

DVA3X4.XXX vibration displacement sensors with digital output



DVA3X4.164
version with TIK-KXX
connector on the cable

DVA3X4.214
version with TIK-KXX
connector on the housing

DVA3X4.214
version with TIK-KXX
connector on the housing

DVA3X4.714
version with TIK-KXX
connector on the housing

Product appearance may vary slightly from that shown in the brochure

Features

Designed to measure vibration displacement (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							
Ranges of indicated values of vibration displacement, μm :								
0-100	0-125	0-160	0-200	0-250	0-300	0-500	0-1000	0-2000

Operating frequency range, Hz. 5-500;
2-1000;
3-1000;
5-1000;
10-1000

Climatic version

Operating temperature range, $^{\circ}\text{C}$

- H climatic version -40...+80
- X climatic version -60...+80
- K climatic version -196...+80

Interface

Output signal type RS-485
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 $^{\circ}\text{C}$... T₂₀₀ 280 $^{\circ}\text{C}$ Da X
Ex ib IIIC T95 $^{\circ}\text{C}$... T275 $^{\circ}\text{C}$ 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 $^{\circ}\text{C}$... T₂₀₀ 280 $^{\circ}\text{C}$ Da X
- Ex ib IIIC T95 $^{\circ}\text{C}$... T275 $^{\circ}\text{C}$ Db X

Protection class

- IP65/68

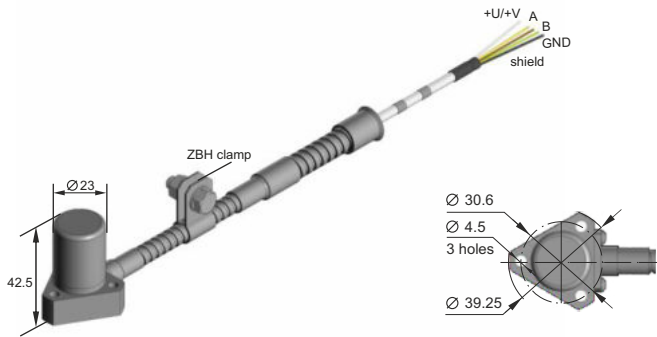
Reliability parameters

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

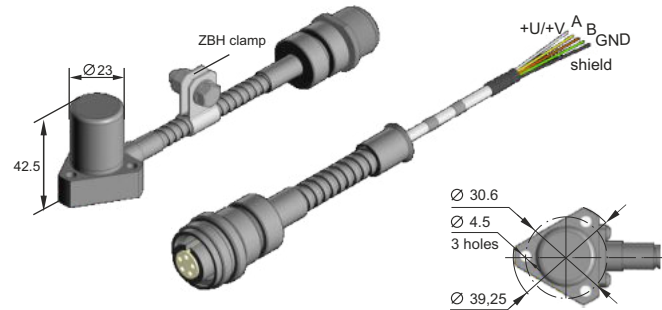


Constructive versions

DVA3X4.104



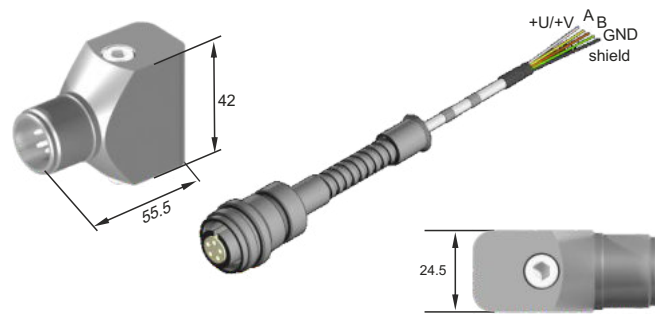
DVA3X4.164



DVA3X4.214



DVA3X4.714



Wiring diagrams

