

Relative and differential pressure transmitter type 652

Pressure range
0 ... 50 – 1000 mbar



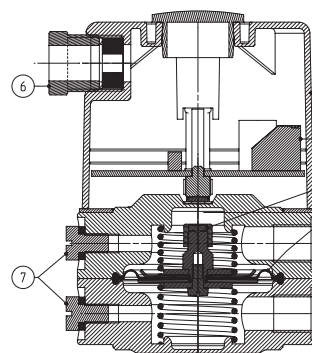
Type 652 pressure transmitters are ideally suited to the continuous monitoring of liquid or level, (especially in heating technology).

Their especially rugged construction allows a single port overpressure of up to 20 bar, depending upon pressure range.

- High overpressure safety margin 10/20 bar on P1
- 3 standardised output signals for direct Processing in control / monitoring systems
- Functionally simple, rugged mechanics with high operating reliability
- Attractive price / performance ratio
- Also for slightly aggressive liquids and gases

Technical overview

Pressure range			
Relative and differential		0 ... 50 – 1000 mbar	
Operating conditions			
Medium		Liquids and neutral gases	
Temperature	NBR-based	0 ... +80 °C	
	FPM	-10 ... +80 °C	
	EPDM	-10 ... +80 °C	
	Q (Silicone)	-40 ... +80 °C	
	Storage	-40 ... +80 °C	
Tolerable overload and max. tolerable system pressure (P1 > P2)	≤ 200 mbar	10 bar	
	≥ 500 mbar	20 bar	
Rupture pressure		30 bar	
Materials in contact with the medium			
Diaphragm		NBR-based	
		EPDM	
		FPM	
		Silicon	
Case		Anodized aluminium	
		Brass	
		Brass chemical nickel-plated	
		X14CrMoS17	1.4104
Other components		X5CrNi18-10	1.4301
		X10CrNi18-8	1.4310
		X2CrNiMoN	1.4462
		Steel category A2 for screws	
		Polyacetate-C, Polyamide	
Electrical overview			
Output (3 wire)		0 ... 10 V	
		0 ... 20 mA	
Power supply		4 ... 20 mA	
		20 ... 30 VDC / 24 VAC +15% / -10%	
Load	Current load	≤ 300 Ohm	
	Voltage load	≥ 10 kOhm	
		35 mA	
Current consumption	0 ... 20 mA	max. 55 mA	
	4 ... 20 mA	max. 55 mA	
Polarity reversal protection		Short circuit proof and with polarity reversal protection	
Dynamic response			
Response time		< 10 ms	
Load cycle		< 10 Hz	
Protection standard			
With plastic cover (PG9)		IP 65	
Electrical connection			
Screw terminals			
Pressure connection (P1 > P2)			
Inside thread		G 1/8	
Straight screwed connection	Zinc plated steel with NBR seal for pipe (Ø 6 mm)	G 1/8	
Screwed Socket	CuZn nickel plated for tube(Ø 6 mm)	G 1/8	
Installation arrangement			
Unrestricted. Recommendation: The transmitter is calibrated in the factory with the diaphragm positioned vertically. In the case of liquid media vent screw up, i.e. pressure connection down			
Tests / Admissions			
Electromagnetic compatibility		CE conformity acc. EN 61326-2-3	
Weight			
With aluminium pressure case		~ 394 g	
With brass pressure case		~ 1030 g	
Packaging			
Single packaging in cardboard			



Legend to cross-section drawing

- 1 Pressure case
- 2 Diaphragm
- 3 Permanent magnet
- 4 Electronics
- 5 Cover
- 6 PG9 Union
- 7 Vent
- P1 Higher pressure / lower vacuum
- P2 Lower pressure / higher vacuum

Accuracy

Parameter		Unit	
Tolerance zero point	max.	% fs	± 1.0
Tolerance full scale	max.	% fs	± 1.0
Resolution		% fs	0.2
Total of linearity, Hysteresis and repeatability	max.	% fs	± 1.5
TC zero point ¹⁾	max.	% fs/10 K	± 0.8
TC sensitivity ¹⁾	typ.	% fs/10 K	± 0.3
TC sensitivity ¹⁾	max.	% fs/10 K	± 0.6

Test conditions: 25 °C, 45% RH, power supply 24 VDC

		1	2	3	4	5	6	7	8	9	10	11
Order code selection table		652.	X	X	X	X	X	X	X	X	X	X
Pressure ranges ²⁾	0 ... 50 mbar	9	0									
	0 ... 100 mbar	9	1									
	0 ... 200 mbar	9	2									
	0 ... 500 mbar	9	3									
	0 ... 1000 mbar	9	4									
Output ³⁾	0 ... 10 V			0								
	0 ... 20 mA			1								
	4 ... 20 mA			4								
Linearity	± 1.5% FS				1							
Power supply (IN)	20 ... 30 VDC / 24 VAC +15% / -10%					0						
Electrical connection	Screw terminals (Protection class with cover IP 65)						0					
	Inside thread G ¼							0				
Pressure connections	Straight screwed connection G ¼ for pipe (Ø 6 mm)							1				
	Screwed socket G ¼ for tube (Ø 6 mm)							2				
Pressure case	Anodized aluminium black								0			
	Brass								1			
	Nickel-plated brass								2			
Diaphragm	NBR-based									0		
	FPM									1		
	EPDM									2		
	Q (Silicon)									3		
Mounting	Without mounting bracket										0	0
	With mounting bracket type A										0	1
	With mounting bracket type B										0	2

Accessories ⁴⁾

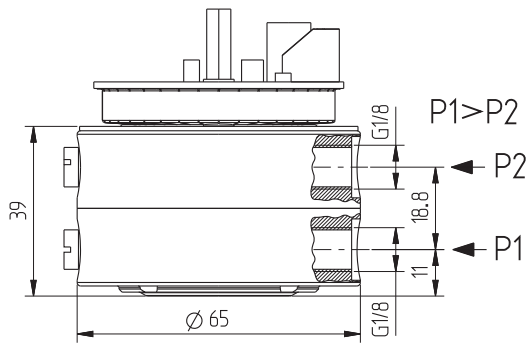
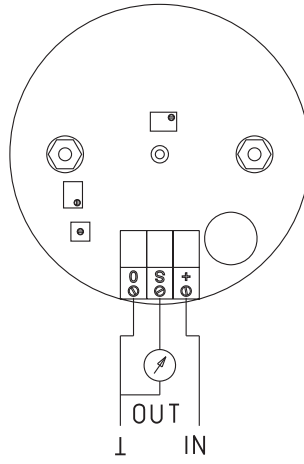
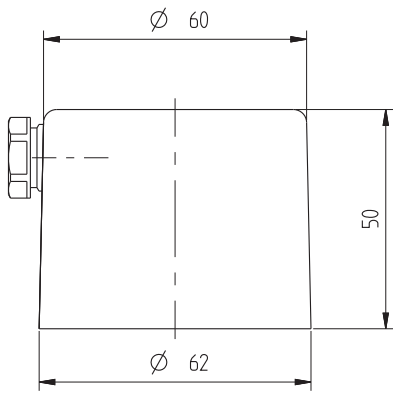
	Order number
Mounting bracket type A	100996
Mounting bracket type B	100997
Straight screwed connection G ¼ for pipe (Ø 6 mm)	105860
Screwed Socket G ¼ for tube (Ø 6 mm)	108239
Calibration certificate	104551

¹⁾ TC = Temperature coefficient

²⁾ Other pressure range on request

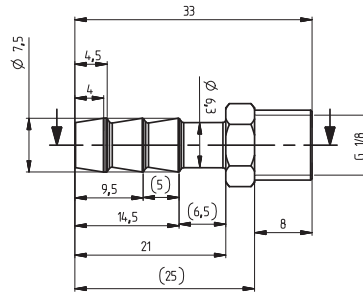
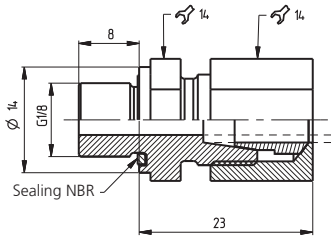
³⁾ Other output signals on request

⁴⁾ Accessories supplied loose



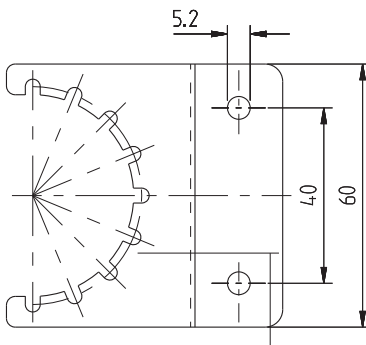
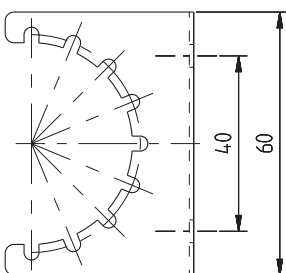
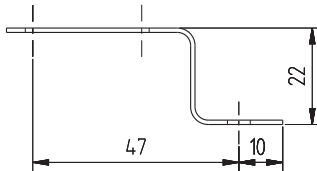
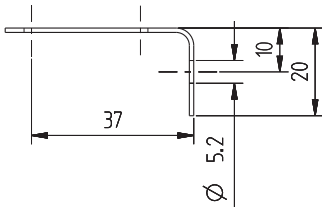
Straight screwed connector G 1/8

Screwed Socket G 1/8



Mounting bracket type A

Mounting bracket type B



Huba Control AG

Headquarters

Industriestrasse 17
5436 Würenlos
Telefon +41 (0) 56 436 82 00
Telefax +41 (0) 56 436 82 82
info.ch@hubacontrol.com

Huba Control AG

Niederlassung Deutschland

Schlattgrabenstrasse 24
72141 Walddorfhäslach
Telefon +49 (0) 7127 23 93 00
Telefax +49 (0) 7127 23 93 20
info.de@hubacontrol.com

Huba Control SA

Succursale France

Rue Lavoisier
Technopôle Forbach-Sud
57602 Forbach Cedex
Téléphone +33 (0) 387 847 300
Télécopieur +33 (0) 387 847 301
info.fr@hubacontrol.com

Huba Control AG

Vestiging Nederland

Hamseweg 20A
3828 AD Hoogland
Telefoon +31 (0) 33 433 03 66
Telefax +31 (0) 33 433 03 77
info.nl@hubacontrol.com

Huba Control AG

Branch Office United Kingdom

Unit 13 Berkshire House
County Park Business Centre
Shrivenham Road
Swindon Wiltshire SN1 2NR
Phone +44 (0) 1993 776667
Fax +44 (0) 1993 776671
info.uk@hubacontrol.com