Digital Electronic Pressure Sensor

KOBOLD

PSC

- Measuring Range: Vacuum, Compound, and Positive Pressures up to 10000 PSIG
- Accuracy: 1.0% of Full Scale
- Max. Temperature: 176 °F
- Process Connection: 1/4" NPT, 1/2" NPT, G 1/4, or G 1/2
- Four Digit LED Rotatable Display
- Easy 2 Button Programming
- Integrated Password Protection
- Dual NPN/PNP Open Collector, NPN/PNP Open Collector & 4...20mA Output, or NPN/PNP Open Collector & 0...10VDC Output

KOBOLD companies worldwide:

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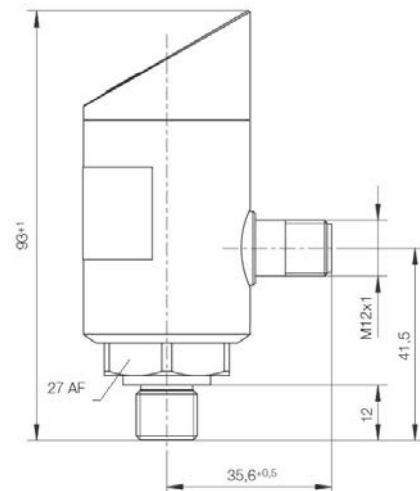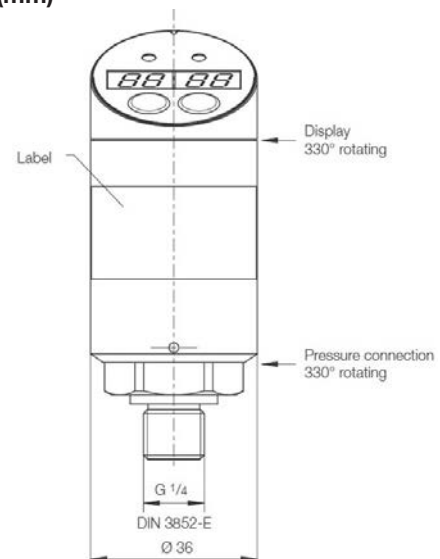http://www.instrumentation2000.com

Description

The KOBOLD PSC pressure sensor is designed for both pressure monitoring and optionally, continuous pressure measurement within one device. The user friendly design of the PSC allows simple switchpoint or switchpoint/transmitter programming without actual system pressurization. The selectable PNP/NPN transistor output is capable of switching currents up to 500 mA. Each switch output is fully programmable, including: reset point, switch type, and switching function. Analog current and voltage output options are available for remote monitoring of system pressures. The ceramic or thin-film measuring cells give the PSC excellent repeatability and longevity, even with wide pressure variations. In higher pressure ranges (1500 PSIG or greater), all wetted part are stainless steel. The rotatable display enables the switch to be utilized effectively in many difficult mounting conditions. A high quality, stainless steel housing makes the PSC well-suited for industrial environmental conditions.

Technical Details

Display:	7-segment LED, 0.3" high
	-.999...9999 digits
Unit:	PSIG or Bar selectable
Accuracy:	1.0% or full scale, ± 1 digit
Repeatability:	0.2% or full scale
Effect of Temp.:	0.3% / 10 K
Temp. Ranges:	
Storage	-22...176 °F
Media	-4...176 °F
Ambient	-4...158 °F
Alternating Loads:	> 10 million pressure cycles
Max. Pressure:	see table (page 3)
Housing:	303 stainless steel
Display Electronics:	Plastic
Wetted Materials:	
≤ **750 PSIG**	316L SS, AL_2O_3 (ceramic cell), NBR
≥ **1500 PSIG**	316L SS (thin-film cell)
Process Connection:	1/4" NPT, 1/2" NPT, G 1/4, or G 1/2
Power Supply:	12...30 VDC, reverse polarity protected
Current Consumption:	≤ 50 mA, without load current
Electric Connection:	4-pin connector M12x1
Switching Function:	NC or NO contact
	PNP or NPN programmable switching
Switching Power:	max. 0.5 A
Setting:	
Switching Point	0.5...100% of full scale
Hysteresis	0.5...100% of full scale
Analog Output:	4...20 mA 2-wire or 0...10 V, 3-wire
Load Resistance:	Voltage output > 10 kΩ
	Current output < 500 Ω
Hysteresis:	0.3% of range for ceramic cell
	0.2% of range for thin-film cell
Protection Class:	IP 65
Shock Resistance:	50 g according to IEC
Vibration Resistance:	10 g according to IEC
Weight:	0.67 lb

Dimensions (mm)

Label
Display 330° rotating
Pressure connection 330° rotating
G 1/4
DIN 3852-E
Ø 36

93+1
M12x1
41,5
12
27 AF
35,6+0,5

2/06-2013

Max. Pressure

Measuring Range (PSIG)	Overload Limit (PSIG)	Burst Pressure (PSIG)	Sensor Element
-14.5...30	70	85	Ceramic Cell
-14.5...45	70	85	
-14.5...60	145	170	
-14.5...145	290	325	
0...30	70	85	
0...75	145	170	
0...145	290	325	
0...300	580	725	
0...750	1450	1740	
0...1500	2900	3625	Thin-Film Stainless Steel Cell
0...2300	4640	6960	
0...3600	7250	10870	
0...6000	11600	17400	
0...9000	17000	21750	
0..10000	17000	21750	

Order Details (Example: **PSC-132N2P369**)

Display	Connection				Measuring Range
	1/4" NPT	1/2" NPT	G 1/4	G 1/2	
2 PNP/NPN Switching Outputs	PSC-132N2..	PSC-132N4..	PSC-132R2..	PSC-132R4..	**..P345** = -30" Hg...30 PSIG **..P438** = -30" Hg...45 PSIG **..P346** = -30" Hg...60 PSIG **..P844** = -30" Hg...160 PSIG **..P145** = -14.5...14.5 PSIG **..P101** = -14.5...30 PSIG **..P047** = -14.5...145 PSIG
1 PNP/NPN Switching Output 4...20 mA	PSC-232N2..	PSC-232N4..	PSC-232R2	PSC-232R4	**..P366** = 0...30 PSIG **..P486** = 0...75 PSIG **..P707** = 0...145 PSIG **..P369** = 0...160 PSIG **..P371** = 0...300 PSIG **..P992** = 0...750 PSIG **..P081** = 0...1450 PSIG
1 PNP/NPN Switching Output 0...10 V	PSC-332N2..	PSC-332N4..	PSC-332R2..	PSC-332R4	**..P377** = 0...1500 PSIG **..P421** = 0...2300 PSIG **..P784** = 0...3600 PSIG **..P456** = 0...3750 PSIG **..P382** = 0...6000 PSIG **..P423** = 0...9000 PSIG **..P383** = 0...10000 PSIG