

DVA2X4.XXX vibration acceleration sensors with digital output



Product appearance may vary slightly from that shown in the brochure

Features

Designed to measure vibration acceleration (amplitude, RMS value, range, instantaneous value, along 1 or 2 coordinate(s)).

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.

Depending on the version, the sensor is installed on the unit using the standard threaded stud M8, fastening with 3 screws or 1 screw. A threaded stud with a different thread, including inch thread, can be supplied on special order.

Metrological parameters

Conversion coefficient	1	
Measurement ranges for vibration acceleration, m/s ² :		
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 RS-485 or RS-485 + discrete output

Sensor supply voltage, V 10-24

Protocol Modbus RTU

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

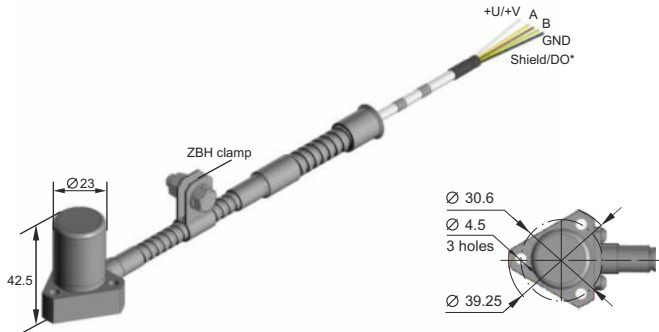
Reliability parameters

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



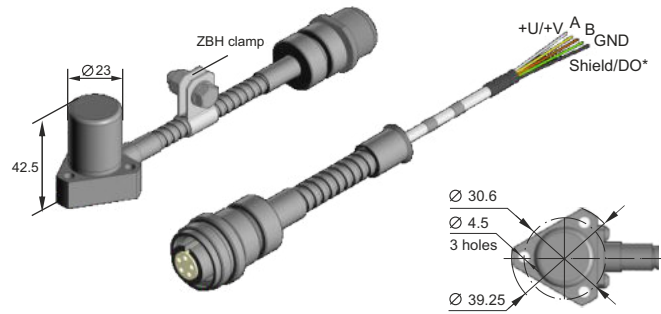
Constructive versions

DVA2X4.104



*For version with discrete output

DVA2X4.164



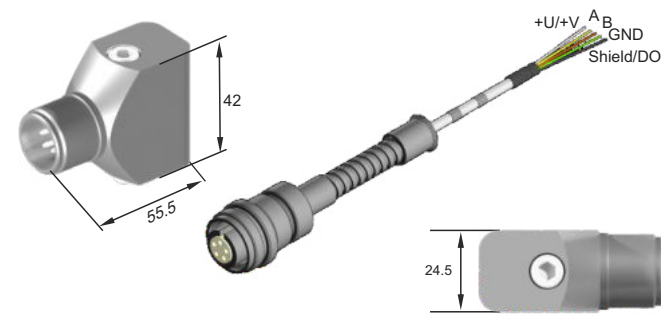
*For version with discrete output

DVA2X4.214



*For version with discrete output

DVA2X4.714



*For version with discrete output

Wiring diagrams

