



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
		0 ... 20 mA
		4 ... 20 mA
Power supply		20 ... 30 VDC / 24 VAC +15% / -10%
Load	Current load	≤ 300 Ohm
	Voltage load	≥ 10 kOhm
	0 ... 10 V	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 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

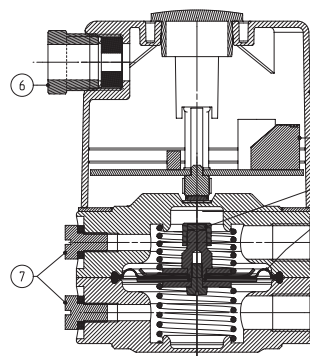
Electromagnetic compatibility CE conformity acc. EN 61326-2-3

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

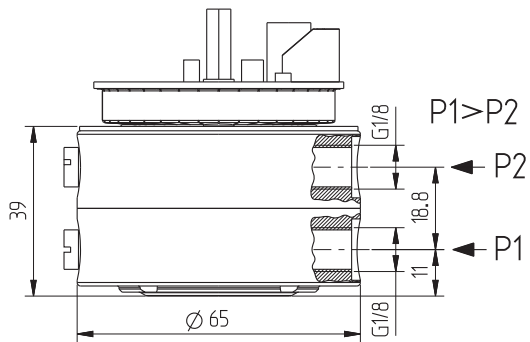
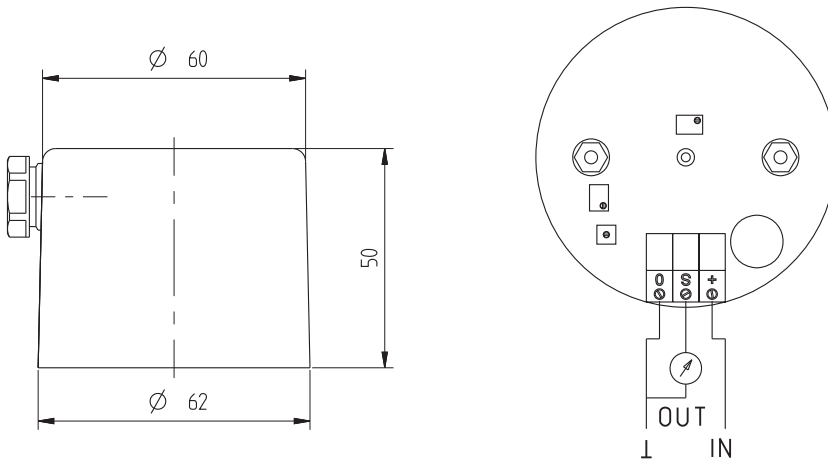
Parameter		Unit	
Tolerance zero point	max.	% fs	± 1.0
Tolerance full scale	max.	% fs	± 1.0
Resolution		% fs	0.2
Total of linearity, hysteresis and repeatability	max.	% fs	± 1.5
TC zero point ¹⁾	max.	% fs/10 K	± 0.8
TC sensitivity ¹⁾	typ.	% fs/10 K	± 0.3
TC sensitivity ¹⁾	max.	% fs/10 K	± 0.6

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					
Pressure connections	Inside thread G 1/8							0				
	Straight screwed connection G 1/8 for pipe (Ø 6 mm)							1				
	Screwed socket G 1/8 for tube (Ø 6 mm)							2				
Pressure case	Anodized aluminium black								0			
	Brass								1			
	Nickel-plated brass								2			
Diaphragme	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

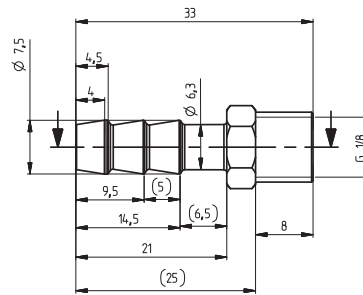
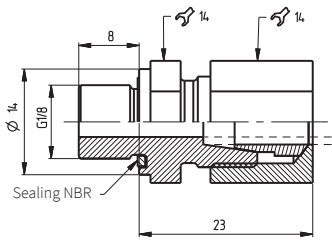
Accessories ⁴⁾	Order number
Mounting bracket type A	100996
Mounting bracket type B	100997
Straight screwed connection G 1/8 for pipe (Ø 6 mm)	105860
Screwed Socket G 1/8 for tube (Ø 6 mm)	108239
Calibration certificate	104551

¹⁾ TC = Temperature coefficient ²⁾ Other pressure range on request ³⁾ Other output signals on request ⁴⁾ Accessories supplied loose



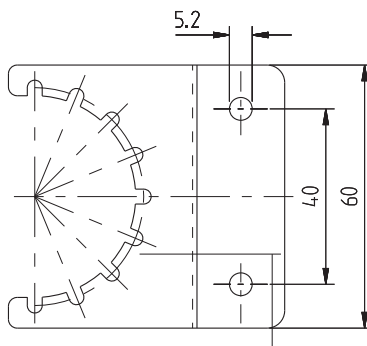
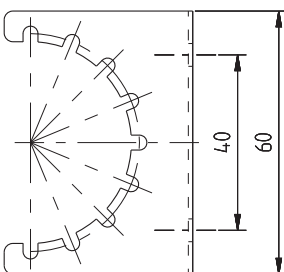
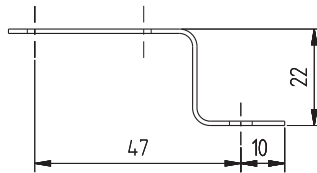
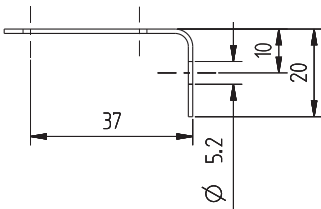
Straight screwed connector G 1/8

Screwed Socket G 1/8



Mounting bracket type A

Mounting bracket type B





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本 社：〒124-0023 東京都葛飾区東新小岩3丁目9番6号 TEL: (03) 3695-5431 / FAX: (03) 3695-5698
大阪支店：〒530-0054 大阪市北区南森町2-2-9(南森町八千代ビル7F) TEL: (06) 6361-4831 / FAX: (06) 6361-9360
e-mail: sales-tokyo@krone.co.jp URL: <https://www.krone.co.jp>

www.hubacontrol.com

