

DVA1X4.XXX vibration velocity sensors with digital output

DVA1X4.214
version with **TIK-KXX** connector on the housing

DVA1X4.164
version with **TIK-KXX** connector on the cable

DVA1X4.104
version with **fixed** cable connection

DVA1X4.714
version with **TIK-KXX** connector on the housing



Product appearance may vary slightly from that shown in the brochure

Features

Designed to measure vibration velocity (along 1 or 2 coordinate(s)).

A vibration acceleration signal, passing through the mathematical processing unit, is converted into a vibration velocity signal (amplitude, root-mean-square (RMS) value, range, instantaneous value). 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 velocity, mm/s:											
0-10	0-12.7	0-20	0-25	0-25.4	0-30	0-40	0-50	0-50.8	0-60	0-80	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

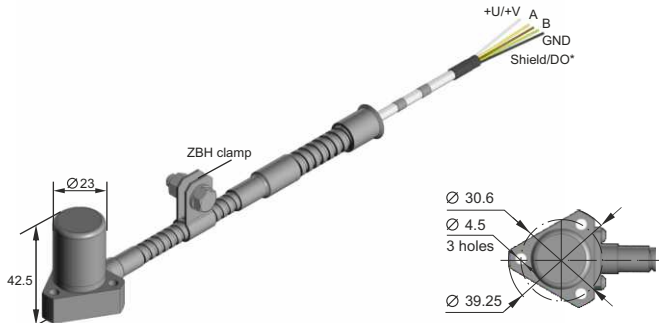
Reliability parameters

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



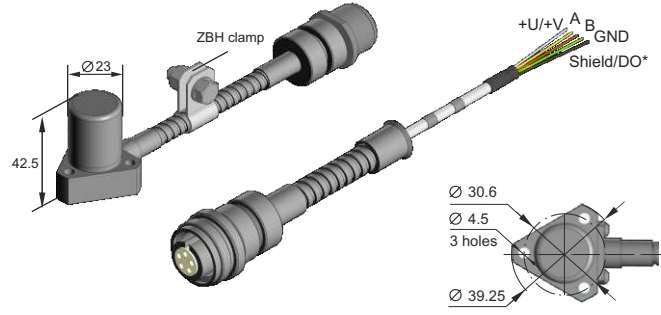
Constructive versions

DVA1X4.104



*For version with discrete output

DVA1X4.164



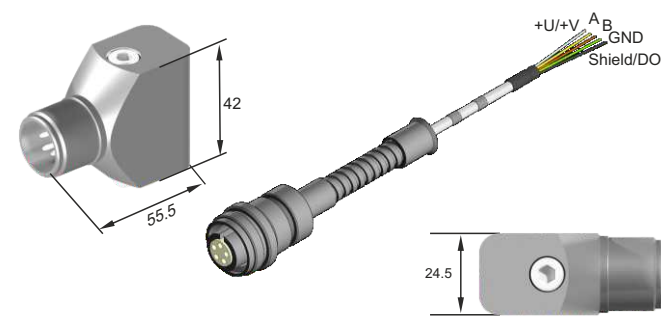
*For version with discrete output

DVA1X4.214



*For version with discrete output

DVA1X4.714



*For version with discrete output

Wiring diagrams

