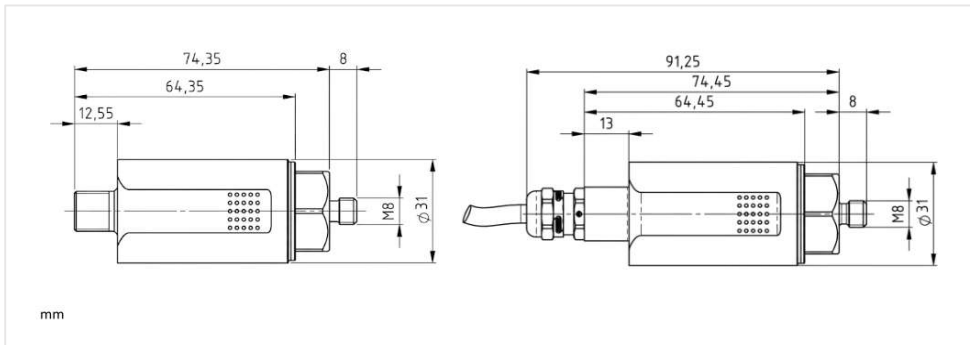


HE102



Product Data

|| selectable option

Technical Specification	
Measurand	Vibration acceleration (g, a-rms)
Measuring Range	0...1 g, a-rms
	0...2 g, a-rms
	0...4 g, a-rms
Frequency Range	0...6 g, a-rms
	0...8 g, a-rms
	0...10 g, a-rms
	10...1000 Hz
	10...100 Hz
	10...30 Hz
Accuracy	±10 % according to DIN ISO 2954
Calibration Point	159.2 Hz @ 90 % of the measuring range
Cross-Sensitivity	< 5 %
Max. Acceleration	±16.5 g
Service Life	10 years
MTTF Value	399 years
Averaging Time	1.1 s (10 Hz: expo. time-weighted RMS - 99 % after 5.5 s)
	11 s (1 Hz: expo. time-weighted RMS - 99 % after 55 s)
Electrical Specification	
Supply Voltage	10...30 V DC
Current Consumption (max.)	25 mA
Load Analog Output	max. 500 Ohm
Outputs	
Output 1	4...20 mA (proportional to the measuring range)
Interface	
Interface Type	Transmitter Two-Wire
Certification	
Compliance	CE / IEC / cULus Ord. Loc.
Explosion Protection Zone 1/21	ATEX / IECEx / CN-Ex / KCs II 2GD Ex ib IIC T4 Gb Ex ib IIIC T125 °C Db
	cULus Haz. Loc. Div 2
Explosion Protection Zone 2/22	Class I, Div 2, Grp. A, B, C and D, T4
	Class II, Div 2, Grp. F and G, T4
	Class III
Connection	
Connection Type	Connector, M12, 4-pin Integrated cable, 4-pin, various lengths available

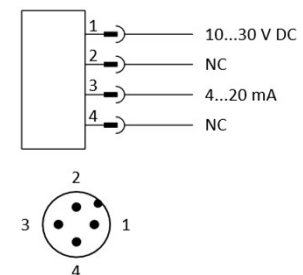
Features

- **Vibration Acceleration** in g (a-rms), according to DIN ISO 10816/20816
- Ex protection: Ex db & Ex tb
- Transmitter / Two-Wire
- Analog **4...20 mA Output** (proportional to Measuring Range)
- Robust Stainless Steel Housing
- High Temperature: **-40...+125 °C**
- High Protection Rating: **IP 66/67**

Description

The **HE102** specializes in the precise detection of **vibration acceleration** in the **high-frequency range**. As a compact 4...20 mA transmitter, it delivers reliable data for the **early detection** of gearbox damage and rolling element bearing defects during operation in accordance with **DIN ISO 10816**. Ideal for high-speed spindles, centrifuges, or gearbox stages – the HE102 accurately captures force impacts and **integrates seamlessly** into any existing PLC. Protect your precision machinery from costly consequential damage and ensure a long service life through targeted **condition monitoring**.

Wiring Diagram



Product Data

|| selectable option

Connection	
Pin Assignment	1 = L+ (10...30 V DC) 2 = NC - Not connected 3 = 4...20 mA output signal 4 = NC - Not connected
Environmental Conditions	
Ambient Temperature	-40...+60 °C
Measuring Head Temperature	-40...+125 °C
Max. Humidity	100%
Protection Rating	IP 66/67 Type 4X Enclosure (when connected)
Outdoor Application	Product is suitable for outdoor applications.
Mechanical Specification	
Housing Material	V2A stainless steel (1.4305) V4A stainless steel (1.4404) Duplex stainless steel (1.4462) + with pre-assembled V4A (1.4404) metal protection sleeve
Mounting	Thread (external), M8 × 8 mm, Pitch 1.25 mm Thread (external), M8 Conus (SPM), Pitch 1.25 mm Thread (internal), M8 × 8 mm, Pitch 1.25 mm
Wrench Size Sensor	24 mm (external)
Mounting Type	horizontal / vertical
Measuring Direction	along the mounting axis
Tightening Torque Sensor	8 Nm
Torque Connector Nut	0.4 Nm
Weight	0.2 kg to 1.9 kg (dependent to cable length)

Further Variants



HE102 with integrated cable.



HE102 with pre-assembled metal protection sleeve.

Typecode

Ex-Protection		HE102.	xx.	xx.	xx.	xx.	xx.	xxx
00 = no Ex-Protection								
01 = ATEX / IECEx / CN-Ex / Ex d & Ex tb (Zone 1/21 & 2/22)								
03 = cULus Haz. Loc. Div 2								
Measuring Range (a-rms)								
1 = 0...1 g, a-rms	6 = 0...6 g, a-rms							
2 = 0...2 g, a-rms	8 = 0...8 g, a-rms							
4 = 0...4 g, a-rms	10 = 0...10 g, a-rms							
Frequency Range								
00 = 10...1000 Hz	04 = 1...30 Hz							
01 = 1...1000 Hz	05 = 1...50 Hz							
02 = 1...100 Hz	06 = 10...30 Hz							
03 = 10...100 Hz								
Connection								
000 = M12 Connector	100 = 10 meter Cable							
010 = 1 meter Cable	further cable lengths							
020 = 2 meter Cable	available upon request							
050 = 5 meter Cable								
Mounting								
00 = Thread (external), M8 × 8 mm, Pitch 1.25 mm								
01 = Thread (external), M8 Conus (SPM), Pitch 1.25 mm								
02 = Thread (internal), M8 × 8 mm, Pitch 1.25 mm								
Housing Material								
00 = V2A (1.4305)	60 = 00 + metal protection sleeve* (V4A)							
01 = V4A (1.4404)	61 = 01 + metal protection sleeve* (V4A)							
02 = Duplex (1.4462)	62 = 02 + metal protection sleeve* (V4A)							
	*pre-assembled							

Accessories

<p>Sensor Cable Type A</p> <p>M12 female connector, straight, 4-pin</p> <p>2 meter SKU: 10520 5 meter SKU: 10521 10 meter SKU: 10458</p>	<p>Mounting Adapter M8 - M6 (SKU: 11103)</p> <p>Type 01.109.027 V4A (1.4404) Wrench: 24 mm</p>	<p>Mounting Adapter M8 - M12 (SKU: 11106)</p> <p>Type 01.109.029 V4A (1.4404) Wrench: 24 mm</p>
<p>Further Cable lengths and Adapters available at: www.hauber-elektronik.de/en</p>		