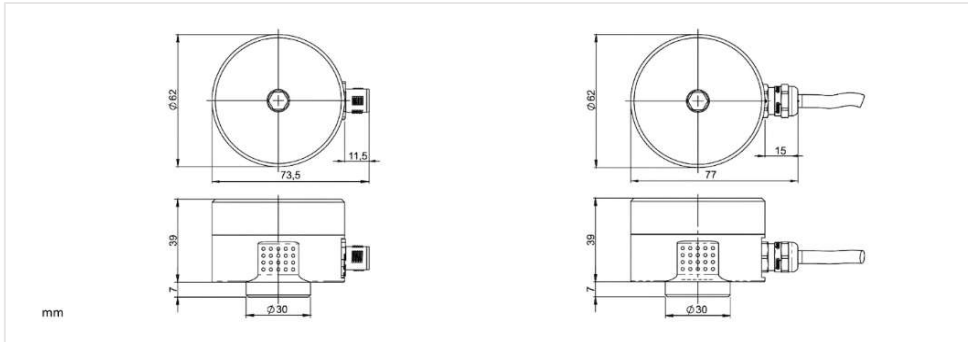


# HE200



## Product Data

|| selectable option

Technical Specification	
Measurand	Vibration velocity (mm/s, v-rms)    Vibration acceleration (g, a-rms)    (g, a-pp)
Measuring Range	0...8 mm/s, v-rms    0...1 g, a-rms
	0...10 mm/s, v-rms    0...2 g, a-rms
	0...12 mm/s, v-rms    0...3 g, a-rms
	0...16 mm/s, v-rms    0...4 g, a-rms
	0...20 mm/s, v-rms    0...6 g, a-rms
	0...25 mm/s, v-rms    0...8 g, a-rms
	0...32 mm/s, v-rms    0...10 g, a-rms
	0...50 mm/s, v-rms    0...12 g, a-rms
	0...64 mm/s, v-rms    0...12 g, a-rms
	0...128 mm/s, v-rms    0...4 g, a-pp
Frequency Range	10...1000 Hz    1...60 Hz
	10...500 Hz    1...40 Hz
	10...100 Hz    1...25 Hz
	5...1000 Hz    1...20 Hz
	1...1000 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	112.43 years
Averaging Time	2 s (10 Hz: expo. time-weighted RMS - 99 % after 10 s)
	11 s (1 Hz: expo. time-weighted RMS - 99 % after 55 s)

Electrical Specification	
Supply Voltage	18...27 V DC
Current Consumption (max.)	100 mA
Switching Contact Electrical Design	2x potential-free semiconductor switches
Switching Contact Maximum Current	1 A @ 30 V DC
Load Analog Output	max. 500 Ohm

Outputs	
Output 1	4...20 mA (proportional to the measuring range)
Switching Signals	2 Limit Values (Warning & Alarm) + Delay Times adjustable over the Measuring Range via HEX switch

Interface	
Interface Type	Transmitter Three-Wire

Connection	
Connection Type	Connector, M12, 8-pin.    Integrated cable, 8-pin., various lengths available

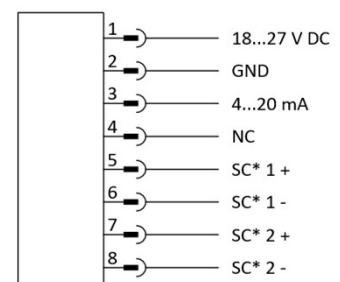
## Features

- **Vibration Velocity** in mm/s (v-rms), according to DIN ISO 10816/20816
- **Functional Safety: SIL2 / PL-d**
- **2 Limit Values - Warning & Alarm**
  - Transmitter / Two-Wire.
  - Analog **4...20 mA Output** (proportional to Measuring Range)
  - Robust Stainless Steel Housing
  - High Protection Rating: **IP 66/67**

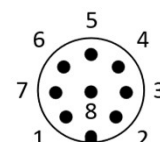
## Description

The **HE200** combines precise vibration monitoring with **certified functional safety** according to **SIL2** and **PL-d** standards. As a transmitter, it delivers RMS vibration data in accordance with **DIN ISO 10816/20816** and provides **two alarms (warning & alarm)** via integrated, adjustable limits. Ideal for safety-critical industrial applications and rotating machinery – the HE200 features comprehensive **explosion protection approvals** and integrates seamlessly into your safety control systems via a 4...20 mA output and potential-free switching contacts. Reliably protect your assets from unplanned downtime with a **robust sensor** that combines monitoring quality and functional safety.

## Wiring Diagram



\*SC = potential-free semiconductor switching contact



## Product Data

|| selectable option

Certification	
Compliance	CE / IEC / cULus Ord. Loc.
Explosion Protection Zone 1/21	ATEX / IECEx / INMETRO / CN-Ex / KCs II 2GD Ex db IIC T4 Gb / Ex tb IIIC 135°C Db
Explosion Protection Zone 2/22	ATEX / IECEx / INMETRO / CN-Ex / KCs II 3GD Ex ec IIC T4 Gc / Ex tc IIIC 135°C Dc    cULus Proc. Cont. Eq. Haz. Loc. Class I, Div 2, Grp. A, B, C and D, T4 Class II, Dlv 2, Grp. F and G, T4 / Class III
Functional Safety	SIL2 (IEC 61508) / PL-d (ISO 13849-1)

Environmental Conditions	
Ambient Temperature	-40 °C...+85 °C    -35 °C...+125 °C    -20 °C...+125 °C
Measuring Head Temperature	-40 °C...+60 °C    -35 °C...+60 °C    -20 °C...+60 °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)    + with addaption for metal protection sleeve    + with pre-assembled V4A (1.4404) metal protection sleeve
Mounting	Hex socket cap screw, M8 × 20 mm, Pitch 1.25 mm
Mounting Type	horizontal / vertical
Measuring Direction	along the mounting axis
Tightening Torque Sensor	8 Nm
Weight	0.5 kg to 2.2 kg (dependent to cable length)

## Further Variants



HE200 with integrated cable.



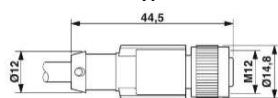
HE200 with pre-assembled metal protection sleeve.

## Typecode

Ex-Protection		Measuring Range		Frequency Range		Connection		Temperature Range		Housing Material	
00 = no Ex-Protection	01 = ATEX / IECEx / CN-Ex (Zone 1/21)	8 = 0...8 mm/s, v-rms	1g = 0...1g, a-rms	00 = 10...1000 Hz	05 = 1...60 Hz	000 = M12 Connector	100 = 10 meter Cable	00 = -40 °C ... 85 °C (with M12 Connector or with int. Cable & Ex-Prot. = 01)	00 = V2A stainless steal (1.4305)	00 = 10 meter Cable	00 = V2A stainless steal (1.4305)
02 = ATEX / IECEx / CN-Ex (Zone 2/22)		10 = 0...10 mm/s, v-rms	2g = 0...2g, a-rms	01 = 1...1000 Hz	06 = 10...100 Hz	010 = 1 meter Cable	further cable lengths available upon request	01 = -35 °C ... 125 °C (only with int. Cable & Ex-Prot. = 00 / 02)	01 = V4A stainless steal (1.4404)		01 = V4A stainless steal (1.4404)
		12 = 0...12 mm/s, v-rms	3g = 0...3g, a-rms	02 = 1...40 Hz	07 = 10...500 Hz	050 = 5 meter Cable		02 = -20 °C ... 125 °C (only with int. Cable & Ex-Prot. = 01)	50 = V2A (1.4305) + addaption for metal protection sleeve		50 = V2A (1.4305) + addaption for metal protection sleeve
		16 = 0...16 mm/s, v-rms	4g = 0...4g, a-rms	03 = 1...20 Hz	08 = 5...1000 Hz				60 = V2A (1.4305) + addaption & V4A metal protection sleeve*		60 = V2A (1.4305) + addaption & V4A metal protection sleeve*
		20 = 0...20 mm/s, v-rms	6g = 0...6g, a-rms	04 = 1...25 Hz					61 = V4A (1.4404) + addaption & V4A metal protection sleeve*		61 = V4A (1.4404) + addaption & V4A metal protection sleeve*
		25 = 0...25 mm/s, v-rms	8g = 0...8g, a-rms								
		32 = 0...32 mm/s, v-rms	10g = 0...10g, a-rms								
		50 = 0...50 mm/s, v-rms	12g = 0...12g, a-rms								
		64 = 0...64 mm/s, v-rms	4gp = 0...4g, a-pp								
		128 = 0...128 mm/s, v-rms									

## Accessories

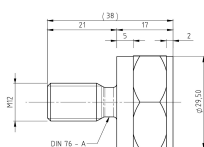
### Sensor Cable Type D



M12 female connector, straight, 8-pin

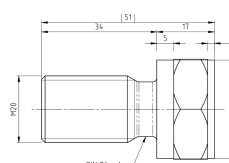
3 meter SKU: 13054  
5 meter SKU: 11770  
10 meter SKU: 11886

### Mounting Adapter M8 - M12 (SKU: 11107)



Type 01.109.031  
V4A (1.4404)  
Wrench: 30 mm

### Mounting Adapter M8 - M20 (SKU: 11109)



Type 01.109.033  
V4A (1.4404)  
Wrench: 30 mm

Further Cable lengths and Adapters available at: [www.hauber-elektronik.de/en](http://www.hauber-elektronik.de/en)