

DVA484.XXX multifunctional sensors with digital output



Product appearance may vary slightly from that shown in the brochure

Features

Designed to measure vibration acceleration, vibration velocity, vibration displacement along 3 coordinates, as well as angles of inclination and temperature (at the installation place). All calculations are performed in a real-time mode with the register data refresh interval of 10 ms. The measurement error for vibration parameters is not more than 5% in the basic frequency range. Additional error is not more than 2.5%.

The built-in temperature sensor allows controlling the temperature with an accuracy of ± 2 °C. Determination of the angles of inclination of each axis with an accuracy of 1°.

Metrological parameters

Conversion coefficient	1	
Ranges of indicated values of vibration velocity amplitude, mm/s:		
0-25	0-40	0-100
Ranges of indicated values of vibration acceleration amplitude, m/s ² :		
0-25	0-40	0-100
Ranges of indicated values of vibration displacement amplitude, μm :		
0-25	0-40	0-100

Operating frequency range, Hz 2-1000;
 3-1000;
 5-1000;
 10-1000

Climatic version

- Operating temperature range, °C
- H climatic version -40...+80
 - X climatic version -60...+80
 - K climatic version -196...+80

Interface

Output signal type (4-20) mA
 Sensor supply voltage, V 10-24
 Connection via the TIK-PLC controller* or the TIK-BIS safety barrier

** The controller operates as EPS, sensor power source, and a safety barrier*

Protection parameters

- Explosion protection
- PO Ex ia I Ma X
 0Ex ia IIC T₆...T₂ Ga X
 Ex ia IIIC T₂₀₀ 100°C ... T₂₀₀ 280°C Da X
 Ex ib IIIC T₉₅°C ... T₂₇₅°C Db X
 - 2Ex nA IIC T₆...T₂ Gc X
 - PO Ex ia I Ma X
 - 0Ex ia IIC T₆...T₂ Ga X
 - Ex ia IIIC T₂₀₀ 100°C ... T₂₀₀ 280°C Da X
 - Ex ib IIIC T₉₅°C ... T₂₇₅°C Db X

Protection class
 • IP65/68

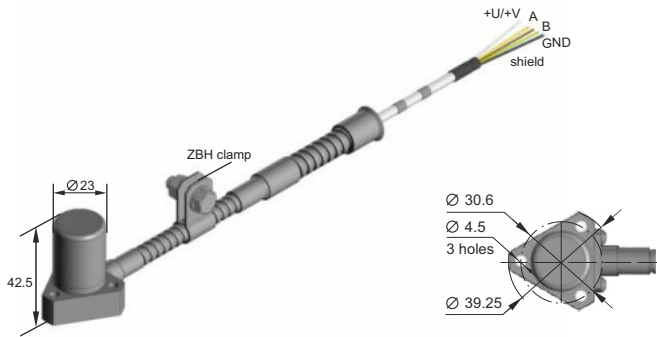
Reliability parameters

MTBF, hours, not less than 100 000
 Warranty service life, months 24
 Service life, years 20
 Verification interval, years 2

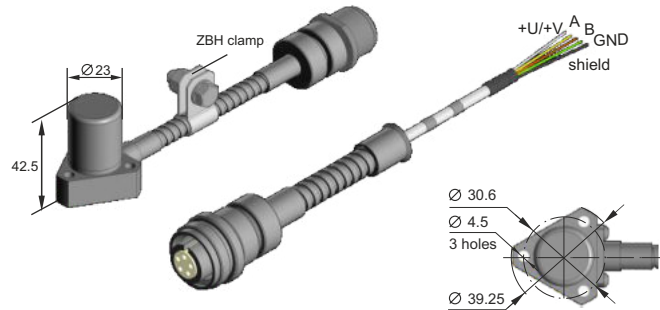


Constructive versions

DVA484.104



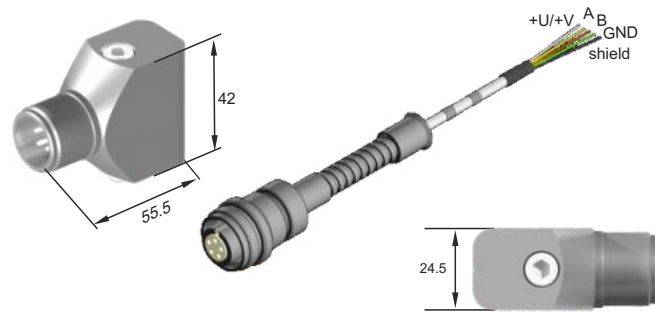
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Wiring diagrams

