

# dTSens®

**HE** HAUBER  
ELEKTRONIK



## Smart Condition Monitoring HE200 | HE205

Safe vibration monitoring unit



Monitor vibration –  
avoid standstill.  
Also Ex-protected.



The HE200 and HE205 vibration sensors offer condition-based monitoring of systems and machines in SIL2 / PL d and, depending on requirements, also with explosion protection.

They ensure a long service life and safe, efficient operation of machines and systems.

Measured variables via analogue output 4 - 20 mA:

- Vibration speed mm/s, rms
- Vibration acceleration g, rms

The sensors cover a temperature range of -40 to 125 °C.

#### Switching outputs with adjustable delay time

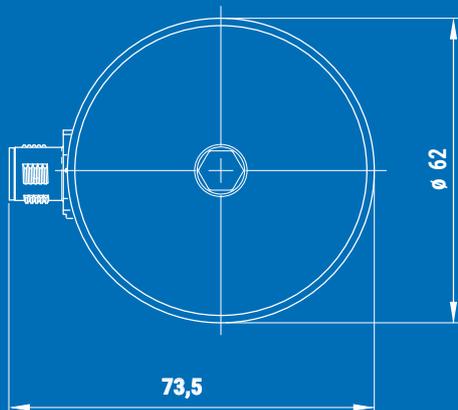
In the HE200, exceeding the respective set limit values is signalled at the two switching outputs.

The HE205 signals at the two switching outputs if the set window range is exceeded or not reached (window function).

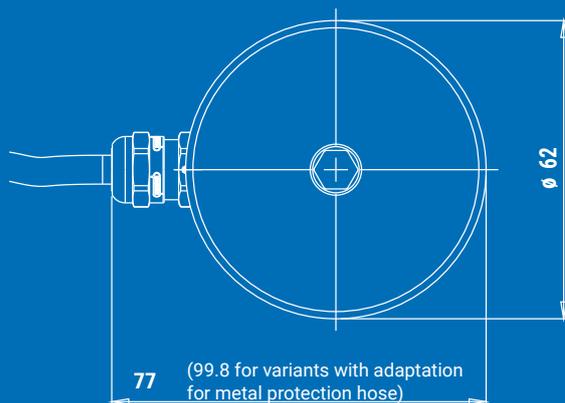
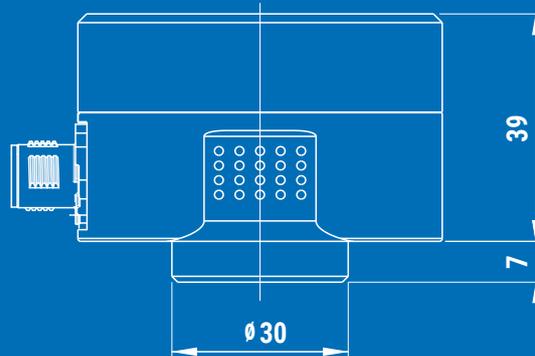
#### Benefits:

- Analogue output and switching outputs are SIL2/PL d certified
- Standard or with Ex certification
- Condition monitoring according to DIN ISO 10816-3
- Faults are detected at an early stage
- Can also be used in harsh environmental conditions
- Limit switch or window function

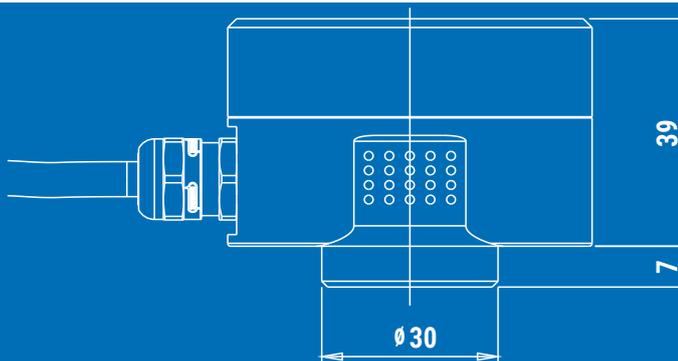
COMPACT  
ROBUST  
EX-CERTIFIED  
SIL2 TÜV-CERTIFIED  
RELIABLE  
EVALUABLE  
SAFE



Housing dimensions with M12 plug connector



Housing dimensions with integrated cable



## Accessories



Designation	Length	Item number
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Connection cable type D 8-pole, shielded, M12 socket (additional lengths on request)	1.5 m/3 m/ 5 m/10 m	13053 / 13054 / 11770 / 11886
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Metal protective tubing for sensors with integrated cable	1.5m / 4.5m / 9.5m	13244 / 13026 / 13243
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Rubber protective nozzle		12525
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### Optional mechanical adapter

Designation	Item number	Designation	Item number
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Magnetic base	10054	M8 M10	11105
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Adhesive adapter	11650	M8 M12	11107
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M8 to M8 Cone SPM	11112	M8 M16	11108
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## Vibration monitoring unit also in ex-protection version for worldwide use

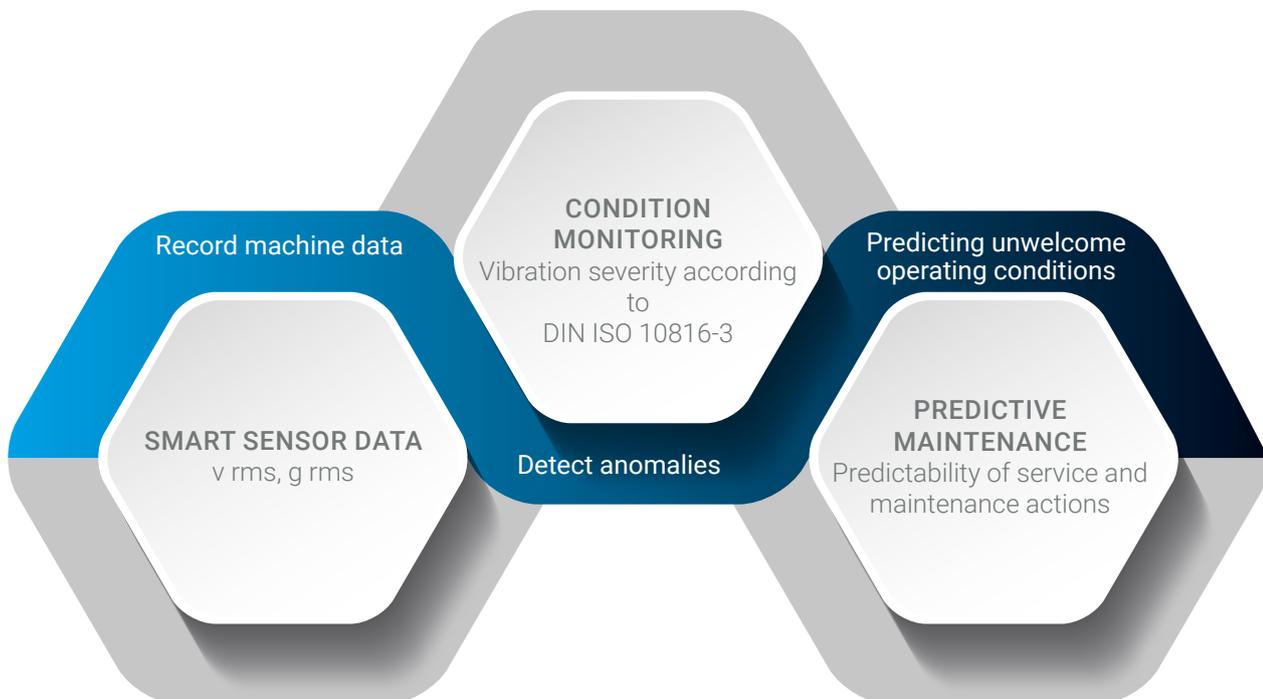
In many industries, an explosive atmosphere can arise when handling flammable substances in conjunction with ambient air containing oxygen. Companies are required to take appropriate measures for explosion protection. To ensure a high level of safety, there are legal guidelines and extensive standards for explosion protection worldwide. Explosion protection is defined by ignition protection types and zoning.

The HE200 and HE205 vibration sensors are available with comprehensive explosion protection certification for worldwide use. For zone 1/21, they are then designed in a flame-proof enclosure with integrated cable. For applications in zone 2/22, versions with increased safety are available as a connector variant or with integrated cable.

### EX certifications worldwide



## Sensor data - basis for condition monitoring and predictive maintenance



## Type key



<b>Type (measurand)</b>	Vibration monitoring unit mm/s, rms or g rms 2 potential-free switching contacts as limit values	<b>HE 2 0 0</b>		
	Vibration monitoring unit g rms 2 potential-free switching contacts as window function	<b>HE 2 0 5</b>		
<b>Ex area</b>	No Ex area	<b>00</b>		
	ATEX/IECEX/UKCA/Inmetro/CCC - Zone 1/21	<b>01</b>		
	ATEX/IECEX/UKCA/Inmetro/CCC/cULus Haz. Loc. - Zone 2/22, Div2	<b>02</b>		
<b>Measuring range</b>	8 mm/s rms	<b>8</b>	128 mm/s rms	<b>128</b>
	10 mm/s rms	<b>10</b>	1 g rms	<b>1g</b>
	16 mm/s rms	<b>16</b>	2 g rms	<b>2g</b>
	20 mm/s rms	<b>20</b>	4 g rms	<b>4g</b>
	25 mm/s rms	<b>25</b>	6 g rms	<b>6g</b>
	32 mm/s rms	<b>32</b>	8 g rms	<b>8g</b>
	50 mm/s rms	<b>50</b>	10 g rms	<b>10g</b>
	64 mm/s rms	<b>64</b>		
<b>Frequency range</b>	10 ... 1.000 Hz (Standard)	<b>00</b>		
	1 ... 1.000 Hz	<b>01</b>		
<b>Housing material</b>	1.4305 (V2A) (Standard)	<b>00</b>		
	1.4404 (V4A)	<b>01</b>		
	1.4305 (V2A) with adaptation for metal protection hose	<b>50</b>		
	1.4404 (V4A) with adaptation for metal protection hose	<b>51</b>		
<b>Measuring head temperature range</b>	-40 °C ... +85 °C all plug variants and for zone 1/21 as option	<b>00</b>		
	-35 °C ... +125 °C integrated cable without Ex and integrated cable Zone 2/22	<b>01</b>		
	-20 °C ... +125 °C for zone 1/21 only as option	<b>02</b>		
<b>Connection</b>	M12 connector (standard) not for zone 1/21	<b>000</b>		
	2 m integrated cable	<b>020</b>		
	5 m integrated cable	<b>050</b>		
	10 m integrated cable	<b>100</b>		
<b>Safety</b>	SIL2, PL d			
<b>Protection class</b>	IP 66/67			
<b>Certifications</b>	CE, UKCA, IEC, cULus Ord Loc.			
<b>Certifications Ex area</b>	ATEX, IECEX, UKCA Ex, INMETRO, CCC, Kosha, cULus Haz. Loc.			

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**dTS.**  
INSTRUMENTS

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