

Technical Specifications

Pressure measuring range (bar)

	0.1 ... 0.5, (1)	> 0.5 ... 2	> 2 ... 25
Overpressure	3 bar	3 x FS (≥ 3 bar)	3 x FS
Burst pressure	> 200 bar	> 200 bar	> 200 bar
Accuracy, (4), (\pm % FS)	$\leq 0.5 / \leq 0.25$	$\leq 0.5 / \leq 0.25 / \leq 0.1$	$\leq 0.5 / \leq 0.25 / \leq 0.1$
Thermal shift, (\pm % FS/$^{\circ}$C)			
Zero point 0...70 $^{\circ}$ C	≤ 0.06	≤ 0.03	≤ 0.015
Zero point -25...85 $^{\circ}$ C	≤ 0.08	≤ 0.04	≤ 0.02
Span 0...70 $^{\circ}$ C	≤ 0.015	≤ 0.015	≤ 0.015
Span -25...85 $^{\circ}$ C	≤ 0.02	≤ 0.02	≤ 0.02
Response time, (typ.)	< 1ms / 10...90% FS	< 1ms / 10...90% FS	< 1ms / 10...90% FS
Long term stability, (5)	< 0.5% FS / < 4 mbar	< 0.2% FS / < 4 mbar	< 0.1% FS / < 0.2% FS

	> 25 ... 600, (2), (3)	> 600 ... 1000, (2)
Overpressure	3 x FS ($\leq 850 / \leq 1500$ bar)	1500 bar
Burst pressure	> 850 / ≤ 1500 bar	> 1500 bar
Accuracy, (4), (\pm % FS)	$\leq 0.5 / \leq 0.25 / \leq 0.1$	$\leq 1 / \leq 0.5 / \leq 0.25$
Thermal shift, (\pm % FS/$^{\circ}$C)		
Zero point 0...70 $^{\circ}$ C	≤ 0.015	≤ 0.015
Zero point -25...85 $^{\circ}$ C	≤ 0.02	≤ 0.02
Span 0...70 $^{\circ}$ C	≤ 0.015	≤ 0.015
Span -25...85 $^{\circ}$ C	≤ 0.02	≤ 0.02
Response time, (typ.)	< 1ms / 10...90% FS	< 1ms / 10...90% FS
Long term stability, (5)	< 0.1% FS / < 0.2% FS	< 0.1% FS / < 0.2% FS

(1) 50 mbar on request

(2) Titanium available ≤ 400 bar (burst pressure > 550 bar)

(3) Overpressure and burst pressure 1500 bar (stainless steel) optional

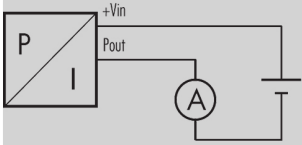
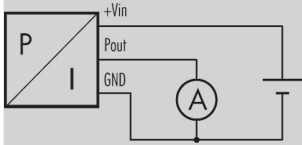
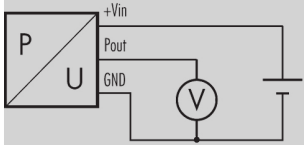
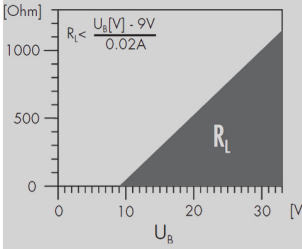
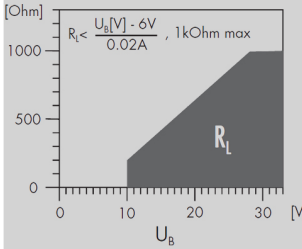
(4) Zero based accuracy according to DIN16086, incl. hysteresis and repeatability at ambient temperature

(5) 1 year (typ. / max.), the long term stability can be improved by ageing (burn-in) the sensor

Temperature range

Operating temperature	-25...85 $^{\circ}$ C
Process temperatur	-40...150 $^{\circ}$ C
Storage temperatur	-25...85 $^{\circ}$ C

Electrical specifications

	4 ... 20 mA	0 ... 20 mA	0 ... 5 V / 0 ... 10 V
Power supply	9...33 V DC	9...33 V DC	15...30 V DC
Supply influence	< 0.1% FS	< 0.1% FS	< 0.1% FS
Current consumption			3 mA
Circuit diagram			
Load resistance			$R_L > 10k\Omega$
Load influence	< 0.1% FS	< 0.1% FS	< 0.1% FS

Qualifications

	Description	Level	Typical interferences
EN 61000-4-2	Electrostatic discharge	4 kV contact 8 kV air	
EN 61000-4-3	Irradiated RF	10V/m (0.08...1 GHz)	Radio sets, wireless phones
EN 61000-4-4	Transients (burst)	2 kV	Motors, valves
EN 61000-4-5	Surge	10 kA (8 / 20 μ s), (1)	Lightning
EN 61000-4-6	Conducted RF	10 V (0.15...80 MHz)	Frequency converters

(1) Only with optional surge (lightning) protection

Physical specifications

Materials	
Transducer	Stainless steel (316L / 1.4435), titanium (Gr. 2), (1)
Housing	Stainless steel (316L / 1.4404), titanium (Gr. 2)
Seals	Viton (Standard), EPDM, Kalrez
Cable	PUR, PTFE, PE

(1) Hastelloy (C-276) on request

Accessories

Overview

10.00.0091	Accessories overview
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Additional documents

Operating and safety instructions

	Article number
10.88.0092	DMM029

Ordering information

		X. XXXX.	XXXX.	XX.	XXX
Type					
	ATM	23			
Pressure type					
	Gauge	1			
	Absolute (vacuum)	2			
	Sealed gauge	3			
Pressure measuring range					
	Any pressure measuring ranges between 0...100 mbar and 0...1000 bar available, (1), (2), (3)	XX			
Process connection					
	G 1/4 F, (Fig. 1)	00			
	G 1/4 M, (Fig. 2)	11			
	G 1/4 A, Manometer DIN 16288, (Fig. 3)	12			
	G 1/2 M, (Fig. 3)	13			
	G 1/2 M, frontal diaphragm, (Fig. 5)	14			
	G 1/2 M, flush diaphragm, (Fig. 6)	15			
	G 1/2 M, Manometer DIN 16288, (Fig. 7)	16			
	1/4 NPT M	10			
	1/2 NPT M, (Fig. 8)	19			
	Customized connection available	XX			
Electrical connection					
	DIN 43650, demountable, IP 65, (Fig. 10), (4)		01		
	Binder 723, 5-pin, IP 67, (Fig. 11), (4)		03		
	Binder 723, 5-pin, demountable, IP 67, (Fig. 12), (4)		43		
	MIL C26482, 10-6, IP 40, (Fig. 13), (4)		06		
	PE cable, IP 67, (Fig. 14), (5), (6)		13		
	PUR cable, IP 67, (Fig. 14), (5), (7)		15		
	PTFE cable, IP 67, (Fig. 14), (5)		21		
	PVC cable, blue, IP 67 (Fig. 12), (10)		14		
	Customized connection available		XX		
Output signal					
	4...20 mA		05		
	0...20 mA		00		
	0...5 V DC		46		
	0...10 V DC		47		
	4...20 mA with surge (lightning) protection		08		
	0...10 V DC with surge (lightning) protection		49		
Accuracy					
	≤ ± 0.5 % FS			0	
	≤ ± 0.25 % FS			1	
	≤ ± 0.1 % FS (on request)			2	
Temperature range					
	0...70 °C compensated (allowed process temperature: 0...80 °C)			0	
	-25...85 °C compensated (allowed process temperature: -25...100 °C)			1	
	-25...85 °C compensated (allowed process temperature: -25...150 °C)			2	
Option 1					
	Throttle, (8)				A
	Special oil filling: ASEOL Food (for food applications)				G
	Special oil filling: Halocarbon (for oxygen applications), (9), (11)				H

	Pressure connection elastomerfree				N
	Pressure connection welded				V
Option 2					
	Electronics packed in gel: Gauge pressure				C
	Electronics packed in gel: Absolute pressure				D
Option 3					
	Version titanium				K
	Seals: Viton (standard)				U
	Seals: EPDM				S
	Seals: Kalrez				T
	Seals: NBR				H
	Aging				Z

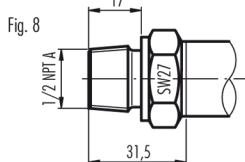
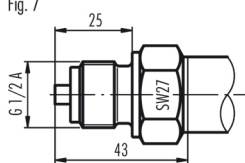
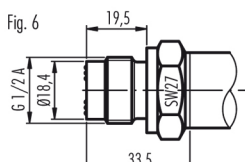
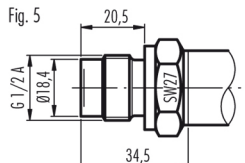
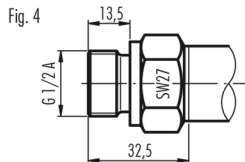
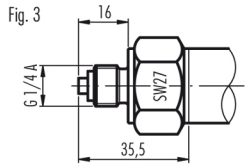
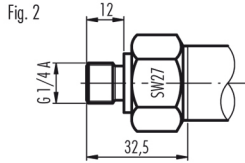
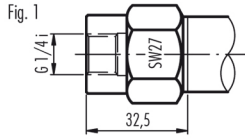
- (1) 50 mbar on request, negative pressure ranges on request
- (2) Titanium available \leq 400 bar (burst pressure > 550 bar)
- (3) mbar, PSI, kPa etc. available
- (4) Cable socket connector not included
- (5) Please specify the required cable length and medium
- (6) Suitable for drinking water (food approved)
- (7) For operating temperature > 50°C, PE or PTFE cable must be used
- (8) Only with pressure connection Fig. 2, Fig. 3, Fig. 4, Fig. 7 and Fig. 8
- (9) Maximum pressure measuring range \leq 270 bar (burst pressure > 400 bar)
- (10) ACS Certification
- (11) min. Medium temperature -25 ° C

Technical drawings

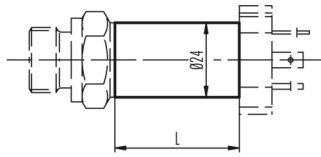
Pressure Connections

Dimensions

Electrical Connections

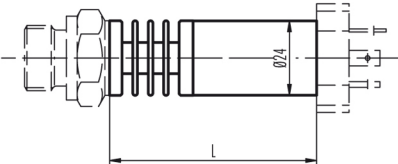


Version for medium temperature up to 100°C

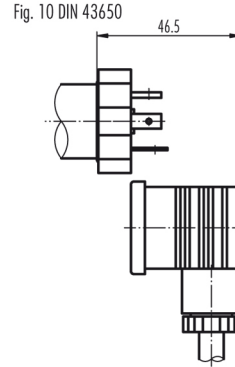


L = 40 mm for connector DIN 43650 (Fig. 10)
L = 94 mm for version with surge (lightning) protection
L = 45 mm for all other versions

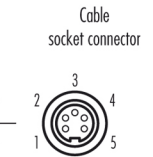
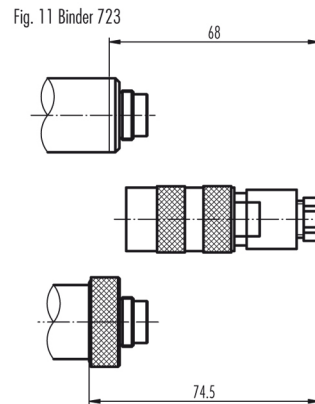
Version for medium temperature >100°C up to 150°C



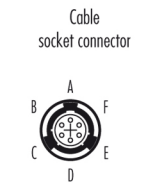
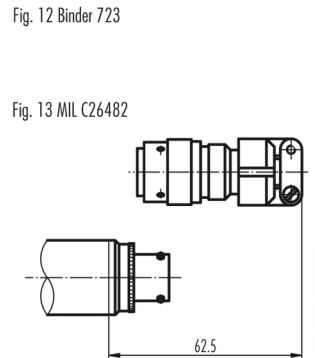
L = 67 mm for connector DIN 43650 (Fig. 10)
L = 121 mm for version with surge (lightning) protection
L = 72 mm for all other versions



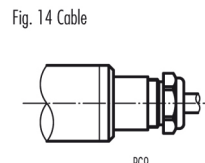
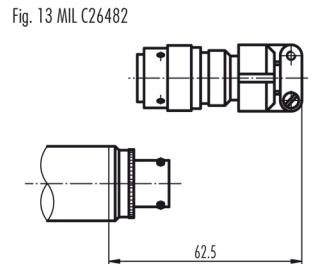
Pin	2-Wire	3-Wire
1	+Vin	+Vin
2	Pout	Pout
3		GND



Pin	2-Wire	3-Wire
1	Pout	Pout
3	+Vin	+Vin
4		GND



Pin	2-Wire	3-Wire
A	+Vin	+Vin
B		GND
C	Pout	Pout



Colour	2-Wire	3-Wire
white	+Vin	+Vin
yellow	Pout	GND
brown		Pout

Specifications may change without notice.

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