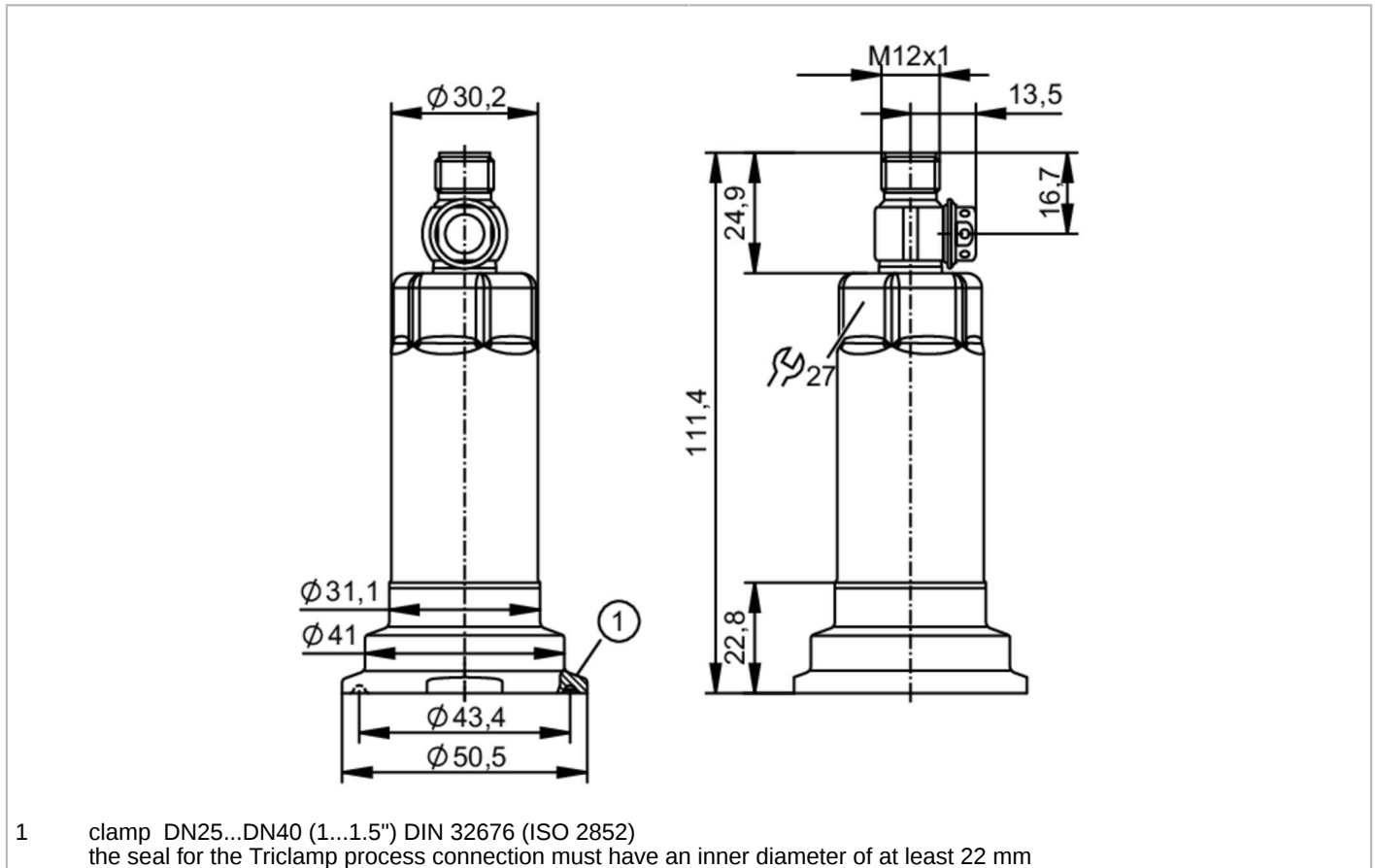


# PM1118



## Flush pressure sensor

PM-,40BREZ01-E-ZVG/US



Product characteristics	
Number of inputs and outputs	Number of digital outputs: 1; Number of analog outputs: 1
Measuring range	-0.05...0.4 bar    -50...400 mbar    -0.725...5.8 psi    -5...40 kPa
Process connection	Clamp DN25...DN40 (1...1,5") DIN 32676 (ISO 2852)
Application	
System	gold-plated contacts
Measuring element	ceramic-capacitive pressure measuring cell
Temperature monitoring	no
Application	flush mountable for the food and beverage industry
Media	viscous media and liquids with suspended particles; liquids and gases
Medium temperature [°C]	-25...150
Min. bursting pressure	30000 mbar    435 psi    3000 kPa
Pressure rating	8000 mbar    116 psi    800 kPa
Note on pressure rating	take into account the pressure resistance of the bracket and the seal used for clamp connection
Vacuum resistance [mbar]	-1000
Type of pressure	relative pressure
No dead space	yes
Electrical data	
Operating voltage [V]	18...30 DC

# PM1118



## Flush pressure sensor

PM-,40BREZ01-E-ZVG/US

Min. insulation resistance	[MΩ]	100; (500 V DC)
Protection class		III
Reverse polarity protection		yes
Measuring principle		hydrostatic
Integrated watchdog		yes

<b>2-wire</b>		
Current consumption	[mA]	3.5...21.5
Power-on delay time	[s]	1

<b>3-wire</b>		
Current consumption	[mA]	< 45
Power-on delay time	[s]	0.5

### Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 1; Number of analog outputs: 1
------------------------------	---

### Outputs

Total number of outputs	2
Output signal	analog signal; IO-Link; (configurable)
Number of digital outputs	1; (IO-Link)
Number of analog outputs	1
Analog current output	[mA] 4...20; (scalable)
Max. load	[Ω] 700; (U <sub>b</sub> = 24 V; (U <sub>b</sub> - 9 V) / 21.5 mA)
Short-circuit proof	yes
Overload protection	yes

### Measuring/setting range

Measuring range	-0.05...0.4 bar	-50...400 mbar	-0.725...5.8 psi	-5...40 kPa
Analog start point	-50...320 mbar	-0.725...4.641 psi	-5...32 kPa	
Analog end point	30...400 mbar	0.435...5.802 psi	3...40 kPa	
In steps of	0.1 mbar	0.001 psi	0.01 kPa	
Factory setting	ASP = 0.0 mbar	AEP = 400 mbar		

### Accuracy / deviations

Repeatability	[% of the span]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)
Characteristics deviation	[% of the span]	< ± 0,2 (DIN EN 61298-2); (incl. zero point and span error, non-linearity, hysteresis; Turn down 1:1)
Linearity deviation	[% of the span]	< ± 0,15; (Turn down 1:1)
Hysteresis deviation	[% of the span]	< ± 0,15; (Turn down 1:1)
Long-term stability	[% of the span]	< ± 0,1; (Turn down 1:1; per year)
Temperature coefficient zero point	[% of the span / 10 K]	< ± 0,05
Temperature coefficient span	[% of the span / 10 K]	< ± 0,15

# PM1118



## Flush pressure sensor

PM-,40BREZ01-E-ZVG/US

Total deviation over temperature range	<b>Temperature range</b>	<b>total deviation</b>
	-25...15 °C	Characteristics deviation $\pm 0,1$ % of the span / 10 K
	15...80 °C	Characteristics deviation
	80...150 °C	Characteristics deviation $\pm 0,15$ % of the span / 10 K
Notes on the accuracy / deviation	for further details see section Diagrams and graphs	

### Reaction times

Damping for the analog output dAA	[s]	0...4
2-wire		
Step response time analog output	[ms]	30
3-wire		
Step response time analog output	[ms]	7

### Interfaces

Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
Profiles	Digital Measuring Sensor (0x000A), Identification and Diagnosis (0x4000)	
SIO mode	no	
Required master port class	A	
Process data analog	3	
Min. process cycle time	[ms]	3.2
Supported DeviceIDs	<b>Type of operation</b>	<b>DeviceID</b>
	default	1410

### Operating conditions

Ambient temperature	[°C]	-25...80
Storage temperature	[°C]	-40...100
Protection	IP 67; IP 68; IP 69K	

### Tests / approvals

EMC	DIN EN 61000-6-2	
	DIN EN 61000-6-3	
Shock resistance	DIN EN 60068-2-27	50 g (11 ms)
Vibration resistance	DIN EN 60068-2-6	20 g (10...2000 Hz)
MTTF	[years]	323
Note on approval	Factory certificate available as download at <a href="http://www.factory-certificate.ifm">www.factory-certificate.ifm</a>	
UL approval	UL approval number	J055
	File number UL	E174189

### Mechanical data

Weight	[g]	392.4
Material	stainless steel (1.4404 / 316L); PBT	
Materials (wetted parts)	ceramics (99.9 % Al <sub>2</sub> O <sub>3</sub> ); stainless steel (1.4435 / 316L); surface characteristics: Ra < 0,4 / Rz 4; PTFE	
Min. pressure cycles	100 million	

# PM1118



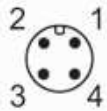
## Flush pressure sensor

PM-,40BREZ01-E-ZVG/US

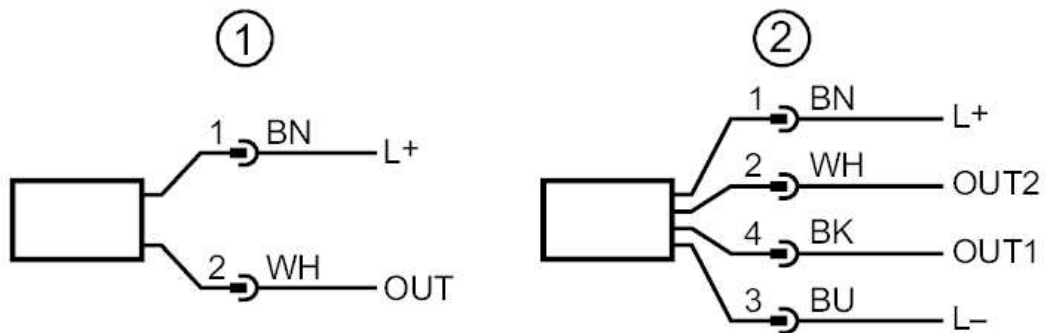
Process connection	Clamp DN25...DN40 (1...1,5") DIN 32676 (ISO 2852)
<b>Displays / operating elements</b>	
Display unit	mbar; psi; kPa; mmWS; inH2O
<b>Remarks</b>	
Pack quantity	1 pcs.

### Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated



### Connection



- 1 connection for 2-wire operation ( analog )
- 2 connection for 3-wire operation ( analog / IO-Link )  
OUT1 : IO-Link  
OUT2 : analog output

# PM1118

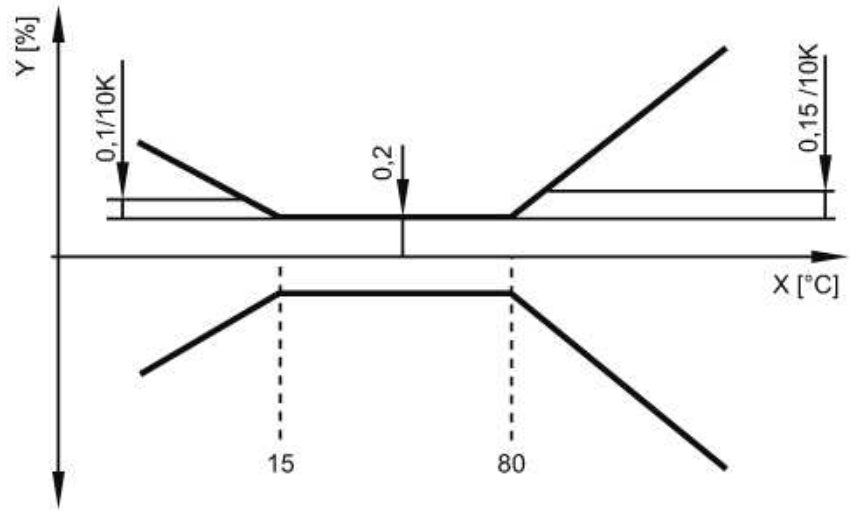


## Flush pressure sensor

PM-,40BREZ01-E-ZVG/US

### Diagrams and graphs

ambient temperature influence on the accuracy



X temperature  
Y total deviation