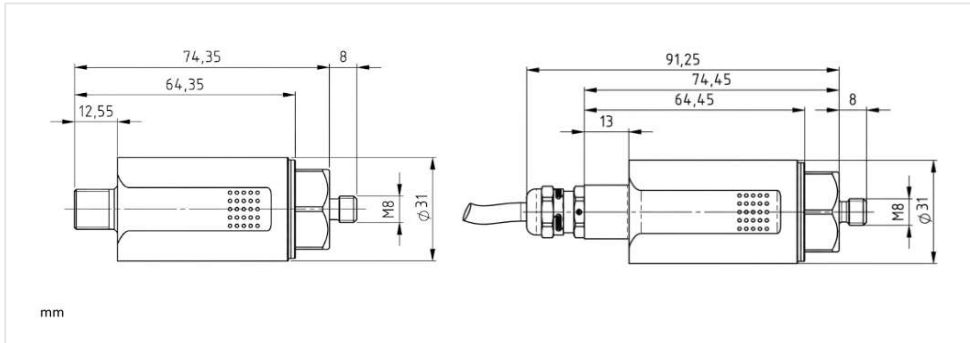


# HE101



## Product Data

|| selectable option

Technical Specification	
Measurand	Vibration velocity (mm/s, v-rms) Temperature (°C)
Measuring Range	0...8 mm/s, v-rms (only for Frequency Range bigger 10 Hz)
	0...10 mm/s, v-rms    0...50 mm/s, v-rms
	0...16 mm/s, v-rms    0...64 mm/s, v-rms
	0...20 mm/s, v-rms    0...128 mm/s, v-rms
	0...25 mm/s, v-rms    0...256 mm/s, v-rms
	0...32 mm/s, v-rms    0...512 mm/s, v-rms
	0...100 °C
Frequency Range	10...1000 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	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.)	50 mA
Load Analog Output	max. 500 Ohm
Outputs	
Output 1	4...20 mA (mm/s, v-rms - proportional to the measuring range)
Output 2	4...20 mA (°C - proportional to the measuring range)
Interface	
Interface Type	Transmitter Double 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 Class I, Div 2, Grp. A, B, C and D, T4 Class II, Div 2, Grp. F and G, T4 Class III
Explosion Protection Zone 2/22	
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

- **Temperature** in °C

- Transmitter / Double Two-Wire

- Ex protection: Ex db & Ex tb

- Analog **4...20 mA Output** (proportional to Measuring Range)

- Robust Stainless Steel Housing

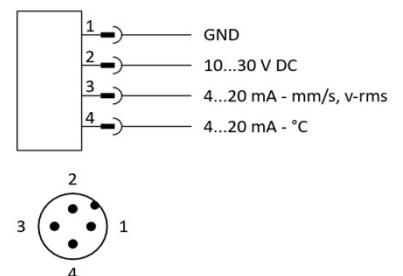
- High Temperature: **-40...+125 °C**

- High Protection Rating: **IP 66/67**

## Description

The **HE101** offers a combination of **vibration and temperature** measurement in a single sensor. As a high-performance **dual transmitter**, it simultaneously provides both measurands via two independent 4...20 mA outputs in accordance with **DIN ISO 10816**. Ideal for critical bearing points, thermally sensitive processes, and demanding industrial environments – the HE101 enables **precise condition monitoring** and can be **integrated seamlessly** into any existing PLC. Protect your equipment from unforeseen failures caused by factors such as bearing seizure or lack of lubrication with a sensor that combines **diagnostic depth** and robustness.

## Wiring Diagram



Product Data

|| selectable option

Connection	
Pin Assignment	1 = L- (GND) 2 = L+ (10...30 V DC) 3 = 4...20 mA output signal 1 4 = 4...20 mA output signal 2
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



HE101 with integrated cable.



HE101 with pre-assembled metal protection sleeve.

Typecode

HE101.		xx.	xx.	xx.	xx.	xx.	xxx
<b>Ex-Protection</b>				<b>Connection</b>			
00 = no Ex-Protection				000 = M12 Connector			
01 = ATEX / IECEx / CN-Ex / Ex d & Ex tb (Zone 1/21 & 2/22)				010 = 1 meter Cable			
03 = cULus Haz. Loc. Div 2				020 = 2 meter Cable			
<b>Measuring Range (v-rms &amp; tmp)</b>				050 = 5 meter Cable			
8 = 0...8 mm/s, v-rms		50 = 0...50 mm/s, v-rms		<b>Mounting</b> 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			
10 = 0...10 mm/s, v-rms		64 = 0...64 mm/s, v-rms					
16 = 0...16 mm/s, v-rms		128 = 0...128 mm/s, v-rms					
20 = 0...20 mm/s, v-rms		256 = 0...256 mm/s, v-rms					
25 = 0...25 mm/s, v-rms		512 = 0...512 mm/s, v-rms					
32 = 0...32 mm/s, v-rms		always = 0...100 °C, tmp					
<b>Frequency Range</b>				<b>Housing Material</b>			
00 = 10...1000 Hz				00 = V2A (1.4305)			
01 = 1...1000 Hz				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	Mounting Adapter M8 - M6 (SKU: 11103)	Mounting Adapter M8 - M12 (SKU: 11106)
<p>M12 female connector, straight, 4-pin</p> <p>2 meter SKU: 10520 5 meter SKU: 10521 10 meter SKU: 10458</p>	<p>Type 01.109.027 V4A (1.4404) Wrench: 24 mm</p>	<p>Type 01.109.029 V4A (1.4404) Wrench: 24 mm</p>
Further Cable lengths and Adapters available at: <a href="http://www.hauber-elektronik.de/en">www.hauber-elektronik.de/en</a>		