

Pressure transducer model KX1, KXK, KXD, KXDHT, KXD (Exi)

Complete stainless steel thinfilm sensor without internal liquid filling

Accuracy 0,25 %, 0,5 % and 1 % F.S.

Features

- Rugged stainless steel construction
- High overpressure limits
- High shock and vibration stability
- Excellent long term stability
- Protection IP65, IP67 and IP68
- Explosion proof (intrinsically safe) for zone 1 and 2 acc. ATEX



Ranges

-1 ... 0 bar up to 0 ... 1400 bar

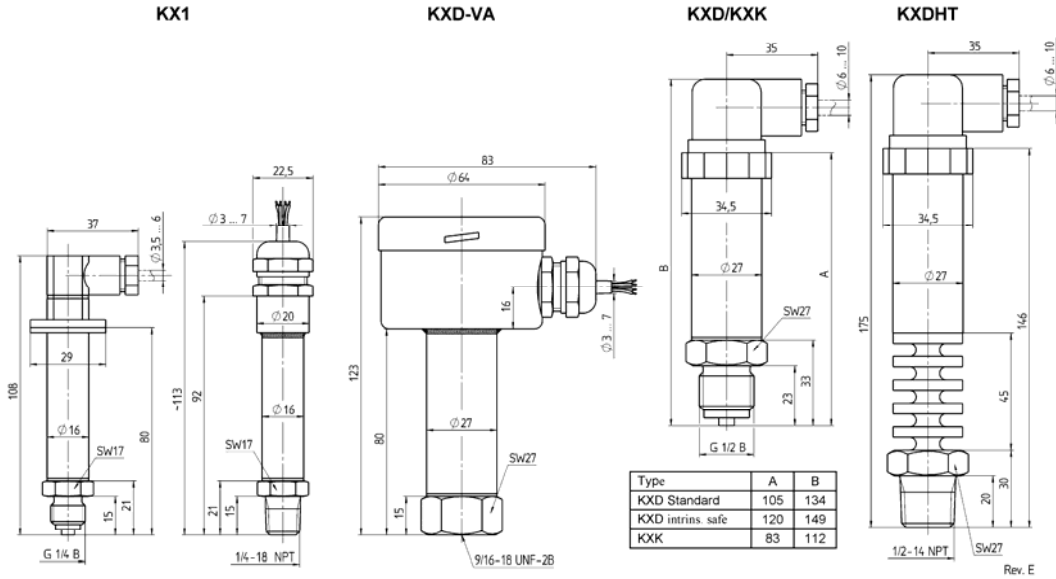
-30 in. Hg ... 0 psi up to 0 ... 20.000 psi

Technical specifications	KX1	KXK	KXD	KXDHT	KXD (Exi)
Measuring principle	Thinfilm				
Range [bar]	1 1,6 2,5 4 6 10 16 25 40 60 100 160 250 400 600 1000 1400				
Overpressure limit [bar]	6 6 6 10 14 20 40 70 100 138 200 304 525 640 900 1200 1680				
Pressure type	Gauge, vacuum and compound				
Process connection	G 1/4 B male according EN 837-1 1/4 NPT male according ANSI/ASME B1.20.1/EN 837-1 9/16-18 UNF-2B Aminco (high pressure) G 1/2 B male according EN 837-1 1/2 NPT male according ANSI/ASME B1.20.1 Others on request (for pressure limitations see order information)				
Material	Stainless steel 316Ti (1.4571) Stainless steel 1.4542/1.4548 (17-4PH) with polysilicon cell Stainless steel 304L (1.4306)				
Process connection	Stainless steel 304 (1.4301)				
Power supply	12 ... 30 VDC	10...30VDC		12 ... 30 VDC	12 ... 26 VDC
Output signal	4 ... 20 mA, 2-wire	0 ... 10 VDC, 3-wire 0 ... 5 VDC, 3-wire 1 ... 5/6 VDC, 3-wire 0 ... 20 mA, 3-wire			4 ... 20 mA, 2-wire
Maximum loop resistance for 4 ... 20 mA	$\leq (U_B - 9,5 \text{ V}) / 0,02 \text{ A}$		$\leq (U_B - 9 \text{ V}) / 0,02 \text{ A}$		$\leq (U_B - 11,2 \text{ V}) / 0,02 \text{ A}$
Explosion proof (intrinsically safe)					EEx ib IIC T6 or T5 according to PTB 02 ATEX 2194 CE 0518 Ex II 2 GD
Isolation between case and electrical connection	> 1 M Ω at 50 VDC				
Isolation voltage	350 VAC				
Supply current	max. 5 mA for VDC output, 20 mA for 4 ... 20 mA output signal				
Accuracy according DIN 16 086 (terminal point)	0,5 % F.S. (0,25 % F.S. on request)	1 % F.S. (0,5 % F.S. on request)	0,5 % F.S. (0,25 % F.S. on request)		
Repeatability	1,0 % F.S. for the ranges 1 bar, 1,6 bar, 2,5 bar, 600 bar, 1000 bar and 1400 bar				
Response time (10 ... 90 %)	$\leq \pm 0,03 \%$ F.S. $\leq 1 \text{ ms}$				
Permissible Operation temperature	-30 ... 85 °C		-30...85°C	For T5 and T6 (EEx ib) -20 ... 60 °C T6 -20 ... 75 °C T5	
Medium temperature	-30 ... 100 °C		-30...150°C	-20 ... 60 °C T6 -20 ... 75 °C T5	
Storage temperature	-40 ... 100 °C				
Compensated temperature	-20 ... 70 °C				
Temperature influence	$\pm 0,3 \%$ / 10 K from 0 ... 50 °C (ref. 20 °C)				
Shock resistance	At 100 g / 20 ms $\leq 0,05 \%$ F.S.				
Vibration	$\leq 0,1 \%$ F.S. for 0 ... 2000 Hz, 20 g in all directions according IEC 770				
Noise of output signal	$\leq 0,02 \%$ F.S.				
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 series M Cable connection Bendix 4 PIN, Amphenol 4 PIN		4 PIN angle connector according DIN EN 175301-803 Cable connection Field housing		
Protection according EN 60 529/IEC 529	IP65, IP67 for KX1 with Bendix 4 PIN, optional IP68				IP65 for dust with cable connection IP65 for gas with angle connector IP67 for gas with cable connection
Weight [kg]	0,1	0,2	0,25	0,4	0,25
Accessories, options	Diaphragm seals, valves				

All specifications are subject to change without notice.

G5.KXD/E Rev. H 18/08/2005

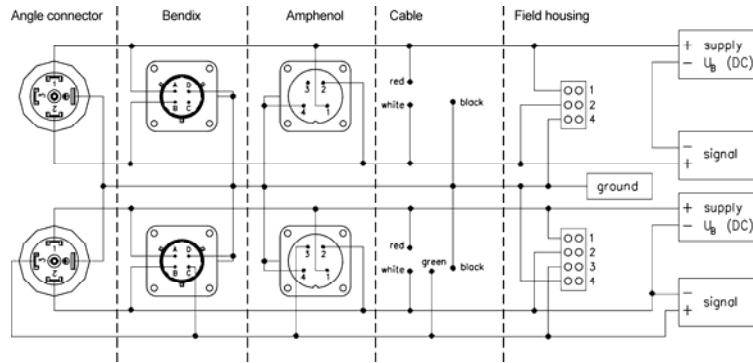
General dimensions [mm]



Electrical connection

2-wire

3-wire



Order information

Type	Output signal	Accuracy	Range	Engineering units	Protection	Process connection	Electrical connection	Options				
X1	(42) 4/20 mA	(025) 0,25 % ¹⁾	-1/ 0 ²⁾	BAR	(=) IP65	(MG2)* G 1/4 B male ¹⁾	(HM) Angle connector series M	(NH) Tagging wired				
		(050) 0,50 %	-1/ 1,5 ²⁾						(IP68) IP68 (only with cable connection)	(MG4) G 1/2 B male ¹⁾	(F2) Cable connection	(6B) Oxygen cleaned
		(100) 1,0 %	-1/ 3 ¹⁾									
XK	(01) 0/10 VDC	others on request	0/ 1 ²⁾	(=) IP65	(ATEXGD) Intrinsically safe for gas and dust (only for type XD with output signal 4/20 mA and electrical connection F2)	(M04)* 1/2 NPT male ¹⁾	(M1) Angle connector according DIN EN 175301-803					
			0/ 1,6 ²⁾						(ATEXG) Intrinsically safe for gas (only for type XD with output signal 4/20 mA)	(F09) 9/16-18 UNF-2B Aminco (high pressure)	(F2) Cable connection	(VA) Field housing in stainless steel (not for KXD (Exi))
			0/ 2,5 ²⁾									
			0/ 4						others on request	Specify cable lengths in [m]		
			0/ 6								others on request	Specify cable lengths in [m]
			0/ 10						others on request	Specify cable lengths in [m]		
			0/ 16								others on request	Specify cable lengths in [m]
			0/ 25						others on request	Specify cable lengths in [m]		
			0/ 60								others on request	Specify cable lengths in [m]
			0/ 100						others on request	Specify cable lengths in [m]		
0/ 160	others on request	Specify cable lengths in [m]										
0/ 250			others on request	Specify cable lengths in [m]								
0/ 400	others on request	Specify cable lengths in [m]										
0/ 600 ²⁾			others on request	Specify cable lengths in [m]								
0/ 1000 ²⁾	others on request	Specify cable lengths in [m]										
0/ 1400 ²⁾			others on request	Specify cable lengths in [m]								
XD	(05) 0/5 VDC											
XDHT	(15) 1/5 VDC											
	(16) 1/6 VDC											
	(20) 0/20 mA											
	(42) 4/20 mA											
		¹⁾ not for KXX	¹⁾ min. 0,5 % ²⁾ min. 1,0 %	psi and others on request	(IP68) IP68 (only with cable connection)	* standard connection for KX1 ¹⁾ max. 1000 bar						

How to order

Series	Type	Output signal	Accuracy	Range	Engineering units	Protection	Process connection	Electrical connection	Option
K	X1	42	050	0/10	BAR	=	MG2	HM	NH

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