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ДАТЧИКИ ДАВЛЕНИЯ

РТД 600



Technical data



INFORMATION!

- The following data is provided for general applications. If you require data that is more relevant to your specific application, please contact us or your local representative.
- Additional information (certificates, special tools, software,...) and complete product documentation can be downloaded free of charge from the website (Download Center).

Measuring system

Measuring principle	Piezoresistive silicon sensor
Application range	Hydrostatic level detection as well as pressure measurement in pipelines for gas, steam and liquids
Measuring range	-1...40 bar / -14.5...580 psi

Measuring accuracy

Reference conditions	Medium: air
	Temperature: +20°C / +68°F
Pressure type	Gauge pressure / absolute pressure
Measuring accuracy	0.5%, 0.25% or 0.1% of the full scale (including linearity, hysteresis and repeatability)
Deviation of zero point	±0.03% of the full scale/10 K
Deviation of span	±0.03% of the full scale/10 K
Long-term stability	0.1% of the full scale/ year
Response time (10...90%)	5 ms

Operating conditions

Temperature	
Process temperature	Standard: -10...+125°C / +14...+257°F
	With optional cooling neck: -10...+200°C / +14...+392°F
CIP/SIP	Max. up to 150°C / 302°F < 60 minutes for hygienic process connections
	Max. up to 125°C / 257°F for devices with thread connection
Ambient temperature	-10...+85°C / +14...+185°F
Storage temperature	-10...+85°C / +14...+185°F
Other conditions	
Protection category acc. to IEC 529 / EN 60529	IP67

Installation conditions

Installation	Can be installed in any position, zero point or position correction may be required following installation.
	To ensure proper cooling function, versions with cooling neck ($T_{\text{Medium}} \leq 200^{\circ}\text{C} / 392^{\circ}\text{F}$) must be installed at a maximum 10° angle to the horizontal.
Dimensions and weights	For detailed information refer to section "Dimensions and weights".

TECHNICAL DATA

Materials

Sensor housing	Stainless steel 1.4404 / 316L or Hastelloy® C
Process connection	Stainless steel 1.4404 / 316L or Hastelloy® C

Process connections

Standard	G1 connection with flush hygienic cone in combination with hygienic process connection adapters like the Tri-Clamp, 11851, Varivent (see the "Accessories" data sheet for details)
Optional	G½ with flush hygienic cone
	DN40/DN50 clamp acc. to DIN 32676
	38/51 mm clamp ISO 2852
	1½" Tri-Clamp and GEA Tuchenhagen type N connection

Electrical connection

Power supply	8...30 VDC
Load resistance	$R_{Load} [\Omega] = (U_{Supply} [V] - 8 V) / 20 [mA]$
Output signal	4...20 mA
Insulation resistance	>100 MΩ at 750 V
Cable feedthroughs	Compact housing: M12 plug made of stainless steel (1.4404 / 316L)
	Field housing: M16 made of stainless steel (1.4404 / 316L)

Approvals and certificates

CE	The device fulfils the statutory requirements of the EC directives. The manufacturer certifies that these requirements have been met by applying the CE marking.
Electromagnetic compatibility (EMC)	2004/108/EC in accordance with EN 61000-6-2 and EN 61000-6-3
Pressure equipment directive	97/23/EC
Other standards and approvals	
Vibration according to IEC 60068-2-6	1.5 mm (10...55 Hz), 10 g (58 Hz...2 KHz), 10 cycles within 2.5 h per axis
Shock test in accordance with IEC 60068-2-27	50 g/11 ms, 100 g/6 ms, 10 x pulse/axis and direction
Bump in accordance with IEC 60068-2-29	100 g/2 ms, 4000 x pulse/axis and direction
Statistical failures in accordance with IEC 60068-2-64	0.1 g ² /Hz (20 Hz...1 KHz), 30 min. per axis (>10 g RMS)
Hygiene	FDA approved materials

Dimensions and weights

Hygienic process connections

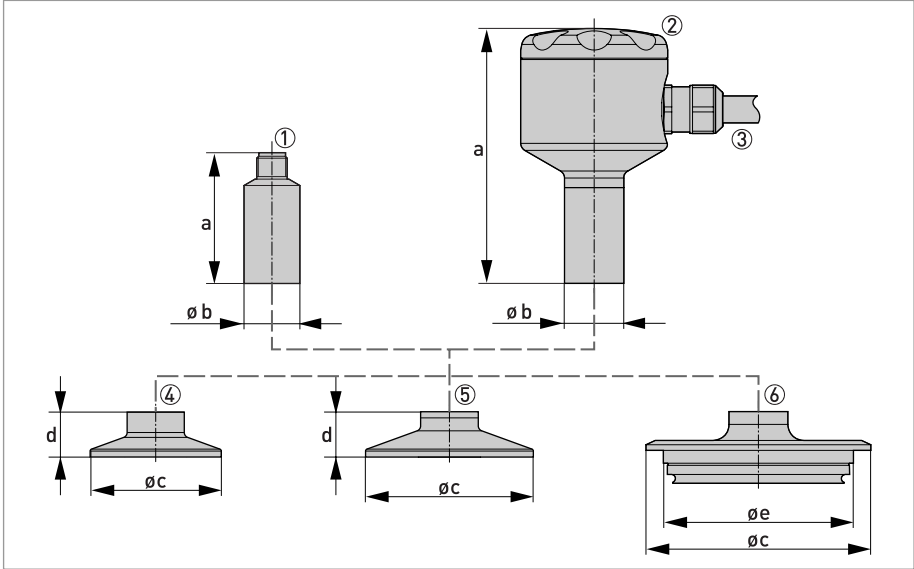


Figure 7-1: Dimensions for pressure transmitter with hygienic connections

- 1 Compact housing with M12 plug
- 2 Field housing with M16 cable feedthroughs
- 3 Max. cable diameter: Ø8...10 mm / Ø0.3...0.4"
- 4 DN38 ISO 2852 / Tri-Clamp 1½", DN38 DIN 32676 clamp 3A
- 5 DN51 ISO 2852 / DIN 32676 clamp 3A
- 6 GEA Tuchenhagen type N connection

	Dimensions									
	1		2		4		5		6	
	[mm]	["]	[mm]	["]	[mm]	["]	[mm]	["]	[mm]	["]
a	51.6	2	94.5	3.7	-	-	-	-	-	-
b	Ø22	Ø0.9	Ø22	Ø0.9	-	-	-	-	-	-
c	-	-	-	-	Ø50.5	Ø2	Ø64	Ø2.5	Ø84	Ø3.3
d	-	-	-	-	17.3	0.7	17.3	0.7	-	-
e	-	-	-	-	-	-	-	-	Ø68	Ø2.7

Weight for compact housing: approx. 150 g / 0.33 lbs
 Weight for field housing: approx. 600 g / 1.32 lbs

TECHNICAL DATA

Thread with flush hygienic cone

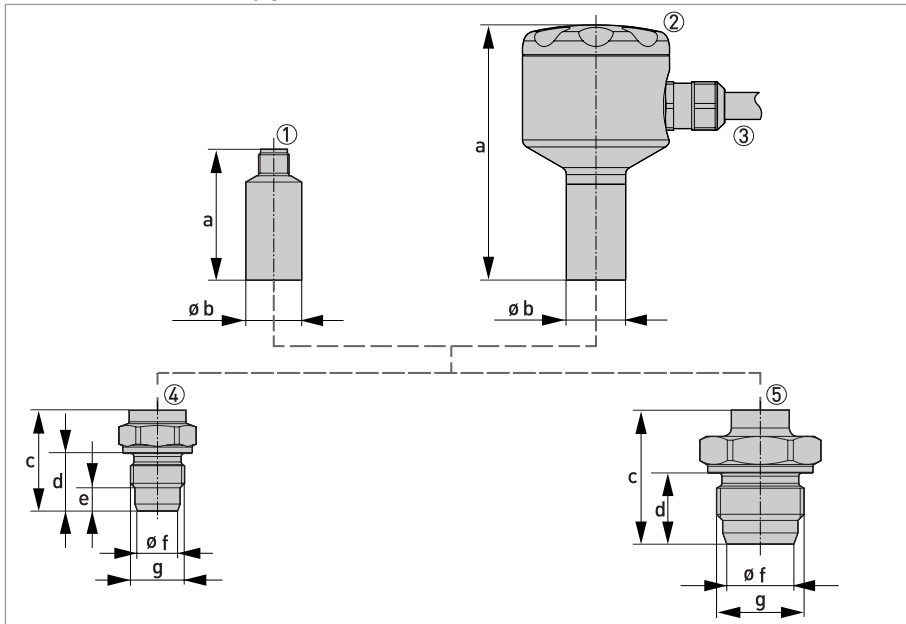


Figure 7-2: Dimensions for pressure transmitter with thread and flush hygienic cone

- 1 Compact housing with M12 plug
- 2 Field housing with M16 cable feedthrough
- 3 Max. cable diameter: Ø8...10 mm / Ø0.3...0.4"
- 4 G½
- 5 G1

	Dimensions							
	1		2		4		5	
	[mm]	["]	[mm]	["]	[mm]	["]	[mm]	["]
a	51.6	2	94.5	3.7	-	-	-	-
b	Ø22	Ø0.9	Ø22	Ø0.9	-	-	-	-
c	-	-	-	-	39	1.5	51	2
d	-	-	-	-	22.3	0.9	27	1.1
e	-	-	-	-	9	-	-	-
f	-	-	-	-	Ø15.5	Ø0.6	Ø25.5	Ø1
g	-	-	-	-	G½		G1	

Weight compact housing: approx. 130 g / 0.29 lbs

Weight field housing: approx. 570 g / 1.26 lbs



INFORMATION!

All thread connections can be made into hygienic versions by using the hygienic process connection adapters. See the "Accessories" data sheet for details.

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