

## Pressure transducer model KJ1, KJ1HT

Piezoresistive with internal or flush mounted diaphragm  
Accuracy 0,5 % or 1 % F.S.

### Features

- Absolute and gauge pressure
- High temperature model up to 200 °C
- Sanitary application
- Rugged stainless steel construction
- Excellent long term stability
- Protection IP65
- Explosion proof (intrinsically safe) for zone 1 and 2

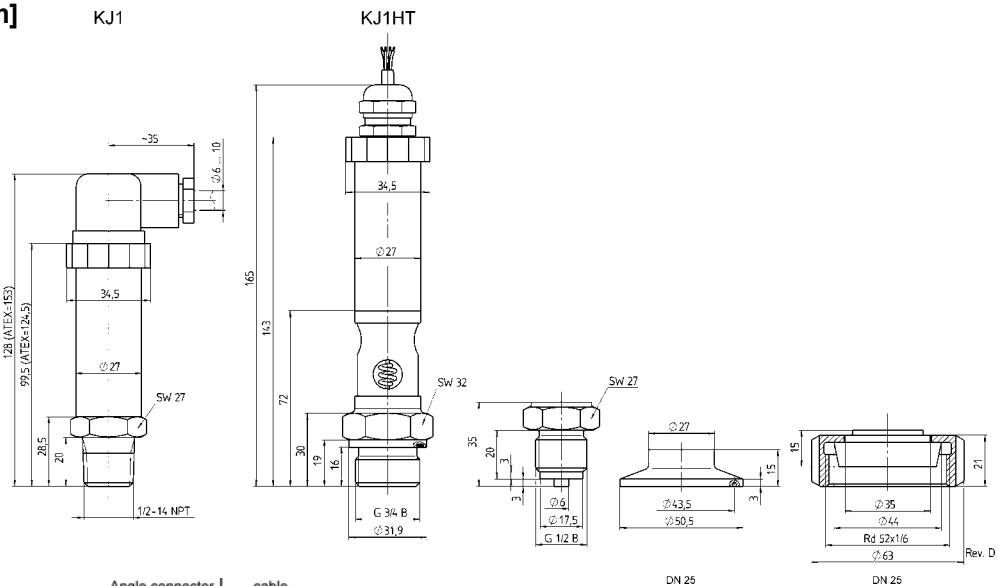
### Ranges

0 ... 0,6 bar up to 0 ... 25 bar absolute pressure  
-1 ... 0 bar up to 0 ... 25 bar gauge pressure  
-30 in. Hg ... 0 psi up to 0 ... 360 psi gauge pressure



Technical specification	KJ1	KJ1HT	KJ1 (Exi)
Measuring principle	Piezoresistive		
Range [bar]	0,25* 0,4* 0,6* 1 1,6 2,5 4 6 10 16 25		* not permissible for KJ1HT
Overpressure limit [bar]	0,5 0,8 1,2 2 3,2 5 8 12 20 32 50		
Pressure type	Absolute pressure and positive/negative gauge pressure		
Process connection	G 3/4 B male according DIN 3852 flush mounting G 1 1/2 B male flush mounting Taper pressure connection with slotted nut according DIN 11 851 (DN 20, 25, 32, 40, 50) Clamp according ISO 2852 (DN 20, 25) G 1/4 B male according EN 837-1 G 3/8 B male according EN 837-1 G 1/2 B male according EN 837-1 1/2NPT male according ANSI/ASME B1.20.1/EN 837-1		others on request
Material	Stainless steel 316Ti (1.4571) Stainless steel diaphragm 316 (1.4401) Stainless steel 304 (1.4301)		
Power supply	12 ... 30 VDC		12 ... 26 VDC
Output signal	4 ... 20 mA, 2-wire 0 ... 10 VDC, 3-wire 0 ... 5 VDC, 3-wire	0 ... 20 mA, 3-wire 1 ... 5/6 VDC, 3-wire	4 ... 20 mA, 2-wire
Maximum loop resistance for 4 ... 20 mA	≤ (U <sub>B</sub> - 9 V) / 0,02 A		≤ (U <sub>B</sub> - 11,2 V) / 0,02 A
Explosion proof (intrinsically safe) CE 0518 (Ex) II 2 GD			EEx ib IIC T6 or T5 according PTB 02 ATEX 2194
Isolation between case and electrical connection Isolation voltage Supply current	> 1 MΩ at 50 VDC 350 VAC max. 5 mA for VDC output, 20 mA for 4 ... 20 mA output signal		
Accuracy according DIN 16 086 (terminal point) Repeatability Response time (10 ... 90 %)	0,5 % F.S. 1,0 % F.S. for range 0,4 bar ≤ ±0,1 % F.S. ≤ 3 ms		1,0 % F.S.
Permissible			For T5 and T6 (EEx ib) -20 ... 60 °C T6 -20 ... 75 °C T5 -20 ... 60 °C T6 -20 ... 75 °C T5
Operation temperature	-30 ... 85 °C	-30 ... 85 °C	
Medium temperature	-30 ... 100 °C	-30 ... 200 °C	
Storage temperature	-40 ... 100 °C		
Compensated temperature	-20 ... 70 °C		
Temperature influence	±0,3 % / 10 K from 0 ... 100 °C (ref. 20 °C) from 0,4 bar, ±0,6 % / 10 K from 0 ... 100 °C (ref. 20 °C) at 0,25 bar		
Shock resistance	100 g / 4 ms		
Vibration	≤ 0,1 % F.S. for 0 ... 2000 Hz, 10 g in all directions according IEC 770		
Noise of output signal	≤ 0,02 % F.S.		
Nominal position	≤ 4 bar vertical, > 4 bar any		
CE-mark/EMC	Emission according EN 50 081-1 (March 1993) Immunity according EN 50 082-2 (March 1995)		
Electrical connection	4 PIN angle connector according DIN EN 175301-803, cable connection		
Protection according EN 60 529/IEC 529	IP65 (using a cable with vent tube)		IP65 for dust with cable connection IP65 for gas with angle connector IP67 for gas with cable connection
Weight [kg]	0,25 ... 0,32 (depending on process connection)		
Accessories, options	Diaphragm seals, valves		

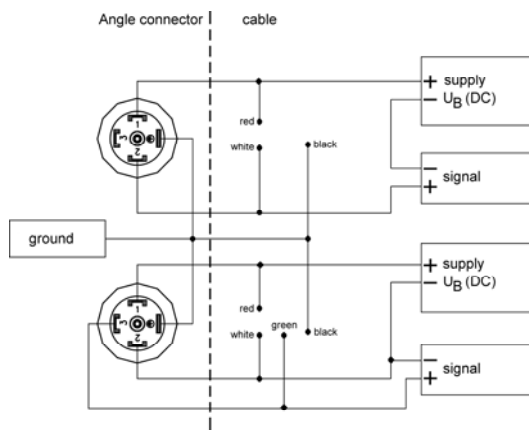
General dimensions [mm]



Electrical connection

2-wire

3-wire



Order information

Type	Output signal	Accuracy	Range	Engineering units	Protection	Process connection	Electrical connection	Options
J1	(01) 0/10 VDC	(050) 0,50 %	Gauge pressure -1/ 0	BAR	(=) IP65  (ATEXD) Intrinsically safe for dust and gas (only for type J1 with output signal 4/20 mA, accuracy 1,0 % and electrical connection F2)	(MG2) G 1/4 B male	(M1) Angle connector according DIN EN 175301-803  (F2) Cable connection  Specify cable lengths in [m]	(NH) Tagging wired  (HD1) Optional overpressure
J1HT	(05) 0/5 VDC	(100) 1,0 %	-1/ 0,6					
	(15) 1/5 VDC		-1/ 1,5					
	(16) 1/6 VDC		-1/ 3					
	(20) 0/20 mA		-1/ 5					
	(42) 4/20 mA		-1/ 9					
			Gauge pressure respectively absolute pressure	BAR respectively BARABS	(ATEXG) Intrinsically safe for gas (only for type J1 with output signal 4/20 mA und accuracy 1,0 %)	(MG3) G 3/8 B male		
			0/ 0,25 <sup>1)</sup>			(MG4) G 1/2 B male		
			0/ 0,4 <sup>1)2)</sup>			(M04) 1/2 NPT male		
			0/ 0,6 <sup>1)</sup>			(MG75F) G 3/4 B male flush mounting		
			0/ 1			(KNDN25) Taper pressure connection with slotted nut		
			0/ 1,6			DN 25 according DIN 11 851		
			0/ 2,5			(CDN25) Clamp DN 25 according ISO 2852		
			0/ 4					
			0/ 6					
			0/ 10					
			0/ 16					
			0/ 25					
			<sup>1)</sup> not permissible for KJ1HT					
			<sup>2)</sup> accuracy 1,0 %					

How to order

Series	Type	Signal output	Accuracy	Range	Engineering units	Protection	Process connection	Electrical connection	Option
K	J1	42	050	0/10	BAR	=	MG2	M1	NH