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Multi-range differential pressure transmitter

Type 402004

General application

Type 402004 pressure and differential pressure transmitters are suitable for measuring overpressure, underpressure (partial vacuum) and differential pressure of non-corrosive gases.

Preferred areas of application are: HVAC, clean-room engineering and filter monitoring.



Technical data

Reference conditions

as per DIN 16 086 and IEC 770/5.3

Measuring ranges

Can be set by DIP switches

0 – 250 Pa

0 – 500 Pa

0 – 1500 Pa

0 – 3000 Pa

Overload limit

200 hPa

maximum system pressure

200 hPa

Bursting pressure

300 hPa

Parts in contact with medium

Al, Au, Ni, Ni-Co steel, glass, PEI, PU, silicone

Burden error

For voltage output:

$R_L \geq 2 \text{ k}\Omega$

For current output:

$R_L \leq 500 \Omega$

Ambient temperature error

within the range +10 to +50°C

(compensated temperature range)

Zero point: $\leq 0.12\%/^{\circ}\text{C}$

Span: $\leq 0.12\%/^{\circ}\text{C}$

Characteristic

As standard: linear

Deviation from characteristic

$\leq \pm 2\%$ of full scale

(limit point setting)

Hysteresis

$\leq \pm 0.2\%$ of full scale

Settling time / Filter time

adjustable 30 ms / 2 sec / 4 sec

Stability (per annum)

$\pm 2\%$

Output signal

switchable through coding:

0 – 10 V or 0(4) – 20 mA

Supply voltage

19 – 31 V DC or

19 – 25 V AC

Residual ripple

$\leq 60\text{mV}$

Max. current drawn

$\leq 20 \text{ mA}$ (without load)

Supply voltage error

Within the range 19 – 31 V DC:

$\leq 0.05\%$

Permissible ambient temperature

+10 to +50°C

Storage temperature

-10 to +70°C

Permissible temperature of medium

+10 to +50°C

Electromagnetic compatibility

EN 61 326-1

Interference emission: Class B

Interference immunity: to industrial requirements

Mechanical shock

10 g / 0.1 msec

Mechanical vibration

maximum 5 g at 15 – 2000 Hz

Enclosure protection

IP54 to EN 60 529

Housing

ABS

Process connection

6.6 mm dia. x 10 mm

(for 6 mm dia. flexible hoses)

Electrical connection

Internal screw terminals, for conductor cross-sections up to 1.5 mm²





Nominal position

vertical \perp

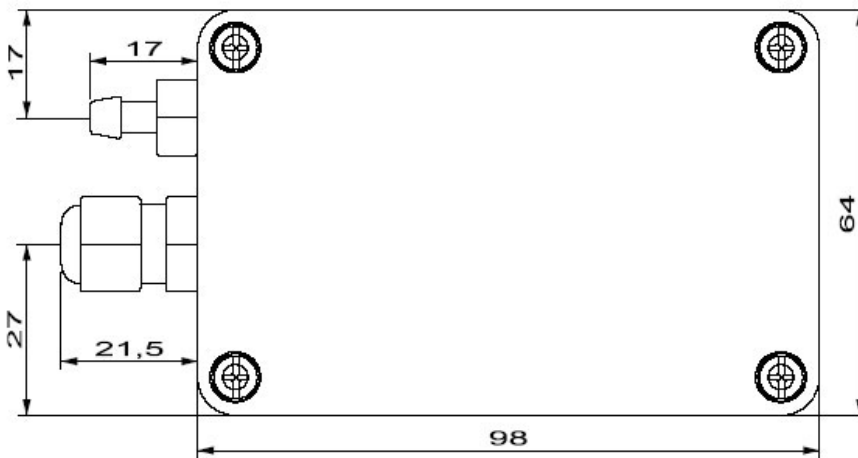
Weight

approx. 170 g

Electrical connection

Connection		Connection assignment on terminal block	
Supply voltage 19 – 31 V DC		L - L +	5 4
Supply voltage 24 V AC		N L 1	5 4
Output 0 – 10 V		- +	1 3
Output 0(4) – 20 mA, 3-wire		- +	1 2

Dimensions



Order details

402004	(1) Basic type Multi-range differential pressure transmitter Type 402004
000	(2) Basic type extensions none
440	(3) Input for gauge pressure switchable: 0 – 250 Pa, 0 – 500 Pa, 0 – 1500 Pa or 0 – 3000 Pa
409	(4) Output switchable: 0 – 10 V or 0(4) – 20 mA
298	(5) Process connection 6.6 mm dia. x 10 mm, for 6 mm dia. flexible hoses
000	(6) Extra codes none

Order code	(1)	/	(2)	-	(3)	-	(4)	-	(5)	/	(6)
Order example	402004	/	000	-	440	-	409	-	298	/	000

Stock versions (shipment: 3 working days after receipt of order)

Type
402004/000-440-409-298/000

Sales No.
40/00491350