

# Pressure transducer model KX1 and KXK

Complete stainless steel thin film 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

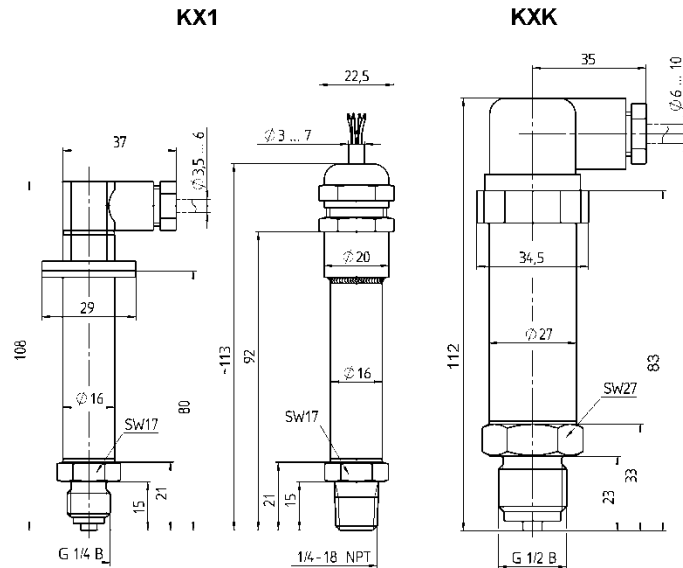
## Ranges

-1 ... 0 bar up to 0 ... 1400 bar  
-30 in. Hg ... 0 psi up to 0 ... 20.000 psi



Technical specifications	KX1	KXK															
Measuring principle	Polysilicon thin film technology																
Range in bar	1	1,6	2,5	4	6	10	16	25	40	60	100	160	250	400	600	1000	1400
Overpressure limit in 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)																
Process connection	Stainless steel 1.4542/1.4548 (17-4PH) with polysilicon cell																
Sensor	Stainless steel 304L (1.4306)										Stainless steel 304 (1.4301)						
Case																	
Power supply	12 ... 30 VDC										10 ... 30VDC						
Output signal	4 ... 20 mA, 2-wire										0 ... 10 VDC, 3-wire 0 ... 5 VDC, 3-wire 1 ... 5/6 VDC, 3-wire						
Maximum loop resistance for 4 ... 20 mA	≤ (U <sub>B</sub> - 9,5 V) / 0,02 A										≤ (U <sub>B</sub> - 9 V) / 0,02 A						
Isolation between case and electrical connection	> 1 MΩ 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. <sup>1)</sup> 0,25 % F.S. <sup>1) 2)</sup> <sup>1)</sup> not for range 1 bar, 1,6 bar, 2,5 bar, 600 bar, 1000 bar and 1400 bar <sup>2)</sup> not for option HD1										1 % F.S.						
Repeatability	≤ ±0,03 % F.S.																
Response time (10 ... 90 %)	≤ 1 ms																
Permissible																	
Operation temperature	-30 ... 85 °C																
Medium temperature	-30 ... 100 °C																
Storage temperature	-40 ... 100 °C																
Compensated temperature	-20 ... 70 °C																
Temperature influence	±0,3 % / 10 K from 0 ... 50 °C (ref. 20 °C)																
Shock resistance	At 100 g / 20 ms ≤ 0,05 % F.S.																
Vibration	≤ 0,1 % F.S. for 0 ... 2000 Hz, 20 g in all directions according IEC 770																
Noise of output signal	≤ 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						
Protection according EN 60 529/IEC 529	IP65, IP67 for KX1 with Bendix 4 PIN, optional IP68																
Weight in kg	0,1										0,2						
Accessories, options	Diaphragm seals, manifolds, digital panel meter																

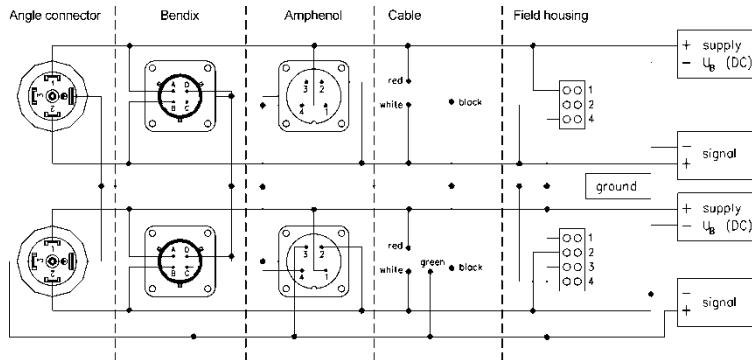
## General dimensions in mm



## Electrical connection

### 2-wire

### 3-wire



## Order information

Type	Output signal	Accuracy	Range	Engineering units	Protection	Process connection	Electrical connection	Options
<b>X1</b>	<b>(42)</b> 4/20 mA	<b>(025)</b> 0,25 % <sup>1)</sup> <b>(050)</b> 0,50 % <sup>1)</sup> <b>(100)</b> 1,0 %	<b>-1/ 0</b> <sup>1)</sup> <b>-1/ 1,5</b> <sup>1)</sup> <b>-1/ 3</b> <b>-1/ 5</b>  <b>0/ 1</b> <sup>1)</sup> <b>0/ 1,6</b> <sup>1)</sup> <b>0/ 2,5</b> <sup>1)</sup> <b>0/ 4</b> <b>0/ 6</b> <b>0/ 10</b> <b>0/ 16</b> <b>0/ 25</b> <b>0/ 40</b> <b>0/ 60</b> <b>0/ 100</b> <b>0/ 160</b> <b>0/ 250</b> <b>0/ 400</b> <b>0/ 600</b> <sup>1)</sup> <b>0/ 1000</b> <sup>1)</sup> <b>0/1400</b> <sup>1)</sup>	<b>BAR</b>	<b>(=)</b> IP65  <b>(IP68)</b> IP68 (only with cable connection)	<b>(MG2)*</b> G 1/4 B male <sup>1)</sup> <b>(MG4)</b> G 1/2 B male <sup>1)</sup> <b>(M02)*</b> 1/4 NPT male <sup>1)</sup> <b>(M04)</b> 1/2 NPT male <sup>1)</sup>  <b>(F09)</b> 9/16-18 UNF-2B Aminco (high pressure)  others on request  * standard connection for KX1 <sup>1)</sup> max. 1000 bar	<b>(HM)</b> Angle connector series M  <b>(F2)</b> Cable connection  <b>(B4)</b> Bendix 4 PIN  <b>(A4)</b> Amphenol 4 PIN  Specify cable lengths in m (e.g. F2-1) <b>(M1)</b> Angle connector according DIN EN 175301-803  <b>(F2)</b> Cable connection  <b>(A4)</b> Amphenol 4 PIN  Specify cable lengths in m (e.g. F2-1)	<b>(NH)</b> Tagging wired  <b>(6B)</b> Cleaned for Oxygen  <b>(HD1)</b> Optional overpressure
<b>XK</b>	<b>(10)</b> 0/10 VDC  <b>(05)</b> 0/5 VDC  <b>(15)</b> 1/5 VDC  <b>(16)</b> 1/6 VDC  <b>(42)</b> 4/20 mA	<sup>1)</sup> not for KXX	<sup>1)</sup> see front page for accuracy	psi and others on request				

## Order example

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

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