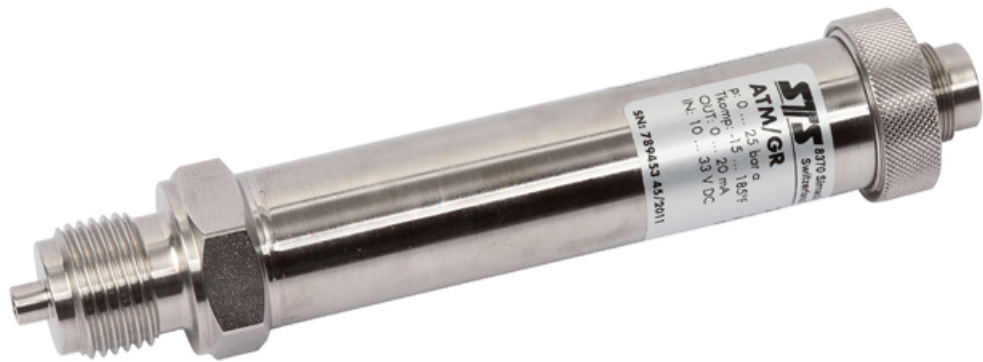


Electronic pressure switches

ATM/GR



Version: 06.01.2015

Technical Specifications

Pressure measuring range (bar)

	0.1 ... 0.5, (1)	> 0.5 ... 2	> 2 ... 25
Overpressure	3 bar	3 x FS (min. 3 bar)	3 x FS
Burst pressure	> 200 bar	> 200 bar	> 200 bar
Accuracy, (5), (± % FS)	≤ 0.5 / ≤ 0.25	≤ 0.5 / ≤ 0.25 / ≤ 0.1	≤ 0.5 / ≤ 0.25 / ≤ 0.1
Thermal shift, (± % FS/°C)			
Zero point 0 ... 70°C	≤ 0.06	≤ 0.03	≤ 0.015
Zero point -25 ... 85°C	≤ 0.08	≤ 0.04	≤ 0.02
Span 0 ... 70°C	≤ 0.015	≤ 0.015	≤ 0.015
Span -25 ... 85°C	≤ 0.02	≤ 0.02	≤ 0.02
Long term stability, (6)	< 0.5% FS / < 4 mbar	< 0.2% FS / < 4 mbar	< 0.1% FS / < 0.2% FS

	> 25 ... 600, (2), (3), (4)	> 600 ... 1000, (2)
Overpressure	3 x FS (≤ 850 / ≤ 1500 bar)	1500 bar
Burst pressure	> 850 / ≤ 1500 bar	> 1500 bar
Accuracy, (5), (± % FS)	≤ 0.5 / ≤ 0.25 / ≤ 0.1	≤ 1 / ≤ 0.5 / ≤ 0.25
Thermal shift, (± % FS/°C)		
Zero point 0 ... 70°C	≤ 0.015	≤ 0.015
Zero point -25 ... 85°C	≤ 0.02	≤ 0.02
Span 0 ... 70°C	≤ 0.015	≤ 0.015
Span -25 ... 85°C	≤ 0.02	≤ 0.02
Long term stability, (6)	< 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) Process connection frontal and flush diaphragm available ≤ 600 bar

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

(5) Zero based accuracy according to DIN-16086, incl. hysteresis and repeatability at ambient temperature

(6) 1 year (typ. / max.), the long term stability can be improved by ageing (burn-in) the sensor

Temperature range

Operating temperature	-25 ... 85 °C
Process temperatur	-40 ... 150°C
Storage temperatur	-25 ... 85°C

Electrical specifications

Analog output	0 ... 20 / 4 ... 20 mA		
Power supply	10 ... 33 VDC		
Current consumption, (1)			
Circuit diagram			
Load resistance			
Switches			
Number of switches	2 (independent)		
Type	SPDT (Relais)		
Adjustment	Potentiometer		
Setting range	0 ... 100% FS		
Switching voltage, (max.)	48 VDC		
Switching current, (max.)	2 A		
Switching power, (max.)	60 W		
Switching functions			
Description	Pressure is below both set points: both relays are selected.	Pressure is over the set point 1 (relay 1 is released), but below the set point 2 (relay 2 is selected).	Pressure is over both set points: both relays are released or the supply voltage is missing.

(1) Both switches activated, without current output

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	PVC

(1) Hastelloy (C-276) on request

Equipment

Overview

10.00.0091	Accessories overview

Additional documents

Operating and safety instructions

	Article number
10.88.0092	DMM029

Ordering information

		X. XXXX.	XXXX.	XX.	XXX
Type					
	ATM/GR	27			
Pressure type					
	Gauge	1			
	Absolute (vacuum)	2			
	Sealed gauge	3			
Pressure measuring range					
	50 mbar ... <100 mbar	XX			
	100 mbar ... 600 bar	XX			
	> 600 bar	XX			
	Negative ranges, offset, special adjustment	99			
Process connection					
	G 1/4 F (Fig. 1)	00			
	1/4 NPT M	10			
	1/2 NPT M (Fig. 8)	19			
	G 1/4 M (Fig. 2)	11			
	G 1/4 flush diaphragm	21			
	G 1/4 M, manometer DIN 16288 (Fig. 3)	12			
	G 1/2 M, (Fig. 4)	13			
	G 1/2 M Hastelloy C-276	98			
	G 1/2 M, frontal diaphragm (Fig. 5), (4)	14			
	G 1/2 M, frontal diaphragm	37			
	G 1/2 M, flush diaphragm (Fig. 6), (4)	15			
	G 1/2 M, manometer DIN 16288 (Fig. 7)	16			
	G 1/2 male with bore Ø 14 mm	17			
	Customized	99			
Electrical connection					
	Binder 723, 12 pins, IP 67 (Fig. 10), (5)		45		
	PVC cable, grey, IP 67 (Fig. 11), (6)		10		
	Customized		99		
Output signal					
	0...20 mA, 2 relays		14		
	4...20 mA, 2 relays		15		
	Customized				
Accuracy					
	≤ 600 bar ≤ ± 0.5 % FS			0	
	≤ 600 bar ≤ ± 0.25 % FS			1	
	≤ ± 0.1 % FS			2	
	> 600 bar ≤ ± 1 % FS			5	
	> 600 bar ≤ ± 0.5 % FS			0	
	> 600 bar ≤ ± 0.25 % FS			1	
Temperature range					
	0 ... 70°C compensated (allowed process temperature: -25 ... 100°C)			0	
	25 ... 100°C compensated (allowed process temperature: -25 ... 100°C)			7	
	-25 ... 85°C compensated (allowed process temperature: -25 ... 100°C)			1	
	-25 ... 85°C compensated (allowed process temperature: -25 ... 150°C) with cooling fins			2	
	20 ... 100°C compensated (allowed process temperature: -25 ... 150°C) with cooling fins			6	

	Customized				9
Option 1					
	Throttle, (7)				A
	Special oil filling: Anderol Food (for food applications)				G
	Special oil filling: AS100 (suitable for meda temp -55...150°C)				J
	Special oil filling: PAO4 (silicone free)				Q
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

(1) 50 mbar on request

(2) Titanium available \leq 400 bar (burst pressure > 550 bar)

(3) mbar, PSI, kPa etc. available

(4) Process connection available \leq 600 bar

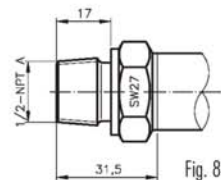
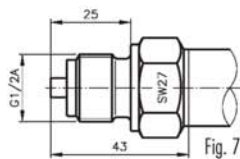
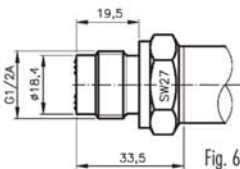
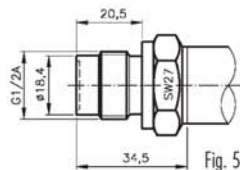
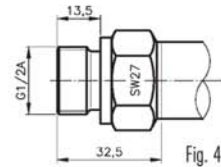
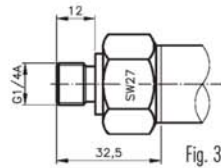
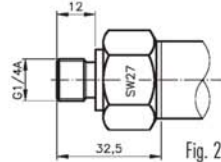
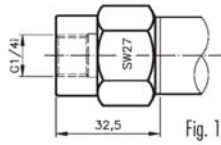
(5) Cable socket connector not included

(6) Please specify the required cable length and medium

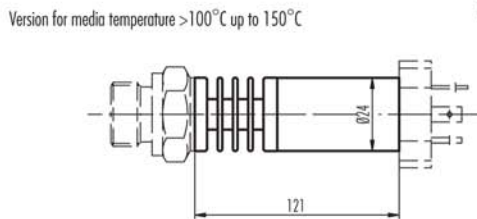
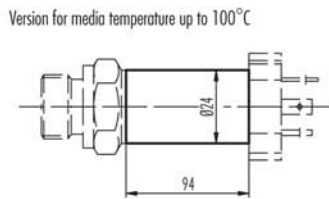
(7) Only with pressure connection Fig. 2, Fig. 3, Fig. 4, Fig. 7 and Fig. 8

Technical drawings

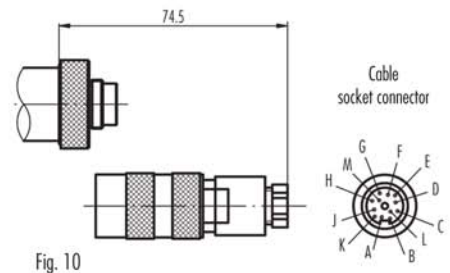
Pressure connection



Dimensions

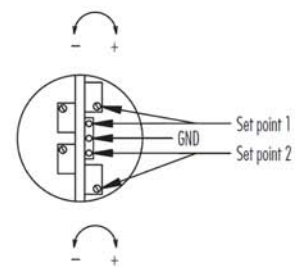
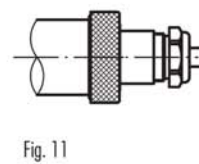


Electrical connection



Pin	
A	+Vin
L	Pout
B	GND
E	NC1
D	COM1
F	NO1
H	NC2
G	COM2
J	NO2

Colour	
white	+Vin
brown	Pout
yellow	GND
green	NC1
orange	COM1
violet	NO1
red	NC2
blue	COM2
black	NO2



Connector side

Specifications may change without notice.

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