

Pressure Transducer Model KM11

Complete stainless steel thinfilm sensor
without internal transmission fluid
Accuracy 1 % and 0,5 % F.S.

Features

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

Ranges

- 1 ... 0 bar up to 0 ... 1600 bar
- 30 in. Hg ... 0 psi up to 0 ... 20.000 psi

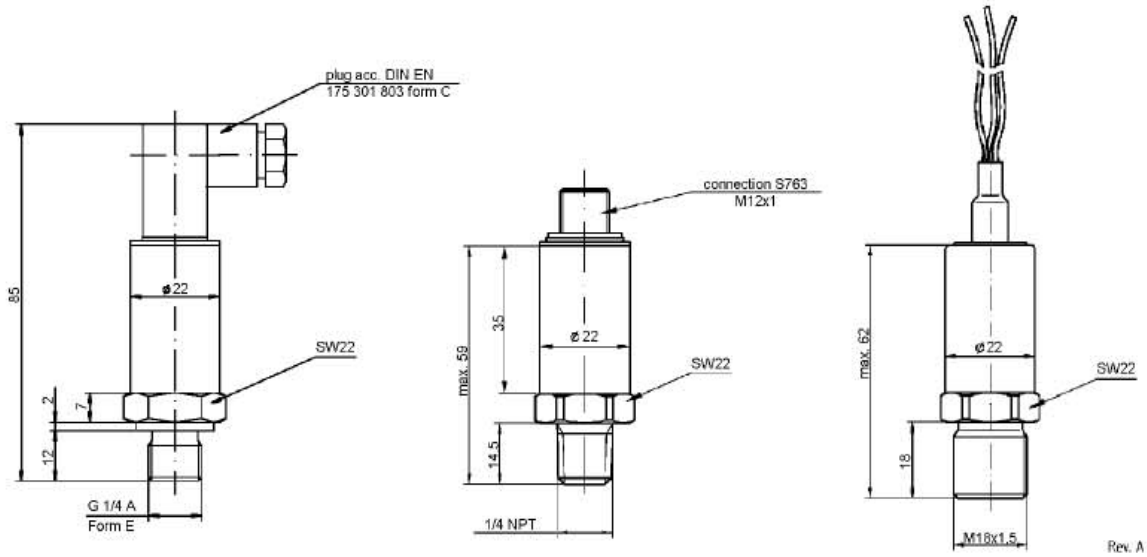
Applications

- Machine- and apparatus construction
- Automation
- Hydraulic systems
- Refrigeration- and air conditioning

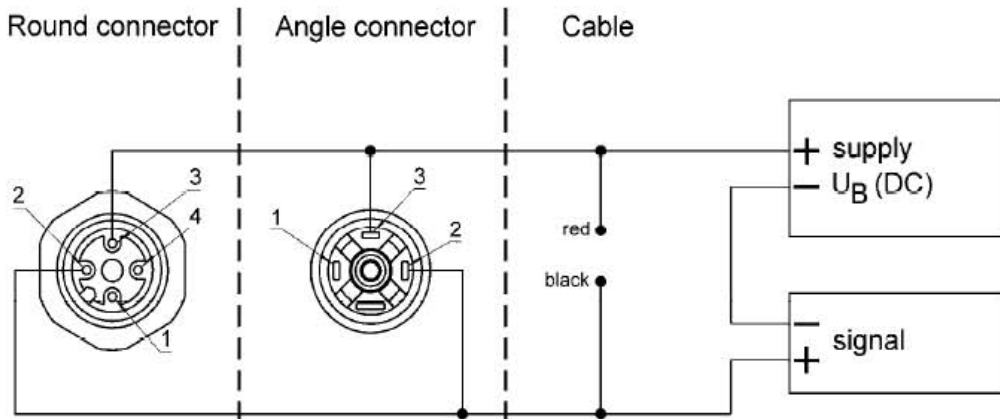


Technical specifications	KM11		
Measuring principle	Internal thinfilm sensor without transmission fluid, signal processing by programmable precision CMOS ASIC with EEPROM data storage and analogue signal path		
Range in bar	-1 0,6 1 1,6 2,5 4 6 10 16 25 40 60 100 160 250 400 600 1000 1600		
Overpressure limit in bar	2 times ≤ 350 bar, 1,5 times ≤ 700 bar, 1,2 times > 700 bar; With ATEX approval 1,5 times ≤ 500 bar, 1,2 times > 700 bar		
Burst pressure	3 times F.S., 1,5 times F.S. for ranges > 400 bar		
Pressure type	Gauge, vacuum or compound		
Process connection	G ¼ A male according DIN 3852 Part 11 Form E (max. 600 bar) ¼ NPT male according ANSI/ASME B1.20.1 (max. 1000 bar) M18x1,5 male high pressure connection Others on request		
Material	Stainless steel 1.4542/1.4548 (17-4PH)		
Process connection	Stainless steel 1.4542/1.4548 (17-4PH)		
Sensor	Stainless steel 1.4542/1.4548 (17-4PH) with polysilicon cell		
Case	Stainless steel 1.4542/1.4548 (17-4PH)		
Power supply	12 ... 32 VDC, intrinsically safe version 12 ... 24 VDC, 5 VDC for ratiometric output		
Output signal	4 ... 20 mA, 2-wire 0 ... 10 VDC, 1 ... 5 VDC, 0,5 ... 4,5 VDC ratiometric, 3-wire		
Maximum loop resistance for 4 ... 20 mA	≤ (U _B - 12 V) / 0,02 A		
Explosion proof (intrinsically safe)	II 2G EEx ia IIC T4 according to TÜV 06 ATEX 2975		
Isolation between case and electrical connection	> 100 MΩ at 50 VDC		
Isolation voltage	500 VAC		
Supply current	20 mA for 4 ... 20 mA output		
Accuracy according to DIN 16 086	1 % F.S., optional 0,5 % F.S. (terminal point)		
Linearity	≤ ±0,5 % F.S., optional ≤ ±0,25 % F.S.		
Repeatability	≤ ±0,1 % F.S.		
Long term stability	≤ ±0,2 % F.S. / year (at reference conditions)		
Response time (10 ... 90 %)	≤ 1 ms		
Permissible			
Operation temperature	-40 ... 105 °C, max. 85 °C for intrinsically safe version		
Medium temperature	-40 ... 125 °C, max. 85 °C for intrinsically safe version		
Storage temperature	-40 ... 125 °C		
Total error including temperature influence	-40 ... -20 °C	-20 ... 85 °C	85 ... 100 °C
	3 %, typical < ±2 %	1 %, typical < ±0,7 %	2,5 %, typical < ±1,5 %
Vibration resistance	20 g in all directions according to IEC 68-2-6 and IEC 68-2-36		
Shock-proof resistance	1 m (free fall onto steel plate) according to IEC 68-2-32		
CE-mark/EMC	Emission and immunity according DIN EN 55022 and 61000-4-3, 25 V/m		
Electrical connection	4 PIN angle connector according DIN EN 175301-803, round connector M12 with M12x1 thread, optional cable connection		
Protection acc. EN 60 529/IEC 529	IP65, optional IP68		
Weight in kg	0,09		
Accessories, options	Valves, digital indicator		

General dimension in mm



Electrical connection



Order information

Output signal	Accuracy	Range	Engineering unit	Protection	Process connection	Electrical connection	Options
(42) 4/20 mA	(100) 1 %	-1/ 0	BAR	(=) IP65	(MG9) G ¼ A form E male ¹⁾	(HM) Angle connector according to DIN EN 175301-803	(NH) Tagging wired
(01) 0/10 VDC	(050) 0,5 %	0/ 0,6		(IP68) IP68 (only with cable connection)	(M02) ¼ NPT male ²⁾	(M12) Round connector M12	
(15) 1/5 VDC		0/ 1,6		(ATEXG) Intrinsically safe for gas (only output signal 4/20 mA)	(MM18) M18x1,5 male high pressure connection	(F2) Cable connection Specify cable length in [m]	
(RM) 0,5/4,5 VDC ratiometric to 5 VDC supply		0/ 4					
		0/ 6					
		0/ 10					
		0/ 16					
		0/ 25					
		0/ 40					
		0/ 60					
		0/ 100					
		0/ 160					
		0/ 250					
		0/ 400					
		0/ 600					
		0/ 1000					
		0/ 1600					
others on request		others on request	psi and others on request		others on request		

How to order

Series	Type	Output signal	Accuracy	Range	Engineering unit	Protection	Process connection	Electrical connection	Option
K	M11	42	050	0/10	BAR	=	MG9	HM	NH