

# pro<sup>sense</sup>® PSD25 Series Pressure Switches



## Features

- Compact pressure switch features simple setup using mechanical adjustment dials
- Extremely durable housing with 316 stainless steel process connection
- No moving parts ensure long-term stability without setpoint drift
- LEDs indicate switching and operating status
- Complementary switching outputs (N.O./N.C.), DC
- Easy set-up dials
- Vibration and shock-resistant

## Agency Approvals

- cULus, File number E320431
- CE
- RoHS



- Company Information
- Systems Overview
- Programmable Controllers
- Field I/O
- Software
- C-more & other HMI
- Drives
- Soft Starters
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- Steppers/ Servos
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## ProSense Series Pressure Sensors

Part Number	Description	Pcs/Pkg	Wt(lb)	Price	Cable Assemblies
<b>PSD25-0P-0145H</b>	Pressure switch, DC, PNP NO/NC, 7.5 to 145 psi range, 1/4" NPT male port	1	0.21	<--->	CD12L-0B-020-A0 CD12L-0B-020-C0
<b>PSD25-0P-1450H</b>	Pressure switch, DC, PNP NO/NC, 75 to 1450 psi range, 1/4" NPT male port	1	0.21	<--->	CD12M-0B-070-A1 CD12M-0B-070-C1
<b>PSD25-0P-5800H</b>	Pressure switch, DC, PNP NO/NC, 290 to 5800 psi range, 1/4" NPT male port	1	0.21	<--->	(order separately - see Proximity Sensor section for cable specs)
Accessory					
<b>PSD-CV</b>	Transparent plastic protective cap for PSD series	1	0.01	<--->	PSD Series Sensors

Note: Check the chemical compatibility of the sensor's wetted parts with the medium to be measured.

## ProSense PSD25 Series Technical Specifications

<b>Operating Voltage</b>	9.6 to 32 VDC
<b>Connection Pin Material</b>	Gold-plated
<b>Output Maximum Load Current</b>	500 mA - See Setting and Operation Guide on following page.
<b>Current Consumption</b>	< 25 mA
<b>Switching Frequency</b>	100 Hz
<b>Setting Accuracy of Switch Points</b>	< ± 2.5% of full range (limit point calibration)
<b>Repeatability</b>	< ± 0.5% of full range
<b>Temperature Drift</b>	< ± 0.5%, of full temperature range/10 K; 32 to 176°F (0 to 80°C).
<b>Housing Material</b>	PBT (Pocan); PC (Makrolon); FPM (Viton); stainless steel (316S12)
<b>Materials (wetted parts)</b>	Stainless steel (316S12)
<b>Operating Temperature</b>	-13 to 176°F (-25 to 80°C)
<b>Medium Temperature</b>	-13 to 176°F (-25 to 80°C)
<b>Storage Temperature</b>	-40 to 212°F (-40 to 100°C)
<b>Protection</b>	IP 67
<b>Protection Class</b>	III
<b>Insulation Resistance</b>	> 100 MΩ (500 VDC)
<b>Shock Resistance</b>	50g (DIN / IEC 68-2-27, 11ms)
<b>Vibration Resistance</b>	20g (DIN / IEC 68-2-6, 10 - 2000 Hz)
<b>EMC</b>	
<b>EN 61000-4-2 ESD</b>	4 kV/8 kV AD
<b>EN 61000-4-3 HF Radiated</b>	10 V/m
<b>EN 61000-4-4 Burst</b>	2 kV
<b>EN 61000-4-6 HF Conducted</b>	10 V

## Applications (Type of Pressure: Relative Pressure, Liquids and Gases)

Part Number	Setpoint Scale	Resetpoint Scale	Permissible Overload Pressure	Bursting Pressure
	bar (PSI)	bar (PSI)	bar (PSI)	bar (PSI)
<b>PSD25-0P-5800H</b>	20 to 400 (290 to 5800)	12 to 392(175 to 5685)	600 (8700)	1600 (23200)
<b>PSD25-0P-1450H</b>	5 to 100 (75 to 1450)	3 to 98 (50 to 1420)	200 (2900)	1000 (14500)
<b>PSD25-0P-0145H</b>	0.5 to 10 (7.5 to 145)	0.3 to 9.8 (5 to 142)	25 (362)	300 (4350)

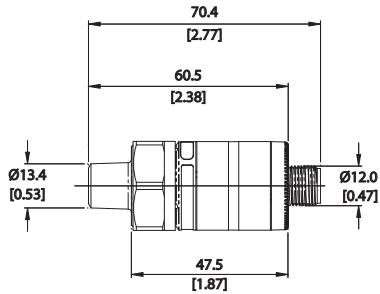
Note: Full vacuum permissible



**WARNING! AVOID STATIC AND DYNAMIC OVERPRESSURE EXCEEDING THE GIVEN OVERLOAD PRESSURE. EXCEEDING THE BURSTING PRESSURE FOR EVEN A SHORT TIME CAN CAUSE DESTRUCTION OF THE UNIT AND POSSIBLE INJURIES!**

# proense® PSD25 Series Pressure Switches

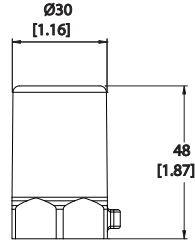
## Switch Dimensions



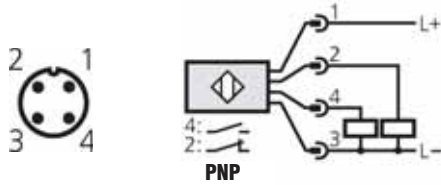
Note: tightening torque 25 Nm (18.4 lb-ft)

Dimensions shown mm [inches]

## Switch Cover Dimensions



## PSD25 Wiring Diagrams



### Cable Assembly Wiring Colors:

Pin 1 - Brown

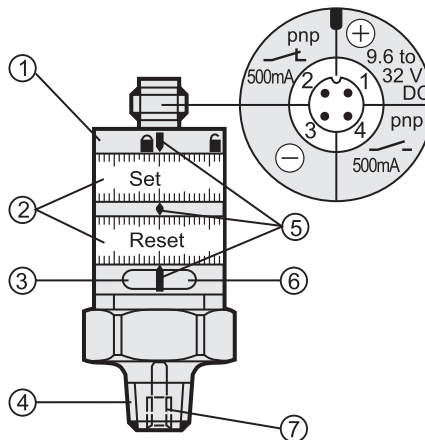
Pin 2 - White

Pin 3 - Blue

Pin 4 - Black

Note: wiring colors are based on AutomationDirect CD12L and CD12M 4-pole cable assemblies.

## Setting and Operation



1. locking ring
  2. setting rings (manually adjustable after unlocking)
  3. LED green: supply voltage O. K.
  4. process connection 1/4" NPT; tightening torque 25 Nm
  5. setting marks
  6. LED yellow: Set value reached, OUT1 = ON / OUT2 = OFF
  7. internal thread M5
- Minimum distance between Set and Reset = 2% of the final value of the measuring range.
  - To obtain the setting accuracy: Set both rings to the minimum value, then set the requested values.

# Reliable process measurement for less - ProSense® Pressure Sensors

prosense®

## Digital Pressure Switch/Transmitter QPS Series Features

all models  
\$69.00



- Precision digital pressure switch/transmitter with 2 meter cable
- Two digital outputs (NPN or PNP) which may be set individually and a 4-20 mA analog output
- Two vacuum to pressure ranges (-14.5 to 14.5 and -14.5 psi to 145 psi)
- Air, non-corrosive/non-flammable gases only
- Three operation modes: Easy, Window and Hysteresis
- 3-color digital LCD display
- 6 pressure unit conversions
- Lockable keypad
- Unit parameters are easily copied to other units
- Selectable response times to eliminate output chattering
- Fast zero reset
- Optional panel mount and bracket kits
- 2-year warranty



## Pressure and Vacuum Transmitters PTD25 Series Features

all models  
\$125.00



- Ceramic sensing element provides high burst/overpressure protection
- Pressure ranges up to 5000 psi
- Output options: 4-20 mA or 0-10 V
- M12 quick-disconnect signal cable connection
- Flexible film circuit results in excellent shock and vibration resistance
- Robust stainless steel housing
- 3-year warranty



## Electronic Pressure Switch PSD25 Series Features

all models  
\$89.00



- Compact pressure switch features simple setup using mechanical adjustment dials
- Extremely durable housing with 316 stainless steel process connection
- No moving parts ensure long-term stability without setpoint drift
- Pressure ranges up to 5800 psi
- LEDs indicate switching and operating status
- Complementary switching outputs (N.O./N.C.), DC
- Easy set-up dials
- Vibration and shock-resistant



## Mechanical Dial Pressure Gauges with 1.5", 2.0" and 2.5" Diameter Dials

starting at  
\$5.75

- Available in durable steel or stainless steel cases and in either dry or liquid filled models. (Liquid filled gauges dampen the effects of vibration and pulsations).
- Brass wetted parts are suitable for air, oil, or water pressure gauge applications.
- Stainless steel wetted parts are available for use in pressure gauge applications for corrosive materials.
- Dual marked gauge dial faces (psi/kPa or inHg/kPa) are available in pressure ranges from vacuum up to 6000 psi.
- 5 year warranty