

DVA1X4.XXX vibration velocity sensors with digital output

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

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

DVA1X4.104
version with the **non-detachable** cable connection

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



The appearance of the products may differ a little from those presented 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 / M10 / M12, 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

Interface

Type of output signal RS-485 or RS-485 + discrete output

Supply voltage of the sensor, V 10-24

Protocol Modbus RTU

Connection via the TIK-PLC controller* or the TIK-BIS safety barrier

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

Explosion protection

Marking. 0Ex ia IIC T6...T2 Ga X / PO Ex ia I Ma X
2Ex nA IIC T6...T2 Gc X

Climatic version

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

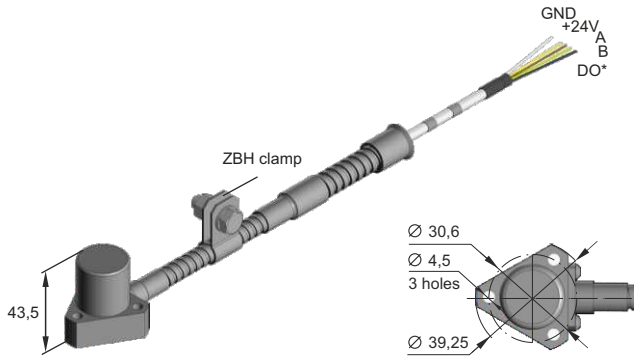
Reliability parameters

MTBF, hours, not less than 40 000
 Design service life, hours, not less than 80 000
 Warranty service life, months 24
 Service life, years 10
 Verification interval, years 2

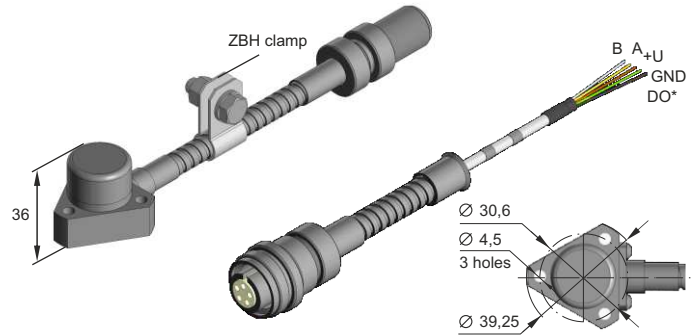


Constructive versions

DVA1X4.104



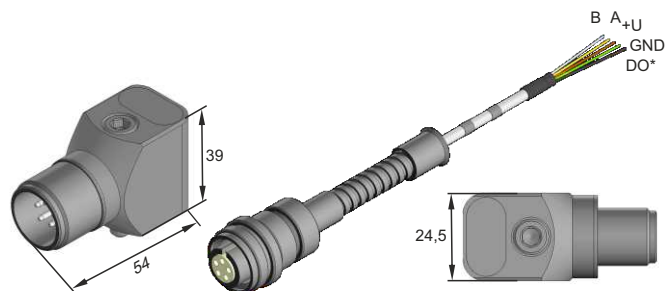
DVA1X4.164



DVA1X4.214



DVA1X4.714



*For version with discrete output

Wiring diagram

