



Pressure transmitter

Huba Control

Relative and differential pressure transmitter

Type 652

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.



Pressure range

0 ... 50 – 1000 mbar

- + 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
Rupture pressure	≥ 500 mbar	20 bar
		30 bar

Materials in contact with the medium

Diaphragm	NBR-based	
	EPDM	
	FPM	
	Silicon	
Case	Anodized aluminium	
	Brass	
	Brass chemical nickel-plated	
Other components	X14CrMoS17	1.4104
	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
		4 ... 20 mA
Power supply		20 ... 30 VDC / 24 VAC +15% / -10%
Load	Current load	≤ 300 Ohm
	Voltage load	≥ 10 kOhm
		0 ... 10 V
Current consumption		35 mA
		4 ... 20 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 ½
Straight screwed connection	Zinc plated steel with NBR seal for pipe (Ø 6 mm)	G ½
Screwed Socket	CuZn nickel plated for tube(Ø 6 mm)	G ½

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

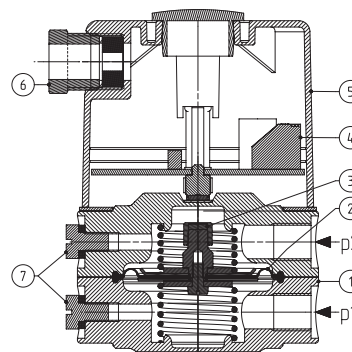
Electromagnetic compatibility	CE conformity acc. EN 61326-2-3
-------------------------------	---------------------------------

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/10K	± 0.8
TC sensitivity ¹⁾	typ.	% fs/10K	± 0.3
TC sensitivity ¹⁾	max.	% fs/10K	± 0.6

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

Order code selection table

		1	2	3	4	5	6	7	8	9	10	11
		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							
	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 1/8							0				
Pressure connections	Straight screwed connection G 1/8 for pipe (Ø 6 mm)								1			
	Screwed socket G 1/8 for tube (Ø 6 mm)								2			
	Anodized aluminium black									0		
Pressure case	Brass									1		
	Nickel-plated brass									2		
	NBR-based										0	
Diaphragme	FPM										1	
	EPDM										2	
	Q (Silicon)										3	
	Without mounting bracket											0
Mounting	With mounting bracket type A											0
	With mounting bracket type B											1
												0
												2

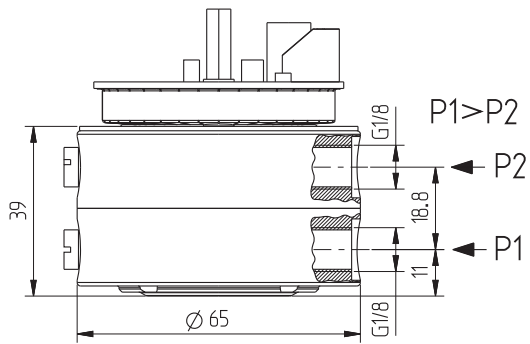
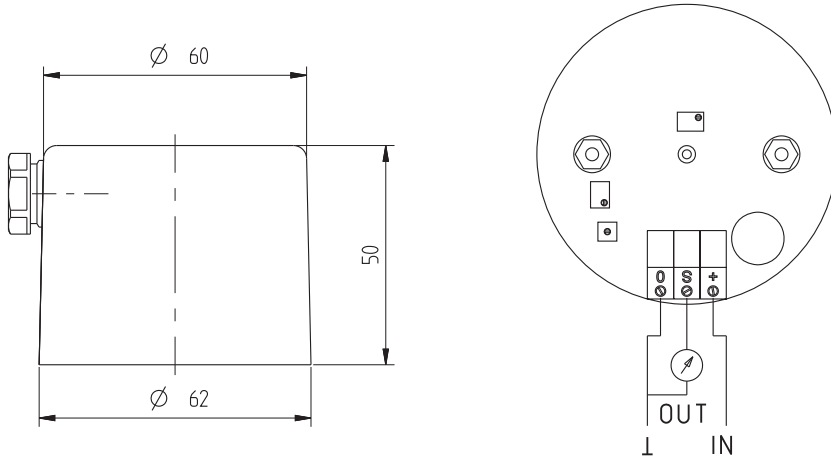
Accessories *(supplied loose)*

	Order number
Mounting bracket type A	100996
Mounting bracket type B	100997
Straight screwed connection G 1/8 for pipe (Ø 6 mm)	105860
Screwed Socket G 1/8 for tube (Ø 6 mm)	108239
Calibration certificate	104551

¹⁾ TC = Temperature coefficient

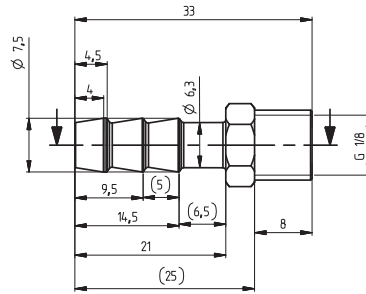
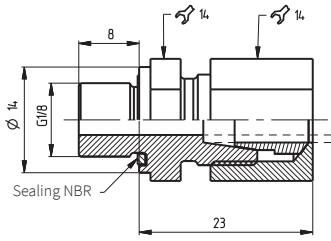
²⁾ Other pressure range on request

³⁾ Other output signals on request



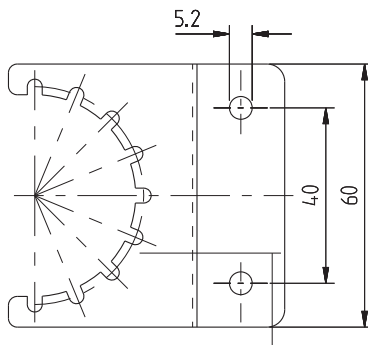
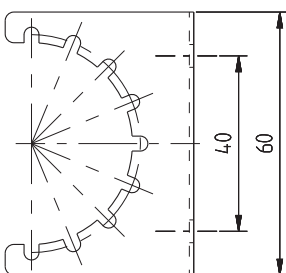
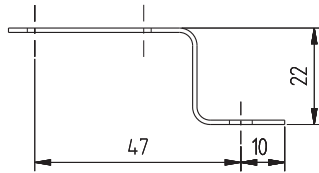
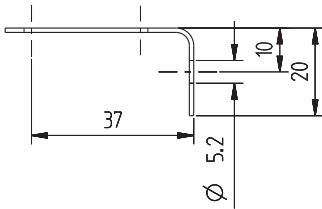
Straight screwed connector G 1/8

Screwed Socket G 1/8



Mounting bracket type A

Mounting bracket type B



Huba Control AG

Headquarters Schweiz
Industriestrasse 17
CH-5436 Würenlos
Telefon +41 56 436 82 00
Fax +41 56 436 82 82
info.ch@hubacontrol.com

Huba Control AG

Niederlassung Deutschland
Schlattgrabenstrasse 24
D-72141 Walddorfhäslach
Telefon +49 7127 2393 00
Fax +49 7127 2393 20
info.de@hubacontrol.com

Huba Control AG

Vestiging Nederland
Hamseweg 20A
NL-3828 AD-Hoogland
Telefoon +31 33 433 03 66
Telefax +31 33 433 03 77
info.nl@hubacontrol.com

Huba Control SA

Succursale France
Rue Lavoisier
Technopôle Forbach-Sud
F-57602 Forbach Cedex
Téléphone +33 3 87 84 73 00
Télécopieur +33 3 87 84 73 01
info.fr@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 1993 77 66 67
Fax +44 1993 77 66 71
info.uk@hubacontrol.com

www.hubacontrol.com

