

**IKV-1-2-1 ver. A vibration measuring channel with current output**

**DV-1 ver. 02 / AV 121**  
version with the connector  
on the cable and electronics  
in the remote unit



The picture shows one of the possible designs  
IKV-1-2-1 ver. A consists of the DV-1 ver. 00 (DV-1 ver. 02) sensor and the AV 121 remote unit

The appearance of the products may differ  
a little from those presented in the brochure

**Features**

It is designed to measure the root-mean-square (RMS) value of vibration velocity in emergency shutdown (ESD) systems.  
They consist of a sensitive element and a remote unit.  
Connection boxes are optionally supplied for the installation of vibration transducers and remote units.  
A connection box can comprise up to 6 remote units.  
Sensors of this series are supplied with a vibration-resistant cable of up to 15 metres (limited by production capacity, shall be specified at order).

**Metrological parameters**

| Conversion coefficient, mA*s/mm                                   |       |      |      |       |      |       |
|---|-------|------|------|-------|------|-------|
| 16  | 5.333 | 1.6  | 0.8  | 0.533 | 0.32 | 0.16  |
| Measurement ranges for the RMS value of vibration velocity, mm/s: |       |      |      |       |      |       |
| 0-1   | 0-3   | 0-10 | 0-20 | 0-30  | 0-50 | 0-100 |

Operating frequency range, Hz. . . . . 2-1000;  
10-1000

**Interface**

Type of output signal . . . . . 4-20 mA current loop  
Supply voltage of the sensor, V . . . . . 10-24  
(The minimum voltage of a power source is 10V.  
+1V for every 50 ohms of load)  
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 T5...T6 Ga X / PO Ex ia I Ma X

**Climatic version**

Operating temperature range, °C  
• DV-1 ver. 00/02 . . . . . -40...+150  
• DV-1 ver. 00/02 (cold) . . . . . -60...+150  
• AV121 remote unit . . . . . -60...+70

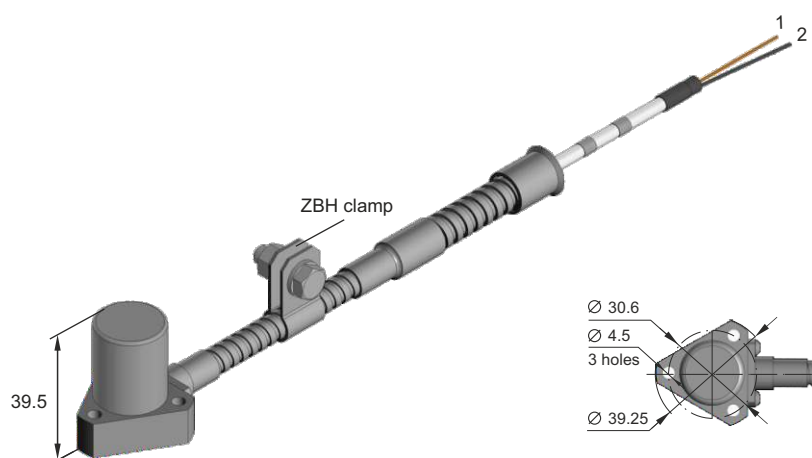
**Reliability parameters**

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 . . . . . 1

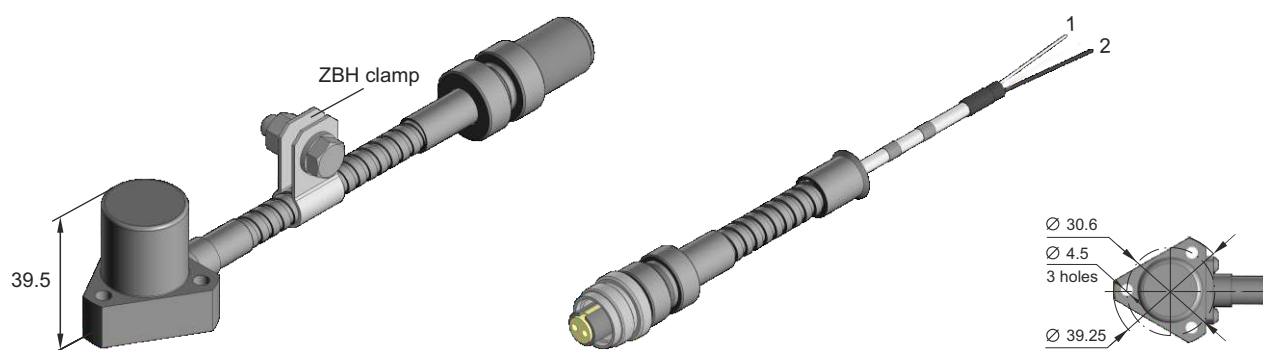


## Constructive versions

### DV-1 ver. 00



### DV-1 ver. 02 + connection cable



## Wiring diagram

