

Pressure sensor module K8, KX8

Complete stainless steel thinfilm sensor
without internal liquid filling, or with flush mounted diaphragm
Accuracy 0,5 % and 1 % F.S.

Features

- Wetted parts stainless steel
- High overpressure limits
- High shock and vibration stability
- Excellent long term stability
- Compact design

Ranges

3 bar up to 1400 bar

Applications

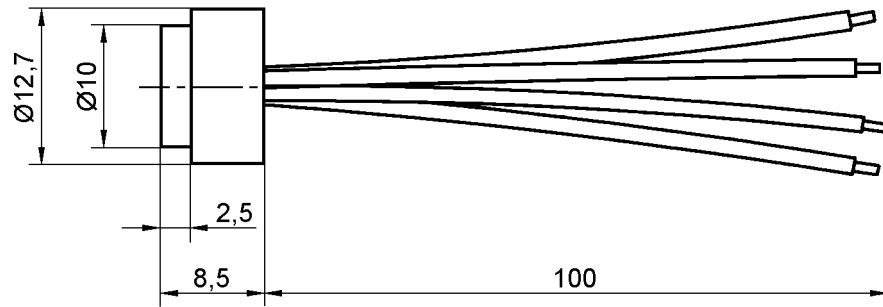
OEM, Robotics, Data loggers
Hydraulics and mech. Engineering
Refrigeration control systems



Technical specifications	K8	KX8		
Construction	Sensor only	Sensor welded to a process connection Internal diaphragm without filling Flush mounted diaphragm High temperature version		
Measuring principle	Thinfilm			
Range in bar	3 ²⁾ 5 ²⁾ 7 10 14 20 35 50 70 100 200 350 500 700 ^{1) 2)} 1000 ^{1) 2)} 1400 ^{1) 2)}			
Overpressure limit in bar	6 10 14 20 28 40 70 100 140 200 304 525 640 900 1200 1680			
Pressure type	Gauge			
Process connection	1/4 NPT male, 1/2 NPT male according to ANSI/ASME B1.20.1 G 1/4 B male, G 1/2 B male according to DIN 16 288 9/16-18 UNF-2B Aminco (high pressure) Others on request (for pressure limitations see order information)		G 1/2 B male according DIN 3852 with metal seal G 1/2 B male with O-ring and sealing ring 1/2 NPT male according to ANSI/ASME B1.20.1	
Material	Stainless steel 316L (1.4404)		Stainless steel 316L (1.4404), optional Hastelloy C diaphragm Silicon oil, optional halocarbon or vegetable oil	
Process connection, wetted parts	Stainless steel 1.4542/1.4548 (17-4PH) with polysilicon cell			
Transmission liquid	Stainless steel 304 (1.4301)			
Sensor				
Case				
Power supply	5 ... 10 VDC			
Output signal	mV/V, (9 mV up to 18 mV per volt)			
Zero offset	Max. ±0,6 mV/VDC			
Bridge resistance typical	3500 Ohm			
Isolation between case and electrical connection	> 100 MΩ at 500 VDC			
Isolation voltage	350 VAC			
Accuracy according DIN 16 086	0,5 % F.S. 1,0 % F.S. for the ranges 3 bar, 5 bar, 700 bar, 1000 bar and 1400 bar			
Repeatability	≤ ±0,03 % F.S.			
Response time (10 ... 90 %)	≤ 1 ms			
Permissible	-20 ... 70 °C		-30 ... 100 °C	
Operation temperature	-20 ... 70 °C		-30 ... 100 °C	
Medium temperature			-30 ... 200 °C (Silicone oil) -30 ... 150 °C (Halocarbon) 0 ... 130 °C (Almond oil)	
Storage temperature	-40 ... 120 °C			
Temperature influence	±0,3 % / 10 K from 0 ... 50 °C (ref. 20 °C), ±0,7 % / 10 K from -20 ... 0 / 50 ... 80 °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			
Electrical connection	Tinned 4 core stranded flying leads, 100 mm long, special connectors on request.			
Protection according EN 60 529/IEC 529	IP40			
Weight in g	3	100	150	180
Accessories, options	Amplifying electronic, special constructions			

General dimensions in mm
Connection table

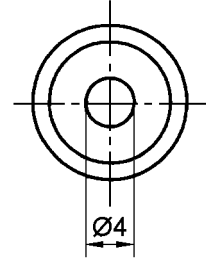
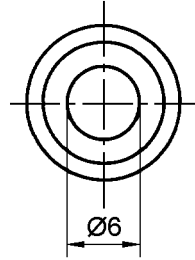
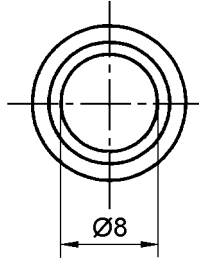
Power supply +: orange
Power supply -: white
Output signal +: green
Output signal -: blue



Pressure port 3 ... 20 bar

35 ... 350 bar

500 ... 1400 bar


Order information

Type	Output signal	Accuracy	Range	Engineering unit	Protection	Process connection	Electrical connection	Options
(8) OEM Sensor	(MV) mV/V	(050) 0,50 %	3 ¹⁾ 5 ¹⁾	BAR	(OEMZ) K8	(=) standard for K8	(=) Standard	(NH) Tagging wired
(X8) OEM sensor with process connection		(100) 1,0 %	7 10 14 20 35 50 70 100 200 350 500 700 ^{1) 2)} 1000 ^{1) 2)} 1400 ^{1) 2)}		(IP00) KX8	(MG2) G 1/4 B male ¹⁾ (MG4) G 1/2 B male ¹⁾ (M02) 1/4 NPT male ¹⁾ (M04) 1/2 NPT male ¹⁾ (F09) 9/16-18 UNF-2B Aminco (high pressure) (MG4F) G 1/2 B male flush mounted ^{2) 4)} (M04F) 1/2 NPT male flush mounted ^{2) 4)} (M04FHS) 1/2 NPT male flush mounted, with Hastelloy C diaphragm ^{2) 4)} (MG5F) G 1/2 B male flush mounted with O-ring and sealing ring ^{2) 4)}		(=) Silicone oil (-30 ... 200 °C) (GX) Halocarbon (-30 ... 150 °C) (GZ) Almond oil (0 ... 130 °C)
	others on request		¹⁾ min. 1,0 % ²⁾ not for flush mounted diaphragm			For high temperature version, with cooling device add HT to the coding as marked with ⁴⁾ above e.g. MG4FHT others on request ¹⁾ max. 1000 bar ²⁾ max. 600 bar		

Order example

Series	Type	Output signal	Accuracy	Range	Engineering unit	Protection	Process connection	Electrical connection	Options
K	8	MV	050	0/10	BAR	OEMZ	=	=	NH

Ashcroft Instruments GmbH

Germany
 Max-Planck-Str. 1, D-52499 Baesweiler
 P.O. Box 11 20, D-52490 Baesweiler
 Tel.: +49 (0) 2401 808-0, Fax: +49 (0) 2401 808-125

France
 „206“ ZA du Mandinet, 1/3 Rue des Campanules
 F-77185 Lognes
 Tel.: +33 (0) 1 60 37 25 30, Fax: +33 (0) 1 60 37 25 39

Website: www.ashcroft.eu

e-Mail: sales@ashcroft.com

United Kingdom
 Unit 17 & 18 William James House
 Cowley Road, Cambridge CB4 0WX
 Tel.: +44 (0) 12 23 39 55 00, Fax: +44 (0) 12 23 39 55 01