

HOF – Flush diaphragm Pressure Transmitter

Description

The HOF range of pressure sensors guarantee a wide application field in a high accuracy, rugged and compact design. The stainless steel membrane is completely vacuum-sealed, extremely burst resistant and applicable for all standard media across hydraulics, pneumatics, environmental engineering, process technology, semiconductor technology and automotive engineering. As part of the stringent manufacturing process, all HOF pressure transmitters are individually pressure and temperature tested to conform to DIN EN ISO 9001:2008. With compensation and adjustment performed electronically these pressure transmitters are characterized by a very low total error and excellent long-term stability. With the precision of modern electronics, the measured data is captured and processed very accurately. With permanent magnets the zero point can be easily and securely adjusted at any time.



Features

- Flush mount stainless steel design
- Pressure Reference: Gauge
- High resistance to shock and vibration
- Programmable for zero point (offset)
- Pressure ranges: 0 ... 100 bar
- Signal output: 4 ... 20 mA
- High precision $\leq 0.35\%$ BFSL
- Measuring medium: -20 ... +100 °C
- Electrical connections: DIN EN 175301-803 C
- Pressure connection: G 1/2" Male, G 1" Male
- IP 65

Applications


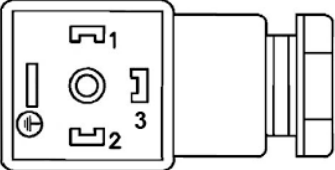
- Media containing particulates
- Food and beverage industry
- Pump control
- Liquid level measurement
- Hydraulics
- Environmental engineering
- Machine tools
- Water treatment
- Process technology
- Semiconductor technology
- Automotive engineering

Specifications

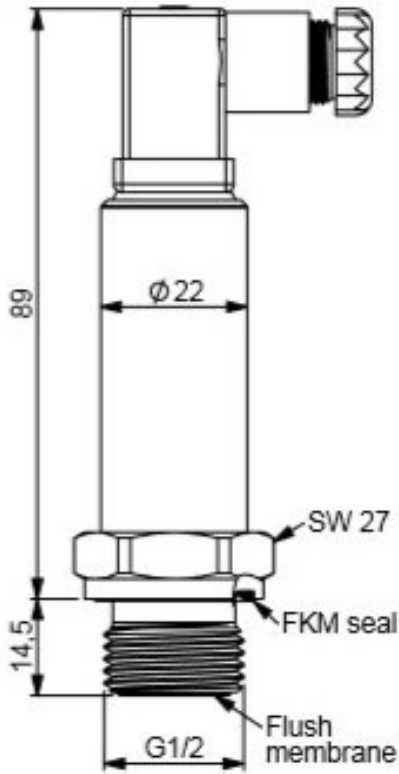
Input Pressure Range

Nominal Pressure Gauge [bar]	0.25	0.4	0.6	1	1.6	2.5	4	6	10	16	25	100
Overpressure [Max] [bar]	0.75	1.2	1.8	3	4.8	7.5	12	18	30	48	75	300
Burst Pressure [Min] [bar]	1	1.6	2.4	4	6.4	10	16	24	40	64	100	400
Kind of pressure	Gauge pressure											
Wetted parts	Stainless steel											
Supply voltage / Output	10 ... 32 VDC → 4 ... 20 mA											
Adjustability of zero	Straightforward zero correction by using a magnet											
Accuracy @ RT	0.45 % FS limit point			(Including zero point and full scale error, hysteresis, non-linearity and repeatability). Compensation measurement and adjustment for vertical mounting position								
	0.35 % FS BFSL											
Non-linearity	0.1 % FS BFSL			Integral linearity error (FS = Full Scale. BFSL = Best Fit Straight Line)								
Long-term stability	0.1 % FS			1-year stability at reference conditions								
Repeatability	0.1 % FS											
Permissible temperatures [°C]:	Media temperature			-20 ... +100								
	Ambient temperature			-20 ... +80								
	Storage temperature			-20 ... +100								
Compensated range				-20 ... +80								
Temperature coefficient:	Zero			0,15 % FS / 10K								
	FS			0,15 % FS / 10K								
CE-conformity	Pressure equipment Directive			2014/68/EU								
	EMC directive			2014/30/EU								
	Shock resistance			1000 g			According to IEC 60068-2-27			Mechanical		
	Vibration resistance			20 g			According to IEC 60068-2-6			Resonance		
Wiring protection	Overvoltage			32 VDC								
	Short-circuit strength			Out+ / UB- (for 1s)								
	Reverse polarity			UB+ / UB-								
Pressure port	Male - G 1", Male - G 1/2"											
Weight	Approx. 140 g											
Mounting Force	Max. 45 Nm											
Calibration	Output is Calibrated at Zero & Full Scale											

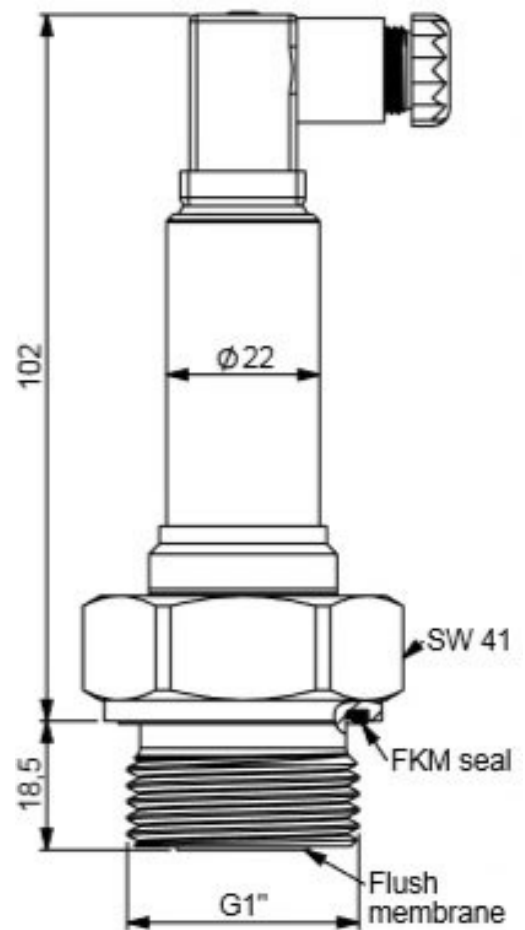
Wiring

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



HOF xx xxxx FWCK
(Male - G 1/2")



HOF xx xxxx FNCK
(Male - G 1")

Ordering code

HOF

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

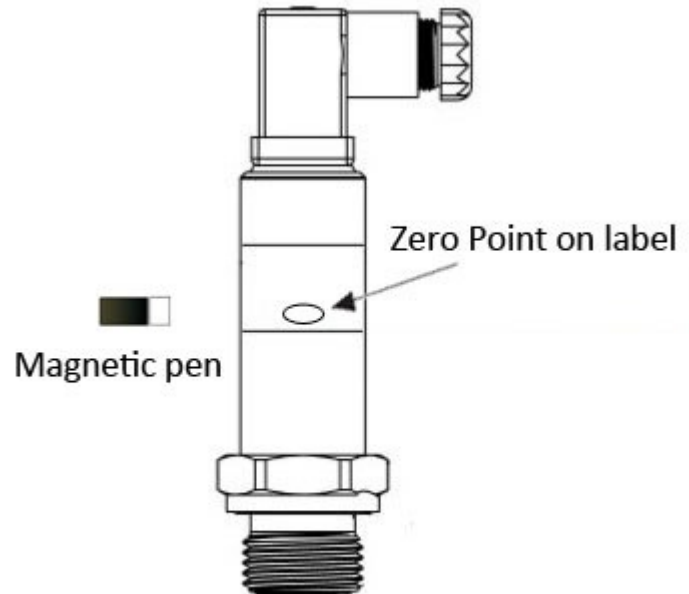
Installation

The zero can be set easily with a magnet within $\pm 10\%$ of the nominal range

For zero point correction a permanent magnet is held to the marked position on the pressure transmitter for $\frac{1}{2}$ to $2\frac{1}{2}$ minutes after the power is turned on. The pressure applied at this time must be less than 12% of the nominal pressure range. This pressure value is saved as a new zero point. A magnetic field applied outside the time window does not affect the setting. This process can only be repeated after switching off and restarting the supply voltage.

Safety information

During installation, putting into service and operation of these pressure sensors, it is necessary to observe the relevant safety regulations that are in force in the country of the user (as for example, DIN VDE 0100).



Caution

Hogller Flush Diaphragm is a piezoresistive pressure sensor that is susceptible to damage. The sensor's diaphragm can be damaged in a number of ways, from scratching the surface to denting and puncturing. The key to avoid damaging the pressure sensor is to protect the diaphragm. Please do not drop, touch or bump the sensor.

Important Note

**DAMAGED FLUSH DIAPHRAGM DUE TO MISHANDLING
WILL NOT BE COVERED BY THE WARRANTY!**