



- continuous level measurement through hydrostatic pressure
- Ex-area zone 1: suspension type with PE-cable
- Ex-area zone 0: externally mounted type with trailing lead

**Function principle**

The pressure sensor is using a piezoresistive measurement cell. The hydrostatic pressure of the medium is transmitted to the measurement cell by a stainless steel membrane. The deformation of the measurement cell results in a resistance change which is detected by an electronic device. With PLM output the transducer generates pulse length modulated current impulses. Those pulses are transmitted via a 2-wire-lead to a suitable signal conditioner. This signal conditioner decodes the PLM-signal and generates a current signal proportional to the level.

**Hydrostatic pressure sensor**

HR-0283□□

**Measuring range**

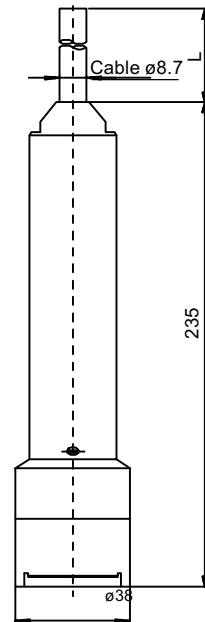
- 0 ... 250 mbar HR-□□□□1□
- 0 ... 600 mbar HR-□□□□2□
- 0 ... 1600 mbar HR-□□□□3□
- 0 ... 4 bar HR-□□□□4□
- 0 ... 10 bar HR-□□□□5□

**Version**

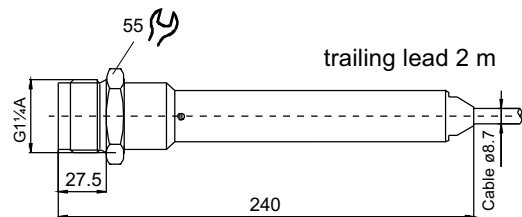
- Suspension with PE cable, Ex-area zone 1\*) HR-□□□□□4
- externally with trailing lead, Ex-area zone 0 HR-□□□□□5

\*) only for flammable liquids of danger class A III

**Dimensions**



Suspension type with PE-cable, integrated converter

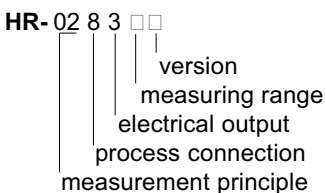


Externally mounted type with trailing lead, integrated converter

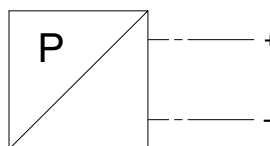


Please specify the length (L) of the cable when ordering.

**Types**



**Connection**



Date of issue 26.06.97



<b>Technical data</b>																			
<b>Approvals / Certifications</b>	<b>PTB Nr. Ex-95.D.2020</b>																		
<b>Ignition protection class</b>	EEx ia IIC T6																		
<b>Measuring ranges</b>	<table border="1"> <thead> <tr> <th>Measuring ranges</th> <th>max. allowed over-pressure</th> <th>min. measuring ranges</th> </tr> </thead> <tbody> <tr> <td>0...250 mbar</td> <td>2 bar</td> <td>0...50 mbar</td> </tr> <tr> <td>0...600 mbar</td> <td>6 bar</td> <td>0...120 mbar</td> </tr> <tr> <td>0...1600 mbar</td> <td>10 bar</td> <td>0...0.6 bar</td> </tr> <tr> <td>0...4 bar</td> <td>16 bar</td> <td>0...1.6 bar</td> </tr> <tr> <td>0...10 bar</td> <td>30 bar</td> <td>0...4 bar</td> </tr> </tbody> </table>	Measuring ranges	max. allowed over-pressure	min. measuring ranges	0...250 mbar	2 bar	0...50 mbar	0...600 mbar	6 bar	0...120 mbar	0...1600 mbar	10 bar	0...0.6 bar	0...4 bar	16 bar	0...1.6 bar	0...10 bar	30 bar	0...4 bar
Measuring ranges	max. allowed over-pressure	min. measuring ranges																	
0...250 mbar	2 bar	0...50 mbar																	
0...600 mbar	6 bar	0...120 mbar																	
0...1600 mbar	10 bar	0...0.6 bar																	
0...4 bar	16 bar	0...1.6 bar																	
0...10 bar	30 bar	0...4 bar																	
HR-028□1□ HR-028□2□ HR-028□3□ HR-028□4□ HR-028□5□																			
<b>Accuracy</b> Linearity Temperature	typical ±0.15% max. ±0.3% from the full scale reading < 0.3% from the full scale reading / 10 K																		
<b>Supply</b>	by a suitable signal conditioner (PLM - version)																		
<b>Electrical output</b>	PLM - current impulses																		
<b>Environmental conditions</b> Temperature	-20 °C ... +65 °C (253 K ... 338 K)																		
<b>Process conditions</b> Temperature	-20 °C ... +60 °C (253 K ... 333 K)																		
<b>Process connection</b> Suspension type Membrane seal Cable Externally mounted type Thread Membrane Connecting cable	Viton PE, ø8.7 mm  G1¼A, stainless steel 316 Ti / 320 S 18 welded, stainless steel 316 Ti / 320 S 18 PE, ø8.7 mm, length 2 m																		
<b>Compensation of the measuring range</b>	the hydrostatic pressure sensor has to be compensated after mounting																		

A measuring system consists out of:

- a hydrostatic pressure sensor HR-0283□□ with a signal conditioner KFU8-PWC

Date of issue 26.06.97