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 ±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

Technicial 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

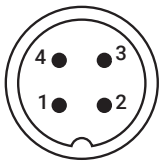
Table 1

NGP	-	-	-	-	-	-
Model	**Sealing Type**	**Mechanical Connection**	**Electrical Connection Type**	**Pressure & Vacuum**		**Output Signal**	**Analog Output (Optional)**
				Code	**Pressure & Vacuum Range** / **P max bar**		
NGP	**V** VITON **E** EPDM **H** HNBR If the sealing material Type is not selected, it is considered as "NBR".	**A3** G1/4" **A5** G1/2" **S3** 1/4" BSPT **S5** 1/2" BSPT **N4** 1/4"NPT **N5** 1/2" NPT	**T3** M12 x 1 (4 pin)	V0	-1...0 bar / 6	**K1** Relay Output (NO/NC) **K2** Switch Output (PNP,NPN)	**Z1** Analog Output (4...20 mA) If Z1 is not selected, analog output will not be added.
				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		

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



M12 x 1 (4 PİN)

K1		K2		Cable Color
U+	1	**U+**	1	Brown
U-	3	**U-**	3	Blue
NC	4	**SP1**	4	Black
NO/S+ (1)	2	**SP2/S+** (1)	2	White

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

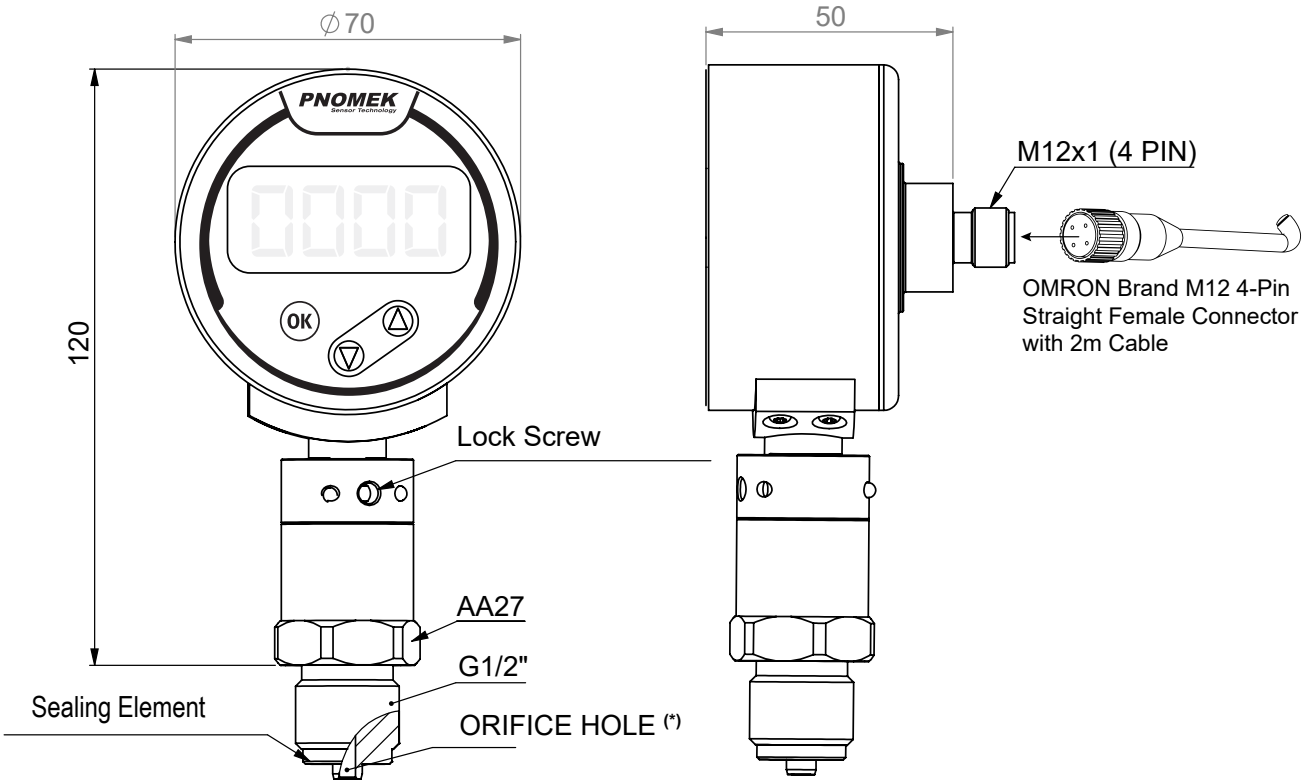
Pin Assignment:

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

Properties of Output Signal		
Digital Output		
Swithing Output 1	PNP(1)	
	NPN (1)	
	Factory Setting:PNP	
Swithing 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

