

Product Description

NGP Series digital pressure switches are the perfect solution designed for use in harsh industrial conditions.

It has long-term stability and overload resistance. It provides high linearity, adjustable hysteresis and flexible use over the entire measuring range.

- Different pressure options in the range of -1...600 bar
- Pressure measurement with $\pm 0.5\%$ accuracy
- Adjustable hysteresis and window function outputs
- Flexible configurable switching output (PNP, NPN) and Relay Output
- Optional Analog 4...20 mA output
- Instant pressure reading with LED display
- 270° rotatable led display



Areas of Application

- Machine tools
- Hydraulics and Pneumatics
- Pumps and compressors
- Machine building

Technical Specifications

Connection Type	G1/4" - G1/2" - 1/4" BSPT - 1/2" BSPT - 1/2" NPT - 1/4"NPT
Accuracy @ 25°C for 5 min	< % ± 0.5 FS
Operating temperature	-20°C...+80°C
Body Material	316L Stainless Body
Output Signal	Relay Output (NO/NC), Switching(PNP, NPN), Analog(4...20 mA)

Measuring Range Specifications

Vacuum Resistance	Yes
Pressure Resistance	Examine Table 1. (Page:2)
Digital Display	
Indication range	14 segment
Measurement units	bar, mbAr, psi, MPa,
Display Color	Blue (LED)
Character size	13 mm [0.51 in]
Digits	4-digits
Display	The display can be rotated manually through 270°

Order Codes


Table 1

Model	Sealing Type	Mechanical Connection	Electrical Connection Type	Pressure & Vacuum			Output Signal	Analog Output (Optional)
				Code	Pressure & Vacuum Range	P max bar		
NGP				V0	-1...0 bar	6	K1 Relay Output (NO/NC)	Z1 Analog Output (4...20 mA)
				V1	-1...1 bar	6		
				V3	-1...3 bar	15		
				V6	-1...6 bar	30		
				V10	-1...10 bar	30		
				V16	-1...16 bar	60		
				V24	-1...25 bar	75		
				M50	0..50 mbar	0,15		
				M100	0..100mbar	0,30		
				M250	0..250 mbar	0,75		
				M600	0..600 mbar	1,8		
				2,5	0 ... 2,5 bar	15		
				6	0 ... 6 bar	30		
				10	0 ... 10 bar	30		
				16	0 ... 16 bar	60		
				25	0 ... 25 bar	75		
				40	0 ... 40 bar	100		
				60	0 ... 60 bar	175		
				100	0 ... 100 bar	250		
				160	0 ... 160 bar	500		
				250	0 ... 250 bar	700		
				315	0 ... 315 bar	700		
				400	0 ... 400 bar	700		
				600	0 ... 600 bar	1050		
							K2 Switch Output (PNP,NPN)	
								If Z1 is not selected, analog output will not be added.

Electrical Connection

Connection Type	Circular Connector M12 x 1 (4-pin)
Pin Assignment	Pin assignments vary according to the output signals. Please see "Table 2" for detailed explanation.
Reverse Polarity Protection	U+ vs. U
Insulation Voltage	DC 500 V

Table 2

 <p>M12 x 1 (4 Pin)</p>	K1		K2	
	U+	1	U+	1
	U-	3	U-	3
	NC	4	SP1	4
	NO/S+⁽¹⁾	2	SP2/S+⁽¹⁾	2

Pin Assignment:

- U+** Positive power supply terminal
- U-** Negative power supply terminal
- SP1** 1. Switching point
- SP2** 2. Switching point
- S+** 4...20 mA

(1) If analog output is requested, pin "2" will be used as analog pin.

Properties of Output Signal

Digital Output

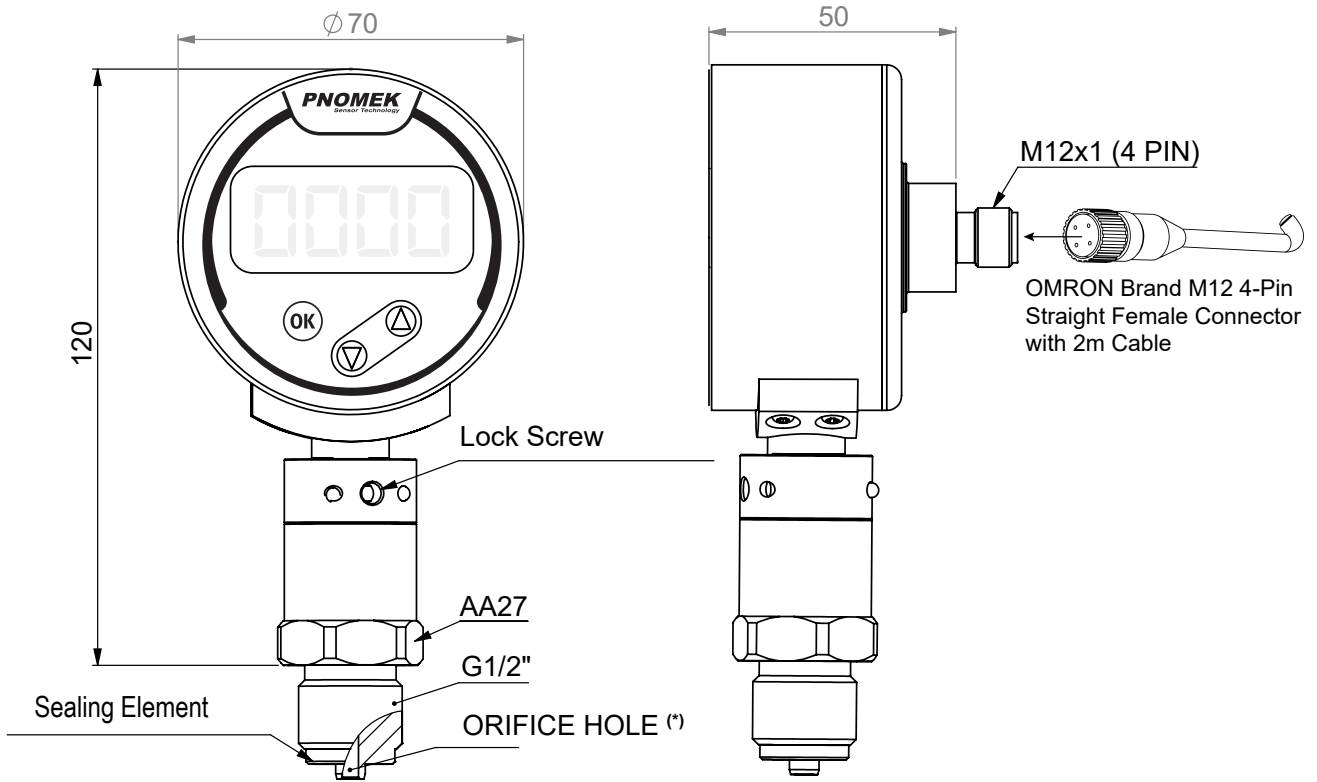
Switching Output 1	PNP ⁽¹⁾	
	NPN ⁽¹⁾	
	Factory Setting:PNP	
Switching Output 2	PNP ⁽¹⁾	
	NPN ⁽¹⁾	
	Factory Setting:PNP	
Relay Output	NO	
	NC	
Analog Output	4...20 mA	
Switching Function	•Window ⁽²⁾ • Hysteresis ⁽²⁾	
	Factory setting: Hysteresis Contact function	
Setting range of the switch points	• Factory settings • Customer-specific Switching point	
	Switching point 1 and switching point 2 can be set independently → See operating instructions	
Switch hysteresis	Minimum 0.25 % of FS ⁽³⁾	
Load		
Analog Output (4 ... 20 mA)	≤ 500 Ω	
NO	Max. 5A - 24DCV	
NC	Max. 5A - 24DCV	
PNP	Max. 300 mAh	
NPN	Max. 300 mAh	
Switching delay time	Configurable from 0 to 65 sr	
Reset Delay Time	Configurable from 0 to 65 s	
Supply Voltage		
Product Operating Voltage Range	5 - 24 VDC	
Switching voltage	Supply voltage	
Current Consumption	Models without 4 ... 20 mA output signal	Max. 70 mA
	Models with 4 ... 20 mA output signal	Max. 95 mA
Overvoltage protection	DC 40 V	
Dynamic behaviour		
Settling time per IEC 61298-2	Analog signal	≤ 2 ms
	Switching output	≤ 2 ms
Switch-on time	2 s	

(1) For detailed explanation, refer to the page "8" of the user manual. Please review the "Table 2" on that page.

(2) For detailed explanation, see the page "12 and 13" of the user manual. Please review "Table 3" and "Table 4" on those pages.

(3) Full Scale

Technical Dimensions



(*) For peak pressures, the Orfiz accessory is sold separately and must be specified when ordering.

270° Rotatable Screen

