	< 5		
Measurement range, m/s²	± 5 000	± 1 600	± 500
Maximum shock limit (peak value), m/s²	± 50 000	± 15 000	± 5 000
Temperature range, °C	–55 … +150		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 10 % ▪ uneven frequency response ± 5%	 0,8 … 25 000 1 … 20 000 2 … 12 000	 0,8 … 20 000 1 … 15 000 2 … 10 000	 0,8 … 15 000 1 … 12 000 2 … 8 000
Resonant frequency, kHz	> 50	> 30	> 15
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,005	< 0,015	< 0,005
Output impedance, Ohm	< 100		
Amplitude nonlinearity, %	≤ 1		
Power: ▪ voltage, V ▪ current, mA	 + (18 … 30) 2 … 20		
Constant output voltage level, V	8 … 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Influence coefficient of base deformation, (m/s)/ μ·ε	<0, 5		
Run mode setting time, s	4		
Degree of protection from external influences	≥ IP68		
Explosion-proof	0Ex ia IIC T6…T3 Ga		
Housing material	stainless steel		
Weight (without cable), g	≤ 100	≤ 110	≤ 115
Supplied accessories	cable 56T1D2 screw M6-8g × 30		

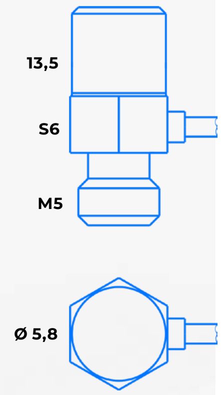
Accelerometer
1V301HA-XX





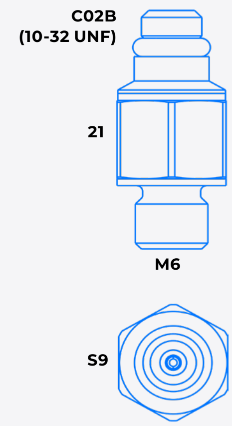
1V301HA	-1	-3
Sensitivity ± 10%, mV/(m·s⁻²)	0,1	0,3
Transverse sensitivity, %	< 5	
Measurement range, m/s²	± 50 000	± 16 000
Maximum shock limit (peak value), m/s²	± 100 000	± 30 000
Temperature range, °C	–55 ... +125	
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 5 ... 38 000 10 ... 25 000 20 ... 10 000	 5 ... 27 000 10 ... 18 000 20 ... 12 000
Resonant frequency, kHz	> 75	> 55
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,02	
Output impedance, Ohm	< 100	
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20	
Constant output voltage level, V	8 ... 13	
Ambient temperature effect coefficient, %/ °C	± 0,2	
Run mode setting time, s	4	
Housing material	stainless steel	
Weight (without cable), g	2	

Accelerometer
1V302HA-XX



1V302HA	-1	-2
Sensitivity ± 10%, mV/(m·s⁻²)	0,1	0,2
Transverse sensitivity, %	< 5	
Measurement range, m/s²	50 000	25 000
Maximum shock limit (peak value), m/s²	± 150 000	
Temperature range, °C	–55 ... +125	
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 5 ... 38 000 10 ... 25 000 20 ... 15 000	 5 ... 35 000 10... 23 000 20 ... 14 000
Resonant frequency, kHz	> 75	70
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,02	
Output impedance, Ohm	< 100	
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20	
Constant output voltage level, V	8 ... 13	
Ambient temperature effect coefficient, %/ °C	± 0,2	
Run mode setting time, s	4	
Housing material	stainless steel	
Weight (without cable), g	2	

Accelerometer
1V303TB-XX



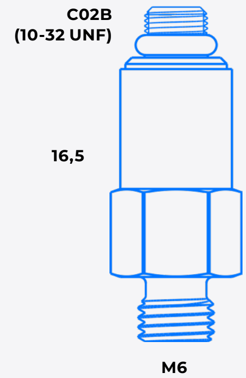
1V303TB	-0,5	-1	-2
Sensitivity ± 10%, mV/(m·s^{-2})	0,05	0,1	0,2
Transverse sensitivity, %	< 5		
Measurement range, m/s²	± 100 000	± 50 000	± 25 000
Maximum shock limit (peak value), m/s²	± 150 000		
Temperature range, °C	–55 ... +125		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 10 ... 38 000 20 ... 25 000 40 ... 10 000		 5 ... 27 000 10 ... 18 000 20 ... 12 000
Resonant frequency, kHz	> 75		> 55
Noise level, root mean square value (5 Hz ÷ 10 kHz), m/s²	< 0,2	< 0,1	< 0,05
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Run mode setting time, s	4		
Housing material	stainless steel		
Weight (without cable), g	6		
Supplied accessories	cable 02B1D1 (as per customer's request)		

Accelerometer
1V304HA-0,5

1V304HA	-0,5
Sensitivity ± 10%, mV/(m·s⁻²)	0,05
Transverse sensitivity, %	< 5
Measurement range, m/s²	± 100 000
Maximum shock limit (peak value), m/s²	± 200 000
Temperature range, °C	–55 ... +125
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 10 ... 45 000 20 ... 30 000 30 ... 20 000
Resonant frequency, kHz	> 90
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,1
Output impedance, Ohm	< 100
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20
Constant output voltage level, V	8 ... 13
Ambient temperature effect coefficient, %/ °C	± 0,2
Run mode setting time, s	4
Housing material	titanium alloy
Weight (without cable), g	0,13

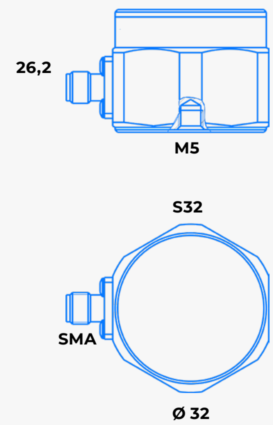
Accelerometer

1V305TB-1



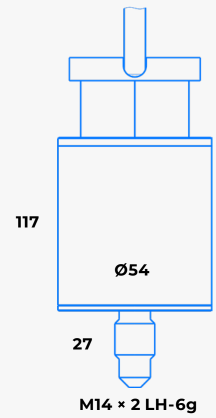
1V305TB	-1
Sensitivity ± 30%, mV/(m·s⁻²)	0,1
Transverse sensitivity, %	< 5
Measurement range, m/s²	± 50 000
Maximum shock limit (peak value), m/s²	± 500 000
Temperature range, °C	–55 ... +125
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB	 0,2 ... 25 000 0,4 ... 10 000
Resonant frequency, kHz	≥ 90
Noise level, root mean square value (5 Hz ÷ 10 kHz), m/s²	< 0,1
Output impedance, Ohm	< 100
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20
Constant output voltage level, V	8 ... 13
Ambient temperature effect coefficient, %/ °C	± 0,2
Run mode setting time, s	4
Housing material	titanium alloy
Weight (without cable), g	5
Electrical filter, kHz	17
Mechanical filter, kHz	35

Accelerometer
1V401HS-XX



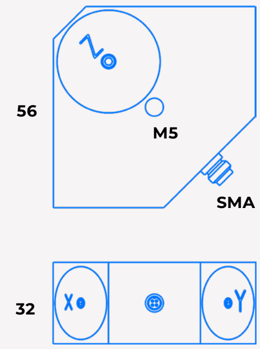
1V401HS	-500	-1000
Sensitivity, mV/(m·s⁻²)	50	100
Transverse sensitivity, %	< 5	
Measurement range, m/s²	± 100	± 50
Maximum shock limit (peak value), m/s²	± 1 000	
Temperature range, °C	–55 ... +125	
Sensitivity to variable temperature, g/°C ▪ cutoff frequency of HPF 0,2 Hz 3 Hz	0,002 0,0005	
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	0,04 ... 4 500 0,1 ... 3 000 0,2 ... 1 800	0,04 ... 3 000 0,1 ... 1 600 0,2 ... 1 200
Resonant frequency, kHz	> 9	> 6
Noise level, root mean square value (0,1 ... 2 000 Hz), m/s²	< 0,0001	
Output impedance, Ohm	< 100	
▪ Power: ▪ voltage, V ▪ current, mA	+ (18 ... 30) 2 ... 20	
Constant output voltage level, V	8 ... 13	
Ambient temperature effect coefficient, %/ °C	± 0,2	
Run mode setting time, s	10	
Housing material	stainless steel	
Weight (without cable), g	160	
Supplied accessories	cable 03S1D1 (as per customer's request) pin P0505	

Accelerometer
1V421TA



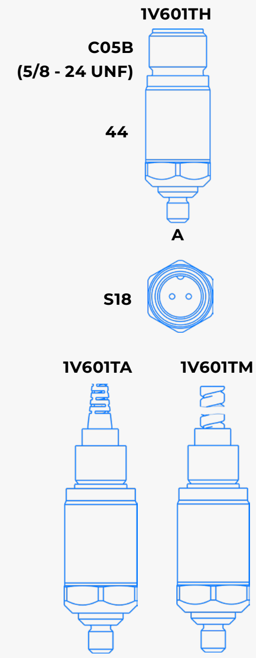
	1V421TA
Sensitivity (± 20%, baseband 1 000 Hz) ▪ channel 1, mV/(m·s⁻²) ▪ channel 2, mV/(m·s⁻²)	 1 000 25
Transverse sensitivity, %	< 5
Measurement range ▪ channel 1, m/s² ▪ channel 2, m/s²	 0,05 ... 1,8 0,1 ... 70
Maximum shock limit (peak value), m/s²	± 300
Frequency of the setting resonance in axial direction, kHz	> 16
Frequency range, Hz: ▪ uneven frequency response ± 12,5 % ▪ uneven frequency response ± 45 %	 800 ... 4 000 500 ... 6 000
Noise level, root mean square value , (500 ... 6 000 Hz) ▪ channel 1, m·s² ▪ channel 2, m·s²	 $\leq 2{\cdot}10^{-5}$ $\leq 3{,}5{\cdot}10^{-5}$
Temperature range, °C	–40 ... +50
Supply voltage, V	± (3,3 ± 0,1)
Consumed current, mA	< ± 10
Connector type	PC10TB
Degree of protection from external influences	IP65
Base material	stainless steel
Weight (without cable), g	900

Accelerometer
1V451HN-XX



1V451HN	-500	-1000
Sensitivity, mV/(m·s⁻²)	50	100
Transverse sensitivity, %	< 5	
Measurement range, m/s²	± 100	± 50
Maximum shock limit (peak value), m/s²	± 1 000	
Temperature range, °C	–55 ... +125	
Sensitivity to variable temperature, g/°C ▪ cutoff frequency of HPF 0,2 Hz 3 Hz	0,002 0,0005	
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	0,04 ... 3 000 0,1 ... 1 600 0,2 ... 1 200	0,04 ... 2 000 0,1 ... 1 200 0,2 ... 800
Resonant frequency, kHz	> 6	> 4
Noise level, root mean square value (0,1 ... 2 000 Hz), m/s²	< 0,0001	
Output impedance, Ohm	< 100	
Power: ▪ voltage, V ▪ current, mA	+ (18 ... 30) 2 ... 20	
Constant output voltage level, V	8 ... 13	
Ambient temperature effect coefficient, %/ °C	± 0,2	
Run mode setting time, s	10	
Housing material	stainless steel	
Weight (without cable), g	450	550
Supplied accessories	cable 56N1D3 (as per customer's request) screw M5 ×40	

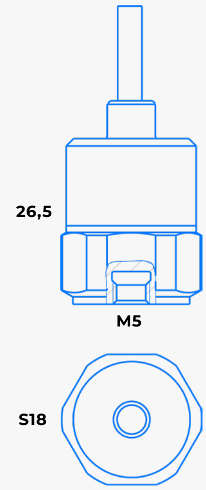
Accelerometer
1V601TH, 1V601TA, 1V601TM



1V601TH/TA/TM	-100-01	-100-02	-100-03
Sensitivity ± 10%, mV/(m·s⁻²)	10		
Transverse sensitivity, %	< 5		
Measurement range, m/s²	± 600		
Measuring range of shock pulses dB	–20 ... +75		
Temperature range, °C	–55 ... +125		
▪ Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 1 ... 10 000 2 ... 6 000 4 ... 5 000		
Resonant frequency, kHz	28		
Noise level, root mean square value (2 Hz ÷ 10 kHz), m/s²	< 0,002		
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Run mode setting time, s	2		
Housing material	stainless steel		
Explosion-proof	0Ex ia IIC T6...T4 Ga		
Degree of protection from external influences	IP67		
Weight (without cable), g	50		
Supplied accessories	cable 03H1D1 (as per customer's request)		
Thread size A	M6	M8	UNF 5/16
Mounting torque, H·м	4	10	10

Accelerometer

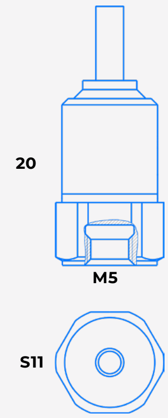
1V701TA-XX



1V701TA	-100	-500	-1000
Sensitivity, mV/(m·s⁻²)	10	50	100
Transverse sensitivity, %	< 5		
Measurement range, m/s²	± 500	± 100	± 50
Maximum shock limit (peak value), m/s²	± 25 000		
Temperature range, °C	–55 ... +125		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,5 ... 18 000 1 ... 12 000 2 ... 4 000		
Resonant frequency, kHz	> 36		
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,0005	0,0004	0,0003
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Run mode setting time, s	4		
Underwater measurements to depth, m	150		
Housing material	stainless steel		
Weight (without cable), g	15		
Supplied accessories	cable 03B1D1 (as per customer's request) pin P0505		

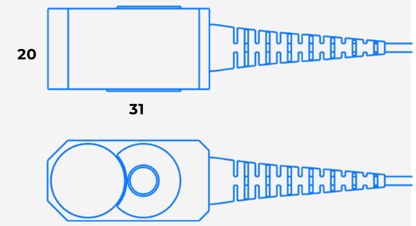
Accelerometer

1V702TA-XX



1V702TA	-10	-100	-500
Sensitivity, mV/(m·s⁻²)	1	10	50
Transverse sensitivity, %	< 5		
Measurement range, m/s²	± 5 000	± 500	± 100
Maximum shock limit (peak value), m/s²	± 100 000		
Temperature range, °C	–55 ... +125		
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,5 ... 8 000 1 ... 12 000 2 ... 7 000		
Resonant frequency, kHz	> 36		
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,005	< 0,0035	< 0,002
Output impedance, Ohm	< 100		
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Ambient temperature effect coefficient, %/ °C	± 0,2		
Run mode setting time, s	4		
Underwater measurements to depth, m	150		
Housing material	stainless steel		
Weight (without cable), g	15		
Supplied accessories	cable 03B1D1 (as per customer's request) pin P0505		

Accelerometer
1V703HA-XX



1V703HA	-30	-100
Sensitivity, $mV/(m \cdot s^{-2})$	3	10
Transverse sensitivity, %	< 5	
Measurement range, m/s^2	± 1 600	± 500
Maximum shock limit (peak value), m/s^2	± 10 000	
Temperature range, °C	–55 ... +125	
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,5 ... 15 000 1 ... 9 000 2 ... 6 000	
Resonant frequency, kHz	> 30	
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s^2	< 0,002	
Output impedance, Ohm	< 100	
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20	
Constant output voltage level, V	8 ... 13	
Ambient temperature effect coefficient, %/ °C	± 0,2	
Run mode setting time, s	4	
Underwater measurements to depth, m	150	
Housing material	stainless steel	
Weight (without cable), g	90	
Supplied accessories	screw M6-8g × 30	

Accelerometer

1V751HA-XX

1V751HA	-1	-10	-30	-100
Sensitivity, mV/(m·s⁻²)	0,1	1	3	10
Transverse sensitivity, %	< 5			
Measurement range, m/s²	± 50 000	± 5 000	± 1 600	± 500
Maximum shock limit (peak value), m/s²	± 10 000			
Temperature range, °C	–55 ... +125			
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,5 ... 22 500 1 ... 15 000 2 ... 9 000			
Resonant frequency, kHz	> 45			
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,05	< 0,01	< 0,009	< 0,008
Output impedance, Ohm	< 100			
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20			
Constant output voltage level, V	8 ... 13			
Ambient temperature effect coefficient, %/ °C	± 0,2			
Run mode setting time, s	4			
Housing material	stainless steel			
Weight (without cable), g	16			
Underwater measurements to depth, m	150			
Resistance to	oil, fuels and lubricants, solvents			
Supplied accessories	pin P0505			

Accelerometer

1V752HA-XX

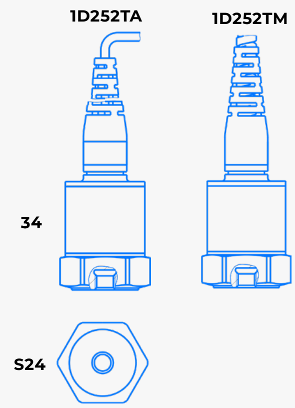
1V752HA	-10	-30	-50	-100
Sensitivity, mV/(m·s⁻²)	1	3	5	10
Transverse sensitivity, %	< 5			
Measurement range, m/s²	± 5 000	± 1 600	± 1 000	± 500
Maximum shock limit (peak value), m/s²	± 10 000			
Temperature range, °C	–55 ... +85			
Frequency range, Hz: ▪ uneven frequency response ± 3 dB ▪ uneven frequency response ± 1 dB ▪ uneven frequency response ± 5%	 0,5 ... 15 000 1 ... 10 000 2 ... 6 000			
Resonant frequency, kHz	> 30			
Noise level, root mean square value (1 Hz ÷ 10 kHz), m/s²	< 0,01	< 0,009		< 0,008
Output impedance, Ohm	< 100			
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20			
Constant output voltage level, V	8 ... 13			
Ambient temperature effect coefficient, %/ °C	± 0,2			
Run mode setting time, s	4			
Housing material	stainless steel			
Weight (without cable), g	11			
Underwater measurements to depth, m	50			
Resistance to	oil, fuels and lubricants, solvents			
Supplied accessories	pin P0505			

Accelerometer

1D251HA, 1D251HM, 1D251HN

	1D251HA/HM/HN
Range of measured amplitudes vibration accelerations, m/s²	0 ...100 0 ...200 0 ...400 (user configurable)
Measurement Mode	vibration acceleration, vibration velocity, vibration displacement
Detector	Magnitude ,Peak, RMS
Measured temperature range by integrated sensor (± 2 °C),°C	- 40 ... +85
High-pass filter, Hz	2, 3, 5, 10 (user configurable)
Low-pass filter, Hz	200,500,1000 (user configurable)
Frequency range uneven frequency response ± 3 dB, Hz	2 ...1 000 3 ...1 000 5 ...1 000 10 ...1 000 (user configurable)
Maximum shock limit (peak value), m/s²	± 1 000
Transverse sensitivity, %	< 5
Temperature range, °C	- 40 ... +85
Output	RS-485, protocolModbus RTU
Supply voltage ± 10 %, V	+ (5 ... 12)
Consumed current, mA	≤ 20
Number of measuring axes	3 (x, y, z)
Housing material	stainless steel
Weight, g	160
Supplied accessories	screw M8 × 35 cable 55N1A4 (as per customer’s request, for execution -HN)

Accelerometer
1D252TA, 1D252TM, 1D252TN



	1D252TA/TM/TN
Range of measured amplitudes vibration accelerations m/s²	0 ...100 0 ...200 0 ...400 (user configurable)
Measurement Mode	vibration acceleration, vibration velocity, vibration displacement
Detector	Magnitude ,Peak, RMS
Measured temperature range by integrated sensor (± 2 °C), °C	- 40 ... +85
High-pass filter, Hz	2, 3, 5, 10 (user configurable)
Low-pass filter, Hz	200,500,1000 (user configurable)
Frequency range (uneven frequency response ± 3 dB), Hz	2 ...1 000 3 ...1 000 5 ...1 000 10 ...1 000 (user configurable)
Maximum shock limit (peak value), m/s²	± 1 000
Transverse sensitivity, %	< 5
Temperature range, °C	- 40 ... +85
Output	RS-485, protocolModbus RTU
Supply voltage ± 10 %, V	+ (5 ... 12)
Consumed current, mA	≤ 20
Number of measuring axes	3 (x, y, z)
Housing material	stainless steel
Weight, g	160
Supplied accessories	pin P0606 cable 55N1A4 (as per customer's request, for execution -TN)

Accelerometer

1D401HA, 1D401HC

	1D401HA/HC
Sensitivity, mV/(m·s²)	10 / 20 / 50 / 100
Range of measured amplitudes vibration accelerations , m/s²	10 / 20 / 50 / 100
Maximum shock limit (peak value), m/s²	± 1 000
Frequency range (uneven frequency response ± 3 dB), Hz	0,5 ...5 000
Temperature range, °C	–20 ... +70
Output interface	USB 2.0 full speed
Number of ADC, bits	24
Input sampling rate, Hz	48 000
Run mode setting time, s	10
Supply voltage, V	+ 5
Consumed current, mA	< 80
Housing material	stainless steel
Connector type	USB A (m)
Weight, g	250
Noise level, root mean square value (1 ... 5 000 Hz), m/s²	< 0,02
Supplied accessories	pin P0505, software GTL, cable 15C1U1 (for execution -HC)

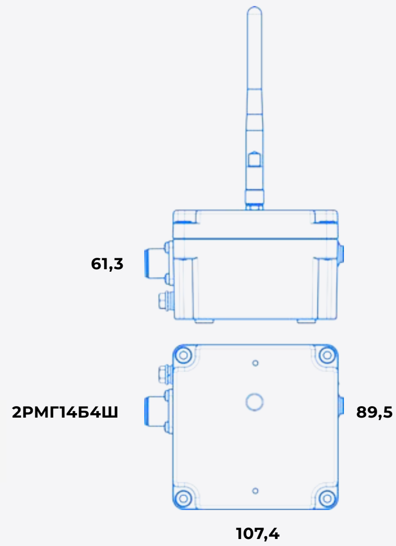
Accelerometer
1D402HA

1D402HA	
Frequency range (uneven frequency response ± 3 dB), Hz	3 ...300
Temperature range, °C	–20 ... +70
Power: ▪ voltage, V ▪ current, mA	 + 5 80
Housing material	stainless steel
Connector type	USB A (m)
Weight, g	250
Supplied accessories	pin P0505 ПО Heart Beat

▪ Accelerometer 1D402HA предназначен for неинвазивного виброакустического скрининга сосудов сердца.

Accelerometer
1D851

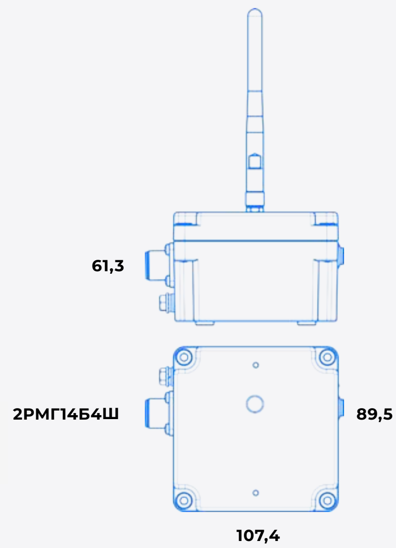
wi-fi



	1D851
Range of measured amplitudes vibration accelerations m/s²	0 ...100 0 ...200 0 ...400 (user configurable)
Technology	MEMS
Simultaneous measurement of vibration in axes	X, Y, Z
Frequency range, Hz: ▪ vibration acceleration, ▪ vibration velocity, ▪ vibration displacement	 0 ... 500 2 ... 500 10 ... 500
Number of measuring axes	3 (x, y, z)
Configurable digital filters	yes
Operating mode	- autonomous diagnostic vibration monitor (recording of vibration acceleration signal time waveform on X, Y, Z axes on the internal storage); - real-time transmission of oscillograms (vibration acceleration, vibration velocity, vibration displacement) in the specified frequency band along three axes via wireless communication channel; - measurement of RMS, amplitude, vibration magnitude (vibration acceleration, vibration velocity, vibration displacement) in the specified frequency band simultaneously along three axes X, Y, Z with subsequent transmission of numerical values via wireless communication channel
Run mode setting time, s	no more than 2
Measurement Mode	vibration acceleration, pvibration velocity, pvibration displacement
Detector	Magnitude ,Peak, RMS
Measured temperature range,°C	- 40 ... +85
Basic relative error of measurement	≤ 5
Data transmission (standard)	Wi-Fi 802.11 b/g/n
Temperature range, °C	- 20 ... +60
Wireless communication distance, m	to 25 line of sight
Battery, мАч	Li-ion 3 400
Weight, g	650
Features	ability to stay in power-saving mode for a long time (up to 30 days) and "wake up" for data transmission via wireless channel with a set period; ability to work from an external adapter +5V and current not less than 1 A

Accelerometer
1D852

wi-fi



	1D852
Range of measured amplitudes vibration accelerations m/s²	Determined by the sensor to be connected
Technology	PE
Simultaneous measurement of vibration in axes	X, Y, Z
Frequency range, Hz: ▪ vibration acceleration, ▪ vibration velocity, ▪ vibration displacement	 1 ... 10 000 2 ... 1 000 10 ... 500
Number of measuring axes	3 (x, y, z)
Configurable digital filters	yes
Operating mode	- autonomous diagnostic vibration monitor (recording of vibration acceleration signal time waveform on X, Y, Z axes on the internal storage); - real-time transmission of oscillograms (vibration acceleration, vibration velocity, vibration displacement) in the specified frequency band along three axes via wireless communication channel; - measurement of RMS, amplitude, vibration magnitude (vibration acceleration, vibration velocity, vibration displacement) in the specified frequency band simultaneously along three axes X, Y, Z with subsequent transmission of numerical values via wireless communication channel
Run mode setting time, s	no more than 2
Measurement Mode	vibration acceleration, pvibration velocity,pvibration displacement
Detector	Magnitude ,Peak, RMS
Measured temperature range,°C	- 40 ... +85
Basic relative error of measurement	≤ 5
Data transmission (standard)	Wi-Fi 802.11 b/g/n
Temperature range, °C	- 20 ... +60
Wireless communication distance, m	to 25 line of sight
Battery, мАч	Li-Lon 3 400
Weight, g	650
Features	ability to stay in power-saving mode for a long time (up to 30 days) and "wake up" for data transmission via wireless channel with a set period; ability to work from an external adapter +5V and current not less than 1 A; подключаемый уеcтчик

Accelerometers

With current output

ACCELEROMETERS WITH CURRENT OUTPUT

Vibration acceleration sensors with standard current output 4 ... 20 mA. Designed to measure the RMS vibration acceleration of industrial equipment in conditions of strong industrial interference. Increased noise immunity (including protection against the pyroelectric effect), low deformation sensitivity are achieved by the design features of the shear sensitive element, base, electronic board, internal screen and its electrical isolation from the object of study.

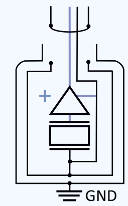
With current output

Split-design

1A202TH

2A204HH

1A206HH

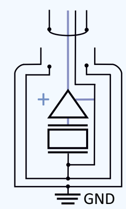


One-piece

1A202TA

1A204HA

1A206HA

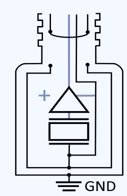


One-piece in metal hose

1A202TM

1A204HM

1A206HM



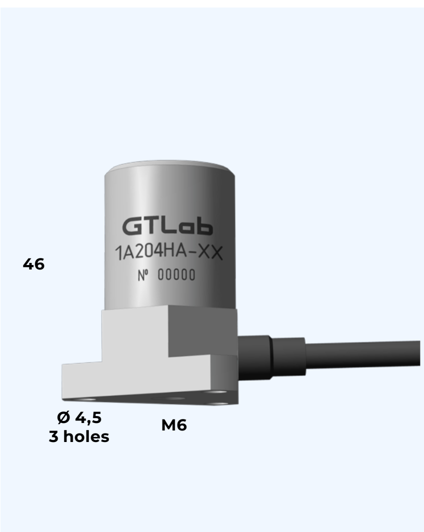
ACCELEROMETERS WITH CURRENT OUTPUT

1A202TA-XX / (T)/ (T1)

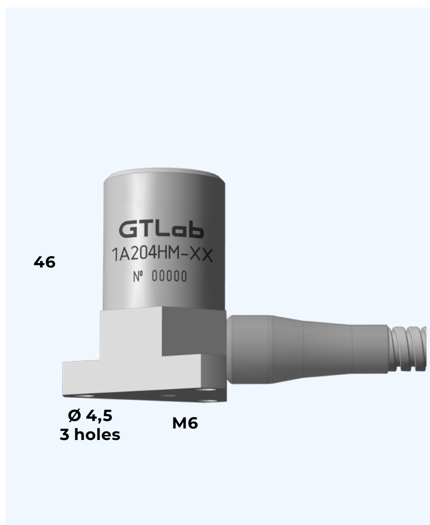
1A202TM-XX / (T)/ (T1)

1A202TH-XX / (T)/ (T1)

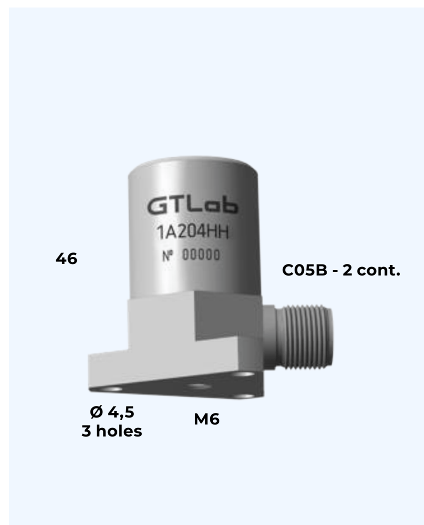
1A204HA-XX / (T)/ (T1)



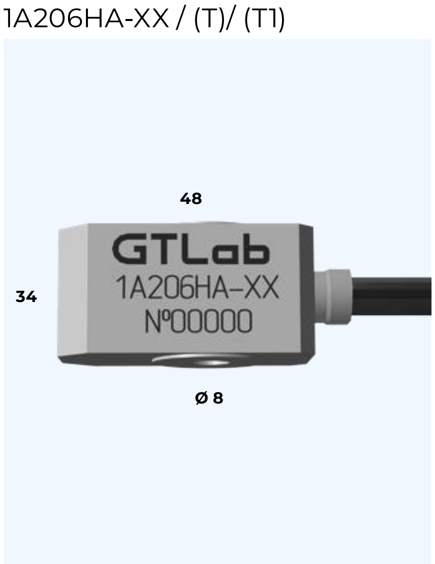
1A204HM-XX / (T)/ (T1)



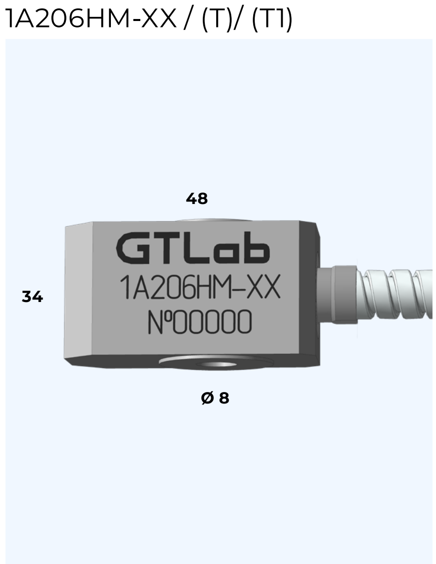
1A204HH-XX / (T)/ (T1)



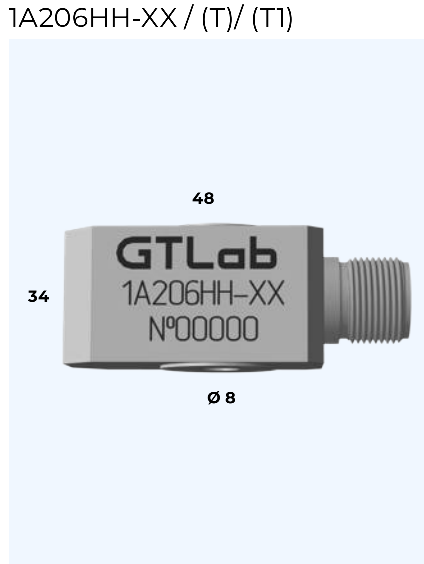
1A206HA-XX / (T)/ (T1)



1A206HM-XX / (T)/ (T1)



1A206HH-XX / (T)/ (T1)



ACCELEROMETERS WITH CURRENT OUTPUT (CONTINUATION)

Table 1

1A20XXX	-10 -10(T) -10(T1)	-20 -20(T) -20(T1)	-50 -50(T) -50(T1)	-100 -100(T) -100(T1)	-200 -200(T) -200(T1)
Sensitivity by vibration acceleration into a current signal 4 … 20 mA, at the base frequency 80 Hz (± 10 %), mA·c²/m	1,6	0,8	0,32	0,16	0,08
Range of measured vibration acceleration, RMS m/s²	10	20	50	100	200
Frequency range measured vibration acceleration, Hz	table 2 - A				
Variation in frequency response relative to the base frequency 80 Hz, within, %	3 to minus 12.5				
Transverse sensitivity, %	< 5				
Temperature range, °C: ▪ standard ▪ (T) ▪ (T1)	–40 … +85 –40 … +125 –60 … +150				
Coefficient of the effect of the ambient temperature, within limits, %/°C	± 0,2				
Sensor supply voltage, V	+ (10 … 24)				
Run mode setting time, s	< 4				
Housing material	stainless steel				
Explosion-proof	1Ex d IIC T6… T5 Gb, 0Ex ia IIC T6… T4 Ga				
Degree of protection from external influences	IP67				
Weight (without cable), g	table 2 - B				
Supplied accessories	table 2 - C				

Table 2

	A	B	C
1A202TA-XX 1A202TM-XX 1A202TH-XX	2 … 1 000	60	pin P0606 anti-vibration cable 56H1A3 (for execution -TH)
1A204HA-XX 1A204HM-XX 1A204HH-XX		145	3 screwa M4 × 12 anti-vibration cable 56H1A3 (for execution -HH)
1A206HA-XX 1A206HM-XX 1A206HH-XX		330	screw M8 × 40 anti-vibration cable 56H1A3 (for execution -HH)

Vibration speed transducers

With current output

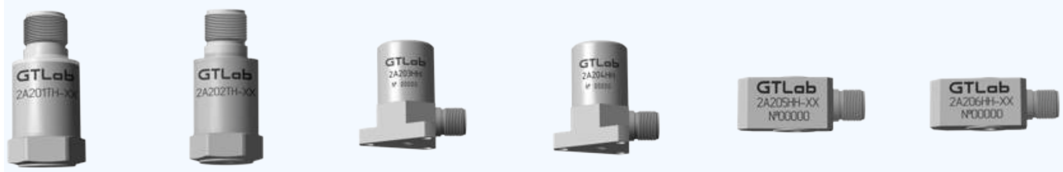
With voltage output

VIBRATION SPEED TRANSDUCERS

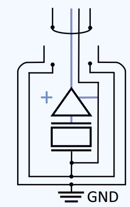
Vibration speed transducers with a standard current output 4... 20 mA. Designed to measure the RMS vibration velocity of industrial equipment in strong industrial interference conditions. The increased noise immunity (including protection against pyroelectric effect) is ensured by the design features of the shear sensitive element, the board, the shielding and electrical insulation from the test object.

With current output

Split-design

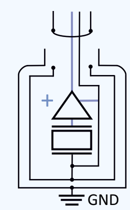


2A201TH 2A202TH 2A203HH 2A204HH 2A205HH 2A206HH

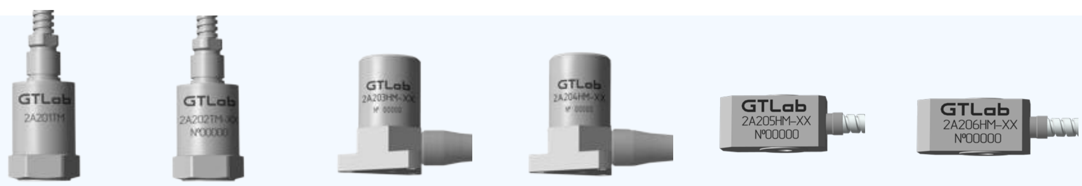


One-piece

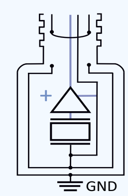
2A201TA 2A202TA 2A203HA 2A204HA 2A205HA 2A206HA



One-piece in metal hose



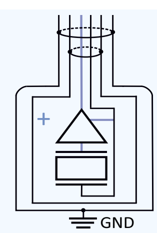
2A201TM 2A202TM 2A203HM 2A204HM 2A205HM 2A206HM



With voltage output

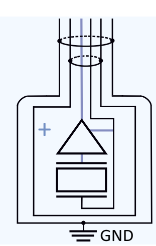
Split-design

2V201HT 2V202HT 2V203TH 2V221HH 2V222HH



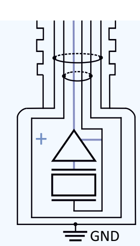
One-piece

2V202HA



One-piece in metal hose

2V201HM 2V202HM



VIBRATION SPEED TRANSDUCERS WITH CURRENT OUTPUT

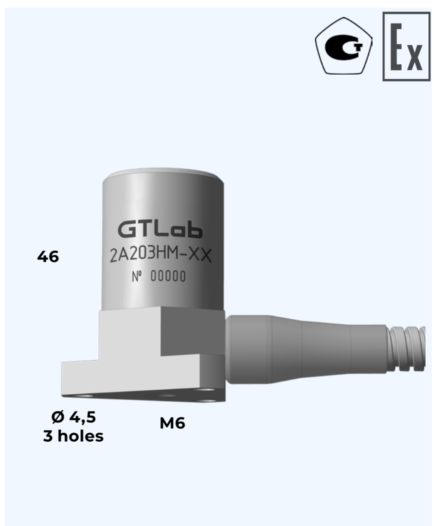
2A201TA-XX / (T)/(T1), 2A202TA-XX / (T)/(T1)

2A201TM-XX / (T)/(T1), 2A202TM-XX / (T)/(T1)

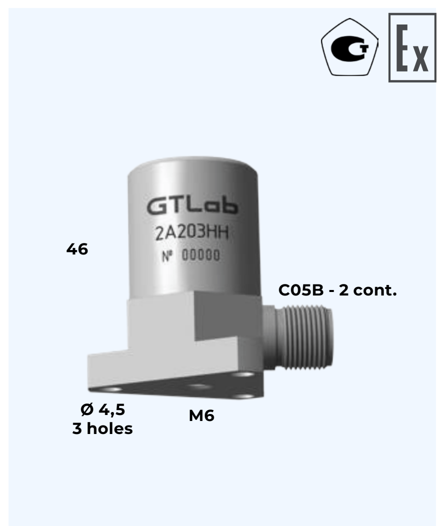
2A201TH-XX / (T)/(T1), 2A202TH-XX / (T)/(T1)

2A203HA-XX / (T)/(T1), 2A204HA-XX / (T)/(T1)

2A203HM-XX / (T)/(T1), 2A204HM-XX / (T)/(T1)

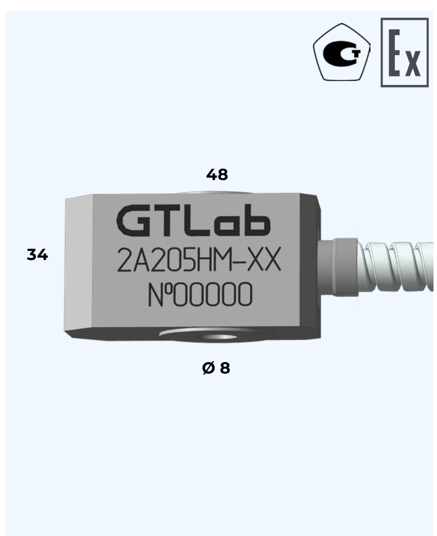


2A203HH-XX / (T)/(T1), 2A204HH-XX / (T)/(T1)



2A205HA-XX / (T)/(T1), 2A206HA-XX / (T)/(T1)

2A205HM-XX/ (T)/(T1), 2A206HM-XX / (T)/(T1)



2A205HH-XX / (T)/(T1), 2A206HH-XX / (T)/(T1)

VIBRATION SPEED TRANSDUCERS WITH CURRENT OUTPUT (CONTINUATION)

Table 1

2A20XXX	-10 -10(T) -10(T1)	-20 -20(T) -20(T1)	-40 -40(T) -40(T1)	-80 -80(T) -80(T1)	-160 -160(T) -160(T1)	-200 -200(T) -200(T1)
Sensitivity by RMS vibration speed to current signa 4 ... 20 mA, at the base frequency 80 Hz (± 10 %), mA·c/mm	1,6	0,8	0,4	0,2	0,1	0,08
Range of measured vibration speed, RMS, mm/s	10	20	40	80	160	200
Sensitivity by vibration speed to current signa 4 ... 20 mA, at the base frequency 80 Hz (± 10 %), mA·c/mm	1,13	0,56	0,28	0,14	0,7	0,5
Range of measured amplitudes vibration speed, mm/s	14,1	28,2	54,4	112,8	225,6	282
Frequency range of measured vibration speed, Hz	table2-A					
Variation in frequency response relative to the base frequency 80 Hz, within, %	3 to minus 12.5					
Transverse sensitivity, %	< 5					
Temperature range, °C: ▪ standard ▪ (T) ▪ (T1)	 –40 ... +85 –40 ... +125 –60 ... +150					
Coefficient of the effect of the ambient temperature, within limits %/°C	± 0,2					
Sensor supply voltage, V	+ (10 ... 24)					
Run mode setting time, s	< 4					
Housing material	stainless steel					
Explosion-proof	1Exd IIC T6...T5 Gb, 0Exia IIC T6...T4 Ga					
Degree of protection from external influences	IP67					
Weight (without cable), g	table2-B					
Supplied accessories	table2-C					

Table 2

	A	B	C
2A201TA-XX	10 ... 1 000	90	pin P0606 anti-vibration cable 56H1A3 (for execution -TH)
2A201TM-XX			
2A201TH-XX			
2A202TA-XX	2 ... 1 000		
2A202TM-XX			
2A202TH-XX			
2A203HA-XX	10 ... 1 000	145	3 screwa M4 × 12 anti-vibration cable 56H1A3 (for execution -HH)
2A203HM-XX			
2A203HH-XX			
2A204HA-XX	2 ... 1 000		
2A204HM-XX			
2A204HH-XX			
2A205HA-XX	10 ... 1 000	330	screw M8 × 40 anti-vibration cable 56H1A3 (for execution -HH)
2A205HM-XX			
2A205HH-XX			
2A206HA-XX	2 ... 1 000		
2A206HM-XX			
2A206HH-XX			

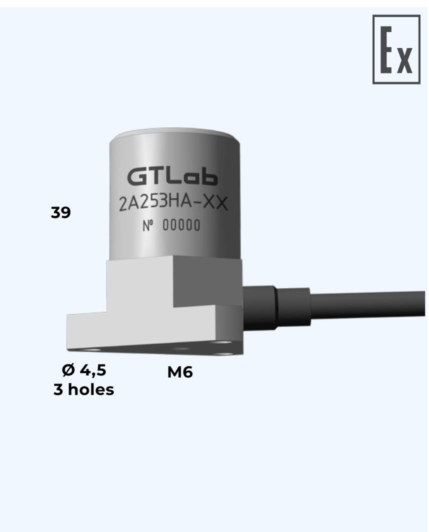
VIBRATION SPEED TRANSDUCERS WITH CURRENT OUTPUT THREE-COMPONENT

2A251TA-XX, 2A252TA-XX

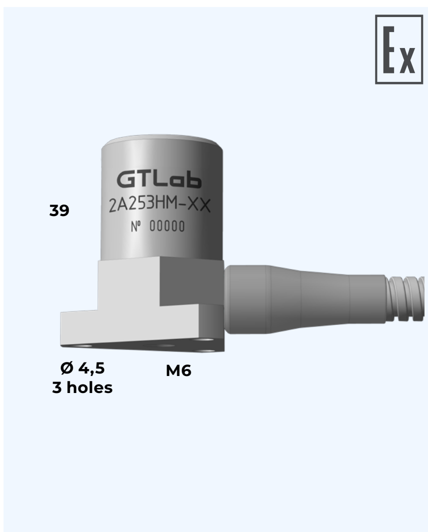
2A251TM-XX, 2A252TM-XX

2A251TH-XX, 2A252TH-XX

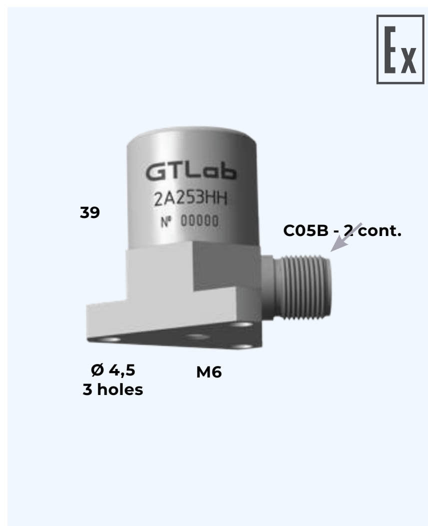
2A253HA-XX, 2A254HA-XX



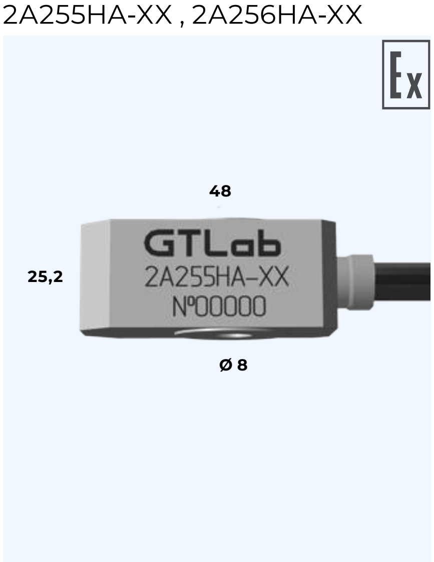
2A253HM-XX, 2A254HM-XX



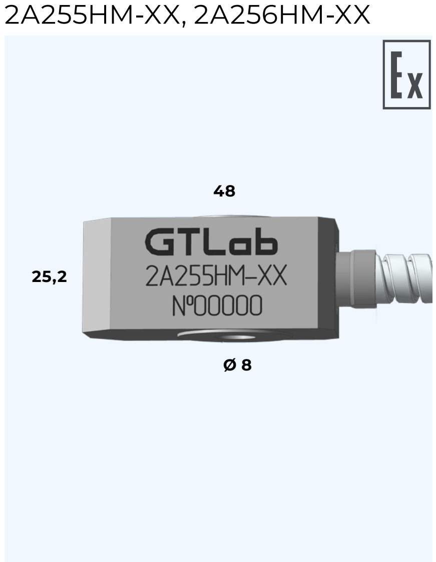
2A253HH-XX, 2A254HH-XX



2A255HA-XX , 2A256HA-XX



2A255HM-XX, 2A256HM-XX



2A255HH-XX, 2A256HH-XX

VIBRATION SPEED TRANSDUCERS WITH CURRENT OUTPUT THREE-COMPONENT

Table 1

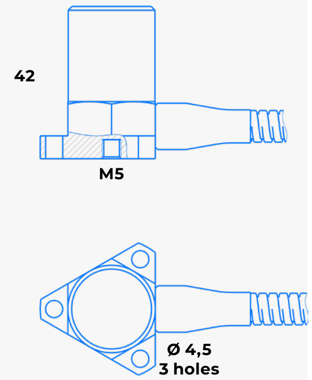
2A25XXX	-10	-20	-40	-80	-100	-200
Sensitivity by vibration speed to current signa 4 … 20 mA, at the base frequency 80 Hz (± 10 %), mA·c/mm	1,6	0,8	0,4	0,2	0,16	0,08
Range of measured vibration speed, RMS, mm/s	10	20	40	80	100	200
Output value of vibration speed RMS	Maximum value in one of the three coordinates					
Frequency range of measured vibration speed, Hz	table 2 - A					
Variation in frequency response relative to the base frequency 80 Hz, within, %	3 to minus 12.5					
Transverse sensitivity, %	< 5 %					
Temperature range, °C:	–40 … +85					
Coefficient of the effect of the ambient temperature, within limits %/°C	± 0,2					
Sensor supply voltage, V	+ (10 … 24)					
Run mode setting time, s	< 4					
Housing material	stainless steel					
Explosion-proof	1Ex d IIC T6… T5 Gb, 0Ex ia IIC T6… T4 Ga					
Degree of protection from external influences	IP67					
Weight (without cable), g	table 2 - B					
Supplied accessories	table 2 - C					

Table 2

	A	B	C
2A251TA-XX 2A251TM-XX 2A251TH-XX	10 … 1 000	45	pin P0606 anti-vibration cable 56H1A3 (for execution -TH)
2A252TA-XX 2A252TM-XX 2A252TH-XX	2 … 1 000		
2A253HA-XX 2A253HM-XX 2A253HH-XX	10 … 1 000	120	3 screwa M4 × 12 anti-vibration cable 56H1A3 (for execution -HH)
2A254HA-XX 2A254HM-XX 2A254HH-XX	2 … 1 000		
2A255HA-XX 2A255HM-XX 2A255HH-XX	10 … 1 000	190	screw M8 × 40 anti-vibration cable 56H1A3 (for execution -HH)
2A256HA-XX 2A256HM-XX 2A256HH-XX	2 … 1 000		

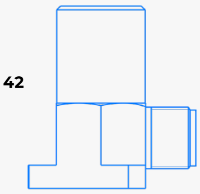
Vibration speed transducer

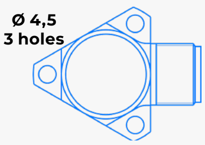
2V201HM



2V201HM	
Sensitivity at the base frequency 80 Hz, mV/mm/s	2,5 ± 0,25
Range of measured speeds, mm/s	0,1 ...1500
Frequency range of measured vibration speed, Hz	2 ... 3 000
Variation in frequency response relative to the base frequency 80 Hz frequency range, dB	± 1
Transverse sensitivity, %	< 5
Temperature range, °C	–50 ... +150
Coefficient of the effect of the ambient temperature, within limits %/°C	± 0,1
RMS level of own noise, reduced to input, mm/s	< 0,04
Maximum output voltage with a non-linear distortion coefficient of no more than 5 %, V	± 5
Output impedance, Ohm	< 500
Power: ▪ voltage, V ▪ current, mA	 + (20 ... 30) < (7 ... 9)
Explosion-proof	1Ex d IIC T6...T4 Gb, 0Ex ia IIC T6...T4 Ga
Constant output voltage level, V	+ (10 ... 23)
Housing material	stainless steel
Weight (without cable), g	120
Supplied accessories	3 screwa DIN 404 M4 × 12 A2

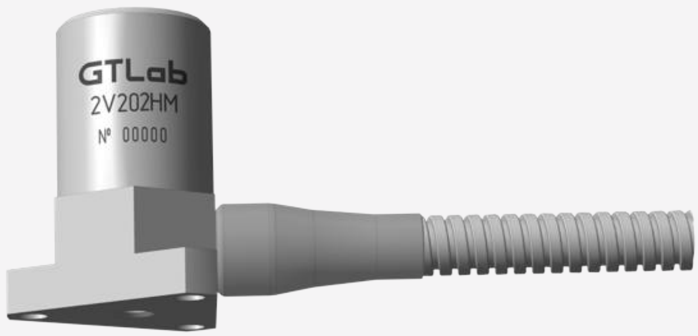
Vibration speed transducer
2V201HT

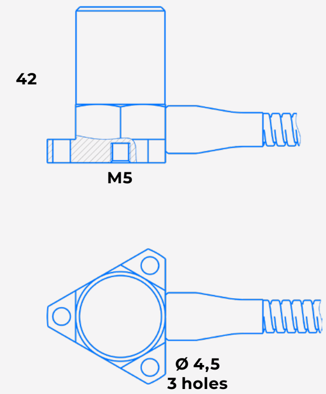




	2V201HT
Sensitivity at the base frequency 80 Hz, mV/mm/s	2,5 ± 0,25
Range of measured speeds, mm/s	0,1 ...1500
Frequency range of measured vibration speed, Hz	2 ... 3 000
Variation in frequency response relative to the base frequency 80 Hz frequency range, dB	± 1
Transverse sensitivity, %	< 5
Temperature range, °C	–50 ... +150
Coefficient of the effect of the ambient temperature, within limits %/°C	± 0,1
RMS level of own noise, reduced to input, mm/s	< 0,04
Maximum output voltage with a non-linear distortion coefficient of no more than 5 %, V	± 5
Output impedance, Ohm	< 500
Power: ▪ voltage, V ▪ current, mA	+ (20 ... 30) < (7 ... 9)
Constant output voltage level, V	< (10 ... 23)
Housing material	stainless steel
Explosion-proof	1Ex d IIC T6...T4 Gb, 0Ex ia IIC T6...T4 Ga
Weight (without cable), g	120
Supplied accessories	cable 56T1AA4 (as per customer's request) 3 screwa DIN 404 M4 × 12 A2

Vibration speed transducer
2V202HM

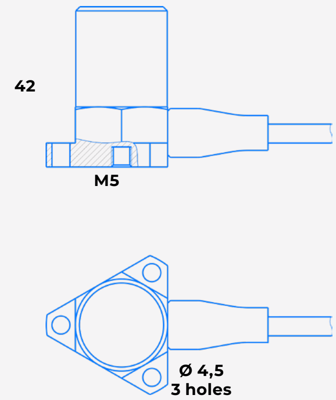




2V202HM	
Sensitivity at the base frequency 80 Hz, mV/mm/s	5 ± 0,5
Range of measured speeds, mm/s	0,1 ...800
Frequency range of measured vibration speed, Hz	5 ... 1 000
Variation in frequency response relative to the base frequency 80 Hz frequency range, dB	± 1
Transverse sensitivity, %	< 5
Temperature range, °C	–50 ... +150
Coefficient of the effect of the ambient temperature, within limits %/°C	± 0,1
RMS level of own noise, reduced to input, mm/s	< 0,02
Maximum output voltage with a non-linear distortion coefficient of no more than 5 %, V	± 5
Output impedance, Ohm	< 500
Power: ▪ voltage, V ▪ current, mA	 + (20 ... 30) < (7 ... 9)
Constant output voltage level, V	+ (10 ... 23)
Explosion-proof	1Ex d IIC T6...T4 Gb, 0Ex ia IIC T6...T4 Ga
Housing material	stainless steel
Weight (without cable), g	120
Supplied accessories	3 screwa DIN 404 M4 × 12 A2

Vibration speed transducer

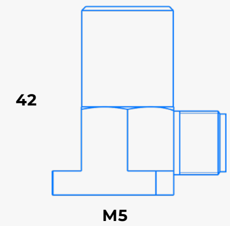
2V202HA

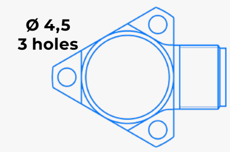


2V202HA	
Sensitivity at the base frequency 80 Hz, mV/mm/s	5 ± 0,5
Range of measured speeds, mm/s	0,1 ...800
Frequency range of measured vibration speed, Hz	5 ... 1 000
Variation in frequency response relative to the base frequency 80 Hz frequency range, dB	± 1
Transverse sensitivity, %	< 5
Temperature range, °C	–50 ... +150
Coefficient of the effect of the ambient temperature, within limits %/°C	± 0,1
RMS level of own noise, reduced to input, mm/s	< 0,02
Maximum output voltage with a non-linear distortion coefficient of no more than 5 %, V	± 5
Output impedance, Ohm	< 500
Power: ▪ voltage, V ▪ current, mA	 + (20 ... 30) < (7 ... 9)
Constant output voltage level, V	+ (10 ... 23)
Explosion-proof	1Ex d IIC T6...T4 Gb, 0Ex ia IIC T6...T4 Ga
Housing material	stainless steel
Weight (without cable), g	120
Supplied accessories	3 screwa DIN 404 M4 × 12 A2

Vibration speed transducer

2V202HT

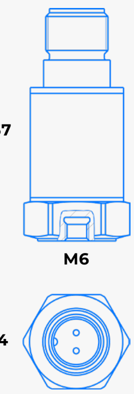




2V202HT	
Sensitivity at the base frequency 80 Hz, mV/mm/s	5 ± 0,5
Range of measured speeds, mm/s	0,1 ...800
Frequency range of measured vibration speed, Hz	5 ... 1 000
Variation in frequency response relative to the base frequency 80 Hz frequency range, dB	± 1
Transverse sensitivity, %	< 5
Temperature range, °C	–50 ... +150
Coefficient of the effect of the ambient temperature, within limits %/°C	± 0,1
RMS level of own noise, reduced to input, mm/s	< 0,02
Maximum output voltage with a non-linear distortion coefficient of no more than 5 %, V	± 5
Output impedance, Ohm	< 500
Power: ▪ voltage, V ▪ current, mA	 + (20 ... 30) < (7 ... 9)
Explosion-proof	1Ex d IIC T6...T4 Gb, 0Ex ia IIC T6...T4 Ga
Constant output voltage level, V	+ (10 ... 23)
Housing material	stainless steel
Weight (without cable), g	120
Supplied accessories	cable 56T1AA4 (as per customer's request) 3 screwa DIN 404 M4 × 12 A2

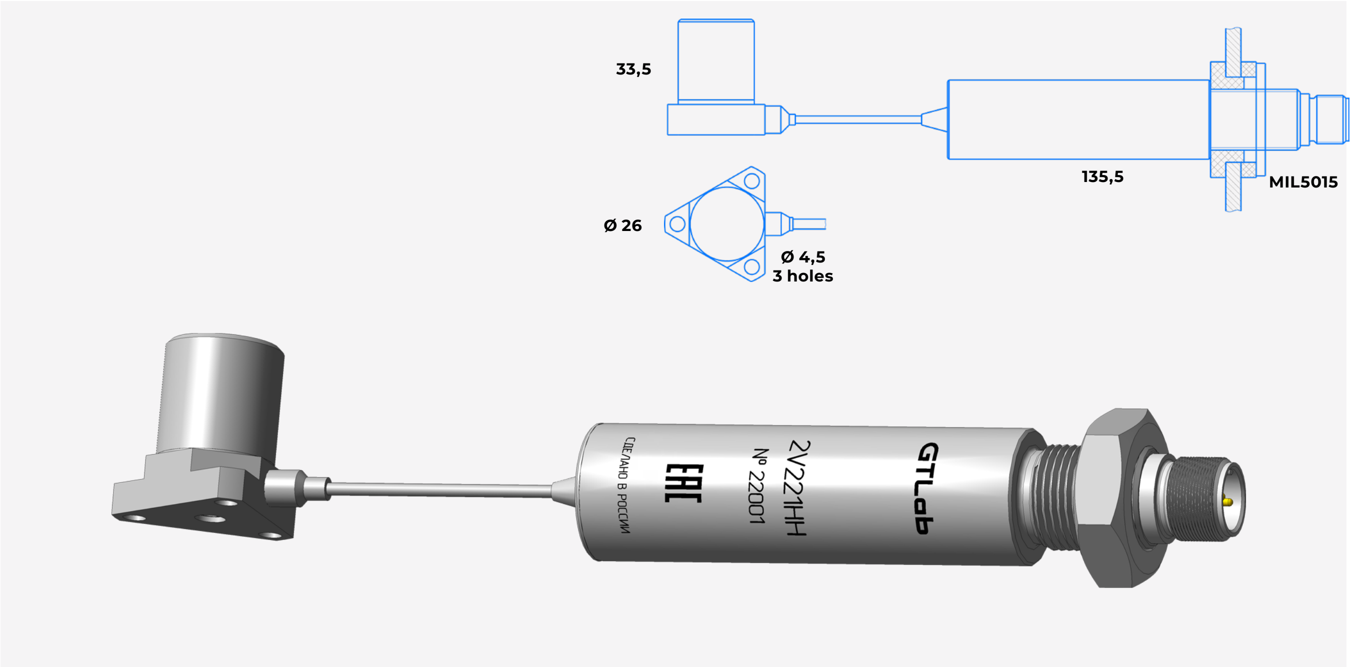
Vibration speed transducer
2V203TH

Ex



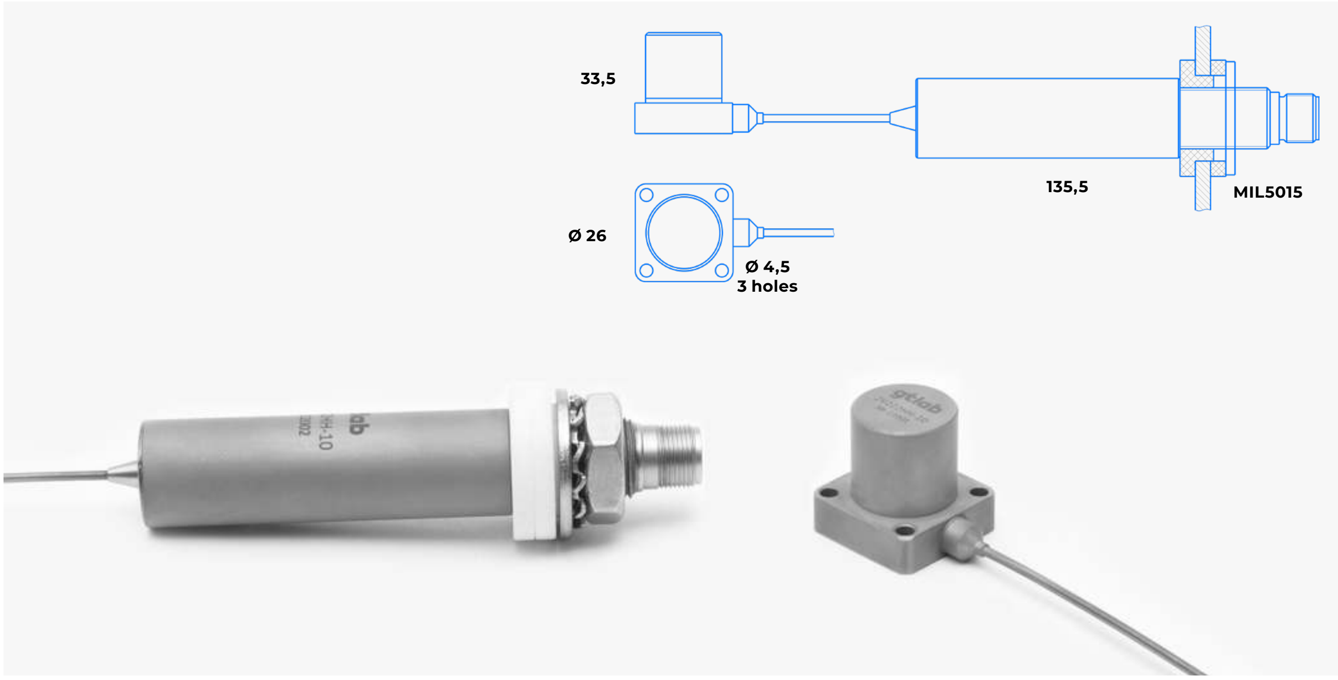
	2V203TH
Sensitivity vibration speed ± 5%, mV/mm/s	3,94
Vibration speed measuring range, mm/s	0,1 ...1 270
Maximum shock limit (peak value), m/s²	50 000
Frequency range of measured vibration speed (uneven frequency response -1 dB), Hz	6 ... 2 500
Resonant frequency, kHz	> 30
Transverse sensitivity, %	< 5
Temperature range, °C	–40 ... +125
Coefficient of the effect of the ambient temperature, within limits, %/°C	± 0,1
RMS level of own noise, reduced to input, mm/s	< 0,004
Maximum output voltage with a non-linear distortion coefficient of no more than 5 %, V	± 5
Output impedance, Ohm	< 100
Power: ▪ voltage, V ▪ current, mA	- (18 ... 30) (relative to contact A) < (2 ... 20)
Explosion-proof	1Ex d IIC T6...T4 Gb, 0Ex ia IIC T6...T4 Ga
Constant output voltage level, V	- (12 ± 3) (relative to contact A)
Housing material	stainless steel
Weight (without cable), g	90
Supplied accessories	pin P0606 (as per customer's request) pin P0638 (as per customer's request) anti-vibration cable 56H1A2
Feature	functional counterpart of the firm Bently Nevada BN330500

Vibration speed transducer
2V221HH



	2V221HH
Output speed:	
Sensitivity ± 5%, mV/mm/s	5,7
Vibration speed measuring range, mm/s	635
Frequency range (uneven frequency response ± 3 dB), Hz	15 ... 2 000
Noise level, root mean square value , mm/s	0,15
General requirements:	
Resonant frequency, kHz	> 10
Transverse sensitivity, %	< 5
Temperature range, °C	–55 ... +400
Temperature range electronic unit, °C	–40 ... +125
Power: ▪ voltage, V ▪ current, mA	- (18 ... 30) (relative to contact A) < (2 ... 20)
Constant output voltage level, V	– (12 ± 2) (relative to contact A)
Ambient temperature effect coefficient, %/ °C	± 0,05
Explosion-proof	0Ex ia IIC T6...T4 Ga
Housing material	stainless steel
Weight (without cable), g	95
Supplied accessories	3 screwa DIN404 M3 × 16

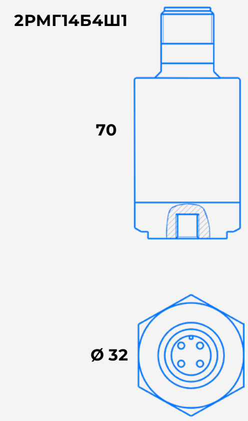
Vibration speed transducer
2V222HH



	2V222HH
Output speed:	
Sensitivity ± 5%, mV/mm/s	5,7
Measuring range vibration speed, mm/s	635
Frequency range (uneven frequency response ± 3 dB), Hz	15 ... 2 000
Noise level, root mean square value , mm/s	0,15
General requirements:	
Resonant frequency, kHz	> 10
Transverse sensitivity, %	< 5
Temperature range, °C	–55 ... +400
Temperature range electronic unit, °C	–40 ... +125
Constant output voltage level, V	– (12 ± 2)
Ambient temperature effect coefficient, %/ °C	± 0,05
Explosion-proof	0Ex ia IIC T6...T4 Ga
Housing material	stainless steel
Weight (without cable), g	125
Supplied accessories	4 screwa DIN404 M3 × 16
Feature	functional counterpart of the firm Bently Nevada BN330750

Vibrokey

Vibration speed transducer
2A231TP



	2A231TP
Frequency range (uneven frequency response - 1 dB), Hz	10 ... 1 000
Values of preset thresholds of vibration speed RMS operation, mm/s	0,2 ... 200
Error of setting the thresholds, %	± 3
Measurement error in the operating temperature range, %	± 5
Run mode setting time, s	< 10
Signal conditions (closed or open) of relay pcontacts	Continuous excess of the set threshold value by the informative signal within 0-60 s
Relay contact operation mode	lock/self-repair
Self-restore condition	vibration reduction from the trigger threshold by6%
Vibration control delay after establishing operating mode/self-restore, s	0 or 20
"Dry" contact parameters ▪ direct current commutations, A ▪ commutation voltage, V	 0 ... 1 11 ...25
Supply voltage, V	11 ...25
Consumed current, mA	< 35
Range of measured vibration speed, RMS, mm/s	0,1 ... 200 (user configurable) lower threshold of 0,2 до 2; upper threshold of 10 ... 200
Temperature range, °C	–40 ... +85
Output connector	2РМГ14БП4Ш1
Housing material	stainless steel
Weight (without cable), g	110
Supplied accessories	pin P0606
Function	Measuring the vibration speed of the object and issuing a signal of exceeding the preset vibration level in the form of closed or open relay contacts.
Features	Measurement and transmission of vibration speed RMS by standard current interface 4-20 mA; Transmission of signals at a distance of up to 100 m; Electrical isolation of the piezo-element and built-in amplifier - converter from the housing eliminates the influence on the results of measurements grounding loop currents; Programming of basic parameters by HART-protocol; Robust design, sealed housing.

Vibration displacement sensors

With current output

With voltage output

VIBRATION DISPLACEMENT SENSORS

Vibration displacement sensors with a standard current output 4... 20 mA. Designed to measure vibration displacement amplitude of industrial equipment in conditions of strong industrial interference. The increased noise immunity (including protection against the pyroelectric effect) is ensured by the design features of the shear sensitive element, the board, internal screen and its electrical isolation from the studied object

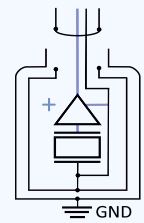
With current output

Split-design

3A201TH

3A203HH

3A205HH

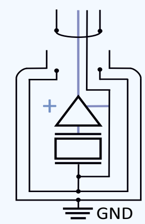


One-piece

3A201TA

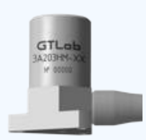
3A203HA

3A205HA



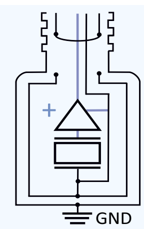
One-piece in metal hose

3A201TM



3A203HM

3A205HM



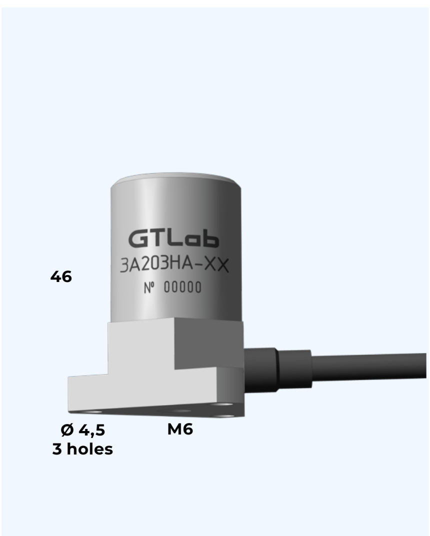
VIBRATION DISPLACEMENT SENSORS WITH CURRENT OUTPUT

3A201TA-XX

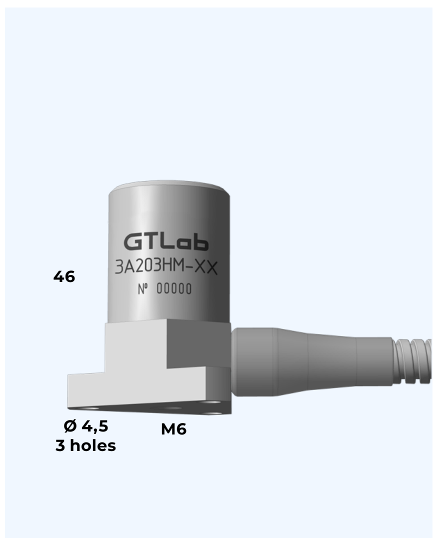
3A201TM-XX

3A201TH-XX

3A203HA-XX



3A203HM-XX

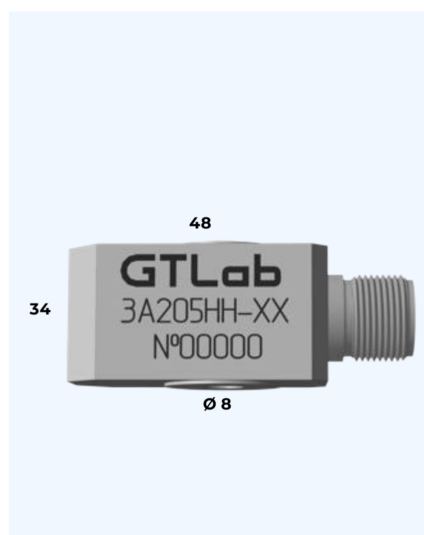


3A203HH-XX

3A205HA-XX

3A205HM-XX

3A205HH-XX



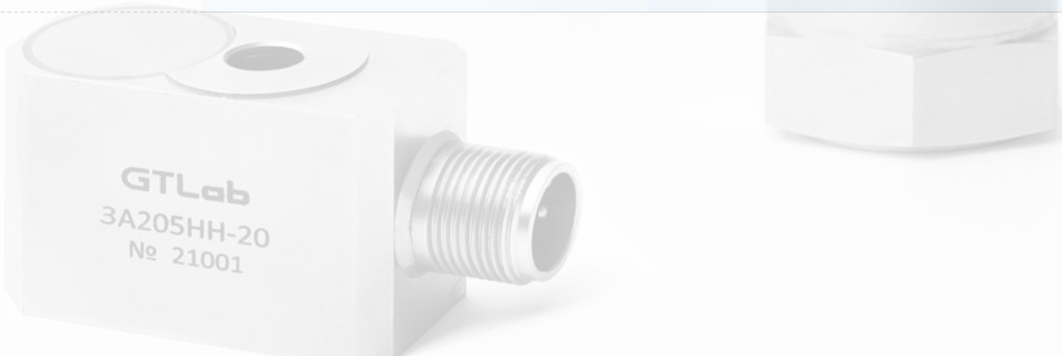
VIBRATION DISPLACEMENT SENSORS WITH CURRENT OUTPUT (CONTINUATION)

Table 1

3A20XXX	-160	-320	-640	-1280
Sensitivity of conversion by vibration current signal 4 ... 20 mA, base frequency 80 Hz (± 10 %), мA/μm	0,1	0,05	0,025	0,0125
Range of measured vibration displacement, magnitude, mkm	160	320	640	1280
Frequency range of the measured vibration displacement, Hz	10 ... 1 000			
Variation in frequency response relative to the base frequency 80 Hz, within, %	3 to minus 12.5			
Transverse sensitivity, %	< 5			
Temperature range, °C	–40 ... +85			
Coefficient of the effect of the ambient temperature, within limits %/°C	± 0,2			
Sensor supply voltage, V	+ (10 ... 24)			
Run mode setting time, s	< 4			
Housing material	stainless steel			
Explosion-proof	1Ex d IIC T6...T5 Gb, 0Ex ia IIC T6...T4 Ga			
Degree of protection from external influences	IP67			
Weight (without cable), g	table2 - A			
Supplied accessories	table2 - B			

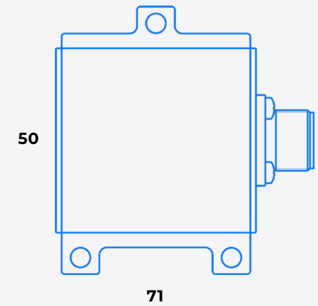
Table 2

	A	B
3A201TA-XX 3A201TM-XX 3A201TH-XX	60	pin P0606 anti-vibration cable 56H1A3 (for execution -TH)
3A203HA-XX 3A203HM-XX 3A203HH-XX	145	3 screwa M4 × 12 anti-vibration cable 56H1A3 (for execution -HH)
3A205HA-XX 3A205HM-XX 3A205HH-XX	330	screw M8 × 40 anti-vibration cable 56H1A3 (for execution -HH)



Vibration displacement sensors

3V201HP



	3V201HP
Measurement range, mkm	± 500
Operating frequency range with attenuation at the boundaries of no more than 1 dB, Hz	0,8 ... 200
Sensitivity at base frequency 45 Hz, мV/mkm	10 ± 0,5
Nonlinearity of the amplitude characteristic in the operating range of vibration displacements, %	< 1,5
Transverse sensitivity, % ,%	< 5
Temperature range, °C	–20 ... +85
Coefficient of the effect of the ambient temperature, within limits %/°C	0,15
Maximum impact, g	± 500
Run mode setting time after connecting the power, s	< 60
Noise level, mV	± 50
Power: ▪ voltage, V ▪ current, mA	 + (9 ... 15) < 15
Housing material	aluminum alloy
Permissible cable length to the recorder, m	100
Weight (without cable), g	150

Impulse hammers
force sensors

Impulse hammer

4V301D

	4V301D
Sensitivity (± 15%), mV/H	1
Peak dynamic force value, H: ▪ with a steel head ▪ with a plastic head ▪ with a rubber head	 5 000 1 000 700
Shock pulse duration, ms:	
▪ with a steel head	0,1 ... 0,4
▪ with a steel head and additional mass	0,2 ... 0,5
▪ with a plastic head	0,5 ... 0,9
▪ with a plastic head and additional mass	0,7 ... 1,2
▪ with a rubber head	1,3 ... 4
▪ with a rubber head and additional mass	4 ... 7
Hammer weight without additional weight and head, g	300
Additional mass, g	100
Head weight, g ▪ steel ▪ plastic ▪ rubber	 13 14 14
Temperature range, °C	–40 ... +125
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20
Noise level, root mean square value (1 Hz ... 10 kHz), H	$5 \cdot 10^{-3}$
Constant output voltage level, V	8 ... 13
Output impedance, Ohm	< 100
Connector type	BNC
Supplied accessories	hammer, padditional mass, psteel head, pplastic head, prubber head, cable 03D1D1 (as per customer's request)

Impulse hammer
4V302D

	4V302D
Sensitivity (± 15%), mV/H	10
▪ Peak dynamic force value, H: ▪ with a steel head ▪ with a plastic head ▪ with a rubber head	 500 100 70
Shock pulse duration, ms:	
▪ with a steel head	0,05 ... 0,2
▪ with a steel head and additional mass	0,1 ... 0,3
▪ with a plastic head	0,4 ... 0,6
▪ with a plastic head and additional mass	0,5 ... 0,8
▪ with a rubber head	1,2 ... 2,6
▪ with a rubber head and additional mass	1,7 ... 4
Hammer weight without additional weight and head, g	200
Additional mass, g	30
Head weight, g ▪ steel ▪ plastic ▪ rubber	 13 14 14
Temperature range, °C	–40 ... +125
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20
Noise level, root mean square value (1 Hz ÷ 10 kHz), H	$1 \cdot 10^{-3}$
Constant output voltage level, V	8 ... 13
Output impedance, Ohm	< 100
Connector type	BNC
Supplied accessories	hammer, padditional mass, psteel head, rubber head, plastic head, cable 03D1D1 (as per customer's request)

Impulse hammer

4V303D

	4V303D
Sensitivity (± 15%), mV/H	0,2
Peak dynamic force value, H: ▪ with a rigid plastic head ▪ with a semi-rigid plastic head ▪ with a soft plastic head	25 000 10 000 5 000
Shock pulse duration, ms: ▪ with a rigid plastic head ▪ with a semi-rigid plastic head ▪ with a soft plastic head	1 ... 4 4 ... 7 7 ... 11
Hammer weight without additional weight and head, g	2 000
Additional mass, g	300
Head weight, g ▪ rigid plastic head ▪ semi-rigid plastic head ▪ soft plastic head	230 260 260
Temperature range, °C	–40 ... +125
Power: ▪ voltage, V ▪ current, mA	+ (18 ... 30) 2 ... 20
Noise level, root mean square value (1 Hz ÷ 10 kHz), H	$3 \cdot 10^{-2}$
Constant output voltage level, V	8 ... 13
Output impedance, Ohm	< 100
Connector type	BNC
Supplied accessories	Additional mass rigid plastic head semi-rigid plastic head soft plastic head cable 03D1D1 (as per customer's request)

Impulse hammer
4V304D

	4V304D
Sensitivity (± 15%), mV/H	0,2
Peak dynamic force value, H: ▪ with a rigid plastic head ▪ with a semi-rigid plastic head ▪ with a soft plastic head	 25 000 10 000 5 000
Shock pulse duration, ms: ▪ with a rigid plastic head ▪ with a semi-rigid plastic head ▪ with a soft plastic head	 1 ... 4 4 ... 7 7 ... 11
Hammer weight, g	5 000
Head weight, g ▪ rigid plastic head ▪ semi-rigid plastic head ▪ soft plastic head	 230 260 260
Temperature range, °C	–40 ... +125
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20
Noise level, root mean square value (1 Hz ÷ 10 kHz), H	$3 \cdot 10^{-2}$
Constant output voltage level, V	8 ... 13
Output impedance, Ohm	< 100
Connector type	BNC
Supplied accessories	rigid plastic head semi-rigid plastic head soft plastic head cable 03D1D1 (as per customer's request)

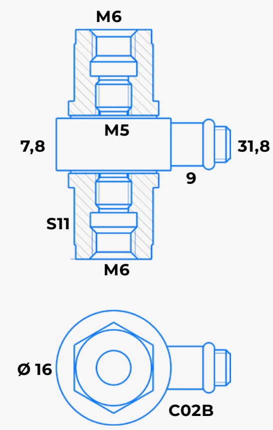
Уестчик силы

4C101HB-5

4C101HB	-5
Force measurement range, H	–1 000 ... +5 000
Sensitivity (± 20 %), pC/H (nominal value)	4
Transverse sensitivity, %	< 5
Ambient temperature effect coefficient, %/ °C	< 0,05
Temperature range, °C	–60 ... +200
Deformation sensitivity, H·m/μm	< 0,03
Electric capacity, pF	10 ... 14
Insulation resistance under normal conditions, MOhm	> 1 000
Resonant frequency, kHz	> 30
Effective inertial mass, g ▪ top of the piezoelectric element ▪ bottom of the piezoelectric element	 4 15
Housing material	stainless steel
Supplied accessories	cable 03B1B1 (as per customer's request) pin P0505
Weight (without cable), g	20

Yestчик силы

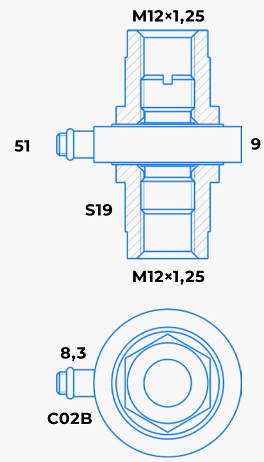
4C102HB-XX



4C102HB	-2,5	-25
Force measurement range, H	–2 500 ... +2 500	–4 400 ... +25 000
Sensitivity (± 20 %), pC/H (nominal value)	4	2
Transverse sensitivity, %	< 5	
Ambient temperature effect coefficient, %/ °C	< 0,05	
Temperature range, °C	–60 ... +200	
Deformation sensitivity, H·m/μm	< 300	
Electric capacity, pF	6 ... 9	9 ... 13
Insulation resistance under normal conditions, MOhm	> 1 000	
Resonant frequency, kHz	> 15	
Housing material	stainless steel	
Supplied accessories	Two load nuts M6, pin M5	
Weight, g	30	

Yeстчик силы

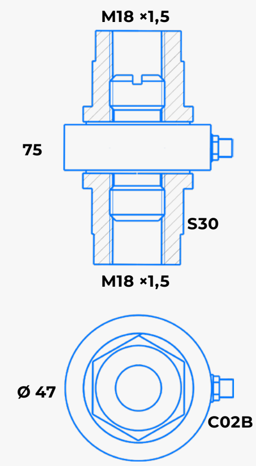
4C103HB-50



4C103HB	-50
Force measurement range, H	–25 000 ... +50 000
Sensitivity (± 20 %), pC/H (nominal value)	2
Transverse sensitivity, %	< 5
Ambient temperature effect coefficient, %/ °C	< 0,05
Temperature range, °C	–60 ... +200
Deformation sensitivity, H·m/µm	< 300
Electric capacity, pF	30 ... 42
Insulation resistance under normal conditions, MOhm	> 1 000
Resonant frequency, kHz	> 15
Housing material	stainless steel
Supplied accessories	Two load nuts M12×1,25 pin M12×1,25
Weight, g	35 135 (nut and pin)

Уестчик силы

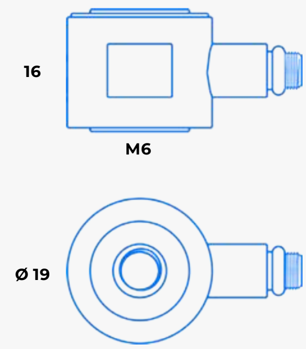
4C104HB-100



4C104HB	-100
Force measurement range, H	–50 000 ... +100 000
Sensitivity (± 20 %), pC/H (nominal value)	2
Transverse sensitivity, %	< 5
Ambient temperature effect coefficient, %/ °C	< 0,05
Temperature range, °C	–60 ... +200
Deformation sensitivity, H·m/μm	< 500
Electric capacity, pF	38 ... 50
Insulation resistance under normal conditions, MOhm	> 1 000
Resonant frequency, kHz	> 12
Housing material	stainless steel
Supplied accessories	Two load nuts M18 × 1,6 pin M18 × 1,5
Weight, g	110 450 (nut and pin)

Yestчик силы

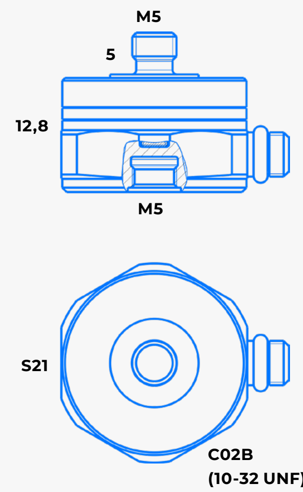
4C105HB-22



4C105HB	-22
Force measurement range, H	–2 200 ... +22 000
Sensitivity (± 20 %), pC/H (nominal value)	2
Transverse sensitivity, %	< 5
Ambient temperature effect coefficient, %/ °C	< 0,05
Temperature range, °C	–60 ... +200
Deformation sensitivity, H·m/μm	< 100
Electric capacity, pF	8 ... 16
Insulation resistance under normal conditions, MOhm	> 1 000
Resonant frequency, kHz	> 15
▪ Effective inertial mass ▪ top of the piezoelectric element ▪ bottom of the piezoelectric element	 10 20
Housing material	stainless steel
Supplied accessories	cable 03B1B1 (as per customer's request) pin P0506f (as per customer's request)
Weight (without cable), g	30

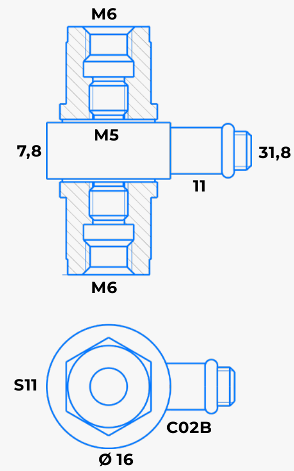
Yeстчик силы

4V101HB-XX



4V101HB	-0,5	-5
Force measurement range, H	–500 ... +500	–1 000 ... +5 000
Sensitivity (± 20 %), mV/H (nominal value)	10	1
Transverse sensitivity, %	< 5	
Ambient temperature effect coefficient, %/ °C	< 0,05	
Temperature range, °C	–40 ... +125	
Deformation sensitivity, H·m/μm	< 200	
Resonant frequency, kHz	> 25	
Noise level, root mean square value (1 Hz ÷ 10 kHz), H	0,2	2
Power: ▪ voltage, V ▪ current, mA	+ (18 ... 30) 2 ... 20	
Constant output voltage level, V	8 ... 13	
Output impedance, Ohm	< 100	
Time constant, s	≥ 20	≥ 40
Effective inertial mass ▪ from the top of the piezo element, g ▪ bottom of the piezo element, g	5 20	
Housing material	stainless steel	
Supplied accessories	pin P0505	
Weight (without cable), g	25	

Yeстчик силы
4V102HB-XX



4V102HB	-2,5	-25
Force measurement range, H	–2 500 ... +2 500	–4 400 ... +25 000
Sensitivity (± 20 %), mV/H (nominal value)	2	0,2
Transverse sensitivity, %	< 5	
Ambient temperature effect coefficient, %/ °C	< 0,05	
Temperature range, °C	–40 ... +125	
Deformation sensitivity, H·m/µm	< 300	
Resonant frequency, kHz	> 15	
Noise level, root mean square value (1 Hz ÷ 10 kHz), H	0,5	5
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20	
Constant output voltage level, V	8 ... 13	
Output impedance, Ohm	< 100	
Time constant, s	≥ 40	
Housing material	stainless steel	
Supplied accessories	Two load nuts M6 pin M5	
Weight, g	30	

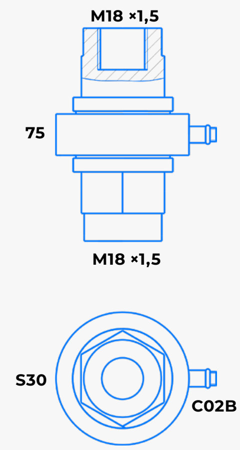
Yeстчик силы

4V103HB-XX

4V103HB	-25	-50
Force measurement range, H	–2 500 ... +25 000	–25 000 ... +50 000
Sensitivity (± 20 %), mV/H (nominal value)	0,2	0,1
Transverse sensitivity, %	< 5	
Ambient temperature effect coefficient, %/ °C	< 0,05	
Temperature range, °C	–40 ... +125	
Deformation sensitivity, H·m/µm	< 300	
Resonant frequency, kHz	> 15	
Noise level, root mean square value (1 Hz ÷ 10 kHz), H	0,5	5
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20	
Constant output voltage level, V	8 ... 13	
Output impedance, Ohm	< 100	
Time constant, s	≥ 40	
Housing material	stainless steel	
Supplied accessories	Two load nuts M12×1,25 pin M12×1,25	
Weight, g	36 135 (nut and pin)	

Yeстчик силы

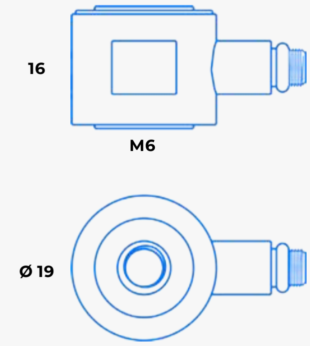
4V104HB-100



4V104HB	-100
Force measurement range, H	–50 000 ... +100 000
Sensitivity (± 20 %), mV/H (nominal value)	0,05
Transverse sensitivity, %	< 5
Ambient temperature effect coefficient, %/ °C	< 0,05
Temperature range, °C	–40 ... +125
Deformation sensitivity, H·m/μm	< 500
Resonant frequency, kHz	> 12
Noise level, root mean square value (1 Hz ÷ 10 kHz), H	10
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 2 ... 20
Constant output voltage level, V	8 ... 13
Output impedance, Ohm	< 100
Time constant, s	≥ 40
Housing material	stainless steel
Supplied accessories	Two load nuts M18 × 1,6 pin M18 × 1,5
Weight, g	110 450 (nut and pin)

Yestчик силы

4V105HB-XX



4V105HB	-2,5	-5	-25
Force measurement range, H	–2 500 ... +2 500	–5 000 ... +5 000	–2 500 ... +25 000
Sensitivity (± 20 %), mV/H (nominal value)	2	1	0,2
Transverse sensitivity, %	< 5		
Ambient temperature effect coefficient, %/ °C	< 0,05		
Temperature range, °C	–40 ... +125		
Deformation sensitivity, H·m/μm	< 200		
Resonant frequency, kHz	> 15		
Noise level, root mean square value (1 Hz ÷ 10 kHz), H	0,3	0,6	3
▪ Power: ▪ voltage, V ▪ current, mA	+ (18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Output impedance, Ohm	< 100		
Time constant, s	≥ 40		≥ 20
Effective inertial mass ▪ from the top of the piezo element, g ▪ bottom of the piezo element, g	10 20		
Housing material	stainless steel		
Supplied accessories	cable 03B1D1 (as per customer's request) pin P0506f (as per customer's request)		
Weight (without cable), g	30		

Dynamic pressure sensors

With charge output

With voltage output

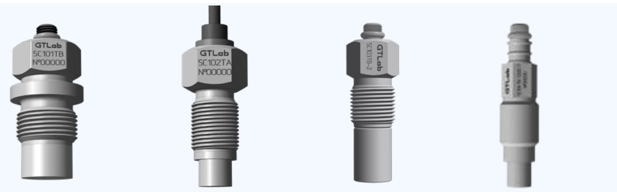
DYNAMIC PRESSURE SENSORS

High-temperature Industrial dynamic pressure sensors with charge output are used for monitoring and research of dynamic processes in industrial power facilities, internal combustion engines, gas turbines.

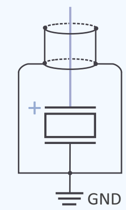
With charge output

General purpose

Measurement of parameters of vibration processes of medium and high intensity



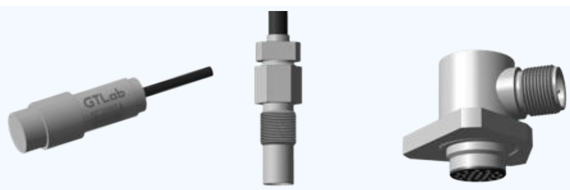
Series5C101 Series5C102 Series5C103 Series5C104



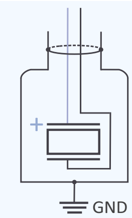
Pages::

Industrial

Industrial equipment condition monitoring in conditions of strong industrial interference



Series5C201 Series5C202 Series5C203

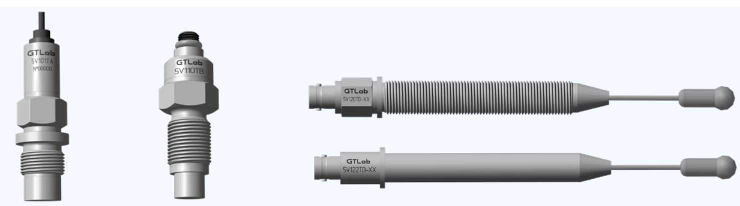


Pages::

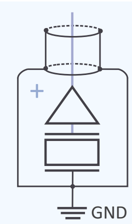
With digital output

General purpose

Measurement of parameters of vibration processes of medium and high intensity



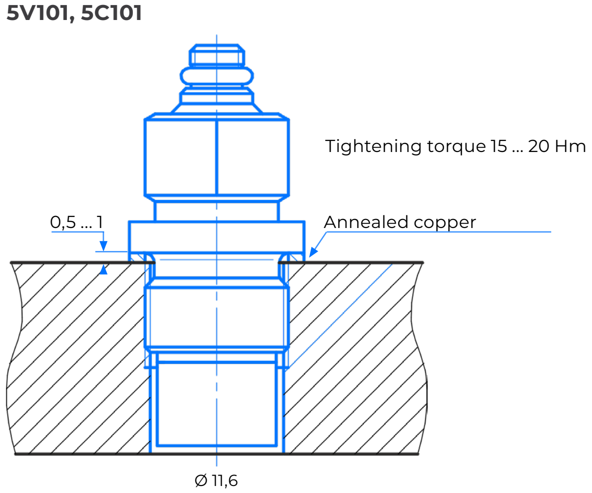
Series5V101 Series5V110 Series5V120 5V121 5V122 5V123



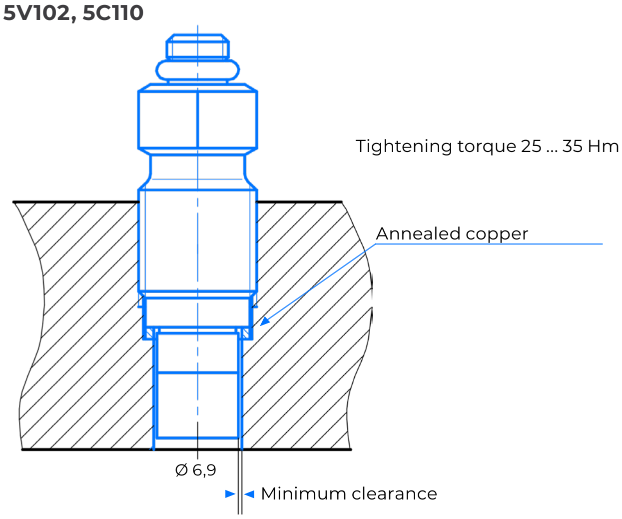
Pages::

Installation of dynamic pressure sensors

5V101, 5C101



5V102, 5C110



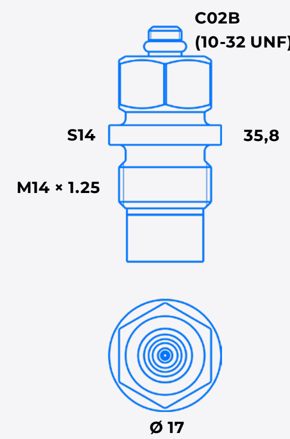
Dynamic pressure sensors

5C101TA-250-XX

5C101TA	-250-20	-250-400	-250 -60
Upper limit of measurement, MPa	25		
Sensitivity, pC/MPa	200	4 000	600
Limits of the permissible basic error reduced to the upper limit of measurement, %	± 2,5		
Resonant frequency, kHz	> 30		
Sensitivity to acceleration, MPa/g	< 0,00005 1g = 9,807 m·s–2 or 10 m·s–2 = 1,02 g		
Temperature range, °C	–60 ... +200		–60 ... +400
Electric capacity, pF (with built-in cable length 2 m)	180 ... 220	230 ... 270	200 ... 250
Insulation resistance under normal conditions, MOhm	> 10 000		
Housing material	stainless steel		
Membrane material	stainless steel		
Degree of protection from external influences	IP68 Hermetic design (can be used at a depth of up to 50m)		
Weight (without cable and connector), g	40		
Supplied accessories	sealing ring R01 (1 pieces.)		

Dynamic pressure sensors

5C101TB-250-XX



5C101TB	-250 -20	-250-400	-250-60
Upper limit of measurement, MPa	25		
Sensitivity, pC/MPa	200	4 000	600
Limits of the permissible basic error reduced to the upper limit of measurement, %	± 2,5		
Resonant frequency, kHz	> 30		
Sensitivity to acceleration, MPa/g	< 0,00005 1g = 9,807 m·s–2 or 10 m·s–2 = 1,02 g		
Temperature range, °C	–60 ... +200		–60 ... +400
Electric capacity, pF	7 ... 12	50 ... 70	20 ... 30
Insulation resistance under normal conditions, MOhm	> 10 000		
Housing material	stainless steel		
Membrane material	stainless steel		
Degree of protection from external influences	IP65		
Weight (without cable and connector), g	40		
Supplied accessories	cable 03B1B1 (as per customer's request), sealing ring R01 (1 pieces.)		

Dynamic pressure sensors
5C102TA-2500-XX

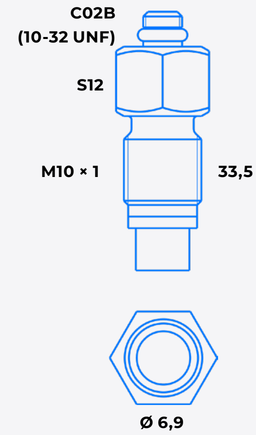
5C102TA	-2500-7	-2500 -140	-2500 -20
Upper limit of measurement, MPa	250		
Sensitivity, pC/MPa	70	1400	200
Limits of the permissible basic error reduced to the upper limit of measurement, %	± 2,5		
Resonant frequency, kHz	> 100		
Sensitivity to acceleration, MPa/g	< 0,00005 1g = 9,807 m·s–2 or10 m·s–2 = 1,02 g		
Temperature range, °C	– 60 ... + 200		–60 ... +400
Electric capacity, pF (with built-in cable length 2 m)	170 ... 230	250 ... 270	200 ... 250
Insulation resistance under normal conditions, MOhm	> 10 000		
Housing material	stainless steel		
Membrane material	stainless steel		
Degree of protection from external influences	IP68 Hermetic design (can be used at a depth of up to 50m)		
Weight (without cable and connector), g	15		
Supplied accessories	sealing ring R01 (1 pieces.)		

Dynamic pressure sensors

5C102TA-250-XX

5C102TA	-250-7	-250 -140	-250 -20
Upper limit of measurement, MPa	25		
Sensitivity, pC/MPa	70	1400	200
Limits of the permissible basic error reduced to the upper limit of measurement, %	± 2,5		
Resonant frequency, kHz	> 100		
Sensitivity to acceleration, MPa/g	< 0,00005 1g = 9,807 m·s–2 or 10 m·s–2 = 1,02 g		
Temperature range, °C	– 60 ... + 200		–60 ... +400
Electric capacity, pF (with built-in cable length 2 m)	170 ... 230	250 ... 270 пФ	200 ... 250
Insulation resistance under normal conditions, MOhm	> 10 000		
Housing material	stainless steel		
Membrane material	stainless steel		
Degree of protection from external influences	IP68 Hermetic design (can be used at a depth of up to 50m)		
Weight (without cable and connector), g	15		
Supplied accessories	sealing ring R02 (1 pieces.)		

Dynamic pressure sensors
5C102TB-2500-XX



5C102TB	-2500-7	-2500 -140	-2500 -20
Upper limit of measurement, MPa	250		
Sensitivity, pC/MPa	70	1400	200
Limits of the permissible basic error reduced to the upper limit of measurement, %	± 2,5		
Resonant frequency, kHz	> 100		
Sensitivity to acceleration, MPa/g	< 0,00005 1g = 9,807 m·s–2 or 10 m·s–2 = 1,02 g		
Temperature range, °C	–60 ... +200		–60 ... +400
Electric capacity, pF	7 ... 12	50 ... 70	20 ... 30
Insulation resistance under normal conditions, MOhm	> 10 000		
Housing material	stainless steel		
Membrane material	stainless steel		
Degree of protection from external influences	IP65		
Weight (without cable and connector), g	15		
Supplied accessories	cable 03B1D1 (as per customer's request) sealing ring R02 (1 pieces.)		

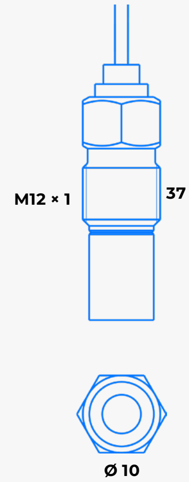
Dynamic pressure sensors

5C102TB-250-XX

5C102TB	-250-7	-250 -140	-250 -20
Upper limit of measurement, MPa	25		
Sensitivity, pC/MPa	70	1400	200
Limits of the permissible basic error reduced to the upper limit of measurement, %	± 2,5		
Resonant frequency, kHz	> 100		
Sensitivity to acceleration, MPa/g	< 0,00005 1g = 9,807 m·s–2 or 10 m·s–2 = 1,02 g		
Temperature range, °C	–60 … +200		–60 … +400
Electric capacity, pF	7 … 12	50 … 70	20 … 30
Insulation resistance under normal conditions, MOhm	> 10 000		
Housing material	stainless steel		
Membrane material	stainless steel		
Degree of protection from external influences	IP65		
Weight (without cable and connector), g	15		
Supplied accessories	cable 03B1D1 (as per customer's request) sealing ring R02 (1 pieces.)		

Dynamic pressure sensors

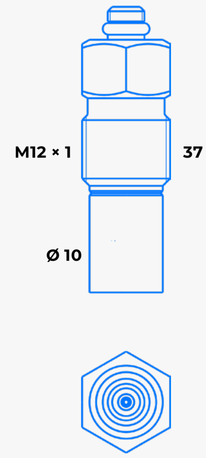
5C103TA-6000 -2



5C103TA	-6000-2
Upper limit of measurement, MPa	600
Sensitivity, pC/MPa	20
Limits of the permissible basic error reduced to the upper limit of measurement, %	± 3
Resonant frequency, kHz	> 150
Sensitivity to acceleration, MPa/g	< 0,0001 1g = 9,807 m·s–2 or 10 m·s–2 = 1,02 g
Temperature range, °C	– 60 ... + 200
Electric capacity, pF (with built-in cable length 2 m)	180 ... 220
Insulation resistance under normal conditions, MOhm	> 10 000
Housing material	stainless steel
Membrane material	stainless steel
Degree of protection from external influences	IP68 Hermetic design (can be used at a depth of up to 50m)
Weight (without cable and connector), g	25
Supplied accessories	sealing ring R03 (1 pieces.)

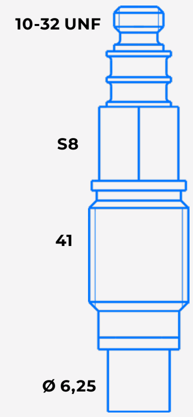
Dynamic pressure sensors

5C103TB-6000 -2



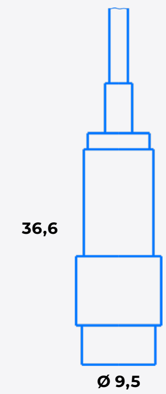
5C103TB	-6000-2
Upper limit of measurement, MPa	600
Sensitivity, pC/MPa	20
Limits of the permissible basic error reduced to the upper limit of measurement, %	± 3
Resonant frequency, kHz	> 150
Sensitivity to acceleration, MPa/g	< 0,0001 1g = 9,807 m·s–2 or 10 m·s–2 = 1,02 g
Temperature range, °C	– 60 ... + 200
Electric capacity with a cable length of 2m, pF	180 ... 220
Insulation resistance under normal conditions, MOhm	> 10 000
Housing material	stainless steel
Membrane material	stainless steel
Degree of protection from external influences	IP65
Weight (without cable and connector), g	25
Supplied accessories	cable 03B1B1 (as per customer's request) sealing ring R03 (1 pieces.)

Dynamic pressure sensors
5C104TB-1200 -7



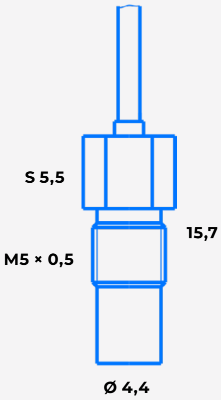
5C104TB	-1200-7
Upper limit of measurement, MPa	120
Sensitivity, pC/MPa	6,5
Limits of the permissible basic error reduced to the upper limit of measurement, %	± 2,5
Resonant frequency, kHz	> 200
Sensitivity to acceleration, MPa/g	< 0,00004 1g = 9,807 m·s–2 or 10 m·s–2 = 1,02 g
Temperature range, °C	– 60 ... + 200
Electric capacity, pF (with built-in cable length 2 m)	4 ... 6
Insulation resistance under normal conditions, MOhm	> 10 000
Housing material	stainless steel
Membrane material	stainless steel
Degree of protection from external influences	IP65 Waterproof version (can be used at a depth of up to 50 m)
Weight (without cable and connector), g	15
Supplied accessories	sealing ring R06 (1 pieces.)

Dynamic pressure sensors
5C201TA-XX-XX



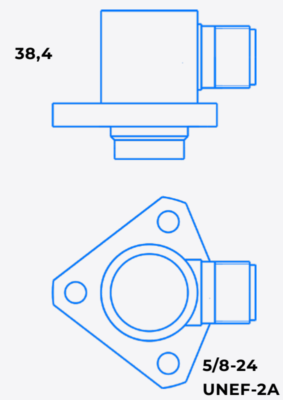
5C201TA	-250-200	-100-60
Upper limit of measurement, MPa	25	10
Sensitivity, pC/MPa	2000 ±40	600 ±60
Limits of permissible basic error reduced to the upper limit of measurements, %	± 3	
Resonant frequency, kHz	> 80	
Acceleration sensitivity, MPa/m·c²	< 0,000015 1g = 9,807 m·s–2 or 10 m·s–2 = 1,02 g	
Temperature range, °C: ▪ long-term ▪ short term (less than 100 hours)	 –30 ... +470 –50 ... +520	 –30 ... +550 –50 ... +600
Electric capacity, pF	180 ... 220	
Insulation resistance under normal conditions, MOhm	> 1 000	> 10 000
Insulation resistance at 400 °C, kOhm	> 50	> 10
Housing material	stainless steel	
Membrane material	stainless steel	
Weight (without cable and connector), g	15	
Supplied accessories	sealing ring R05 (1 pieces.)	
Features		two-core, insulated from the housing output

5C202TA-250-20



5C202TA	-250-20
Upper limit of measurement, MPa	25
Sensitivity (± 20 %), pC/MPa	200
Limits of the permissible basic error reduced to the upper limit of measurement, %	± 3
Resonant frequency, kHz	> 150
Sensitivity to acceleration, MPa/g	< 0,00003 1g = 9,807 m·s–2 or 10 m·s–2 = 1,02 g
Temperature range, °C	–40 ... +400
Electric capacity, pF	7 (без кабеля)
Insulation resistance under normal conditions, MOhm	> 1 000
Housing material	stainless steel
Membrane material	stainless steel
Supplied accessories	sealing ring R05 (1 pieces.)

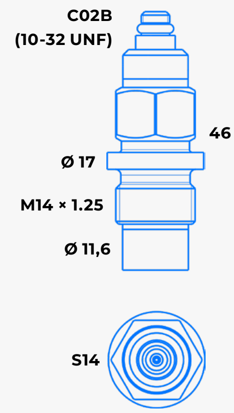
5C203HH-100-170



5C203HH	-100-170
Upper limit of measurement, MPa	2
Permissible overload pressure, MPa	10
Sensitivity, pC/MPa	1 700
Limits of the permissible basic error reduced to the upper limit of measurement, %	± 2
Resonant frequency, kHz	> 30
Sensitivity to acceleration, MPa/g	< 0,00005 1g = 9,807 m·s–2 or 10 m·s–2 = 1,02 g
Temperature range, °C	– 70 ... + 350
Electric capacity, pF (без кабеля)	40
Insulation resistance, MOhm ▪ normal conditions ▪ + 350 °C	 > 10 000 > 10
Influence coefficient of the medium temperature, %/ °C	≤ 0,04
Housing material	stainless steel
Membrane material	stainless steel
Weight (without cable and connector), g	130
Supplied accessories	cable 55H1A3
Feature	functional counterpart of the firm Meggitt CP104

Dynamic pressure sensors

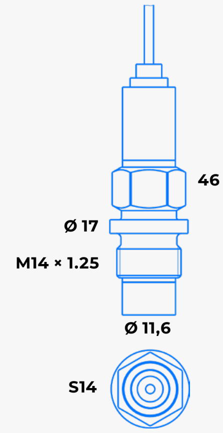
5V101TB-XX



5V101TB	-0,6	-6	-60	-250
Upper limit of measurement, MPa	0,06	0,6	6	25
Sensitivity, mV/MPa	80 000	8 000	800	200
Limits of the permissible basic error reduced to the upper limit of measurement, %	± 2,5			
Resonant frequency, kHz	> 30			
Sensitivity to acceleration, MPa/g	< 0,00005 1g = 9,807 $m \cdot s^{-2}$ or 10 $m \cdot s^{-2}$ = 1,02 g			
Temperature range, °C	– 60 ... + 125			
Output impedance, Ohm	< 100			
Power: ▪ voltage, V ▪ current, mA	+ (15 ... 30) 2 ... 20			
Constant output voltage level, V	8 ... 11			
Housing material	stainless steel			
Membrane material	stainless steel			
Degree of protection from external influences	IP65			
Weight (without cable and connector), g	40			
Supplied accessories	cable 03B1D1 (as per customer's request) sealing ring R01			

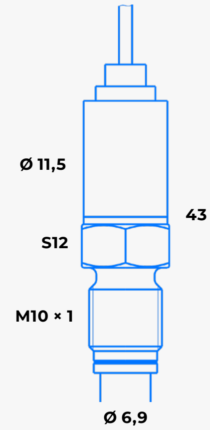
Dynamic pressure sensors

5V101TA-XX



5V101TA	-0,6	-6	-60	-250
Upper limit of measurement, MPa	0,06	0,6	6	25
Sensitivity, mV/MPa	80 000	8 000	800	200
Limits of the permissible basic error reduced to the upper limit of measurement, %	± 2,5			
Resonant frequency, kHz	> 30			
Sensitivity to acceleration, MPa/g	< 0,00005 1g = 9,807 $m \cdot s^{-2}$ or 10 $m \cdot s^{-2}$ = 1,02 g			
Temperature range, °C	–60 ... +125			
Output impedance, Ohm	< 100			
Power: ▪ voltage, V ▪ current, mA	 + (15 ... 30) 2 ... 20			
Constant output voltage level, V	8 ... 11			
Housing material	stainless steel			
Membrane material	stainless steel			
Degree of protection from external influences	IP68 Hermetic design (can be used at a depth of up to 50m)			
Weight (without cable and connector), g	40			
Supplied accessories	sealing ring R01 (2 pieces.)			

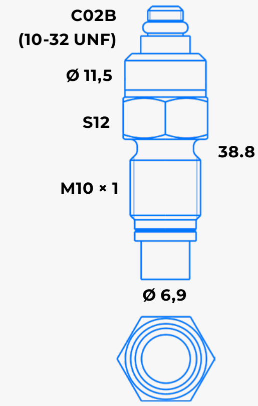
Dynamic pressure sensors
5V110TA-XX



5V110TA	-6	-600	-1000	-1600	-2500
Upper limit of measurement, MPa	0,6	60	100	160	250
Sensitivity, mV/MPa	8 000	80	50	30	20
Limits of the permissible basic error reduced to the upper limit of measurement, %	± 2,5				
Resonant frequency, kHz	> 100				
Sensitivity to acceleration, MPa/g	< 0,00005 1g = 9,807 m·s^{-2} or 10 m·s^{-2} = 1,02 g				
Temperature range, °C	– 60 … + 125				
Output impedance, Ohm	< 100				
Power: ▪ voltage, V ▪ current, mA	 + (15 … 30) 2 … 20				
Constant output voltage level, V	8 … 11				
Housing material	stainless steel				
Membrane material	stainless steel				
Degree of protection from external influences	IP68 Waterproof version (can be used at a depth of up to 50 m)				
Weight (without cable and connector), g	25				
Supplied accessories	sealing ring R02 (2 pieces.)				

Dynamic pressure sensors

5V110TB-XX



5V110TB	-6	-600	-1000	-1600	-2500
Upper limit of measurement, MPa	0,6	60	100	160	250
Sensitivity, mV/MPa	8 000	80	50	30	20
Limits of the permissible basic error reduced to the upper limit of measurement, %	± 2,5				
Resonant frequency, kHz	> 100				
Sensitivity to acceleration, MPa/g	< 0,00005 1g = 9,807 m·s⁻² or 10 m·s⁻² = 1,02 g				
Temperature range, °C	–60 ... +125				
Output impedance, Ohm	< 100				
Power: ▪ voltage, V ▪ current, mA	 + (15 ... 30) 2 ... 20				
Constant output voltage level, V	8 ... 11				
Membrane material	stainless steel				
Degree of protection from external influences	IP65				
Weight (without cable and connector), g	25				
Supplied accessories	cable 03B1D1 (as per customer's request) sealing ring R02 (2 pieces.)				

Dynamic pressure sensors

5V120TA-XX, 5V120TD-XX

5V120TA/TD	-0,02	-1,5	-10	-25	-60	-100
Upper limit of measurement, kPa	2	150	1 000	2 500	6 000	10 000
Sensitivity, mV/kPa	2500	30	5	2	0,8	0,5
Limits of the permissible basic error reduced to the upper limit of measurement, %	± 2					
Upper limit of the operating frequency range, kHz	> 25					
Temperature range, °C	– 50 ... + 85					
Output impedance, Ohm	< 100					
Power: ▪ voltage, V ▪ current, mA	+ (15 ... 30) 2 ... 20					
Constant output voltage level, V	8 ... 11					
Housing material	stainless steel					
Housing design	carving M14×1,25					
Degree of protection from external influences	IP65 IP68 Hermetic design, for execution -TA (can be used at a depth of up to 50 m)					
Weight (without cable and connector), g	110					
Supplied accessories	mounting nut M14×1,25 - 2 pc cable 03D1D1 (as per customer's request, for execution -TD)					

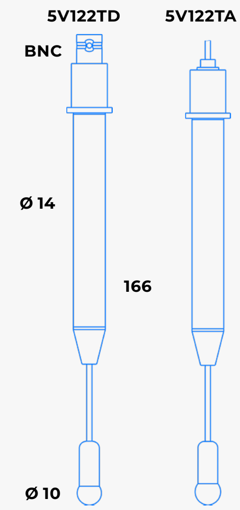
Dynamic pressure sensors

5V121TA-XX

5V121TA	-10	-25	-60	-100
Upper limit of measurement, kPa	1 000	2 500	6 000	10 000
Sensitivity, mV/kPa	5	2	0,8	0,5
Limits of the permissible basic error reduced to the upper limit of measurement, %	± 2			
Upper limit of the operating frequency range, kHz	> 25			
Temperature range, °C	– 30 ... + 50			
Output impedance, Ohm	< 100			
Power: ▪ voltage, V ▪ current, mA	 + (15 ... 30) 2 ... 20			
Constant output voltage level, V	8 ... 11			
Housing material	stainless steel			
Housing design	carving M14×1,25			
Degree of protection from external influences	IP68 Hermetic design (can be used at a depth of up to 50m)			
Weight (without cable and connector), g	110			
Supplied accessories	mounting nut M14×1,25 - 2 шт			

5V121TD	-10	-25	-60	-100
Upper limit of measurement, kPa	1 000	2 500	6 000	10 000
Sensitivity, mV/kPa	5	2	0,8	0,5
Limits of the permissible basic error reduced to the upper limit of measurement, %	± 2			
Upper limit of the operating frequency range, kHz	> 25			
Temperature range, °C	– 30 ... + 50			
Output impedance, Ohm	< 100			
Power: ▪ voltage, V ▪ current, mA	+ (15 ... 30) В 2 ... 20 мА			
Constant output voltage level, V	8 ... 11 В			
Housing material	stainless steel			
Housing design	carving M14×1,25			
Degree of protection from external influences	IP65			
Weight (without cable and connector), g	110			
Supplied accessories	mounting nut M14×1,25 - 2 шт cable 03D1D1 (as per customer's request)			

5V122TD-XX, 5V122TA-XX



5V122TD/TA	-1,5	-10	-25	-60	-100
Upper limit of measurement, kPa	150	1 000	2 500	6 000	10 000
Sensitivity, mV/kPa	30	5	2	0,8	0,5
Limits of the permissible basic error reduced to the upper limit of measurement, %	± 2				
Upper limit of the operating frequency range, kHz	> 25				
Temperature range, °C	– 30 ... + 50				
Output impedance, Ohm	< 100				
Power: ▪ voltage, V ▪ current, mA	+ (15 ... 30) 2 ... 20				
Constant output voltage level, V	8 ... 11				
Housing material	stainless steel				
Housing design	smooth				
Degree of protection from external influences	IP65 IP68 Hermetic design, for execution -TA (can be used at a depth of up to 50 m)				
Weight (without cable and connector), g	110				
Supplied accessories	mounting nut M14×1,25 - 2 шт, cable 03D1D1 (as per customer's request, for execution -TD)				

Dynamic pressure sensors

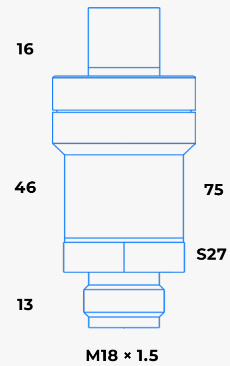
5V123TD-XX, 5V123TA-XX

5V123TD/TA	-10	-25	-60	-100
Upper limit of measurement, kPa	1 000	2 500	6 000	10 000
Sensitivity, mV/kPa	5	2	0,8	0,5
Limits of the permissible basic error reduced to the upper limit of measurement, %	± 2			
Upper limit of the operating frequency range, kHz	> 25			
Temperature range, °C	– 30 ... + 50			
Output impedance, Ohm	< 100			
Power: ▪ voltage, V ▪ current, mA	+ (15 ... 30) 2 ... 20			
Constant output voltage level, V	8 ... 11			
Housing material	stainless steel			
Housing design	smooth			
Degree of protection from external influences	IP65 IP68 Hermetic design, for execution -TA (can be used at a depth of up to 50 m)			
Weight (without cable and connector), g	110			
Supplied accessories	mounting nut M14×1,25 - 2 шт cable 03D1D1 (as per customer's request, for execution -TD)			

Static-dynamic pressure sensors

Static-dynamic pressure sensors

6V201TP-XX



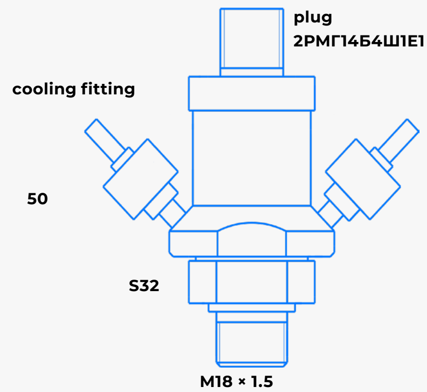
As per customer's request from M18 to M8

6V201TP	-XX	-XX-5
Measurement range, MPa	according to table 1	
Output voltage, V	10	5
Resonant frequency, kHz	according to table 2	
Sensitivity to acceleration, MPa/g	$2{,}5{\cdot}10^{-4}$	
Limits of the permissible basic error reduced to the upper limit of measurement, %	±1 (± 0,4; ± 0,6 As per customer's request)	
Ambient temperature, °C	–50 ... +85	
Temperature of the measured medium, °C	–50 ... +300	
Supply voltage, V	+(11 ... 14)	
Consumed current, mA	< 30	
Housing material	stainless steel	
Weight (without cable), g	200	

6V201TP	ТАБЛ. 1	ТАБЛ. 2
6V201TP-16, 6V201TP-16-5	from –0,1 до 1,5	18
6V201TP-25, 6V201TP-25-5	from –0,1 до 2,4	22
6V201TP-40, 6V201TP-40-5	from 0 до 4	28
6V201TP-60, 6V201TP-60-5	from 0 до 6	32
6V201TP-100, 6V201TP-100-5	from 0 до 10	45
6V201TP-160, 6V201TP-160-5	from 0 до 16	55
6V201TP-250, 6V201TP-250-5	from 0 до 25	70
6V201TP-400, 6V201TP-400-5	from 0 до 40	90
6V201TP-600, 6V201TP-600-5	from 0 до 60	100
6V201TP-1000, 6V201TP-1000-5	from 0 до 100	140
6V201TP-1600, 6V201TP-1600-5	from 0 до 160	170

Static-dynamic pressure sensors

6V202TP-XX



As per customer's request from M18 до M8

6V202TP	-XX	-XX-5
Measurement range, MPa	according to table1	
Output voltage, V	10	5
Resonant frequency, kHz	according to table2	
Sensitivity to acceleration, MPa/g	$4{,}5 \cdot 10^{-4}$	
Ambient temperature, °C	–50 ... +85	
Temperature of the measured medium, °C ▪ without cooling ▪ with cooling	 –50 ... +300 +1000	
Supply voltage, V	+(9 ... 15)	
Consumed current, mA	< 30	
Housing material	stainless steel	
Weight (without cable), g	200	

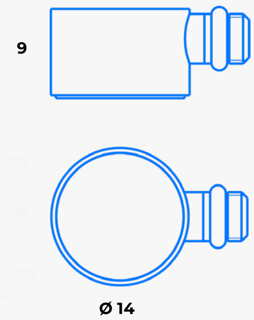
6V202TP	ТАБЛ. 1	ТАБЛ. 2
6V202TP-16, 6V202TP-16-5	from –0,1 до 1,6	18
6V202TP-25, 6V202TP-25-5	from –0,1 до 2,5	22
6V202TP-40, 6V202TP-40-5	from –0,1 до 4	28
6V202TP-60, 6V202TP-60-5	from –0,1 до 6	32
6V202TP-100, 6V202TP-100-5	from –0,1 до 10	45
6V202TP-160, 6V202TP-160-5	from –0,1 до 16	55
6V202TP-250, 6V202TP-250-5	from –0,1 до 25	70
6V202TP-400, 6V202TP-400-5	from –0,1 до 40	90
6V202TP-600, 6V202TP-600-5	from –0,1 до 60	100
6V202TP-1000, 6V202TP-1000-5	from –0,1 до 100	140

Acoustic emission sensors

7C101HA

7C101HA	
Maximum value of electroacoustic conversion coefficient in the operating frequency range when exposed to longitudinal waves, V/m	> 1 000 · 10^6
Resonant frequency, kHz	110
Frequency range, kHz	50 ... 250
Electric capacity with a cable length of 0.5 m, pF	200 ... 400
Insulation resistance under normal conditions, MOhm	> 1 000
Temperature range, °C	–194 ... +150
Housing material	stainless steel
Weight (without cable), g	10

7C101HB



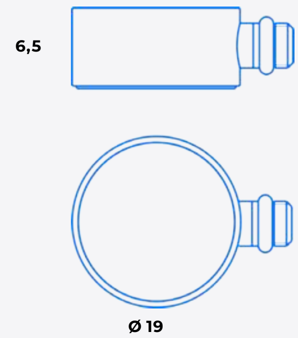
	7C101HB
Maximum value of electroacoustic conversion coefficient in the operating frequency range when exposed to longitudinal waves, V/m	> 1 000 · 10^6
Resonant frequency, kHz	110
Frequency range, kHz	50 ... 250
Electric capacity with a cable length of 0.5 m, pF	200 ... 400
Insulation resistance under normal conditions, MOhm	> 1 000
Temperature range, °C	–60 ... +120
Housing material	stainless steel
Weight (without cable), g	10

Acoustic emission sensors

7C102HA

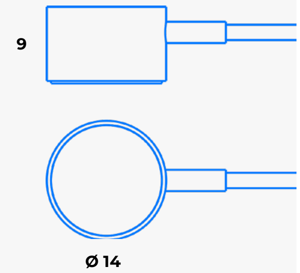
	7C102HA
Maximum value of electroacoustic conversion coefficient in the operating frequency range when exposed to longitudinal waves, V/m	> $550 \cdot 10^6$
Resonant frequency, kHz	630
Frequency range, kHz	500 ... 800
Electric capacity with a cable length of 0.5 m, pF	400 ... 650
Insulation resistance under normal conditions, MOhm	> 1 000
Temperature range, °C	–194 ... +150
Housing material	stainless steel
Weight (without cable), g	10

7C102HB



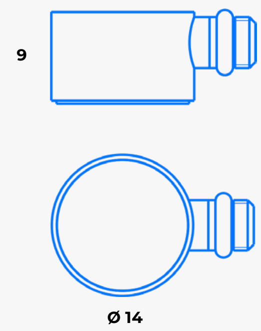
	7C102HB
Maximum value of electroacoustic conversion coefficient in the operating frequency range when exposed to longitudinal waves, V/m	> 550 · 10^6
Resonant frequency, kHz	630
Frequency range, kHz	500 ... 800
Electric capacity with a cable length of 0.5 m, pF	400 ... 650
Insulation resistance under normal conditions, MOhm	> 1 000
Temperature range, °C	–60 ... +120
Housing material	stainless steel
Weight, g	15

7C103HA



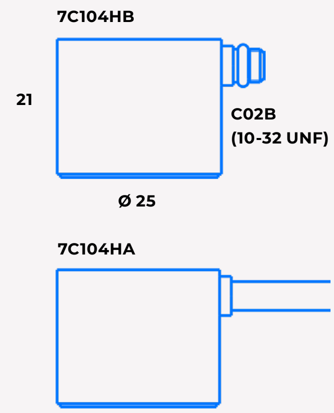
	7C103HA
Maximum value of electroacoustic conversion coefficient in the operating frequency range when exposed to longitudinal waves, V/m	> $300 \cdot 10^6$
Resonant frequency, kHz	194
Frequency range, kHz	50 ... 750
Electric capacity with a cable length of 0.5 m, pF	150 ... 300
Insulation resistance under normal conditions, MOhm	> 1 000
Temperature range, °C	–105 ... +150
Housing material	stainless steel
Weight (without cable), g	5

7C103HB



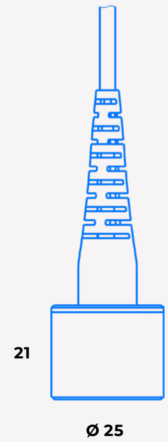
	7C103HB
Maximum value of electroacoustic conversion coefficient in the operating frequency range when exposed to longitudinal waves, V/m	> $300 \cdot 10^6$
Resonant frequency, kHz	194
Frequency range, kHz	50 ... 750
Electric capacity with a cable length of 0.5 m, pF	150 ... 300
Insulation resistance under normal conditions, MOhm	> 1 000
Temperature range, °C	–60 ... +120
Housing material	stainless steel
Weight, g	6

Acoustic emission sensors
7C104HB, 7C104HA



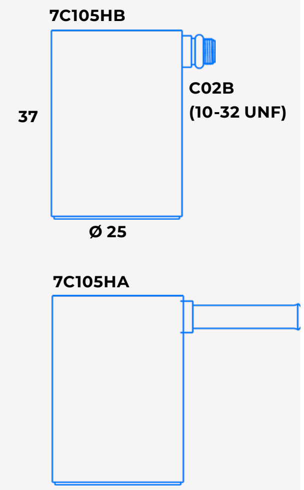
	7C104HB/HA
Maximum value of electroacoustic conversion coefficient in the operating frequency range when exposed to surface waves, V/m	> 1 500 · 10^6
Resonant frequency, kHz	63
Frequency range, kHz	40 … 100
Electric capacity with a cable length of 0.5 m, pF	130 … 180
Insulation resistance under normal conditions, MOhm	> 1 000
Temperature range, °C	–40 … +70
Housing material	stainless steel
Weight, g	60

7C104TA



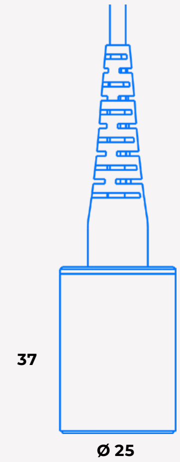
	7C104TA
Maximum value of electroacoustic conversion coefficient in the operating frequency range when exposed to surface waves, V/m	> 1 500 · 10^6
Resonant frequency, kHz	63
Frequency range, kHz	40 ... 100
Electric capacity with a cable length of 0.5 m, pF	130 ... 180
Insulation resistance under normal conditions, MOhm	> 1 000
Temperature range, °C	–40 ... +70
Housing material	stainless steel
Weight, g	60

7C105HB, 7C105HA



	7C105HB/HA
Maximum value of electroacoustic conversion coefficient in the operating frequency range when exposed to surface waves, V/m	> 1 500 · 10^6
Resonant frequency, kHz	48
Frequency range, kHz	30 ... 80
Electric capacity with a cable length of 0.5 m, pF	100 ... 150
Insulation resistance under normal conditions, MOhm	> 1 000
Temperature range, °C	–40 ... +70
Housing material	stainless steel
Weight, g	100

7C105TA



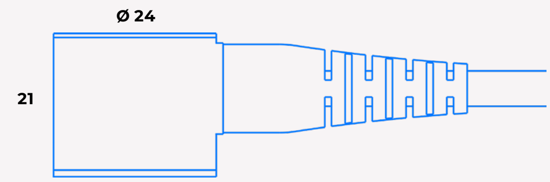
	7C105TA
Maximum value of electroacoustic conversion coefficient in the operating frequency range when exposed to surface waves, V/m	> 1 500 · 10^6
Resonant frequency, kHz	48
Frequency range, kHz	30 ... 80
Electric capacity with a cable length of 0.5 m, pF	100 ... 150
Insulation resistance under normal conditions, MOhm	> 1 000
Temperature range, °C	–40 ... +70
Housing material	stainless steel
Weight, g	110

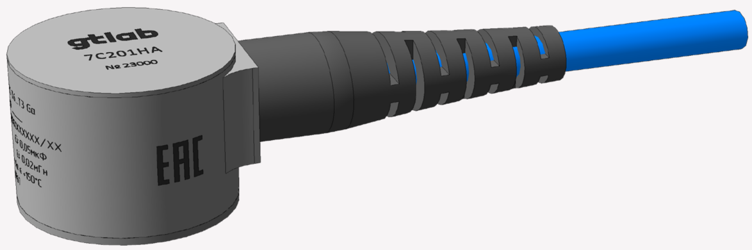
Acoustic emission sensors

7C201TA

7C201TA	
Maximum value of electroacoustic conversion coefficient in the operating frequency range when exposed to surface waves, V/m	> 1 000 · 10^6
Resonant frequency, kHz	110
Frequency range, kHz	50 ... 250
Electric capacity with a cable length of 0.5 m, pF	300 ... 400
Insulation resistance under normal conditions, MOhm	> 1 000
Temperature range, °C	–194... +150
Explosion-proof	0ExiaIICT6...T3Ga
Housing material	stainless steel
Weight (without cable), g	40

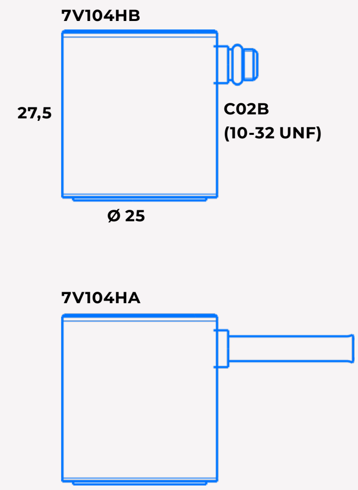
7C201HA





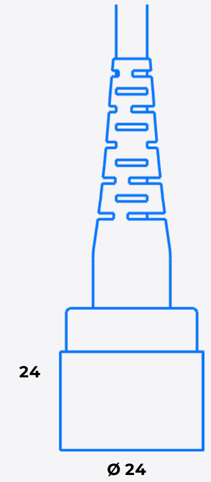
	7C201HA
Maximum value of electroacoustic conversion coefficient in the operating frequency range when exposed to surface waves, V/m	> 1 000 · 10^6
Resonant frequency kHz	110
Frequency range, kHz	50 ... 250
Electric capacity with a cable length of 0.5 m, pF	300 ... 400
Insulation resistance under normal conditions, MOhm	> 1 000
Temperature range, °C	–194... +150
Explosion-proof	0ExiaIICT6...T3Ga
Housing material	stainless steel
Weight (without cable), g	40

7V104HB, 7V104HA



	7V104HA/HB
Maximum value of electroacoustic conversion coefficient in the operating frequency range when exposed to surface waves, V/m	> 1 000 · 10^6
Resonant frequencykHz	63
Frequency range, kHz	40 ... 100
Amplification	10
Supply voltage, V	+ (6 ... 10)
Consumed current, mA	< 20
Output wave impedance, Ohm	50
Temperature range, °C	–60 ... +125
Housing material	stainless steel
Weight (without cable), g	70

Acoustic emission sensors
7V201TA-XX



	7V201TA	-01
Maximum value of electroacoustic conversion coefficient in the operating frequency range when exposed to surface waves, V/m	> 10 000 · 10^6	
Resonant frequencykHz	110	
Frequency range, kHz	50 ... 250	
Supply voltage, V	+ (8 ... 12)	
Consumed current, mA	< 20	
Output wave impedance, Mohm	750	
Temperature range, °C	–40 ... +125	–60 ... +125
Operatig temperature range of the object surface, °C	–105 ... +125	–115 ... +125
Explosion-proof	1ExibIICT6...T4Ga	
Housing material	stainless steel	
Weight (without cable), g	40	
Feature	performance check	

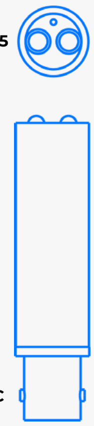
Уестчик обоpfromов

8V91D

	8V91D
Speed measurement range, rpm	0,002...20 000
Minimum mark size, mm	5
Distance to rotating object, mm	< 20
Temperature range, °C	–25 ... +85
Supply voltage, V	18 ... 30
Consumed current, mA	< 4
Constant output voltage level, V	0 ... 1
Weight (without cable), g	30
Supplied accessories	cable 03D1D1 (as per customer's request)
Purpose	used in sequence analysis (synchronous accumulation method), in rotor balancing systems, in bearing diagnostics and other studies and measurements

Yестчик обoрfromов

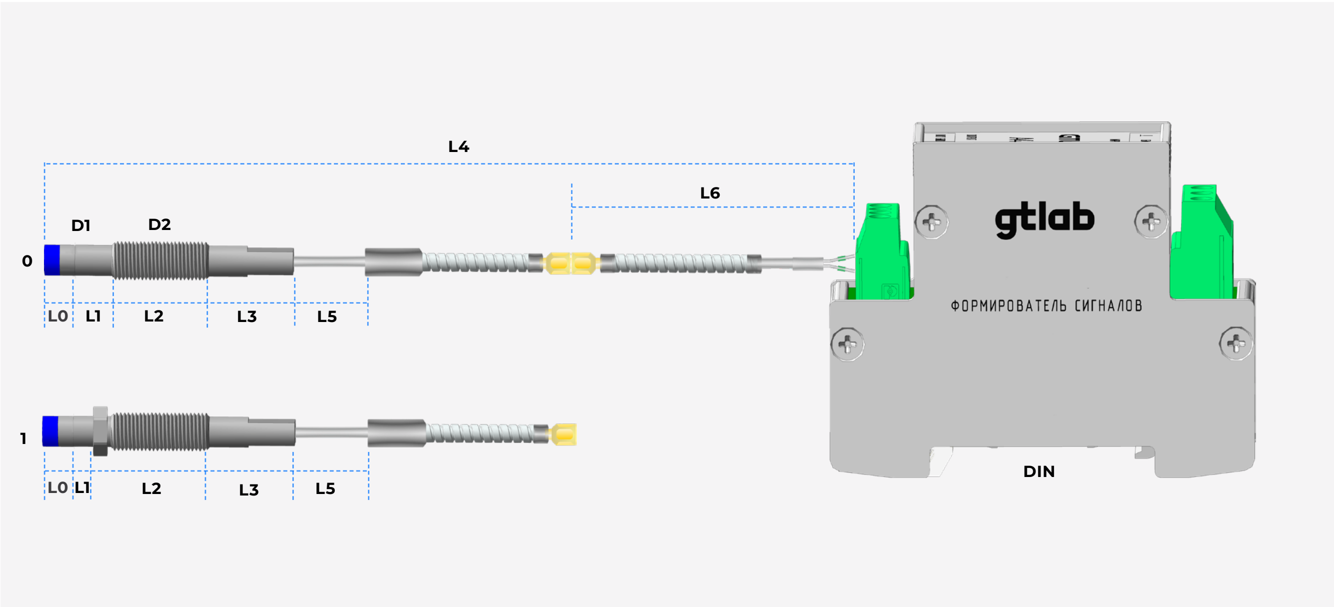
8V91F



	8V91F
Speed measurement range, rpm	0,002...20 000
Minimum mark size, mm	5
Distance to rotating object, mm	< 20
Temperature range, °C	–25 ... +85
Supply voltage, V	18 ... 30
Consumed current, mA	< 4
Constant output voltage level, V	0 ... 1
Weight (without cable), g	30
Supplied accessories	cable 03F1D1 (as per customer's request)
Purpose	used in sequence analysis (synchronous accumulation method), in rotor balancing systems, in bearing diagnostics and other studies and measurements

Eddy current sensors

D2XX.X.D1.Y.L1.L2.L3.L4.L5.L6.D2.XXX.AB.CD

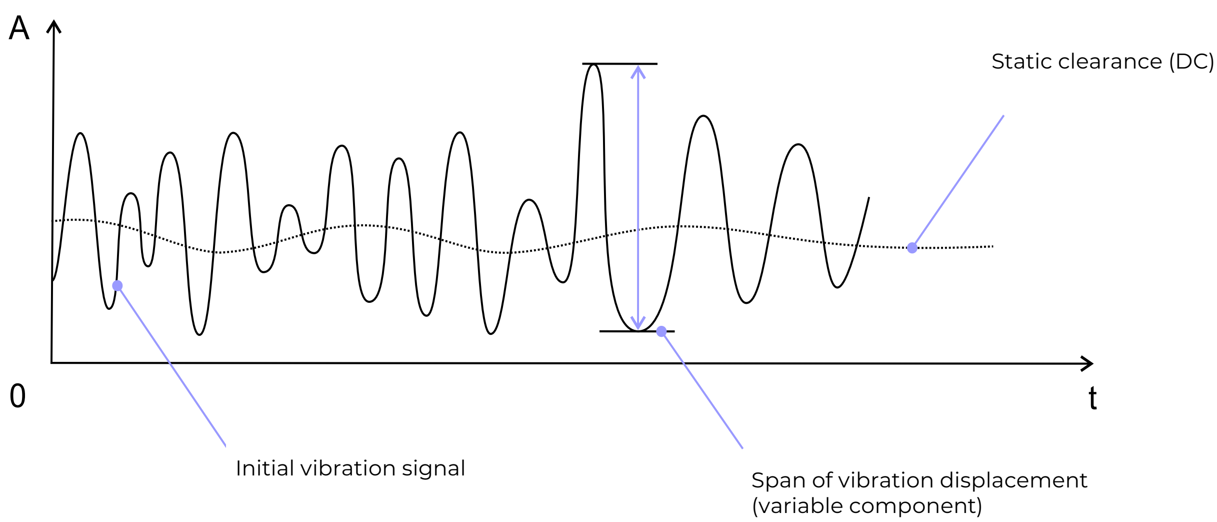


Measurement ranges of the eddy current sensor depending on the diameter of the coil of the primary transducer:

MEASURING DIAMETER	DISPLACEMENT MEASURING RANGE	MEASURING RANGE OF REVOLUTIONS V (AT 1 RESPONSE PER REVOLUTION)	L0
8 mm 10 mm 16 mm 20 mm	0,2 – 2,2 mm 0,3 – 3,3 mm 0,5 – 5 mm 1 – 7 mm	0 – 60 000 rpm	10 mm

Variable value classifier:

MEASURED VALUE		VARIABLE VALUES														
D201.	transmission of the initial vibration signal															
D202.	static gap measurement (DC)													-	-	-
D203.	measuring the range of vibration displacement (variable component)	X.	D1.	0/1.	Y.	Z.	L1.	L2.	L3.	L4.	L5.	L6.	D2.			
D204.	speed measurement													XXX.	AB.	CD
D212.	simultaneous measurement of variable and constant components													-	-	-



Signal conditioners eddy current structure (primary converter + signal conditioner):

VARIABLE VALUES	VALUE DESCRIPTION	CODE	CODE DECRYPTION
X.	Signal on shaper output	V	0...10 V
		A	4...20 mA
D1.	Sensor tip diameter	08	8 mm (measuring coil – 6 mm)
		10	10 mm (measuring coil – 8 mm)
		20	20 mm (measuring coil – 18 mm)
0/1	Method of installation of primary converter	0	standard mount
		1	reverse fastening
Y.	Sensor termination type	A	built-in cable
		P	connector 2РМДКПН4Ш
		N	connector Lemo
		H	connector MIL5015
		S	connector SSMA
Z.	Cable protection	A	cable without metal conduit
		M	built-in cable with metal conduit
		B	Insulated metal hose
		C	braided cable
		O	without connection cable (for spare parts)
L1.	Length of pre-threaded part (min-max)	000	absent
		300	300 mm
L2.	Thread length (min-max)	025	25 mm
		300	300 mm
L3.	Post-thread length (min-max)	000	fromсутствует
		300	300 mm
L4.	Overall length (coil to shaper, min-max)	005	0,5 m
		180	18 m
L5.	Cable length to gland entry (for cable termination in a metal hose)	000	no gland entry
		003	0,3 m
L6	Connecting cable length (min-max)	000	absent
		175	17,5 m
D2	Thread type	20	M10*1 (only for 8 mm handpiece)
		30	3/8-24 UNF (only for 8 mm handpiece)
		40	M12*1
		60	M18*1
		80	M22*1
XXX.	Number of responses per shaft revolution	001	1 response to shaft rotation
		255	255 responses to shaft rotation
AB.	Lower measurement limit	10	$A*10^B$ rpm., 1 rpm = $1*10^0$
CD.	Upper measurement limit	64	$C*10^D$ rpm., 60 000 rpm = $6*10^4$

Example:
eddy current speed sensor with voltage output:

D204. V. 08. 0. A. A. 020. 085. 000. 125.000. 015. 20. 007. 21. 53

upper measurement limit 5 000 rpm
lower measurement limit 20 rpm
7 responses per 1 revolution
thread type: M10*1
connecting cable length: 1,5 m
no gland entry
total transducer length 12,5 m
post-threaded length: 0 mm (absent)
thread length 85 mm
pre-threaded length: 20 mm
cable without metal conduit
built-in cable without metal conduit
standard mount
measuring tip diameter: 8 mm
output voltage, 0...10 V..

The composition of the eddy current sensor.

1. Primary converter. Designation structure.

SYMBOL FOR A GROUP OF CONTACTLESS PRIMARY CONVERTERS	VARIABLE VALUES										
8V	D1.	0/1.	Y.	Z.	L1.	L2.	L3.	L4.	L5.	L6.	D2

Example:
Primary converter 8V.08.0.A.A.120.085.00.120.00.40

8V. 08. 0. A. A. 120. 085. 00. 120. 00. 40.

body carving M12x1
extension cable length 0 m
overall transducer length 12 m
post-threaded length 0 mm
thread length 85 mm
pre-threaded length 120 mm
cable without metal conduit
built-in cable
standard mount
measuring tip diameter 8 mm

2. Signal shaper. marking (applied by the manufacturer to the selected shaper based on the configuration of the eddy current sensor).

MODEL (SEE SECTION V-FREQUENCY SIGNAL CONDITIONERS)		MEASURED VALUE	VARIABLE VALUES				
A301; A302	Output signal: 0...10 V	01 – original signal; 02 – static clearance; 03 – range of movement; 04 – number of revolutions 12 – variable and dynamic components (only for A361)	D1.	L4.	XXX.	AB.	CD
A331	Output signal: 0...10 V; 4 .. 20 mA						
A361	Measurement of the static and dynamic component of displacement. output signal: 4 .. 20 mA				-	-	-
A362	Output signal: 4..20 mA				XXX.	AB.	CD

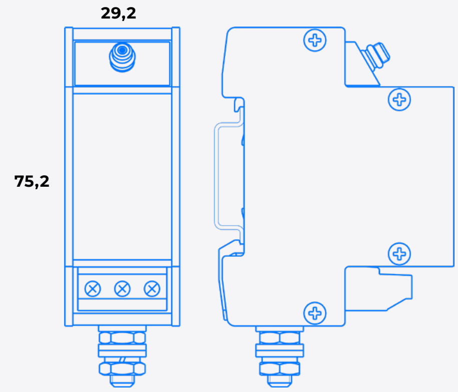
Example:
Signal conditioner A301.04.08.120.001.10.64

A3 01. 04. 08. 120. 001. 10. 64

upper measurement limit 60 000 rpm
lower measurement limit1 rpm
1 response per shaft revolution
total length of the primary converter: 12 m
measuring tip diameter: 8 mm
conversion of signal to number of revolution
displacement measurement, output signal 0...10 V

Eddy current signal generator

A301.XX.XX



Designation:

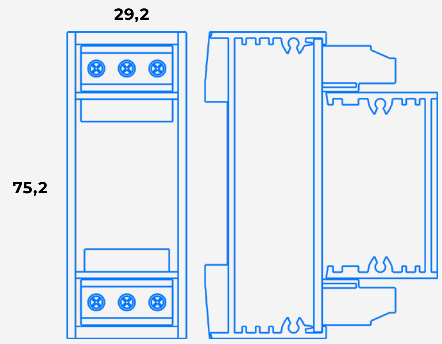
A301	.XX	.XX
	Sensor coil diameter, mm	Sensor cable length, m

Example: A301.05.05 is a signal conditioner for measuring relative displacement with a 5 mm probe. coil, cable length - 5 m.

	A301 .XX.XX
Range of displacement measurement: ▪ for a 5 mm coil, mm ▪ for a 8 mm coil, mm	 0,2 ... 2,2 0,3 ... 3,3
Relative displacement measurement conversion coefficients with current output: ▪ for a 5 mm coil, мV/mkm ▪ for a 8 mm coil, мV/mkm	 4 2,7
Error in setting the conversion coefficients, %	± 5
Measurement error in the operating temperature prange, %	< ± 10
Nonlinearity of the amplitude response, %	< ± 5
Frequency range (uneven frequency response ± 1 dB), Hz	0 ... 10 000
Temperature range, °C	-30 ... + 65
Temperature range sensor, °C	-40 ... + 180
Supply voltage, V	+ (18 ... 30)
Consumed current, mA	< 15
RMS noise level: ▪ for 5mm coil, mkm ▪ for 8mm coil, mkm	 ≤ 3 ≤ 4
Input/Output connectors	terminal blocks/SMA
Sensor cable length, m	0,5 ... 18
Weight, g	140
DIN rail mounting	yes
Purpose	In combination with the sensor, it forms a means of measuring vibration and movement of machine parts and mechanisms
Feature	Voltage output 0-10 V; high temperature and time stability of characteristics; the possibility of replacing the same type of primary converters; transmission of the output current signal over a distance of up to 100 m.

Eddy current signal generator

A302.XX.XX



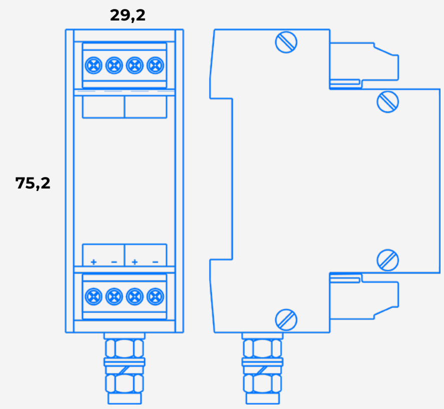
Designation:

A302	.XX	.XX
	Sensor coil diameter, mm	Sensor cable length, m

Example: A302.05.05 - is a signal conditioner for measuring relative displacement with a 5 mm probe. coil, cable length - 5 m.

	A302 .XX.XX
Range of displacement measurement: ▪ for a 5 mm coil, mm ▪ for a 8 mm coil, mm	 0,2 ... 2,2 0,3 ... 3,3
Relative displacement measurement conversion coefficients with current output: ▪ for a 5 mm coil, мV/mkm ▪ for a 8 mm coil, мV/mkm	 4 2,7
Error in setting the conversion coefficients, %	± 5
Measurement error in the operating temperature prange, %	< ± 10
Nonlinearity of the amplitude response, %	< ± 5
Frequency range (uneven frequency response ± 1 dB), Hz	0 ... 10 000
Temperature range, °C	-30 ... + 65
Temperature range sensor, °C	-40 ... + 180
Supply voltage, V	+ (18 ... 30)
Consumed current, mA	< 15
RMS noise level: ▪ for 5mm coil, mkm ▪ for 8mm coil, mkm	 ≤ 3 ≤ 4
Input/Output connectors	terminals
Sensor cable length, m	0,5 ... 18
Weight, g	140
DIN rail mounting	yes
Purpose	In combination with the sensor, it forms a means of measuring vibration and movement of machine parts and mechanisms
Feature	Voltage output 0-10 V; high temperature and time stability of characteristics; the possibility of replacing the same type of primary converters; transmission of the output current signal over a distance of up to 100 m.

Eddy current signal generator
A331.XX.XX



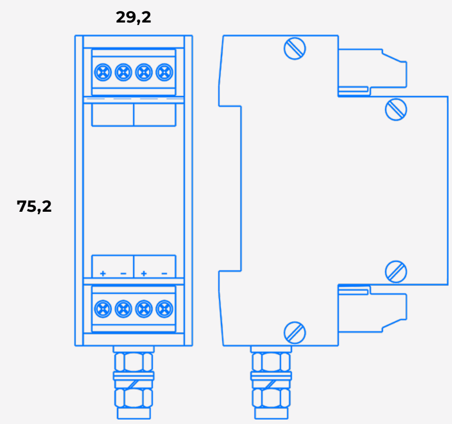
Designation:

A331	.XX	.XX
	Sensor coil diameter, mm	Sensor cable length, m

Example: A331.05.05 - signal generators for measuring relative motion with a 5 mm. coil sensor, cable length - 5 m.

A331	.XX.XX
Range of displacement measurement: ▪ for a 5 mm coil, mm ▪ for a 8 mm coil, mm	 0,2 ... 2,2 0,3 ... 3,3
Relative displacement measurement conversion coefficients with current output: ▪ for a 5 mm coil, μA/μm ▪ for a 8 mm coil, μA/μm	 8 5,3
Relative displacement measurement conversion coefficients with current output: ▪ for a 5 mm coil, mV/μm ▪ for a 8 mm coil, mV/μm	 4 2,7
Error in setting the conversion coefficients, %	± 5
Nonlinearity of the amplitude response,%	± 5
Frequency range (uneven frequency response ± 1 dB), Hz	0 ... 10 000
Temperature range, °C	-30 ... 65
Measurement error in the operating temperature prange, %	± 2
Temperature range sensor, °C	-40 ... 150
Measurement error in the operating temperature range with sensor, %	± 10
Supply voltage, V	+ (18 ... 30)
Consumed current, mA	< 35
RMS noise level: ▪ for 5mm coil, mkm ▪ for 8mm coil, mkm	 ≤ 3 ≤ 4
Input/Output connectors	terminals
Sensor cable length, m	0,5 ... 18
Weight, g	150
DIN rail mounting	yes
Purpose	In combination with the sensor, it forms a means of measuring vibration and movement of machine parts and mechanisms
Feature	4-20 mA analog current and 2-10 V voltage outputs; high temperature and time stability of characteristics; possibility of replacing the same type of primary converters; transmission of current output signal to a distance of 1000 m.

Eddy current signal generator
A361.XX.XX.XXX



Designation:

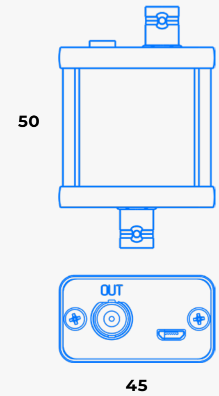
A361	.XX	.XX	.XXX
	Sensor coil diameter, mm	Sensor cable length, m	Range of measured relative vibration displacement

Example: A361.05.05.250 - signal generators for static clearance measurements 0,2 ... 2,2 mm and relative vibration displacement 250 μm sensor with 5 mm. coil, cable length: 5 m.

	A361 .XX.XX.XXX
Measurement range static clearance: ▪ for a 5 mm coil, mm ▪ for a 8 mm coil, mm	0,2 ... 2,2 0,3 ... 3,3
Range of the measured relative vibration displacement: ▪ for a 5 mm coil, mm ▪ for a 8 mm coil, mm	0,125; 0,25; 0,5 0,25; 0,5; 1
Conversion factors for relative displacement peak-to-peak measurements with 4-20 mA DC output: ▪ for a 5 mm coil, μA/μm ▪ for a 8 mm coil, μA/μm	128; 64; 32 64; 32; 16
Conversion factors for static gap measurement with 4-20 mA DC output: ▪ for a 5 mm coil, μA/μm ▪ for a 8 mm coil, mA/μm	8 5,3
Error in setting the conversion coefficients, %	± 5
Nonlinearity of the amplitude response, %	± 5
Frequency range (uneven frequency response ± 1 dB), Hz	2 ... 10 000
Temperature range, °C	-30 ... 65
Measurement error in the operating temperature prange, %	± 2
Temperature range sensor, °C	-40 ... 150
Measurement error in the operating temperature range with sensor, %	± 10
Supply voltage, V	+ (18 ... 30)
Consumed current, mA	< 35
RMS noise level: ▪ for 5mm coil, mkm ▪ for 8mm coil, mkm	≤ 3 ≤ 4
Input/Output connectors	terminals
Sensor cable length, m	0,5 ... 18
Weight, g	150
DIN rail mounting	yes
Purpose	In combination with the sensor, it forms a means of measuring vibration and movement of machine parts and mechanisms
Feature	Current output is 4-20 mA at OUT (D) relative vibration displacement; 4-20 mA current output at OUT (S) static gap; high temperature and time stability of characteristics; possibility of replacing same-type primary converters; transmission of the output current signal 1 000+ m distance.

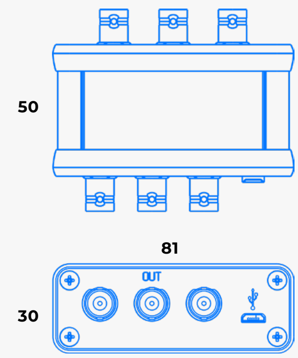
Signal generators

Signal generator
A002



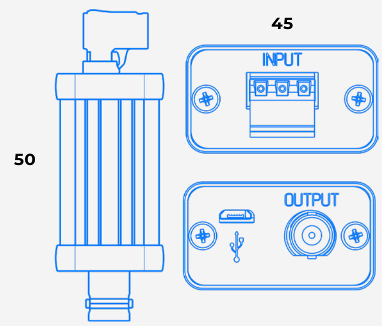
	A002
Sensor supply voltage, V	24 ± 10%
Sensor supply current, mA	5,7 ± 10 %
Frequency range (uneven frequency response ±1 dB), Hz	0,5 ...100 000
Supply voltage, V	5 ± 10 %
Consumed current, mA	< 50
Temperature range, °C	–40 ... +85
Input impedance of recorder, MOhm	≥ 1
Input/Output connectors	BNC
Connectors for power supply	Micro USB
Housing material	aluminum
Weight, g	65
Purpose	for IEPE sensors
Feature	absence of active elements excludes the influence of the signal generator on the noise characteristic of the measuring channel

Signal generator
A002-3



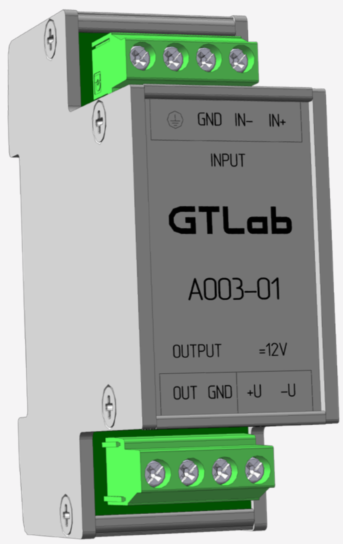
A002	-3
Sensor supply voltage, V	24 ± 10%
Sensor supply current, mA	5,7 ± 10 %
Frequency range (uneven frequency response ±1 dB), Hz	0,5 ...100 000
Supply voltage, V	5 ± 10
Consumed current, mA	< 50
Temperature range, °C	–40...+85
Input impedance of recorder, MOhm	≥ 1
Input/Output connectors	BNC
Connectors for power supply	Micro USB
Housing material	aluminum
Weight, g	135
Purpose	for IEPE sensors
Feature	absence of active elements excludes the influence of the signal generator on the noise characteristic of the measuring channel

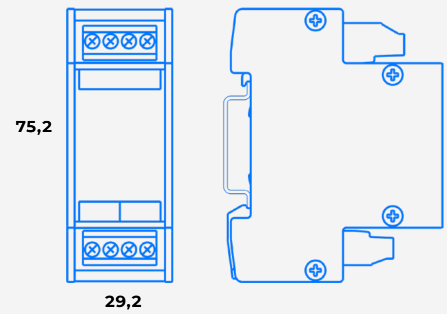
Signal generator
A003



	A003	-02
Sensor supply voltage, V	± 12 ± 10%	+5 ± 10 %
Frequency range (uneven frequency response ±1 dB), Hz	0,5 ...30 000	
Supply voltage, V	+5 ± 10 %	+5 ± 10 %
Consumed current, mA	< 50	
Temperature range, °C	–40 ... +85	
Output impedance, Ohm	< 100	
Input connector	terminals	
Output connector	BNC	
Connectors for power supply	Micro USB	
Housing material	aluminum	
Weight, g	100	
Purpose	for sensors with voltage output	

A003-01

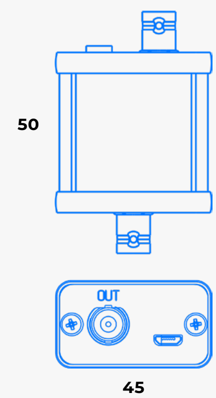




A003	-01
Sensor supply voltage, V	± 12 ± 10%
Frequency range (uneven frequency response ±1 dB), Hz	0,5 ...30 000
Supply voltage, V	+12 ± 10 %
Consumed current, mA	< 50
Temperature range, °C	–40 ... +85
Output impedance, Ohm	< 100
Input connector	terminals
Output connector	terminals
Connectors for power supply	terminals
Housing material	aluminum
Weight, g	125
Purpose	for sensors with voltage output
Feature	DIN rail mounting

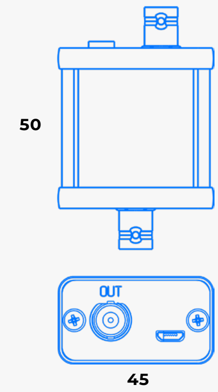
Signal generator

A004



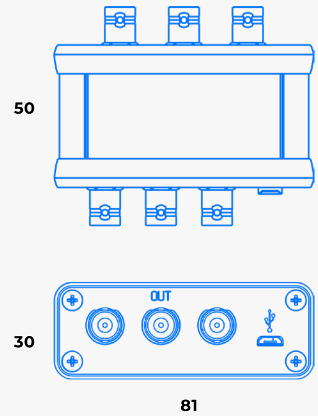
	A004
Sensor supply voltage, V	24 ± 10%
Sensor supply current, мA	5,7 ± 10 %
Frequency range (uneven frequency response ±1 dB), Hz	0,5 ...100 000
Supply voltage, V	5 ± 10 %
Consumed current, mA	< 50
Temperature range, °C	–40 ... +85
Input impedance of recorder, kOhm	< 100
Input/Output connectors	BNC
Connectors for power supply	Micro USB
Housing material	aluminum
Weight, g	65
Purpose	for IEPE sensors
Feature	for ADC with input multiplexer

Signal generator
A004-01



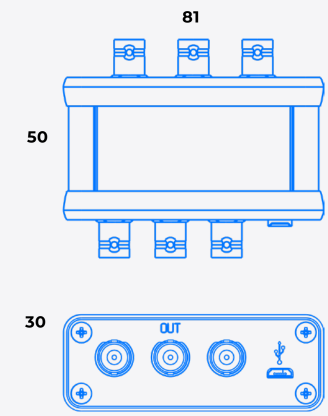
A004	-01
Sensor supply voltage, V	24 ± 10%
Sensor supply current, мА	50 ± 0,5
Frequency range (uneven frequency response ±1 dB), Hz	0,1 ...100 000
Supply voltage, V	5 ± 10 %
Consumed current, mA	< 50
Temperature range, °C	–40...+85
Input impedance of recorder, kOhm	< 100 кОм
Input/Output connectors	BNC
Connectors for power supply	Micro USB
Housing material	aluminum
Weight, g	65
Purpose	for IEPE sensors с частfromным диапазоном from 0,1 Hz
Feature	for ADC with input multiplexer

Signal generator
A004-3



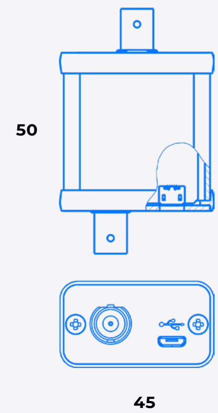
	A004-3
Sensor supply voltage, V	24 ± 10%
Sensor supply current, мA	5,7 ± 10 %
Frequency range (uneven frequency response ±1 dB), Hz	0,5 ...100 000
Supply voltage, V	5 ± 10 %
Consumed current, mA	< 50
Temperature range, °C	–40 ... +85
Input impedance of recorder, kOhm	< 100
Input/Output connectors	BNC
Connectors for power supply	Micro USB
Housing material	aluminum
Weight, g	135
Purpose	for IEPE sensors
Feature	for ADC with input multiplexer

Signal generator
A004-3-01



A004	-3-01
Sensor supply voltage, V	24 ± 10%
Sensor supply current, мA	5,7 ± 10 %
Frequency range (uneven frequency response ±1 dB), Hz	0,1 ...100 000
Supply voltage, V	5 ± 10 %
Consumed current, mA	50
Temperature range, °C	–40...+85
Input impedance of recorder, kOhm	< 100
Input/Output connectors	BNC
Connectors for power supply	Micro USB
Housing material	aluminum
Weight, g	135
Purpose	for IEPE sensors with frequency range from 0.1 Hz
Feature	for ADC with input multiplexer

Signal generator
A005



	A005
Sensor supply voltage, V	24 ± 2%
Maximum output voltage amplitude, V	± 2 B
Input impedance, Ohm	50
Frequency range (uneven frequency response - 1 dB), kHz	10 ...800
Supply voltage, V	5 ± 0,5 %
Consumed current, mA	< 50
Temperature range, °C	–40 ... +85
Input/Output connectors	BNC
Connectors for power supply	Micro USB
Housing material	aluminum
Weight, g	65
Purpose	connection of signal conditioner A422 to power supply and recording equipment
Feature	provides separation of the constant component of the power supply and the variable component of the measured signal from the A422; Provide connection to the recording equipment with an input impedance of more than 10 kOhm; Power via USB port or +5V adapter.

Signal generator

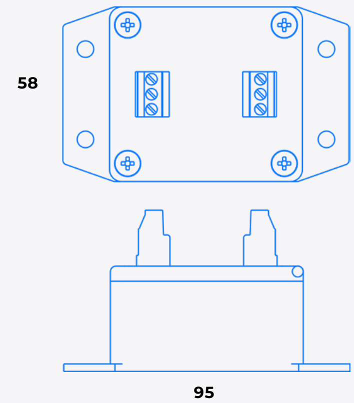
A120-XX-XX, A121-XX-XX, A122-XX-XX

	A120-XX-XX	A121-XX-XX	A122-XX-XX
Limits of the permissible basic relative error of the charge conversion coefficient at a frequency of 1 kHz, %	± 2		
Output impedance, Ohm	< 500		
Maximum output voltage amplitude, V	± 5		
Non-linear distortion coefficient, %	< 5		
Limits of permissible additional relative error of the charge conversion coefficient in the temperature range, %	± 2		
Power: ▪ voltage, V ▪ current, mA	+(18 ... 30) 2 ... 20		
Constant output voltage level, V	8 ... 13		
Weight, g	16	19	21
Temperature range, °C	–40 ... +85		
Outputной разъем	C02B (10-32 UNF)	BNC-F	BNC-M

Signal generator
A120-XX-XX, A121-XX-XX, A122-XX-XX
(continuation)

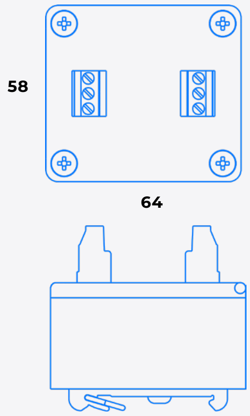
<table>
<tr><th></th><th>Charge sensitivity-XX, mV/pC</th><th>Maximum input charge (peak), pC</th><th>Minimum input impedance</th><th>Frequency range (uneven frequency response - 1 dB), Hz</th><th>RMS of noise reduced to the input for the sensor capacitance of 1 nF in the operating frequency range, μV</th></tr>
<tr><td rowspan="10">A120-XX
A121-XX
A122-XX</td><td>- 0,1</td><td>± 50 000</td><td rowspan="3">50 MOhm</td><td rowspan="7">0,5 ... 100 000</td><td rowspan="3">≤ 30</td></tr>
<tr><td>- 0,2</td><td>± 25 000</td></tr>
<tr><td>- 0,5</td><td>± 10 000</td></tr>
<tr><td>- 1</td><td>± 5 000</td><td rowspan="3">500 MOhm</td><td rowspan="3">≤ 5</td></tr>
<tr><td>- 2</td><td>± 2 500</td></tr>
<tr><td>- 5</td><td>± 1 000</td></tr>
<tr><td>- 10</td><td>± 500</td><td rowspan="2">2 Gigaohm</td><td rowspan="4">≤ 2</td></tr>
<tr><td>- 20</td><td>± 250</td><td>0,5 ... 50 000</td></tr>
<tr><td>- 50</td><td>± 100</td><td rowspan="2">5 Gigaohm</td><td rowspan="2">0,5 ... 30 000</td></tr>
<tr><td>100</td><td>± 50</td></tr>
<tr><td rowspan="10">A120-XX-01
A121-XX-01
A122-XX-01</td><td>- 0,1</td><td>± 50 000</td><td rowspan="3">10 MOhm</td><td rowspan="7">5 ... 100 000</td><td rowspan="3">≤ 30</td></tr>
<tr><td>- 0,2</td><td>± 25 000</td></tr>
<tr><td>- 0,5</td><td>± 10 000</td></tr>
<tr><td>- 1</td><td>± 5 000</td><td rowspan="3">50 MOhm</td><td rowspan="3">≤ 5</td></tr>
<tr><td>- 2</td><td>± 2 500</td></tr>
<tr><td>- 5</td><td>± 1 000</td></tr>
<tr><td>- 10</td><td>± 500</td><td rowspan="2">500 MOhm</td><td rowspan="4">≤ 2</td></tr>
<tr><td>- 20</td><td>± 250</td><td>5 ... 50 000</td></tr>
<tr><td>- 50</td><td>± 100</td><td rowspan="2">1 Gigaohm</td><td rowspan="2">5 ... 30 000</td></tr>
<tr><td>100</td><td>± 50</td></tr>
</table>

Signal generator
A123-25



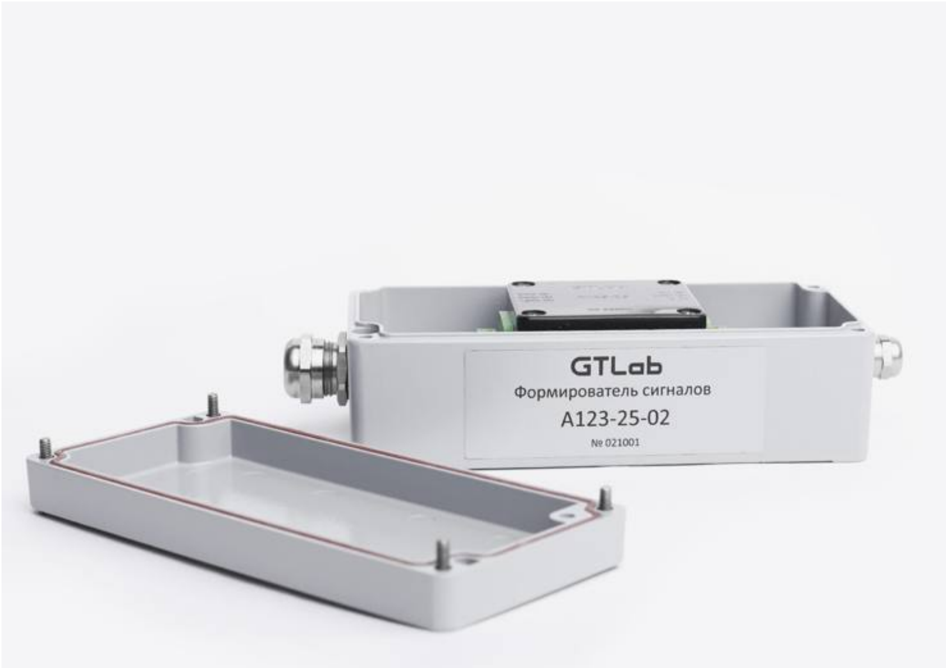
A123	**-25**
Maximum input charge (peak), pC	200
Frequency range (uneven frequency response -3 dB), Hz	2 ... 20 000
Coefficient of conversion to current signal, μA/pC	25
Maximum output current amplitude, mA	± 5
DC output current level, mA	12 ± 0,5
Measurement error in the operating temperature prange, %	2
Temperature range, °C	–40 ... +85
Supply voltage, V	15 ... 25
Consumed current, mA	< 25
Run mode setting time, s	< 4
Input/Output connectors	terminals
Housing material	aluminum alloy
Weight, g	≤ 250

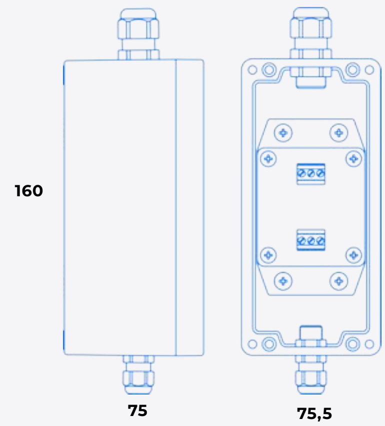
Signal generator
A123-25-01



A123	-25-01
Maximum input charge (peak), pC	200
Frequency range (uneven frequency response -3 dB), Hz	2 ... 20 000
Coefficient of conversion to current signal, μA/pC	25
Maximum output current amplitude, mA	± 5
DC output current level, mA	12 ± 0,5
Measurement error in the operating temperature prange, %	2
Temperature range, °C	–40 ... +85
Supply voltage, V	15 ... 25
Consumed current, mA	< 25
Run mode setting time, s	< 4
Input/Output connectors	terminals
Housing material	aluminum alloy
Weight, g	270
DIN-rail mounting	yes

Signal generator
A123-25-02





	A123 -25-02
Maximum input charge (peak), pC	200
Frequency range (uneven frequency response -3 dB), Hz	2 ... 20 000
Coefficient of conversion to current signal, μA/pC	25
Maximum output current amplitude, mA	± 5
DC output current level, mA	12 ± 0,5
Measurement error in the operating temperature prange, %	2
Temperature range, °C	–40 ... +85
Supply voltage, V	15 ... 25
Consumed current, mA	< 25
Run mode setting time, s	< 4
Input/Output connectors	terminals
Housing material	aluminum alloy
Weight, g	800
Feature	explosion-proof housing

Signal generator

A124-XX-XX

	A124 -XX-XX
Limits of the permissible basic relative error of the charge conversion coefficient at a frequency of 1 kHz, %	± 2
Output impedance, Ohm	< 100
Maximum output voltage amplitude, V	± 8
Non-linear distortion coefficient, %	< 5
Input load capacitance, pF	10 ... 10 000
Limits of permissible additional relative error of the charge conversion coefficient in the temperature range, %	< 1
Power: ▪ voltage, V ▪ current, mA	 + (18 ... 30) 4,7 ... 20
Constant output voltage level, V	10 ± 2
Weight, g	100
Temperature range, °C	–40 ... +85
Input connector	2РМГ14Б4Ш
Output connector	2 pin (C05B, 5/8 - 24UNEF)

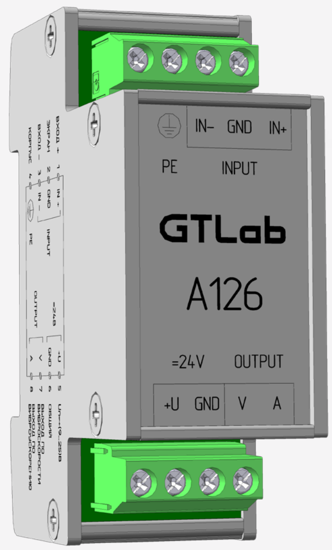
	Charge sensitivity - XX, мV/pC	Maximum input charge (peak), pC	Minimum input impedance of sensor	Frequency range (uneven frequency response - 1 dB), Hz	RMS of noise reduced to the input for the sensor capacitance of 1 nF in the operating frequency range, μV
A124-0,1	0,1	± 40 000	20 kOhm	2 ... 22 400	≤ 30
A124-0,1-01			10 kOhm	10 ... 22 400	
A124-1	1	± 4 000	200 kOhm	2 ... 22 400	≤ 10
A124-1-01			100 kOhm	10 ...22 400	
A124-10	10	± 400	2 MOhm	2 ... 22 400	
A124-10-01			1 MOhm	10 ...22 400	

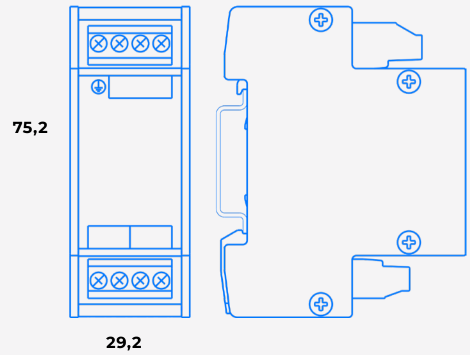
Signal generator
A125-XX-XX

	A125 -XX-XX
Limits of the permissible basic relative error of the charge conversion coefficient at a frequency of 1 kHz, %	± 2
Output impedance, Ohm	< 100
Maximum output voltage amplitude, V	± 4
Non-linear distortion coefficient, %	< 5
Input load capacitance, pF	10 ... 10 000
Limits of permissible additional relative error of the charge conversion coefficient in the temperature range, %	< 1
Power: ▪ Supply voltage, V ▪ Consumed current, mA	 + (18 ... 30) < 10
Constant output voltage level, V	8 ... 13
Weight, g	120
Temperature range, °C	–40 ... +85
Input connector	2РМГ14Б4Ш1В1
Output connector	3 pin (C06, 5/8 - 24UNF)

	Charge sensitivity - XX, мV/pC	Maximum input charge (peak), pC	Minimum input impedance of sensor	Frequency range (uneven frequency response - 1 dB), Hz	RMS of noise reduced to the input for the sensor capacitance of 1 nF in the operating frequency range, μV
A125-0,1	0,1	± 40 000	10 кОм	2 ... 22 400	≤ 30
A125-0,1-01			5 кОм	10 ... 22 400	
A125-1	1	± 4 000	100 кОм	2 ... 22 400	≤ 10
A125-1-01			50 кОм	10 ...22 400	
A125-1-02			10 кОм	2 ... 22 400	
A125-1-03			5 кОм	10 ...22 400	
A125-10	10	± 400	100 кОм	2 ... 22 400	
A125-10-01			50 кОм	10 ...22 400	
A125-100	100	± 40	1 МОм	2 ... 22 400	
A125-100-01			500 кОм	10 ...22 400	

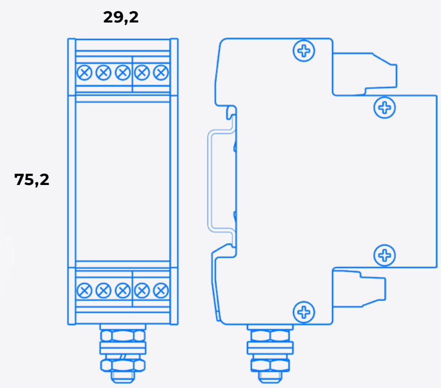
Signal generator
A126





	A126
Charge sensitivity ± 2%, mV/pC	1
Charge sensitivity with integration ± 3%, mV/pC*c	1 000
Frequency range (uneven frequency response -3 dB), Hz	40 ... 2 000
Maximum input charge (peak), pC	5 000
Maximum output voltage amplitude, V	± 5
RMS of noise reduced to input, in charge conversion mode, for sensor capacitance 1 nF, μV	≤ 5
RMS of noise reduced to input in charge conversion mode with integration, for sensor capacitance of 1 nF, μV	≤ 15
Output impedance, Ohm	< 100
Supply voltage, V	+ (9 ... 25)
Consumed current, mA	< 20
Limits of the permissible basic relative error of the charge conversion coefficient, %	± 1
Input/Output connectors	terminals
Housing material	aluminum alloy
Weight, g	150
Purpose	Converting the charge into a voltage output signal . Example, proportional to vibration acceleration / vibration speeds, dynamic pressure / velocities of changes in dynamic pressure
Feature	DIN-rail mounting.

Signal generator
A127

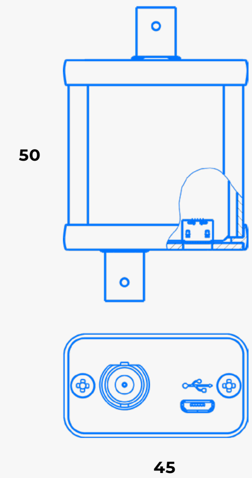


	A127
Charge sensitivity ± 2%, mV/pC	1; 2; 5; 10; 20; 50; 100; 200; 500
Frequency range (uneven frequency response -3 dB), Hz	2 ... 20 000
Maximum input charge (peak), pC	± 10 000
Maximum output voltage amplitude, V	± 10
RMS of noise reduced to input, in charge conversion mode, for sensor capacitance 1 nF, μV	≤ 20
Output impedance, Ohm	< 100
Amplitude of the test signal (± 2,5 %), mV	100
Frequency signal of the test generator, Hz	16 ± 0,5
Data exchange in the information system	RS485
Measurement error in the operating temperature prange, %	± 2
Temperature range, °C	–40 ... +85
Supply voltage, V	+(18 ... 30)
Consumed current, mA	≤ 50
Input connector	terminals
Output connector	terminals
Housing material	aluminum alloy
Weight, g	150
DIN rail mounting	yes
Purpose	Conversion of the high-impedance signal of a piezoelectric transducer (vibration transducer, force sensor, etc.) into a low-impedance voltage signal
Feature	Charge conversion to vibration acceleration output signal; symmetrical (balanced) input and output; control of test oscillator switching and conversion coefficient switching via RS-485; galvanic isolated from, common, power and RS485; performance stability and reliability during operation; low noise level

Signal generator
A128-3

A128-3	
Maximum input charge (peak), pC	± 500
Frequency range (uneven frequency response -1 dB), Hz	10 ... 1 000
Range of measured vibration speed, RMS, mm/c	0,1 ... 10; 0,2 ... 20; 0,5 ...50; 1 ... 100
Sensitivity by vibration speed to current signal 4 ... 20 mA, (± 10 %), mA/mm/c	1,6; 0,8; 0,32; 0,16
Error of measurement, %	± 2
Measurement error in the operating temperature prange, %	± 2
Temperature range, °C	–40 ... +70
Data exchange in the information system	RS485
Supply voltage, V	+(18 ... 30)
Consumed current, mA	≤ 100
Input connector	2РМГ14Б4Ш1В1
Output connector	screw terminals (RS485, output 4-20 mA, power)
Housing material	aluminum alloy
Weight, g	150
Purpose	Measurement of RMS value of object vibration velocity and signal output via 4-20 mA current loop interface
Feature	Operation with charge three-component vibration transducers; 4-20 mA current loop interface output; RS-485 digital interface for entering conversion coefficients of used vibration transducer and measuring ranges of vibration velocity

Signal generator
A129



	A129
Maximum input charge (peak), pC	10 000
Frequency range (uneven frequency response ±1 dB), Hz	0,2 ...100 000
Charge sensitivity(±2 %), мV/pC	1
Ambient temperature effect coefficient, %/ °C	≤ 0,025
Output impedance, Ohm	< 100
Maximum output voltage amplitude, V	± 10
Non-linear distortion coefficient, %	< 5
RMS of noise reduced to the input, for sensor capacitance of 1 nF in the frequency range 2 .... 22 000 Hz, μV	≤ 5
Supply voltage, V	5 ± 0,5
Consumed current, mA	< 30
Input/Output connectors	BNC
Connectors for power supply	Micro USB
Weight, g	65
Supplied accessories	network adapter + 5V
Purpose	Converting a high-impedance charge signal from a piezoelectric transducer into a low-impedance voltage signal.

Signal generator

A129-3

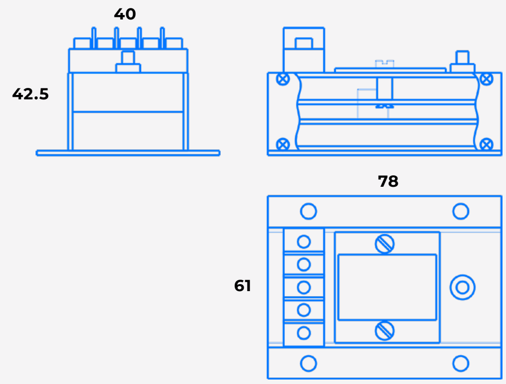
	A129-3
Maximum input charge (peak), pC	10 000
Frequency range (uneven frequency response ±1 dB), Hz	0,2 ...100 000
Charge sensitivity(±2 %), мV/pC	1
Ambient temperature effect coefficient, %/ °C	≤ 0,025
Output impedance, Ohm	< 100
Maximum output voltage amplitude, V	± 10
Non-linear distortion coefficient, %	< 5
RMS of noise reduced to the input, for sensor capacitance of 1 nF in the frequency range 2 .... 22 000 Hz, µV	≤ 5
Supply voltage, V	5 ± 0,5
Consumed current, mA	< 50
Input/Output connectors	BNC
Connectors for power supply	Micro USB
Weight, g	135
Supplied accessories	network adapter + 5V
Purpose	Converting a high-impedance charge signal from a piezoelectric transducer into a low-impedance voltage signal.

Signal generator
A1210

	A1210
Maximum input charge (peak), pC	10 000
Frequency range (uneven frequency response –1 dB), Hz	0,2 ...100 000
Charge sensitivity (± 0,5 %), мV/pC	0,1; 0,2; 0,5; 1; 2; 5; 10; 20; 50; 100; 200; 500
Maximum output voltage amplitude, V	± 10
RMS of noise reduced to the input, for sensor capacitance of 1 nF in the frequency range 2 .... 22 000 Hz, μV	≤ 20
HPF with frequency response decay ≥ 40 dB/ decade, at -1 dB, Hz	0,2; 1; 2; 10
LPF with attenuation frequency response ≥ 40 dB/ decade, at -1 dB, kHz	0,1; 0,3; 1; 3; 10; 30; 100
Output impedance, Ohm	≤ 100
Data exchange in the information system	RS485
Temperature range, °C	0 ... + 50
Measurement error in the operating temperature range, %	± 0,5
Supply voltage, V	+ (9 ... 30)
Consumed current, mA	≤ 300
Input connector	10-32 UNF
Output connector	BNC
Weight, g	400
Purpose	Converting a high-impedance piezoelectric transducer signal into a low-impedance voltage signal.
Feature	Converting the charge into an Output signal of vibration acceleration; normalization mode according to the transducer conversion factor; low noise level; galvanically isolated input (floating earth mode); galvanically isolated from common, Power and RS485; performance stability and reliability during operation.

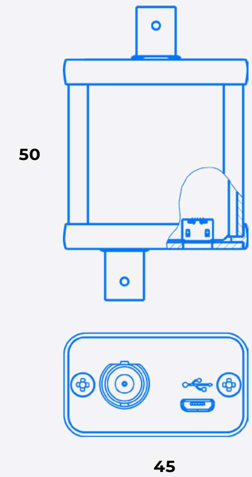
Signal generator

A1211



	A1211
Maximum input charge (peak), pC	8500
Frequency range (uneven frequency response –3 dB), Hz	10 ...5000
Charge sensitivity ± 2%, mV/pC*	0,6
Acceleration sensitivity (± 2 %), mV/m/s²	10
Constant output voltage level, V	– 10 ± 2
Maximum output voltage amplitude, V	± 5
RMS of noise reduced to input, in charge conversion mode, for sensor capacitance 1 nF, μV	< 5
PF with frequency response decay ≥ 40 dB/ decade, at –3 dB, Hz	10
LPF with attenuation frequency response ≥ 40 dB/ decade, at -1 dB, kHz	5
Output impedance, Ohm	≤ 500
Supply voltage, V	– (18 ... 25)
Consumed current, mA	≤ 30
Temperature range, °C	–55 ... + 85
Input connector	10-32 UNF
Output connector	Terminals
Weight, g	
Purpose	Converting a high-impedance piezoelectric transducer signal into a low-impedance voltage signal.
Feature	Conversion of charge to vibration acceleration output signal; low noise; stable performance and reliability in operation. *For Accelerometer 1C104HB/HA with a conversion factor of 17.3 pCal/m/s², the conversion factor of A1211 is 10.2 mV/m/s².

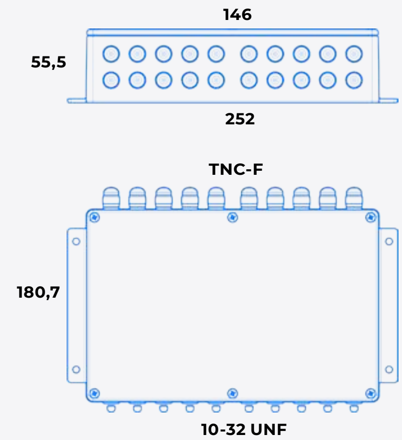
Signal generator
A1221



A1221	
Maximum input charge (peak), pC	10 000
Frequency range (uneven frequency response ±1 dB), Hz	0,01 ...100 000
Charge sensitivity(±2 %), мV/pC	1
Ambient temperature effect coefficient, %/ °C	≤ 0,025
Output impedance, Ohm	< 100
Maximum output voltage amplitude, V	± 10
Non-linear distortion coefficient, %	< 5
RMS of noise reduced to the input, for sensor capacitance of 1 nF in the frequency range 2 .... 22 000 Hz, μV	≤ 5
Supply voltage, V	5 ± 0,5
Consumed current, mA	< 30
Input/Output connectors	BNC
Connectors for power supply	Micro USB
Weight, g	65
Supplied accessories	network adapter + 5V
Purpose	Converting a high-impedance charge signal from a piezoelectric transducer into a low-impedance voltage signal.

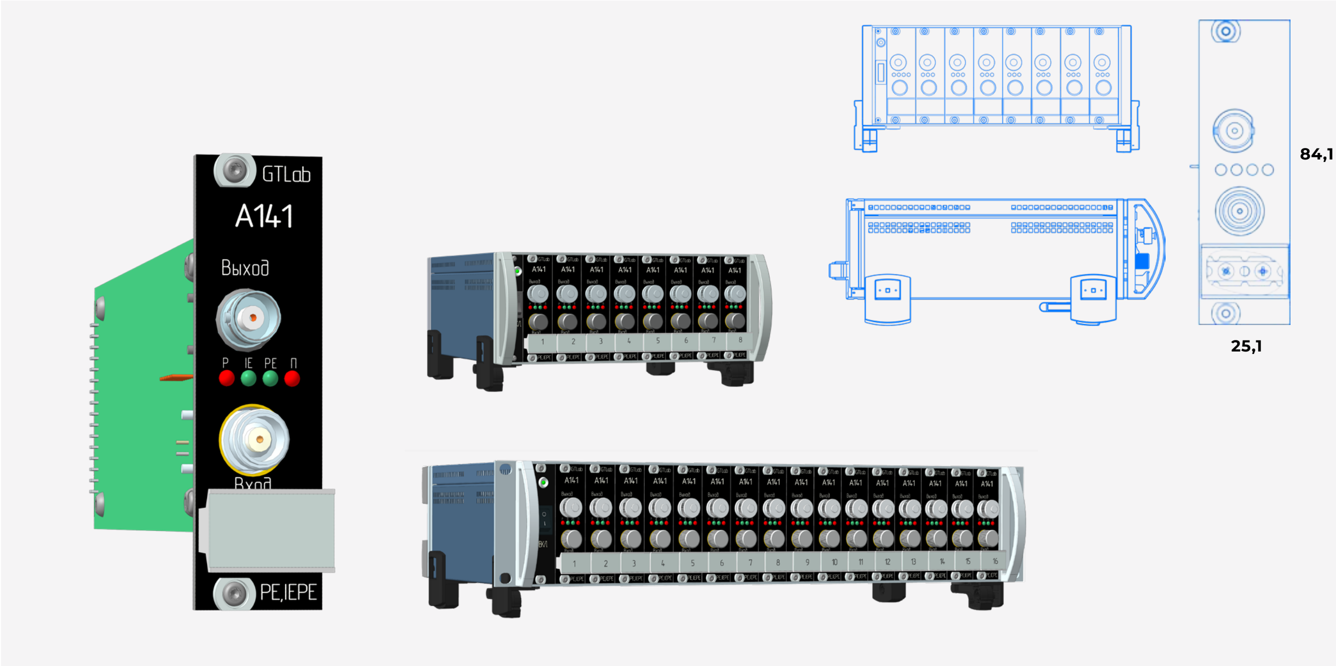
Signal generator

A1222-1-01-20



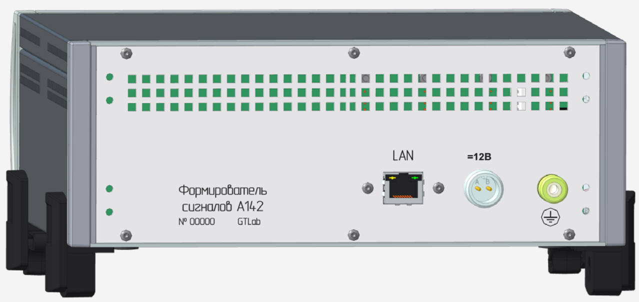
	A1222-1-01-20
Number of analog inputs	20
Charge sensitivity(±2 %), мV/pC	1
Maximum input charge (peak), pC	± 5 000
Minimum input impedance, MOм	50
Frequency range (uneven frequency response - 1 dB), Hz	5 ... 100 000
RMS of noise reduced to the input for the sensor capacitance of 1 nF in the operating frequency range, µV	≤ 5
Limits of the permissible basic relative error of the charge conversion coefficient at a frequency of 1 kHz, %	± 2
Output impedance, Ohm	< 500
Maximum output voltage amplitude, V	± 5
Non-linear distortion coefficient, %	< 5
Limits of permissible additional relative error of the charge conversion coefficient in the temperature range, %	± 2
Power: ▪ voltage, V ▪ current, mA	 +(18 ... 30) 2 ... 20
Constant output voltage level, V	8 ... 13
Weight, g	2500
Temperature range, °C	–40 ... +85
Input connectors	10-32 UNF
Output connectors	TNC-F

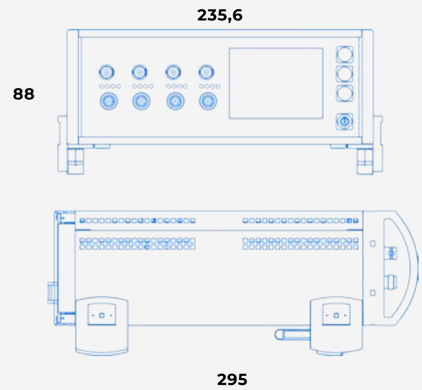
Signal generator
A141



	A141
Types of connectable transducers	IEPE; PE
Maximum input voltage(IEPE), V	± 10
Maximum input charge (peak) (PE), pC	10^5
Range sensitivity • by voltage (IEPE), V/Unit • by charge (PE), pC/Unit	 10^{-12}... 10^3 10^{-12}... 10^3
Frequency range , Hz	0,3 ... 100 000
Input impedance of the recorder, Ohm	> 10^9
Output impedance, Ohm	< 100
Maximum output voltage amplitude, V	± 10
Noise level, root mean square value by voltage, μV	≤ 20
RMS of noise reduced to input in charge conversion mode for 1 nF sensor capacitance, μV	≤ 20
Input voltage IEPE sensors, V	+24 ± 2
Supply current IEPE sensors, mA	+5,7 ± 1,2
Voltage gain, (+0,5%)	1; 2; 5; 10; 20; 50; 100
Sensitivity by charge, (+0,5%) (PE), mV/pC	0,1; 0,2; 0,5; 10; 20; 50; 100
Ambient temperature effect coefficient, %°C	≤ 0,025
HPF with frequency response rolloff ≥ 80 dB/pdecade, at -1 dB	0,3; 1; 2; 10
Low-pass filter with frequency response rolloff ≥ 80 dB/decade, at -1 dB	0,2; 0,5; 10; 20; 50; 100
Supply voltage, V	12 ± 2
Consumption current, A	≤ 0,1
Input connector	TNC
Output connector	BNC
Weight, g	100
Enclosure with control board	F201 F202 (as per customer's request)
Purpose	Measurement of parameters of dynamic processes in charge amplifier/voltage amplifier mode.
Feature	Normalization mode according to the transducer conversion factor; overload indication mode; low noise level; galvanically isolated inputs.

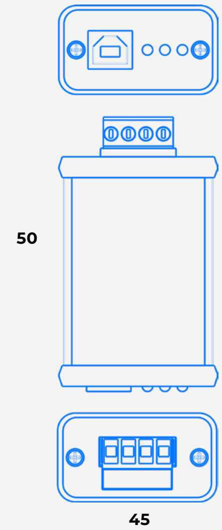
Signal generator
A142





	A142
Types of connectable transducers	IEPE; PE
Maximum input voltage(IEPE), V	± 10
Maximum input charge (peak) (PE), pC	10^5
Range sensitivity ▪ by voltage (IEPE) ▪ by charge (PE)	 10^{-12}... 10^3 10^{-12}... 10^3
Диапазон рабочих часто,т Hz	0,3 ... 100 000
Input impedance of the recorder, Ohm	> 10^9
Output impedance, Ohm	< 100
Maximum output voltage amplitude, V	± 10
Noise level, root mean square value by voltage, μV	≤ 20
RMS of noise reduced to input in charge conversion mode for 1 nF sensor capacitance, μV	≤ 20
Input voltage IEPE sensors, V	+24 ± 2
Supply current IEPE sensors, mA	+5,7 ± 1,2
Voltage gain, (+0,5%)	1; 2; 5; 10; 20; 50; 100
Sensitivity by charge, (+0,5%) (PE), mV/pC	0,1; 0,2; 0,5; 10; 20; 50; 100
Ambient temperature effect coefficient, %/ °C, %°C	≤ 0,025
HPF with frequency response rolloff ≥ 80 dB/pdecade, at -1 dB	0,3; 1; 2; 10
Low-pass filter with frequency response rolloff ≥ 80 dB/decade, at -1 dB	0,2; 0,5; 10; 20; 50; 100
Supply voltage, V	12 ± 2
Consumption current, A	≤ 1
Input connector	TNC
Output connector	BNC
Connectors for power supply	Power adapter
Weight, g	3300
Purpose	Measurement of parameters of dynamic processes in charge amplifier/voltage amplifier mode.
Feature	Sensor conversion factor normalization mode; overload indication mode; low noise level; galvanically isolated inputs; built-in display; operation mode control via Ethernet

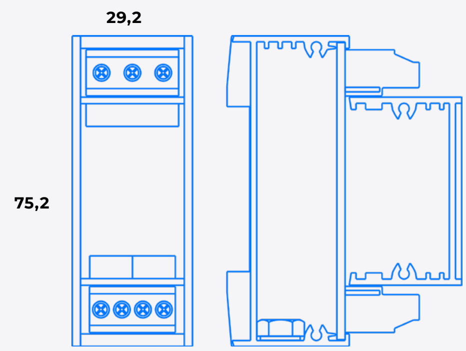
Signal generator
A181



	A181
USB protocol	version 2.0 (full speed)
RS485 specification	EIA/TIA-485
RS485 transmission rate, bits/s	300 ... 921 600
Electrical strength of galvanic isolation, V	1000
Temperature range, °C	–40 ... +85
Power, V	+ 5 (USB)
Consumed current with load, mA	< 500
Built-in power converter: ▪ voltage, V ▪ current, mA	 +5 ± 0,5 < 400
Housing material	aluminum
Weight, g	80

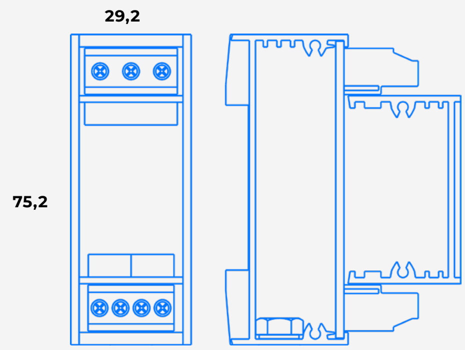
Signal generator

A401-XX



	A401	-01
Input signal range, V	± 0,8	± 0,08
Amplification, dB	0	20
Frequency range (uneven frequency response -3 dB), Hz	10 000 … 800 000	
Maximum output voltage amplitude, V	± 0,8	
Non-linear distortion coefficient, %	< 5	
Noise level, root mean square value, given to input, μV	≤ 5	
Output impedance, Ohm	75	
Measurement error in the operating temperature range, %	± 2	
Temperature range, °C	–40 … +85	
Sensor supply voltage, V	9 ± 1	
Supply voltage, V	12 ± 1	
Consumed current, mA	< 25	
Input/Output connectors	screw terminals	
Housing material	aluminum alloy	
Weight, g	150	
DIN rail mounting	yes	
Explosion-proof	[Exib]IIC	
Purpose	Reception and amplification to normalized values of signals from acoustic emission transducers with built-in electronics	
Feature	Allows the use of communication lines from the sensor to the amplifier (up to 100 m); operation on ADC with input impedance not less than 10 kOhm	

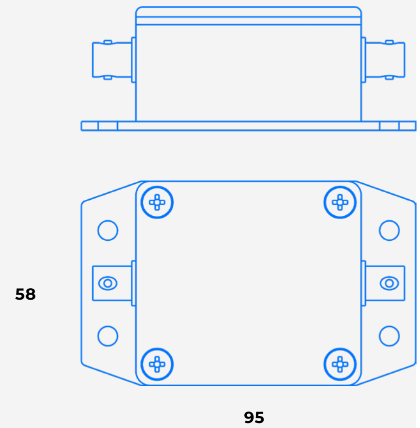
Signal generator
A421-XX



A421-XX	
Input signal range (through 1 000 pf equivalent capacitance), V	0,1
Amplification, dB	20 ± 0,5
Frequency range (uneven frequency response -3 dB), Hz	10 000 ... 600 000
Maximum output voltage amplitude, V	± 1
Non-linear distortion coefficient, %	< 5
Noise level, root mean square value, given to input, μV	< 5
Output impedance, Ohm	50
Input impedance, kOhm	500
Measurement error in the operating temperature range, %	± 2
Temperature range, °C	–40 ... +85
Supply voltage, V	12 ± 1
Consumed current, mA	< 25
Input/Output connectors	screw terminals
Housing material	aluminum alloy
Weight, g	150
DIN rail mounting	yes
Purpose	Reception and amplification to normalized values of signals from acoustic emission transducers
Feature	Allows long communication lines from sensor to amplifier (up to 10 m); operation on 50 Ohm coaxial line from amplifier to ADC (up to 100 m); low inherent noise

	Type of sensor	Electric capacity, pF
A421	7C101XX	200 ... 400
A421-01	7C102XX	400 ... 650
A421-02	7C103XX	150 ... 300
A421-03	7C104XX	130 ... 180
A421-04	7C105XX	100 ... 150

Signal generator
A422



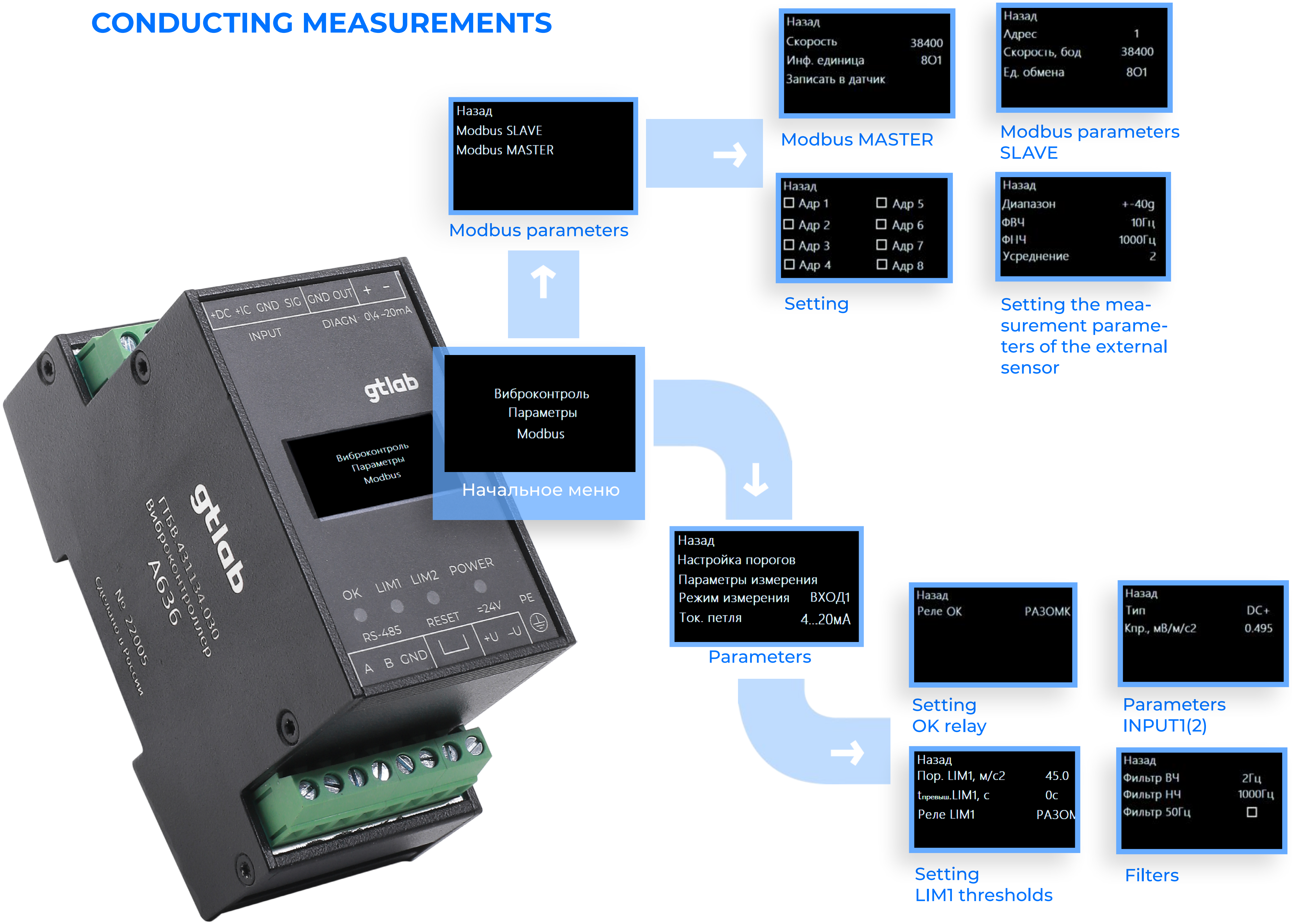
	A422
Input signal range, V	± 0,02
Amplification, dB	40 ± 0,25
Frequency range, Hz	10 000 ... 800 000
Maximum output voltage amplitude, V	± 2
High-pass filter with frequency response roll-off ≥ 20 dB / octave, attenuation ≤ 3 dB at the cutoff frequency, Hz	10 000
Low-pass filter with frequency response roll-off ≥ 20 dB / octave, attenuation ≤ 3 dB at the cutoff frequency, Hz	800 000
Non-linear distortion coefficient, %	< 5
Noise level, root mean square value, given to input, μV	< 5
Output impedance, Ohm	50
Input impedance, Ohm	100 000
Measurement error in the operating temperature range, %	± 2
Temperature range, °C	–40 ... +85
Supply voltage, V	24 ± 2
Consumed current, mA	< 35
Input/Output connectors	BNC
Housing material	aluminum alloy
Weight, g	200
Purpose	Reception and amplification to normalized values of signals from acoustic emission transducers
Feature	Work on coaxial 50 Ohm line up to 100 meters long; low intrinsic noise; hermetic housing

Controllers

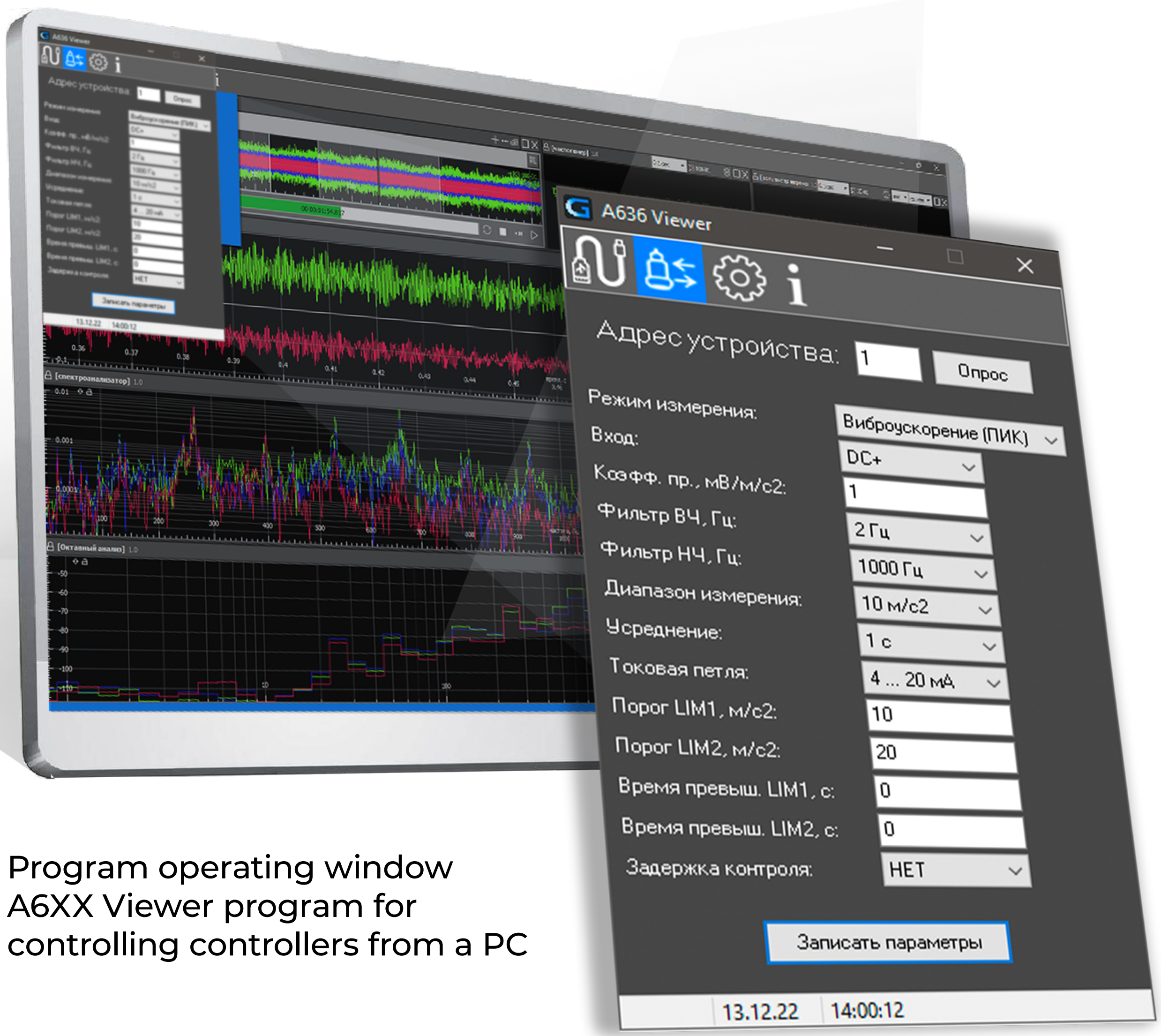
CONTROLLERS

		A621	A631	A632	A633	A634	A635	A636	A637	A638	A639
Type connected sensors	Charge	✔				✔	✔				
	IEPE		✔	✔	✔	✔	✔	✔	✔		✔
	4 - 20 mA		✔	✔							
	Negative powered (-24 V) and voltage output				✔						
	With positive supply (+24 V) and voltage output					✔	✔	✔	✔		✔
	With voltage output (PU)						✔				
	RS-485		✔								
	Eddy current formers					✔	✔	✔	✔	✔	✔
	Eddy current formers with IEPE output									✔	
Output	Diagn (signal)	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
	0 ... 10 V		✔		✔	✔					
	0 ... 5 V	✔									
	4 ... 20 mA	✔	✔	✔							
	0/4 ... 20 mA				✔	✔	✔	✔	✔	✔	✔
	RS-485	✔	✔	✔		✔	✔	✔	✔	✔	✔
	AL1 (Dry contacts)	✔	✔	✔	✔				✔		
	AL2 (Dry contacts)	✔	✔	✔	✔				✔		
	AL3 (Dry contacts)			✔							
	OK (Dry contacts)		✔		✔				✔		
	Reset (Dry contacts)	✔			✔			✔	✔	✔	
Control	Keyboard	✔	✔		✔	✔	✔		✔		
	Display	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
	RS-485	✔	✔	✔		✔	✔	✔	✔	✔	✔

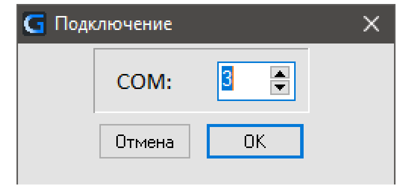
CONDUCTING MEASUREMENTS



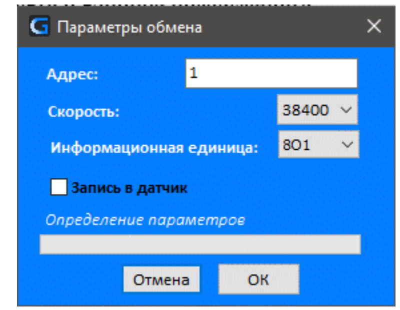
A6XX VIEWER SOFTWARE



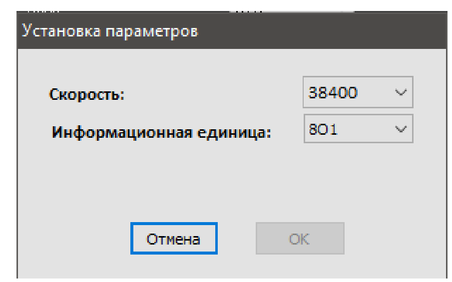
Program operating window A6XX Viewer program for controlling controllers from a PC



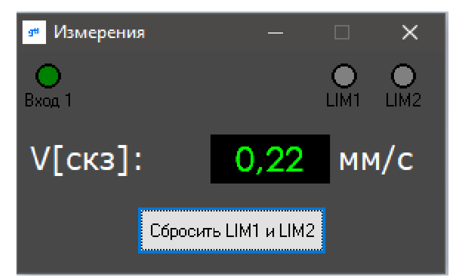
Exchange parameters



Connecting to COM port

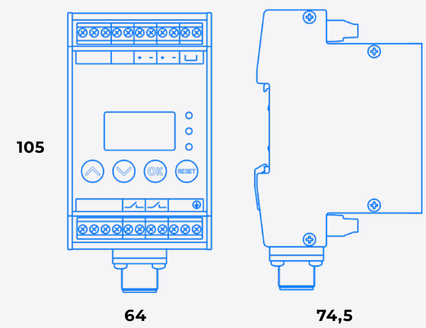


Setting



Measurement screen

Signal generator
A621 CONTROLLER



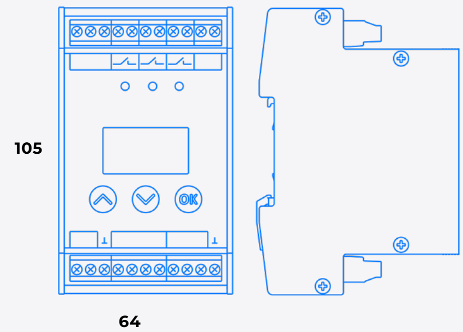
	A621
Measuring range: ▪ vibration acceleration amplitudes, m/s² ▪ vibration velocity amplitude, mm/s ▪ vibration acceleration RMS, m/s² ▪ Vibration velocity RMS, mm/s	 0,2 ... 141,4 0,2 ... 141,4 0,1 ... 100 0,1 ... 100
Maximum input charge (peak), pC	± 5 000
Frequency range measured ▪ vibration acceleration ▪ vibration velocity (uneven frequency response ± 3 dB), Hz	 10 ... 2 500 10 ... 2 000
High-pass filter/ Low-pass filter of measured acceleration (uneven frequency response ± 3 dB, step 1 Hz), Hz	10 ... 2 500
High-pass filter of measured velocity (uneven frequency response ± 3 dB, step 1 Hz), Hz	10 ... 2 000
Low - frequency of measured vibration displacement (uneven frequency response ± 3 dB, step 1 Hz), Hz	10 ... 2 500
Low - frequency of measured velocity (uneven frequency response ± 3 dB, step 1 Hz), Hz	10 ... 2 000
Temperature range, °C	–40 ... +70
Parameters of built-in comparators: ▪ values of set thresholds - vibration acceleration amplitudes, m/s² - vibration velocity amplitude, mm/s - Vibration acceleration RMS, m/s² - Vibration velocity RMS, mm/s ▪ step of setting thresholds - vibration acceleration, m/s² - vibration velocity, mm/s	 0,2 ...141,4 0,2 ...141,4 0,1 ...100 0,1 ...100 0,1 0,1
Diagnostic output, V	± 2,5 (signal)
Input/Output connectors	screw terminals

Signal generator
A621 (continuation)

Measurement error in the operating temperature range, %	±2
Type connected sensors	Charge
Data exchange in the information system	RS485
Dry contacts: • to control the vibration velocity and vibration acceleration	LIM1, LIM2
Signal conditions (closed or open) of relay contacts «LIM1», «LIM2»	Continuous excess of the set threshold value by the informative signal within 0-9 s
Time step setting of exceeding vibration velocity thresholds, s	1
Relay contact operation mode	lock/self-repair
Self-restore condition	vibration reduction from the trigger threshold by6%
Vibration control delay after establishing operating mode/self-restore	0 or 20
"Dry" contact parameters • direct current commutations, A • commutation voltage, V	<0,15 <250
Open collector contact parameters: • number of digits of the measurement result code • interface • transfer rate	12 RS-485 4 800; 7 200; 9 600; 14 400; 19 200; 38 400; 57 600; 115 200; 128 000; 230 400 бит/с
Information displayed on the built-in display	Numerical value of the measured parameter, sensitivity, error codes in case of cable breakage and sensor failure, thresholds excess time setting, relay contacts status
Supply voltage (±10 %), V	18 ...30
Consumed current, mA	< 100
DIN-rail mounting	yes
Weight, g	200

Signal generator

A631 CONTROLLER



A631	
Measuring range: ▪ vibration acceleration amplitudes, m/s² ▪ vibration velocity amplitude, mm/s ▪ Vibration acceleration RMS, m/s² ▪ Vibration velocity RMS, mm/s	 0,2 ... 141,4 0,2 ... 141,4 0,1 ... 100 0,1 ... 100
Frequency range of measured vibration speed (uneven frequency response ± 3 dB), Hz	2 ... 2 000
High-pass filter/ Low-pass filter of measured acceleration (uneven frequency response ± 3 dB, step 1 Hz), Hz	1 ... 10 000
High-pass filter/ Low-pass filter of measured vibration velocity (uneven frequency response ± 3 dB, step 1 Hz), Hz	2 ... 2 000
Temperature range, °C	–40 ... +70
Diagnostic output (BNC), V	± 2,5 (signal)
Input/Output connectors	screw terminals
Measurement error in the operating temperature range, %	±2
Type connected sensors	IEPE, RS-485 (to 8 pieces), with current output 4 ... 20 mA
Data exchange in the information system	RS485
External source voltage, V: ▪ IEPE, 4-20 мA ▪ RS-485	 24 + 2 5± 0,5
IEPE sensor supply current (±10%), mA	5,7
Dry contacts: ▪ to control the vibration velocity ▪ to monitor the connected sensor	LIM1, LIM2 Ok
Parameters of built-in comparators:	

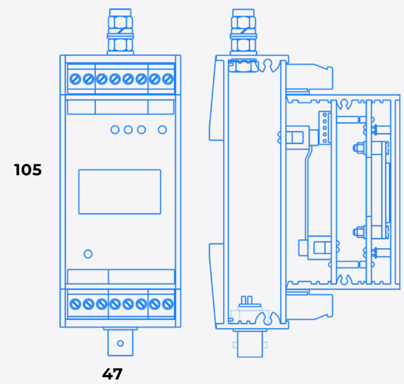
Signal generator

A631 (continuation)

▪ values of set thresholds - vibration acceleration amplitudes, m/s² - vibration velocity amplitude, mm/s - Vibration acceleration RMS, m/s² - Vibration velocity RMS, mm/s	 0,2 ...141,4 0,2 ...141,4 0,1 ...100 0,1 ...100
▪ step of setting thresholds- vibration acceleration, m/s² - vibration velocity, mm/s	0,1 0,1
Signal conditions (closed or open) of relay contacts «LIM1», «LIM2»	Continuous excess of the set threshold value by the informative signal within 0-9 s
Time step setting of exceeding vibration velocity thresholds, s	1
Relay contact operation mode	lock/self-repair
Self-restore condition, %	vibration reduction from the trigger threshold by6
Vibration control delay after establishing operating mode/self-restore	0 or 20
"Dry" contact parameters ▪ direct current commutations, A ▪ commutation voltage, V	 <1 <30
Information displayed on the built-in display	Numerical value of the measured parameter, sensitivity, error codes in case of cable breakage and sensor failure, thresholds excess time setting, relay contacts status
Supply voltage (±10 %), B	18 ...30
Consumed current, mA	< 100
DIN-rail mounting	yes
Weight, g	200

Signal generator

A632 CONTROLLER



	A632
Measuring range: ▪ vibration acceleration amplitudes, m/s² ▪ vibration velocity amplitude, mm/s ▪ Vibration acceleration RMS, m/s² ▪ Vibration velocity RMS, mm/s	 0,2 ... 141,4 0,2 ... 141,4 0,1 ... 100 0,1 ... 100
Frequency range (uneven frequency response ± 3 dB), Hz	1 ... 10 000
High-pass filter/ Low-pass filter of measured acceleration (uneven frequency response ± 3 dB, step 1 Hz), Hz	1 ... 10 000
High-pass filter/ Low-pass filter of measured vibration velocity (uneven frequency response ± 3 dB, step 1 Hz), Hz	2 ... 2 000
Temperature range, °C	–40 ... +70
Input/Output connectors	screw terminals, BNC
Measurement error in the operating temperature range, %	±2
Type connected sensors, mA	IEPE; with current output 4 ... 20 mA
Data exchange in the information system	RS485
External source voltage, V ▪ IEPE; 4-20 мА	 24 + 2
IEPE sensor supply current (±10%), mA	5,7
Current output, mA	4 ... 20
Diagnostic output, V (BNC), В	± 2,5 (signal)
Dry contacts: ▪ to control the measured parameter	 LIM1, LIM2, LIM3
Parameters of built-in comparators: ▪ values of set thresholds - vibration acceleration amplitudes, m/s² - vibration velocity amplitude, mm/s - Vibration acceleration RMS, m/s² - Vibration velocity RMS, mm/s	 0,2 ...141,4 0,2 ...141,4 0,1 ...100 0,1 ...100

Signal generator
A632 (continuation)

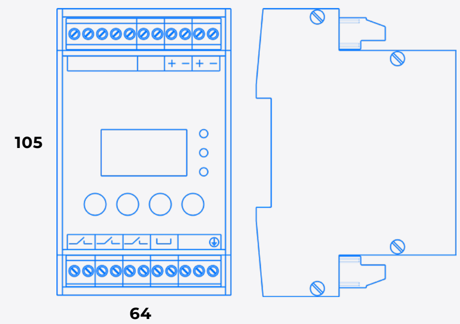
▪ step of setting thresholds- vibration acceleration, m/s² - vibration velocity, mm/s	0,1 0,1
Signal conditions (closed or open) of relay contacts «LIM1», «LIM2», «LIM3»	Continuous excess of the set threshold value by the informative signal within 0-9 s
Time step setting of exceeding vibration velocity thresholds, s	1
Relay contact operation mode	lock/self-repair
Self-restore condition	vibration reduction from the trigger threshold by6%
Vibration control delay after establishing operating mode/self-restore	0 or 20
"Dry" contact parameters ▪ direct current commutations, A ▪ commutation voltage, V	 <1 <30
Differential synchronization line	yes
Information displayed on the built-in display	Numerical value of the measured parameter, sensitivity, error codes in case of cable breakage and sensor failure, thresholds excess time setting, relay contacts status
Supply voltage (±10 %), B	18 ...30
Consumed current, mA	< 100
DIN-rail mounting	yes
Weight, g	200

Description:

- Galvanic isolation of the power supply circuits from the rest of the converter circuits
- Indication of power supply, operability, numerical value of the measured parameter.
- Galvanic isolation of 4-20 mA passive standardized current output.
- Available input/output for synchronization signal connection.
- Galvanic isolation of the RS-485 interface.
- Diagnostic output for connection to ADC.

Signal generator

A633 CONTROLLER



	A633
Measuring range: ▪ vibration acceleration amplitudes, m/s² ▪ vibration velocity amplitude, mm/s ▪ Vibration acceleration RMS, m/s² ▪ Vibration velocity RMS, mm/s	 0,2 ... 141,4 0,2 ... 141,4 0,1 ... 100 0,1 ... 100
Frequency range (uneven frequency response ± 3 dB), Hz	1 ... 10 000
High-pass filter/ Low-pass filter of measured acceleration (uneven frequency response ± 3 dB, step 1 Hz), Hz	1 ... 10 000
High-pass filter/ Low-pass filter of measured vibration velocity (uneven frequency response ± 3 dB, step 1 Hz), Hz	2 ... 2 000
Output ▪ voltage, V ▪ current, mA	 0 ... 10 0/4 ... 20
Temperature range, °C	–40 ... +70
Diagnostic output, V	± 2,5 (terminals)
Input/Output connectors	screw terminals
Measurement error in the operating temperature range, %	±2
Type connected sensors	IEPE, with voltage output and negative power supply
External source voltage, V: ▪ IEPE ▪ With voltage output and negative supply	 + 24 ± 2 - 24 ± 2
IEPE sensor supply current (±10%), mA	5,7
Dry contacts: ▪ to control the vibration velocity ▪ to monitor the connected sensor	 LIM1, LIM2 OK

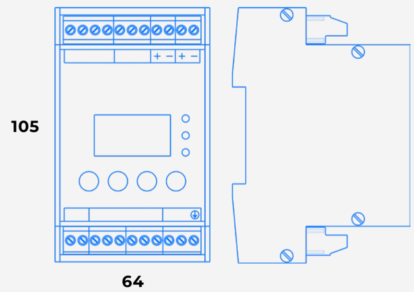
Signal generator

A633 (continuation)

Parameters of built-in comparators: ▪ values of set thresholds - vibration acceleration amplitudes, m/s^2 - vibration velocity amplitude, mm/s - Vibration acceleration RMS, m/s^2 - Vibration velocity RMS, mm/s ▪ step of setting thresholds- vibration acceleration, m/s^2 - vibration velocity, mm/s	 0,2 ...141,4 0,2 ...141,4 0,1 ...100 0,1 ...100 0,1 0,1
Signal conditions (closed or open) of relay contacts «LIM1», «LIM2»	Continuous excess of the set threshold value by the informative signal within 0-100 c
Time step setting of exceeding vibration velocity thresholds, s	1
Relay contact operation mode	lock/self-repair
Self-restore condition	vibration reduction from the trigger threshold by6%
Vibration control delay after establishing operating mode/self-restore	0 or 20
"Dry" contact parameters ▪ direct current commutations, A ▪ commutation voltage, V	 < 2 0 ... ± 60
Information displayed on the built-in display	Numerical value of the measured parameter, sensitivity, error codes in case of cable breakage and sensor failure, thresholds excess time setting, relay contacts status
Supply voltage (±10 %), B	18 ...30
Consumed current, mA	< 100
DIN-rail mounting	yes
Weight, g	200
Feature	functional counterpart of the firm Brüel & Kjær VIBROCONTROL 920

Signal generator

A634 CONTROLLER



A634

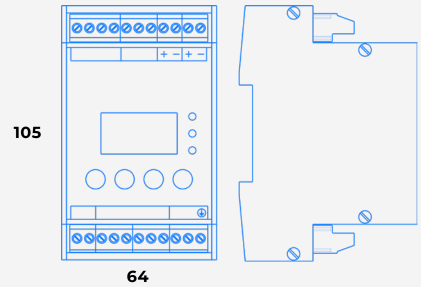
Measuring range: ▪ vibration acceleration amplitudes, m/s² ▪ vibration velocity amplitude, mm/s ▪ Vibration acceleration RMS, m/s² ▪ Vibration velocity RMS, mm/s	 0,2 ... 141,4 0,2 ... 141,4 0,1 ... 100 0,1 ... 100
Measurement ranges of relative vibration displacement ranges depending on eddy current transducer, µm	0 ... 125 0 ... 250 0 ... 500 0 ... 1 000 0 ... 1 500 0 ... 2 000
Static gap measurement ranges depending on eddy current transducer, mm	0,2 ... 2,2 0,3 ... 3,3 0,6 ... 5,0 1,0 ... 7,0
Frequency range (uneven frequency response ± 3 dB), Hz	1 ... 10 000
High-pass filter/ Low-pass filter of measured acceleration (uneven frequency response ± 3 dB, step 1 Hz), Hz ▪ voltage ▪ charge	 1 ... 10 000 10 ... 10 000
High-pass filter/ Low-pass filter of measured vibration velocity (uneven frequency response ± 3 dB, step 1 Hz), Hz ▪ voltage ▪ charge	 2 ... 2 000 10 ... 2 000
High-pass filter/ Low - frequency of measured vibration displacement (uneven frequency response ± 3 dB, step 1 Hz), Hz	1 ... 10 000
Type connected sensors	Charging symmetrical, IEPE, with voltage output and positive supply, eddy current transducers
Maximum input charge (peak), pC	± 1 500
Maximum AC input voltage, V	± 5
Maximum DC input voltage, V	0 ... 10

Signal generator
A634 (continuation)

Output: ▪ voltage, B ▪ current, мA	 0 ... 10 0/4 ... 20
Temperature range, °C	–40 ... +70
Data exchange in the information system	RS485
Diagnostic output, V	± 2,5 (terminals)
Input/Output connectors	screw terminals
Measurement error in the operating temperature range, %	±2
Error of measurement, %	±2
External source voltage, V: ▪ IEPE ▪ With voltage output	 24 ± 2 24 ± 2
Current питания датчиков (±10 %), mA: ▪ IEPE ▪ With voltage output	 5,7 < 50
Parameters of built-in comparators: ▪ values of set thresholds - vibration acceleration amplitudes, m/s² - vibration velocity amplitude, mm/s - Vibration acceleration RMS, m/s² - Vibration velocity RMS, mm/s - relative to vibration displacement, mm/s - relative to the static clearance, mm/s ▪ step of setting thresholds- vibration acceleration, m/s² - vibration velocity, mm/s - relative to vibration displacement, mm/s - relative to the static clearance, mm/s	 0,2 ...141,4 0,2 ...141,4 0,1 ...100 0,1 ...100 0 ...2 000 0,2 ... 7,0 0,1 0,1 1 0,1
Excess signals conditions	continuous exceeding of the set threshold value by the informative signal within 0-9 s
Step of setting the time of exceeding the thresholds, s	1
Mode of operation	with interlock or with self-restore
Self-restore condition	Level reduction from the triggering threshold by 6%
Vibration control delay after the self-restoring operating mode is established, s	0 or 20
Information displayed on the built-in display	Numerical value of the measured parameter, sensitivity, error codes in case of cable breakage and sensor failure, thresholds excess time setting, relay contacts status
Supply voltage , V	18 ...30
Consumed current, mA	< 100
DIN-rail mounting	yes
Weight, g	200
Feature	Operation with PE charge vibration transducers, with built-in electronics of IEPE type, with built-in electronics with positive supply and voltage output, with eddy current signal generators; Diagnostic analog output.

Signal generator

A635 Controller



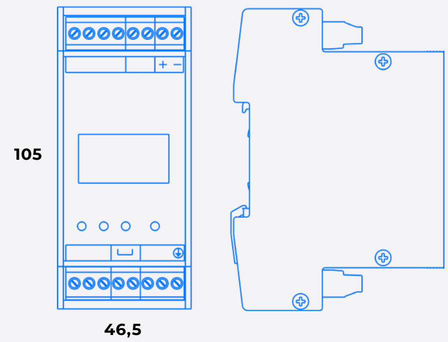
	A635
Measuring range: ▪ vibration acceleration amplitudes, m/s² ▪ vibration velocity amplitude, mm/s ▪ Vibration acceleration RMS, m/s² ▪ Vibration velocity RMS, mm/s	 0,2 ... 141,4 0,2 ... 141,4 0,1 ... 100 0,1 ... 100
Measurement ranges of relative vibration displacement ranges depending on eddy current transducer, μm	0 ... 125 0 ... 250 0 ... 500 0 ... 1 000 0 ... 1 500 0 ... 2 000
Static gap measurement ranges depending on eddy current transducer, mm	0,2 ... 2,2 0,3 ... 3,3 0,6 ... 5,0 1,0 ... 7,0
Frequency range (uneven frequency response ± 3 dB), Hz	1 ... 10 000
High-pass filter/ Low-pass filter of measured acceleration (uneven frequency response ± 3 dB, step 1 Hz), Hz ▪ voltage ▪ charge	 1 ... 10 000 10 ... 10 000
High-pass filter/ Low-pass filter of measured vibration velocity (uneven frequency response ± 3 dB, step 1 Hz), Hz ▪ voltage ▪ charge	 2 ... 2 000 10 ... 2 000
High-pass filter/ Low - frequency of measured vibration displacement (uneven frequency response ± 3 dB, step 1 Hz), Hz	1 ... 10 000
Type connected sensors	Charging symmetrical, IEPE, with voltage output and positive supply, with voltage output PU, eddy current transducers
Diagnostic output, V	± 2,5 (terminals)
Maximum AC input voltage, V	± 1,5
Maximum DC input voltage, V	0 ... 10
Output: ▪ current, мА	0 ... 20 4 ... 20

Signal generator
A635 (continuation)

Temperature range, °C	–40 ... +70
Data exchange in the information system	RS485
Input/Output connectors	screw terminals
Measurement error in the operating temperature range, %	±2
Error of measurement, %	±2
Supply voltage датчиков: ▪ IEPE, V ▪ PU , V, mA ▪ With voltage output, V, mA	 24 ± 2 ± 5, 5 24 ± 2, 50
Supply current IEPE sensors (±10 %), mA	5,7
Parameters of built-in comparators: ▪ values of set thresholds - vibration acceleration amplitudes, m/s² - vibration velocity amplitude, mm/s - Vibration acceleration RMS, m/s² - Vibration velocity RMS, mm/s - relative to vibration displacement, mm/s - relative to the static clearance, mm/s ▪ step of setting thresholds- vibration acceleration, m/s² - vibration velocity, mm/s - relative to vibration displacement, mm/s - relative to the static clearance, mm/s	 0,2 ...141,4 0,2 ...141,4 0,1 ...100 0,1 ...100 0 ...2 000 0,2 ... 7,0 0,1 0,1 1 0,1
Excess signals conditions	continuous exceeding of the set threshold value by the informative signal within 0-9 s
Step of setting the time of exceeding the thresholds, s	1
Mode of operation	with interlock or with self-restore
Self-restore condition, %	decrease in level from the threshold by 6
Vibration control delay after the self-restoring operating mode is established, s	0 or 20
Information displayed on the built-in display	Numerical value of the measured parameter, sensitivity, error codes in case of cable breakage and sensor failure, thresholds excess time setting, relay contacts status
Supply voltage, V	18 ...30
Consumed current, mA	< 100
DIN-rail mounting	yes
Weight, g	200
Feature	Operation with charge vibration transducers PE, with built-in IEPE type electronics, with built-in electronics with positive power supply and voltage output, with eddy current signal generators; Diagnostic analog output;

Signal generator

A636 CONTROLLER



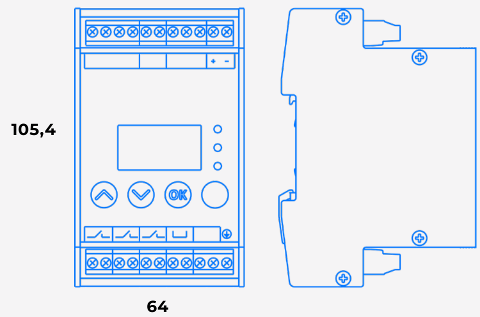
	A636
Measuring range: • vibration acceleration amplitudes, m/s² • vibration velocity amplitude, mm/s • Vibration acceleration RMS, m/s² • Vibration velocity RMS, mm/s	 0,2 ... 141,4 0,2 ... 141,4 0,1 ... 100 0,1 ... 100
Measurement ranges of relative vibration displacement ranges depending on eddy current transducer, µm	0 ... 125 0 ... 250 0 ... 500 0 ... 1 000 0 ... 1 500 0 ... 2 000
Static gap measurement ranges depending on eddy current transducer, mm	0,2 ... 2,2 0,3 ... 3,3 0,6 ... 5,0 1,0 ... 7,0
Frequency range (uneven frequency response ± 3 dB), Hz	1 ... 10 000
High-pass filter/ Low-pass filter of measured acceleration (uneven frequency response ± 3 dB, step 1 Hz), Hz • voltage • charge	 1 ... 10 000 10 ... 10 000
High-pass filter/ Low-pass filter of measured vibration velocity (uneven frequency response ± 3 dB, step 1 Hz), Hz • voltage • charge	 2 ... 2 000 10 ... 2 000
High-pass filter/ Low - frequency of measured vibration displacement (uneven frequency response ± 3 dB, step 1 Hz), Hz	1 ... 10 000
Type connected sensors	IEPE, with voltage output and positive supply, eddy current transducers
Diagnostic output, V	± 2,5 (terminals)
Maximum AC input voltage, V	± 1,5
Maximum DC input voltage, V	0 ... 10
Output, мA: • current	 0 ... 20 4 ... 20

Signal generator
A636 (continuation)

Temperature range, °C	–40 ... +70
Data exchange in the information system	RS485
Input/Output connectors	screw terminals
Measurement error in the operating temperature range, %	±2
Error of measurement, %	±2
External source voltage, V: ▪ IEPE ▪ With voltage output	 24 ± 2 24 ± 2
Supply current of sensors (±10%), mA: ▪ IEPE ▪ With voltage output	 5,7 < 50
Parameters of built-in comparators: ▪ values of set thresholds - vibration acceleration amplitudes, m/s² - vibration velocity amplitude, mm/s - vibration acceleration RMS, m/s² - vibration velocity RMS, mm/s - relative to vibration displacement, mm/s - relative to the static clearance, mm/s ▪ step of setting thresholds- vibration acceleration, m/s² - vibration velocity, mm/s - relative to vibration displacement, mm/s - relative to the static clearance, mm/s	 0,2 ...141,4 0,2 ...141,4 0,1 ...100 0,1 ...100 0 ...2 000 0,2 ... 7,0 0,1 0,1 1 0,1
Excess signals conditions, c	continuous exceeding of the set threshold value by the informative signal within 0-9 s
Step of setting the time of exceeding the thresholds, s	1
Mode of operation	with interlock or with self-restore
Self-restore condition, %	continuous exceeding of the set threshold value by the informative signal within 0-9 s
Vibration control delay after the self-restoring operating mode is established, s	0 or 20
Information displayed on the built-in display	Numerical value of the measured parameter, sensitivity, error codes in case of cable breakage and sensor failure, thresholds excess time setting, relay contacts status
Supply voltage, V	18 ...30
Consumed current, mA	< 100
DIN-rail mounting	yes
Weight, g	200
Feature	Operation with vibration transducers with integrated electronics of IEPE type, with integrated electronics with positive supply and voltage output, with eddy current signal generators; Diagnostic analog output

Signal generator

A637 CONTROLLER

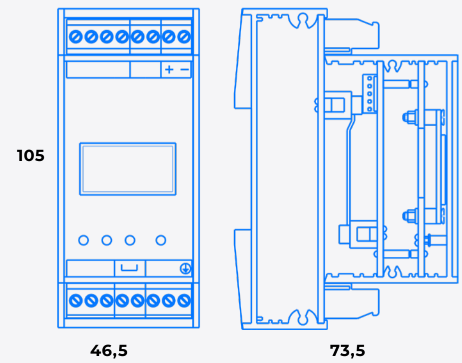


	A637
Measuring range: ▪ vibration acceleration amplitudes, m/s² ▪ vibration velocity amplitude, mm/s ▪ Vibration acceleration RMS, m/s² ▪ Vibration velocity RMS, mm/s	 0,2 ... 141,4 0,2 ... 141,4 0,1 ... 100 0,1 ... 100
Measurement ranges of relative vibration displacement ranges depending on eddy current transducer, µm	0 ... 125 0 ... 250 0 ... 500 0 ... 1 000 0 ... 1 500 0 ... 2 000
Static gap measurement ranges depending on eddy current transducer, mm	0,2 ... 2,2 0,3 ... 3,3 0,6 ... 5,0 1,0 ... 7,0
Frequency range (uneven frequency response ± 3 dB), Hz	1 ... 10 000
High-pass filter/ Low-pass filter of measured acceleration (uneven frequency response ± 3 dB, step 1 Hz), Hz ▪ voltage ▪ charge	 1 ... 10 000 10 ... 10 000
High-pass filter/ Low-pass filter of measured vibration velocity (uneven frequency response ± 3 dB, step 1 Hz), Hz ▪ voltage ▪ charge	 2 ... 2 000 10 ... 2 000
High-pass filter/ Low - frequency of measured vibration displacement (uneven frequency response ± 3 dB, step 1 Hz), Hz	1 ... 10 000
Type connected sensors	IEPE, with voltage output and positive supply, eddy current transducers
Diagnostic output, V	± 2,5 (terminals)
Maximum AC input voltage, V	± 1,5
Maximum DC input voltage, V	0 ... 10
Output, мA: ▪ current	 0 ... 20 4 ... 20

Signal generator
A637 (continuation)

Temperature range, °C	–40 ... +70
Data exchange in the information system	RS485
Input/Output connectors	screw terminals
Measurement error in the operating temperature range, %	±2
Error of measurement, %	±2
External source voltage, V: ▪ IEPE ▪ With voltage output	 24 ± 2 24 ± 2
Supply current of sensors (±10%), mA: ▪ IEPE ▪ With voltage output	 5,7 < 50
Parameters of built-in comparators: ▪ values of set thresholds - vibration acceleration amplitudes, m/s^2 - vibration velocity amplitude, mm/s - Vibration acceleration RMS, m/s^2 - Vibration velocity RMS, mm/s - relative to vibration displacement, mm/s - relative to the static clearance, mm/s ▪ step of setting thresholds- vibration acceleration, m/s^2 - vibration velocity, mm/s - relative to vibration displacement, mm/s - relative to the static clearance, mm/s	 0,2 ...141,4 0,2 ...141,4 0,1 ...100 0,1 ...100 0 ...2 000 0,2 ... 7,0 0,1 0,1 1 0,1
Excess signals conditions	continuous exceeding of the set threshold value by the informative signal within 0-9 s
Step of setting the time of exceeding the thresholds, s	1
Mode of operation	with interlock or with self-restore
Self-restore condition, %	decrease in level from the threshold by 6
Vibration control delay after the self-restoring operating mode is established, s	0 or 20
Information displayed on the built-in display	Numerical value of the measured parameter, sensitivity, error codes in case of cable breakage and sensor failure, thresholds excess time setting, relay contacts status
Supply voltage, V	18 ...30
Consumed current, mA	< 100
DIN-rail mounting	yes
Weight, g	200
Feature	Operation with vibration transducers with integrated electronics of IEPE type, with integrated electronics with positive supply and voltage output, with eddy current signal generators; Diagnostic analog output

Signal generator
A638 CONTROLLER



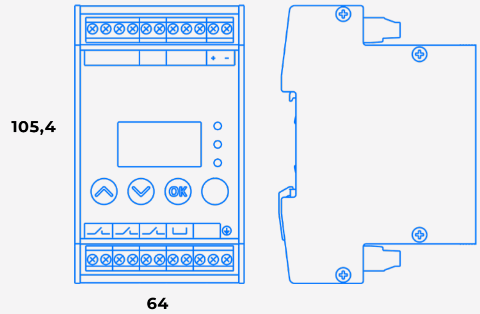
A638	
Measurement ranges of relative vibration displacement ranges, μm	0 ... 125 0 ... 250 0 ... 500 0 ... 1 000 0 ... 1 500 0 ... 2 000
Measuring ranges of static clearance, mm	0,2 ... 2,2 0,3 ... 3,3 0,6 ... 5 1 ... 7
Frequency range (uneven frequency response - 3 dB), Hz	1 ... 10 000
High-pass filter/Low - frequency of measured vibration displacement (uneven frequency response ± 3 dB, step 1 Hz), Hz	1 ... 10 000
Type connected sensors	eddy current transducers, eddy current transducers with IEPE
Output, мА: ▪ current	0 ... 20 4 ... 20
Maximum DC input voltage, V	0 ... 10
Temperature range, °C	–40 ... +70
Data exchange in the information system	RS485
Diagnostic output, V	± 2,5 (terminals)
Input/Output connectors	screw terminals
Measurement error in the operating temperature range, %	±2
Error of measurement, %	±2
Excess signals conditions, s	continuous exceeding of the set threshold value by the informative signal within 0-9
Step of setting the time of exceeding the thresholds, s	1
Mode of operation	with interlock or with self-restore

Signal generator
A638 (continuation)

Self-restore condition, %	decrease in level from the threshold by 6
Vibration control delay after the self-restoring operating mode is established, s	0 or 20
"Dry" contact parameters ▪ direct current commutations, A ▪ commutation voltage, V	 < 2 0 ... ± 60
Information displayed on the built-in display	Numerical value of the measured parameter, sensitivity, error codes in case of cable breakage and sensor failure, thresholds excess time setting, relay contacts status
Supply voltage, B	18 ...30
Consumed current, mA	< 100
DIN-rail mounting	yes
Weight, g	200
Feature	Operation with eddy current generators and with eddy current generators with IEPE output; Diagnostic analog output.

Signal generator

A639 CONTROLLER



A639	
Number of channel measurements	2
Measurement modes on two channels:	input 1; input 2; arithmetic mean from two inputs; vector; maximum over two channels
Measuring range: ▪ vibration acceleration amplitudes, m/s² ▪ vibration velocity amplitude, mm/s ▪ Vibration acceleration RMS, m/s² ▪ Vibration velocity RMS, mm/s	 0,2 ... 141,4 0,2 ... 141,4 0,1 ... 100 0,1 ... 100
Measurement ranges of relative vibration displacement ranges depending on eddy current transducer, µm	0 ... 125 0 ... 250 0 ... 500 0 ... 1 000 0 ... 1 500 0 ... 2 000
Static gap measurement ranges depending on eddy current transducer, mm	0,2 ... 2,2 0,3 ... 3,3 0,6 ... 5,0 1,0 ... 7,0
Frequency range (uneven frequency response ± 3 dB), Hz	1 ... 10 000
High-pass filter/ Low-pass filter of measured acceleration (uneven frequency response ± 3 dB, step 1 Hz), Hz ▪ voltage	1 ... 10 000
High-pass filter/ Low-pass filter of measured vibration velocity (uneven frequency response ± 3 dB, step 1 Hz), Hz ▪ voltage	2 ... 2 000
High-pass filter/ Low - frequency of measured vibration displacement (uneven frequency response ± 3 dB, step 1 Hz), Hz	1 ... 10 000
Type connected sensors	IEPE, with voltage output and positive supply, eddy current transducers
Diagnostic output, V	± 2,5 (terminals)
Maximum AC input voltage, V	± 1,5
Maximum DC input voltage, V	0 ... 10

Signal generator

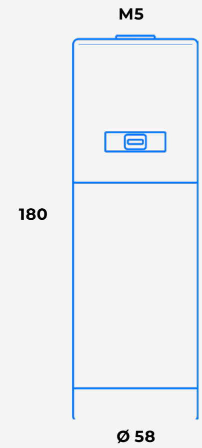
A639 (continuation)

Output, мA: ▪ current	 0 ... 20 4 ... 20
Temperature range, °C	–40 ... +70
Data exchange in the information system	RS485
Input/Output connectors	screw terminals
Measurement error in the operating temperature range, %	±2
Error of measurement, %	±2
External source voltage, V: ▪ IEPE ▪ With voltage output	 24 ± 2 24 ± 2
Supply current of sensors (±10%), mA: ▪ IEPE ▪ With voltage output	 5,7 < 50
Parameters of built-in comparators: ▪ values of set thresholds - vibration acceleration amplitudes, m/s² - vibration velocity amplitude, mm/s - Vibration acceleration RMS, m/s² - Vibration velocity RMS, mm/s - relative to vibration displacement, mm/s - relative to the static clearance, mm/s ▪ step of setting thresholds- vibration acceleration, m/s² - vibration velocity, mm/s - relative to vibration displacement, mm/s - relative to the static clearance, mm/s	 0,2 ...141,4 0,2 ...141,4 0,1 ...100 0,1 ...100 0 ...2 000 0,2 ... 7,0 0,1 0,1 1 0,1
Excess signals conditions, s	continuous exceeding of the set threshold value by the informative signal within 0-9
Step of setting the time of exceeding the thresholds, s	1
Mode of operation	with interlock or with self-restore
Self-restore condition, %	decrease in level from the threshold by 6
Vibration control delay after the self-restoring operating mode is established, s	0 or 20
"Dry" contact parameters ▪ direct current commutations, Acommutation voltage, V	 < 2 0 ... ± 60
Information displayed on the built-in display	Numerical value of the measured parameter, sensitivity, error codes in case of cable breakage and sensor failure, thresholds excess time setting, relay contacts status
Supply voltage, V	18 ...30
Consumed current, mA	< 200
DIN-rail mounting	yes
Weight, g	200
Feature	Operation with vibration transducers with integrated electronics of IEPE type, with integrated electronics with positive supply and voltage output, with eddy current signal generators; Diagnostic analog Output.

Calibrators

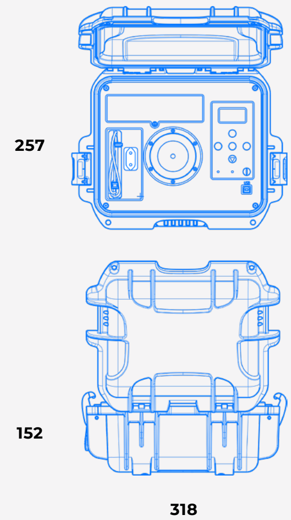
Calibrator

S01



	S01
Vibration frequency (± 1%), Hz	159,2
Acceleration (RMS ± 2%), m/s²	10
Velocity (RMS ± 2%), mm/s	10
Displacement (RMS ± 2%), μm	10
Transverse vibration amplitude, %	< 5
Nonlinear distortions, %	< 3
Operating mode setting time, s	< 5
Maximum weight of calibration sensor, g	200
Temperature range, °C	–10 ... +50
Maximum mounting torque of calibrated sensor, N·m	0,1 (in the absence of a torque tool, it is allowed to attach the calibrated sensors by hand)
Weight, g	900
Power	stand-alone or from USB
Connector for external power supply and battery charging	Micro USB
Supplied accessories	adapter P0005, studs P0505, P0508, P0506, battery charger AA: 4 pcs, USB cable, adapter 220 V

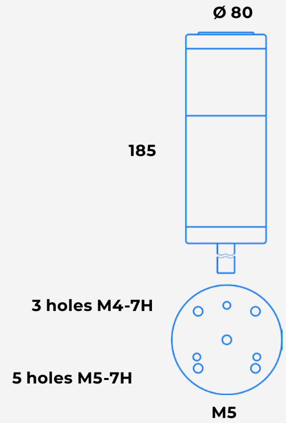
Calibrator
S02



	S02
Vibration frequency (± 1%), Hz	39,79 79,58 159,2 636,6
Acceleration (RMS ± 2%, step 1 m/s²), m/s²	1 ... 10 (for frequencies 39,79 Hz; 79,58 Hz; 159,2 Hz) 1 (for frequencies 636,6 Hz)
Transverse vibration amplitude, %	< 5
Nonlinear distortions, %	< 3
Operating mode setting time, s	< 5
Maximum weight of calibration sensor, g	300 (for frequencies 39,79 Hz; 79,58 Hz) 200 (for frequencies 159,2 Hz; 636,6 Hz)
Temperature range, °C	–10 ... +50
Maximum mounting torque of calibrated sensor, N·m	0,1 (in the absence of a torque tool, it is allowed to attach the calibrated sensors by hand)
Weight, kg	5
Power, B	Stand-alone or from a 220/+5V AC adapter
Connector for external power supply and battery charging	USB Type B
Supplied accessories	adapter P0005, studs P0505, P0508, P0506, battery charger HR20: 4 pcs, cable, adapter 220 V

Calibrator

S03



	S03
Vibration frequency (± 1%), Hz	40
Acceleration (RMS ± 2%), m/s²	2,51
Velocity (RMS ± 2%), mm/s	10
Displacement (RMS ± 2%), μm	40
Transverse vibration amplitude, %	< 7
Nonlinear distortions, %	< 5
Operating mode setting time, s	< 5
Maximum weight of calibration sensor, g	250
Temperature range, °C	–10 ... +50
Weight, g	1 500
Power	stand-alone or from USB
Connector for external power supply and battery charging	Micro USB
Supplied accessories	adapter P0005, studs P0505, P0508, P0506, battery charger AA: 4 pcs, USB cable, adapter 220 V

Calibrator

S04

	S04
Vibration frequency (± 1%), Hz	79,58; 159,2.
Acceleration (RMS ± 3%), m/s²	1 ... 10
Velocity (RMS ± 3%) ▪ for frequencies 79,58 Hz, mm/s ▪ for frequencies 159,2 Hz, mm/s	 2 ... 20 1 ... 10
Displacement (RMS ± 3%) ▪ for frequencies 79,58 Hz, μm ▪ for frequencies 159,2 Hz, μm	 4 ... 40 1 ... 10
Transverse vibration amplitude, %	< 5
Nonlinear distortions, %	< 3
Operating mode setting time, s	< 5
Maximum weight of calibration sensor, g	300
Temperature range, °C	–10 ... +50
Maximum mounting torque of calibrated sensor, N·m	0,1 (in the absence of a torque tool, it is allowed to attach the calibrated sensors by hand)
Weight, g	1 160
Power	stand-alone or from USB
Connector for external power supply and battery charging	Micro USB
Supplied accessories	adapter P0005, studs P0505, P0508, P0506, battery charger AA: 4 pcs, USB cable, adapter 220 V
Features	built-in Display

Measuring devices

GTL. Software for registration, processing, recording and visualization of signals.


РОССИЙСКАЯ ФЕДЕРАЦИЯ

СВИДЕТЕЛЬСТВО

о государственной регистрации программы для ЭВМ

№ 2021611055

GTL

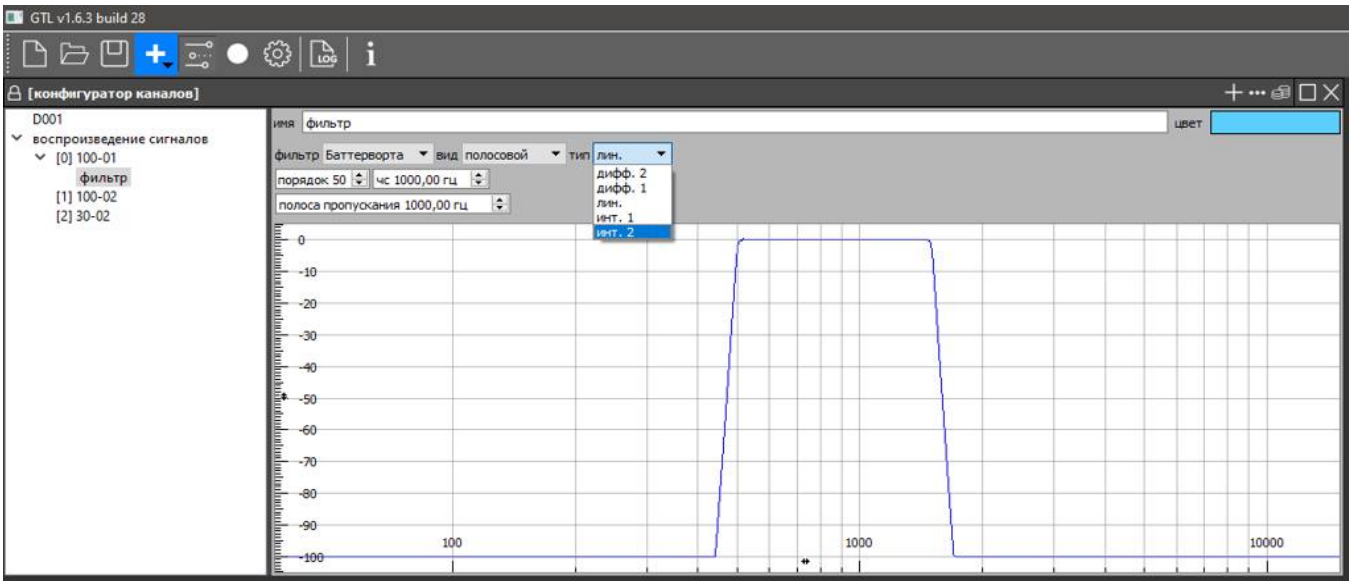
ОБЩЕСТВО С ОГРАНИЧЕННОЙ ОТВЕТСТВЕННОСТЬЮ "ГТЛАБ" (RU)

11 января 2021 г.

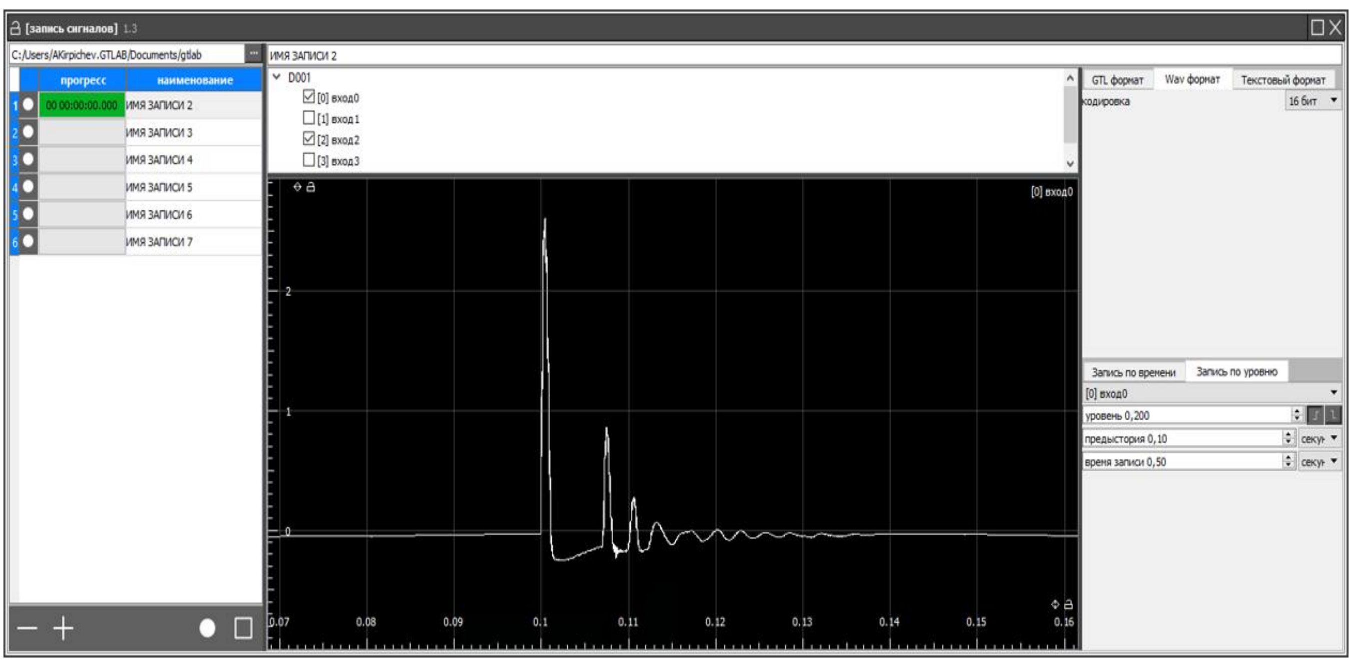
21 января 2021 г.

Wide range of virtual instruments

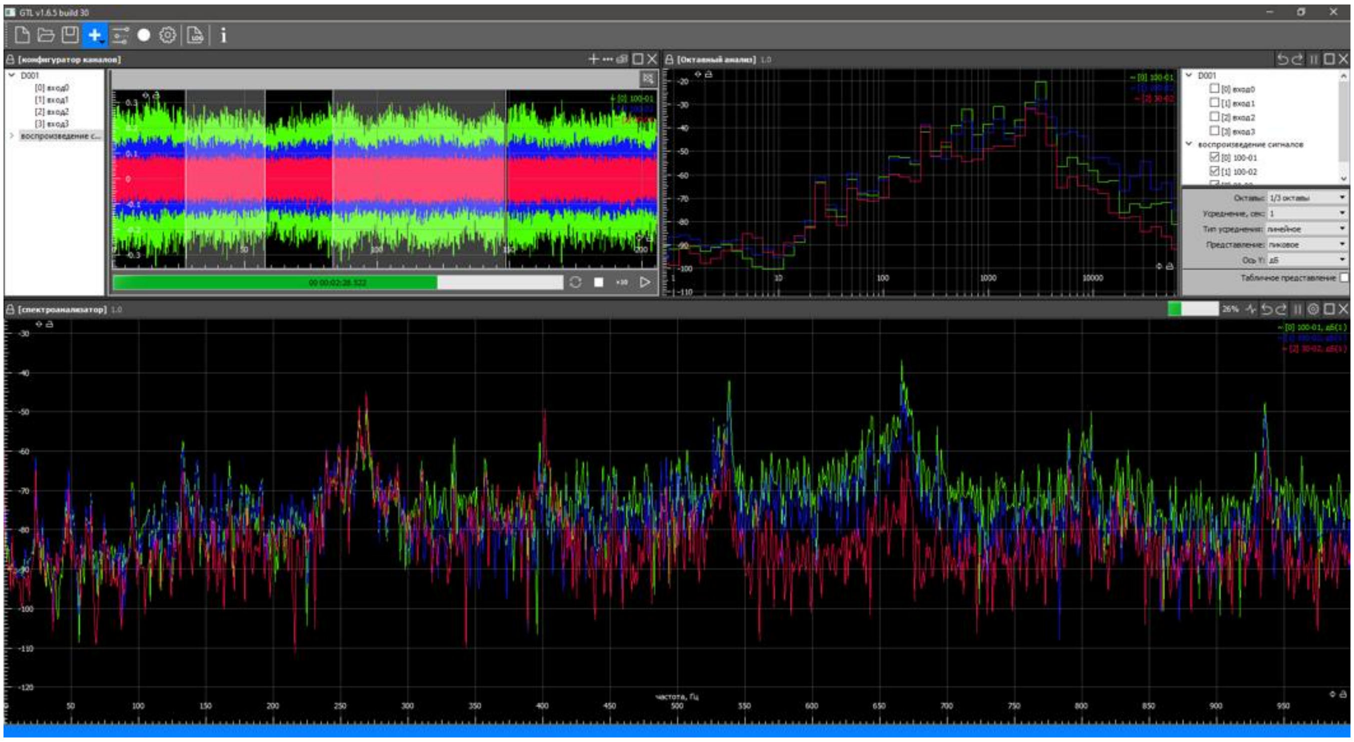
Filtering (up to order 50), integration, differentiation of signals



Multi-channel recording of signals by time or level with subsequent display of the recorded oscillogram

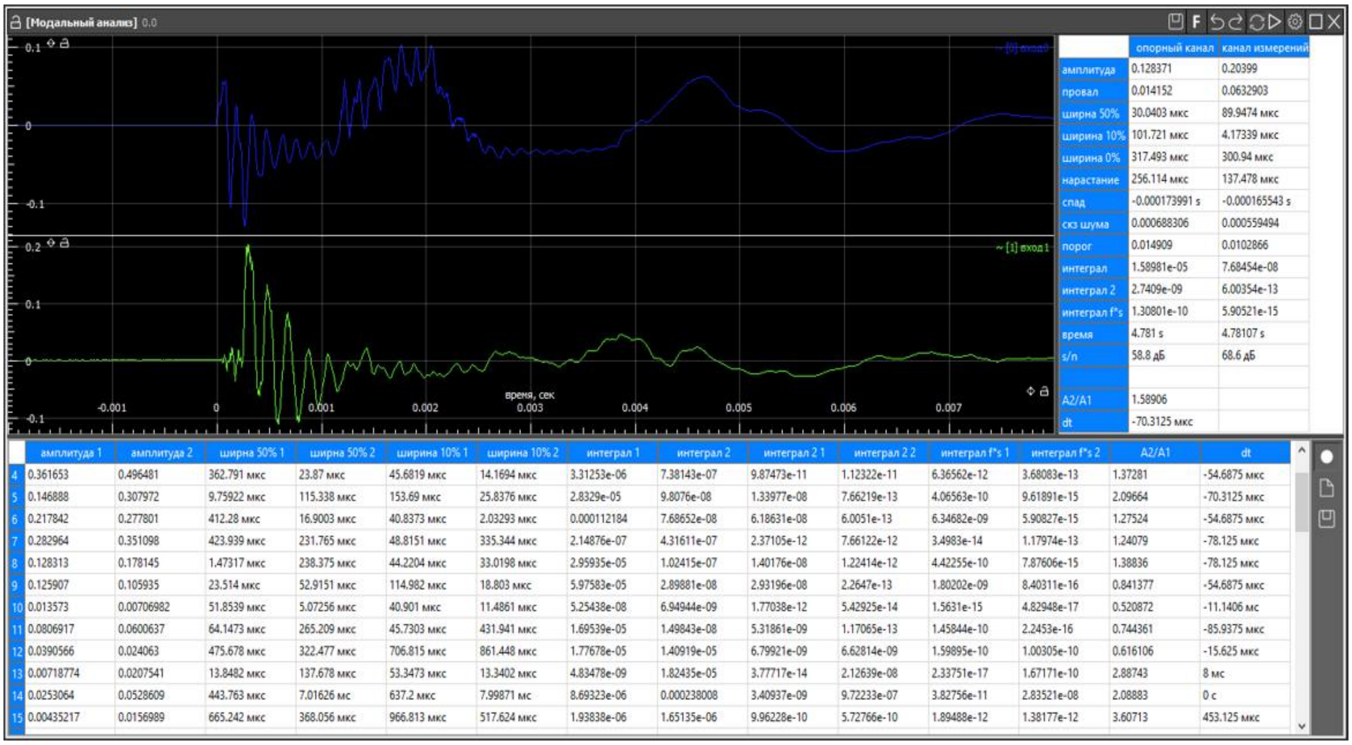


Reproduction of signals with the possibility of selecting individual fragments for their subsequent spectral analysis



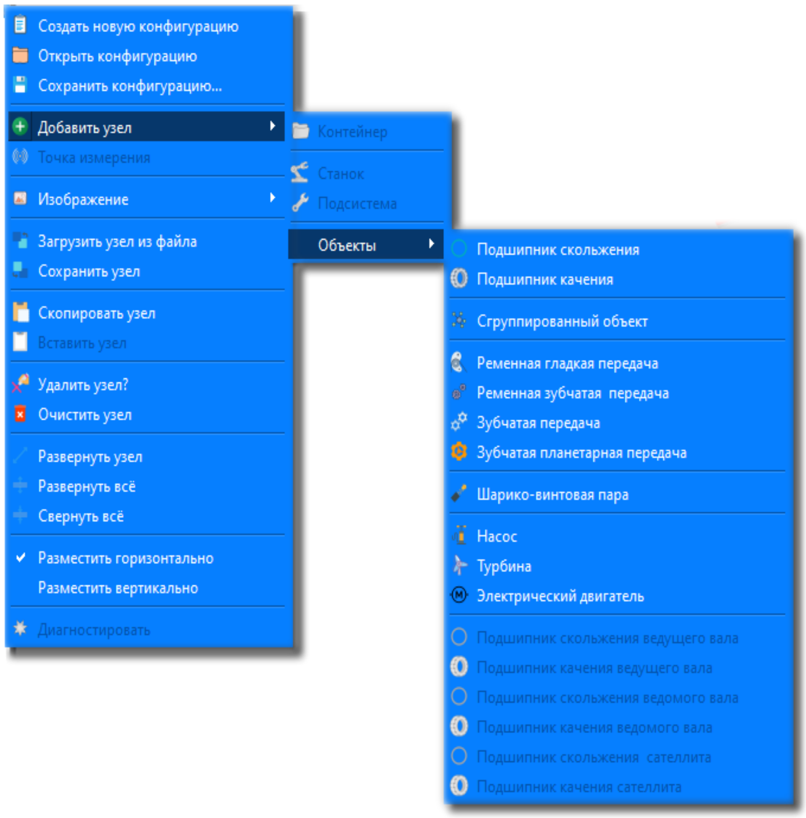
Flexible layout of virtual instrument windows.

Development/customization of modules according to individual requirements.



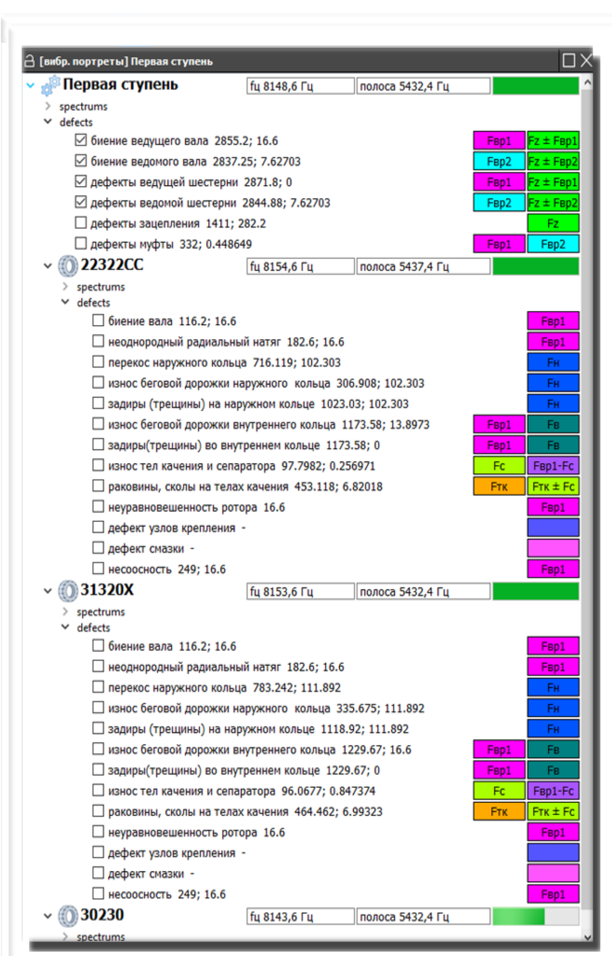
GTLd. Software for monitoring and automated vibration diagnostics of industrial machinery

Monitoring and vibrodiagnostics



Detection of defects in the following mechanisms:

- Rolling bearings
- Plain bearings
- Ball screws (ball screw pairs of CNC machines)
- Gears
- Planetary gearboxes
- Belt transmission
- Chain transmission
- Pumps
- Compressors
- Electric motors

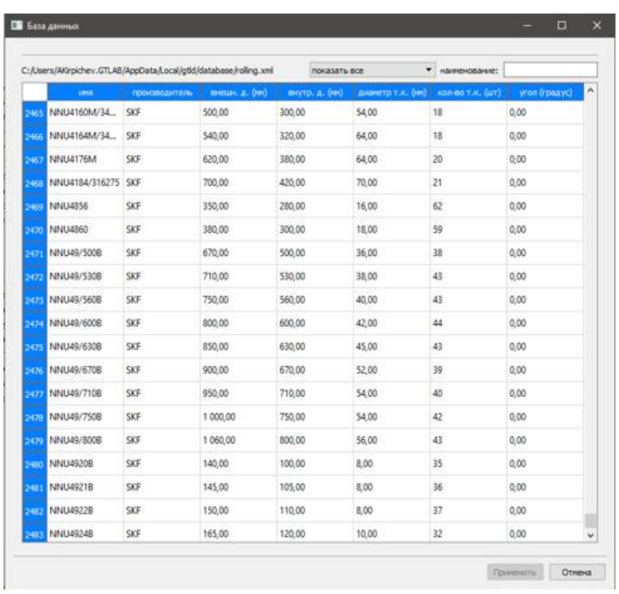


- TOTAL: identification of more than 70 possible defects of industrial equipment

Applying multithread spectral analysis to digitize proven experts' approaches

Databases:

rolling bearings
(more than 2500 items);



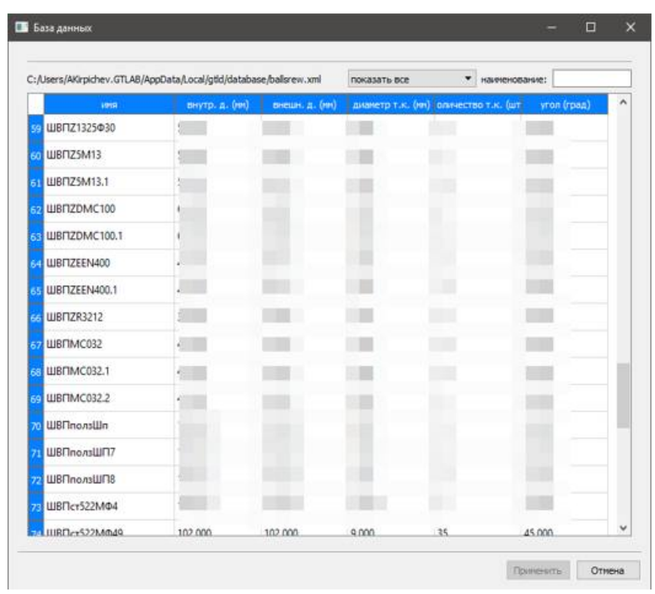
База данных

C:/Users/AKirpichev.GTLAB/AppData/Local/gtld/database/rolling.xml — показать все — наименование:

	имя	производитель	внешн. д. (мм)	внутр. д. (мм)	диаметр т.к. (мм)	кол-во т.к. (шт)	угол (градус)
2465	NNU4160M/34...	SKF	500,00	300,00	54,00	18	0,00
2466	NNU4164M/34...	SKF	540,00	320,00	64,00	18	0,00
2467	NNU4176M	SKF	620,00	380,00	64,00	20	0,00
2468	NNU4184/316275	SKF	700,00	420,00	70,00	21	0,00
2469	NNU4856	SKF	350,00	280,00	16,00	62	0,00
2470	NNU4860	SKF	380,00	300,00	18,00	59	0,00
2471	NNU49/500B	SKF	670,00	500,00	36,00	38	0,00
2472	NNU49/530B	SKF	710,00	530,00	38,00	43	0,00
2473	NNU49/560B	SKF	750,00	560,00	40,00	43	0,00
2474	NNU49/600B	SKF	800,00	600,00	42,00	44	0,00
2475	NNU49/630B	SKF	850,00	630,00	45,00	43	0,00
2476	NNU49/670B	SKF	900,00	670,00	52,00	39	0,00
2477	NNU49/710B	SKF	950,00	710,00	54,00	40	0,00
2478	NNU49/750B	SKF	1 000,00	750,00	54,00	42	0,00
2479	NNU49/800B	SKF	1 060,00	800,00	56,00	43	0,00
2480	NNU4920B	SKF	140,00	100,00	8,00	35	0,00
2481	NNU4921B	SKF	145,00	105,00	8,00	36	0,00
2482	NNU4922B	SKF	150,00	110,00	8,00	37	0,00
2483	NNU4924B	SKF	165,00	120,00	10,00	32	0,00

Применить — Отмена

ball screws of machine tool equipment
(Certificate of Database State Registration
No. 2021620395).



База данных

C:/Users/AKirpichev.GTLAB/AppData/Local/gtld/database/ballsrew.xml — показать все — наименование:

	имя	внутр. д. (мм)	внешн. д. (мм)	диаметр т.к. (мм)	оличество т.к. (шт	угол (град)
59	ШВПZ1325Ф30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
60	ШВПZ5M13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
61	ШВПZ5M13.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
62	ШВПZDMC100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
63	ШВПZDMC100.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
64	ШВПZEEN400	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
65	ШВПZEEN400.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
66	ШВПZR3212	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
67	ШВПMC032	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
68	ШВПMC032.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
69	ШВПMC032.2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
70	ШВПползШп	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
71	ШВПползШП7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
72	ШВПползШП8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
73	ШВПст522МФ4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
74	ШВПст522МФ49	102,000	102,000	9,000	35	45,000

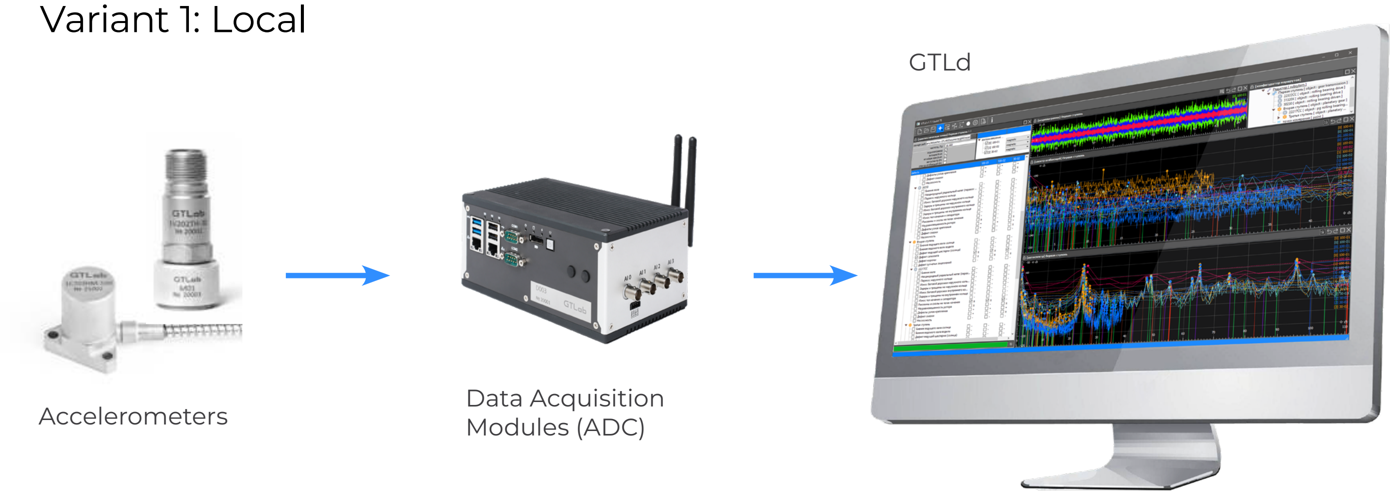
Применить — Отмена

Machine tool fleet databases.

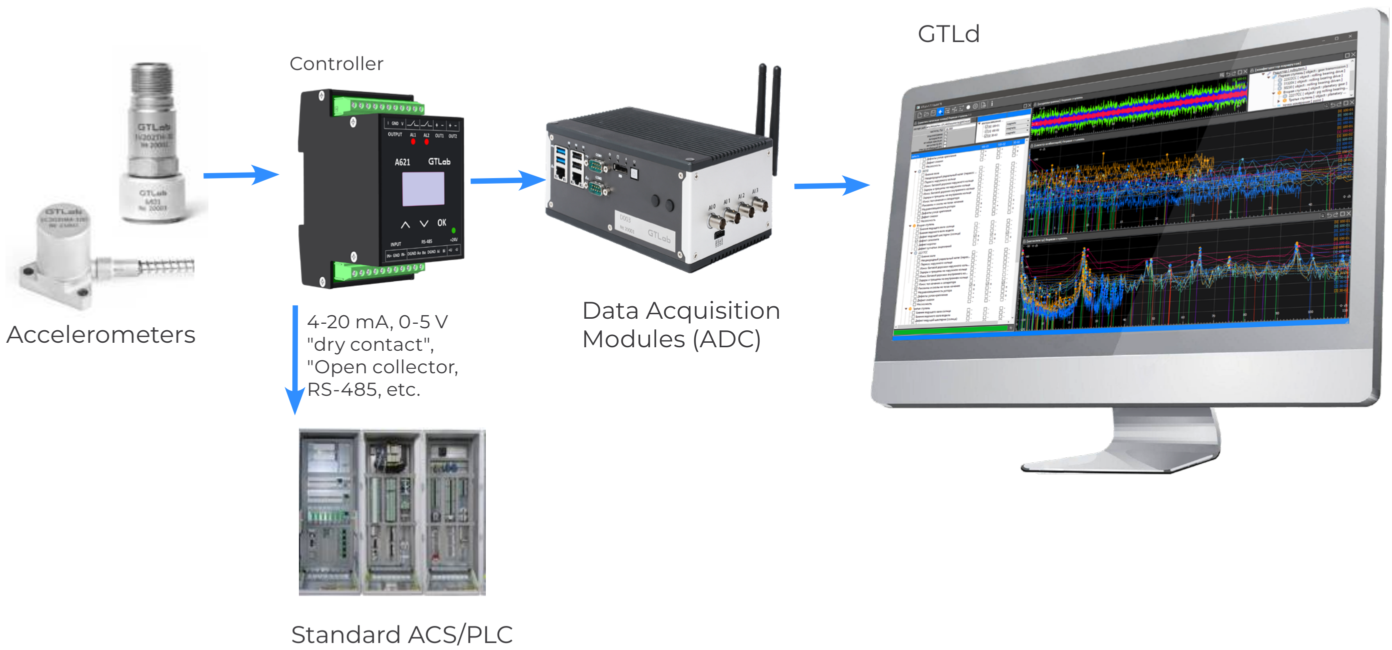
Станок 1А740РФ3	Станок 1К20Ф2С32	Станок 1М512МФ3
Станок 1П732Ф3	Станок 2А636Ф1	Станок 3М196
Станок 3М428	Станок 16М30Ф3	Станок 16А20Ф3
Станок 65А90Ф1	Станок 67К25PF11	Станок 200HT
Станок 500V2V4	Станок 552МФ4	Станок 1516Ф3
Станок 3283	Станок DMG100	Станок DMG100_2
Станок EEN-400	Станок Leadell V30i	Станок Leadell V40i
Станок Masturu550	Станок MAXO 800	Станок MCFV1680
Станок OPTIMA	Станок RF-32	Станок SKT-211S
Станок VC-85	Станок VT2 26-60	Станок VT-23
Станок WHN(Q)13CNC	Станок ГФ2171С5	Станок ГФ2251
Станок ИР357pr1	Станок ИС800ПМФ4	Станок ЛС536Ф3
Станок МГГСП 161 01МФ4	Станок ОШ600Ф3	Станок СТП 220АП
Станок УФ5225 привода	Станок ФП-17МН	

Functional diagrams of vibration control system organization (vibration diagnostics and vibration monitoring).

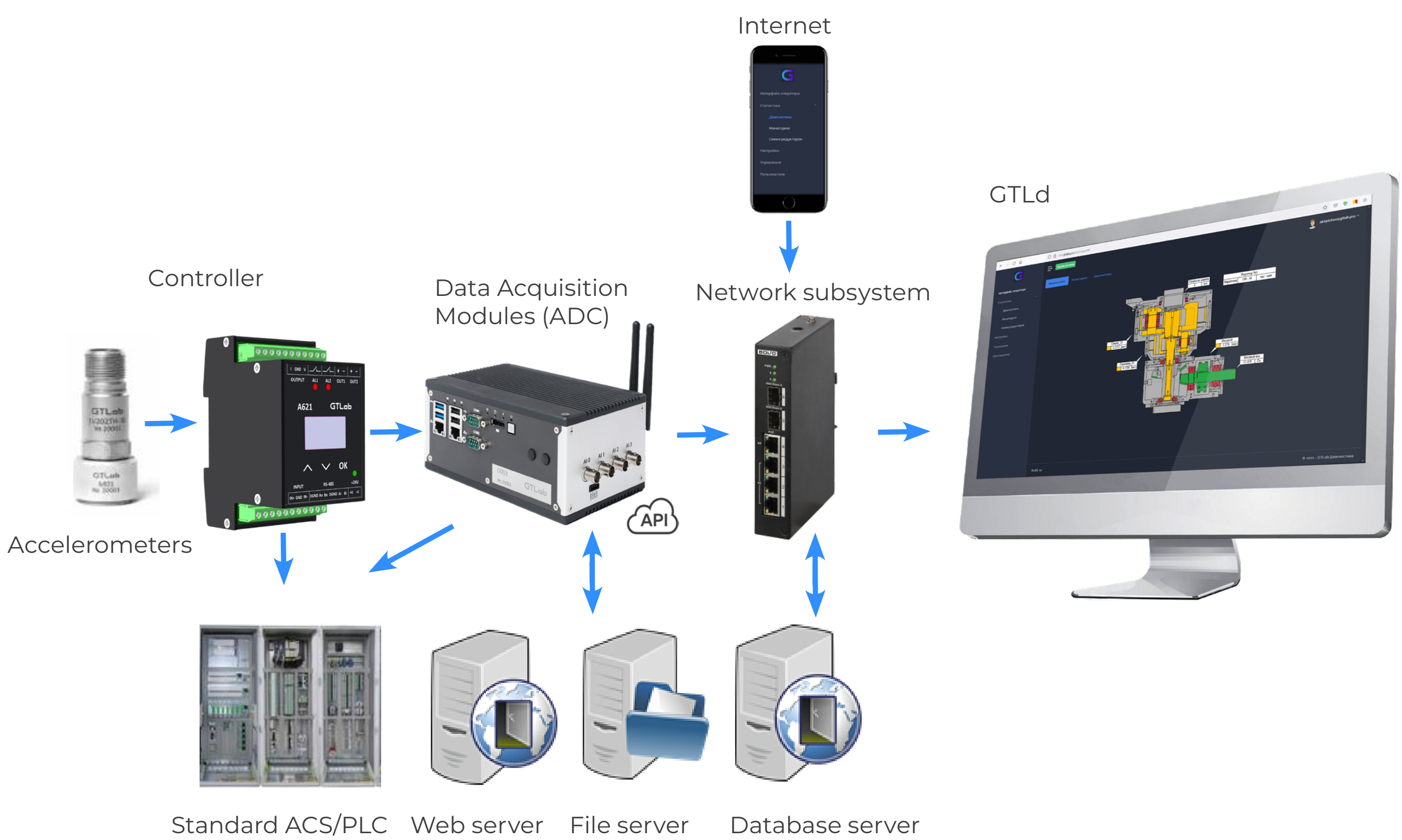
Variant 1: Local



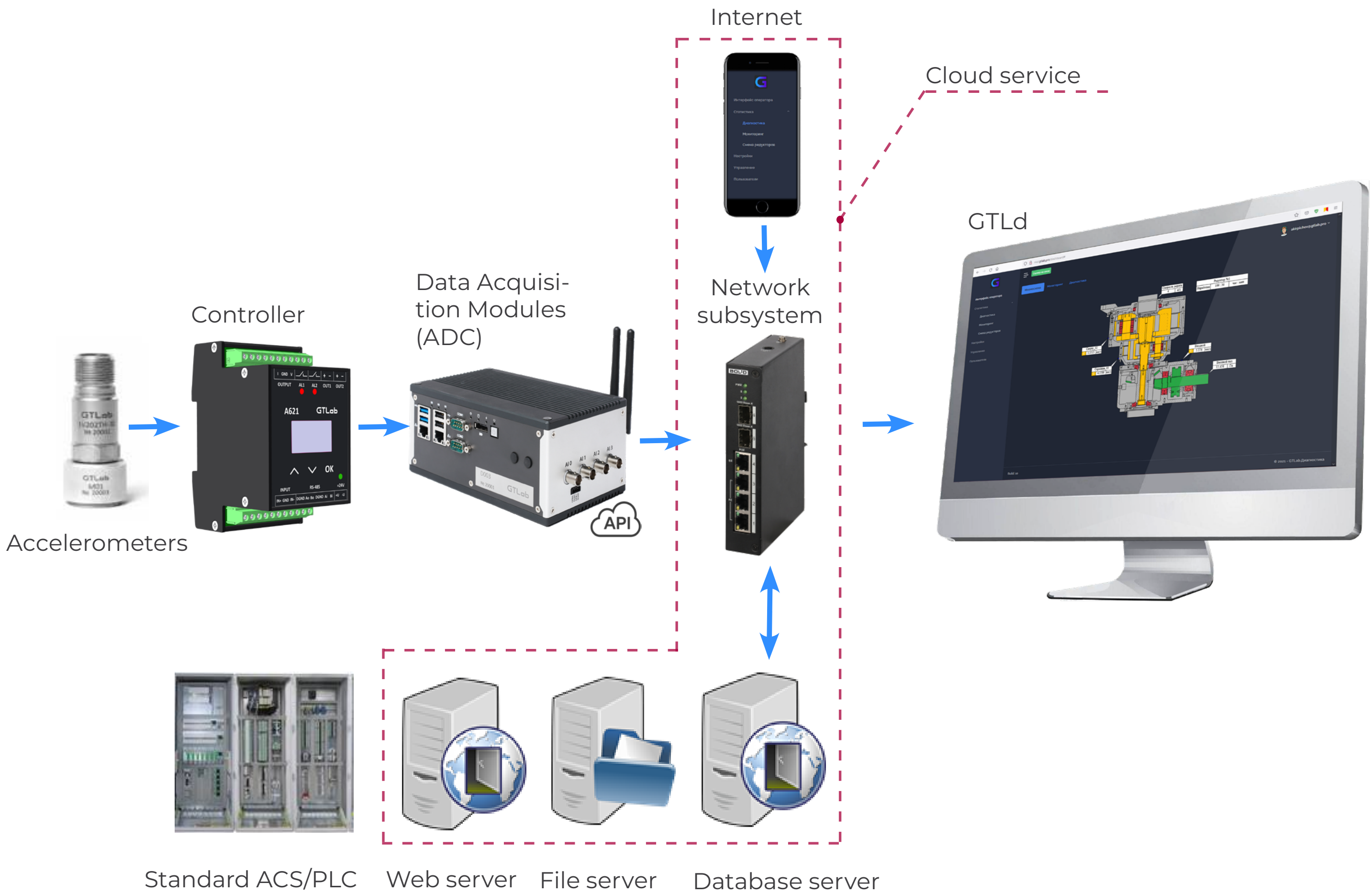
Variant 2. Local with integration into existing SCADA / PLC / ACS



Variant 3. Scalable, stand-alone with remote access in multi-user mode (SCADA for vibration control)



Variant 4. Cloud-based. Infrastructure and software provision.



Scheme of continuous improvement of defect determination techniques for specific operating conditions of the test object

Define degree of development of the defect and adjustment of its calculation methodology

Adjust defect de- ter- mination methodol- ogy without interfer- ing with the main software

Recalculate all signals recorded during the observation time

WEB – SCADA. Mnemonic diagram of the test object

1. Indication of sensor installation locations with display of instant values (root mean square value, amplitude, etc.), tested assemblies and color highlighting according to the diagnostics results.

2. Vibration diagnostics statistics display.

4. Flexible features to compare data from different time periods

3. Vibration monitoring trends display

Data collection module
D001

	D001
ADC sampling frequency, kHz	128
Type of input connectors	BNC
Interface	USB 2.0 (HighSpeed)
Operating temperature, °C	0 ... +55
Power	USB
Number of analog inputs	4
Frequency range, Hz	50 000
Ranges of measured DC and AC voltage, mV	± 10 000
Number of ADC, bits	24
Input impedance, kOhm	200
Synchronization of devices (number), pieces	8
Possibility to connect sensors according to the IEPE standard (2 mA, 24V)	yes

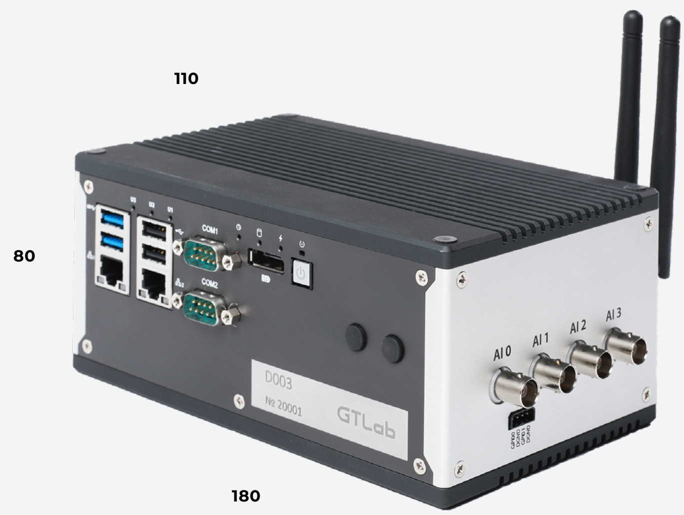
Data collection module

D002

D002	
ADC sampling frequency, kHz	2000
Interface	USB 2.0 (HighSpeed)
Operating temperature, °C	0 ... +55
Power	USB
Number of analog inputs	4
Frequency range, kHz	600
Ranges of measured DC and AC voltage, mV	± 10 000
Number of ADC, bits	16
Input impedance, MOhm	900

Data collection module

D003



	D003
ADC sampling frequency, kHz	128
Type of input connectors	BNC
Interface	2x USB 2.0 + 2x USB 3.0
Operating temperature, °C	0 ... +55
Power	6 - 36 B (DC)
Number of analog inputs	4
Frequency range, Hz	50 000
Ranges of measured DC and AC voltage, mV	± 10 000
Number of ADC, bits	24
Input impedance, kOhm	200
Synchronization of devices (number), pieces	8
Possibility to connect sensors according to the IEPE standard (2 mA, 24V)	yes
Processor	Intel Atom® x7-E3950 processor
Video output	1x DisplayPort
RAM	DDR3L 1600 SODIMM 4 GB
Data storage subsystem	Factory installed 128 GB mSATA SSD
Network interface	2x GbE LAN (Intel® I210-IT)
Serial ports	2x COM (2 x RS-232/422/485)
Expansion slots	2x Mini PCIe card slots
Wireless communication	Wi-Fi Kit
Energy consumption, full load by subsystems (platform), W	25
Power consumption, full load by subsystems (Processor), W	35,2
Power consumption, full load by subsystems (USB peripherals), W	38
Operating system	MS Windows 10

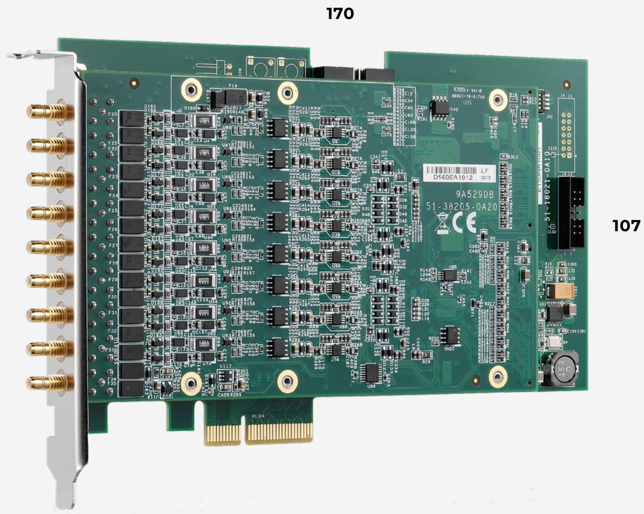
Data collection module
D004

Ethernet

	D004
ADC sampling frequency, kHz	128
Type of input connectors	BNC
Interface	Ethernet
Operating temperature, °C	0 ... +55
Power	9 - 30 B (DC)
Number of analog inputs	4
Frequency range, Hz	50 000
Ranges of measured DC and AC voltage, mV	± 10 000
Number of ADC, bits	24
Input impedance, kOhm	200
Synchronization of devices (number), pieces	8
Possibility to connect sensors according to the IEPE standard (2 mA, 24V)	yes

Data collection module

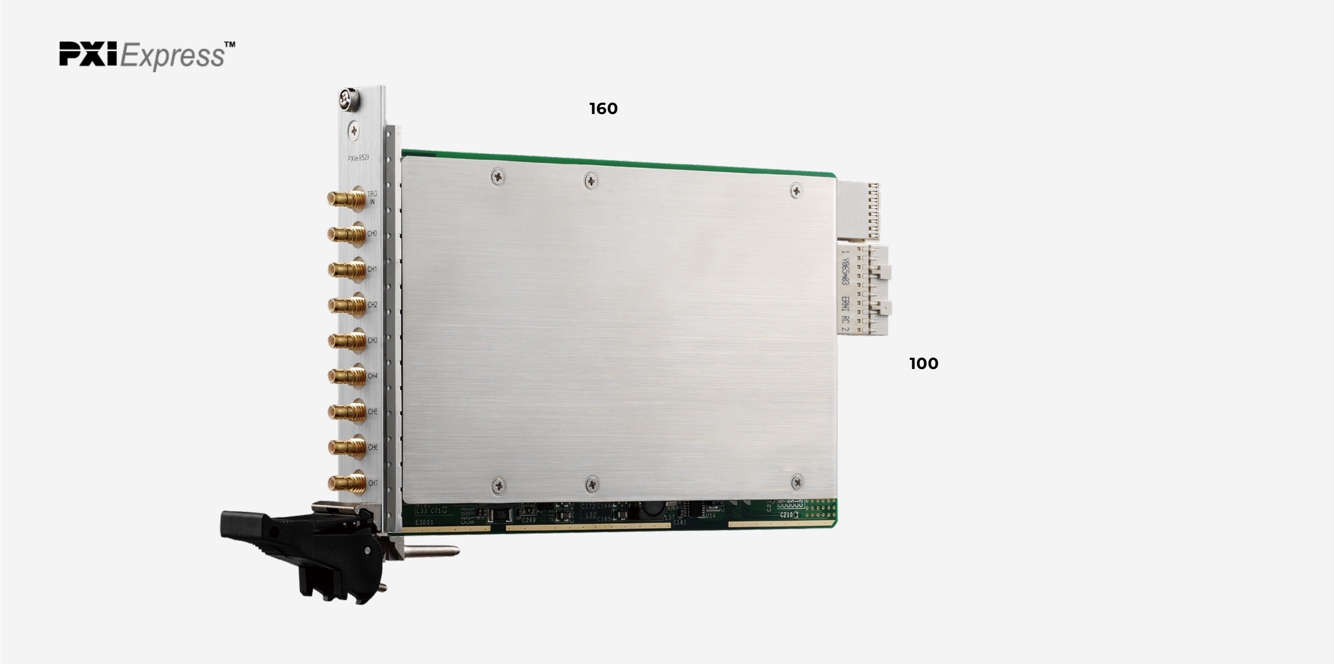
D005



D005

ADC sampling frequency, kHz	128
Type of input connectors	SMB
Interface	PCI Express
Operating temperature, °C	0 ... +55
Number of analog inputs	8
Frequency range, Hz	50 000
Ranges of measured DC and AC voltage, mV	± 10 000
Number of ADC, bits	24
Input impedance, kOhm	200
Possibility to connect sensors according to the IEPE standard (2 mA, 24V)	yes

Data collection module
D006



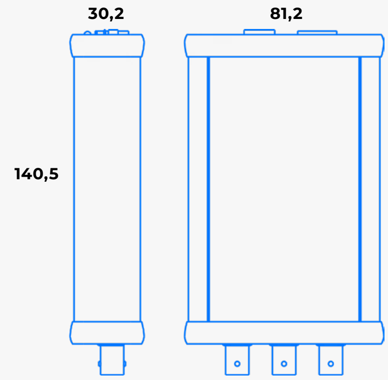
	D006
ADC sampling frequency, kHz	128
Type of input connectors	SMB
Interface	PXI Express
Operating temperature, °C	0 ... +55
Number of analog inputs	8
Frequency range, Hz	50 000
Ranges of measured DC and AC voltage, mV	± 10 000
Number of ADC, bits	24
Input impedance, kOhm	200
Possibility to connect sensors according to the IEPE standard (2 mA, 24V)	yes

Data collection module

D007

	D007
ADC sampling frequency, kHz	48
Number of channels	2
Number of ADC, bits	24
Frequency range, Hz	1 ... 20 000
Output interface	USB Class 1 Audio
Operating temperature, °C	–10 ... +80
Input mode	IEPE (4,5 mA ± 10 %, 24 V)
Type of input connectors	BNC
Weight (without cable), g	100

Data collection module
D008-16, D008-24

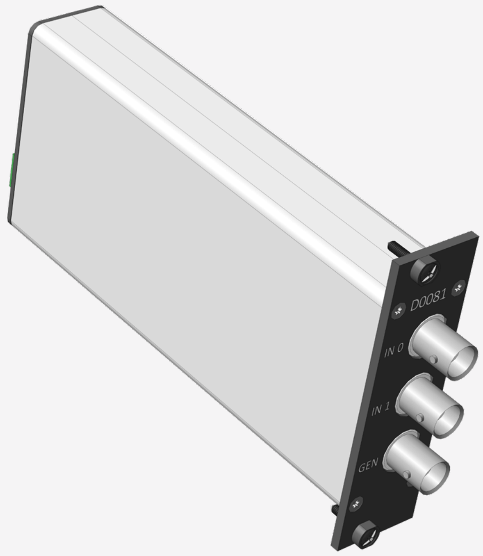


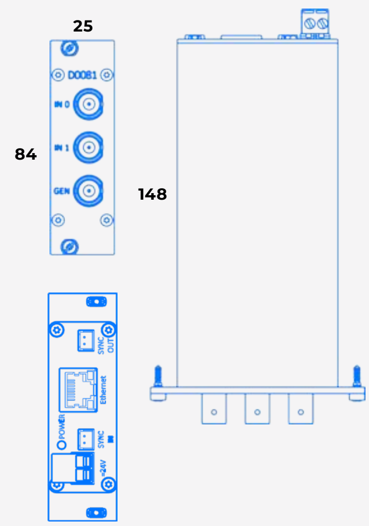
D008	-16	-24
ADC sampling frequency, kHz	144	96
Number of ADC, bits	16	24
Frequency range, Hz ▪ using 1 channel ▪ using 2 channel	 0 ... 30 000 0 ... 50 000	 0 ... 20 000 0 ... 30 000
Interface	Ethernet	
Operating temperature, °C	-20 ... +70	
Power (± 10%), V	5	
Consumed current, mA	> 600	
Number of analog inputs	2	
Generator output ▪ frequency, Hz ▪ signal amplitude, mV	 0,1 ... 50 000 10 .... 10 000	
Input mode	IEPE, AC/DC	
Input voltage IEPE sensors, V	+24 ± 2	
Supply current IEPE sensors, mA	5,7 ± 10 %	
Supply voltage, V	(18 ... 30)	
Ranges of measured DC and AC voltage, mV	± 10 000	
Input impedance, kOhm	200	
Input/Output connectors	BNC	
Instrument synchronization	yes	
Weight, g	300	
Features	built-in generator (Output)	

Data collection module

D0081-16, D0081-24

Ethernet



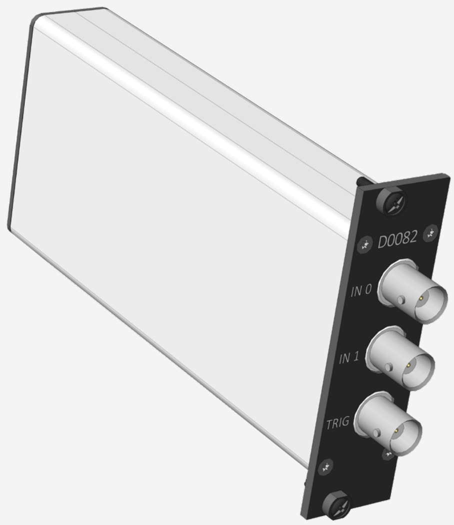


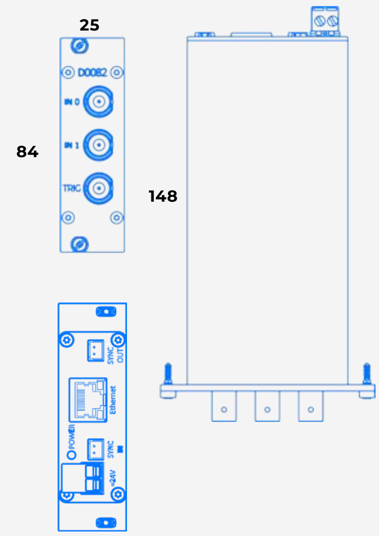
D0081	-16	-24
ADC sampling frequency, kHz	144	96
Number of ADC, bits	16	24
Frequency range, Hz	0 ... 30 000	0 ... 20 000
Interface	Ethernet	
Operating temperature, °C	-20 ... +70	
Number of analog inputs	2	
Generator output ▪ frequency, Hz ▪ signal amplitude, mV	 0,1 ... 50 000 10 .... 10 000	
Input mode	IEPE, AC/DC	
Input voltage IEPE sensors, V	+24 ± 2	
Supply current IEPE sensors, mA	5,7 ± 10 %	
Supply voltage, V	(18 ... 30)	
Consumed current, mA	> 100	
Ranges of measured DC and AC voltage, mV	± 10 000	
Input impedance, kOhm	200	
Input/Output connectors	BNC	
Instrument synchronization	yes	
Weight, g	150	
Features	built-in generator (Output)	

Data collection module

D0082-16, D0082-24

Ethernet



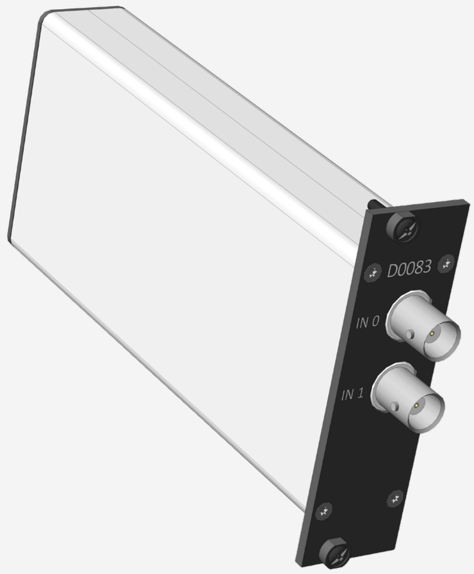


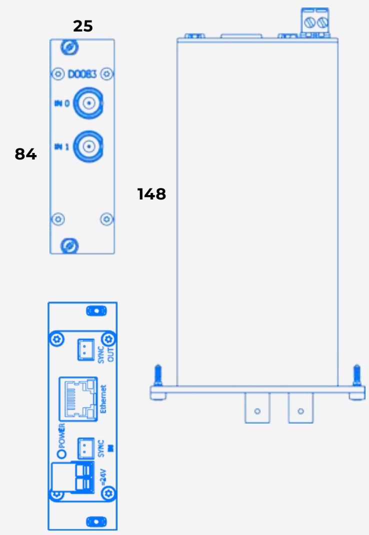
D0082	-16	-24
ADC sampling frequency, kHz	144	96
Number of ADC, bits	16	24
Frequency range, Hz	0 ... 30 000	0 ... 20 000
Interface	Ethernet	
Operating temperature, °C	-20 ... +70	
Power(± 10%), V	5	
Number of analog inputs	2	
Input mode	IEPE, AC/DC	
Input voltage IEPE sensors, V	+24 ± 2	
Supply current IEPE sensors, mA	5,7 ± 10 %	
Supply voltage, V	(18 ... 30)	
Consumed current, mA	> 100	
Ranges of measured DC and AC voltage, mV	± 10 000	
Input impedance, kOhm	200	
Input/Output connectors	BNC	
Instrument synchronization	yes	
Weight, g	150	
Features	trigger input	

Data collection module

D0083-16, D0083-24

Ethernet



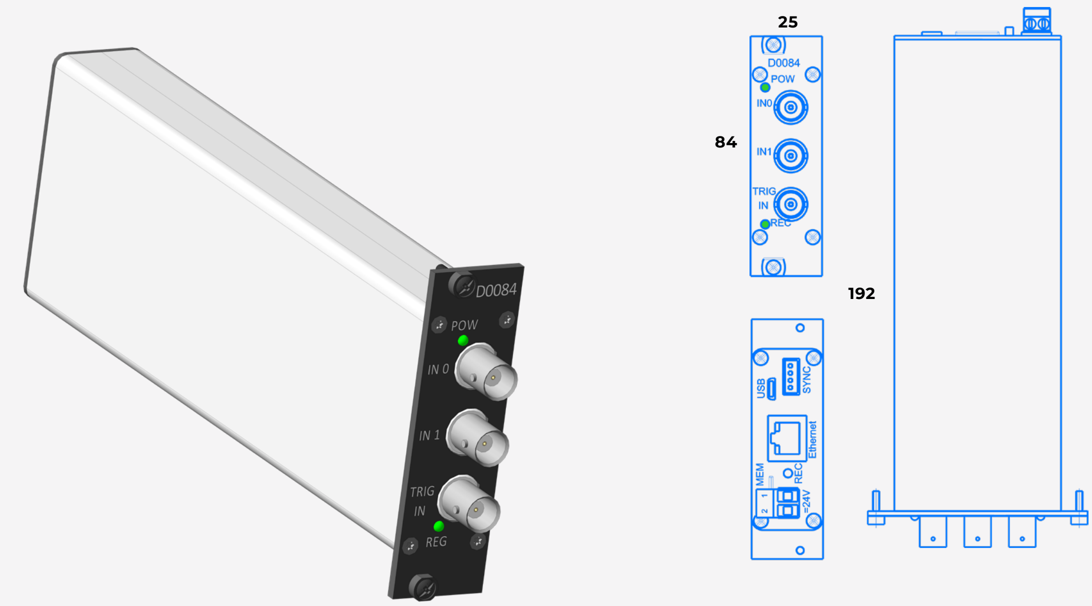


D0083	-16	-24
ADC sampling frequency, kHz	144	96
Number of ADC, bits	16	24
Frequency range, Hz	0 ... 30 000	0 ... 20 000
Interface	Ethernet	
Operating temperature, °C	-20 ... +70	
Number of analog inputs	2	
Input mode	IEPE, AC/DC	
Input voltage IEPE sensors, V	+24 ± 2	
Supply current IEPE sensors, mA	5,7 ± 10 %	
Supply voltage, V	(18 ... 30)	
Consumed current, mA	> 100	
Ranges of measured DC and AC voltage, mV	± 10 000	
Input impedance, kOhm	200	
Input/Output connectors	BNC	
Instrument synchronization	yes	
Weight, g	150	

Data collection module

D0084-16, D0084-24

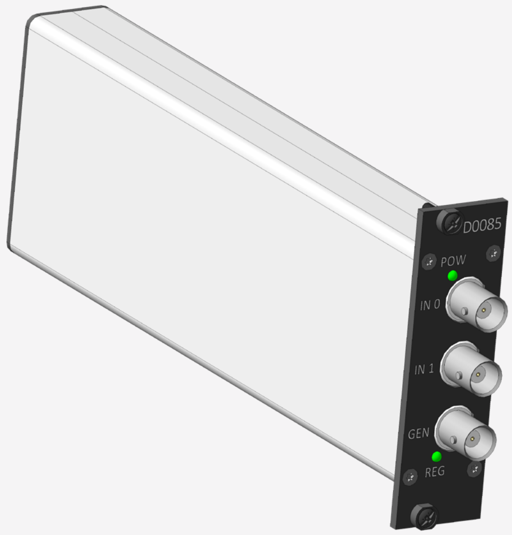
Ethernet

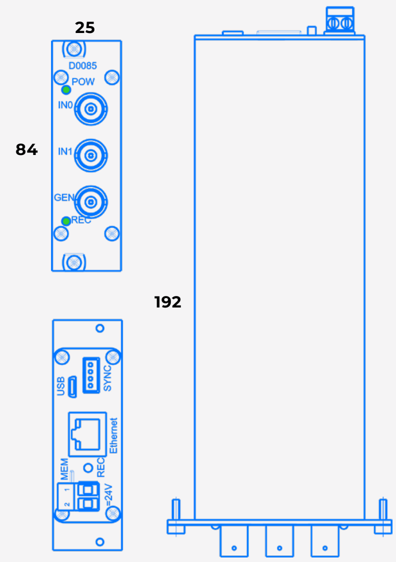


D0084	-16	-24
ADC sampling frequency, kHz	144	96
Number of ADC, bits	16	24
Frequency range, Hz	0 ... 30 000	0 ... 20 000
Interface	Ethernet	
Operating temperature, °C	-20 ... +70	
Number of analog inputs	2	
Input mode	IEPE, AC/DC	
Input voltage IEPE sensors, V	+24 ± 2	
Supply current IEPE sensors, mA	5,7 ± 10 %	
Supply voltage, V	(18 ... 30)	
Consumed current, mA	> 100	
Ranges of measured DC and AC voltage, mV	± 10 000	
Input impedance, kOhm	200	
Input/Output connectors	BNC	
Instrument synchronization	yes	
Weight, g	200	
Feature	trigger input; micro SD slot; record button (REC) to SD; Ethernet input (DAT, POE); USB input (Power/reading)	

Data collection module
D0085-16, D0085-24

Ethernet

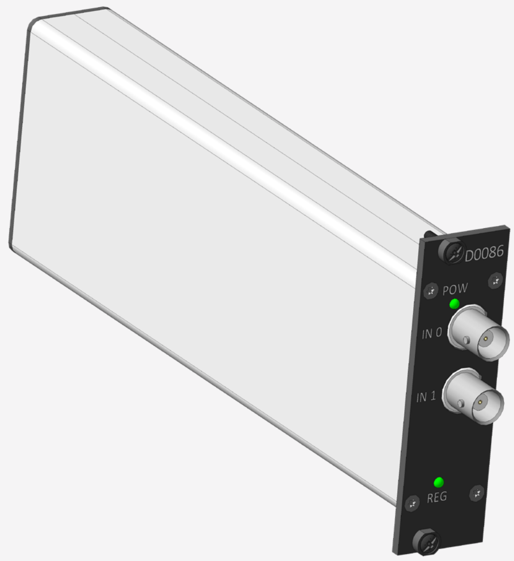


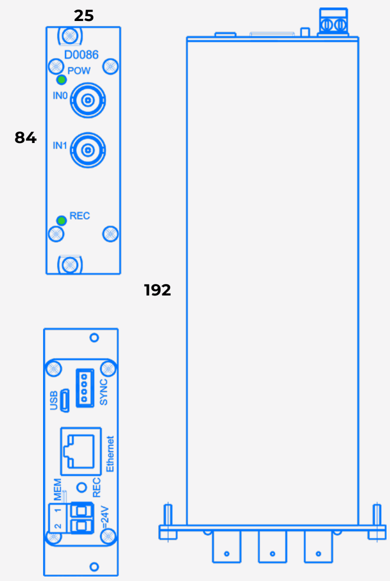


D0085	-16	-24
ADC sampling frequency, kHz	144	96
Number of ADC, bits	16	24
Frequency range, Hz	0 ... 30 000	0 ... 20 000
Interface	Ethernet	
Operating temperature, °C	-20 ... +70	
Number of analog inputs	2	
Input mode	IEPE, AC/DC	
Input voltage IEPE sensors, V	+24 ± 2	
Supply current IEPE sensors, mA	5,7 ± 10 %	
Supply voltage, V	(18 ... 30)	
Consumed current, mA	> 100	
Ranges of measured DC and AC voltage, mV	± 10 000	
Input impedance, kOhm	200	
Input/Output connectors	BNC	
Instrument synchronization	yes	
Weight, g	200	
Feature	built-in generator; trigger input; micro SD slot; record button (REC) to SD; Ethernet input (DAT, POE); USB input (Power/reading)	

Data collection module
D0086-16, D0086-24

Ethernet



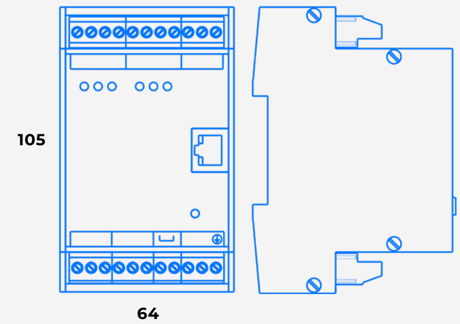


D0086	**-16**	**-24**
ADC sampling frequency, kHz	144	96
Number of ADC, bits	16	24
Frequency range, Hz	0 ... 30 000	0 ... 20 000
Interface	Ethernet	
Operating temperature, °C	-20 ... +70	
Number of analog inputs	2	
Input mode	IEPE, AC/DC	
Input voltage IEPE sensors, V	+24 ± 2	
Supply current IEPE sensors, mA	5,7 ± 10 %	
Supply voltage, V	(18 ... 30)	
Consumed current, mA	> 100	
Ranges of measured DC and AC voltage, mV	± 10 000	
Input impedance, kOhm	200	
Input/Output connectors	BNC	
Instrument synchronization	yes	
Weight, g	200	
Feature	micro SD slot; record button (REC) to SD; Ethernet input (DAT, POE); USB input (Power/reading)	

Data collection module

D009-16, D009-24

Ethernet

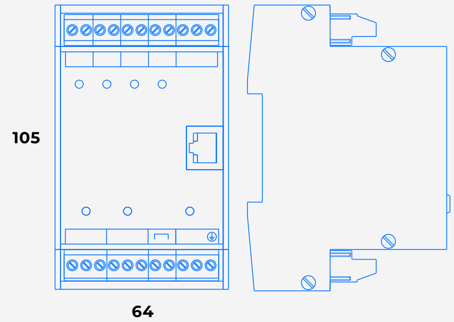


D009	-16	-24
ADC sampling frequency, kHz	144	96
Number of ADC, bits	16	24
Frequency range, Hz	0 ... 30 000	0 ... 20 000
Interface	Ethernet	
Operating temperature, °C	-20 ... +70	
Input mode	IEPE, AC/DC	
Input voltage IEPE sensors, V	+24 ± 2	
Supply current IEPE sensors, mA	5,7 ± 10 %	
Supply voltage, V	(18 ... 30)	
Consumed current, mA	80	
Ranges of measured DC and AC voltage, mV	± 10 000	
Input impedance, kOhm	200	
Input/Output connectors	screw terminals	
Instrument synchronization	yes	
Weight, g	350	
Features	TTL input (tachometer)	

Data collection module

D010-16

Ethernet



	D010 -16
ADC sampling frequency, kHz	64
Number of ADC, bits	16
Frequency range, Hz	0 ... 25 000
Interface	Ethernet
Operating temperature, °C	-20 ... +70
Input mode	IEPE
Number of analog inputs	4
Input voltage IEPE sensors, V	+24 ± 2
Supply current IEPE sensors, mA	5,7 ± 10 %
Supply voltage, V	(18 ... 30)
Consumed current, mA	80
Ranges of measured DC and AC voltage, mV	± 10 000
Input impedance, kOhm	200
Input/Output connectors	screw terminals
Instrument synchronization	yes
Weight, g	350

Измерительный комплекс

PCIe301

	PCIe301
Количество слfromов	4
Number of analog inputs	up to 32
Processor	Intel® Core™ i7-9850HE 45W
RAM	DDR4 dual SODIMMs 4GB (Up to 32 GB) 2400MHz
Interface	2x USB 3.1 Gen 2 + 2x USB 3.1 Gen 1 + 4x USB 2.0, 1x internal USB 2.0 dongle
Video output	2x DisplayPort, 1x HDMI
АудиоOutput	Line-out, Mic-in (Optional: speaker-out)
Data storage subsystem	2.5 SATA (2x internal supports RAID 0, 1, 5, 10), Optional: additional 2x internal
Network interface	2x GbE (Intel® 1x i211AT + 1x i219), iAMT support
Serial ports	6x COM port (COM1/2: RS-232/422/485, COM3/4/5/6: RS-232)
Wireless communication	Wi-Fi Kit
Operating system	Microsoft Windows 10 64 bit
Power	9 - 32 В (DC)
Operating temperature , °C	0 ... +50 (extended temperature range -20°C ... 70°C for 1xSODIMMs
Storage temperature, °C	-40 ... 85
Weight, kg	4,9

Измерительный комплекс
PCIe302

	PCIe302
Количество слfromов	2
Number of analog inputs	up to 16
Processor	Intel® Core™ i7-9850HE 45W
RAM	DDR4 dual SODIMMs 4GB (Up to 32 GB) 2400MHz
Interface	2x USB 3.1 Gen 2 + 2x USB 3.1 Gen 1 + 4x USB 2.0, 1x internal USB 2.0 dongle
Video output	2x DisplayPort, 1x HDMI
АудиоOutput	Line-out, Mic-in (Optional: speaker-out)
Data storage subsystem	2.5» SATA (2x internal supports RAID 0, 1, 5, 10), Optional: additional 2x internal
Network interface	2x GbE (Intel® 1x i211AT + 1x i219), iAMT support
Serial ports	6x COM port (COM1/2: RS-232/422/485, COM3/4/5/6: RS-232)
Wireless communication	Wi-Fi Kit
Operating system	Microsoft Windows 10 64 bit
Power	9 - 32 B (DC)
Operating temperature	0 ... +50 °C (extended temperature range -20°C ... 70°C for 1xSODIMMs
Storage temperature, °C	-40 ... 85
Weight, kg	4,6

Измерительный комплекс
PXIe301

PXIe301	
Количество слфromов	17
Number of analog inputs	up to 136
Processor	Intel® Core™ i7-7820EQ 3.0 GHz 14nm processor, 3.7 GHz
RAM	DDR4 dual SODIMMs 4GB (Up to 32 GB) 2400MHz
Interface	4x USB 2.0 + 2x USB 3.0
Video output	2x DisplayPort
Data storage subsystem	Pre-integrated SATA solid state drive at 240GB
Network interface	2x GbE LAN (Intel® Ethernet controller I219-LM, I210) 2x
Serial ports	COM port (D-sub9 serial RS-232/422/485)
PXI module synchronization interface	PXI trigger connector (SMB jack)
Interfaceная шина General purpose	IEEE488 GPIB controller, Micro-D 25-pin connector)
Operating system	Microsoft Windows 10 64 bit
Operating temperature, °C	0 ... +55
Storage temperature, °C	-40 ... +71
Weight, kg	12,9

Измерительный комплекс

PXIe302

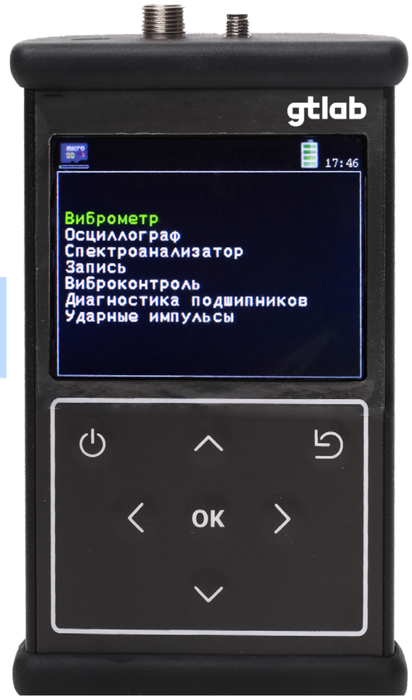
	PXIe302
Количество слfromoв	5
Number of analog inputs	up to 40
Processor	Intel® Core™ i7-7820EQ 3.0 GHz 14nm processor, 3.7 GHz
RAM	DDR4 dual SODIMMs 4GB (Up to 32 GB) 2400MHz
Interface	4x USB 2.0 + 2x USB 3.0
Video output	2x DisplayPort
Data storage subsystem	Pre-integrated SATA solid state drive at 240GB
Network interface	2x GbE LAN (Intel® Ethernet controller I219-LM, I210) 2x
Serial ports	COM port (D-sub9 serial RS-232/422/485)
PXI module synchronization interface	PXI trigger connector (SMB jack)
Interfaceная шина General purpose	IEEE488 GPIB controller, Micro-D 25-pin connector)
Operating system	Microsoft Windows 10 64 bit
Operating temperature, °C	0 ... +55
Storage temperature, °C	-40 ... +71
Weight, kg	6,85

Vibrometers

VIBROMETERS FUNCTIONALITY

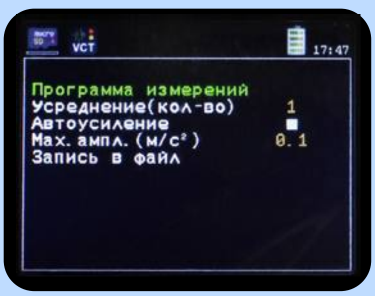
D101, D141, D142

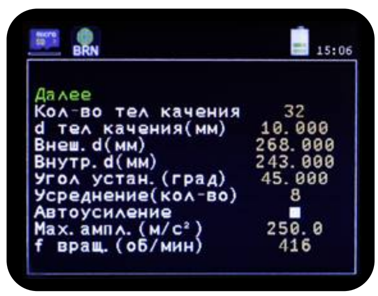
- Diagnostics and vibration monitoring
- Connection of optical tachometer (for D141,D142)
- Infrared pyrometer (for D142)
- MicroSD slot for signal recording



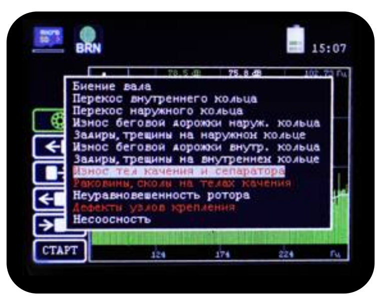
Vibrocontrol | Bearing diagnostics | Shock pulses

Parameters measurements





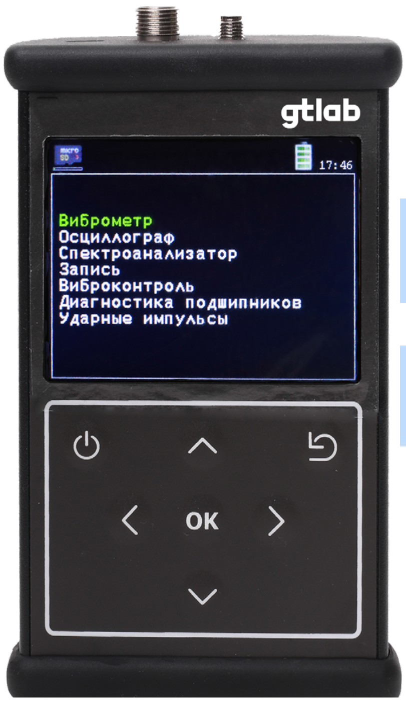
Window measurements



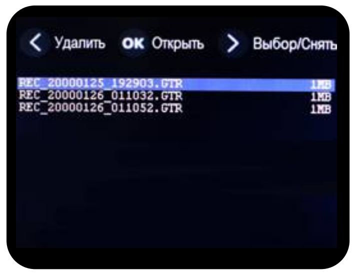
VIBROMETERS FUNCTIONALITY

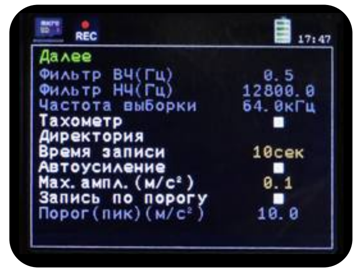
D101 D141 D142

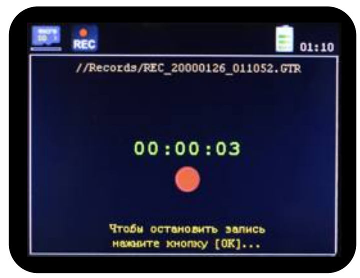
- Record signala, work on routes
- Virtual instruments



Recording (route work)



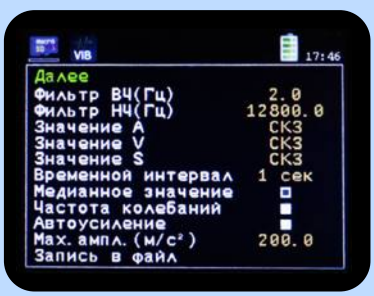


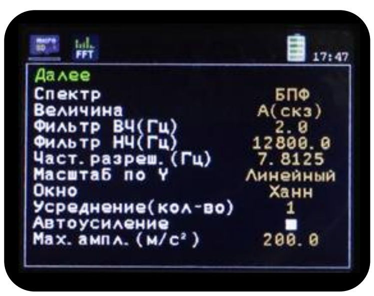


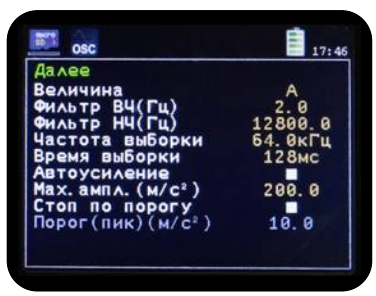
Vibrometer

Spectrum

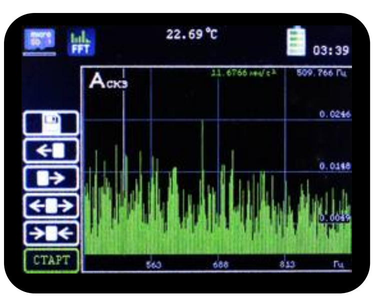
Oscilloscope

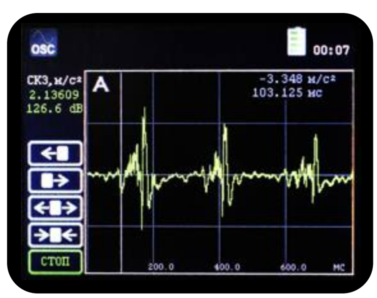






Parameters measurements





Window measure-ments

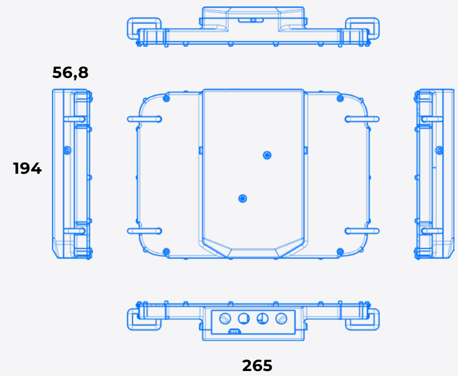
Vibrometer

D101

	D101
ADC sampling frequency, kHz	64
Number of ADC, bits	24
Measurement Mode	Vibration Acceleration, Vibration Speed, Vibration Displacement
Virtual instrument	Oscilloscope, vibrometer, signal recording, spectrum (FFT 1/1, 1/3, envelope), rolling bearing diagnostics
Detector	magnitude ,Peak, RMS, peak factor
Supply voltage, V	± 4,8
Type connected sensors	IEPE
Data exchange	mini USB
Data storage	SD card
Temperature range, °C	–20 ... +55
Weight, g	350
Size, mm	140 × 80 × 25
Battery time	at least 8 hours
Housing material, mm	aluminum, 2

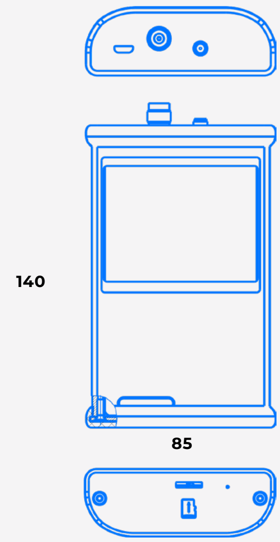
Vibrometer

D104



	D104
ADC sampling frequency, kHz	128
Type of input connectors	BNC
Interface	USB-C, 2x USB Type A, NFC 13,56 MHz
Operating temperature, °C	0 ... +55
Number of analog inputs	4
Frequency range, Hz	0 ... 50 000
Ranges of measured DC and AC voltage, mV	± 10 000
Number of ADC, bits	24
Input impedance, kOhm	200
Possibility to connect sensors according to the IEPE standard (2 mA, 24V)	yes
Degree of protection from external influences	IP65
Processor	Intel Appollo Lake N4200, 4 cores, up to 2,5 ГHz
RAM	RAM 6 GB/ROM 64GB, optional memory expansion up to 8 GB RAM и 256/512 GB ROM
Data storage subsystem	MicroSD up to 256 GB
Wireless communication	3G/4G/LTE, 1 SIM card (optional without mobile connection), WiFi 802.11 a/b/g/n/ac, BT 4.2 (BLE). Optional: B31 (LTE 450), LTE 360-400
Operating system	Windows 10 Enterprise / LINUX
Navigation	GPS, ГЛОНАСС, Beidou, Galileo. Support for competitive reception of not less than 2 navigation systems
Battery	Lithium-polymer 44,46 Wh
Weight, g	2000
Features	Shock-resistant display with enhanced readability in the sun, 10 inches, 1920 * 1200; 5 MP front camera

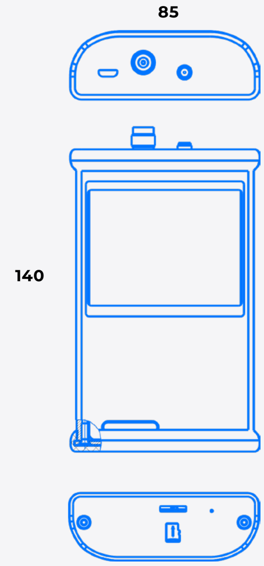
Vibrometer
D141



	D141
ADC sampling frequency, kHz	64
Number of ADC, bits	24
Measurement Mode	Vibration Acceleration, Vibration Speed, Vibration Displacement
Virtual instrument	Oscilloscope, vibrometer, signal recording, spectrum (FFT 1/1, 1/3, envelope), rolling bearing diagnostics
Detector	magnitude ,Peak, RMS, peak factor
Maximum input charge (peak), pC	$48 \cdot 10^3$
Type connected sensors	charge,IEPE
Channel for RPM sensor	yes
Type of sensor RPM	optical, IEPE
Supply voltage, V	± 4,8
Data exchange	mini USB
Data storage	SD card
Temperature range, °C	–20 ... +55
Weight, g	350
Size, mm	140 × 80 × 25
Battery time	at least 8 hours
Housing material, mm	aluminum, 2

Vibrometer

D142



	D142
ADC sampling frequency, kHz	64
Number of ADC, bits	24
Measurement Mode	Vibration Acceleration, Vibration Speed, Vibration Displacement
Virtual instrument	Oscilloscope, vibrometer, signal recording, spectrum (FFT 1/1, 1/3, envelope), rolling bearing diagnostics
Detector	magnitude ,Peak, RMS, peak factor
Maximum input charge (peak), pC	$48 \cdot 10^3$
Type connected sensors	charge,IEPE
Channel for RPM sensor	yes
Type of sensor RPM	optical, IEPE
Supply voltage, V	± 4,8
Data exchange	mini USB
Data storage	SD card
Temperature range, °C	–20 ... +55
Weight, g	350
Size, mm	140 × 80 × 25
Battery time	at least 8 hours
Housing material, mm	aluminum, 2
Features	pyrometer

Vibrometer

D181

	D181
Входной interface	RS-485, protocolModbus RTU
Measurement Mode	Vibration Acceleration, Vibration Speed, Vibration Displacement
Virtual instrument	Vibrometer
Detector	magnitude ,Peak, RMS
Supply voltage, V	± 4,8
Type connected sensors	digital (RS485)
Data exchange	mini USB
Data storage	SD card
Temperature range, °C	–20 ... +55
Weight, g	350
Size, mm	140 × 80 × 25
Battery time	at least 8 hours
Housing material, mm	aluminum, 2

ACCESSORIES

Pins


P0506
[10-32UNF- M6]


P0608
[M6- M8]


P0505
[10-32 UNF]


P0606
[M6]


P0505i
[10-32 UNF, изолирующая]


P0303
[M3]


P0808
[M8]


P0305
[M3 - 10-32 UNF]


P0508
[10-32 UNF - M8]

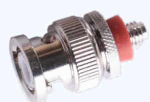

P0505f
[10-32 UNF]


P0606f
[M6]

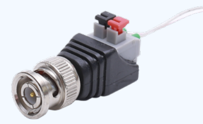
Cable switches


Z1010
[10-32UNF_f]

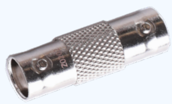

Z0010
[10-32UNF_f]


Z1001
[10-32UNF_f - BNC_m]


Z0101
[BNC_m - BNC_m]


Z0100
[BNC_m - A2]


Z0203
[BNC_f - TNC_m]


Z0202
[BNC_f - BNC_f]


Z0204
[BNC_f - TNC_f]


Z0404
[TNC_f - TNC_f]


Z0501
[SMA_f - BNC_m]


Z0503
[SMA_f - TNC_m]

Magnets

M0105
[d24 ×19]
Breakaway
force - 150 [N]

M0105i
[d24×19 Insulating]
Breakaway
force - 150 [N]

M0205
[d29×21,6×M5]
Breakaway
force - 250 [N]

M0205i
[d29×21,6×M5 Insulating]
Breakaway
force - 250 [N]

M0206
[d29×21,6×M6]
Breakaway
force - 250 [N]

M0206i
[d29×21,6×M6 Insulating]
Breakaway
force - 250 [N]

M0303
[d15 ×6]
Breakaway
force - 20 [N]

M0303i
[d17 ×7 Insulating]
Breakaway
force - 20 [N]

M0305
[d15 ×6]
Breakaway
force - 20 [N]

M0305i
[d17 ×7 Insulating]
Breakaway
force - 20 [N]

M0405
[d43 ×20×M5]
Breakaway
force - 300 [N]

M0406
[d43 ×20×M6]
Breakaway
force - 300 [N]

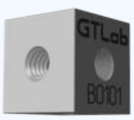
M0408
[d43 ×20×M8]
Breakaway
force - 300 [N]

M0505
[25 ×24×M5]
Breakaway
force - 200 [N]

M0506
[25 ×24×M6]
Breakaway
force - 200 [N]

M0508
[25 ×24×M8]
Breakaway
force - 200 [N]

Adapters



B0101 [15×15×15
3 holes M5]

B0102 [20×20×20,
3 holes M5]

B0103 [25×25×25,
3 holes M5]

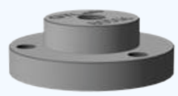
B0201

B0203

B0308

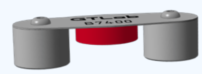
B0306

B03516



B0506

B7400 [non-magnetic]



B7401 [non-magnetic]

B7501 [magnetic]

B7500 [magnetic]

Ceramic insulators

R21 (d6)

R22 (d10)

R23 (d14)

Mounting set

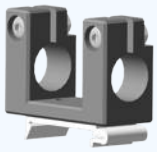
K11 (pin M4-M5,
nut - wingnut M4)

K12 (pin M5,
nut - wingnut M5)

K13 (pin M3-M5,
nut - wingnut M5)

Brackets


K20


K401

Wax mastic


W01 (5г)

O-rings


R01 (D-17, d-14)


R02 (D-8,9, d-7)


R03 (D-10,5, d-7)


R04 (D-12, d-5)

Probe

K01

Thread


P0005
[10-32UNF]

CABLE PRODUCTS

1 **Cable code**
(according to table 1)

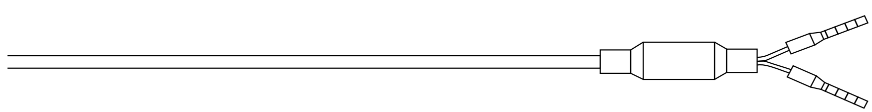
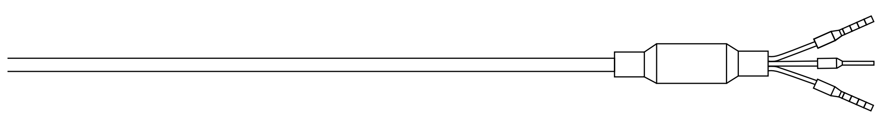
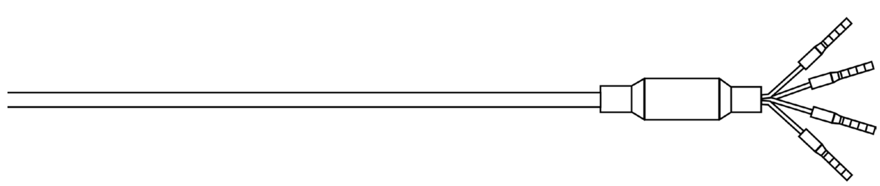
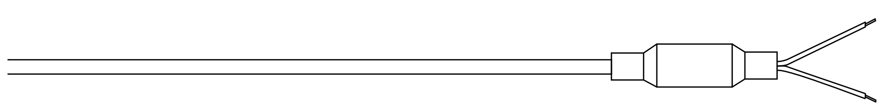
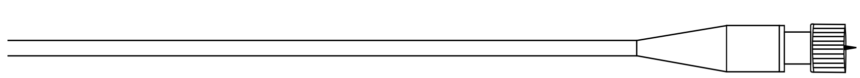
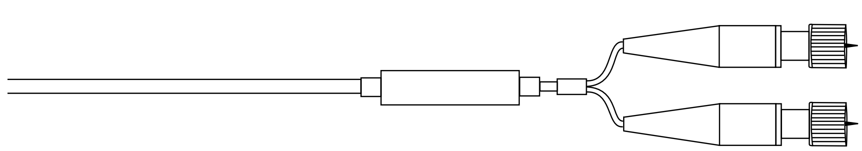
2 **Input connector code**
(according to table 2)

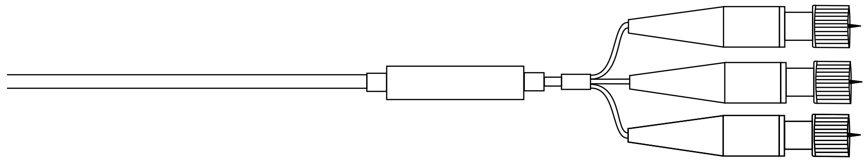
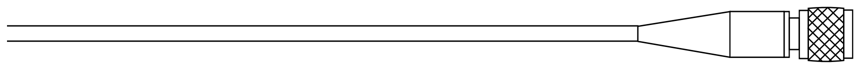
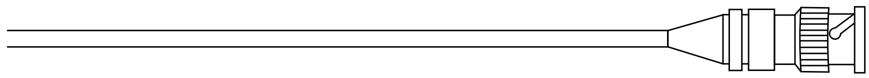
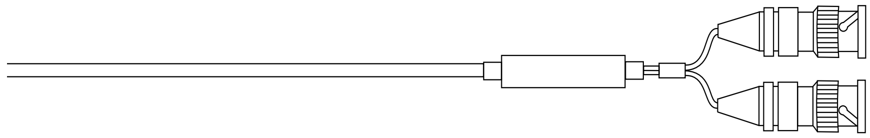
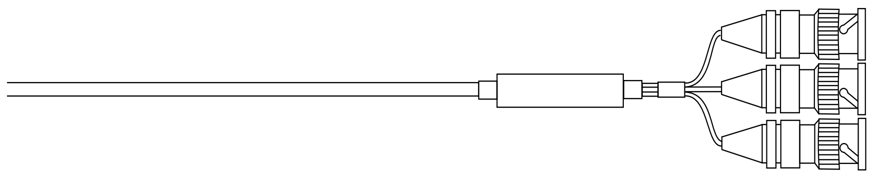
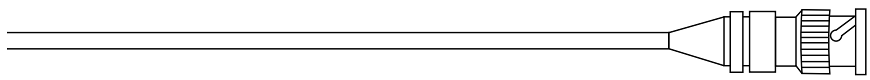
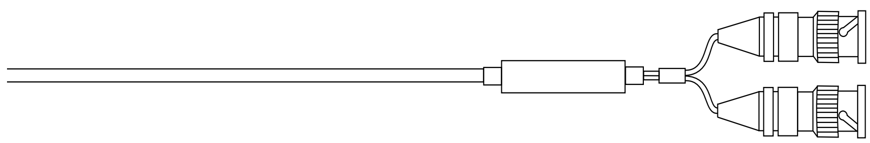
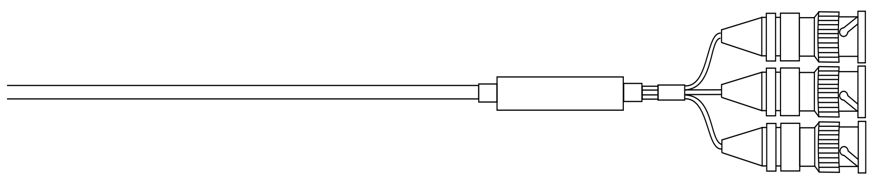
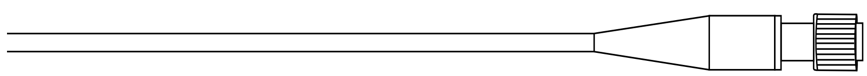
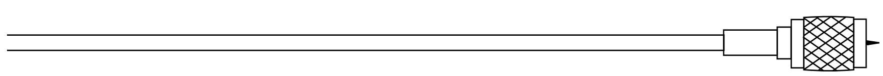
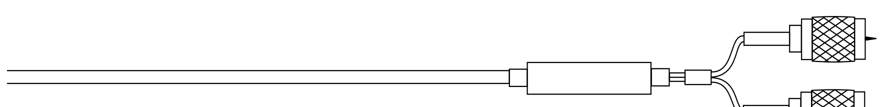
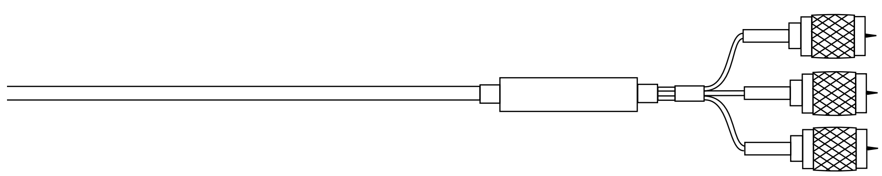
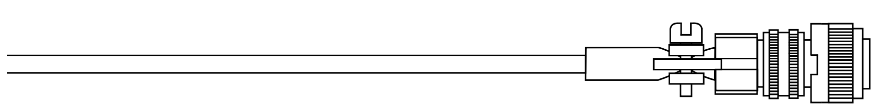
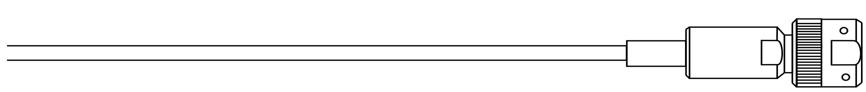
3 **Output connector code**
(according to table 2)

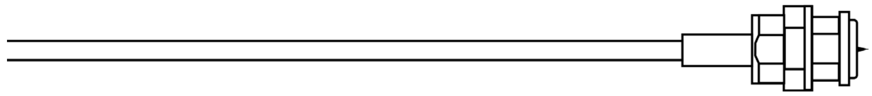
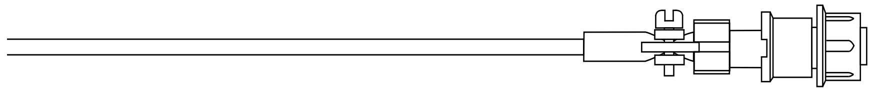
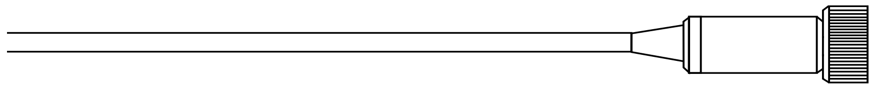
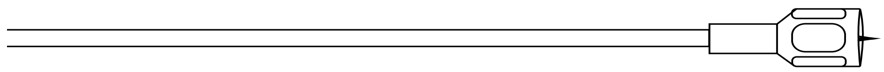
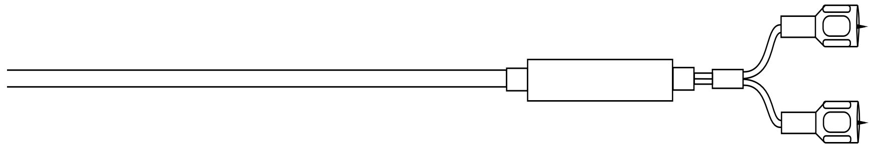
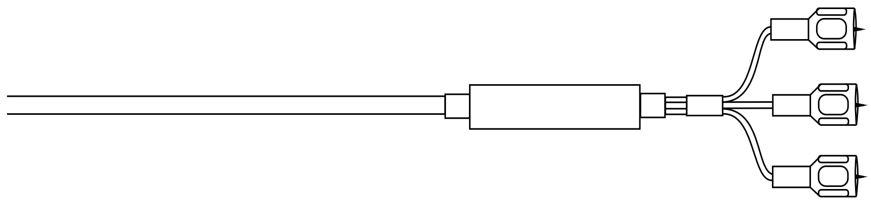
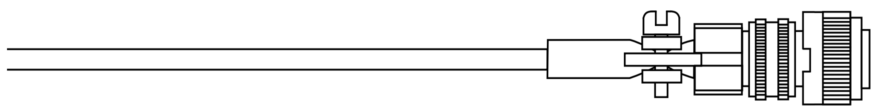
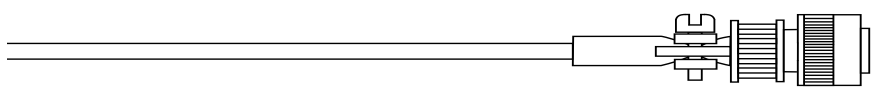
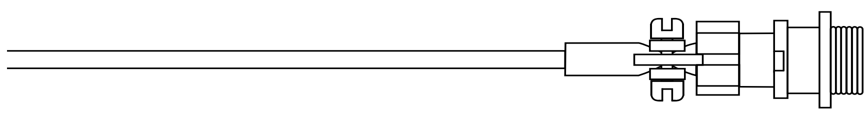
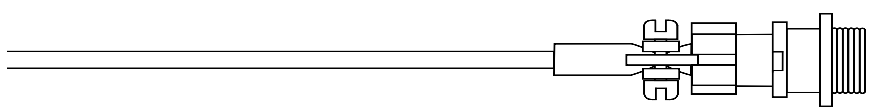
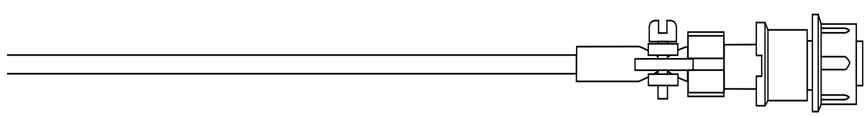
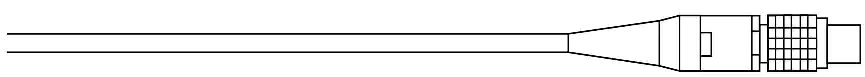
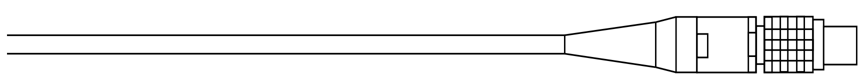
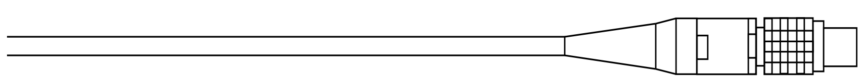
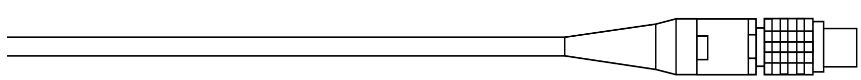
Table 1

CABLE		CODE	CHARACTERISTIC	VIEW
Single-core	anti-vibration	01	d 0,7 mm	
		02	d 1,1 (±0,1) mm	
		03	d 2 мм.	
		04	d 2,5 mm., underwater version	
Three-core	anti-vibration	41	d 2,5 mm	
Three-core	connective	51	d 2,5 mm.	
Three-core	connective	55	d 2,5 mm.	

Table 2

CODE	CONNECTOR	VIEW
A2	2 × Mechanical clamp terminal	
A3	3 × Mechanical clamp terminal	
A4	4 × Mechanical clamp terminal	
AA2	2 × Soldering leads	
AA3	3 × Soldering leads	
B1	C02 [10-32UNF]	
B2	2 × C02 [10-32UNF]	

B3	3 × C02 [10-32UNF]	
C1	C03 [4-cont. 1/4-28UNF]	
D1	BNC	
D2	2 × BNC	
D3	3 × BNC	
DC1	СР50-77ФВ	
DC2	2 × СР50-77ФВ	
DC3	3 × СР50-77ФВ	
E1	C04 [3-cont. M6 × 0.5]	
F1	TNC	
F2	2 × TNC	
F3	3 × TNC	
H1	C05 [2-cont. 5/8-24UNF]	
K1	СР50-276ФВ	

L1	СР50-112ФМ	
P1	2РМ14КПН4Г	
R1	РС4ТВ	
S1	SMA	
S2	2 × SMA	
S3	3 × SMA	
T1	C06 [3-cont. 5/8 - 24 UNF]	
PA1	СНЦ23- 4/14Р - 11	
PC1	2 РМД18БПН4Ш	
PD1	2 РМ14БПН4Ш	
PB1	2РМД18КПН4Г	
NB1	lemo FFA.05.302	
NC1	lemo PCA.05.302	
ND1	lemo FGG.1B.303	
NE1	lemo FGG.1B.305	

Example: 41C1B3 – three-core anti-vibration cable (C03 [4-pin. 1/4-28UNF] - 3*C02 [10-32UNF]).

+7 (83130) 4-94-44,
+7 (83130) 4-98-88

info@gtlab.pro

gtlab.pro

Nizhny Novgorod region,
г. Sarov, 17B, Shvernika str.