

DVA141.XXX vibration velocity sensors with current output



Product appearance may vary slightly from that shown in the brochure

Features

Designed for measuring the RMS value of vibration velocity in emergency protection systems (EPS). They consist of a hermetically sealed enclosure containing an integral acceleration sensor and a conversion board.

Depending on the version, the standard M8 stud, 3 screws or 1 screw is used for mounting on the unit. On special order, studs with other threads, including inch threads, are available.

The .214 version allows the use of cable assemblies with a MIL connector from imported transducers.

Metrological parameters

Conversion coefficient, mA*s/mm											
1.6	1.259	0.8	0.64	0.63	0.533	0.4	0.32	0.315	0.267	0.2	0.16
Measurement ranges for the RMS value of 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 (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 (DVA141.104/164/214/714)
 - IP65 (DVA141.252)

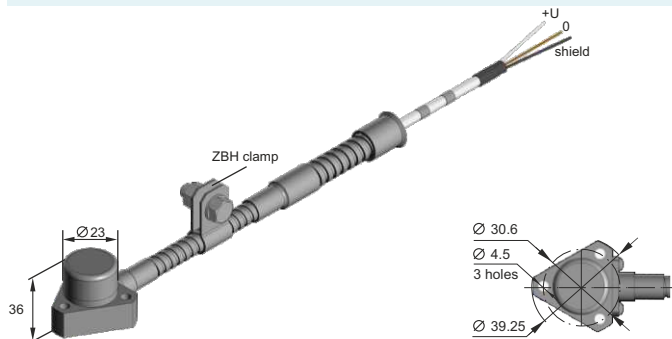
Reliability parameters

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

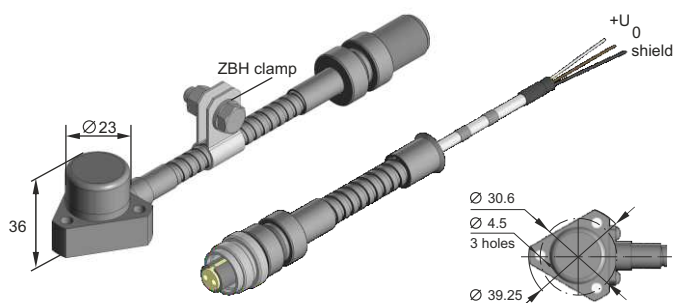


Constructive versions

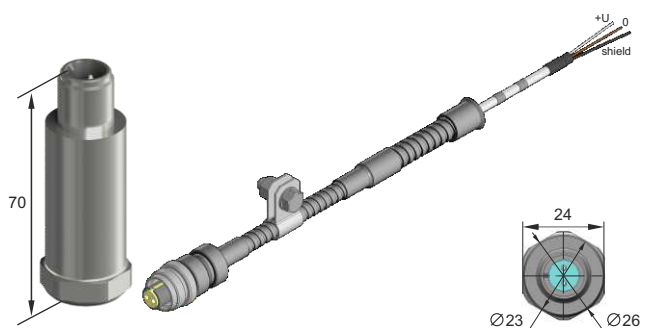
DVA141.104



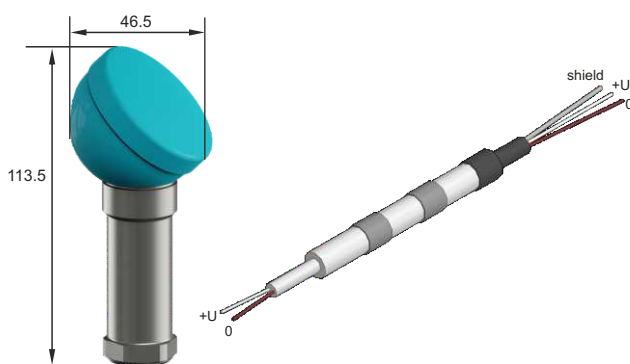
DVA141.164



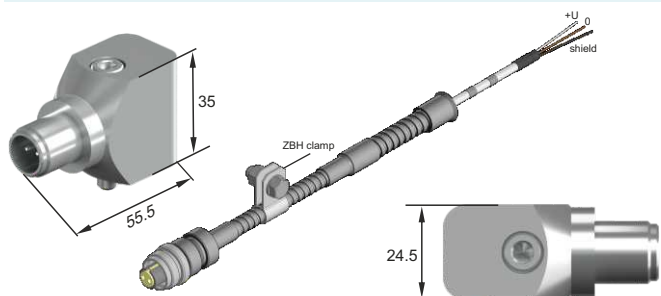
DVA141.214



DVA141.252



DVA141.714



Wiring diagrams

