

Measuring ranges up to 25 bar



Advantages / Benefits

- ▶ Measuring ranges up to 25 bar for a broad area of application
- ▶ Housing and wetted parts in corrosion-resistant stainless steel
- ▶ Standard process-connection for simple process adaption
- ▶ Standard signal 4...20 mA for connection to process-automation-systems
- ▶ Plug for quick installation and service
- ▶ IP 65 type of protection, Ex-version with protection "intrinsically safe"
- ▶ CE -conform

Design

These pressure transmitters are designed to cover the majority of industrial applications in the field of industrial pressure measurement technology. High accuracy, compact design, robust construction and flexibility make these instruments universal and suitable for different measurement functions.

For technical reasons piezoresistive sensor elements are used for measuring ranges up to 16 bar and thin film sensor elements for the measuring range of 25 bar. Wetted parts are made of stainless steel and completely welded. Internal seal elements, which could restrict the choice of measuring materials, are excluded. The standard process connection is G 1/2 A according to DIN 16 288. The compact housing is also made of stainless steel and provides IP 65 protection.

Power supply is non-stabilized DC of 10 ... 30 V. Pressure transmitters are

available with 4 ... 20 mA 2-wire signal output.

Type 8324 has been developed for hazardous area applications. This device is permitted with electronics according to EEx ia IIC T4 -T6 and therefore applicable with appropriate power supply units in such areas.

- Robust and compact construction in stainless steel
- Standardized electrical and mechanical connections
- Measuring ranges up to 25 bar (relative)
- Standardized for hazardous areas

Application

Media

All media like water, air, steam, light corrosive fluids and gases.









Flammable fluids and gases (version with Ex-Certificate).

Areas of application

Pressure measurement and control both in process and utilities at industrial plants like distribution of water and gas.

Monitoring of pumps and filters through valve control.

burkert
Easy Fluid Control Systems

Technical Data			
Sensing principle		Piezoresistive	
Measuring ranges	bar	0.1 0.16 0.25 0.4 0.6 1 1.6 2.5 4 6 10 16	Thin-film strain gauge
Over pressure safety	bar	1 1.5 2 2 4 5 10 10 17 35 35 80	25
Burst pressure of sensor element	bar	2 2 2 2 4 5 10 10 17 35 35 80	50
Pressure reference	psi	Gauge pressure (atmospheric) Pressure ranges in psi on request.	
			Gauge pressure (atmospheric)
Process connection		G 1/2 A according to DIN 16 288; alternative NPT 1/2	
Material		CrNi-Stahl 1.4571 (and 1.4542 with 25 bar)	
Wetted parts		CrNi-Stahl 1.4301	
Case		Silicon oil (only for pressure ranges up to 16 bar)	
Internal transmitting liquid			
Power supply U_B for non  -transmitters	V DC	for  -transmitter Type 8324: see below in section  -protection! $10 < U_B \leq 30$	
Signal output and maximum load R_A		4...20 mA, 2-wire system	$R_A \leq (U_B - 10V) / 0,02A$ with R_A in Ohm and U_B in Volt
Response time (10...90%)	ms	≤ 1	
Accuracy	% of FS	$\leq 0,5$ (2-point calibration) ¹⁾	
	% of FS	$\leq 0,25$ (Best fit calibration, BFSL) ¹⁾	
		¹⁾ (calibrated in vertical mounting position with pressure connection bottom)	
Hysteresis	% of FS	$\leq 0,1$	
Repeatability	% of FS	$\leq 0,05$	
1-year stability	% of FS	$\leq 0,2$ (at reference conditions)	
Permissible temperature of Medium	°C	-30... +100	
Ambient	°C	-20... + 80	
Storage	°C	-40... +100	
Compensated temp. range	°C	0... + 80	
Temperature coefficient in compensated temp. range: mean T_C of zero	% v. EW/10K	$\leq 0,2$ (<0,4 with pressure ranges 0...0,1 and 0...0,16 bar)	
mean T_C of span	% v. EW/10K	$\leq 0,2$	
 -Protection		Type 8324	
Signal output		4...20 mA, 2-wire system	
 -Certification		EEx ia IIC T4	EEx ia IIC T5 EEx ia IIC T6
Conformity specifications			
Power supply	V DC	10...28	10...28 10...28
Short circuit rating	mA	660	660 660
Power limitation	W	1,75	1,75 1,75
Medium temperature	°C	-20...+100	-20...+75 -20...+60
Ambient temperature	°C	-20...+80	-20...+75 -20...+60
Storage temperature	°C	-20...+80	-20...+80 -20...+80
		See certification of conformity CENELEC BVS 96.D.2019 for additional data. FM/CSA Ex-Certification on request.	
 - Sign		Generic Emission Standards EN 50 081-1 (March 93), EN 50 081-2 (March 94), EN 50 082-2 (March 95); Declaration of conformity on request.	
Electrical connection		4-pin L-plug per DIN 43 650	
Electrical degree of protection		Protected against polarity crossing, overvoltage, and short circuiting;  -transmitters only with polarity crossing protection	
Degree of protection EN 60 529/IEC 529		IP 65	
Weight	kg	approx. 0,2;  -transmitters approx. 0,35	
Dimensions		see drawings	

Ordering Chart (Other versions on request)

Type 8323

Output signal [mA]	Power supply [V]	Measuring ranges [bar]	Ex-Certification	Order - No.	
				Process connection	
				G 1/2 A	NPT 1/2
4...20 mA	10...30 V DC	0 - 0,1	-	417 692 J	417 718 T
4...20 mA	10...30 V DC	0 - 0,16	-	417 693 K	417 719 U
4...20 mA	10...30 V DC	0 - 0,25	-	417 694 L	417 720 Z
4...20 mA	10...30 V DC	0 - 0,4	-	417 695 M	417 721 N
4...20 mA	10...30 V DC	0 - 0,6	-	417 696 N	417 722 P
4...20 mA	10...30 V DC	0 - 1,0	-	417 697 P	417 723 Q
4...20 mA	10...30 V DC	0 - 1,6	-	417 698 Y	417 724 R
4...20 mA	10...30 V DC	0 - 2,5	-	417 699 Z	417 725 J
4...20 mA	10...30 V DC	0 - 4,0	-	417 700 E	417 726 K
4...20 mA	10...30 V DC	0 - 6,0	-	417 701 T	417 727 L
4...20 mA	10...30 V DC	0 - 10,0	-	417 702 U	417 728 V
4...20 mA	10...30 V DC	0 - 16,0	-	417 703 V	417 729 W
4...20 mA	10...30 V DC	0 - 25,0	-	417 704 W	417 730 T

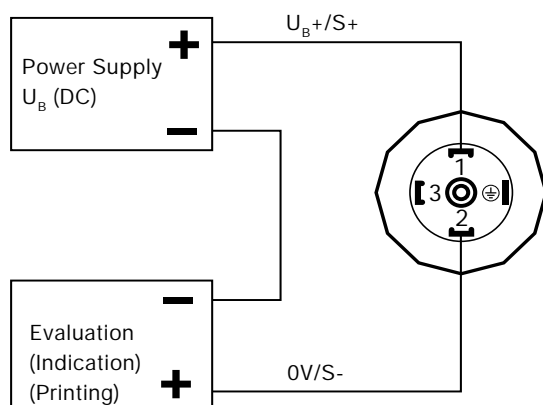
 Type 8324

Output signal [mA]	Power supply [V]	Measuring ranges [bar]	Ex-Certification	Order - No.	
				Process connection	
				G 1/2 A	NPT 1/2
4...20 mA	10...30 V DC	0 - 0,1	EEx ia IIC T4-T6	417 705 X	417 731 Q
4...20 mA	10...30 V DC	0 - 0,16	EEx ia IIC T4-T6	417 706 Y	417 732 R
4...20 mA	10...30 V DC	0 - 0,25	EEx ia IIC T4-T6	417 707 Z	417 733 J
4...20 mA	10...30 V DC	0 - 0,4	EEx ia IIC T4-T6	417 708 A	417 734 K
4...20 mA	10...30 V DC	0 - 0,6	EEx ia IIC T4-T6	417 719 B	417 735 L
4...20 mA	10...30 V DC	0 - 1,0	EEx ia IIC T4-T6	417 710 X	417 736 M
4...20 mA	10...30 V DC	0 - 1,6	EEx ia IIC T4-T6	417 711 L	417 737 N
4...20 mA	10...30 V DC	0 - 2,5	EEx ia IIC T4-T6	417 712 M	417 738 X
4...20 mA	10...30 V DC	0 - 4,0	EEx ia IIC T4-T6	417 713 N	417 739 Y
4...20 mA	10...30 V DC	0 - 6,0	EEx ia IIC T4-T6	417 714 P	417 740 D
4...20 mA	10...30 V DC	0 - 10,0	EEx ia IIC T4-T6	417 715 Q	417 741 S
4...20 mA	10...30 V DC	0 - 16,0	EEx ia IIC T4-T6	417 716 R	417 742 T
4...20 mA	10...30 V DC	0 - 25,0	EEx ia IIC T4-T6	417 717 J	417 743 U

Type 8324 with FM/CSA Ex-Certification on request.

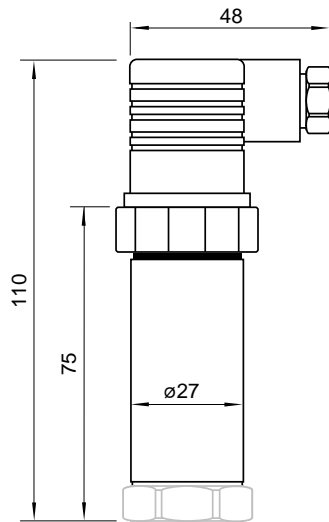
Electrical connection

2-wire system (DIN 43 650 plug)

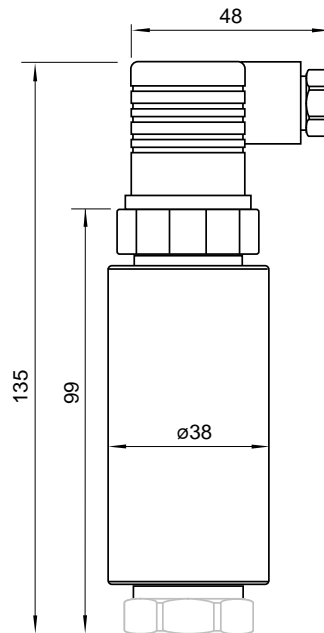


Dimensions [in mm]

Type 8323

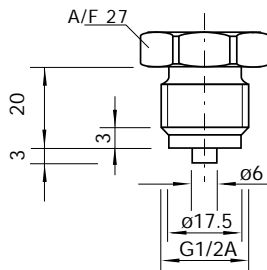


 Type 8324

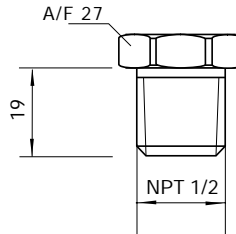


Pressure connection

G 1/2 A

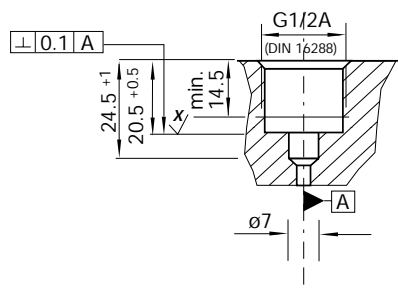


NPT 1/2



Socket for pressure connection

G 1/2 A



NPT 1/2

