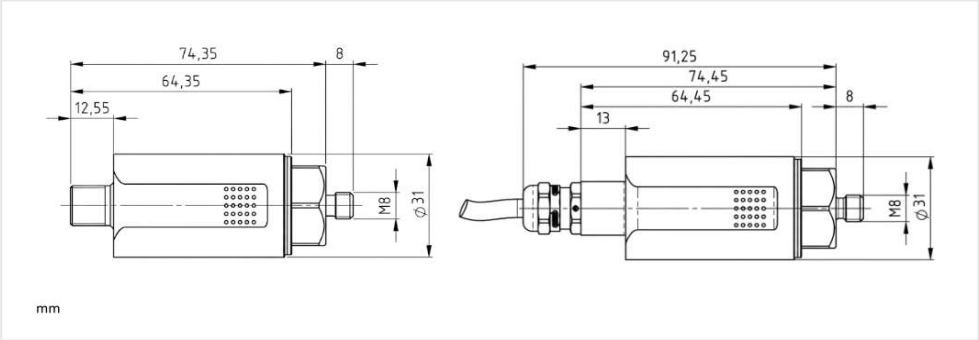
HE100



Product Data

|| selectable option

Technical Specification	
Measurand	Vibration velocity (mm/s, v-rms)
Measuring Range	|| 0...8 mm/s, v-rms (only for Frequency Range bigger 10 Hz) || 0...10 mm/s, v-rms || 0...16 mm/s, v-rms || 0...20 mm/s, v-rms || 0...25 mm/s, v-rms || 0...32 mm/s, v-rms || 0...50 mm/s, v-rms || 0...64 mm/s, v-rms || 0...128 mm/s, v-rms || 0...256 mm/s, v-rms || 0...512 mm/s, v-rms
Frequency Range	|| 10...1000 Hz || 1...1000 Hz || 1...100 Hz || 1...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 || ATEX / IECEx / CN-Ex / KCs II 2GD Ex d IIC T4 Gb Ex tb IIIC T120 °C Db
Explosion Protection Zone 2/22	|| cULus Haz. Loc. Div 2 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

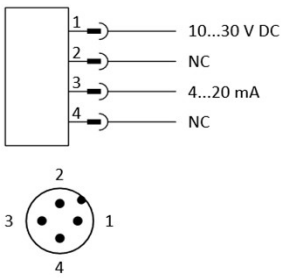
Features

- **Vibration Velocity** in mm/s (v-rms), according to DIN ISO 10816/20816
- Ex protection: **Ex ib** / 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 **HE100** provides essential safety without complexity. As a compact 4…20 mA vibration transmitter, it delivers critical data for the early **detection of mechanical irregularities** during operation in accordance **with DIN ISO 10816**. Ideal for demanding industrial environments – the HE100 offers **intrinsic safety according to Ex ib** and **integrates seamlessly** into any existing PLC. This allows you to protect your systems from unplanned downtime and costly damage with a sensor that combines robustness and ease of use.

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

HE100 with integrated cable.

HE100 with pre-assembled metal protection sleeve.

Typecode

HE100.	xx.	xx.	xx.	xx.	xx.	xxx

Ex-Protection
00 = no Ex-Protection
01 = ATEX / IECEx / CN-Ex / Ex d & Ex tb (Zone 1/21 & 2/22)
02 = ATEX / IECEx / CN-Ex / **Ex ib** (Zone 1/21 & 2/22)
03 = cULus Haz. Loc. Div 2

Measuring Range (v-rms)
8 = 0...8 mm/s, v-rms
10 = 0...10 mm/s, v-rms
16 = 0...16 mm/s, v-rms
20 = 0...20 mm/s, v-rms
25 = 0...25 mm/s, v-rms
32 = 0...32 mm/s, v-rms
50 = 0...50 mm/s, v-rms
64 = 0...64 mm/s, v-rms
128 = 0...128 mm/s, v-rms
256 = 0...256 mm/s, v-rms
512 = 0...512 mm/s, v-rms

Frequency Range
00 = 10...1000 Hz
01 = 1...1000 Hz
02 = 1...100 Hz
04 = 1...30 Hz

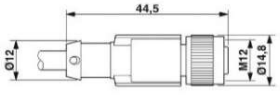
Connection
000 = M12 Connector
010 = 1 meter Cable
020 = 2 meter Cable
050 = 5 meter Cable
100 = 10 meter Cable
further cable lengths available upon request

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)
01 = V4A (1.4404)
02 = Duplex (1.4462)
60 = 00 + metal protection sleeve* (V4A)
61 = 01 + metal protection sleeve* (V4A)
62 = 02 + metal protection sleeve* (V4A)
*pre-assembled

Accessories

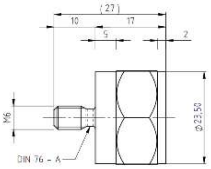
Sensor Cable Type A



M12 female connector, straight, 4-pin

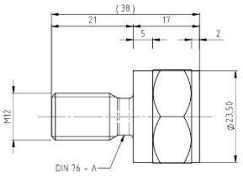
2 meter SKU: 10520
5 meter SKU: 10521
10 meter SKU: 10458

Mounting Adapter M8 - M6 (SKU: 11103)



Type 01.109.027
V4A (1.4404)
Wrench: 24 mm

Mounting Adapter M8 - M12 (SKU: 11106)



Type 01.109.029
V4A (1.4404)
Wrench: 24 mm

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