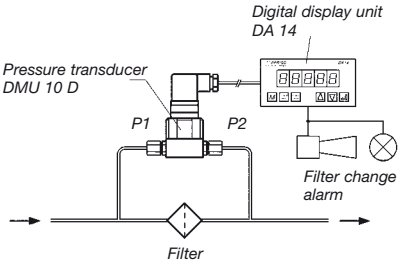
Pressure transducers DMU 10 D
Differential pressure version

DMU 10 D



DMU 10 D with plug-in display
DA 06

Application
For electronic differential pressure measurements at very low differential pressure. For non-corrosive gaseous media. Particularly suitable for monitoring filters and fans in air moving and air conditioning equipment.

Description
The DMU 10 D pressure transducers feature piezo-resistive silicon measuring cells. When pressure is applied, the pressure difference between the positive side and the negative side is converted into a current or voltage signal which is proportional to the differential pressure.

DMU 10 features:

- Robust aluminium housing
- Compact design
- Long service life
- Excellent long-term stability
- High overpressure safety
- Plug-in display DA 06 for local indication on site and switching output (optional)

Accuracy of measurement
Deviation characteristics according to IEC 60770 – limit point setting (non-linearity, hysteresis, repeatability):

> 0/160 mbar:	≤ ±0.35 % FSO
0/40–0/160 mbar:	≤ ±1 % FSO
< 0/40 mbar:	≤ ±2 % FSO

Long-term stability
≤ ±0.2 % FSO/year

Measuring ranges/overpressure safety

Differential pressure range	Max. static pressure
0/6 mbar bis 0/10 mbar	100 mbar
0/25 mbar	200 mbar
0/40 mbar bis 0/60 mbar	350 mbar
0/100 mbar bis 0/400 mbar	1000 mbar
0/600 mbar bis 0/1000 mbar	3000 mbar

Operating temperature range

Medium:	-25 °C/+125 °C
Ambient:	-25 °C/ +85 °C
Storage:	-40 °C/+100 °C

Temperature error band

Differential pressure range	In compensated range 0/60 °C
≤ 0/10 mbar	≤ ±2 % FSO
≤ 0/25 mbar	≤ ±1,5 % FSO
≤0/250 mbar	≤ ±1 % FSO
>0/250 mbar	≤ ±0,5 % FSO

Dynamic characteristics
Response time < 5 ms

Process connection
2 x G1/8 female thread

Materials

Housing:	aluminium
Process-connection:	aluminium
Sensor:	silicon, glass, RTV, ceramic, Al_2O_3, nickel
Seal:	PUR glued

Output signal/supply voltage

4–20 mA 2-wire	DC 12–36 V
0–20 mA 3-wire	DC 14–36 V
0–10 V 3-wire	DC 14–36 V

Load
4–20 mA ≤ $\frac{U_B - U_{Bmin}}{0{,}02\ A}$
0–20 mA = 500 Ohm
0–10 V = 10 kOhm

Current input

0/4–20 mA	max. 25 mA
0–10 V	max. 7 mA

EProtective electrical measures
Short circuit proof and polarity protected

Electrical connection (protection)
Plug and junction box
DIN 43650-A (IP 65)

CE conformity (EMC)
EN 61326

Options

- Other process connections
- Other electrical connections
- Digital plug-in display DA 06

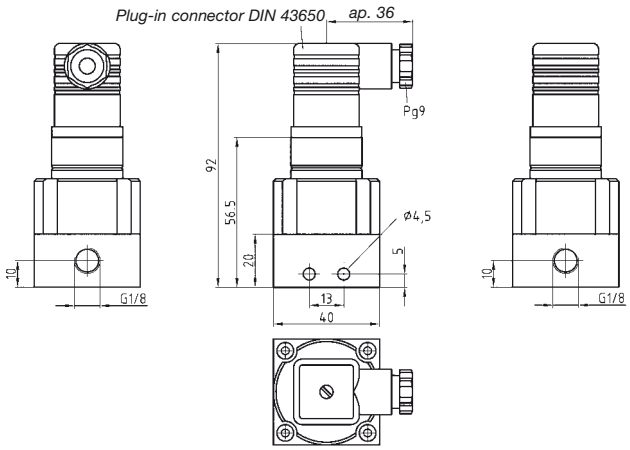
11

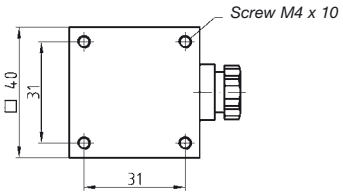
Refer to page 457/458 for prices

Pressure transducers DMU 10 D

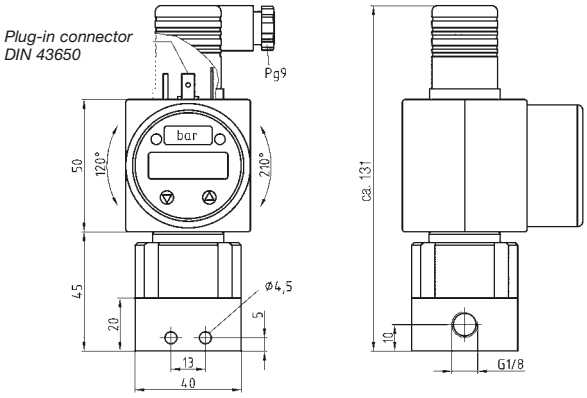
Dimensions (in mm) and electrical connections

Connection 2 x G1/8 female thread

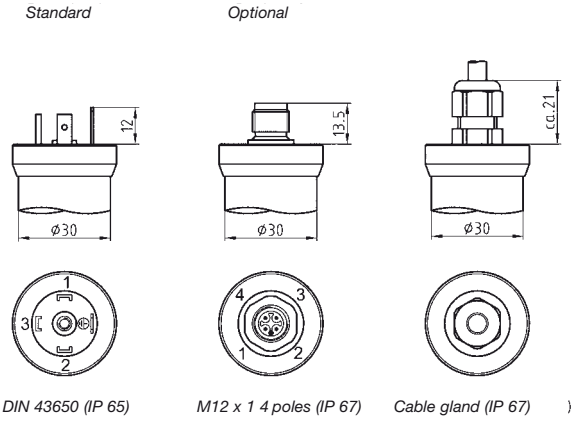




DMU 10 D with plug-in display DA 06

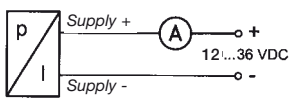


Electrical connections

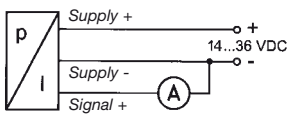


Wiring diagram

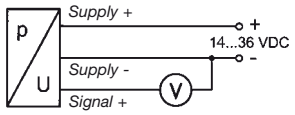
2-wire *4–20 mA*



3-wire *0–20 mA*



0–10 V



Pin assignment table

Assignment			*DIN 43650*
2-wire system:	*Supply*	+	*1*
(4–20 mA)	*Supply*	−	*2*
	Earth		*Earth contact*

The units are supplied with a detailed wiring diagram.