

HOD – High Pressure Transmitter

Description

The HOD is a high quality all stainless steel pressure transmitter, intended for use in the measurement of gases and liquids compatible with stainless steel. With additional EMI / RFI protection, low static and thermal errors and high resistance to shock and vibration as standard, the HOD assures trouble free operation at temperatures up to 125°C. The HOD Piezoresistive sensing element coupled with the latest ASIC circuitry, assures excellent accuracy, choice of high level outputs and long stability, protected within a rugged, stainless steel housing. The HOD high strength stainless steel construction contains no silicone oil and no internal O- rings. Measurements are available in gauge and absolute pressure, with ranges up to 5000 bar and are backed by a one-year warranty.



Features

- High strength, rugged stainless steel design
- Pressure Reference: Gauge
- Piezoresistive sensor
- High resistance to shock and vibration
- Pressure ranges: 0 ... 5000 bar
- Signal output: 4 ... 20 mA
- Accuracy @ RT: < 1.0 % FS
- Measuring medium: -40 ... +125 °C
- Electrical connections: DIN EN 175301-803 C
- Pressure connection: M18x1.5 Male
- IP 65

Applications

- Water Jet Cutting
- Test benches
- High-Pressure Pasteurization
- High-Pressure Cleaning
- High-Pressure Processing
- Automotive industry
- Industrial hydraulics
- Hydroforming
- Autofrettage

Specifications

Input Pressure Range

Nominal Pressure Gauge [bar]	2000	4000	5000
Overpressure [Max] [bar]	3000	5000	6000
Burst Pressure [Min] [bar]	4000	8000	10000

Performance

Accuracy @ RT	% of the range (gauge and vacuum sensors) < 1.0 BFSL ≤ 0.5	(incl. nonlinearity, hysteresis, repeatability, zero-offset and final offset acc. to IEC 61298-2)
Non-linearity	% of the range ≤ 0.30	
Repeatability	% of the range ≤ 0.20	
Stability/year	% of the range ≤ 0.20	
Response time (10 ... 90 %)	1 ms	
Pressure cycles	> 10 million	

Environment

Temperature [°C]:

Measuring medium	-40 ... +125
Ambience	-40 ... +105
Storage	-40 ... +125
Compensated range	-20 ... +85

Temperature coefficient within the compensated range:

Mean TC offset	% of the range ≤ 0,15 / 10K
Mean TC range	% of the range ≤ 0,15 / 10K
Shock	1000 G, 11 msec., 1/2 Sine
Vibration	25 G peak, 20 to 2000 Hz
Ingress protection	IP 65

Electronics

Supply / Output	10 ... 32 VDC → 4 ... 20 mA	
Output impedance	< 100 Ω	
Current consumption	< 10 mA	
Isolation resistance	> 100 MΩ	Measured between case and pins (VDC 50V for one minute)
Reverse voltage protection	YES	

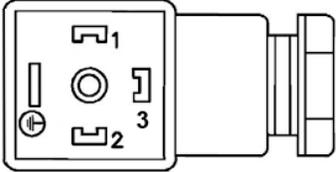
Mechanics

Housing	Stainless steel 304
Wetted parts material	Titanium
Pressure port	Male - M18×1.5

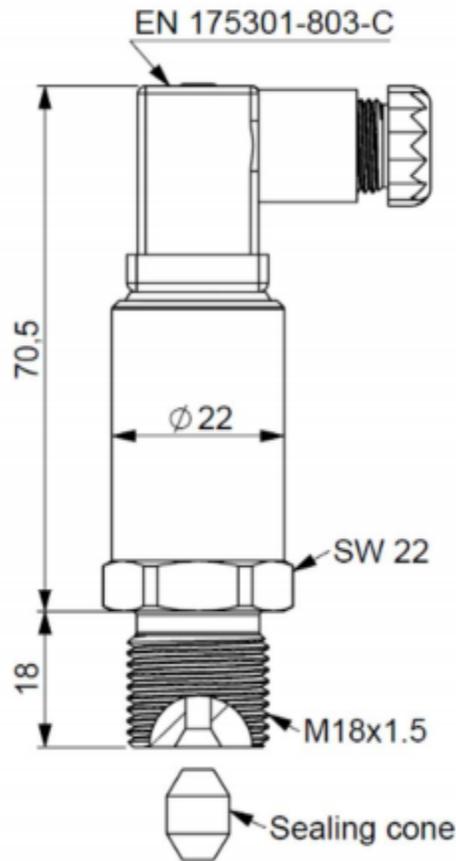
Miscellaneous

Weight	Approx. 140 g
Mounting Force	Max 25 Nm
Calibration	Output is Calibrated at Zero & Full Scale

Wiring

Electrical Connection	Output	PIN 1	PIN 2	PIN 3	PIN 4	
 DIN EN 803 175301-C	4 – 20 mA	+ Supply	Current Output -	N/A	-	earth
	0 – 10 VDC	+ Supply	- Supply	Output +	-	earth
	0 – 5 VDC	+ Supply	- Supply	Output +	-	earth

Dimensions.



DIN EN 175301-803
connector

HOD xx xxxx FMCK
(Male - M18x1.5)

Ordering code

HOD

Series

HOT (Industrial Pressure Transmitter)

HOF (Flush Diaphragm Pressure Transmitter)

HOM (Low Pressure Transmitter)

HOD (High Pressure Transmitter)

HOX (Explosion Proof Pressure Transmitter)

Output

4 ... 20 mA / 2-wire

H

4 ... 20 mA / 2-wire / Compound

HC

0 ... 10 V / 3-wire

J

0 ... 10 V / 3-wire / Compound

JC

0 ... 5 V / 3-wire

F

Pressure Range

Please check the Specifications table

Pressure Unit

bar

F

Kpa

R

psi

P

Pressure connection

Male - NPT 1/4"

L

Male - G 1"

N

Male - G 1/2"

W

Male - G 1/4"

G

Male - M18x1.5"

M

Electrical connection

DIN EN 803-175301-C

C

M12x1 4-pin

M

Pressure type

Gauge

K

Absolute

A