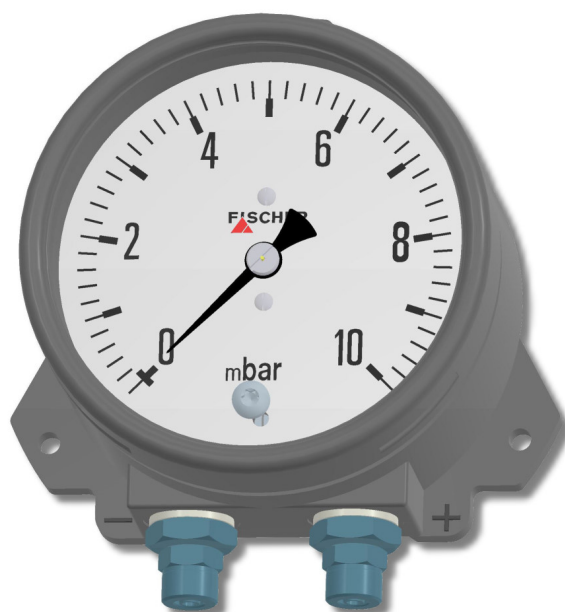
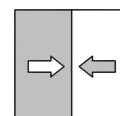




Data sheet

DA08

Differential pressure measuring unit



1 Product and functional description

1.1 Performance characteristics

Typical applications

- Process measuring equipment
- Ventilation technology
- Filter monitoring

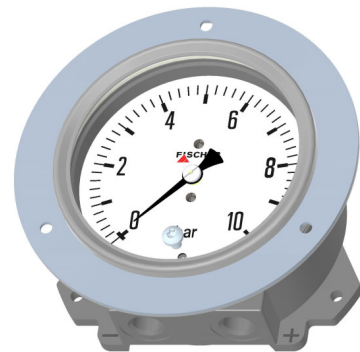
Important features

- Measuring range from 0...6 mbar
- Zero point correction on front side
- Protection class IP65

1.2 Equipment versions



Wall mounting

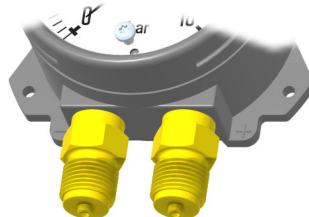


Installation into the control panel

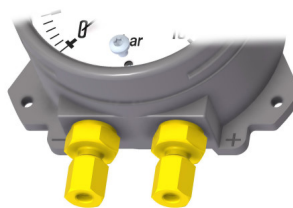
Fig. 1: Equipment versions

Process connection

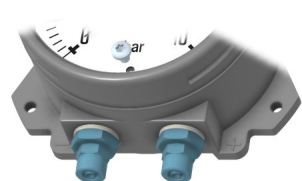
(a) Wall mounting



Connection pin

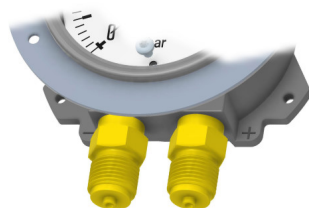


Cutting ring screw connection

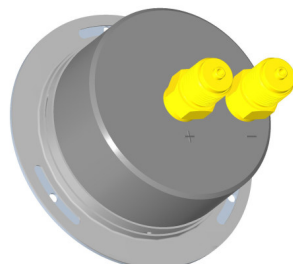


Hose screw connection

(b) Installation in control panel



Connection bottom



Connection rear

Fig. 2: Process connections

NOTICE! All named screw connections can also be used for installation in a control panel.

1.3 Intended use

The DA08 serves to measure differential pressures in gaseous, non-aggressive, dry, oil and grease-free media. The unit can be used to monitor small and minute differential pressures on roller tape filters, fans, venturi nozzles etc.

1.4 Function diagram

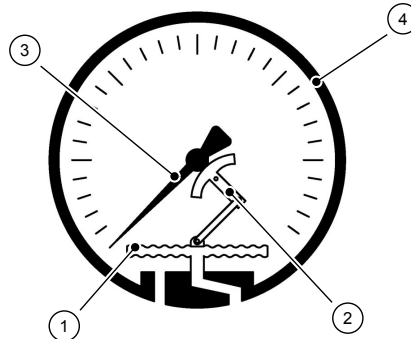


Fig. 3: Function diagram

1	Diaphragm capsule	2	Motion train
3	Needle	4	Housing

1.5 Design and mode of operation

A capsule measuring unit is installed in a pressure-resistant casing is fitted. The higher pressure (+) acts on the inside of the capsule, the lower pressure (-) is exerted into the pressure-resistant casing.

The differential pressure created between the inside and outside of the measuring element changes the shape of the capsule. This is shown by a pointer mechanism.

2 Technical Data

2.1 General

General information	
Type designation	DA08
Pressure type	Differential pressure
Measuring principle	Diaphragm capsule

Reference conditions (acc. to IEC 61298-1)		
Temperature	+15 ... +25 °C	
Relative humidity	45 ... 75 %	
Air pressure	86 ... 106 kPa	860 ... 1060 mbar
Installation position	vertical	

2.2 Input variables

Measuring ranges		Max. durability	
mbar	PA	mbar	kPa
0 ... 6	0 ... 600	60	6
0 ... 10	0 ... 1000	100	10
0 ... 16	0 ... 1600	160	16
0 ... 25	0 ... 2500	200	20
0 ... 40	0 ... 4000	200	20
0 ... 60	---	200	20
0 ... 100	---	200	20
Maximum system pressure		200 mbar	20 kPa

2.3 Measured value display

Measured value display	Round housing Ø100
Scale	0 ... 6 mbar
	162°
	0 ... 10 mbar
	169°
	All other measuring ranges
	270°
Display precision	Class 1.6 gem. DIN EN 837

2.4 Operating conditions

Ambient temperature range	-20 ... +70 °C
Storage temperature range	-20 ... +80 °C
Medium temperature range	Max. 50 °C
Protection class IP	IP65 acc. to DIN EN 60529

2.5 Construction design

Process connection		Material
Inner thread G $\frac{1}{4}$		Aluminium
Connection shanks with external thread G $\frac{1}{4}$ (DIN EN 837)		Brass
Connection shanks with external thread G $\frac{1}{2}$ (DIN EN 837)		Brass
Cutting ring connection in brass for 6 mm pipe		Brass
Cutting ring connection in brass for 8 mm pipe		Brass
Cutting ring connection in brass for 10 mm pipe		Brass
CK fast screw connection for 6/4 mm hose		Aluminium
CK fast screw connection for 8/6 mm hose		Aluminium
Installation position		senkrecht
Dimensions (H x W x D) ^{*)}		118 x 118 x 61
Weight		approx. 650 g

^{*)} Process connection inner thread G $\frac{1}{4}$

2.5.1 Materials

Process connection	M	U	Brass, aluminium
Seal for CK fast screw connection	M	U	Hard PVC
Measuring unit	M		Brass, copper-beryllium
Needle	M		Aluminium, black
Housing	M		Aluminium, painted black
Bayonet ring		U	St 1403, painted black
Seal	M		NBR
Inspection disk	M	U	Acrylic glass

M: contact with measuring medium

U: contact with environment

2.5.2 Dimensional drawings

All dimensions in mm unless otherwise stated

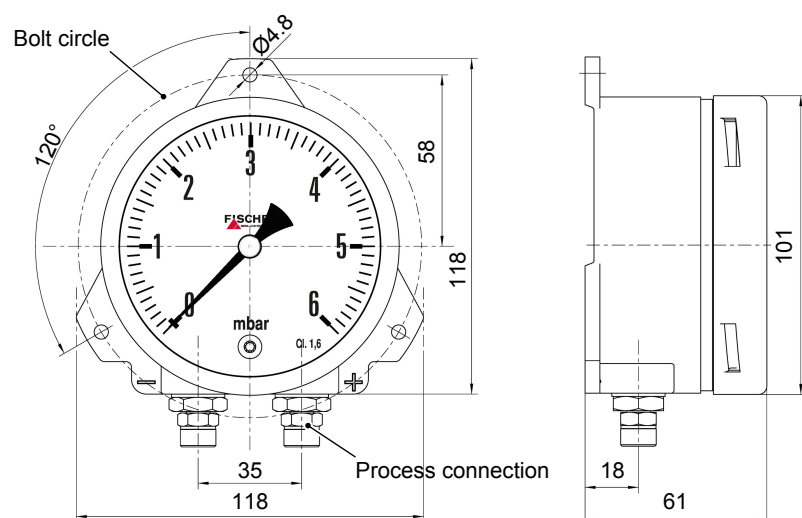
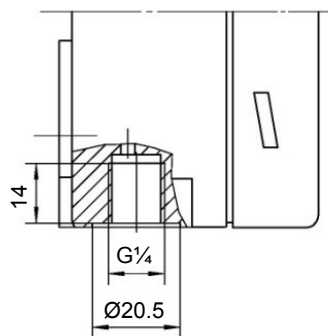


Fig. 4: Dimensional picture

Process connection



Code 01

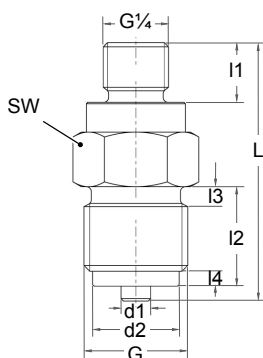
Fig. 5: Inner thread G $\frac{1}{4}$ 

Fig. 6: Connecting port G

Connection port with cylindrical external thread

G	d1	d2	L	I1	I2	I3	I4	SW
Tol.	± 0.1	± 0.2	± 0.3	± 0.2	± 0.2	± 0.1	± 0.1	
G$\frac{1}{2}$	6	17.5	52	12	23	4	3	22
G$\frac{1}{4}$	5	9.5	39	12	15	3	2	19

SW:= Key width

Cutting ring screw connection

g	L	I1	I2	SW1	SW2
$\varnothing$ tube		± 0.2	± 0.2		
6	28	12	7	19	17
8	30	12	7	19	17
10	31	12	8	19	19

SW:= Key width

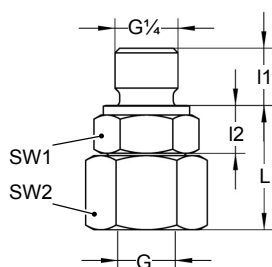


Fig. 7: Screw-in connection

Screw connection

g	L	I1	I2	SW1	SW2
$\varnothing$ (outside / inside)		± 0.2	± 0.2		
6/4	26	9	4.8	17	12
8/6	26	9	4.8	17	14

SW:= Key width

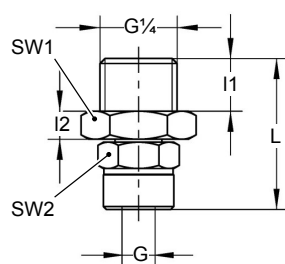


Fig. 8: CK fast screw connection

Panel mounting set

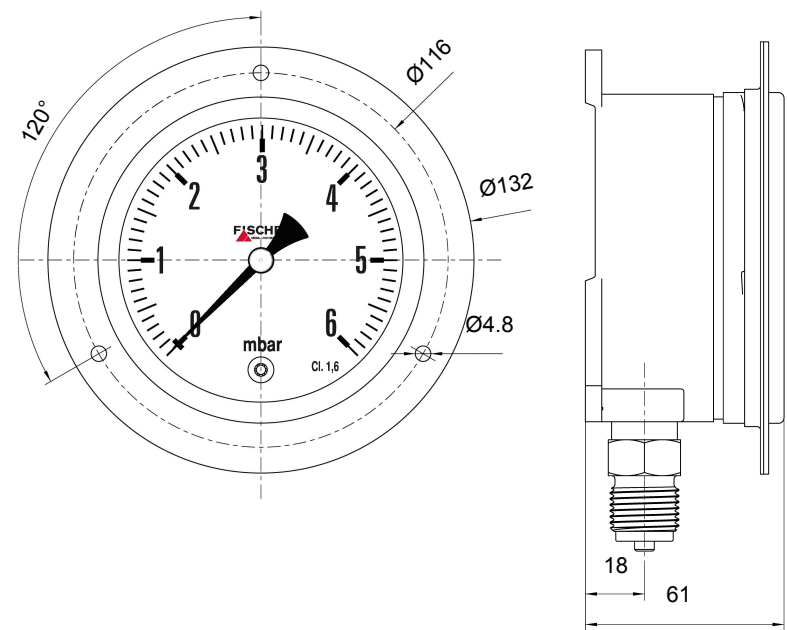


Fig. 9: Connections bottom

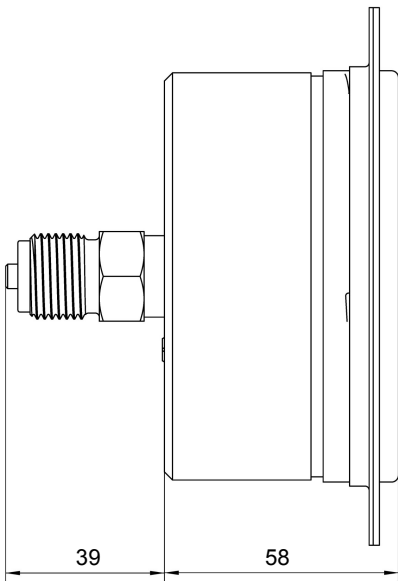
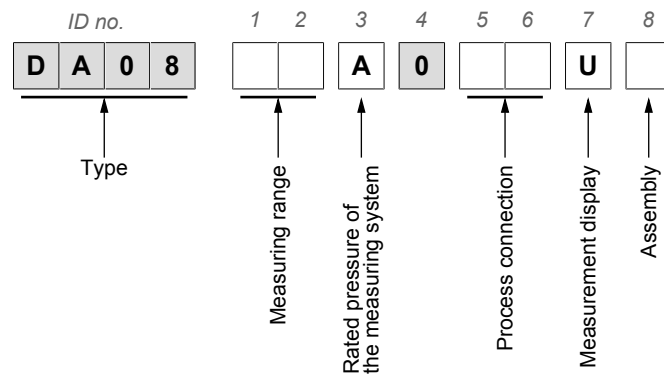


Fig. 10: Connections back

3 Order codes



[1.2] Measuring range

53	0 ... 6 mbar
54	0 ... 10 mbar
55	0 ... 16 mbar
56	0 ... 25 mbar
57	0 ... 40 mbar
58	0 ... 60 mbar
59	0 ... 100 mbar
D8	0 ... 600 Pa
D9	0 ... 1000 Pa
E1	0 ... 1600 Pa
E2	0 ... 2500 Pa
E3	0 ... 4000 Pa

[3] Rated pressure of the measuring system

A	200 mbar (20 kPa)
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[5.6] Process connection

		Material
01	Inner thread G $\frac{1}{4}$	
06	Connection shanks with external thread G $\frac{1}{4}$	Brass
08	Connection shanks with external thread G $\frac{1}{2}$	Brass
28	Cutting ring connection in brass for 6 mm pipe	Brass
29	Cutting ring connection in brass for 8 mm pipe	Brass
30	Cutting ring connection in brass for 10 mm pipe	Brass
47	Hose screw connection for 6/4 mm hose	Aluminium
48	Hose screw connection for 8/6 mm hose	Aluminium

[7] Measured value display

		Material
U	Bayonet ring housing Ø100	Aluminium

[8] Assembly

		Process connection
B	Wall mounting	Bottom
L	Panel mounting set	Bottom
g	Panel mounting set	rear