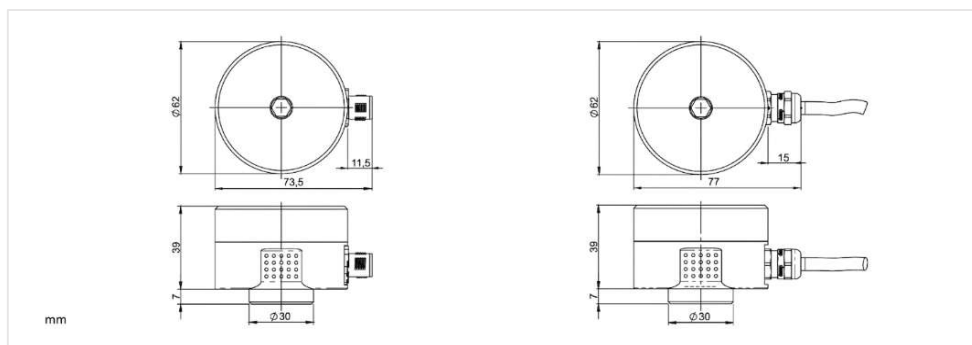


HE205



Product Data

|| selectable option

Technical Specification	
Measurand	Vibration acceleration (g, a-rms) Vibration velocity (mm/s, v-rms)
Measuring Range	0...1 g, a-rms
	0...2 g, a-rms
	0...3 g, a-rms
	0...4 g, a-rms
	0...6 g, a-rms
	0...8 g, a-rms
	0...10 g, a-rms
	0...12 g, a-rms
	0...64 mm/s, v-rms

Frequency Range	10...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 (Window Functionality) + 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

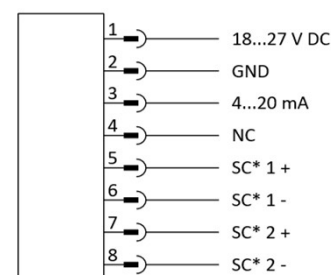
Features

- **Vibration Acceleration** in g (a-rms), according to DIN ISO 10816/20816
- **Functional Safety: SIL2 / PL-d**
- **2 Limit Values - Window Functionality**
 - Transmitter / Two-Wire.
 - Analog **4...20 mA Output** (proportional to Measuring Range)
 - Robust Stainless Steel Housing
 - High Protection Rating: **IP 66/67**

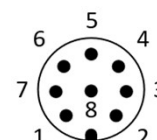
Description

The **HE205** specializes in vibration acceleration monitoring while offering **certified functional safety** according to **SIL2** and **PL-d**. As a transmitter, it accurately captures **mechanical vibrations** and reliably signals when the optimal operating range is exceeded or undershot via two separately adjustable **limit values** with **window functionality**. Ideal for vibrating and oscillating machinery such as screening equipment, conveyors, or centrifuges – the HE205 **integrates seamlessly** into safety-related control systems via a 4...20 mA analog output and potential-free semiconductor switches. Protect your mechanical infrastructure from excessive vibration and ensure a **long-lasting, hazard-free** operation.

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, Div 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 adaption for metal protection sleeve + with pre-assembled V4A (1.4404) metal protection sleeve
Mounting	Hex socket cap screw, M8 x 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



HE205 with integrated cable.



HE205 with pre-assembled metal protection sleeve.

Typecode

HE205. XX. XX. XX. XX. XXX	
<p>Ex-Protection</p> <p>00 = no Ex-Protection 01 = ATEX / IECEx / CN-Ex (Zone 1/21) 02 = ATEX / IECEx / CN-Ex (Zone 2/22)</p> <p>Measuring Range</p> <p>1g = 0...1g, a-rms 8g = 0...8g, a-rms 2g = 0...2g, a-rms 10g = 0...10g, a-rms 3g = 0...3g, a-rms 12g = 0...12g, a-rms 4g = 0...4g, a-rms 16 = 0...64 mm/s, v-rms 6g = 0...6g, a-rms</p> <p>Frequency Range</p> <p>00 = 10...1000 Hz 03 = 1...20 Hz 01 = 1...1000 Hz</p>	<p>Connection</p> <p>000 = M12 Connector 100 = 10 meter Cable 010 = 1 meter Cable further cable lengths 050 = 5 meter Cable available upon request</p> <p>Temperature Range</p> <p>00 = -40 °C ... 85 °C (with M12 Connector or with int. Cable & Ex-Prot. = 01) 01 = -35 °C ... 125 °C (only with int. Cable & Ex-Prot. = 00 / 02) 02 = -20 °C ... 125 °C (only with int. Cable & Ex-Prot. = 01)</p> <p>Housing Material</p> <p>00 = V2A stainless steel (1.4305) 01 = V4A stainless steel (1.4404) 50 = V2A (1.4305) + adaption for metal protection sleeve 51 = V4A (1.4404) + adaption for metal protection sleeve 60 = V2A (1.4305) + adaption & V4A metal protection sleeve* 61 = V4A (1.4404) + adaption & V4A metal protection sleeve* *pre-assembled</p>

Accessories

<p>Sensor Cable Type D</p> <p>M12 female connector, straight, 8-pin</p> <p>3 meter SKU: 13054 5 meter SKU: 11770 10 meter SKU: 11886</p>	<p>Mounting Adapter M8 - M12 (SKU: 11107)</p> <p>Type 01.109.031 V4A (1.4404) Wrench: 30 mm</p>	<p>Mounting Adapter M8 - M20 (SKU: 11109)</p> <p>Type 01.109.033 V4A (1.4404) Wrench: 30 mm</p>
---	--	--

Further Cable lengths and Adapters available at: www.hauber-elektronik.de/en