

PFMH

Fully welded pressure sensor with hygienic connection and touch screen

PFMH-64.###R.A1153.77202.2000

Overview

- Flush membrane with 3-A sanitary standards (FDA-compliant)
- Resistant to all common CIP cleaning media and SIP-capable
- Available for high media temperatures (300 °F)
- Built in graphical display (CombiView DFON) and programmable by touch screen or with FlexProgrammer 9701



Technical data

Performance characteristics

Pressure type	Relative (gauged)
Compensated temperature range	-40 ... 185 °F
Long term stability	≤ 0.1 % FSR/a , IEC 770 6.3.2
Max. measuring error	± 0.25 % FSR , up to 4:1 turndown ratio Including zero-point and span error, non-linearity (by terminal base line), hysteresis and non-repeatability (EN 61298-2) For turndown, multiply this value by the applied turndown ratio
Max. turndown ratio	10 : 1
Measuring range	0 ... 140 "H2O 0 ... 415 "H2O 0 ... 830 "H2O 0 ... 1385 "H2O
Standard error of measurement (BFSL)	± 0.1 % FSR , up to 4:1 turndown ratio Including non-linearity, hysteresis and non-repeatability according BFSL For turndown, multiply this value by the applied turndown ratio
Min. measuring span	20 "H2O
Power-up time	< 10 s
Rise time (10 ... 90 %)	≤ 0.3 s
Sample time	≤ 0.3 s
Temperature coefficient	≤ 0.05 % FSR/10 K , measuring span ≤ 0.05 % FSR/10 K , zero point

Process conditions

Process temperature	0 ... 265 °F
Process pressure	Refer to section "Operating conditions"
SIP/CIP compatibility	< 60 min, @ medium temperature up to 300 °F

Process connection

Connection variants	Refer to section "Dimensional drawings"
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Process connection

Wetted parts material, process connection	AISI 316L (1.4404)
Wetted parts material, membrane	AISI 316L (1.4435)

Surface roughness (in contact with medium)

Membrane	Ra ≤ 0.4 µm
Process connection	Ra ≤ 0.8 µm
Weld joint	Ra ≤ 0.8 µm

Ambient conditions

Operating temperature range	-40 ... 185 °F
Storage temperature range	-40 ... 185 °F
Degree of protection (EN 60529)	IP 69K , with connector M12
Humidity	< 98 % RH , condensing
Vibration	DNV high vibration strain, class B
Vibration (sinusoidal) (EN 60068-2-6)	1.6 mm p-p (2 ... 25 Hz), 4 g (25 ... 100 Hz), 1 octave / min.

Output signal

Current output	4 ... 20 mA 20 ... 4 mA , programmable
Load resistance	RQ = (U _{supply} - 10 V)/20 mA
Insulation resistance	> 100 MΩ , 500 V DC
Sensor failure	20 ... 23 mA , programmable 3.6 ... 4 mA , programmable

Housing

Style	Rear process connection
Overall size	Refer to section "Dimensional drawings"
Material	AISI 304 (1.4301)

Electrical connection

Connector	M12-A, 5-pin, stainless steel
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Power supply

Voltage supply range 10 ... 35 V DC

Compliance and approvals

EMC EN 61000-6-2
EN 61000-6-3

Compliance and approvals

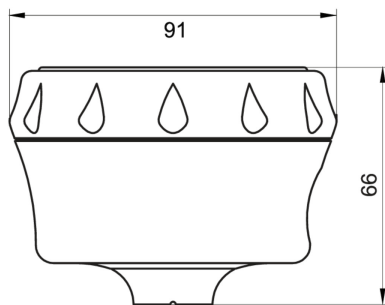
Hygiene 3-A (74-07)
FDA

Operating conditions

Measuring range ("H ₂ O)	Proof pressure ("H ₂ O)	Burst pressure ("H ₂ O)
0 ... 140	1204	2409
0 ... 415	1204	2409
0 ... 830	6022	12044
0 ... 1385	6022	12044

Dimensional drawings (mm)

Housing



FlexHousing with rear process connection

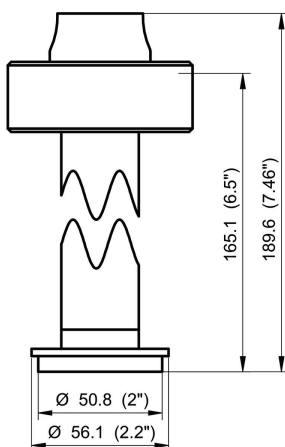


FlexHousing front view



Optional display layout

Process connection



Anderson-Negele Type SL Long, 6 1/2", membrane Ø 19.5 mm (BCID: Y05)

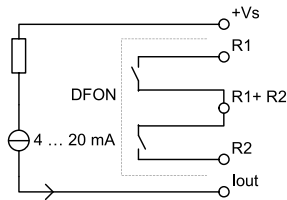
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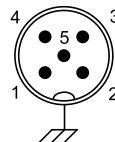
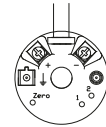
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Electrical connection

Equivalent circuit



Electrical connection



Function

Pin assignment

+Vs

+

Iout

-

+Vs

1

Iout

3

R1

5

R2

4

R1 + R2

2

Ordering information

Ordering key - Configuration possibilities see website

		PFMH	-	6	4	.	###	R	.	A1	15	3	.	77	2	0	2	.	2	0	0	0
Product																						
		PFMH																				
Housing																						
Stainless steel 1.4301 / AISI304		6																				
Rear connection																						
Accuracy																						
±0.25 % FS		4																				
Pressure range and unit																						
Min 0.0 / Max 140 "H2O		S11																				
Min 0.0 / Max 415 "H2O		S15																				
Min 0.0 / Max 830 "H2O		S17																				
Min 0.0 / Max 1385 "H2O		S19																				
Kind of pressure																						
Relative (gauged)		R																				
Output signal																						
4...20 mA		A1																				
Output Connection																						
M12-A, 5-pin		15																				
Material of el. connection																						
Stainless steel, AISI 304 (1.4301)		3																				
Process connection																						
Anderson-Negele Type SL Long, 6 1/2"		77																				
Wetted parts material																						
Stainless steel 1.4404 / AISI 316L		2																				
Seal																						
None		0																				
Oil filling																						
NSF H1 listed (FDA approved)		2																				
Display																						
With display, no relays activated		2																				
ATEX																						
Standard safety		0																				
Approvals																						
Standard approvals		0																				
Configuration																						
No configuration		0																				

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Ordering information

Ordering key - Configuration possibilities see website

Remarks orderkey

Material no. 11228889 (S11: 0...140 "H2O)
Material no. 11229203 (S15: 0...415 "H2O)
Material no. 11229204 (S17: 0...830 "H2O)
Material no. 11229205 (S19: 0...1385 "H2O)
Following has to be ordered separately:
Weld-in adaptor: ZPW2-829 (11228672)
Gasket: ZPX3-C5E3 (11210891)