ProSense® 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

ProSense Series Pressure Sensors					
Part Number	*Description*	*Pcs/Pkg*	*Wt(lb)*	*Price*	*Cable Assemblies*
PSD25-0P-0145H	Pressure switch, DC, PNP NO/NC, 7.5 to 145 psig range, 1/4" NPT male port	1	0.21	$008qn:	CD12L-0B-020-A0 CD12L-0B-020-C0 CD12M-0B-070-A1 CD12M-0B-070-C1 (order separately - see Proximity Sensor section for cable specs)
PSD25-0P-1450H	Pressure switch, DC, PNP NO/NC, 75 to 1450 psig range, 1/4" NPT male port	1	0.21	$008qo:	
PSD25-0P-5800H	Pressure switch, DC, PNP NO/NC, 290 to 5800 psig range, 1/4" NPT male port	1	0.21	$;008tg:	
Accessory					
PSD-CV	Transparent plastic protective cap for PSD series	1	0.01	$6uu:	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	
Operating Voltage	9.6 to 32 VDC
Connection Pin Material	Gold-plated
Output Maximum Load Current	500 mA - See Setting and Operation Guide on following page.
Current Consumption	< 25 mA
Switching Frequency	100 Hz
Setting Accuracy of Switch Points	< ± 2.5% of full range (limit point calibration)
Repeatability	< ± 0.5% of full range
Temperature Drift	< ± 0.5%, of full temperature range/10 K;32 to 176°F (0 to 80°C).
Housing Material	PBT (Pocan); PC (Makrolon); FPM (Viton); stainless steel (316S12)
Materials (wetted parts)	Stainless steel (316S12)
Operating Temperature	–13 to 176°F (–25 to 80°C)
Medium Temperature	–13 to 176°F (–25 to 80°C)
Storage Temperature	–40 to 212°F (–40 to 100°C)
Protection	IP 67
Protection Class	Class III
Insulation Resistance	> 100 MΩ (500 VDC)
Shock Resistance	50g (DIN / IEC 68-2-27, 11ms)
Vibration Resistance	20g (DIN / IEC 68-2-6, 10 - 2000 Hz)
EMC	
EN 61000-4-2 ESD	4 kV/8 kV AD
EN 61000-4-3 HF Radiated	10 V/m
EN 61000-4-4 Burst	2 kV
EN 61000-4-6 HF Conducted	10 V

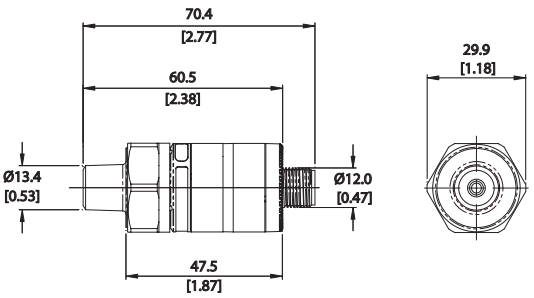
Applications (Type of Pressure: Relative Pressure, Liquids and Gases)				
Part Number	*Setpoint Scale*	*Resetpoint Scale*	*Permissible Overload Pressure*	*Bursting Pressure*
	Bar (Psig)	*Bar (Psig)*	*Bar (Psig)*	*Bar (Psig)*
PSD25-0P-5800H	20 to 400 (290 to 5800)	12 to 392(175 to 5685)	600 (8700)	1600 (23200)
PSD25-0P-1450H	5 to 100 (75 to1450)	3 to 98 (50 to 1420)	200 (2900)	1000 (14500)
PSD25-0P-0145H	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!

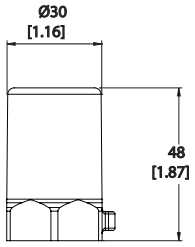
ProSense® PSD25 Series Pressure Switches

Switch Dimensions



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

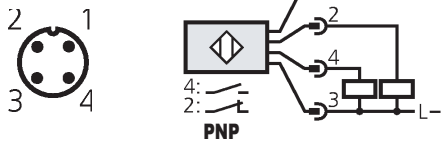
Switch Cover Dimensions



Dimensions shown mm [inches]

See our website www.AutomationDirect.com for complete Engineering drawings.

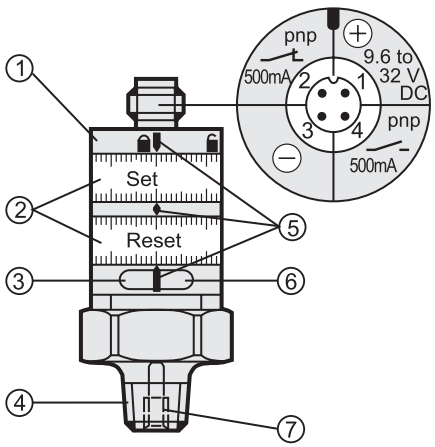
PSD25 Wiring Diagrams



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 ¼ " 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.

ProSense® MPS25 Series Mechanical Pressure Switches

The ProSense MPS25 series mechanical pressure switches are designed for the toughest applications where conventional pressure switch designs often don't measure up. These cost effective switches, depending on the pressure range, have either an all welded 316 stainless steel sealed diaphragm actuator design or a direct acting 316 stainless steel piston design with a Buna-N O-ring. The rugged 316 stainless steel enclosure provides uncompromising protection and long life in difficult environments. The robust design is resistant to vibration and shock, and provides reliable operation over a wide operating temperature range. Pressure ranges from vacuum to 7500 psig are available along with a ¼ inch NPT male threaded process connection and a precision snap-acting SPDT, 3 Amp, mechanically operated switch output. Choose from either an integral 6-foot (1.5m) cable with ½ inch NPT male conduit connection or a DIN 175301-803C L-connector.

Applications

- Process control & automation
- Pump & compressors
- Hydraulic systems
- Pneumatic systems
- Engine monitoring
- Presses
- Machine tools

#E320431

** UL only applies to the MPS25 series units with integral cable*

Features

- Compact size
- 316 stainless steel enclosure
- All stainless welded diaphragm or stainless piston and Buna-N O-ring
- Pressure ranges from -15 psig vacuum to 7500 psig
- Tamper resistant field adjustment
- *Integral 6-foot cable with 1/2 inch NPT male conduit connection or DIN form C electrical connections
- 1/4 inch NPT male process connection
- Wide operating temperature range
- Precision snap-acting SPDT, 3 Amp mechanically operated switch
- UL*, CSA, CE and RoHS compliant
- 3-year warranty

MPS25 Series Mechanical Pressure Switches

Part Number	Description	Actuator Type	Electrical Connection	Pcs/ Pkg	Wt(lb)	Price
MPS25-1C-DV15A	Pressure switch, -15 psig vacuum to 15 psig setpoint range, 1/4" NPT male port, 3A SPDT switch output	316 stainless steel welded diaphragm	1/2" NPT male conduit connection, integral 6-foot (1.5 meter) 4 conductor cable with 18AWG leads	1	0.9	$008q8:
MPS25-1C-D30A	Pressure switch, 6 to 30 psig setpoint range, 1/4" NPT male port, 3A SPDT switch output			1	0.9	$008q4:
MPS25-1C-D60A	Pressure switch, 8 to 60 psig setpoint range, 1/4" NPT male port, 3A SPDT switch output			1	0.9	$008q6:
MPS25-1C-D100A	Pressure switch, 10 to 100 psig setpoint range, 1/4" NPT male port, 3A SPDT switch output			1	0.9	$008q2:
MPS25-1C-P200A	Pressure switch, 40 to 200 psig setpoint range, 1/4" NPT male port, 3A SPDT switch output	316 stainless steel piston with Buna-N O-ring		1	0.9	$008qe:
MPS25-1C-P500A	Pressure switch, 50 to 500 psig setpoint range, 1/4" NPT male port, 3A SPDT switch output			1	0.9	$-008qi:
MPS25-1C-P1000A	Pressure switch, 100 to 1000 psig setpoint range, 1/4" NPT male port, 3A SPDT switch output			1	0.9	$008qa:
MPS25-1C-P2000A	Pressure switch, 200 to 2000 psig setpoint range, 1/4" NPT male port, 3A SPDT switch output			1	0.9	$008qc:
MPS25-1C-P5000A	Pressure switch, 500 to 5000 psig setpoint range, 1/4" NPT male port, 3A SPDT switch output			1	0.9	$008qg:
MPS25-1C-P7500A	Pressure switch, 750 to 7500 psig setpoint range, 1/4" NPT male port, 3A SPDT switch output			1	0.9	$008qk:
MPS25-1C-DV15D	Pressure switch, -15 psig vacuum to 15 psig setpoint range, 1/4" NPT male port, 3A SPDT switch output	316 stainless steel welded diaphragm	DIN 175301-803C L-Connector (8mm)	1	0.5	$008q9:
MPS25-1C-D30D	Pressure switch, 6 to 30 psig setpoint range, 1/4" NPT male port, 3A SPDT switch output			1	0.5	$008q5:
MPS25-1C-D60D	Pressure switch, 8 to 60 psig setpoint range, 1/4" NPT male port, 3A SPDT switch output			1	0.5	$008q7:
MPS25-1C-D100D	Pressure switch, 10 to 100 psig setpoint range, 1/4" NPT male port, 3A SPDT switch output			1	0.5	$008q3:
MPS25-1C-P200D	Pressure switch, 40 to 200 psig setpoint range, 1/4" NPT male port, 3A SPDT switch output	316 stainless steel piston with Buna-N O-ring		1	0.5	$;008qf:
MPS25-1C-P500D	Pressure switch, 50 to 500 psig setpoint range, 1/4" NPT male port, 3A SPDT switch output			1	0.5	$-008qj:
MPS25-1C-P1000D	Pressure switch, 100 to 1000 psig setpoint range, 1/4" NPT male port, 3A SPDT switch output			1	0.5	$008qb:
MPS25-1C-P2000D	Pressure switch, 200 to 2000 psig setpoint range, 1/4" NPT male port, 3A SPDT switch output			1	0.5	$008qd:
MPS25-1C-P5000D	Pressure switch, 500 to 5000 psig setpoint range, 1/4" NPT male port, 3A SPDT switch output			1	0.5	$008qh:
MPS25-1C-P7500D	Pressure switch, 750 to 7500 psig setpoint range, 1/4" NPT male port, 3A SPDT switch output			1	0.5	$-008ql:

ProSense® MPS25 Series Mechanical Pressure Switches

ProSense MPS25 Series General Specifications	
Setpoint	Field adjustable (factory default 50% of full scale)
Setpoint Repeatability	±2% of range above 100 psig and ±5% for 100 psig and below (Additional setpoint shift of ±2% of range per 40°F from initial setpoint set at 70°F typical)
Vibration	Passed ML-STD-202G
Shock	75G's 10 milliseconds 3-axis
Piston Actuator	Stainless steel with Buna-N O-ring, 200 to 7500 psig
Mechanical Life Piston Design	> 1,000,000 operations typical
Diaphragm Actuator	316L SS, up to 100 psig
Mechanical Life Diaphragm Design	> 400,000 operations typical
Enclosure Material	316L SS
Enclosure Rating	NEMA 6, IP 67
Pressure Connection	1/4" NPT Male
Electrical Output	SPDT 3A @ 125 VAC / 2A @ 30VDC resistive
Electrical Termination	1/2" NPT Male conduit connection or Micro DIN 175301-803C with mating connector
Agency Approvals	UL (#E320431) cable version only, CSA, CE, RoHS

MPS25 Series Mechanical Pressure Switch Performance Characteristics									
Part Number	***Setpoint Adjustability***			***Setpoint Repeatability***			***Deadband****		
	psig	***bar, kg/cm2***	***kPa***	***psig***	***bar, kg/cm2***	***kPa***	***psig***	***bar, kg/cm2***	***kPa***
MPS25-1C-DV15x	-15/15	-1/1	-100/100	±1.5	±0.1	±10	1-5	0.07-0.35	7-35
MPS25-1C-D30x	6-30	0.4-2	4-200	±1.5	±0.1	±10	1-5	0.07-0.35	7-35
MPS25-1C-D60x	8-60	0.6-4	60-400	±3	±0.2	±20	2-10	0.14-0.70	14-70
MPS25-1C-D100x	10-100	0.7-7	70-700	±5	±0.35	±35	3-15	0.2-1.0	20-100
MPS25-1C-P200x	40-200	2.8-14	280-1400	±4	±0.28	±28	3-30	0.2-2.0	20-200
MPS25-1C-P500x	50-500	3.5-35	350-3500	±10	±0.70	±70	20-100	1.4-7.0	140-700
MPS25-1C-P1000x	100-1000	7-70	700-7000	±20	±1.40	±140	25-150	1.7-10	170-1000
MPS25-1C-P2000x	200-2000	14-140	1400-14000	±40	±2.8	±280	30-300	2-20	200-2000
MPS25-1C-P5000x	500-5000	35-350	3500-35000	±100	±7.0	±700	75-750	5-50	500-5000
MPS25-1C-P7500x	750-7500	50-500	5000-50000	±150	±10.0	±1000	110-1100	7.5-75	750-7500

** Due to the mechanical design of the MPS25 switch, the actual deadband will vary from one switch to another but will be within the specified deadband range. Generally, the expected deadband for a setpoint at the lower end of the range will trend towards the lower end for the deadband range. The deadband for a setpoint at the upper end of the range will trend towards the upper end for the deadband range.*

Material & Temperature		
Ranges	***Wetted Material***	***Temperature Range***
Up to 100#	SS	-40-100°C (-40-212°F)
200#	SS, BUNA	-28-100°C (-18.4-212°F)
500# to 7500#	SS, BUNA	-40-100°C (-40-212°F)

Proof Pressure			
Ranges (listed in psig)	***psig***	***bar, kg/cm2***	***kPa***
Up to 100#	1000	70	7000
200#	2000	140	14000
500 to 2000#	8000	500	55000
5000 to 75000#	15000	1000	100000

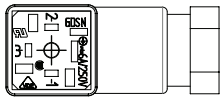
Burst Pressure			
Ranges (listed in psig)	***psig***	***bar, kg/cm2***	***kPa***
Up to 100#	>9500	>655	>65500
200#	>10000	>700	>70000
500 to 2000#	>30000	>2100	>210000
5000 to 7500#	>50000	>3500	>350000

Electrical Connections

1/2" NPT male conduit connector with 6-foot (1.5m) integral cable

Wire Color / Function	
Wire Color	***Function***
Red	Normally Closed
White	Common
Blue	Normally Open
Green	Ground

DIN 175301-803C L-Connector

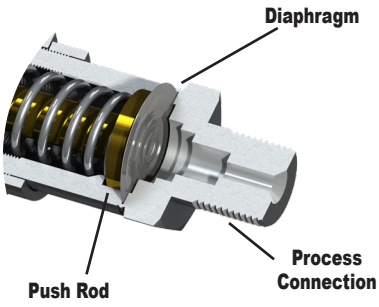


1 – COMMON
2 – NORMALLY CLOSED
3 – NORMALLY OPEN
4 – GROUND

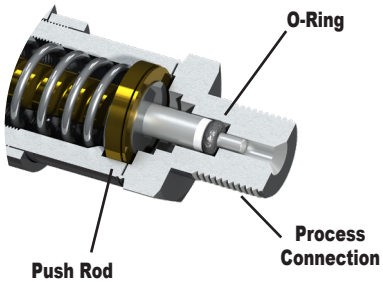
ProSense® MPS25 Series Mechanical Pressure Switches

Actuator Design

The MPS25 series actuator responds to changes in pressure and operates the internal micro switch in response to these changes. The actuator is normally exposed to the process media and must be chemically compatible with it. The MPS25 series is available with a welded stainless steel diaphragm (no O-ring) in pressure ranges up to 100 psig. A stainless steel piston with Buna-N O-ring is available for pressure ranges from 200 to 7500 psig.



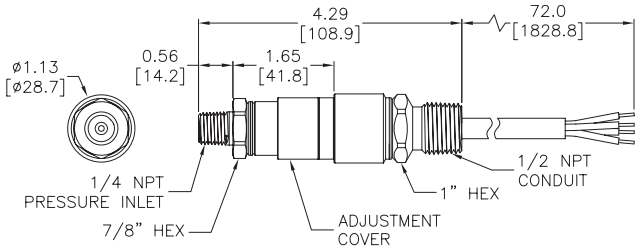
Diaphragm Actuator Type
Up to 100 psig



Piston Actuator Type
200 to 7500 psig

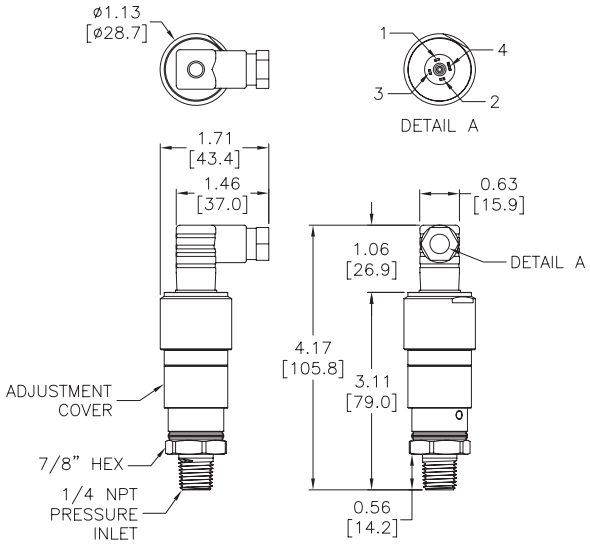
Dimensions

inches [mm]



MPS25 Cable Units

See our website www.AutomationDirect.com for complete Engineering drawings.



MPS25 DIN Connector Units

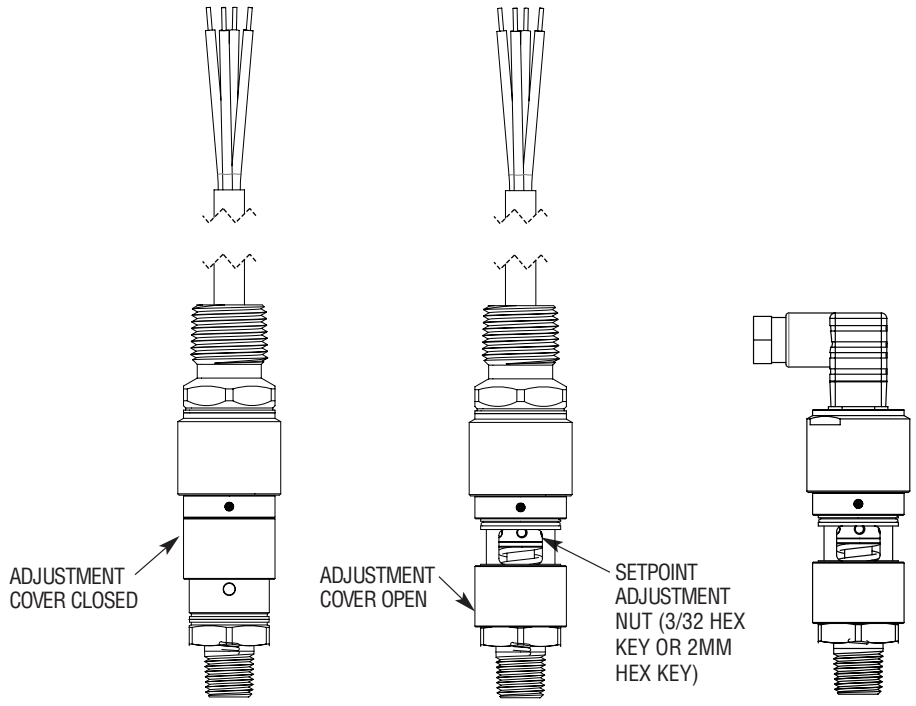
DIN Connector Specifications	
Number of contacts	3 + PE
Cable glands	PG 7
Conductor size max.	0.75 mm² / 18AWG
Type of termination	Screw
Suitable cables	4.5 mm to 6mm
Standard DIN	EN 175 301-803-C

ProSense® MPS25 Series Mechanical Pressure Switches

Field Adjustable Setpoint

The MPS25 series switches have a field adjustable setpoint. To adjust the setpoint, follow the instructions in the diagram. The pressure switch operates as follows:

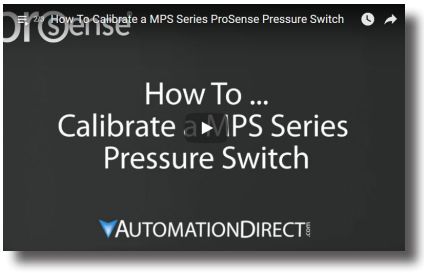
The Normally Open contact will close when the pressure is raised from 0 psig to the setpoint. The reset point is then measured from the setpoint, reducing the pressure until the Normally Open contact opens.



SLIDE COVER DOWN TO ACCESS SETPOINT ADJUSTMENT SLIDE COVER UP TO CLOSE AND SEAL ADJUSTMENT

ROTATE LEFT ← TO INCREASE SETPOINT
ROTATE RIGHT → TO DECREASE SETPOINT
Ø 0.095˝ OR SMALLER TOOL REQUIRED TO ROTATE NUT

Click on the thumbnail or go to https://www.automationdirect.com/VID-PR-0005 for a short video on How to Calibrate a MPS Series ProSense Pressure Switch



Note: As with any instrument, it is recommended that regular inspections of operation and set points are performed.

ASHCROFT®
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B-Series Mechanical Pressure Switches

Part No. B424B30IMV

Part No. B424B1000

The Ashcroft B-Series pressure switch offers precision and reliability in the toughest industrial applications. Designed with a NEMA 4X rating, this switch stands up to harsh environments, resisting water, dust, and corrosion, which makes it perfect for industrial, process, and outdoor applications. Featuring Ashcroft's renowned accuracy, an easily adjustable setpoint, and a durable, compact build, the B-Series delivers reliable and consistent performance.

Applications

- Petrochemical
- Pulp and paper mills
- Plant pressure
- Water and waste water
- Pumps, compressors, and turbines
- Boilers and burners
- Degreasers and evaporators
- Hydraulic and lubrication systems
- Heating and air conditioning
- Marine equipment
- OEM equipment

Features

- Easy mechanical set point adjustment
- Setpoint locking screw
- Broad setpoint and deadband ranges to fit almost any application
- Wall mountable
- 15A SPDT relay
- Narrow deadband ranges on B420B models

Ashcroft B-Series Pressure Switches

Part Number	Setpoint Range	Deadband Range*	Diaphragm Material	Output	Process Connection	Electrical Connecton	Drawing Link	Wt(lb)	Price
B424B30IMV	-30 to -4.5in Hg vacuum	1.5 to 4.0in Hg	Buna-N	SPDT 15A -125 to 480 VAC, 1/2A - 125 VAC, 1/4A - 250 VDC, 6A - 30 VDC.	1/4in female NPT	3/4in female NPT	PDF	1.72	$06nc6:
B424B15	2.25 to 15 psig	0.5 to 1.5 psig					PDF	1.70	$06nc7:
B424B30	4.5 to 30 psig						PDF	1.73	$06nc8:
B424B60	9 to 60 psig	1.0 to 3.5 psig					PDF	1.75	$06nc9:
B424B100	15 to 100 psig	1.5 to 5.0 psig					PDF	1.72	$06nca:
B424B200	30 to 200 psig	5 to 13 psig					PDF	1.73	$06ncb:
B424B400	60 to 400 psig	5 to 24 psig					PDF	1.74	$06ncc:
B424B1000	150 to 1000 psig	30 to 110 psig			1/2in male NPT or 1/4in female NPT process connection		PDF	1.88	$06ncd:
B424B3000	450 to 3000 psig	80 to 235 psig					PDF	1.90	$06nce:
B424V15	2.25 to 15 psig	0.7 to 2.1 psig	Viton	SPDT 15A -125 to 480 VAC, 1/2A - 125 VAC, 1/4A - 250 VDC, 6A - 30 VDC.	1/4in female NPT	3/4in female NPT	PDF	1.72	$;06ncf:
B424V30	4.5 to 30 psig						PDF	1.73	$06ncg:
B424V60	9 to 60 psig	1.4 to 4.9 psig					PDF	1.72	$06nch:
B424V100	15 to 100 psig	2.1 to 7.0 psig					PDF	1.72	$-06nci:
B424V200	30 to 200 psig	7 to 18.2 psig					PDF	1.75	$-06ncj:
B424V400	60 to 400 psig	7 to 33.6 psig					PDF	1.76	$06nck:
B420B15	2.25 to 15 psig	0.1 to 0.35 psig	Buna-N	SPDT 15A - 125/250 VAC	1/4in female NPT	3/4in female NPT	PDF	1.71	$-06ncl:
B420B60	9 to 60 psig	0.3 to 1.0 psig					PDF	1.74	$06ncn:
B420B100	15 to 100 psig	0.5 to 1.7 psig					PDF	1.72	$06nco:
B420B200	30 to 200 psig	1 to 3 psig					PDF	1.74	$06ncp:

** Due to the mechanical design of the switch, the actual deadband will vary from one switch to another but will be within the specified deadband range. Generally, the expected deadband for a setpoint at the lower end of the range will trend towards the lower end for the deadband range. The deadband for a setpoint at the upper end of the range will trend towards the upper end for the deadband range.*

ASHCROFT®
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B-Series Mechanical Pressure Switches

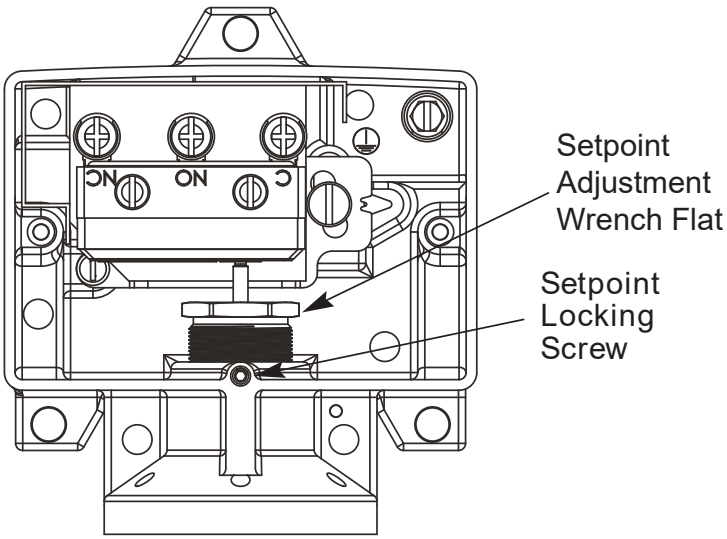
Ashcroft B-Series General Specifications	
Setpoint	Field adjustable
Setpoint Repeatability	±1% of full range (Additional setpoint shift of 1% of range per 50°F from initial setpoint set at 70°F typical)
Enclosure Material	Epoxy-coated aluminum
Enclosure Rating	NEMA 4X, IP66
Process Connection	1/4in female NPT, 1/2in male NPT or 1/4in NPT on B424B1000 and B424B3000
Electrical Output	SPDT
Electrical Termination	3/4in NPT female
Ambient Temperature Range	-20°F to 150°F (-28°C to 65°C)
Process Temperature Range	0°F to 150°F (-17.8°F to 65.6°C) Buna-N diaphragm, 20°F to 300°F (-6.7°C to 148.9°C) Viton diaphragm
Wetted Material	316 Stainless Steel, Buna-N or Viton depending on model
Agency Approvals	UL E34743 , CSA: 55541

Pressure Ratings		
Ranges (Listed in psig)	***Proof***	***Burst***
30in Hg vac	250	400
0-15	500	1,500
0-30		
0-60		
0-100	1,000	3,000
0-200		
0-400	2,400	
0-1000	12,000	18,000
0-3000		

Scan or click on the QR code for the manufacturer's installation and maintenance instructions.

See www.Automationdirect.com for our wiring and cable solutions.

Electrical Connections



AchieVe™ LPPT Series Pressure Transmitters

Part No. LPPT25-20-0015H

Part No. LPPT25-20-5000H

AchieVe Pressure Transmitters

The AchieVe LPPT series is a very economical pressure sensing solution for applications where overall small size, weight, and very low cost are required. A wide variety of compatible liquid and gas pressure sensing applications are possible due to the robust all stainless steel welded sensing element and wetted materials. The LPPT series transmitters feature full scale pressure ranges from 15 to 5000 psig as well as a compound range from vacuum to 30 psig. The field proven internal polysilicon thin film pressure sensor performs with a 1% Total Error Band over 32 to 185°F (0 to 85°C). The AchieVe LPPT series transmitters include a 1/4" NPT male threaded process connection and industry standard, 2-wire, 4-20mA analog output with M12 quick disconnect that simplifies interface to controls, data collection, and telemetry systems.

Features

- Very economical solution for pressure sensing applications
- Compact size is ideal where limited installation space is available
- Full scale pressure ranges from 15 to 5000 psig. Compound range from vacuum to 30 psig
- 1% Total Error Band over 0 to 85°C
- 1/4" NPT male threaded process connection
- 4-20mA analog output
- M12 quick disconnect
- Robust stainless steel construction
- IP67 protection rating

AchieVe LPPT Series Pressure Transmitters

Model	Range	Sensing Element	Output	Process Connection	Operating Voltage	Electrical Connection	Price	Drawing Link	Weight (lb)
LPPT25-20-V30H	-14.7 to 30 psig	17-4 Stainless Steel	4-20mA analog	1/4" NPT male	9 to 32 VDC	4-pin M12 quick-disconnect (purchase cable separately)	$681h:	PDF	0.16
LPPT25-20-0015H	0 to 15 psig						$-681i:	PDF	0.16
LPPT25-20-0030H	0 to 30 psig						$-681j:	PDF	0.16
LPPT25-20-0060H	0 to 60 psig						$681k:	PDF	0.16
LPPT25-20-0100H	0 to 100 psig						$-681l:	PDF	0.16
LPPT25-20-0200H	0 to 200 psig						$681c:	PDF	0.16
LPPT25-20-0300H	0 to 300 psig						$681d:	PDF	0.16
LPPT25-20-0500H	0 to 500 psig						$681e:	PDF	0.16
LPPT25-20-1000H	0 to 1000 psig						$;681f:	PDF	0.16
LPPT25-20-2000H	0 to 2000 psig						$681g:	PDF	0.16
LPPT25-20-3000H	0 to 3000 psig						$681n:	PDF	0.16
LPPT25-20-5000H	0 to 5000 psig						$681o:	PDF	0.16

See our website www.AutomationDirect.com for complete Engineering drawings.

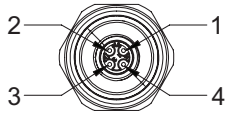
AchieVe™ LPPT Series Pressure Transmitters

AchieVe LPPT Pressure Transmitter Technical Specifications	
Reference Temperature	72°F ± 2 °F (21°C ± 1°C)
Accuracy Class	± 1.0% Span: Includes non-linearity, hysteresis. Non-repeatability, zero offset and span setting errors at reference temperature
*Total Error Band Accuracy (TEB)**	± 1.0% of Span: From 32ºF to 185ºF (0ºC to 85ºC) ± 2.0% of Span: From 185ºF to 257ºF (85ºC to 125ºC) ± 2.0% of Span: From -40ºF to 32ºF (-40ºC to 0ºC)
Stability	≤ ± 0.25% of span/year
Durability	50 million cycles
Environmental	
Temperature	Storage: -58°F to 257°F (-50°C to +125°C) Operating: -40°F to 257°F (-40°C to +125°C) Ambient:: -40°F to 221°F (-40°C to +105°C)
Humidity	0 to 100% R.H., ± .05% typical
Functional	
Vibration	Random vibration (20g) RMS; 20-2000 Hz per IEC 60068-64
Shock	100gs, 6ms
Drop Test	Withstands 1 meter on concrete
Functional	
Response Time	< 5 msec
Warm-up Time	< 20 msec
Position Effect	< ±0.015% span typical
Electrical	
Insulation Withstand Voltage	500VAC
Insulation Resistance	> 100MΩ @ 100VDC
Circuit Protection	Reverse polarity and miswire protection
Output	4-20 mA, 2 wire
Wetted Components	
Sensor Diaphragm	17-4PH stainless steel
Process Connection	304 stainless steel
Non-Wetted Components	
Housing	304 stainless steel / Nylon
Environmental	
Protection Rating	IP67
Certifications	
Agency Approvals	UR, CE

** Includes the combined effects of non-linearity (Terminal Point Method), hysteresis, non-repeatability, temperature and zero offset and span setting errors.*

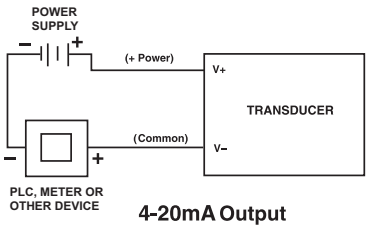
Wiring

Standard 4-20mA



Pin #	Current Wiring
1	V+
2	Ground
3	V-
4	V-

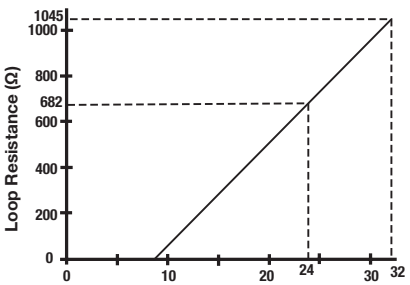
** Use either V- termination*



4-20mA Output

Proof & Burst Pressures		
Overpressure Full Scale (FS) Range	*Proof*	*Burst*
< 100 psi	2 X Range	50 X Range
≥ 100 to 3,000 psi	2 X Range	5 X Range
≥ 3,000 to 5,000 psi	1.5 X Range	4 X Range

Power Supply vs Loop Resistance



V_{MIN} = 9V + [0.022A* x (R_L)]
(*includes a 10% safety factor)
$R_L = R_S + R_W$
R_L = Loop Resistance (Ohms)
R_S = Sense Resistance (Ohms)

For additional information see the AchieVe LPPT Series Pressure Transmitter Quick Start Guide by scanning or clicking on the QR code.

ProSense® PTD25 Series Pressure Transmitters

The ProSense PTD25 pressure transmitter series is engineered to meet many industrial, commercial, and OEM pressure measurement applications. The ceramic sensing element with Viton seals provides high over pressure ratings and can be used to sense any compatible media. With a robust design resistant to vibration, shock, and EMI/RFI, the PTD25 series provides high accuracy over a wide compensated temperature range. Pressure sensing ranges from vacuum to 5000 psig are available along with a ¼ inch NPT male threaded process connection. Choose from linear outputs of 4-20 mA or 0-10VDC with a 4-pin M12 quick-disconnect plug electrical connection. The PTD25 series is UL508 listed, CE marked and comes with a 3 year warranty.

Applications

- Process control & automation
- Pump & compressor control
- Hydraulic systems
- Pneumatic systems
- Engine monitoring
- Presses
- Machine tools

Features

- Ceramic sensing element with Viton seals
- High over pressure ratings
- Pressure ranges from vacuum to 5000 psig
- 1/4 inch NPT male threaded process connection
- Output options: 4-20 mA or 0-10 VDC
- M12 quick disconnect electrical connection
- UL508 listed, CE marked
- CE marked
- 3-year warranty

Note: Check the chemical compatibility of the sensor's wetted parts with the medium to be measured. For gaseous media, limit the process pressure to 363 Psig (25 bar) maximum.

ProSense PTD25 Series Pressure Transmitters				
Part Number	**Description**	**Pcs/Pkg**	**Wt(lb)**	**Price**
PTD25-10-VH	Vacuum transmitter, 10 to 0 V output, -14.5 to 0 psig range vacuum, 1/4" NPT male port	1	0.48	$;008q]:
PTD25-10-0100WCH	Pressure transmitter, 0 to 10 V output, 0 to 100 inches wc* range, 1/4" NPT male port	1	0.48	$;008qt:
PTD25-10-0015H	Pressure transmitter, 0 to 10 V output, 0 to 15 psig range, 1/4" NPT male port	1	0.48	$008qp:
PTD25-10-0030H	Pressure transmitter, 0 to 10 V output, 0 to 30 psig range, 1/4" NPT male port	1	0.48	$008qq:
PTD25-10-0100H	Pressure transmitter, 0 to 10 V output, 0 to 100 psig range, 1/4" NPT male port	1	0.48	$008qs:
PTD25-10-0200H	Pressure transmitter, 0 to 10 V output, 0 to 200 psig range, 1/4" NPT male port	1	0.48	$008qu:
PTD25-10-0500H	Pressure transmitter, 0 to 10 V output, 0 to 500 psig range, 1/4" NPT male port	1	0.48	$008qv:
PTD25-10-1000H	Pressure transmitter, 0 to 10 V output, 0 to 1000 psig range, 1/4" NPT male port	1	0.48	$008qx:
PTD25-10-3000H	Pressure transmitter, 0 to 10 V output, 0 to 3000 psig range, 1/4" NPT male port	1	0.48	$008qy:
PTD25-10-5000H	Pressure transmitter, 0 to 10 V output, 0 to 5000 psig range, 1/4" NPT male port	1	0.48	$008qz:
PTD25-20-VH	Vacuum transmitter, 20 to 4 mA output, -14.5 to 0 psig range vacuum, 1/4" NPT male port	1	0.48	$008s3:
PTD25-20-0100WCH	Pressure transmitter, 4 to 20 mA output, 0 to 100 inches wc* range, 1/4" NPT male port	1	0.48	$;008q!:
PTD25-20-0015H	Pressure transmitter, 4 to 20 mA output, 0 to 15 psig range, 1/4" NPT male port	1	0.48	$;008q[:
PTD25-20-0030H	Pressure transmitter, 4 to 20 mA output, 0 to 30 psig range, 1/4" NPT male port	1	0.48	$008q_:
PTD25-20-0100H	Pressure transmitter, 4 to 20 mA output, 0 to 100 psig range, 1/4" NPT male port	1	0.48	$008q#:
PTD25-20-0200H	Pressure transmitter, 4 to 20 mA output, 0 to 200 psig range, 1/4" NPT male port	1	0.48	$008q?:
PTD25-20-0500H	Pressure transmitter, 4 to 20 mA output, 0 to 500 psig range, 1/4" NPT male port	1	0.48	$;008q,:
PTD25-20-1000H	Pressure transmitter, 4 to 20 mA output, 0 to 1000 psig range, 1/4" NPT male port	1	0.48	$008s0:
PTD25-20-3000H	Pressure transmitter, 4 to 20 mA output, 0 to 3000 psig range, 1/4" NPT male port	1	0.48	$008s1:
PTD25-20-5000H	Pressure transmitter, 4 to 20 mA output, 0 to 5000 psig range, 1/4" NPT male port	1	0.48	$008s2:

*wc = water column

ProSense® PTD25 Pressure Transmitters

ProSense PTD25 Series General Specifications	
Housing Material	Stainless steel (316S12); FPM (Viton); PA; EPDM/X (Santoprene)
Materials (wetted parts)*	Stainless steel (303S22); ceramics; FPM (Viton)
Operating Temperature	–13 to 176°F (–25 to 80°C)
Medium Temperature	–13 to 194°F (–25 to 90°C)
Storage Temperature	–40 to 212°F (–40 to 100°C)
Protection	IP 68 / IP 69K (Units with pressure range 1000 psig and higher)
Protection	IP 65 (Units with pressure range 500 psig and lower)
Protection Class	Class III
Accuracy	< ± 0.75% of full range
Repeatability	< ± 0.15% of full range
Insulation Resistance	> 100 MΩ: (500V DC)
Shock Resistance	50g (DIN / IEC 68-2-27, 11ms)
Vibration Resistance	20g (DIN / IEC 68-2-6, 10 - 2000 Hz)
EMC	
EN 61000-4-2 ESD	4 kV / 8 kV AD
EN 61000-4-3 HF Radiated	30 V/m
EN 61000-4-4 Burst	2 kV
EN 61000-4-6 HF Conducted	10 V
EMC (PTD25-20-xxxxx)	
EN 61000-4-2 ESD	4 kV / 8 kV AD
EN 61000-4-3 HF Radiated	30 V/m
EN 61000-4-4 Burst	2 kV
EN 61000-4-6 HF Conducted	10 V
Radiation of Interference	2004/104/EC / CISPR25, according to the road vehicle guideline
Noise Immunity	2004/104/EC / ISO 11452-2, according to the road vehicle guideline
HF Conducted	100 V/m
Pulse Resistance	According to ISO7637-2: Severity level 3
Agency Approvals	cULus (E320431), CE, RoHS
**** Not cleaned for oxygen service***	

ProSense PTD25 Series Technical Specifications	
Technical Specifications PTD25-10-xxxxx	
Operating Voltage PTD25-10-xxxx	16 to 32 VDC[1]
Current Consumption	< 18 mA
Analog Output	0 to 10 V (min/max 0 to 10.5V)
Minimum Load	2000 Ω
Step Response Time Analog Output	3 ms
Technical Specifications PTD25-20-xxxxx	
Operating Voltage PTD25-20-xxxx	9.6 to 32 VDC
Analog Output	4 to 20 mA (min/max 3.85 to 22 mA)
Maximum Load	[(supply voltage - 9.6) x 50]Ω For example: [(24 VDC - 9.6) x 50] = 720Ω
Step Response Time Analog Output	3 ms
Radiation of Interference	2004/104/EC / CISPR25, according to the road vehicle guideline
Noise Immunity	2004/104/EC / ISO 11452-2, according to the road vehicle guideline
HF Conducted	100 V/m
Pulse Resistance	According to ISO7637-2: Severity level 3
1) per EN50178, SELV, PELV	
****Note: BFSL = Best Fit Straight Line / FR = Full Range***	

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!

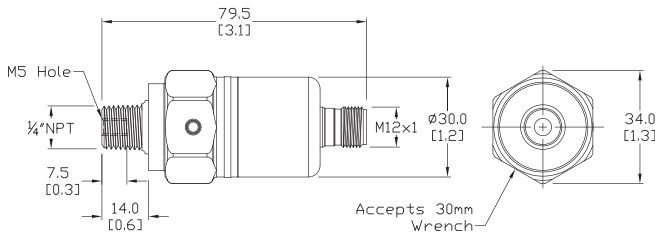
ProSense® PTD25 Pressure Transmitters

Applications (Type of Pressure: Relative Pressure, Liquids and Gases)			
Part Number	*Measuring Range*	*Permissible Overload Pressure*	*Bursting Pressure*
	Psig	*Psig*	*Psig*
PTD25-10-5000H PTD25-20-5000H	0 to 5000	11600	17400
PTD25-10-3000H PTD25-20-3000H	0 to 3000	5800	12300
PTD25-10-1000H PTD25-20-1000H	0 to 1000	4350	9400
PTD25-10-0500H PTD25-20-0500H	0 to 500	2175	5075
PTD25-10-0200H PTD25-20-0200H	0 to 200	1087	2175
PTD25-10-0100H PTD25-20-0100H	0 to 100	1087	2175
PTD25-10-0030H PTD25-20-0030H	0 to 30	290	725
PTD25-10-0015H PTD25-20-0015H	0 to 15	145	450
PTD25-10-VH PTD25-20-VH	-14.5 to 0 (vacuum)	145	450
	inH2O	*inH2O*	*inH2O*
PTD25-10-0100WCH PTD25-20-0100WCH	0 to 100	2400	12043

inH2O = Inches of Water (represents Water Column)
All PTD25 series transmitters can withstand vacuum down to -14.5 psig

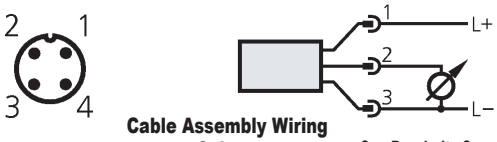
Dimensions

mm [inches]



See our website www.AutomationDirect.com for complete Engineering drawings.

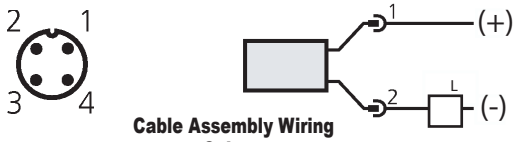
PTD25-10 Wiring Diagrams



Cable Assembly Wiring Colors:
Pin 1 - Brown
Pin 2 - White
Pin 3 - Blue
Pin 4 - Black

See Proximity Sensor section for cable specs

PTD25-20 Wiring Diagrams



Cable Assembly Wiring Colors:
Pin 1 - Brown
Pin 2 - White
Pin 3 - Blue
Pin 4 - Black

See Proximity Sensor section for cable specs

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

Pressure Units Conversion Chart

Pressure Conversion Table: Multiplication Factors										
		Known Units								
		Atmos	*Bars*	*In of Hg (0°C)*	*In of H_2O (4°C)*	*K grams/ meter²*	*Lb/in² (psig)*	*Lb/ft²*	*mm of Hg torr*	*Pascals*
Desired Units	*Atmos*	1	9.86923×10^{-1}	3.34207×10^{-2}	2.458×10^{-3}	9.678×10^{-5}	0.068046	4.7254×10^{-4}	1.316×10^{-3}	9.869×10^{-6}
	Bars	1.01325	1	3.3864×10^{-2}	2.491×10^{-3}	9.8067×10^{-5}	6.8948×10^{-2}	4.788×10^{-4}	1.333×10^{-3}	10^{-5}
	In of Hg (0°C)	29.9213	29.53	1	7.355×10^{-2}	2.896×10^{-3}	2.036	0.014139	3.937×10^{-2}	2.953×10^{-4}
	In of H_2O (4°C)	406.8	401.46	13.60	1	3.937×10^{-2}	27.68	0.1922	0.5354	4.014×10^{-3}
	K grams/meter²	1.033227×10^{4}	1.0197×10^{4}	345.3	25.40	1	7.0306×10^{2}	4.882	13.59	1.019×10^{-1}
	Lb/in²(psig)	14.695595	14.504	0.4912	3.6126×10^{-2}	1.423×10^{-3}	1	6.9444×10^{-3}	1.934×10^{-2}	1.450×10^{-4}
	Lb/ft²	2116.22	2088.5	70.726	5.202	0.2048	144.0	1	2.7844	2.089×10^{-2}
	mm of Hg torr	760	750.06	25.400	1.868	7.3558×10^{-2}	51.715	0.35913	1	7.502×10^{-3}
	Pascals	1.01325×10^{5}	1×10^{5}	3.386×10^{3}	2.491×10^{2}	9.8067	6.8948×10^{3}	4.788×10^{1}	1.333×10^{2}	1

Example: To convert from 50 psig to "In of H2O", (50 psig) (27.68) = 1384 In of H2O

ProSense® SPTD25 Series Pressure Transmitters

Part No. SPTD25-20-0100H

The ProSense SPTD25 pressure transmitter series is engineered to meet many industrial, commercial, and OEM pressure measurement applications. The all-stainless steel thin film sensing element provides very fast response time and can be used to sense any compatible media. With a robust design resistant to vibration, shock, and EMI/RFI, the SPTD25 series provides high accuracy over a wide compensated temperature range. Pressure sensing ranges from 100 to 5000 psig are available with a ¼ inch NPT male threaded process connection and a linear 4-20 mA output with an M12 quick-disconnect electrical connection.

Applications

- Process control & automation
- Pump & compressor control
- Hydraulic systems
- Pneumatic systems
- Engine monitoring
- Presses
- Machine tools

Features

- All-stainless steel sensing element
- Fast response time
- Pressure ranges from 100 to 5000 psig
- 1/4 inch NPT male threaded process connection
- 4-20 mA output
- M12 quick-disconnect electrical connection
- UL508 listed, CE marked
- 3-year warranty

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

ProSense SPTD25 Series Pressure Transmitters

Part Number	Description	Pcs/Pkg	Wt (lb)	Price
SPTD25-20-0100H	Pressure transmitter, 4 to 20 mA output, 0 to 100 psig range, 1/4" NPT male port, M12 connector	1	0.1	$010x6:
SPTD25-20-0200H	Pressure transmitter, 4 to 20 mA output, 0 to 200 psig range, 1/4" NPT male port, M12 connector	1	0.1	$010x7:
SPTD25-20-0300H	Pressure transmitter, 4 to 20 mA output, 0 to 300 psig range, 1/4" NPT male port, M12 connector	1	0.1	$010x8:
SPTD25-20-0500H	Pressure transmitter, 4 to 20 mA output, 0 to 500 psig range, 1/4" NPT male port, M12 connector	1	0.1	$010x9:
SPTD25-20-1000H	Pressure transmitter, 4 to 20 mA output, 0 to 1000 psig range, 1/4" NPT male port, M12 connector	1	0.1	$010xa:
SPTD25-20-3000H	Pressure transmitter, 4 to 20 mA output, 0 to 3000 psig range, 1/4" NPT male port, M12 connector	1	0.1	$010xb:
SPTD25-20-5000H	Pressure transmitter, 4 to 20 mA output, 0 to 5000 psig range, 1/4" NPT male port, M12 connector	1	0.1	$010xc:

ProSense SPTD25 Series General Specifications

Housing Material	Stainless steel 316L (DIN 1.4404); Stainless steel 17-4PH (DIN 1.4542); Polyamide (PA)
Materials (wetted parts)*	Stainless steel 17-4PH (DIN 1.4542)
Operating Temperature	–40 to 194°F (–40 to 90°C)
Medium Temperature	–40 to 194°F (–40 to 90°C)
Storage Temperature	–40 to 212°F (–40 to 100°C)
Protection	IP 67 / IP 69K
Accuracy[1]	< ± 0.5% of full range
Linearity[2]	< ± 0.1% (BFSL) / < ± 0.2% (LS)
Hysteresis	< ± 0.2%
Repeatability[3]	< ± 0.05%
Long-Term Stability[4]	< ± 0.1%

** Not cleaned for oxygen service*
[1] Zero point and span error, non-linearity, hysteresis
[2] BFSL = Best fit straight line / LS = limit value setting
[3] With temperature fluctuations <10°C
4 In % of the span / 6 months

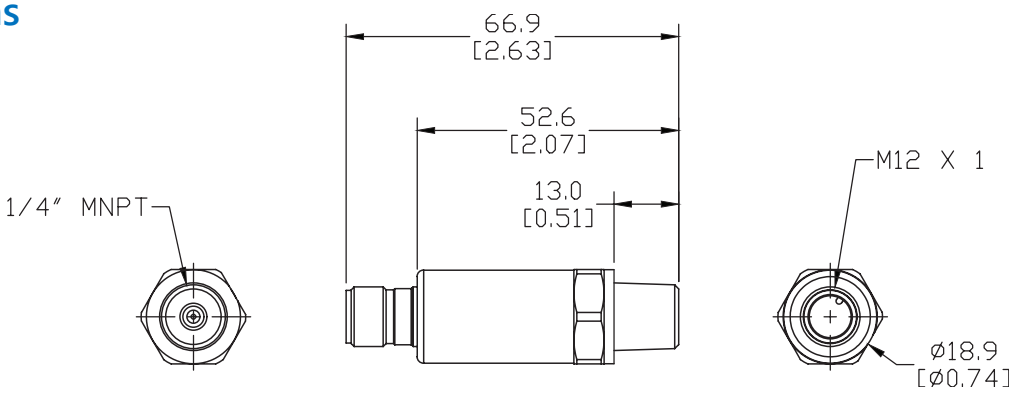
ProSense® SPTD25 Series Pressure Transmitters

ProSense SPTD25 Series General Specifications Continued	
Operating Voltage	8.5 to 36 VDC*
Analog Output	4 to 20 mA
Maximum Load	[(supply voltage - 8.5) / 21.5 mA]Ω | For example: [(24VDC - 8.5) / 0.0215] = 720Ω
IEC Protection Class	Class III
Step Response Time Analog Output	1 ms
Short-Circuit Proof	yes
Overload Protection	yes
Reverse Polarity Protection	yes
Insulation Resistance	> 100 MΩ: (500 VDC)
Shock Resistance	50g (DIN 60068-2-27, 11ms)
Vibration Resistance	20g (DIN 60068-2-6, 10 - 2000 Hz)
EN 61000-4-2 ESD	4 kV / 8 kV AD
EN 61000-4-3 HF Radiated	30 V/m
EN 61000-4-4 Burst	2kV
EN 61000-4-6 HF Conducted	10V
EC Pressure Equipment Directive 97/23/EC	Article 3, section 3: Group 2 Non-Hazardous, Non-flammable, Non-oxidizing
EMC	DIN EN 61000-6-2; DIN EN 61000-6-3
MTTF (Years)	784
Min. Pressure Cycles	60 million lifetime (at 1.2 times the nominal pressure)
Agency Approvals	cULus (E320431), CE, RoHS
**** per EN50178, SELV, PELV***	

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!

Dimensions

mm [inches]



See our website www.AutomationDirect.com for complete Engineering drawings.

ProSense® SPTD25 Series Pressure Transmitters

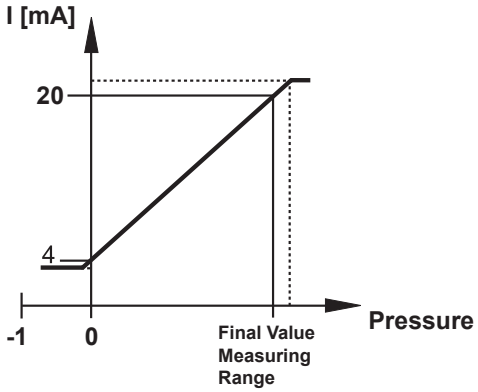
Pressure Ratings

Applications (Type of Pressure: Gauge Pressure, Liquids and Gases)			
Part Number	*Final Value of the Measuring Range*	*Static Proof Pressure Resistance (Max. Permissible Pressure)*	*Bursting Pressure*
	Psig	*Psig*	*Psig*
SPTD25-20-0100H	100	250	2900
SPTD25-20-0200H	200	580	6525
SPTD25-20-0300H	300	940	8700
SPTD25-20-0500H	500	1450	11600
SPTD25-20-1000H	1000	2500	13050
SPTD25-20-3000H	3000	7250	14500
SPTD25-20-5000H	5000	14500	24650

All SPTD25 series transmitters can withstand vacuum down to -14.5 psig

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!

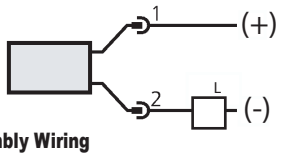
Current Output 4-20 mA



In the measuring range the output signal is between 4 and 20mA. If the system pressure is above or below the measuring range, the analog output performs as follows:

- System pressure above the measuring range: 20...25mA non-linear
- System pressure below the measuring range: 4...3mA non-linear

SPTD25-20 Wiring Diagrams



Cable Assembly Wiring Colors:
Pin 1 - Brown +
Pin 2 - White - Out
Pin 3 - Blue, not used
Pin 4 - Black, not used

See Proximity Sensor section for cable specs

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

ProSense® SPT25 Series Pressure Transmitters

The ProSense SPT25 pressure transmitter series is engineered to meet many industrial, commercial, and OEM pressure measurement applications. The all stainless steel welded thin film sensing element provides very fast response time and is compatible with many different media sensing applications. With a robust design resistant to vibration, shock, and EMI/RFI, the SPT25 series provides high accuracy over a wide compensated temperature range. Pressure sensing ranges from vacuum to 5000 psig are available along with a ¼ inch NPT male threaded process connection. Choose from linear outputs of 4-20 mA or 0-10VDC with electrical connections of either a DIN 175301-803C L-connector or 6.6 foot (2 m) integral shielded cable.

Applications

- Process control & automation
- Pump & compressor control
- Hydraulic systems
- Pneumatic systems
- Engine monitoring
- Refrigeration equipment
- Presses
- Machine tools

Features

- All stainless steel welded sensing element
- Fast response time
- Pressure sensing ranges from vacuum to 5000 psig
- 1/4 inch NPT male threaded process connection
- Output options: 4-20 mA or 0-10 VDC
- Integral 6.6 foot shielded cable or DIN form C electrical connections
- Made in the USA
- CE marked
- 3-year warranty

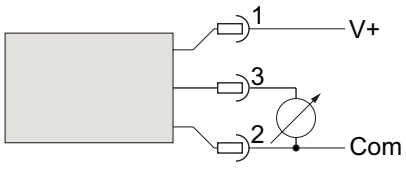
Click on the thumbnail or go to https://www.automationdirect.com/VID-PR-0001 for a short video on ProSense Air Differential and Pressure Transmitters

ProSense SPT25 Series Pressure Transmitters (Shielded Cable)					
Part Number	**Description**	**Electrical Connection**	**Input Voltage**	**Wt(lb)**	**Price**
SPT25-20-V30A	Pressure transmitter, 4 to 20 mA output, -14.7 vacuum to 30 psig range, 1/4" NPT male port	Integral 6.6 ft (2m) shielded cable	9 - 36 VDC	0.38	$;;008tf:
SPT25-20-0030A	Pressure transmitter, 4 to 20 mA output, 0 to 30 psig range, 1/4" NPT male port				$;008t3:
SPT25-20-0060A	Pressure transmitter, 4 to 20 mA output, 0 to 60 psig range, 1/4" NPT male port				$;008t4:
SPT25-20-0100A	Pressure transmitter, 4 to 20 mA output, 0 to 100 psig range, 1/4" NPT male port				$;008t5:
SPT25-20-0150A	Pressure transmitter, 4 to 20 mA output, 0 to 150 psig range, 1/4" NPT male port				$;008t6:
SPT25-20-0200A	Pressure transmitter, 4 to 20 mA output, 0 to 200 psig range, 1/4" NPT male port				$;008t7:
SPT25-20-0300A	Pressure transmitter, 4 to 20 mA output, 0 to 300 psig range, 1/4" NPT male port				$;008t8:
SPT25-20-0500A	Pressure transmitter, 4 to 20 mA output, 0 to 500 psig range, 1/4" NPT male port				$;008t9:
SPT25-20-1000A	Pressure transmitter, 4 to 20 mA output, 0 to 1000 psig range, 1/4" NPT male port				$;008ta:
SPT25-20-1500A	Pressure transmitter, 4 to 20 mA output, 0 to 1500 psig range, 1/4" NPT male port				$;008tb:
SPT25-20-2000A	Pressure transmitter, 4 to 20 mA output, 0 to 2000 psig range, 1/4" NPT male port				$;008tc:
SPT25-20-3000A	Pressure transmitter, 4 to 20 mA output, 0 to 3000 psig range, 1/4" NPT male port				$;008td:
SPT25-20-5000A	Pressure transmitter, 4 to 20 mA output, 0 to 5000 psig range, 1/4" NPT male port				$;008te:
SPT25-10-V30A	Pressure transmitter, 0 to 10 V output, -14.7 vacuum to 30 psig range, 1/4" NPT male port		14 - 36 VDC		$;008t2:
SPT25-10-0030A	Pressure transmitter, 0 to 10 V output, 0 to 30 psig range, 1/4" NPT male port				$008sx:
SPT25-10-0060A	Pressure transmitter, 0 to 10 V output, 0 to 60 psig range, 1/4" NPT male port				$008sy:
SPT25-10-0100A	Pressure transmitter, 0 to 10 V output, 0 to 100 psig range, 1/4" NPT male port				$008sz:
SPT25-10-0150A	Pressure transmitter, 0 to 10 V output, 0 to 150 psig range, 1/4" NPT male port				$;008s]:
SPT25-10-0200A	Pressure transmitter, 0 to 10 V output, 0 to 200 psig range, 1/4" NPT male port				$;008s[:
SPT25-10-0300A	Pressure transmitter, 0 to 10 V output, 0 to 300 psig range, 1/4" NPT male port				$008s_:
SPT25-10-0500A	Pressure transmitter, 0 to 10 V output, 0 to 500 psig range, 1/4" NPT male port				$008s#:
SPT25-10-1000A	Pressure transmitter, 0 to 10 V output, 0 to 1000 psig range, 1/4" NPT male port				$;008s!:
SPT25-10-1500A	Pressure transmitter, 0 to 10 V output, 0 to 1500 psig range, 1/4" NPT male port				$008s?:
SPT25-10-2000A	Pressure transmitter, 0 to 10 V output, 0 to 2000 psig range, 1/4" NPT male port				$;008s,:
SPT25-10-3000A	Pressure transmitter, 0 to 10 V output, 0 to 3000 psig range, 1/4" NPT male port				$;008t0:
SPT25-10-5000A	Pressure transmitter, 0 to 10 V output, 0 to 5000 psig range, 1/4" NPT male port				$;008t1:

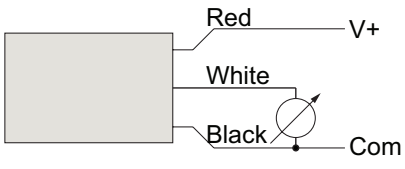
ProSense® SPT25 Series Pressure Transmitters

ProSense SPT25 Series Pressure Transmitters (DIN Connector)					
Part Number	**Description**	**Electrical Connection**	**Input Voltage**	**Wt(lb)**	**Price**
SPT25-20-V30D	Pressure transmitter, 4 to 20 mA output, -14.7 vacuum to 30 psig range, 1/4" NPT male port	DIN 175301-803C L-connector	9 - 36 VDC	0.30	$008sv:
SPT25-20-0030D	Pressure transmitter, 4 to 20 mA output, 0 to 30 psig range, 1/4" NPT male port				$008sh:
SPT25-20-0060D	Pressure transmitter, 4 to 20 mA output, 0 to 60 psig range, 1/4" NPT male port				$-008si:
SPT25-20-0100D	Pressure transmitter, 4 to 20 mA output, 0 to 100 psig range, 1/4" NPT male port				$-008sj:
SPT25-20-0150D	Pressure transmitter, 4 to 20 mA output, 0 to 150 psig range, 1/4" NPT male port				$008sk:
SPT25-20-0200D	Pressure transmitter, 4 to 20 mA output, 0 to 200 psig range, 1/4" NPT male port				$-008sl:
SPT25-20-0300D	Pressure transmitter, 4 to 20 mA output, 0 to 300 psig range, 1/4" NPT male port				$008sn:
SPT25-20-0500D	Pressure transmitter, 4 to 20 mA output, 0 to 500 psig range, 1/4" NPT male port				$008so:
SPT25-20-1000D	Pressure transmitter, 4 to 20 mA output, 0 to 1000 psig range, 1/4" NPT male port				$008sp:
SPT25-20-1500D	Pressure transmitter, 4 to 20 mA output, 0 to 1500 psig range, 1/4" NPT male port				$008sq:
SPT25-20-2000D	Pressure transmitter, 4 to 20 mA output, 0 to 2000 psig range, 1/4" NPT male port				$008ss:
SPT25-20-3000D	Pressure transmitter, 4 to 20 mA output, 0 to 3000 psig range, 1/4" NPT male port				$;008st:
SPT25-20-5000D	Pressure transmitter, 4 to 20 mA output, 0 to 5000 psig range, 1/4" NPT male port				$008su:
SPT25-10-V30D	Pressure transmitter, 0 to 10 V output, -14.7 vacuum to 30 psig range, 1/4" NPT male port		14 - 36 VDC		$008sg:
SPT25-10-0030D	Pressure transmitter, 0 to 10 V output, 0 to 30 psig range, 1/4" NPT male port				$008s4:
SPT25-10-0060D	Pressure transmitter, 0 to 10 V output, 0 to 60 psig range, 1/4" NPT male port				$008s5:
SPT25-10-0100D	Pressure transmitter, 0 to 10 V output, 0 to 100 psig range, 1/4" NPT male port				$008s6:
SPT25-10-0150D	Pressure transmitter, 0 to 10 V output, 0 to 150 psig range, 1/4" NPT male port				$008s7:
SPT25-10-0200D	Pressure transmitter, 0 to 10 V output, 0 to 200 psig range, 1/4" NPT male port				$008s8:
SPT25-10-0300D	Pressure transmitter, 0 to 10 V output, 0 to 300 psig range, 1/4" NPT male port				$008s9:
SPT25-10-0500D	Pressure transmitter, 0 to 10 V output, 0 to 500 psig range, 1/4" NPT male port				$008sa:
SPT25-10-1000D	Pressure transmitter, 0 to 10 V output, 0 to 1000 psig range, 1/4" NPT male port				$008sb:
SPT25-10-1500D	Pressure transmitter, 0 to 10 V output, 0 to 1500 psig range, 1/4" NPT male port				$008sc:
SPT25-10-2000D	Pressure transmitter, 0 to 10 V output, 0 to 2000 psig range, 1/4" NPT male port				$008sd:
SPT25-10-3000D	Pressure transmitter, 0 to 10 V output, 0 to 3000 psig range, 1/4" NPT male port				$008se:
SPT25-10-5000D	Pressure transmitter, 0 to 10 V output, 0 to 5000 psig range, 1/4" NPT male port				$;008sf:

0 to 10 VDC Output Wiring Diagram



With DIN Connector

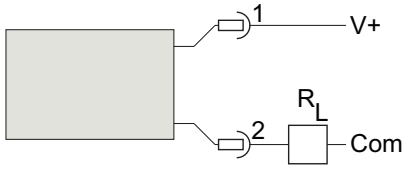


With Integral Cable

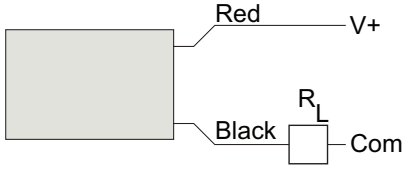
Shielded Cable Models Wire Designation		
Wire Color	**0 - 10 VDC Output**	**4 - 20 mA Output**
Red	V +	V +
Black	Com	Output
White	Output	None
Bare*	Shield Drain Wire	Shield Drain Wire

** Where shielded wiring is being used; Connect the drain wire to the guard terminal on the read out device or measuring instrument if available. In all other cases connect to the power supply negative terminal.*

4 to 20 mA Output Wiring Diagrams



With DIN Connector



With Integral Cable

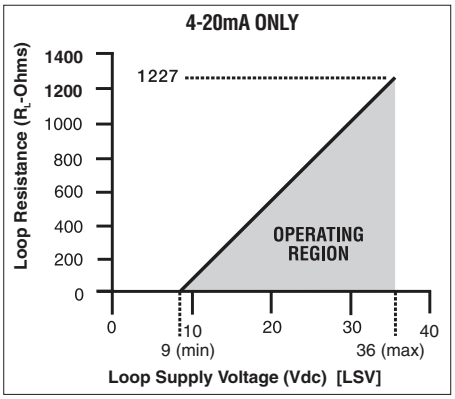
DIN Form C Models Pin Designation		
Pin No.	**0 - 10 VDC Output**	**4 - 20 mA Output**
1	V+	V+
2	Com	Output
3	Output	None
4	Case Ground	Case Ground

ProSense® SPT25 Series Pressure Transmitters

ProSense SPT25 Series General Specifications	
Housing Material	20% Glass Reinforced Nylon, Fire retardant to UL94 V1 / 304 Series Stainless steel
Materials (wetted parts)**	304 Series Stainless steel / 17-4PH Stainless Steel
Operating Temperature	–40 to 257°F (–40 to 125°C)
Medium Temperature	–40 to 257°F (–40 to 125°C)
Storage Temperature	–40 to 257°F (–40 to 125°C)
Protection	IP 67 for cabled models IP 65 For DIN connector models
Accuracy*	± 0.50% of full range
Temperature Coefficient	0.15% of full range / 10°F (0.25% of full range / 10°C)
Reference Temperature	70°F ± 1°F (21°C ± 1°C)
Compensated Temperature	–4 to 185°F (–20 to 85°C)
Insulation Resistance	Greater than 100 megohms at 100 VDC
Shock Resistance	100 gs, 6 ms
Vibration Resistance	Random vibration (20 g) over temperature range (-40° to 125°C). Exceeds typical MIL. STD. requirements
Drop Test	Withstands 1 meter on concrete 3 axis
Response Time	Less than 1 msec
Warm-up time	Less than 500 msec
Position Effect	Less than ±0.01% span, typical
Insulation Breakdown Voltage	100 VAC
Reverse Polarity & Miswired Protected	Yes
Durability	Tested to 50 million cycles
Humidity	0 to 100% R.H., no effect
Stability	Less than ±0.25% full range / year
Agency Approvals	CE
****Note - Includes non-linearity, hysteresis & non-repeatability.***	
***** Not cleaned for oxygen service***	

ProSense SPT25 Series Technical Specifications	
Technical Specifications SPT25-20-xxxx	
Operating Voltage	9 – 36 VDC
Analog Output	4 – 20 mA
Maximum Load	Determine Maximum Loop Resistances $\frac{V_L - 9\ VDC}{0.022\ amps} = R_L$ For example [(24 VDC – 9 VDC) / 0.022 amps] = 681Ω
Technical Specifications SPT25-10-xxxx	
Operating Voltage	14 – 36 VDC
Current Consumption	4 mA
Minimum Load	10 kΩ

Power Supply Voltage vs Loop Resistance



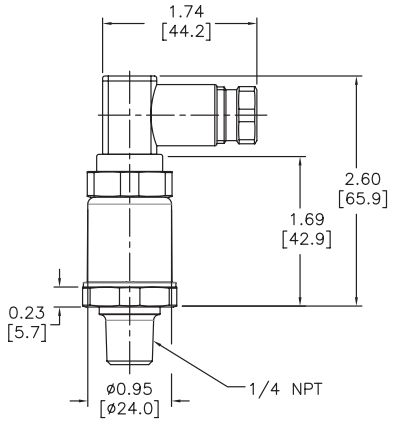
ProSense SPT25 Proof & Burst Pressures		
	Proof	***Burst***
500 psig & below	200% full scale	1000% full scale
1000 – 2000 psig	200% full scale	500% full scale
3000 psig	200% full scale	500% full scale
5000 psig	150% full scale	500% full scale

DIN Connector Specifications	
Number of contacts	3 + PE
Cable glands	PG 7
Conductor size max.	0.75 mm² / 18AWG
Type of termination	Screw
Suitable cables	4.5 mm to 6mm
Standard DIN	EN 175 301-803-C

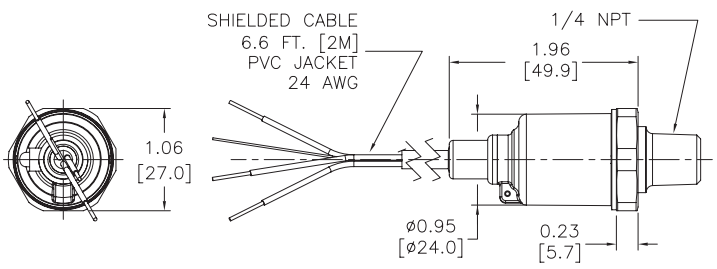
See our website www.AutomationDirect.com for complete Engineering drawings.

Dimensions

inches [mm]



DIN Connector Models



Shielded Cable Models

Endress+Hauser
People for Process Automation

Cerabar® PMC11 Series Pressure Transmitters

Part No. PMC11-CA1L1FFVXJA

Part No. PMC11-CA1V1FFVXJA

The Endress+Hauser Cerabar PMC11 With Ceramic Measuring Cell

Ceramic is one of the hardest materials in the world and ensures the best material properties for the medium. Cerabar capacitance ceramic measuring cells have membranes up to 30 times thicker than conventional measuring cells. Even the tiniest of deflections result in measuring signals with the highest accuracy.

These pressure transmitters are oil free and feature the Endress+Hauser Ceraphire robust, ultra-pure (99.9%) ceramic process isolating diaphragm that has high resistance to corrosion and abrasion, minimal temperature hysteresis, and the best overload resistance.

Features

- 10 to 30 VDC operating voltage
- Compact pressure transmitter
- Capacitive, oil-free ceramic sensor
- Measuring principle: Gauge pressure
- Process pressure: 400mbar to 40bar (6 to 600psi)
- Process temperature: -13 to +185°F (-25 to 85°C)
- Accuracy: ±0.5% of span
- Output: 4 to 20 mA

Click on the thumbnail or go to https://www.automationdirect.com/VID-PS-0030 for a short video on Endress+Hauser Cerabar Pressure Transmitters

For a variety of cable options see our website www.AutomationDirect.com

Endress+Hauser PMC11 Series Pressure Transmitter Selection

Part Number	Price	Pressure Range (psig)	Max Working Pressure (psig)	Accuracy	Sensing Element	Seal Material	Process Connection	Electrical Connection	Drawing Links	Vendor Tech Specs	Vendor Insert	Vendor Quick Start	Vendor Manual
PMC11-CA1L1FFVXJA	$;061q!:	0 to 6	79.5	+/- 0.5% of full range	Ceramic	FKM	1/2in male NPT outer and 1/4in female NPT inner	4-pin M12 quick-disconnect	PDF	PDF	PDF	PDF	PDF
PMC11-CA1L1HFVXJA	$061q?:	0 to 15	100.5						PDF				
PMC11-CA1L1KFVXJA	$;061q,:	0 to 30	180						PDF				
PMC11-CA1L1MFVXJA	$061s0:	0 to 60	250.5						PDF				
PMC11-CA1L1NFVXJA	$061s1:	0 to 90	400.5						PDF				
PMC11-CA1L1PFVXJA	$061s2:	0 to 150	400.5						PDF				
PMC11-CA1L1QFVXJA	$061s3:	0 to 240	600						PDF				
PMC11-CA1L1RFVXJA	$061s4:	0 to 375	600						PDF				
PMC11-CA1L1SFVXJA	$061s5:	0 to 600	600						PDF				
PMC11-CA1V1FFVXJA	$061s6:	0 to 6	79.5					ISO4400 valve plug	PDF				
PMC11-CA1V1HFVXJA	$061s7:	0 to 15	100.5						PDF				
PMC11-CA1V1KFVXJA	$061s8:	0 to 30	180						PDF				
PMC11-CA1V1MFVXJA	$061s9:	0 to 60	250.5						PDF				
PMC11-CA1V1NFVXJA	$061sa:	0 to 90	400.5						PDF				
PMC11-CA1V1PFVXJA	$061sb:	0 to 150	400.5						PDF				
PMC11-CA1V1QFVXJA	$061sc:	0 to 240	600						PDF				
PMC11-CA1V1RFVXJA	$061sd:	0 to 375	600						PDF				
PMC11-CA1V1SFVXJA	$061se:	0 to 600	600						PDF				

For complete technical information and installation see Vendor Tech Specs and Vendor Manual links.

Endress+Hauser
People for Process Automation

Cerabar® PMC21 Series Pressure Transmitters

Part No. PMC21-CA1M1CFVXJA

The Endress+Hauser Cerabar PMC21 With Ceramic Measuring Cell

Ceramic is one of the hardest materials in the world and ensures the best material properties for the medium. Cerabar capacitance ceramic measuring cells have membranes up to 30 times thicker than conventional measuring cells. Even the tiniest of deflections result in measuring signals with the highest accuracy.

These pressure transmitters are oil free and feature the Endress+Hauser Ceraphire robust, ultra-pure (99.9%) ceramic process isolating diaphragm that has high resistance to corrosion and abrasion, minimal temperature hysteresis, and the best overload resistance.

Click on the thumbnail or go to https://www.automationdirect.com/VID-PS-0030 for a short video on Endress+Hauser Cerabar Pressure Transmitters

Features

- 10 to 30 VDC operating voltage
- Compact pressure transmitter
- Capacitive, oil-free ceramic sensor
- Measuring principle: Gauge pressure
- Process pressure: 100mbar to 40bar (1.5 to 600psi)
- Process temperature: -13 to +212°F (-25 to 100°C)
- Accuracy: ±0.3% of span
- Output: 4 to 20 mA

For a variety of cable options see our website www.AutomationDirect.com

Endress+Hauser PMC21 Series Pressure Transmitter Selection

Part Number	Price	Pressure Range (psig)	Max Working Pressure (psig)	Accuracy	Sensing Element	Seal Material	Process Connection	Electrical Connection	Drawing Links	Vendor Tech Specs	Vendor Insert	Vendor Quick Start	Vendor Manual
PMC21-CA1M1CFVXJA	$;061sf:	0 to 1.5	40.5	+/- 0.3% of full range	Ceramic	FKM	1/2in male NPT outer and 1/4in female NPT inner	4-pin M12 quick-disconnect	PDF	PDF	PDF	PDF	PDF
PMC21-CA1M1EFVXJA	$061sg:	0 to 3.75	49.5						PDF				
PMC21-CA1M1FFVXJA	$061sh:	0 to 6	79.5						PDF				
PMC21-CA1M1HFVXJA	$-061si:	0 to 15	100.5						PDF				
PMC21-CA1M1KFVXJA	$-061sj:	0 to 30	180						PDF				
PMC21-CA1M1MFVXJA	$061sk:	0 to 60	250.5						PDF				
PMC21-CA1M1NFVXJA	$-061sl:	0 to 90	400.5						PDF				
PMC21-CA1M1PFVXJA	$061sn:	0 to 150	400.5						PDF				
PMC21-CA1M1QFVXJA	$061so:	0 to 240	600						PDF				
PMC21-CA1M1RFVXJA	$061sp:	0 to 375	600						PDF				
PMC21-CA1M1SFVXJA	$061sq:	0 to 600	600						PDF				

For complete technical information and installation see Vendor Tech Specs and Vendor Manual links.

Endress+Hauser
People for Process Automation

Cerabar® PMP11 Series Pressure Transmitters

Part No. PMP11-CA1L1FFVXJ

Part No. PMP11-CA1V1FFVXJ

The Endress+Hauser Cerabar PMP11 With Metallic Measuring Cell

As a high-performance solution for high pressure applications up to 400 bar (6,000 psi), these pressure transmitters meet stringent requirements and work reliably across a large temperature range.

Cerabar metallic cell transmitters feature a piezo-resistive sensor and are designed to withstand the harsh conditions of the process industry by using high quality materials like 316L. With supreme longevity, these transmitters will reliably measure gauge pressure of gases or liquids for many years to come.

Features

- 10 to 30 VDC operating voltage
- Compact, fully welded pressure transmitter
- Piezo-resistive sensor, stainless steel sensing element
- Measuring principle: Gauge pressure
- Process pressure: 400mbar to 40bar (6 to 600psi)
- Process temperature: -13 to +185°F (-25 to 85°C)
- Accuracy: ±0.5% of span
- Output: 4 to 20 mA

Click on the thumbnail or go to https://www.automationdirect.com/VID-PS-0030 for a short video on Endress+Hauser Cerabar Pressure Transmitters

For a variety of cable options see our website www.AutomationDirect.com

Endress+Hauser PMP11 Series Pressure Transmitter Selection

Part Number	Price	Pressure Range (psig)	Max Working Pressure (psig)	Accuracy	Sensing Element	Process Connection	Electrical Connection	Drawing Links	Vendor Tech Specs	Vendor Insert	Vendor Quick Start	Vendor Manual
PMP11-CA1L1FFVXJ	$061ss:	0 to 6	15	+/- 0.5% of full range	Stainless Steel	1/2in male NPT outer and 1/4in female NPT inner	4-pin M12 quick-disconnect	PDF	PDF	PDF	PDF	PDF
PMP11-CA1L1HFVXJ	$;061st:	0 to 15	40.5					PDF				
PMP11-CA1L1KFVXJ	$061su:	0 to 30	100.5					PDF				
PMP11-CA1L1MFVXJ	$061sv:	0 to 60	160.5					PDF				
PMP11-CA1L1NFVXJ	$061sx:	0 to 90	240					PDF				
PMP11-CA1L1PFVXJ	$061sy:	0 to 150	375					PDF				
PMP11-CA1L1QFVXJ	$061sz:	0 to 240	375					PDF				
PMP11-CA1L1RFVXJ	$;061s]:	0 to 375	375					PDF				
PMP11-CA1L1SFVXJ	$;061s[:	0 to 600	1500					PDF				
PMP11-CA1V1FFVXJ	$061s_:	0 to 6	15				ISO4400 valve plug	PDF				
PMP11-CA1V1HFVXJ	$061s#:	0 to 15	40.5					PDF				
PMP11-CA1V1KFVXJ	$;061s!:	0 to 30	100.5					PDF				
PMP11-CA1V1MFVXJ	$061s?:	0 to 60	160.5					PDF				
PMP11-CA1V1NFVXJ	$;061s,:	0 to 90	240					PDF				
PMP11-CA1V1PFVXJ	$;061t0:	0 to 150	375					PDF				
PMP11-CA1V1QFVXJ	$;061t1:	0 to 240	375					PDF				
PMP11-CA1V1RFVXJ	$;061t2:	0 to 375	375					PDF				
PMP11-CA1V1SFVXJ	$;061t3:	0 to 600	1500					PDF				

For complete technical information and installation see Vendor Tech Specs and Vendor Manual links.

Endress+Hauser
People for Process Automation

Cerabar® PMP21 Series Pressure Transmitters

Part No. PMP21-CA1M1FFVXJ

The Endress+Hauser Cerabar PMP21 With Metallic Measuring Cell

As a high-performance solution for high pressure applications up to 400 bar (6,000 psi), these pressure transmitters meet stringent requirements and work reliably across a large temperature range.

Cerabar metallic cell transmitters feature a piezo-resistive sensor and are designed to withstand the harsh conditions of the process industry by using high quality materials like 316L. With supreme longevity, these transmitters will depending on model, reliably measure absolute and/or gauge pressure of gases or liquids for many years to come.

Features

- 10 to 30 VDC operating voltage
- Compact, fully welded pressure transmitter
- Piezo-resistive sensor, stainless steel sensing element
- Measuring principle: Gauge pressure or absolute pressure
- Process pressure: 400mbar to 400bar (6 to 6,000psi)
- Process temperature: -40 to +212°F (-40 to 100°C)
- Accuracy: ±0.3% of span
- Output: 4 to 20 mA

Click on the thumbnail or go to https://www.automationdirect.com/VID-PS-0030 for a short video on Endress+Hauser Cerabar Pressure Transmitters

For a variety of cable options see our website www.AutomationDirect.com

Endress+Hauser PMP21 Series Pressure Transmitter Selection

Part Number	Price	Pressure Range (psig)	Max Working Pressure (psig)	Accuracy	Sensing Element	Process Connection	Electrical Connection	Drawing Links	Vendor Tech Specs	Vendor Insert	Vendor Quick Start	Vendor Manual
PMP21-CA1M1FFVXJ	$;061t4:	0 to 6	15	+/- 0.3% of full range	Stainless Steel	1/2in male NPT outer and 1/4in female NPT inner	4-pin M12 quick-disconnect	PDF	PDF	PDF	PDF	PDF
PMP21-CA1M1HFVXJ	$;061t5:	0 to 15	40.5					PDF				
PMP21-CA1M1KFVXJ	$;061t6:	0 to 30	100.5					PDF				
PMP21-CA1M1MFVXJ	$;061t7:	0 to 60	160.5					PDF				
PMP21-CA1M1NFVXJ	$;061t8:	0 to 90	240					PDF				
PMP21-CA1M1PFVXJ	$;061t9:	0 to 150	375					PDF				
PMP21-CA1M1QFVXJ	$;061ta:	0 to 240	375					PDF				
PMP21-CA1M1RFVXJ	$;061tb:	0 to 375	375					PDF				
PMP21-CA1M1SFVXJ	$;061tc:	0 to 600	1500					PDF				
PMP21-CA1M1UFVXJ	$;061td:	0 to 1500	1500					PDF				
PMP21-CA1M1WFVXJ	$;061te:	0 to 6000	6000					PDF				
Part Number	**Price**	**Pressure Range (psia)**	**Max Working Pressure (psia)**	**Accuracy**	**Sensing Element**	**Process Connection**	**Electrical Connection**	**Drawing Links**	**Vendor Tech Specs**	**Vendor Insert**	**Vendor Quick Start**	**Vendor Manual**
PMP21-CA1M2HFVXJ	$;;061tf:	0 to 15	40.5	+/- 0.3% of full range	Stainless Steel	1/2in male NPT outer and 1/4in female NPT inner	4-pin M12 quick-disconnect	PDF	PDF	PDF	PDF	PDF
PMP21-CA1M2KFVXJ	$;061tg:	0 to 30	100.5					PDF				
PMP21-CA1M2MFVXJ	$;061th:	0 to 60	160.5					PDF				
PMP21-CA1M2PFVXJ	$;-061ti:	0 to 150	375					PDF				
PMP21-CA1M2SFVXJ	$;-061tj:	0 to 600	1500					PDF				
PMP21-CA1M2UFVXJ	$;061tk:	0 to 1500	1500					PDF				

For complete technical information and installation see Vendor Tech Specs and Vendor Manual links.

Endress+Hauser
People for Process Automation

Cerabar® PMP23 Series Hygienic Pressure Transmitters

Part No. PMP23-CA1M1FF3CJ

Part No. PMP23-CAAN1FF3CJ

Features

- Ideal for industrial pressure measurement in gas, liquid, vapor, and dust applications with hygienic requirements
- Measuring ranges from 6 psig up to 600 psig
- Fully welded stainless steel 1-1/2in sanitary tri-clamp process connection for hygienic food and beverage applications
- Suitable for CIP (Clean-In-Place) / SIP (Sterilization-In-Place) cleaning
- Accuracy of +/- 0.3% of full range
- Models available with an analog 4-20mA output or 4-20mA output and IO-Link
- IP67 or IP69 protection rating depending on model
- 4-pin M12 electrical connection
- IO-Link connectivity on select models

IO-Link

For a variety of cable options see our website www.AutomationDirect.com

Endress+Hauser PMP23 Hygienic Pressure Transmitter Selection

Part Number	Price	Weight (lb)	Pressure Range (psig)	Max Working Pressure (psig)	Over Pressure Limit (psig)	Accuracy	Sensing Element	Output 1	Output 2	Process Connection	Protection Rating	Electrical Connection
PMP23-CA1M1FF3CJ	$;06a]2:	1.2	0 to 6	15	24	+/- 0.3% of full range	316L (1.4435)	4-20 mA	N/A	1-1/2in sanitary tri-clamp	IP65 / 67	4-pin M12 quick-disconnect (Plastic)
PMP23-CA1M1HF3CJ	$;06a]3:	1.2	0 to 15	40.5	60							
PMP23-CA1M1KF3CJ	$;06a]4:	1.2	0 to 30	100.5	150							
PMP23-CA1M1MF3CJ	$;06a]5:	1.2	0 to 60	160.5	240							
PMP23-CA1M1NF3CJ	$;06a]6:	1.2	0 to 90	240	360							
PMP23-CA1M1PF3CJ	$;06az[:	1.2	0 to 150	375	600							
PMP23-CA1M1QF3CJ	$06az_:	1.2	0 to 240	375	960							
PMP23-CA1M1RF3CJ	$06az#:	1.2	0 to 375	375	1500							
PMP23-CA1M1SF3CJ	$;06az!:	1.2	0 to 600	1500	2400							
Part Number	**Price**	**Weight (lb)**	**Pressure Range (psig)**	**Max Working Pressure (psig)**	**Over Pressure Limit (psig)**	**Accuracy**	**Sensing Element**	**Output 1**	**Output 2**	**Process Connection**	**Protection Rating**	**Electrical Connection**
PMP23-CAAN1FF3CJ	$06az?:	1.2	0 to 6	15	24	+/- 0.3% of full range	316L (1.4435)	4-20mA	IO-Link (SSP Ed.2 v1.1)	1-1/2in sanitary tri-clamp	IP66 / 69	4-pin M12 quick-disconnect (Metal)
PMP23-CAAN1HF3CJ	$;06a]7:	1.2	0 to 15	40.5	60							
PMP23-CAAN1KF3CJ	$;06a]8:	1.2	0 to 30	100.5	150							
PMP23-CAAN1MF3CJ	$;06a]9:	1.2	0 to 60	160.5	240							
PMP23-CAAN1NF3CJ	$;06a]a:	1.2	0 to 90	240	360							
PMP23-CAAN1PF3CJ	$;06a]b:	1.2	0 to 150	375	600							
PMP23-CAAN1QF3CJ	$;06az,:	1.2	0 to 240	375	960							
PMP23-CAAN1RF3CJ	$;06a]0:	1.2	0 to 375	375	1500							
PMP23-CAAN1SF3CJ	$;06a]1:	1.2	0 to 600	1500	2400							

For complete technical information and installation see Vendor Tech Specs and Vendor Manual links.

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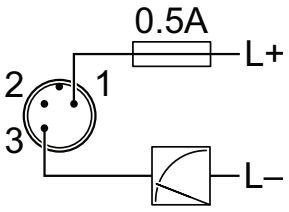
Cerabar® PMP23 Series Hygienic Pressure Transmitters

Endress+Hauser PMP23 Hygienic Pressure Transmitter Resources						
Part Number	*Drawing Link*	*Vendor Technical Specifications*	*Vendor Operating Manual*	*Vendor Brief Operating Instructions*	*Vendor Insert*	*IO-Link Quick Start Guide*
PMP23-CA1M1FF3CJ	PDF	PDF	PDF	PDF	PDF	N/A
PMP23-CA1M1HF3CJ	PDF					
PMP23-CA1M1KF3CJ	PDF					
PMP23-CA1M1MF3CJ	PDF					
PMP23-CA1M1NF3CJ	PDF					
PMP23-CA1M1PF3CJ	PDF					
PMP23-CA1M1QF3CJ	PDF					
PMP23-CA1M1RF3CJ	PDF					
PMP23-CA1M1SF3CJ	PDF					
PMP23-CAAN1FF3CJ	PDF	PDF	PDF	PDF	PDF	PDF
PMP23-CAAN1HF3CJ	PDF					
PMP23-CAAN1KF3CJ	PDF					
PMP23-CAAN1MF3CJ	PDF					
PMP23-CAAN1NF3CJ	PDF					
PMP23-CAAN1PF3CJ	PDF					
PMP23-CAAN1QF3CJ	PDF					
PMP23-CAAN1RF3CJ	PDF					
PMP23-CAAN1SF3CJ	PDF					

For complete technical information and installation see Vendor Tech Specs and Vendor Manual links.

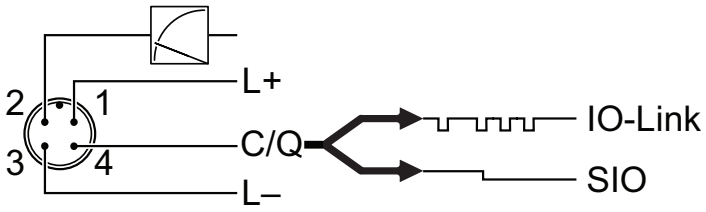
PMP23 Series Wiring Examples

(PMP23-CA1xxxxxxx Models)



1 x analog

(PMP23-CAAxxxxxxx Models)



1 x analog / 1 x IO-Link

Endress+Hauser
People for Process Automation

Ceraphant® PTP31B Series Digital Pressure Sensors

Part No. PTP31B-CA7M1FGFVXJ

Features

- Ideal for industrial pressure measurement and indication in gas, liquid, and vapor applications
- Measuring ranges from 6 psig up to 6000 psig
- Selectable engineering units include psi, bar, kPa, MPa
- The dual 1/2" NPT male / 1/4" NPT female process connection allows for direct installation without requiring extra fittings
- Models available with 2 solid state switch outputs providing a reliable alternative to mechanical pressure switches
- Models available with both an analog 4-20mA output and solid state switch output for use as a combination pressure switch and transmitter
- Built-in one line 4-digit LCD display shows measured values, fault messages and information messages. The display background will show white or red indicating device status.
- Displayed value can be rotated 180° for installation flexibility
- 3 bright LEDs indicate device and output status
- Simple pushbutton setup for easy and quick configuration prior to installation without the need for a separate pressure reference gauge
- Stainless steel housing allows for a high IP67 ingress protection rating
- 4-pin M12 electrical connection
- IO-Link connectivity

IO-Link

For a variety of cable options see our website www.AutomationDirect.com

Ceraphant PTP31B Digital Pressure Sensor Selection

Part Number	Price	Weight (lb)	Pressure Range (psig)	Max Working Pressure (psig)	Over Pressure Limit (psig)	Accuracy	Sensing Element	Output 1	Output 2	Process Connection	Electrical Connection
PTP31B-CA7M1FGFVXJ	$;;066f[:	1.0	0 to 6	15	24	+/- 0.5% of full range	316L (1.4435)	4-20 mA	Switch PNP, N.O. / N.C. selectable or IO-Link	1/2in male NPT or 1/4in female NPT	4-pin M12 quick-disconnect
PTP31B-CA7M1HGFVXJ	$;066f_:	1.0	0 to 15	40.5	62						
PTP31B-CA7M1KGFVXJ	$;066f#:	1.0	0 to 30	100.5	150						
PTP31B-CA7M1MGFVXJ	$;;066f!:	1.0	0 to 60	160.5	240						
PTP31B-CA7M1PGFVXJ	$;066f?:	1.0	0 to 150	375	600						
PTP31B-CA7M1SGFVXJ	$;;066f,:	1.0	0 to 600	1500	2400						
PTP31B-CA7M1UGFVXJ	$066g0:	1.0	0 to 1500	1500	2400						
PTP31B-CA7M1WGFVXJ	$066g1:	1.10	0 to 6000	6000	9000						
PTP31B-CA8M1FGFVXJ	$;066fs:	1.0	0 to 6	15	24	+/- 0.5% of full range	316L (1.4435)	Switch PNP, N.O. / N.C. selectable	Switch PNP, N.O. / N.C. selectable or IO-Link	1/2in male NPT or 1/4in female NPT	4-pin M12 quick-disconnect
PTP31B-CA8M1HGFVXJ	$;;066ft:	1.0	0 to 15	40.5	62						
PTP31B-CA8M1KGFVXJ	$;066fu:	1.0	0 to 30	100.5	150						
PTP31B-CA8M1MGFVXJ	$;066fv:	1.0	0 to 60	160.5	240						
PTP31B-CA8M1PGFVXJ	$;066fx:	1.0	0 to 150	375	600						
PTP31B-CA8M1SGFVXJ	$;066fy:	1.0	0 to 600	1500	2400						
PTP31B-CA8M1UGFVXJ	$;066fz:	1.0	0 to 1500	1500	2400						
PTP31B-CA8M1WGFVXJ	$;;066f]:	1.10	0 to 6000	6000	9000						

Some units may may be marked with a max working pressure (MWP) below the sensors upper range limit. This is a CSA approval limitation and does not impact the practical working range of the device. Please reference and follow all standards required for an application and/or by applicable laws and regulations.

For complete technical information and installation see Vendor Tech Specs and Vendor Manual links.

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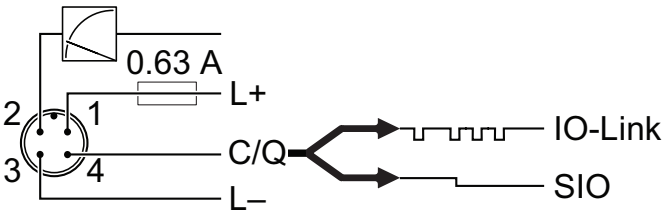
Ceraphant® PTP31B Series Digital Pressure Sensors

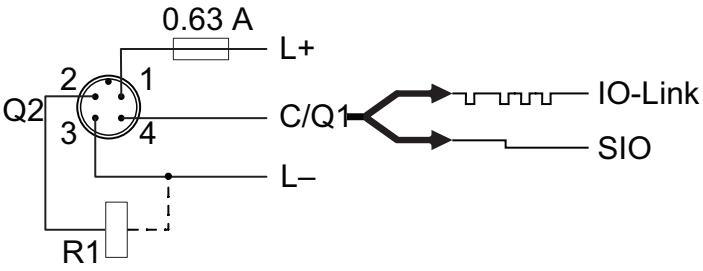
Ceraphant PTP31B Digital Pressure Sensor Resources					
Part Number	*Drawing Link*	*Vendor Technical Specifications*	*Vendor Operating Manual*	*Vendor Insert*	*IO-Link Quick Start Guide*
PTP31B-CA7M1FGFVXJ	PDF	PDF	PDF	PDF	PDF
PTP31B-CA7M1HGFVXJ	PDF				
PTP31B-CA7M1KGFVXJ	PDF				
PTP31B-CA7M1MGFVXJ	PDF				
PTP31B-CA7M1PGFVXJ	PDF				
PTP31B-CA7M1SGFVXJ	PDF				
PTP31B-CA7M1UGFVXJ	PDF				
PTP31B-CA7M1WGFVXJ	PDF				
PTP31B-CA8M1FGFVXJ	PDF	PDF	PDF	PDF	PDF
PTP31B-CA8M1HGFVXJ	PDF				
PTP31B-CA8M1KGFVXJ	PDF				
PTP31B-CA8M1MGFVXJ	PDF				
PTP31B-CA8M1PGFVXJ	PDF				
PTP31B-CA8M1SGFVXJ	PDF				
PTP31B-CA8M1UGFVXJ	PDF				
PTP31B-CA8M1WGFVXJ	PDF				

For complete technical information and installation see Vendor Tech Specs and Vendor Manual links.

PTP31B Series Wiring Examples



1 x analog / 1 x PNP or IO-Link



1 x PNP / 1 x PNP or IO-Link

Endress+Hauser
People for Process Automation

Ceraphant® PTP33B Series Digital Pressure Sensors

Part No. PTP33B-CA7M1FGF3CJ

Features

- Ideal for industrial pressure measurement and indication in gas, liquid, and vapor applications
- Measuring ranges from 6 psig up to 600 psig
- Selectable engineering units include psi, bar, kPa, MPa
- 1-1/2in sanitary tri-clamp process connection for food and beverage applications
- Suitable for CIP/SIP cleaning
- Models available with 2 solid state switch outputs providing a reliable alternative to mechanical pressure switches
- Models available with both an analog 4-20mA output and solid state switch output for use as a combination pressure switch and transmitter
- Built-in one line 4-digit LCD display shows measured values, fault messages and information messages. The display background will show white or red indicating device status.
- Displayed value can be rotated 180° for installation flexibility
- 3 bright LEDs indicate device and output status
- Simple pushbutton setup for easy and quick configuration prior to installation without the need for a separate pressure reference gauge
- Stainless steel housing allows for a high IP67 ingress protection rating
- 4-pin M12 electrical connection
- IO-Link connectivity

IO-Link

For a variety of cable options see our website www.AutomationDirect.com

Ceraphant PTP33B Digital Pressure Sensor Selection

Part Number	Price	Weight (lb)	Pressure Range (psig)	Max Working Pressure (psig)	Over Pressure Limit (psig)	Accuracy	Sensing Element	Output 1	Output 2	Process Connection	Electrical Connection
PTP33B-CA7M1FGF3CJ	$066g8:	0.95	0 to 6	15	24	+/- 0.5% of full range	316L (1.4435)	4-20 mA	Switch PNP, N.O. / N.C. selectable or IO-Link	1-1/2in sanitary tri-clamp	4-pin M12 quick-disconnect
PTP33B-CA7M1HGF3CJ	$066g9:	0.95	0 to 15	40.5	60						
PTP33B-CA7M1KGF3CJ	$066ga:	0.95	0 to 30	100.5	150						
PTP33B-CA7M1MGF3CJ	$066gb:	0.95	0 to 60	160.5	240						
PTP33B-CA7M1PGF3CJ	$066gc:	0.95	0 to 150	375	600						
PTP33B-CA7M1SGF3CJ	$066gd:	1.0	0 to 600	1500	2400						
PTP33B-CA8M1FGF3CJ	$066g2:	0.95	0 to 6	15	24	+/- 0.5% of full range	316L (1.4435)	Switch PNP, N.O. / N.C. selectable	Switch PNP, N.O. / N.C. selectable or IO-Link	1-1/2in sanitary tri-clamp	4-pin M12 quick-disconnect
PTP33B-CA8M1HGF3CJ	$066g3:	0.95	0 to 15	40.5	60						
PTP33B-CA8M1KGF3CJ	$066g4:	0.95	0 to 30	100.5	150						
PTP33B-CA8M1MGF3CJ	$066g5:	0.95	0 to 60	160.5	240						
PTP33B-CA8M1PGF3CJ	$066g6:	0.95	0 to 150	375	600						
PTP33B-CA8M1SGF3CJ	$066g7:	1.0	0 to 600	1500	2400						

For complete technical information and installation see Vendor Tech Specs and Vendor Manual links.

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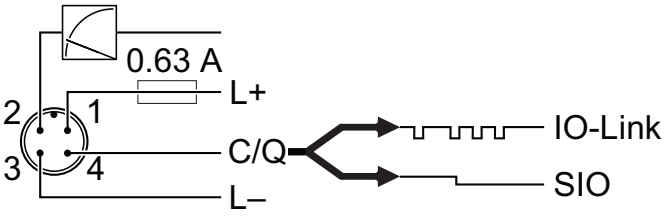
Ceraphant® PTP33B Series Digital Pressure Sensors

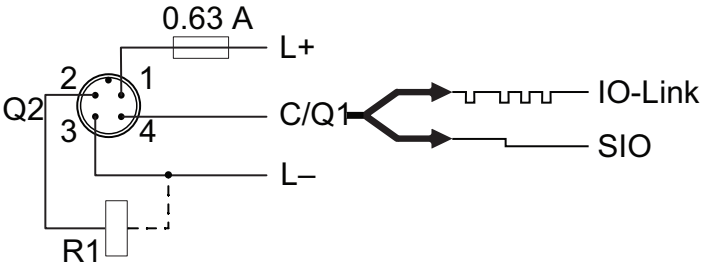
Ceraphant PTP33B Digital Pressure Sensor Resources					
Part Number	*Drawing Link*	*Vendor Technical Specifications*	*Vendor Operating Manual*	*Vendor Insert*	*IO-Link Quick Start Guide*
PTP33B-CA7M1FGF3CJ	PDF	PDF	PDF	PDF	PDF
PTP33B-CA7M1HGF3CJ	PDF				
PTP33B-CA7M1KGF3CJ	PDF				
PTP33B-CA7M1MGF3CJ	PDF				
PTP33B-CA7M1PGF3CJ	PDF				
PTP33B-CA7M1SGF3CJ	PDF				
PTP33B-CA8M1FGF3CJ	PDF	PDF	PDF	PDF	PDF
PTP33B-CA8M1HGF3CJ	PDF				
PTP33B-CA8M1KGF3CJ	PDF				
PTP33B-CA8M1MGF3CJ	PDF				
PTP33B-CA8M1PGF3CJ	PDF				
PTP33B-CA8M1SGF3CJ	PDF				

For complete technical information and installation see Vendor Tech Specs and Vendor Manual links.

PTP33B Series Wiring Examples



1 x analog / 1 x PNP or IO-Link



1 x PNP / 1 x PNP or IO-Link

ProSense® DPTW Series Differential Pressure Transmitters

Overview

The ProSense DPTW differential pressure transmitter series is precision engineered for accurate differential or gauge pressure measurement. The wet-wet design uses a silicon based variable capacitance sensor with stainless steel media isolation diaphragms and silicone pressure transmission fluid making it compatible with a wide variety of liquids, gases, and steam applied to both pressure sensing ports. The DPTW series is ideal for industrial, commercial, and OEM process measurement applications including differential, positive, or negative pressures; hydrostatic liquid level in pressurized or open tanks; and flow measurement using primary differential pressure flow elements such as an annular pitot tube, orifice plate or venturi tube. The DPTW series is available in pressure measurement ranges from 4 inches water column up to 400 inches water column with static (line) proof pressure of 300 psig and can easily be rescaled to a different linear pressure range and units of measure using display pushbuttons. An integral square root function also allows for the display and output of flow in instantaneous flow rate units of measure such as gallons/minute or display of integrated flow volume in units such as gallons. The integral pressure port manifold has 1/4-inch NPT female process pressure connections and includes a built-in equalizing valve used to open both ports to the line pressure during installation to prevent sensor damage or calibration shift due to overpressure. The DPTW series is powered with nominal 24VDC power and provides a two-wire, 4-20mA output signal proportional to the measured pressure. The very compact design of the DPTW series is up to 8-times smaller than conventional style DP transmitters and features a rugged NEMA 4X (IP65) rated aluminum die cast housing and rotatable 6-digit LCD display with bright LED backlight.

Applications

- Pressurized and non-pressurized tank levels
- Flow measurement (liquid / gas / steam)
- Pollution monitoring equipment
- Filter monitoring
- Pressure across flue gas duct
- Furnace combustion airflow rate
- Pump speed control
- Valve pressure drop monitoring

Features

- Wet-wet design ideal for liquid, gas, and steam measurement of differential, positive, or negative pressures, hydrostatic liquid level, and flow
- Integral pressure port manifold with 1/4 inch female process connections and built-in equalizing valve
- Digital filter function to dampen pulsations and provide a more stable output and display
- Key lock function to prevent unauthorized changes to configuration settings
- Bright backlit 6-digit LCD display
- Scaling function allows display to indicate user defined units of measure
- Internal "pushbutton" configurability allows quick range changes
- "Loop check" function allows unit to output 4-20 mA without applying pressure
- Square root extraction function for display and output of linear flow rate or display of integrated flow volume
- Up to 8X smaller than a conventional style DP transmitter
- Easily rotatable display, 90° increments
- Rugged NEMA 4X (IP65) aluminum die cast housing
- 3 year warranty

CE 3 YEAR WARRANTY

DPTW Series Differential Pressure Transmitter								
Part Number	***Description***	***Measuring Range***	***Output***	***Process Connection***	***Operating Voltage***	***Wt(lb)***	***Price***	***Drawing Link***
DPTW-4	ProSense differential pressure transmitter	0 to 4in of water column	4-20mA	1/4in female NPT process connection	12-32 VDC	1.0 lb	$;04]ex:	PDF
DPTW-8		0 to 8in of water column					$;04]ey:	PDF
DPTW-20		0 to 20in of water column					$;04]ez:	PDF
DPTW-40		0 to 40in of water column					$;;04]e]:	PDF
DPTW-80		0 to 80in of water column					$;;04]e[:	PDF
DPTW-200		0 to 200in of water column					$;04]eu:	PDF
DPTW-400		0 to 400in of water column					$;04]ev:	PDF

DPTW Series Differential Pressure Transmitters

DPTW Series Specifications	
Performance Specifications	
Reference Temperature	73°F (23°C)
Accuracy	± 0.50% of span (URL*) Includes the effects of linearity, hysteresis, and repeatability
Display Accuracy	± 0.5% of span (URL) + 1 digit
Stability	± 0.25% of span (URL)/year
Output Resolution	0.1% of span (URL)
Temperature Effects	Temperature Effects: (–10°C to 60°C) ± 0.03% FS/C°
Memory	Permanently stored in EEPROM nonvolatile memory
Environmental Specifications	
Temperature Limits	Storage: 5°F to 150°F (–15°C to 65°C) Operating: 14°F to 140°F (–10°C to 60°C) Medium: 14°F to 140°F (–10°C to 60°C)** Compensated: 14°F to 140°F (–10°C to 60°C)
Functional Specifications	
Rangeablility/Adjustment	Zero –10% to 110% Span Span –10% to 110% Span (Accuracy and output resolution based upon full scale (URL) value)
Unit of Measure	inH_2O (IWC) or User defined
Static (Line) Pressure	Pressure Range: 4 inH_2O to 400 inH_2O Proof: 300 psi Burst: 800 psi
Single Side (Differential)	Pressure Range: ≤ 8 inH_2O Proof: 30 psid Burst: 130 psid Pressure Range: ≥ 20 inH_2O Proof: 100 psid Burst: 130 psid
Static (Line) Pressure Effects	Pressure Range: Effect: ≥ 20 inH_2O ± 0.3% Range/100 psi (URL) 8 inH_2O ± 0.7%Range/100 psi (URL) 4 inH_2O ± 1.5% Range/100 psi (URL)
Response Time	100ms (when Filter Function set to 0)
Filter Function	0, 2, 4, 8, or 16 seconds
Vibration	5g's 150Hz
Shock Effect	10g's 16ms
Electrical Specifications	
Output Signal	4-20 mA (2 Wire)
Load Impedance	545Ω @ 24VDC (refer to Load Limitations graph)
Supply Voltage	12-32 Vdc
Insulation Resistance	50Vdc (>100 MΩ)
EMC Compliance	EMC Directive 2014/30/EU EN 61326-1:2013 EN 61326-2-3:2013 (EMI Class A/EMS Table 2)

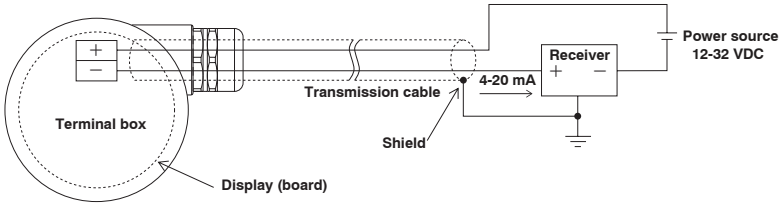
** Upper Range Limit (URL)*

*** For steam or other higher temperature processes, ensure that the temperature at the DPTW process connections do not exceed the Medium Temperature Limits. For steam use longer sensing lines and/or a siphon (pigtail) and fill with water to lower the medium temperature to acceptable limits.*

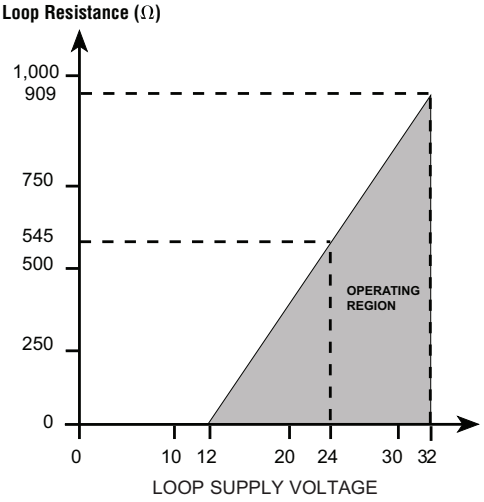
DPTW Series Differential Pressure Transmitters

DPTW Series Specifications	
Physical Specifications	
Environmental Rating	IP65 / NEMA 4X
Mounting	Mounting bracket included
Process Connections	Manifold with 1/4 NPT Female ports and equalizing valve
Display	6-digit LCD with LED backlight, 10mm character height
Display Update	500ms
Electrical Connection	PG 13.5 Female Preinstalled Cable Gland (Cable diameters 0.35" to 0.47") Terminal block: 14-22 AWG stranded or solid wire
Wetted Material	
Diaphram	316 SS, Viton® & Alumina Ceramic
Process Connection	316 SS
Media Compatibility	Fluids and gases compatible with 316 SS, Viton® and Alumina Ceramic
Non-Wetted Material	
Enclosure	Aluminum, epoxy coated

Wiring

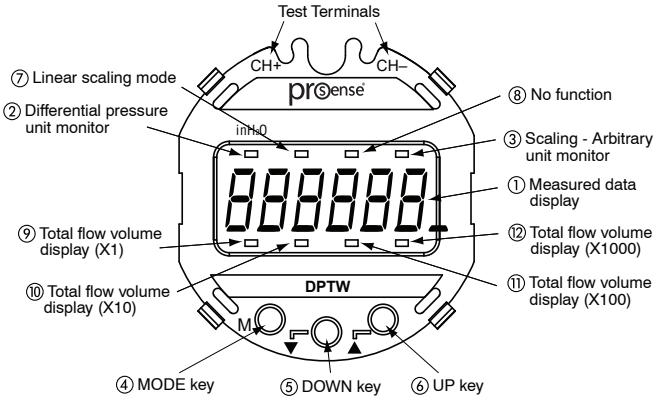


Load Limitations 4–20mA Output



V_{min} = 12V+ [0.022A*(RL)]
(Includes a 10% safety factor)
$R_L = R_S + R_W$
R_L = Loop Resistance (ohms)
R_S = Sense Resistance (ohms)
R_W = Wire Resistance (ohms)

Display and Keypad

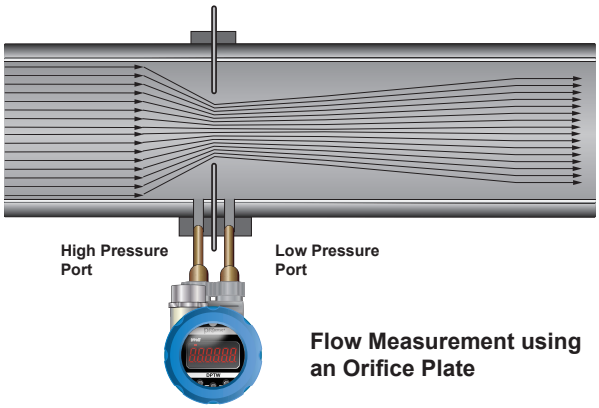


DESIGNATION	FUNCTION
① **Measured data display**	Differential pressure, linear scaling value are displayed.
② **Differential pressure unit monitor**	When this unit monitor is ON, the differential pressure (inH_2O) is indicated on the measured data display.
③ **Scaling; arbitrary unit monitor**	When this unit monitor is ON, the scaling value of an arbitrary unit (linear scaling), is indicated on the measured data display.
④ **MODE key (M)**	This key is used to switch the setting mode and the measurement mode and to change the setting item.
⑤ **DOWN key** ▼	This key is used to change (decrease)and select the set value .
⑥ **UP key** ▲	This key is used to change (increase) and select the set value and to shift from the measurement mode to the zero adjustment mode.

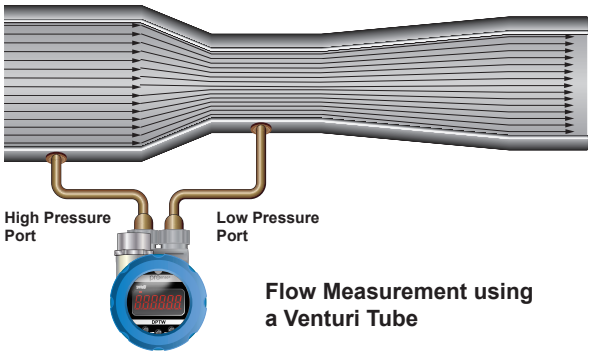
DESIGNATION	FUNCTION
⑦ **Linear scaling mode**	Used to adjust zero/ span values to 4-20mA output signal.
⑧ **No function**	None
⑨ **to** ⑫ **Total flow volume display**	Display multiplier, X1, X10, X100, X1000

DPTW Series Differential Pressure Transmitters

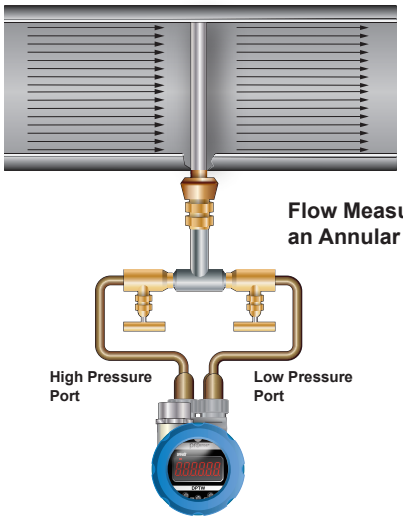
Application Examples



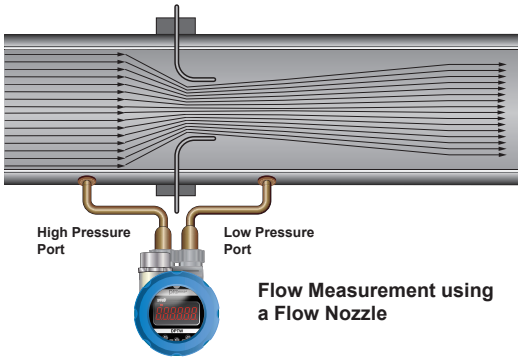
Flow Measurement using an Orifice Plate



Flow Measurement using a Venturi Tube

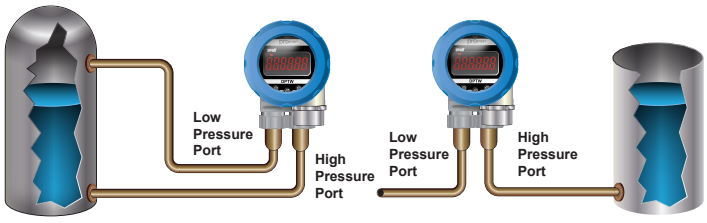


Flow Measurement using an Annular Tube

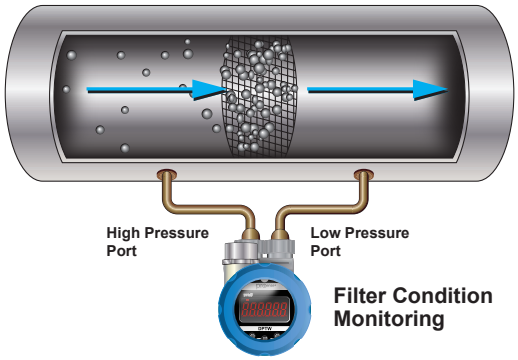


Flow Measurement using a Flow Nozzle

Hydrostatic Level Measurement



Pressurized Tank **Open Tank**



Filter Condition Monitoring

Click on the thumbnail or go to https://www.automationdirect.com/VID-PR-0006 for a short video on the DPTW ProSense Differential Pressure Transmitters

ProSense® DPTA Series Differential Air Pressure Transmitters

The ProSense DPTA differential pressure transmitter series is precision engineered for accurate low differential pressure measurement of air and non-condensing, non-corrosive gases in industrial, commercial, and OEM applications. Its highly reliable, ultra-thin single silicon crystal diaphragm capacitive sensor provides inherent repeatability and stability with no glues or other organics to contribute to drift or mechanical degradation over time. The DPTA series is available in ranges from 0.1 inches w.c. to 25 inches w.c. to measure positive, negative, and bi-directional pressures with the ability to withstand 15 psig overpressure without damage or calibration shift. The easily accessible brass barbed pressure ports, removable terminal blocks, and rugged ABS housing capable of 35 mm DIN rail or panel mounting make installation quick and easy.

Applications

- HVAC duct static pressure
- Air filter monitoring
- Building pressurization
- Isolation and clean rooms
- Fume hoods
- Furnace, oven, dryer draft pressure
- Air flow measurement

Features

- Highly stable capacitive sensing element
- Positive, negative, and bi-directional pressure measurement
- Pressure ranges from 0.1"w.c. to 25"w.c.
- Accuracy is +/-1% of full range maximum
- High overpressure rating of 15 psig without damage or calibration shift
- Rugged ABS housing capable of DIN rail or panel mounting
- LED loop power status indicator
- Made in the USA
- CE marked
- • 3-year warranty

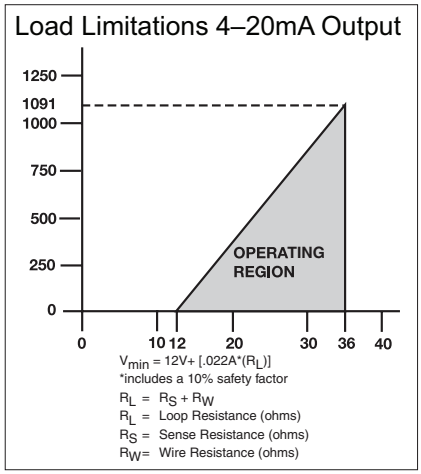
Click on the thumbnail or go to https://www.automationdirect.com/VID-PR-0001 for a short video on ProSense Air Differential and Pressure Transmitters

ProSense DPTA Series Differential Air Pressure Transmitters

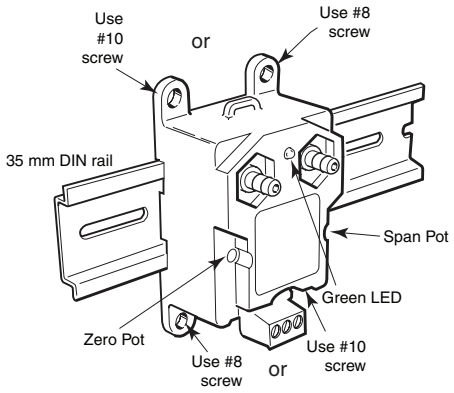
Part Number	Description	Electrical Connection	Input Voltage	Wt(lb)	Price
DPTA-20-P1	Differential Pressure transmitter, 4 to 20 mA output, 0 to 0.1 in. water column range, 1/4" brass barbed connections	Screw Terminals	12 - 36 VDC	0.16	$--008ij:
DPTA-20-P1B	Differential Pressure transmitter, 4 to 20 mA output, -0.1 to +0.1 water column range, 1/4" brass barbed connections				$-008ik:
DPTA-20-P25	Differential Pressure transmitter, 4 to 20 mA output, 0 to 0.25 in. water column range, 1/4" brass barbed connections				$--008il:
DPTA-20-P25B	Differential Pressure transmitter, 4 to 20 mA output, -0.25 to +0.25 in. water column range, 1/4" brass barbed connections				$-008in:
DPTA-20-P5	Differential Pressure transmitter, 4 to 20 mA output, 0 to 0.5 in. water column range, 1/4" brass barbed connections				$-008io:
DPTA-20-P5B	Differential Pressure transmitter, 4 to 20 mA output, -0.5 to +0.5 in. water column range, 1/4" brass barbed connections				$-008ip:
DPTA-20-01	Differential Pressure transmitter, 4 to 20 mA output, 0 to 1.0 in. water column range, 1/4" brass barbed connections				$-008i6:
DPTA-20-01B	Differential Pressure transmitter, 4 to 20 mA output, -1.0 to +1.0 in. water column range, 1/4" brass barbed connections				$-008i7:
DPTA-20-02	Differential Pressure transmitter, 4 to 20 mA output, 0 to 2.0 in. water column range, 1/4" brass barbed connections				$-008i8:
DPTA-20-02B	Differential Pressure transmitter, 4 to 20 mA output, -2.0 to +2.0 in. water column range, 1/4" brass barbed connections				$-008i9:
DPTA-20-03	Differential Pressure transmitter, 4 to 20 mA output, 0 to 3.0 in. water column range, 1/4" brass barbed connections				$-008ia:
DPTA-20-03B	Differential Pressure transmitter, 4 to 20 mA output, -3.0 to +3.0 in. water column range, 1/4" brass barbed connections				$-008ib:
DPTA-20-05	Differential Pressure transmitter, 4 to 20 mA output, 0 to 5.0 in. water column range, 1/4" brass barbed connections				$-008ic:
DPTA-20-05B	Differential Pressure transmitter, 4 to 20 mA output, -5.0 to +5.0 in. water column range, 1/4" brass barbed connections				$-008id:
DPTA-20-10	Differential Pressure transmitter, 4 to 20 mA output, 0 to 10.0 in. water column range, 1/4" brass barbed connections				$-008ie:
DPTA-20-10B	Differential Pressure transmitter, 4 to 20 mA output, -10.0 to +10.0 in. water column range, 1/4" brass barbed connections				$;-008if:
DPTA-20-15	Differential Pressure transmitter, 4 to 20 mA output, 0 to 15.0 in. water column range, 1/4" brass barbed connections				$-008ig:
DPTA-20-15B	Differential Pressure transmitter, 4 to 20 mA output, -15.0 to +15.0 in. water column range, 1/4" brass barbed connections				$-008ih:
DPTA-20-25	Differential Pressure transmitter, 4 to 20 mA output, 0 to 25.0 in. water column range, 1/4" brass barbed connections				$--008ii:

ProSense DPTA Series Differential Air Pressure Transmitters

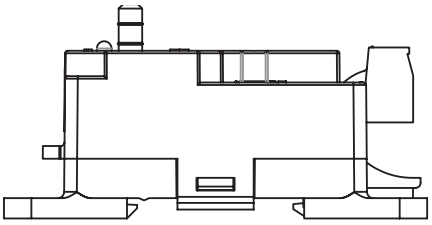
ProSense DPTA Series Specifications	
Operating Voltage	12 – 36 VDC
Output Range*	4 - 20 mA (2-wire)
Supply Current*	21.5 mA Max.
Maximum Load	$\frac{V_L - 12\ VDC}{0.022\ amps} = R_L$ For example [(24 VDC – 12 VDC) / 0.022 amps] = 545Ω
Enclosure	NEMA Type 1 Fire-retardant ABS (meets UL 95-5VA)
Pressure Connections	Brass barbed fittings for 1/4" O.D. tube
Weight	0.16 lb
Media	Clean, dry and non-corrosive gas
Mounting	Threaded fastener and 35mm DIN rail mount
Reference Temperature	70°F ± 2°F (21°C ± 1°C)
Temperature Coefficients - Zero & Span	±0.03% full range / °F
Compensated Range	35 to 130°F (2 to 54°C)
Operating Temperature	0 to 160°F (–18 to 71°C)
Storage Temperature	–40 to 180°F (–40 to 82°C)
Humidity	10 to 95% R.H., non-condensing
Stability	Less than ±0.25% full range / year
Accuracy	±1% maximum. Includes non-linearity, hysteresis, nonrepeatability, zero offset and span setting errors.
Response Time	250 msec
Proof Pressure	15 psig
Burst Pressure	25 psig
Max. Static Line Pressure	15 psig
Electrical Connection	Euro style pluggable terminal block accepts 12-26 gauge wire
Terminal Screw Torque	4 lbs in (0.5 Nm)
Reverse Wiring Protected	Yes
External Zero Adjustment	±5% full range
External Span Adjustment	±5% full range
Agency Approvals	CE, RoHS
**** Output signal is independent of power supply changes.***	



Mounting Options

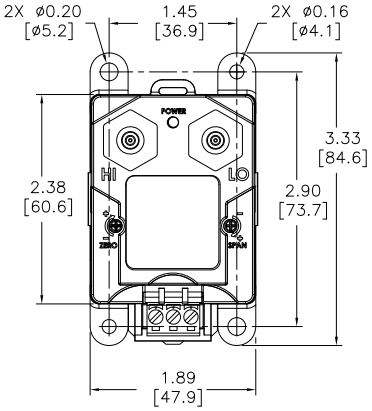


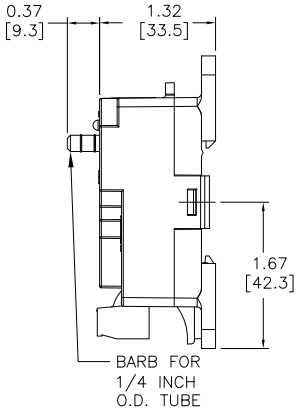
Note: ProSense DPTA series transmitter should be mounted in a vertical and upright position as shown above.



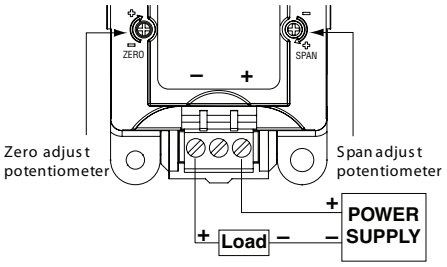
Mounting horizontally may affect accuracy by an additional 1%.

Dimensions inches [mm]





Wiring Diagram



DN-3PLUGMN can be used as a replacement terminal block.

See our website www.AutomationDirect.com for complete Engineering drawings.

ProSense® EPS Series Digital Pressure Sensors

Overview

AutomationDirect's ProSense EPS Series of Digital Pressure Sensors is ideal for industrial pressure measurement and indication in both gas and liquid applications. Measuring ranges are available from vacuum up to 5800 psig as well as other selectable engineering units such as bar, mbar, kPa, MPa, inches of water column, and inches of mercury. The standard 1/4" NPT male process connection allows for direct installation without requiring extra fittings. With no moving parts such as pistons or springs that can stick or break, the two solid state switch outputs provide a reliable alternative to mechanical pressure switches. Models are also available that allow the second output to be configured as a scalable analog signal turning the unit into a combination pressure switch and transmitter. The built-in two-color digital display is easy to read from a distance and provides indication of measured pressure and switch setpoints. It can be set to change color between red and green based on measured value or output status and rotated 180° for installation flexibility. Two large bright LEDs indicate output status. For optimum visibility the sensor housing can be rotated 345° after installation. Simple pushbutton setup allows the EPS to be easily and quickly configured prior to installation without the need for a separate pressure reference gauge. Encased in a stainless steel housing the EPS allows for a high IP67 ingress protection rating achieving its atmospheric pressure reference via the 4-pin M12 electrical connection. A protective cover and mounting bracket are available accessories. The compact and robust design and construction of the ProSense EPS series withstands extreme shock and vibration, provides high accuracy and reliability, and incorporates the best combination of over pressure, burst pressure and long term stability for each measuring range.

ProSense EPS Digital Pressure Sensors Selection Guide

Part Number	Price	Pressure Range	Selectable Engineering Units	Process Connection	Electrical Connection	Operating Voltage	Outputs
EPS25-V14-1001	$;011,3:	-14.5 to 14.5 psig	psig, mbar, kPa, inH_20, inHg	1/4" NPT male	4-pin M12 quick-disconnect	18 to 30 VDC	OUT 1: Switch (selectable N.O. or N.C. / PNP or NPN) OUT 2: Switch (selectable N.O. or N.C. / PNP or NPN) or Analog (selectable 4-20 mA or 0-10 VDC)
EPS25-100WC-1001	$;011,4:	-5 to 100.4 inH_2O	inH_20, mbar, kPa, mmWS				
EPS25-14-1001	$;011,5:	-0.72 to 14.5 psig	psig, mbar, kPa, inH_2O				
EPS25-36-1001	$;011,6:	-1.8 to 36.25 psig	psig, bar, kPa				
EPS25-V145-1001*	$;011,7:	-14.6 to 145 psig	psig, bar, MPa				
EPS25-360-1001*	$;011,8:	-14.5 to 362.5 psig	psig, bar, MPa				
EPS25-1450-1001*	$;011,9:	0 to 1450 psig	psig, bar, MPa				
EPS25-3620-1001	$;011,a:	0 to 3625 psig	psig, bar, MPa				
EPS25-5800-1001	$;011,b:	0 to 5800 psig	psig, bar, MPa				
EPS25-V14-1003	$;011,c:	-14.5 to 14.5 psig	psig, mbar, kPa, inHg				OUT 1: Switch (selectable N.O. or N.C. / PNP or NPN) OUT 2: Switch (selectable N.O. or N.C. / PNP or NPN)
EPS25-14-1003	$;011,d:	0 to 14.5 psig	psig, mbar, kPa, inHg				
EPS25-36-1003	$;011,e:	0 to 36.2 psig	psig, bar, kPa				
EPS25-V145-1003*	$;;011,f:	-14.5 to 145 psig	psig, bar, MPa				
EPS25-360-1003*	$;011,g:	0 to 362 psig	psig, bar, MPa				
EPS25-1450-1003*	$;011,h:	0 to 1450 psig	psig, bar, MPa				
EPS25-3620-1003	$;-011,i:	0 to 3620 psig	psig, bar, MPa				
EPS25-5800-1003	$;-011,j:	0 to 5800 psig	psig, bar, MPa				

** For gas applications 362 psig (25bar) maximum pressure!*

ProSense® EPS Series (-1001) Digital Pressure Sensors

Features

- Ideal for industrial pressure measurement and indication in both gas and liquid applications
- Measuring ranges from vacuum up to 5800 psig
- Selectable engineering units include psig, bar, mbar, kPa, MPa, inH_2O, and inHg
- 1/4" NPT male process connection allows for direct installation without requiring extra fittings
- 2 solid state switch outputs provide a reliable alternative to mechanical pressure switches
- Output 2 can be configured as a scalable analog signal turning the unit into a combination pressure switch and transmitter
- Built-in two-color 4-digit display is easy to read from a distance and provides indication of measured pressure and switch setpoints
- Display can be set to change color between red and green based on measured value or output status and rotated 180° for installation flexibility
- 2 large bright LEDs indicate output status
- Sensor housing can be rotated 345° for optimum visibility after installation
- Simple pushbutton setup for easy and quick configuration prior to installation without the need for a separate pressure reference gauge
- Stainless steel housing allows for a high IP67 ingress protection rating
- 4-pin M12 electrical connection
- Protective cover and mounting bracket are available accessories
- Compact and robust design and construction withstands extreme shock and vibration, provides high accuracy and reliability, and incorporates the best combination of over pressure, burst pressure and long term stability for each measuring range
- 3-year warranty

RoHS c UL us CE

3 YEAR WARRANTY

EPS Series (-1001) Digital Pressure Sensors				
Part Number	***Description***	***Pcs/Pkg***	***Wt (lb)***	***Price***
EPS25-V14-1001	ProSense digital pressure sensor, -14.5 to 14.5 psig range, output 1: switch (N.O./N.C.), PNP/NPN selectable, output 2: switch (N.O./N.C.), PNP/NPN selectable or 4-20 mA/0-10 VDC, 1/4in male NPT process connection, 4-pin M12 quick-disconnect, 18-30 VDC operating voltage, 4-digit, two-color LED display, for use with compatible liquids or gases. Purchase cable separately.	1	0.5	$;011,3:
EPS25-100WC-1001	ProSense digital pressure sensor, -5 to 100.4 inches of water column range, output 1: switch (N.O./N.C.), PNP/NPN selectable, output 2: switch (N.O./N.C.), PNP/NPN selectable or 4-20 mA/0-10 VDC, 1/4in male NPT process connection, 4-pin M12 quick-disconnect, 18-30 VDC operating voltage, 4-digit, two-color LED display, for use with compatible liquids or gases. Purchase cable separately.	1	0.5	$;011,4:
EPS25-14-1001	ProSense digital pressure sensor, -0.72 to 14.5 psig range, output 1: switch (N.O./N.C.), PNP/NPN selectable, output 2: switch (N.O./N.C.), PNP/NPN selectable or 4-20 mA/0-10 VDC, 1/4in male NPT process connection, 4-pin M12 quick-disconnect, 18-30 VDC operating voltage, 4-digit, two-color LED display, for use with compatible liquids or gases. Purchase cable separately.	1	0.5	$;011,5:
EPS25-36-1001	ProSense digital pressure sensor, -1.8 to 36.25 psig range, output 1: switch (N.O./N.C.), PNP/NPN selectable, output 2: switch (N.O./N.C.), PNP/NPN selectable or 4-20 mA/0-10 VDC, 1/4in male NPT process connection, 4-pin M12 quick-disconnect, 18-30 VDC operating voltage, 4-digit, two-color LED display, for use with compatible liquids or gases. Purchase cable separately.	1	0.5	$;011,6:
EPS25-V145-1001*	ProSense digital pressure sensor, -14.6 to 145 psig range, output 1: switch (N.O./N.C.), PNP/NPN selectable, output 2: switch (N.O./N.C.), PNP/NPN selectable or 4-20 mA/0-10 VDC, 1/4in male NPT process connection, 4-pin M12 quick-disconnect, 18-30 VDC operating voltage, 4-digit, two-color LED display, for use with compatible liquids or gases. Purchase cable separately.	1	0.5	$;011,7:
EPS25-360-1001*	ProSense digital pressure sensor, -14.5 to 362.5 psig range, output 1: switch (N.O./N.C.), PNP/NPN selectable, output 2: switch (N.O./N.C.), PNP/NPN selectable or 4-20 mA/0-10 VDC, 1/4in male NPT process connection, 4-pin M12 quick-disconnect, 18-30 VDC operating voltage, 4-digit, two-color LED display, for use with compatible liquids or gases. Purchase cable separately.	1	0.5	$;011,8:
EPS25-1450-1001*	ProSense digital pressure sensor, 0 to 1450 psig range, output 1: switch (N.O./N.C.), PNP/NPN selectable, output 2: switch (N.O./N.C.), PNP/NPN selectable or 4-20 mA/0-10 VDC, 1/4in male NPT process connection, 4-pin M12 quick-disconnect, 18-30 VDC operating voltage, 4-digit, two-color LED display, for use with compatible liquids or gases. Purchase cable separately.	1	0.5	$;011,9:
EPS25-3620-1001	ProSense digital pressure sensor, 0 to 3625 psig range, output 1: switch (N.O./N.C.), PNP/NPN selectable, output 2: switch (N.O./N.C.), PNP/NPN selectable or 4-20 mA/0-10 VDC, 1/4in male NPT process connection, 4-pin M12 quick-disconnect, 18-30 VDC operating voltage, 4-digit, two-color LED display, for use with compatible liquids or gases. Purchase cable separately.	1	0.5	$;011,a:
EPS25-5800-1001	ProSense digital pressure sensor, 0 to 5800 psig range, output 1: switch (N.O./N.C.), PNP/NPN selectable, output 2: switch (N.O./N.C.), PNP/NPN selectable or 4-20 mA/0-10 VDC, 1/4in male NPT process connection, 4-pin M12 quick-disconnect, 18-30 VDC operating voltage, 4-digit, two-color LED display, for use with compatible liquids or gases. Purchase cable separately.	1	0.5	$;011,b:

For gas applications 362 psig (25bar) maximum pressure!

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

ProSense® EPS Series (-1001) Digital Pressure Sensors

EPS Series (-1001) Digital Pressure Sensors									
Part Number	***Measuring Range***	***Setting Range Set Point, SP***	***Reset Point, rP***	***Analog Start Point, ASP***	***Analog End Point, AEP***	***Steps***	***Proof Pressure***	***Bursting Pressure***	***Vacuum Resistance***
EPS25-V14-1001	-14.5 to 14.5 psig -1000 to 1000 mbar -100 to 100 kPa -402 to 402 inH_20 -29.5 to 29.5 inHg	-14.3 to 14.5 psig -985 to 1000 mbar -98.5 to 100 kPa -396 to 402 inH_20 -29.2 to 29.5 inHg	-14.45 to 14.4 psig -995 to 990 mbar -99.5 to 99 kPa -400 to 398 inH_20 -29.4 to 29.3 inHg	-14.5 to 8.7 psig -1000 to 600 mbar -100 to 60 kPa -402 to 240 inH_20 -29.5 to 17.7 inHg	-8.7 to 14.5 psig -600 to 1000 mbar -60 to 100 kPa -240 to 402 inH_20 -17.7 to 29.5 inHg	0.05 psig 5 mbar 0.5 kPa 2 inH_20 0.1 inHg	145 psig 10000 mbar 1000 kPa 4018 inH_20 295 inHg	450 psig 30000 mbar 3000 kPa 12055 inH_20 885 inHg	-14.5 psig -1000 mbar
EPS25-100WC-1001	-5 to 100.4 inH_20 -12.5 to 250 mbar -1.25 to 25 kPa -125 to 2550 mmWS	-4.4 to 100.4 inH_20 -11 to 250 mbar -1.1 to 25 kPa -110 to 2550 mmWS	-4.8 to 100 inH_20 -12 to 249 mbar -1.2 to 24.9 kPa -120 to 2540 mmWS	-5 to 80.2 inH_20 -12.5 to 200 mbar -1.25 to 20 kPa -125 to 2040 mmWS	15 to 100.4 inH_20 37.5 to 250 mbar 3.75 to 25 kPa 385 to 2550 mmWS	0.2 inH_20 0.5 mbar 0.05 kPa 5mmWS	2400 inH_20 6000 mbar 600 kPa 61000 mmWS	12000 inH_20 30000 mbar 3000 kPa 306000 mmWS	-120 inH_2O -300 mbar
EPS25-14-1001	-0.72 to 14.50 psig -50 to 1000 mbar -5 to 100 kPa -20 to 401.5 inH_20	-0.64 to 14.5 psig -44 to 1000 mbar -4.4 to 100 kPa -17.5 to 401.5 inH_20	-0.7 to 14.44 psig -48 to 996 mbar -4.8 to 99.6 kPa -19 to 400 inH_20	-0.72 to 11.6 psig -50 to 800 mbar -5 to 80 kPa -20 to 321 inH_20	2.18 to 14.5 psig 150 to 1000 mbar 15 to 100 kPa 60.5 to 401.5 inH_20	0.02 psig 2 mbar 0.2 kPa 0.5 inH_20	145 psig 10000 mbar 1000 kPa 4000 inH_20	450 psig 30000 mbar 3000 kPa 12040 inH_20	-14.5 psig -1000 mbar
EPS25-36-1001	-1.8 to 36.25 psig -0.125 to 2.5 bar -12.5 to 250 kPa	-1.6 to 36.25 psig -0.11 to 2.5 bar -11 to 250 kPa	-1.75 to 36.1 psig -0.12 to 2.49 bar -12 to 249 kPa	-1.8 to 29.0 psig -0.125 to 2.0 bar -12.5 to 200 kPa	5.45 to 36.25 psig 0.375 to 2.5 bar 37.5 to 250 kPa	0.05 psig 0.005 bar 0.5 kPa	290 psig 20 bar 2000 kPa	725 psig 50 bar 5000 kPa	
EPS25-V145-1001*	-14.6 to 145 psig -1 to 10 bar -0.1 to 1 MPa	-13.6 to 145 psig -0.94 to 10 bar -0.094 to 1 MPa	-14.2 to 144.4 psig -0.98 to 9.96 bar -0.098 to 0.996 MPa	-14.6 to 116 psig -1 to 8 bar -0.1 to 0.8 MPa	14.6 to 145 psig 1 to 10 bar 0.1 to 1 MPa	0.2 psig 0.02 bar 0.002 MPa	1087 psig 75 bar 7.5 MPa	2715 psig 150 bar 15 MPa	
EPS25-360-1001*	-14.5 to 362.5 psig -1 to 25 bar -0.1 to 2.5 MPa	-12 to 362.5 psig -0.85 to 25 bar -0.085 to 2.5 MPa	-13.5 to 361 psig -0.95 to 24.9 bar -0.095 to 2.49 MPa	-14.5 to 290 psig -1 to 20 bar -0.1 to 2 MPa	58 to 362.5 psig 4 to 25 bar 0.4 to 2.5 MPa	0.5 psig 0.05 bar 0.005 MPa	2175 psig 150 bar 15 MPa	5075 psig 350 bar 35MPa	
EPS25-1450-1001*	0 to 1450 psig 0 to 100 bar 0 to 10 MPa	10 to 1450 psig 0.6 to 100 bar 0.06 to 10 MPa	4 to 1444 psig 0.2 to 99.6 bar 0.02 to 9.96 MPa	0 to 1160 psig 0 to 80 bar 0 to 8 MPa	290 to 1450 psig 20 to 100 bar 2 to 10 MPa	2 psig 0.2 bar 0.02 MPa	4350 psig 300 bar 30 MPa	9400 psig 650 bar 65 MPa	
EPS25-3620-1001	0 to 3625 psig 0 to 250 bar 0 to 25 MPa	25 to 3625 psig 1.5 to 250 bar 0.15 to 25 MPa	10 to 3610 psig 0.5 to 249 bar 0.05 to 24.9 MPa	0 to 2900 psig 0 to 200 bar 0 to 20 MPa	725 to 3625 psig 50 to 250 bar 5 to 25 MPa	5 psig 0.5 bar 0.05 MPa	7250 psig 500 bar 50 MPa	17400 psig 1200 bar 120 MPa	
EPS25-5800-1001	0 to 5800 psig 0 to 400 bar 0 to 40 MPa	40 to 5800 psig 2.5 to 400 bar 0.25 to 40 MPa	10 to 5780 psig 1 to 398.5 bar 0.1 to 39.85 MPa	0 to 4640 psig 0 to 320 bar 0 to 32 MPa	1160 to 5800 psig 80 to 400 bar 8 to 40 MPa	10 psig 0.5 bar 0.05 MPa	11580 psig 800 bar 80 MPa	24650 psig 1700 bar 170 MPa	

inH2O = Inches of Water Column
**** For gas applications 362 psig (25 bar) maximum pressure!***

Warning! Avoid static and dynamic overpressure exceeding the specified proof pressure.
Exceeding the bursting pressure for even a short time can cause destruction of the unit and possible injuries!

ProSense EPS Series (-1001) Digital Pressure Sensors

ProSense EPS (-1001) Series General Specifications	
Electrical	
Operating Voltage[1]	18 to 30 VDC
Current Consumption	< 35mA
Insulation Resistance	> 100MΩ (500VDC)
IEC Protection Class	Class III
Reverse Polarity Protection	yes
Outputs	
OUT1	switch
OUT2	switch or analog
Switch Outputs	
Type	PNP or NPN selectable
Action	N.O. or N.C. selectable
Current Rating	250mA resistive
Voltage Drop	< 2V
Short Circuit Protection	Yes (non-latching)
Overload Protection	Yes
Switching Frequency	≤ 500Hz
Function	Hysteresis or window
Analog Output	
Type	4-20 mA or 0-10 VDC selectable
Load	500Ω max (4-20 mA), 2000Ω min (0-10VDC)
Accuracy / Deviations (in % of the span) Turn down 1:1	
Switch Point Accuracy	< ± 0.4% of the span
Characteristics Deviation*	< ± 0.25 (BFSL) / < ± 0.5 (LS)
Hysteresis	< ± 0.1
Repeatability**	< ± 0.1
Long-term Stability**	< ± 0.05
Temperature Coefficients (TEMPCO) in the temperature range -25 to 80°C (in % of the span per 10°C)	
Greatest TEMPCO of the zero point	0.2
Greatest TEMPCO of the span	0.2
Reaction Times	
Power-on Delay Time	0.3 s
Min. Response Time Switching Output	< 1.5 ms
Delay Time Programmable (dS, dr)	0 to 50s
Damping for the Switching Output (dAP)	0 to 4s
Damping for the Analog Output (dAA)	0 to 4s
Response Time Analog Output	< 3ms
Integrated Watchdog	yes

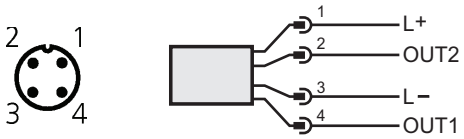
ProSense® EPS Series (-1001) Digital Pressure Sensors

ProSense EPS (-1001) Series General Specifications Continued	
Environment	
Ambient Temperature	-13 to 176°F [-25 to 80°C]
Medium Temperature	-13 to 176°F [-25 to 80°C]
Storage Temperature	-40 to 212ºF [-40 to 100ºC]
Protection	IP65 / IP67
Mechanical	
Process Connection	1/4" NPT male
Materials (wetted parts)[2]	< 3600 psig measuring range Stainless steel 316L (DIN 1.4404) Ceramics FKM > 3600 psig measuring range Stainless steel 17-4 / 630 (DIN 1.4542)
Housing Materials	Stainless steel 17-4 PH / 630 (DIN 1.4542); stainless steel 316L (DIN 1.4404); PBT+PC-GF 30; PBT-GF 20; PC
Min. Pressure Cycles	100 million
Tightening Torque	50Nm (depends on lubrication, seal and pressure rating)
Restrictor Element Integrated	no
Displays	
Engineering Units	3, 4 or 5 x LED green (depending on model), 10mm character height
Switching Status	2 x LED yellow
Measured Values	4-digit alphanumeric display / alternating indication of red and green
Electrical Connection	
Connection	4-pin M12 quick-disconnect; gold-plated contacts
Tests / Approvals	
Pressure Equipment Directive	97/23/EG: Group 2 (Non-Hazardous, Nonflammable, Non-Ozidizing fluids or gases) in accordance with sound engineering practice
EMC	DIN EN 61000-6-2 DIN EN 61000-6-3
Shock Resistance	DIN EN 60068-2-27 (50g 11ms)
Vibration Resistance	DIN EN 60068-2-6 (20g 10 to 2000 Hz)
Agency Approvals	UL file # E320431, CE, RoHS

** BFSL = Best fit straight line / LS = Limit value setting*
*** With temperature fluctuations < 10°C*
**** in % of the span / 6 months*
[1] To EN50178, SELV, PELV
[2] Not cleaned for oxygen service

ProSense® EPS Series (-1001) Digital Pressure Sensors

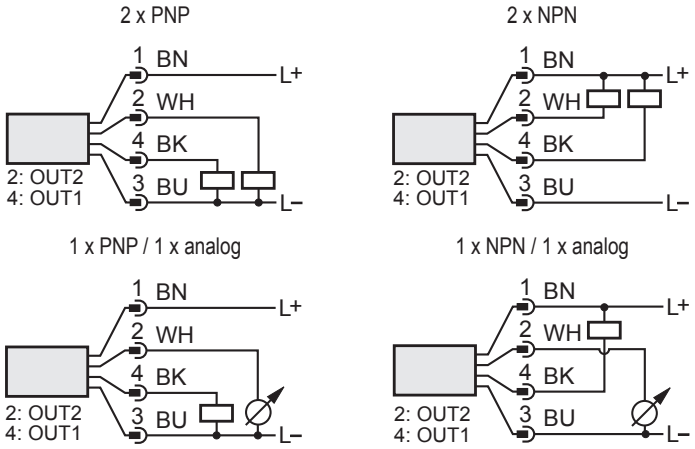
EPS Wiring Diagram



Cable Assembly Wiring Colors:
Pin 1 - Brown
Pin 2 - White
Pin 3 - Blue
Pin 4 - Black

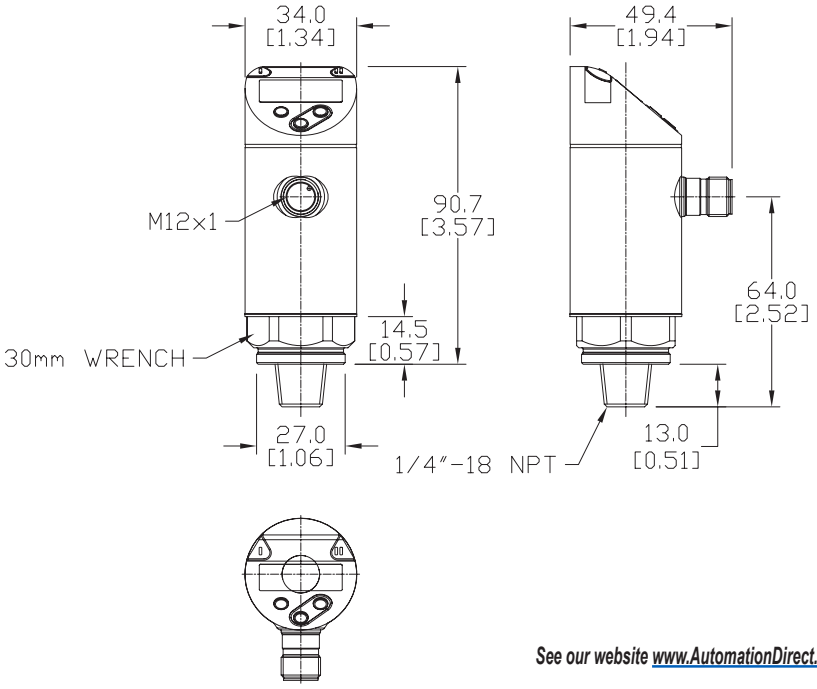
Note: Wiring colors are based on AutomationDirect CD12L and CD12M 4-pole cable assemblies.

EPS 1001 Series Wiring Examples



Dimensions

mm [inches]



See our website www.AutomationDirect.com for complete Engineering drawings.

ProSense® EPS Series (-1003) Digital Pressure Sensors

Features

- Ideal for industrial pressure measurement and indication in both gas and liquid applications
- Measuring ranges from vacuum up to 5800 psig
- Selectable engineering units include psig, bar, mbar, kPa, MPa, and inHg
- 1/4" NPT male process connection allows for direct installation without requiring extra fittings
- 2 solid state switch outputs provide a reliable alternative to mechanical pressure switches
- Built-in two-color 4-digit display is easy to read from a distance and provides indication of measured pressure and switch setpoints
- Display can be set to change color between red and green based on measured value or output status and rotated 180° for installation flexibility
- 2 large bright LEDs indicate output status
- Sensor housing can be rotated 345° for optimum visibility after installation
- Simple pushbutton setup for easy and quick configuration prior to installation without the need for a separate pressure reference gauge
- Stainless steel housing allows for a high IP67 ingress protection rating
- 4-pin M12 electrical connection
- Protective cover and mounting bracket are available accessories
- Compact and robust design and construction withstands extreme shock and vibration, provides high accuracy and reliability, and incorporates the best combination of over pressure, burst pressure and long term stability for each measuring range
- 3-year warranty

RoHS c UL us CE

3 YEAR WARRANTY

EPS Series (-1003) Digital Pressure Sensors				
Part Number	***Description***	***Pcs/Pkg***	***Wt (lb)***	***Price***
EPS25-V14-1003	ProSense digital pressure sensor, -14.5 to 14.5 psig range, output 1: switch (N.O./N.C.), PNP/NPN selectable, output 2: switch (N.O./N.C.), PNP/NPN selectable, 1/4in male NPT process connection, 4-pin M12 quick-disconnect, 18-30 VDC operating voltage, 4-digit, two-color LED display, for use with compatible liquids or gases. Purchase cable separately.	1	0.5	$;011,c:
EPS25-14-1003	ProSense digital pressure sensor, 0 to 14.5 psig range, output 1: switch (N.O./N.C.), PNP/NPN selectable, output 2: switch (N.O./N.C.), PNP/NPN selectable, 1/4in male NPT process connection, 4-pin M12 quick-disconnect, 18-30 VDC operating voltage, 4-digit, two-color LED display, for use with compatible liquids or gases. Purchase cable separately.	1	0.5	$;011,d:
EPS25-36-1003	ProSense digital pressure sensor, 0 to 36.2 psig range, output 1: switch (N.O./N.C.), PNP/NPN selectable, output 2: switch (N.O./N.C.), PNP/NPN selectable, 1/4in male NPT process connection, 4-pin M12 quick-disconnect, 18-30 VDC operating voltage, 4-digit, two-color LED display, for use with compatible liquids or gases. Purchase cable separately.	1	0.5	$;011,e:
EPS25-V145-1003*	ProSense digital pressure sensor, -14.5 to 145 psig range, output 1: switch (N.O./N.C.), PNP/NPN selectable, output 2: switch (N.O./N.C.), PNP/NPN selectable, 1/4in male NPT process connection, 4-pin M12 quick-disconnect, 18-30 VDC operating voltage, 4-digit, two-color LED display, for use with compatible liquids or gases. Purchase cable separately.	1	0.5	$;;011,f:
EPS25-360-1003*	ProSense digital pressure sensor, 0 to 362 psig range, output 1: switch (N.O./N.C.), PNP/NPN selectable, output 2: switch (N.O./N.C.), PNP/NPN selectable, 1/4in male NPT process connection, 4-pin M12 quick-disconnect, 18-30 VDC operating voltage, 4-digit, two-color LED display, for use with compatible liquids or gases. Purchase cable separately.	1	0.5	$;011,g:
EPS25-1450-1003*	ProSense digital pressure sensor, 0 to 1450 psig range, output 1: switch (N.O./N.C.), PNP/NPN selectable, output 2: switch (N.O./N.C.), PNP/NPN selectable, 1/4in male NPT process connection, 4-pin M12 quick-disconnect, 18-30 VDC operating voltage, 4-digit, two-color LED display, for use with compatible liquids or gases. Purchase cable separately.	1	0.5	$;011,h:
EPS25-3620-1003	ProSense digital pressure sensor, 0 to 3620 psig range, output 1: switch (N.O./N.C.), PNP/NPN selectable, output 2: switch (N.O./N.C.), PNP/NPN selectable, 1/4in male NPT process connection, 4-pin M12 quick-disconnect, 18-30 VDC operating voltage, 4-digit, two-color LED display, for use with compatible liquids or gases. Purchase cable separately.	1	0.5	$;-011,i:
EPS25-5800-1003	ProSense digital pressure sensor, 0 to 5800 psig range, output 1: switch (N.O./N.C.), PNP/NPN selectable, output 2: switch (N.O./N.C.), PNP/NPN selectable, 1/4in male NPT process connection, 4-pin M12 quick-disconnect, 18-30 VDC operating voltage, 4-digit, two-color LED display, for use with compatible liquids or gases. Purchase cable separately.	1	0.5	$;-011,j:

**** For gas applications 362 psig (25bar) maximum pressure!***

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

EPS Series (-1003) Digital Pressure Sensors

EPS Series (-1003) Digital Pressure Sensors							
Part Number	***Measuring Range***	***Setting Range Set Point, SP***	***Reset Point, rP***	***Steps***	***Proof Pressure***	***Bursting Pressure***	***Vacuum Resistance***
EPS25-V14-1003	-14.5 to 14.5 psig -1000 to 1000 mbar -100 to 100 kPa -29.6 to 29.6 inHg	-14.3 to 14.5 psig -980 to 1000 mbar -98 to 100 kPa -29.0 to 29.6 inHg	-14.4 to 14.4 psig -990 to 990 mbar -99 to 99 kPa -29.2 to 29.4 inHg	0.1 psig 10 mbar 1 kPa 0.2 inHg	145 psig 10000 mbar 1000 kPa 295 inHg	450 psig 30000 mbar 3000 kPa 885 inHg	-14.5 psig -1000 mbar
EPS25-14-1003	0 to 14.5 psig 0 to 1000 mbar 0 to 100 kPa 0 to 29.5 inHg	0.1 to 14.5 psig 10 to 1000 mbar 1 to 100 kPa 0.2 to 29.5 inHg	0.05 to 14.45 psig 5 to 995 mbar 0.5 to 99.5 kPa 0.1 to 29.4 inHg	0.05 psig 5 mbar 0.5 kPa 0.1 inHg	145 psig 10000 mbar 1000 kPa 290 inHg	450 psig 30000 mbar 3000 kPa 880 inHg	
EPS25-36-1003	0 to 36.2 psig 0 to 2.5 bar 0 to 250 kPa	0.4 to 36.2 psig 0.02 to 2.5 bar 2 to 250 kPa	0.2 to 36 psig 0.01 to 2.49 bar 1 to 249 kPa	0.2 psig 0.01 bar 1kPa	290 psig 20 bar 2000 kPa	725 psig 50 bar 5000 kPa	
EPS25-V145-1003*	-14.5 to 145 psig -1 to 10 bar -0.1 to 1 MPa	-13.5 to 145 psig -0.90 to 10 bar -0.09 to 1 MPa	-14 to 144.5 psig -0.95 to 9.95 bar -0.095 to 0.995 MPa	0.5 psig 0.05 bar 0.005 MPa	1087 psig 75 bar 7.5 MPa	2715 psig 150 bar 15 MPa	
EPS25-360-1003*	0 to 362 psig 0 to 25 bar 0 to 2.5 MPa	4 to 362 psig 0.2 to 25 bar 0.02 to 2.5 MPa	2 to 360 psig 0.1 to 24.9 bar 0.01 to 2.49 MPa	2 psig 0.1 bar 0.01 MPa	2175 psig 150 bar 15 MPa	5075 psig 350 bar 35 MPa	
EPS25-1450-1003*	0 to 1450 psig 0 to 100 bar 0 to 10 MPa	10 to 1450 psig 1.0 to 100 bar 0.10 to 10 MPa	5 to 1445 psig 0.5 to 99.5 bar 0.05 to 9.95 MPa	5 psig 0.5 bar 0.05 MPa	4350 psig 300 bar 30 MPa	9400 psig 650 bar 65 MPa	
EPS25-3620-1003	0 to 3620 psig 0 to 250 bar 0 to 25 MPa	40 to 3620 psig 2 to 250 bar 0.2 to 25.0 MPa	20 to 3600 psig 1 to 249 bar 0.1 to 24.9 MPa	20 psig 1 bar 0.1 MPa	7250 psig 500 bar 50 MPa	15950 psig 1100 bar 110 MPa	
EPS25-5800-1003	0 to 5800 psig 0 to 400 bar 0 to 40 MPa	40 to 5800 psig 4 to 400 bar 0.4 to 40 MPa	20 to 5780 psig 2 to 398 bar 0.2 to 39.8 MPa	20 psig 2 bar 0.2 MPa	11580 psig 800 bar 80 MPa	24650 psig 1700 bar 170 MPa	

inH2O = Inches of Water Column

** For gas applications 362 psig (25 bar) maximum pressure!*

Warning! Avoid static and dynamic overpressure exceeding the specified proof pressure.
Exceeding the bursting pressure for even a short time can cause destruction of the unit and possible injuries!

ProSense® EPS Series (-1003) Digital Pressure Sensors

ProSense EPS25 (-1003) Series General Specifications	
Electrical	
Operating Voltage[1]	18 to 30 VDC
Current Consumption	< 35mA
Insulation Resistance	> 100MΩ (500VDC)
IEC Protection Class	Class III
Reverse Polarity Protection	yes
Outputs	
OUT1	switch
OUT2	switch
Switch Outputs	
Type	PNP or NPN selectable
Action	N.O. or N.C. selectable
Current Rating	150mA resistive
Voltage Drop	< 2.5 V
Short Circuit Protection	Yes (non-latching)
Overload Protection	Yes
Switching Frequency	≤ 170Hz
Function	Hysteresis or window
Accuracy / Deviations (in % of the span) Turn down 1:1	
Switch Point Accuracy	< ± 0.5% of the span
Characteristics Deviation*	< ± 0.25 (BFSL) / < ± 0.5 (LS)
Hysteresis	< ± 0.25
Repeatability**	< ± 0.1
Long-term Stability**	< ± 0.05
Temperature Coefficients (TEMPCO) in the temperature range -25 to 80ºC (in % of the span per 10°C)	
Greatest TEMPCO of the zero point	0.2
Greatest TEMPCO of the span	0.2
Reaction Times	
Power-on Delay Time	0.3 s
Min. Response Time Switching Output	< 3ms
Delay Time Programmable (dS, dr)	0 to 50s
Damping for the Switching Output (dAP)	0 to 4s
Integrated Watchdog	yes
Environment	
Ambient Temperature	-13 to 176°F [-25 to 80°C]
Medium Temperature	-13 to 176°F [-25 to 80°C]
Storage Temperature	-40 to 212ºF [-40 to 100ºC]
Protection	IP 65 / IP 67

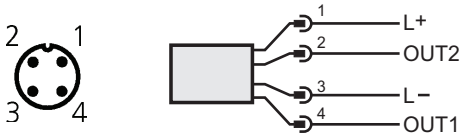
ProSense® EPS Series (-1003) Digital Pressure Sensors

ProSense EPS (-1003) Series General Specifications Continued	
Mechanical	
Process Connection	1/4" NPT male
Materials (wetted parts)²	< 3600 psig measuring range Stainless steel 316L (DIN 1.4404) > 3600 psig measuring range Stainless steel 17-4 / 630 (DIN 1.4542) Ceramics FKM
Housing Materials	Stainless steel 17-4 PH / 630 (DIN 1.4542); stainless steel 316L (DIN 1.4404); PBT+PC-GF 30; PBT-GF 20; PC
Min. Pressure Cycles	100 million
Tightening Torque	50Nm (depends on lubrication, seal and pressure rating)
Restrictor Element Integrated	no
Displays	
Engineering Units	3 or 4 x LED green (depending on model), 10mm character height
Switching Status	2 x LED yellow
Measured Values	4-digit alphanumeric display / alternating indication of red and green
Electrical Connection	
Connection	4-pin M12 quick-disconnect; gold-plated contacts
Tests / Approvals	
Pressure Equipment Directive	97/23/EG: Group 2 (Non-Hazardous, Nonflammable, Non-Ozidizing fluids or gases) in accordance with sound engineering practice
EMC	DIN EN 61000-6-2 DIN EN 61000-6-3
Shock Resistance	DIN EN 60068-2-27 (50g 11ms)
Vibration Resistance	DIN EN 60068-2-6 (20g 10 to 2000 Hz)
Agency Approvals	UL file # E320431, CE, RoHS

** BFSL = Best fit straight line / LS = Limit value setting*
*** With temperature fluctuations < 10°C*
**** in % of the span / 6 months*
¹ To EN50178, SELV, PELV
² Not cleaned for oxygen service

ProSense® EPS Series (-1003) Digital Pressure Sensors

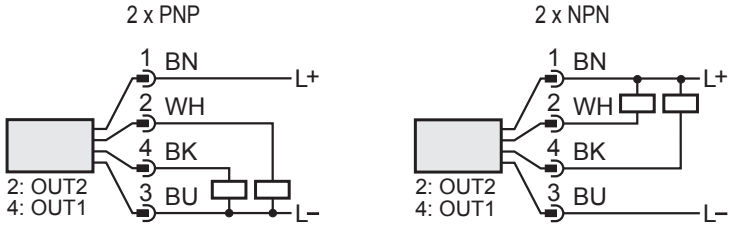
EPS Wiring Diagram



Cable Assembly Wiring Colors:
Pin 1 - Brown
Pin 2 - White
Pin 3 - Blue
Pin 4 - Black

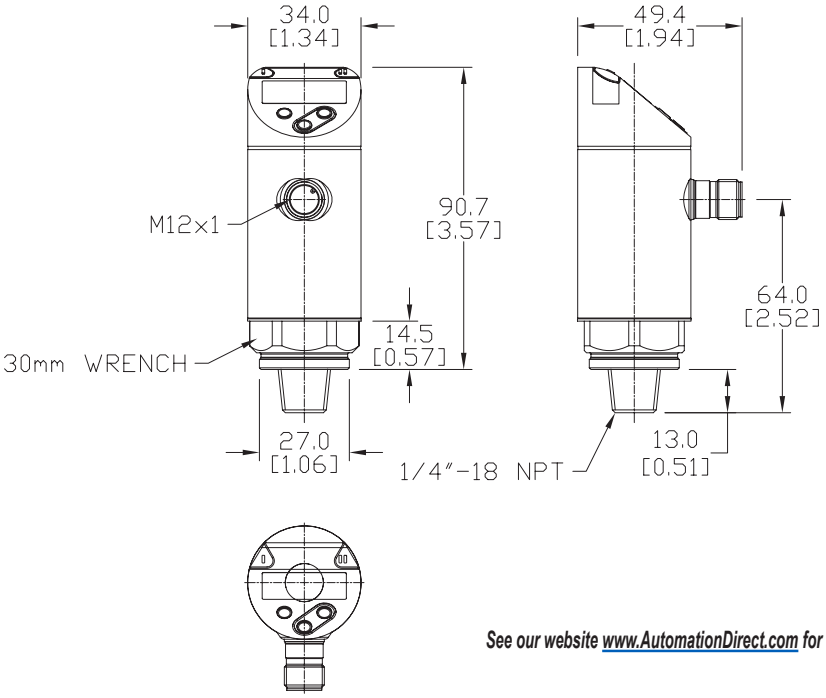
Note: Wiring colors are based on AutomationDirect CD12L and CD12M 4-pole cable assemblies.

EPS 1003 Series Wiring Examples



Dimensions

mm [inches]



See our website www.AutomationDirect.com for complete Engineering drawings.

EPS Series Digital Pressure Sensors - Accessories

Part No. EPS-CV

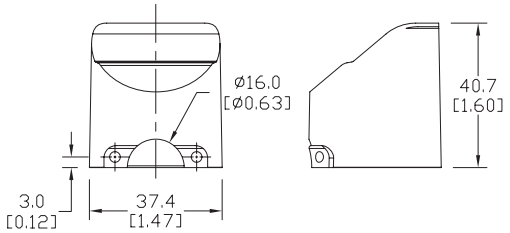
Part No. EPS-BKT1

EPS Series Digital Pressure Sensors - Accessories			
Part No.	***Description***	***Price***	***Wt (lb)***
EPS-CV	ProSense protective cover, for use with ProSense EPS series digital pressure sensors.	$;;11,t:	0.1
EPS-BKT1	ProSense mounting bracket, for use with ProSense EPS series digital pressure sensors.	$;11,q:	0.1

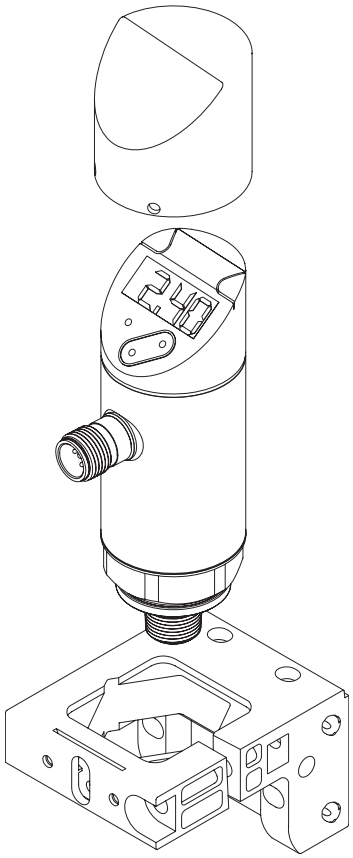
EPS Series Digital Pressure Sensor Accessory Specifications	
Part No.	***Material***
EPS-CV	PP (polypropylene)
EPS-BKT1	Fiber and mineral reinforced polyamide

Dimensions

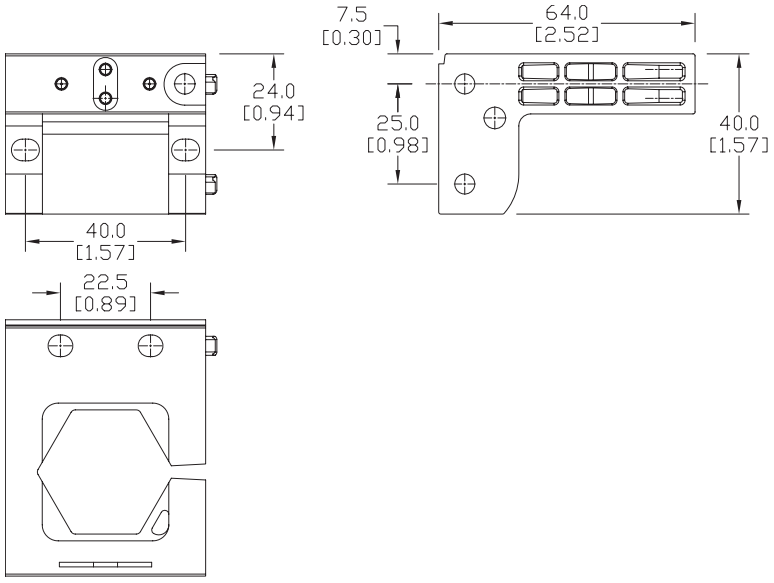
mm [inches]



Part No. EPS-CV



Assembly Example



Part No. EPS-BKT1

See our website www.AutomationDirect.com for complete Engineering drawings.

ProSense® Digital Pressure Switch / Transmitter

Overview

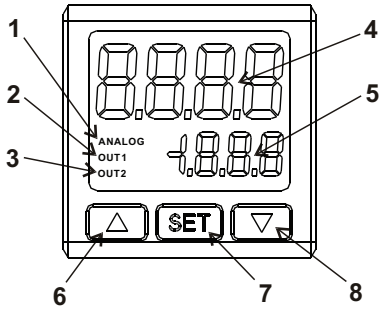
- Precision digital pressure switch/transmitter with 2 meter cable
- Two digital outputs (NPN or PNP) which may be set individually and a 4-20 mA analog output
- Two vacuum to pressure ranges (-14.5 to 14.5 and -14.5 psig to 145 psig)
- Air, non-corrosive/non-flammable gases only
- Three operation modes: 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

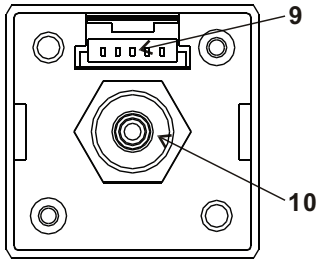
E157382

ProSense QPS Digital Pressure Switch / Transmitter				
Part Number	***Description***	***Pcs/Pkg***	***Wt (lb)***	***Price***
QPSL-AP-42	Digital pressure switch/transmitter -14.5 to 14.5 psig, 2 PNP out, 4-20 mA out, cable included	1	0.24	$008q1:
QPSL-AN-42	Digital pressure switch/transmitter -14.5 to 14.5 psig, 2 NPN out, 4-20 mA out, cable included	1	0.24	$008q0:
QPSH-AP-42	Digital pressure switch/transmitter -14.5 to 145 psig, 2 PNP out, 4-20 mA out, cable included	1	0.24	$-008is:
QPSH-AN-42	Digital pressure switch/transmitter -14.5 to 145 psig, 2 NPN out, 4-20 mA out, cable included	1	0.24	$-008iq:

ProSense QPS Digital Pressure Switch / Transmitter Specifications					
Model		***QPSL-AP-42***	***QPSL-AN-42***	***QPSH-AP-42***	***QPSH-AN-42***
Pressure Range		-14.5 to +14.5 psig		-14.5 to +145 psig	
Maximum Pressure (Proof)		29 psig		217 psig	
Maximum Vacuum		-14.5 psig			
Pressure Accuracy		± 3% of full scale			
Temperature Influence @ 25°C		± 2% of full scale			
Fluid Measured		Air, Non-corrosive gas, Non-flammable gas			
Input Power		10.8 to 26.4 VDC			
Power Consumption		260mA maximum			
Digital Outputs	***Output Type***	2-PNP	2-NPN	2-PNP	2-NPN
	Maximum Current	100mA			
	Response Time	2ms, 4ms, 10ms, 30ms, 50ms, 100ms, 250ms, 500ms, 1,000ms, 5,000ms selectable			
	Residual Voltage	1.5 VDC			
Analog Outputs	***Output Type***	4-20 mA			
	Maximum Output Load Resistance	400Ω			
	Linear Accuracy	< ± 2% of full scale			
Process Connection		1/8" NPT outer / M5 inner bore (Nickel Plated Brass)			
Cable		Included with each unit, 2 meter (6.6 feet), 5 conductor, 26AWG, PVC jacket, and 50mm pigtail leads Replacement cable : QPS-CBL			
IP Rating		IP 40			
Case Materials		Case = ABS Plastic, Lens = Polycarbonate			
Shock Immunity		10 ~ 500 Hz, 10mm 3 axes for 2 hours			
Vibration Immunity		Max. 100m / s2 3 axes 6 directions, 3 times each			
Operating Temperature		0°C to +50°C (32°F to 122°F)			
Storage Temperature		-20°C to +65°C (-4°F to 149°F)			
Altitude		< 2,000m			
Ambient Humidity		35% to 80% (non-condensing)			
Approvals		cULus (E157382), CE, RoHS			

ProSense® Digital Pressure Switch / Transmitter



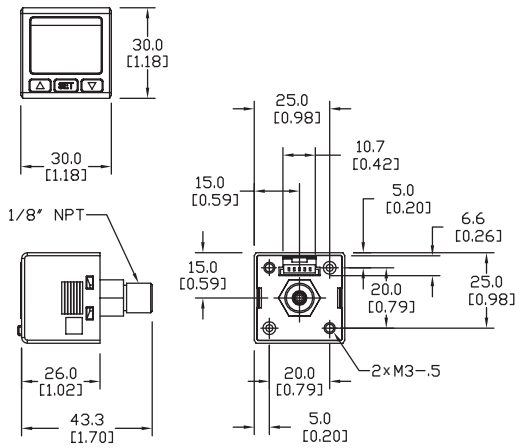


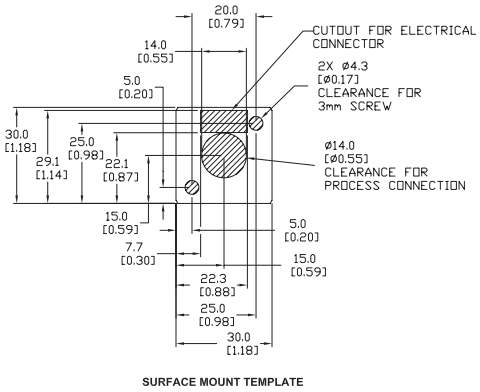
Display, KeyPad, Connections

1 - Analog output indicator
2 - Digital output 1 indicator
3 - Digital output 2 indicator
4 - Pressure Value (PV)/parameter display (8 mm digits)
5 - Setpoint Value (SV)/setup item display (4 mm digits)
6 - Increment UP button
7 - SET or Enter button
8 - Decrement DOWN button
9 - Cable connection
10 - Pressure connection

Dimensions

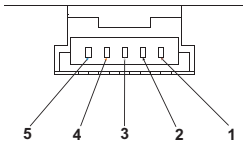
mm [inches]





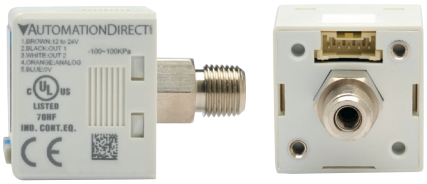
SURFACE MOUNT TEMPLATE

Cable Connection Terminals



1 - Positive power supply input (brown)
2 - Digital output 1 signal (black)
3 - Digital output 2 signal (white)
4 - Analog output signal (orange)
5 - Negative power supply input (blue)

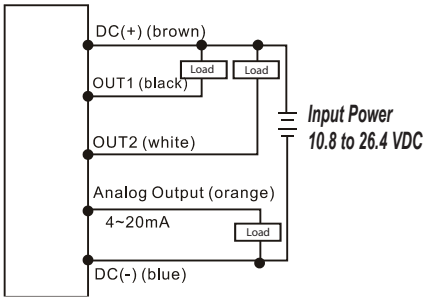
See our website www.AutomationDirect.com for complete Engineering drawings.



Wiring

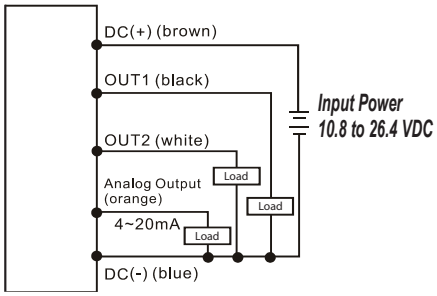
QPSL-AN-42
QPSH-AN-42

Outputs:
NPN discrete
4-20mA analog



QPSL-AP-42
QPSH-AP-42

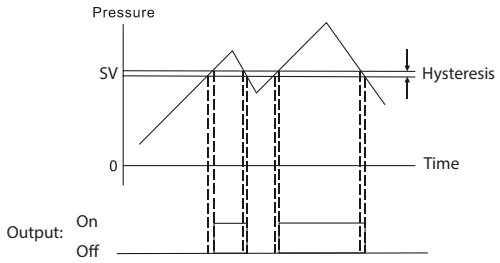
Outputs:
PNP discrete
4-20mA analog



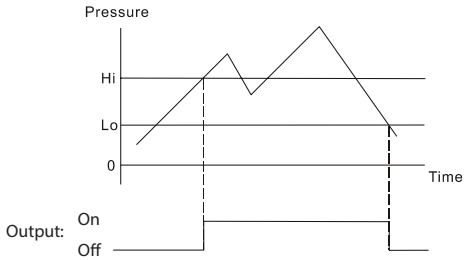
ProSense® Digital Pressure Switch / Transmitter

Operating Modes:

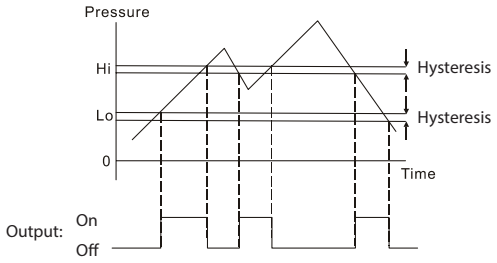
Easy Mode: When the measured pressure is greater than pressure setpoint plus the hysteresis setting (SV+hysteresis), the output will change state. When the measured pressure is less than the pressure setpoint (<SV), the output will change state. Each digital output can be individually set.



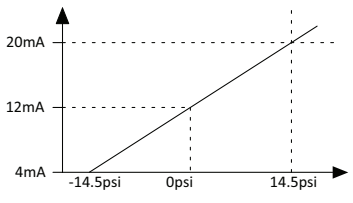
Hysteresis Mode: When the measured pressure is greater than the Hi setpoint, the output will change state. When the measured pressure is less than the Lo setpoint, the output will change state. Each digital output can be individually set.



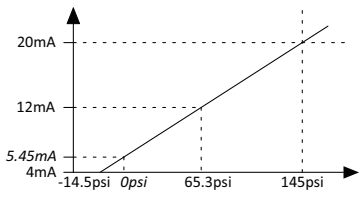
Window Mode: The output will change state when the measured pressure increases to the Lo setpoint plus the hysteresis setting (Lo+hysteresis) and will change state again when the pressure increases to the Hi setpoint plus the hysteresis setting (Hi+hysteresis). When the pressure decreases to the Hi setpoint the output will change state and will change state again when the pressure decreases to the Lo setpoint.



Analog Output (4-20mA): The analog output is directly proportional to the process pressure over the full range of the device. For example if the process pressure is 0 psig the 4-20 mA output of a QPSL will be approximately 12 mA or for the QPSH the pressure at 12 mA would be 65.3 psig and for 0 psig the output would be 5.45mA. The analog output is enabled as the factory default. It can be disabled with the "Analog Output Enable" parameter in Pro Setup Mode.



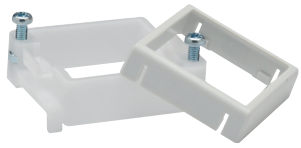
QPSL-xx-42



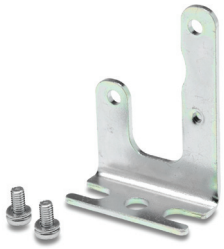
QPSH-xx-42

ProSense® Digital Pressure Switch / Transmitter Accessories

ProSense QPS Digital Pressure Switch / Transmitter Accessories				
Part Number	**Description**	**Pcs/Pkg**	**Wt (lb)**	**Price**
QPS-PMK	Panel mount kit for QPS series	1	0.1	$ebo:
QPS-FMK	Bracket mount kit for QPS series	1	0.1	$ebn:
QPS-CBL	Replacement cable for QPS series digital pressure switch and transmitter, 2 meters (6.6 feet)	1	0.1	$-04yl:



QPS-PMK



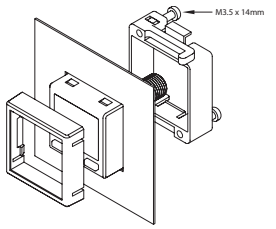
QPS-FMK

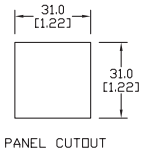
QPS-CBL

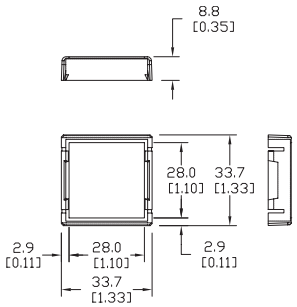
Dimensions

mm [inches]

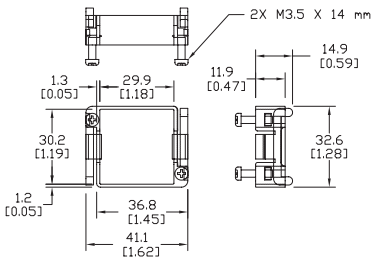
QPS-PMK - Optional Panel Mount Kit





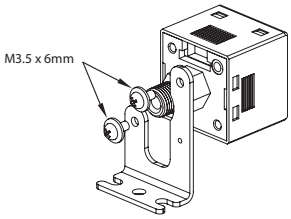


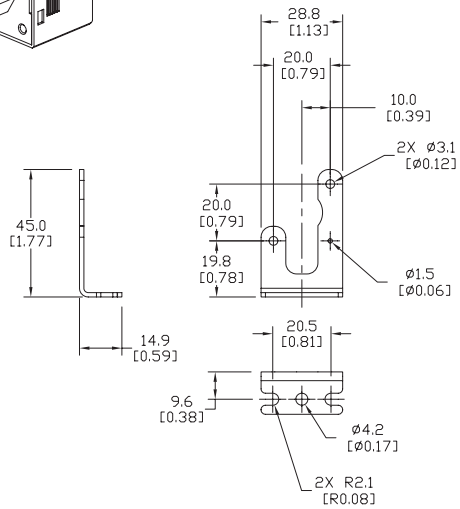
PMK Front Bezel



PMK Back Retaining Clip

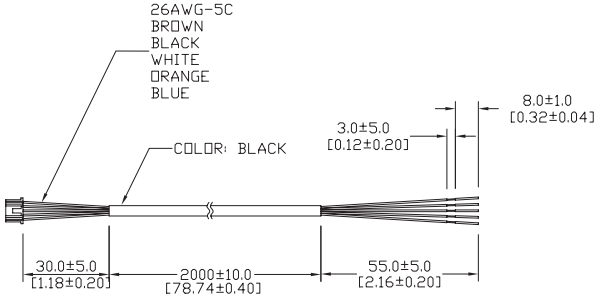
QPS-FMK - Optional Frame Mount Kit





Note: See the NITRA Pneumatics section for Push-to-Connect fittings and tubing

QPS-CBL



Note: Cable included with each QPS series switch/ transmitter

ProSense® DPG1 Series Digital Pressure Gauges

ProSense DPG1 digital pressure gauges are ideal for industrial and general purpose applications requiring an accurate and reliable device with easy to read digital display.

Features

- ±0.5% accuracy
- 2-button operation
- Backlight display turns on when on/off button is pressed
- Option for continuous peak pressure indication
- Continuous on display option or timeout to save battery life
- Wide variety of pressure unit selections
- Reset to zero feature
- Powered via 2 x AAA batteries (included)
- Rubber boot for added protection (included)
- 316L welded diaphragm seal
- ASME B40.100 compliant

DPG1 Series Digital Pressure Gauges

Part Number	Scale	Pcs/Pkg	Wt (lb)	Price
DPG1-15	0 to 15 psig	1	0.7	$-01iy3:
DPG1-30	0 to 30 psig	1	0.7	$-01iy4:
DPG1-60	0 to 60 psig	1	0.7	$-01iy5:
DPG1-100	0 to 100 psig	1	0.7	$-01iy6:
DPG1-200	0 to 200 psig	1	0.7	$-01iy7:
DPG1-300	0 to 300 psig	1	0.7	$-01iy8:
DPG1-600	0 to 600 psig	1	0.7	$-01iy9:
DPG1-1000	0 to 1000 psig	1	0.7	$-01iya:
DPG1-3000	0 to 3000 psig	1	0.7	$-01iyb:
DPG1-5000	0 to 5000 psig	1	0.7	$-01iyc:

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

DPG1 Series Digital Pressure Gauges

Part Number	Operating Pressure	Proof Pressure	Burst Pressure
DPG1-15	0 to 15 psig	30 psig	45 psig
DPG1-30	0 to 30 psig	60 psig	90 psig
DPG1-60	0 to 60 psig	120 psig	180 psig
DPG1-100	0 to 100 psig	200 psig	300 psig
DPG1-200	0 to 200 psig	400 psig	600 psig
DPG1-300	0 to 300 psig	600 psig	900 psig
DPG1-600	0 to 600 psig	1200 psig	1800 psig
DPG1-1000	0 to 1000 psig	2000 psig	3000 psig
DPG1-3000	0 to 3000 psig	6000 psig	9000 psig
DPG1-5000	0 to 5000 psig	10000 psig	15000 psig

Warning! Avoid static and dynamic overpressure exceeding the specified proof pressure. Exceeding the bursting pressure for even a short time can cause destruction of the unit and possible injuries! Not for use in vacuum applications. Negative pressure can damage gauge.

DPG1 Series Digital Pressure Gauge Specifications

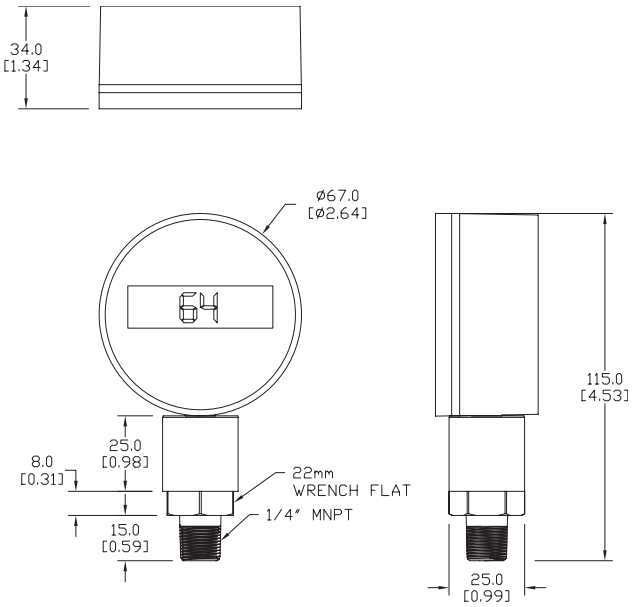
Case Size	2.5" (63mm)
Case Material	ABS (acrylonitrile butadiene styrene)
Rubber Boot	Silicone rubber
LCD Display	2" x 3/4" (48mm x 16mm)
Process Connection	1/4" NPT
Sensor	Piezo, welded
Wetted Parts	304SS, 316L
Operating Life	1 million cycles
Power Supply	2 x AAA battery (1.5V) - included/installed
Battery Life	2 years (auto shut-off mode), 2 weeks if on continuously
Power Mode	Auto or manual shut-off
Display Digits	4-digits, 12.5 mm character height
Pressure Unit Selection	psi, mH_2O, mmHg, mbar, kPa range ≤ 100psig psi, bar, kg/cm², MPa, atm ranges ≥ 200psig
Response Time	≤ 3Hz display refresh rate
Proof / Burst Pressure	200% / 300% of full scale
Ambient/Process Temperature	14ºF to 122ºF (-10ºC to 50ºC)
Storage Temperature	-4ºF to 167ºF (-20ºC to 75ºC)
Accuracy	±0.5% of full scale
Enclosure Rating	IP60
Approvals*	None

** To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page*

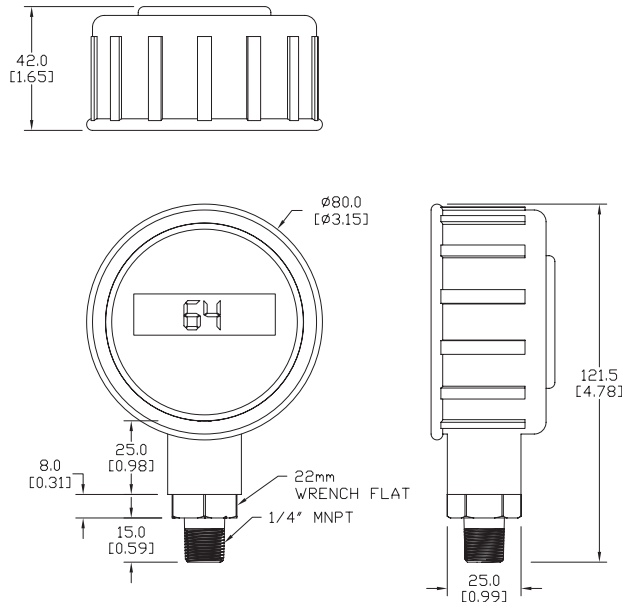
ProSense® DPG1 Series Digital Pressure Gauges

Dimensions

mm [inches]



DPG1 Gauges without Rubber Boot Installed



DPG1 Gauges with Rubber Boot Installed

See our website www.AutomationDirect.com for complete Engineering drawings.

ProSense® Pressure Gauges

Bourdon Tube Pressure Gauges
ProSense mechanical dial pressure gauges are available in a variety of configurations for use in most pneumatic, hydraulic, HVAC, plumbing, industrial and commercial applications. These high quality gauges use Bourdon tube sensing elements and do not require any external power sources to operate other than the media being sensed. Cases are available in durable steel or stainless steel and in either dry or liquid filled to dampen vibration and pulsations. Brass wetted parts are suitable for air, oil, or water applications while stainless steel wetted parts are available for corrosive applications. Dual marked dial faces (psig/kPa or inHg/kPa) are available in pressure ranges from vacuum up to 6000 psig.

The Bourdon tube pressure gauge applies the principle that a flattened tube will change to a more circular cross-section when pressurized. These tubes are then bent into a C-shape with one end crimped close and the other connected to the process. When the pressure inside the tube becomes greater than the ambient pressure the tube tries to straighten; this elongation is converted to a rotational motion with the use of a pinion gear attached to the pointer.

The bourdon tubes are calibrated at the factory for a specific range known as gauge pressure*. This pressure is relative to ambient atmospheric pressure.

Pressure Gauge Terms:

- **Atmospheric Pressure:** The weight of a column of air measuring one square inch from sea level to the top of the atmosphere. Sea level pressure = 29.92 inHg / 101.325 kPa / 14.696 psig / 1.0132 bar
- **Absolute Pressure:** Zero (0) in reference to a perfect vacuum "Absolute Pressure" = gauge pressure (+) atmospheric pressure.
- ***Gauge Pressure:** Zero (0) in reference to "Atmospheric Pressure". "Gauge Pressure"= absolute pressure (-) atmospheric pressure.
- **Differential Pressure:** Is the difference in pressure between two measuring points.

Gauge Accuracy and Grade

Gauge accuracy and grade categorized by ASME (ANSI) Standard B40.1	
Gauge Accuracy	***ANSI Grade***
±5% Full Scale	D
±3% lower ¼ Scale; ±2% middle ½ scale; ±3% upper ¼ scale	B
±2% lower ¼ Scale; ±1% middle ½ scale; ±2% upper ¼ scale	A
±1% Full Scale	1A
±0.5% Full Scale	2A
±0.25% Full Scale	3A

Gauge Selection Considerations

Environment and Application
As the Bourdon tube is in direct contact with the medium being measured, the characteristics of the medium must be considered. If the medium is corrosive, stainless steel internals and casing should be chosen over brass. Brass is more suitable for general applications. The effects of moisture and weather conditions may also be harmful to the gauge and should be considered when selecting a gauge. Liquid filled gauges help prevent moisture build-up. Medium that will leave a deposit, clog or solidify in the Bourdon tube should be avoided.

For applications that produce harmful pulsation, vibration or pressure spikes, a liquid filled gauge will minimize the effects of vibration and provide a more accurate pressure reading.

Gauge Size
ProSense gauges are available with dial sizes of 1.5, 2 or 2.5 inches.

Connection
ProSense gauges offer lower and center back connections. The standard threads are ⅛" and ¼" NPT.

Accuracy
The degree of accuracy required should be determined to ensure that the proper gauge is used. ProSense gauges offer accuracies of +/- 1.5% or +/- 3-2-3% (ANSI/ASME Grade B). Generally, the more critical the application, the higher the accuracy required.

Gauge Mounting
ProSense pressure gauges can be mounted in a variety of ways. For direct stem mount, we offer lower and center back connections. Bear in mind that if a piece of equipment produces heavy vibration making pressure reading difficult due to needle fluctuations, consider a liquid-filled gauge or remote mounting.

Pressure Range
It is important to select a pressure range that is approximately twice the normal operating pressure of the media. The maximum operating pressure should not exceed 75% of the full scale range. If a gauge is not selected considering these criteria, it may result in fatigue of the Bourdon tube.

Temperature Range
The normal temperature ranges for dry gauges are between -40°C to 65°C (-40°F to 150°F). The normal temperature ranges for glycerin-filled gauges are -20°C to 65°C (-4°F to 150°F). It is important to know the normal operating temperature of the environment for proper gauge use.

Click on the thumbnail or go to https://www.automationdirect.com/VID-PR-0002 for a short video on ProSense Dial Pressure Gauges

ProSense® Steel Case / Brass Wetted Pressure Gauges

Lower Mount

Center Back Mount

Features

- Economical, all-purpose pressure gauge
- Friction bezel rings
- Dual scale (psig/kPa)
- Brass wetted parts for use with air, oil, water and non-corrosive liquids
- ±3-2-3% accuracy - ASME/ANSI Grade B
- 5 year warranty

Applications

- Plumbing, heating, air conditioning, pneumatic, hydraulic, water tanks, air compressors, OEM, general purpose

ProSense 1.5" Steel Case / Brass Wetted Pressure Gauges

Part Number	Description	Pcs/Pkg	Wt(lb)	Price
G15-BDV-8LB	Gauge, 1.5 in., steel case, dry, -30 to 0 inHg/-100 to 0 kPa vacuum, brass-1/8 NPT, lower mount	1	0.20	$080_:
G15-BD30-8LB	Gauge, 1.5 in., steel case, dry, 0-30 psig/0-200 kPa, brass-1/8 NPT, lower mount	1	0.20	$080y:
G15-BD60-8LB	Gauge, 1.5 in., steel case, dry, 0-60 psig/0-400 kPa, brass-1/8 NPT, lower mount	1	0.20	$;080]:
G15-BD100-8LB	Gauge, 1.5 in., steel case, dry, 0-100 psig/0-700 kPa, brass-1/8 NPT, lower mount	1	0.20	$080q:
G15-BD160-8LB	Gauge, 1.5 in., steel case, dry, 0-160 psig/0-1,100 kPa, brass-1/8 NPT, lower mount	1	0.20	$;080t:
G15-BD200-8LB	Gauge, 1.5 in., steel case, dry, 0-200 psig/0-1,400 kPa, brass-1/8 NPT, lower mount	1	0.20	$080v:
G15-BDV-8CB	Gauge, 1.5 in., steel case, dry, -30 to 0 inHg/-100 to 0 kPa vacuum, brass-1/8 NPT, center back mount	1	0.20	$;080[:
G15-BD30-8CB	Gauge, 1.5 in., steel case, dry, 0-30 psig/0-200 kPa, brass-1/8 NPT, center back mount	1	0.20	$080x:
G15-BD60-8CB	Gauge, 1.5 in., steel case, dry, 0-60 psig/0-400 kPa, brass-1/8 NPT, center back mount	1	0.20	$080z:
G15-BD100-8CB	Gauge, 1.5 in., steel case, dry, 0-100 psig/0-700 kPa, brass-1/8 NPT, center back mount	1	0.20	$080p:
G15-BD160-8CB	Gauge, 1.5 in., steel case, dry, 0-160 psig/0-1,100 kPa, brass-1/8 NPT, center back mount	1	0.20	$080s:
G15-BD200-8CB	Gauge, 1.5 in., steel case, dry, 0-200 psig/0-1,400 kPa, brass-1/8 NPT, center back mount	1	0.20	$080u:

ProSense 2" Steel Case / Brass Wetted Pressure Gauges

Part Number	Description	Pcs/Pkg	Wt(lb)	Price
G20-BDV-4LB	Gauge, 2.0 in., steel case, dry, -30 to 0 inHg/-100 to 0 kPa vacuum, brass-1/4 NPT, lower mount	1	0.20	$0817:
G20-BD30-4LB	Gauge, 2.0 in., steel case, dry, 0-30 psig/0-200 kPa, brass-1/4 NPT, lower mount	1	0.20	$0813:
G20-BD60-4LB	Gauge, 2.0 in., steel case, dry, 0-60 psig/0-400 kPa, brass-1/4 NPT, lower mount	1	0.20	$0815:
G20-BD100-4LB	Gauge, 2.0 in., steel case, dry, 0-100 psig/0-700 kPa, brass-1/4 NPT, lower mount	1	0.20	$;080!:
G20-BD160-4LB	Gauge, 2.0 in., steel case, dry, 0-160 psig/0-1,100 kPa, brass-1/4 NPT, lower mount	1	0.20	$;080,:
G20-BD200-4LB	Gauge, 2.0 in., steel case, dry, 0-200 psig/0-1,400 kPa, brass-1/4 NPT, lower mount	1	0.20	$0811:
G20-BDV-4CB	Gauge, 2.0 in., steel case, dry, -30 to 0 inHg/-100 to 0 kPa vacuum, brass-1/4 NPT, center back mount	1	0.20	$0816:
G20-BD30-4CB	Gauge, 2.0 in., steel case, dry, 0-30 psig/0-200 kPa, brass-1/4 NPT, center back mount	1	0.20	$0812:
G20-BD60-4CB	Gauge, 2.0 in., steel case, dry, 0-60 psig/0-400 kPa, brass-1/4 NPT, center back mount	1	0.20	$0814:
G20-BD100-4CB	Gauge, 2.0 in., steel case, dry, 0-100 psig/0-700 kPa, brass-1/4 NPT, center back mount	1	0.20	$080#:
G20-BD160-4CB	Gauge, 2.0 in., steel case, dry, 0-160 psig/0-1,100 kPa, brass-1/4 NPT, center back mount	1	0.20	$080?:
G20-BD200-4CB	Gauge, 2.0 in., steel case, dry, 0-200 psig/0-1,400 kPa, brass-1/4 NPT, center back mount	1	0.20	$0810:

ProSense 2.5" Steel Case / Brass Wetted Pressure Gauges

Part Number	Description	Pcs/Pkg	Wt(lb)	Price
G25-BDV-4LB	Gauge, 2.5 in., steel case, dry, -30 to 0 inHg/-100 to 0 kPa, vacuum, brass-1/4 NPT, lower mount	1	0.30	$0826:
G25-BD30-4LB	Gauge, 2.5 in., steel case, dry, 0-30 psig/0-200 kPa, brass-1/4 NPT, lower mount	1	0.30	$0821:
G25-BD60-4LB	Gauge, 2.5 in., steel case, dry, 0-60 psig/0-400 kPa, brass-1/4 NPT, lower mount	1	0.30	$0824:
G25-BD100-4LB	Gauge, 2.5 in., steel case, dry, 0-100 psig/0-700 kPa, brass-1/4 NPT, lower mount	1	0.30	$;081[:
G25-BD160-4LB	Gauge, 2.5 in., steel case, dry, 0-160 psig/0-1,100 kPa, brass-1/4 NPT, lower mount	1	0.30	$081#:
G25-BD200-4LB	Gauge, 2.5 in., steel case, dry, 0-200 psig/0-1,400 kPa, brass-1/4 NPT, lower mount	1	0.30	$081?:
G25-BD300-4LB	Gauge, 2.5 in., steel case, dry, 0-300 psig/0-2,000 kPa, brass-1/4 NPT, lower mount	1	0.30	$;081,:
G25-BD600-4LB	Gauge, 2.5 in., steel case, dry, 0-600 psig/0-4,200 kPa, brass-1/4 NPT, lower mount	1	0.30	$0822:
G25-BD1000-4LB	Gauge, 2.5 in., steel case, dry, 0-1000 psig/0-7,000 kPa, brass-1/4 NPT, lower mount	1	0.30	$081z:
G25-BDV-4CB	Gauge, 2.5 in., steel case, dry, -30 to 0 inHg/-100 to 0 kPa vacuum, brass-1/4 NPT, center back mount	1	0.30	$0825:
G25-BD30-4CB	Gauge, 2.5 in., steel case, dry, 0-30 psig/0-200 kPa, brass-1/4 NPT, center back mount	1	0.30	$0820:
G25-BD60-4CB	Gauge, 2.5 in., steel case, dry, 0-60 psig/0-400 kPa, brass-1/4 NPT, center back mount	1	0.30	$0823:
G25-BD100-4CB	Gauge, 2.5 in., steel case, dry, 0-100 psig/0-700 kPa, brass-1/4 NPT, center back mount	1	0.30	$;081]:
G25-BD160-4CB	Gauge, 2.5 in., steel case, dry, 0-160 psig/0-1,100 kPa, brass-1/4 NPT, center back mount	1	0.30	$081_:
G25-BD200-4CB	Gauge, 2.5 in., steel case, dry, 0-200 psig/0-1,400 kPa, brass-1/4 NPT, center back mount	1	0.30	$;081!:

ProSense® Steel Case / Brass Wetted Pressure Gauges

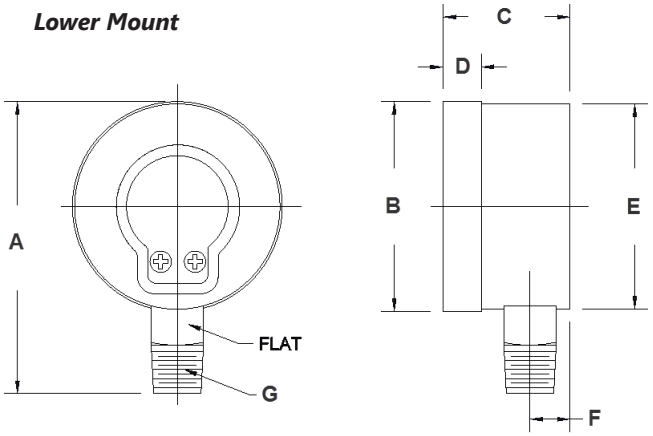
ProSense Steel Case / Brass Wetted Gauges Specifications			
Dial Size	1.5" [40 mm]	2.0" [50 mm]	2.5" [63 mm]
Case	Steel, Painted Black		
Lens	Polycarbonate		
Ring	Steel, Painted Black		
Socket	Brass*		
Connection	1/8" NPT	1/4" NPT	1/4" NPT
Fill Liquid	None		
Bourdon Tube	Phosphor Bronze		
Movement	Brass*		
Wetted Parts	Brass, Phosphor Bronze		
Pointer	Aluminum, Painted Black		
Welding	Silver Alloy		
Over Pressure Limit	125% of full scale		
Working Pressure	Maximum 75% of full scale value		
Ambient/Process Temperature	-40 °F to 150 °F (-40 °C to 65 °C)		
Accuracy	±3-2-3% ANSI/ASME Grade B		
Enclosure Rating	IP52		

** Leaded Brass not suitable for use in drinking water or other food & beverage applications.*

Warning: CHECK THE CHEMICAL COMPATIBILITY OF THE GAUGE'S WETTED PARTS WITH THE MEDIUM TO BE MEASURED. Use a suitable thread sealant such as Teflon® tape. Always tighten with an open end or adjustable wrench on the wrench flats. Never use any part of the pressure gauge to tighten other than the wrench flats that re on the gauge socket. Failure to do so will severely damage the pressure gauge.

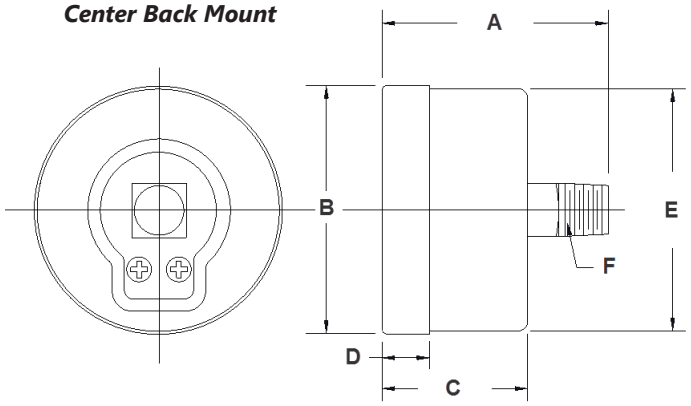
Dimensions

Lower Mount



Dimensions - Lower Mount Gauges			
Dial	***1.5" [40 mm]***	***2.0" [50 mm]***	***2.5" [63 mm]***
A	2.300" [58.4 mm]	2.992" [76.0 mm]	3.189" [81.0 mm}
B	1.653" [42.0 mm}	2.190" [55.6 mm]	2.488" [63.2 mm]
C	1.000" [25.4 mm]	1.161" [29.5 mm]	1.102" [28.0 mm]
D	0.300" [7.6 mm]	0.378" [9.6 mm]	0.394" [10.0 mm]
E	1.617" [41.0 mm]	2.126" [54.0 mm]	2.441" [62.0 mm]
F	0.315" [8.0 mm]	0.394" [10.0 mm]	0.433" [11.0 mm]
G	1/8" NPT	1/4" NPT	1/4" NPT

Center Back Mount



Dimensions - Center Back Mount Gauges			
Dial	***1.5" [40 mm]***	***2.0" [50 mm]***	***2.5" [63 mm]***
A	1.515" [38.5 mm]	1.850" [47.0 mm]	1.850" [47.0 mm}
B	1.660" [42.1 mm}	2.070" [52.5 mm]	2.500" [63.4 mm]
C	0.975" [24.6 mm]	1.079" [27.4 mm]	1.079" [27.4 mm]
D	0.320" [8.1 mm]	0.394" [10 mm]	0.394" [10.0 mm]
E	1.620" [41.1 mm]	2.008" [51.0 mm]	2.421" [61.5 mm]
F	1/8" NPT	1/4" NPT	1/4" NPT

See our website www.AutomationDirect.com for complete Engineering drawings.

ProSense® Stainless Steel Case / Brass Wetted Pressure Gauges

Liquid Filled Case Lower Mount

Liquid Filled Case Center Back Mount

Features

- Brass wetted parts for use with air, oil, water and non-corrosive liquids
- Restricted orifice to dampen pressure surges
- Crimp-on bezel
- Dual scale (psig/kPa)
- Glycerin filled case to reduce needle fluctuations due to vibration
- ±1.5% of full scale value accuracy
- 5 year warranty

Applications

- Ideal for pumps, compressors, hydraulic presses, machinery, pneumatic equipment and motors in harsh environments

ProSense 2.5" Stainless Steel Case / Brass Wetted Glycerin Filled Pressure Gauges				
Part Number	***Description***	***Pcs/Pkg***	***Wt(lb)***	***Price***
G25-SLV-4LB	Gauge, 2.5 in., SS Case, liquid fill, -30 to 0 inHg vacuum/-100 to 0 kPa vacuum, brass-1/4 NPT, lower mount	1	0.5	$;0egt:
G25-SL30-4LB	Gauge, 2.5 in., SS Case, liquid fill, 0-30 psig/0-200 kPa, brass-1/4 NPT, lower mount	1	0.5	$081q:
G25-SL60-4LB	Gauge, 2.5 in., SS Case, liquid fill, 0-60 psig/0-420 kPa, brass-1/4 NPT, lower mount	1	0.5	$081y:
G25-SL100-4LB	Gauge, 2.5 in., SS Case, liquid fill, 0-100 psig/0-700 kPa, brass-1/4 NPT, lower mount	1	0.5	$081b:
G25-SL160-4LB	Gauge, 2.5 in., SS Case, liquid fill, 0-160 psig/0-1,100 kPa, brass-1/4 NPT, lower mount	1	0.5	$;081f:
G25-SL200-4LB	Gauge, 2.5 in., SS Case, liquid fill, 0-200 psig/0-1,400 kPa, brass-1/4 NPT, lower mount	1	0.5	$-081j:
G25-SL300-4LB	Gauge, 2.5 in., SS Case, liquid fill, 0-300 psig/0-2,000 kPa, brass-1/4 NPT, lower mount	1	0.5	$081o:
G25-SL600-4LB	Gauge, 2.5 in., SS Case, liquid fill, 0-600 psig/0-4,200 kPa, brass-1/4 NPT, lower mount	1	0.5	$081v:
G25-SL1000-4LB	Gauge, 2.5 in., SS Case, liquid fill, 0-1000 psig/0-7,000 kPa, brass-1/4 NPT, lower mount	1	0.5	$0819:
G25-SL1500-4LB	Gauge, 2.5 in., SS Case, liquid fill, 0-1500 psig/0-10,000 kPa, brass-1/4 NPT, lower mount	1	0.5	$081d:
G25-SL2000-4LB	Gauge, 2.5 in., SS Case, liquid fill, 0-2000 psig/0-14,000 kPa, brass-1/4 NPT, lower mount	1	0.5	$081h:
G25-SL3000-4LB	Gauge, 2.5 in., SS Case, liquid fill, 0-3000 psig/0-21,000 kPa, brass-1/4 NPT, lower mount	1	0.5	$-081l:
G25-SL6000-4LB	Gauge, 2.5 in., SS Case, liquid fill, 0-6000 psig/0-42,000 kPa, brass-1/4 NPT, lower mount	1	0.5	$;081t:
G25-SLV-4CB	Gauge, 2.5 in., SS Case, liquid fill, -30 to 0 inHg vacuum/-100 to 0 kPa vacuum, brass-1/4 NPT, center back mount	1	0.5	$0egs:
G25-SL30-4CB	Gauge, 2.5 in., SS Case, liquid fill, 0-30 psig/0-200 kPa, brass-1/4 NPT, center back mount	1	0.5	$081p:
G25-SL60-4CB	Gauge, 2.5 in., SS Case, liquid fill, 0-60 psig/0-420 kPa, brass-1/4 NPT, center back mount	1	0.5	$081x:
G25-SL100-4CB	Gauge, 2.5 in., SS Case, liquid fill, 0-100 psig/0-700 kPa, brass-1/4 NPT, center back mount	1	0.5	$081a:
G25-SL160-4CB	Gauge, 2.5 in., SS Case, liquid fill, 0-160 psig/0-1,100 kPa, brass-1/4 NPT, center back mount	1	0.5	$081e:
G25-SL200-4CB	Gauge, 2.5 in., SS Case, liquid fill, 0-200 psig/0-1,400 kPa, brass-1/4 NPT, center back mount	1	0.5	$-081i:
G25-SL300-4CB	Gauge, 2.5 in., SS Case, liquid fill, 0-300 psig/0-2,000 kPa, brass-1/4 NPT, center back mount	1	0.5	$081n:
G25-SL600-4CB	Gauge, 2.5 in., SS Case, liquid fill, 0-600 psig/0-4,200 kPa, brass-1/4 NPT, center back mount	1	0.5	$081u:
G25-SL1000-4CB	Gauge, 2.5 in., SS Case, liquid fill, 0-1000 psig/0-7,000 kPa, brass-1/4 NPT, center back mount	1	0.5	$0818:
G25-SL1500-4CB	Gauge, 2.5 in., SS Case, liquid fill, 0-1500 psig/0-10,000 kPa, brass-1/4 NPT, center back mount	1	0.5	$081c:
G25-SL2000-4CB	Gauge, 2.5 in., SS Case, liquid fill, 0-2000 psig/0-14,000 kPa, brass-1/4 NPT, center back mount	1	0.5	$081g:
G25-SL3000-4CB	Gauge, 2.5 in., SS Case, liquid fill, 0-3000 psig/0-21,000 kPa, brass-1/4 NPT, center back mount	1	0.5	$081k:
G25-SL6000-4CB	Gauge, 2.5 in., SS Case, liquid fill, 0-6000 psig/0-42,000 kPa, brass-1/4 NPT, center back mount	1	0.5	$081s:

ProSense® Stainless Steel Case / Brass Wetted Pressure Gauges

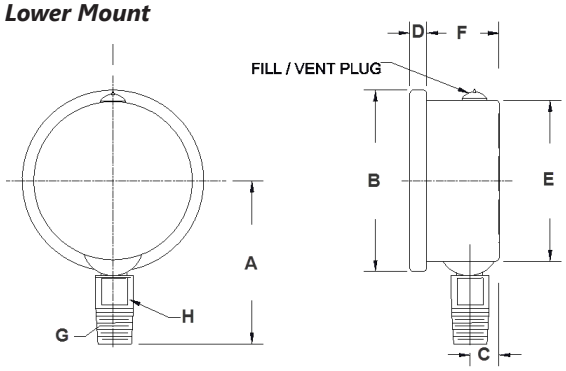
ProSense Stainless Steel Case / Brass Wetted Glycerin-filled Gauges Specifications	
Dial Size	2.5" [63.5 mm]
Case	AISI 304 SS
Lens	Polycarbonate
Ring	AISI 304 SS, Crimp-On
Socket	Brass*
Connection	1/4" NPT
Fill Liquid	Glycerin
Bourdon Tube	Phosphor Bronze C-shaped for pressures up to and including 600 psig (4,147 kPa), AISI 316 SS C-shaped for 1000 psig (6,895 kPa), AISI 316 SS spiral for pressures above 1000 psig (6,895 kPa)
Movement	OT 59 brass
Wetted Parts	Brass, Phosphor Bronze
Pointer	Aluminum, anodized black
Welding	Tin/cooper alloy for pressures up to 600 psig (4,147 kPa), 316 SS TIG Argon arc for pressures 600 psig (4,147 kPa) and above
Over Pressure Limit	125% of full scale up to 1,400 psig (9,653 kPa), 115% of full scale over 1,400 psig (9,653 kPa)
Gasket Material	Silicone rubber for socket; EPDM for lens, filling plug and blow-out vent
Working Pressure	Maximum 75% of full scale value
Ambient/Process Temperature	-4 °F to 150 °F (-20 °C to 65 °C)
Accuracy	±1.5% of full scale value
Enclosure Rating	IP65

** Leaded Brass not suitable for use in drinking water or other food & beverage applications.*

Warning: CHECK THE CHEMICAL COMPATIBILITY OF THE GAUGE'S WETTED PARTS WITH THE MEDIUM TO BE MEASURED. Use a suitable thread sealant such as Teflon® tape. Always tighten with an open end or adjustable wrench on the wrench flats. Never use any part of the pressure gauge to tighten other than the wrench flats that are on the gauge socket. Failure to do so will severely damage the pressure gauge.
Due to pressure buildup, some gauges (usually lower pressure ranges such as vacuum, up to 100 psig) may reflect a reading that is slightly "off zero". To properly "vent" the pressure gauge to atmosphere, make a small hole in the fill plug after you have installed the instrument.

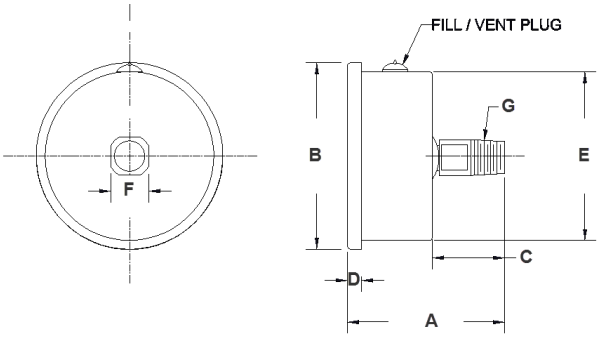
Dimensions

Lower Mount



Dimensions - Lower Mount Gauge	
A	2.190" [55.6 mm}
B	2.700" [68.5 mm]
C	0.433" [11.0 mm]
D	0.250" [6.3 mm]
E	2.440" [61.9 mm]
F	1.035" [26.3 mm]
G	1/4" NPT
H	0.551" [14.0 mm]

Center Back Mount



Dimensions - Center Back Mount Gauge	
A	2.264" [57.5 mm}
B	2.7" [68.5 mm]
C	1.175" [29.8 mm]
D	0.210" [5.3 mm]
E	2.445" [62 mm]
F	0.551" [14.0 mm]
G	1/4" NPT

See our website www.AutomationDirect.com for complete Engineering drawings.

ProSense® Stainless Steel Case / Stainless Steel Wetted Pressure Gauges

Dry and Liquid Filled Cases

Lower Mount

Center Back Mount

Features

- Stainless steel wetted parts for use with air, oil, water and corrosive liquids
- Restricted orifice to dampen pressure surges
- Crimp-on bezel
- Dual scale (psig/kPa)
- Dry or glycerin filled case to reduce needle fluctuations due to vibration
- ±1.5% of full scale value accuracy
- 5 year warranty

Applications

- Ideal for pumps, compressors, hydraulic presses, machinery, pneumatic equipment and motors in harsh environments

ProSense 2.5" All Stainless Steel Pressure Gauges				
Part Number	***Description***	***Pcs/Pkg***	***Wt(lb)***	***Price***
G25-SDV-4LS	Gauge, 2.5 in., SS Case, dry, -30 to 0 inHg/-100 to 0 kPa vacuum, SS-1/4 NPT, lower mount	1	0.4	$0803:
G25-SD30-4LS	Gauge, 2.5 in., SS Case, dry, 0-30 psig/0-200 kPa, SS-1/4 NPT, lower mount	1	0.4	$;07,?:
G25-SD60-4LS	Gauge, 2.5 in., SS Case, dry, 0-60 psig/0-420 kPa, SS-1/4 NPT, lower mount	1	0.4	$0801:
G25-SD100-4LS	Gauge, 2.5 in., SS Case, dry, 0-100 psig/0-700 kPa, SS-1/4 NPT, lower mount	1	0.4	$;07,y:
G25-SD160-4LS	Gauge, 2.5 in., SS Case, dry, 0-160 psig/0-1,100 kPa, SS-1/4 NPT, lower mount	1	0.4	$;;07,]:
G25-SD200-4LS	Gauge, 2.5 in., SS Case, dry, 0-200 psig/0-1,400 kPa, SS-1/4 NPT, lower mount	1	0.4	$;07,_:
G25-SD300-4LS	Gauge, 2.5 in., SS Case, dry, 0-300 psig/0-2,000 kPa, SS-1/4 NPT, lower mount	1	0.4	$;07,#:
G25-SD600-4LS	Gauge, 2.5 in., SS Case, dry, 0-600 psig/0-4,200 kPa, SS-1/4 NPT, lower mount	1	0.4	$;;07,,:
G25-SD1000-4LS	Gauge, 2.5 in., SS Case, dry, 0-1000 psig/0-7,000 kPa, SS-1/4 NPT, lower mount	1	0.4	$;07,v:
G25-SDV-4CS	Gauge, 2.5 in., SS Case, dry, -30 to 0 inHg/-100 to 0 kPa vacuum, SS-1/4 NPT, center back mount	1	0.4	$0802:
G25-SD30-4CS	Gauge, 2.5 in., SS Case, dry, 0-30 psig/0-200 kPa, SS-1/4 NPT, center back mount	1	0.4	$;;07,!:
G25-SD60-4CS	Gauge, 2.5 in., SS Case, dry, 0-60 psig/0-420 kPa, SS-1/4 NPT, center back mount	1	0.4	$0800:
G25-SD100-4CS	Gauge, 2.5 in., SS Case, dry, 0-100 psig/0-700 kPa, SS-1/4 NPT, center back mount	1	0.4	$;07,x:
G25-SD160-4CS	Gauge, 2.5 in., SS Case, dry, 0-160 psig/0-1,100 kPa, SS-1/4 NPT, center back mount	1	0.4	$;07,z:
G25-SD200-4CS	Gauge, 2.5 in., SS Case, dry, 0-200 psig/0-1,400 kPa, SS-1/4 NPT, center back mount	1	0.4	$;;07,[:

ProSense 2.5" All Stainless Steel Steel Glycerin Filled Pressure Gauges				
Part Number	***Description***	***Pcs/Pkg***	***Wt(lb)***	***Price***
G25-SLV-4LS	Gauge, 2.5 in., SS Case, liquid fill, -30 to 0 inHg/-100 to 0 kPa vacuum, SS-1/4 NPT, lower mount	1	0.5	$-080i:
G25-SL30-4LS	Gauge, 2.5 in., SS Case, liquid fill, 0-30 psig/0-200 kPa, SS-1/4 NPT, lower mount	1	0.5	$080d:
G25-SL60-4LS	Gauge, 2.5 in., SS Case, liquid fill, 0-60 psig/0-420 kPa, SS-1/4 NPT, lower mount	1	0.5	$080g:
G25-SL100-4LS	Gauge, 2.5 in., SS Case, liquid fill, 0-100 psig/0-700 kPa, SS-1/4 NPT, lower mount	1	0.5	$0806:
G25-SL160-4LS	Gauge, 2.5 in., SS Case, liquid fill, 0-160 psig/0-1,100 kPa, SS-1/4 NPT, lower mount	1	0.5	$0808:
G25-SL200-4LS	Gauge, 2.5 in., SS Case, liquid fill, 0-200 psig/0-1,400 kPa, SS-1/4 NPT, lower mount	1	0.5	$080a:
G25-SL300-4LS	Gauge, 2.5 in., SS Case, liquid fill, 0-300 psig/0-2,000 kPa, SS-1/4 NPT, lower mount	1	0.5	$080b:
G25-SL600-4LS	Gauge, 2.5 in., SS Case, liquid fill, 0-600 psig/0-4,200 kPa, SS-1/4 NPT, lower mount	1	0.5	$080e:
G25-SL1000-4LS	Gauge, 2.5 in., SS Case, liquid fill, 0-1000 psig/0-7,000 kPa, SS-1/4 NPT, lower mount	1	0.5	$0804:
G25-SLV-4CS	Gauge, 2.5 in., SS Case, liquid fill, -30 to 0 inHg/-100 to 0 kPa vacuum, SS-1/4 NPT, center back mount	1	0.5	$080h:
G25-SL30-4CS	Gauge, 2.5 in., SS Case, liquid fill, 0-30 psig/0-200 kPa, SS-1/4 NPT, center back mount	1	0.5	$080c:
G25-SL60-4CS	Gauge, 2.5 in., SS Case, liquid fill, 0-60 psig/0-420 kPa, SS-1/4 NPT, center back mount	1	0.5	$;080f:
G25-SL100-4CS	Gauge, 2.5 in., SS Case, liquid fill, 0-100 psig/0-700 kPa, SS-1/4 NPT, center back mount	1	0.5	$0805:
G25-SL160-4CS	Gauge, 2.5 in., SS Case, liquid fill, 0-160 psig/0-1,100 kPa, SS-1/4 NPT, center back mount	1	0.5	$0807:
G25-SL200-4CS	Gauge, 2.5 in., SS Case, liquid fill, 0-200 psig/0-1,400 kPa, SS-1/4 NPT, center back mount	1	0.5	$0809:

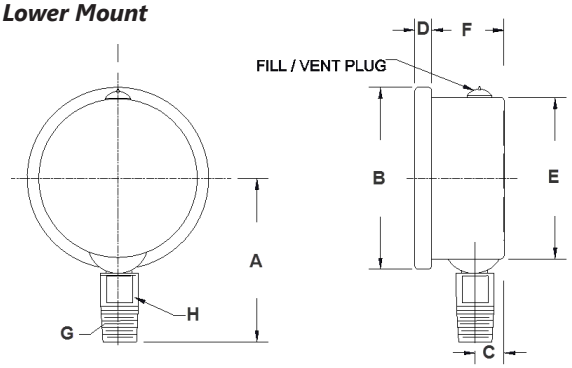
ProSense® Stainless Steel Case / Stainless Steel Wetted Pressure Gauges

ProSense All Stainless Steel Gauges Specifications	
Dial Size	2.5" [63 mm]
Case	AISI 304 SS
Lens	Polycarbonate
Ring	AISI 304 SS, Crimp-On
Socket	AISI 316 SS
Connection	1/4" NPT
Fill Liquid	Dry = None / Liquid Fill = Glycerin
Bourdon Tube	AISI 316 SS C-shaped for pressures up to 1000 psig (6,895 kPa)
Movement	Brass
Wetted Parts	AISI 316 SS
Pointer	Aluminum, anodized black
Welding	316 SS TIG Argon arc
Over Pressure Limit	125% of full scale
Gasket Material	Silicone rubber for socket; EPDM for lens, filling plug and blow-out vent (Liquid fill models)
Working Pressure	Maximum 75% of full scale value
Ambient/Process Temperature	Dry: -40°F to 250°F (-40°C to 120°C) Glycerin filled: -4°F to 150°F (-20°C to 65°C)
Accuracy	±1.5% of full scale value
Enclosure Rating	IP65

Warning: CHECK THE CHEMICAL COMPATIBILITY OF THE GAUGE'S WETTED PARTS WITH THE MEDIUM TO BE MEASURED. Use a suitable thread sealant such as Teflon® tape. Always tighten with an open end or adjustable wrench on the wrench flats. Never use any part of the pressure gauge to tighten other than the wrench flats that are on the gauge socket. Failure to do so will severely damage the pressure gauge.
Due to pressure buildup, some gauges (usually lower pressure ranges such as vacuum, up to 100 psig) may reflect a reading that is slightly "off zero". To properly "vent" the pressure gauge to atmosphere, make a small hole in the fill plug after you have installed the instrument.

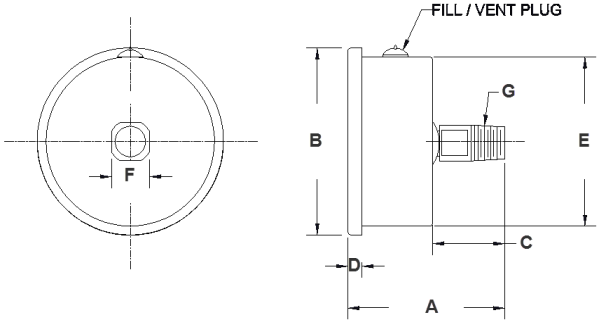
Dimensions

Lower Mount



Dimensions - Lower Mount Gauge	
A	2.190" [55.6 mm}
B	2.700" [68.5 mm]
C	0.433" [11.0 mm]
D	0.250" [6.3 mm]
E	2.440" [61.9 mm]
F	1.035" [26.3 mm]
G	1/4" NPT
H	0.551" [14.0 mm]

Center Back Mount



Dimensions - Center Back Mount Gauge	
A	2.264" [57.5 mm}
B	2.7" [68.5 mm]
C	1.175" [29.8 mm]
D	0.210" [5.3 mm]
E	2.445" [62 mm]
F	0.551" [14.0 mm]
G	1/4" NPT

See our website www.AutomationDirect.com for complete Engineering drawings.

ProSense® Differential Pressure Gauges

Part No. DGA-30

Features

- Industrial grade black die-cast aluminum case
- High temperature tolerance
- Resistance-free movement
- 2% full scale accuracy
- Re-zero adjustment
- Mounting and connection hardware included. Other mounting accessories available.
- 5-year warranty

Applications

- Air and compatible non-combustible gasses
- Indicates positive, negative or differential pressure:
  - Filter status
  - Duct static pressure
  - Clean rooms
  - Paint booths
  - Fans or blowers
  - Dust collectors
  - Cabinet purging

5 YEAR WARRANTY

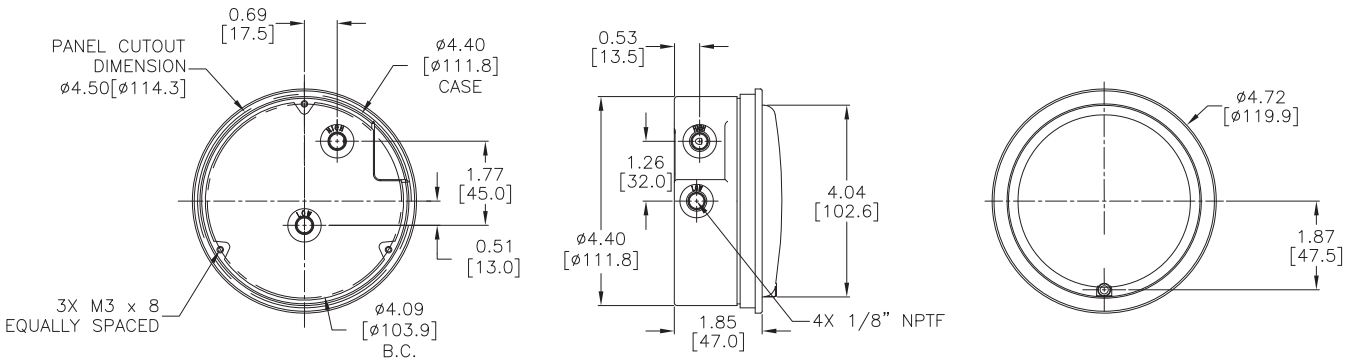
ProSense Differential Pressure Gauges				
Part Number	**Description**	**Pcs/Pkg**	**Wt(lb)**	**Price**
DGA-01	ProSense differential pressure gauge, 0 to 1" water column range	1	1.43	$03?#6:
DGA-02	ProSense differential pressure gauge, 0 to 2" water column range	1	1.43	$03?#7:
DGA-03	ProSense differential pressure gauge, 0 to 3" water column range	1	1.43	$03?#8:
DGA-04	ProSense differential pressure gauge, 0 to 4" water column range	1	1.43	$03?#9:
DGA-05	ProSense differential pressure gauge, 0 to 5" water column range	1	1.43	$03?#a:
DGA-10	ProSense differential pressure gauge, 0 to 10" water column range	1	1.43	$03?#1:
DGA-15	ProSense differential pressure gauge,0 to 15" water column range	1	1.43	$03?#2:
DGA-20	ProSense differential pressure gauge, 0 to 20" water column range	1	1.43	$03?#3:
DGA-25	ProSense differential pressure gauge, 0 to 25" water column range	1	1.43	$03?#4:
DGA-30	ProSense differential pressure gauge, 0 to 30" water column range	1	1.43	$03?#5:
DGA-40	ProSense differential pressure gauge, 0 to 40" water column range	1	1.43	$03?#b:
DGA-50	ProSense differential pressure gauge, 0 to 50" water column range	1	1.43	$03?#c:
DGA-100	ProSense differential pressure gauge, 0 to 100" water column range	1	1.43	$03?#d:
DGA-150	ProSense differential pressure gauge, 0 to 150" water column range	1	1.43	$03?#e:
DGA-01B	ProSense differential pressure gauge, -1 to 1" water column range	1	1.43	$;03?#f:
DGA-02B	ProSense differential pressure gauge, -2 to 2" water column range	1	1.43	$03?#g:
DGA-05B	ProSense differential pressure gauge, -5 to 5" water column range	1	1.43	$03?#h:
DGA-10B	ProSense differential pressure gauge, -10 to 10" water column range	1	1.43	$-03?#i:
DGA-15B	ProSense differential pressure gauge, -15 to 15" water column range	1	1.43	$-03?#j:

ProSense Differential Pressure Gauges Specifications	
Dial Size	4" (100mm), white aluminum with black markings
Case	Die-cast black aluminum
Lens	Polycarbonate
Ring	Threaded die-cast black aluminum
Connection	(2) high and (2) low pressure ports, 1/8" female NPT, located on side and back
Wetted Parts	Aluminum, silicone rubber
Mounting	Vertical position, flush or surface mount with included hardware
Movement	Resistance-free and magnetic
Pointer	Aluminum, anodized black
Media	Air and compatible non-combustible gases
Over Pressure Limit	14.5 psi / 100 kPa / 400 inH_2O maximum
Ambient Temperature	-40°F to 140°F (-40°C to 60°C)
Process Temperature	14°F to 140°F (-10°C to 60°C)
Accuracy	±2% of full scale
IP Rating	Unit IP67 - Enclosure rating dependent on installation method

ProSense® Differential Pressure Gauges

Dimensions

inches [mm]



Panel Mounting
Cut a circular opening in the panel to allow a close fit of 4.41" (112mm) gauge case diameter. Refer to above drawing.

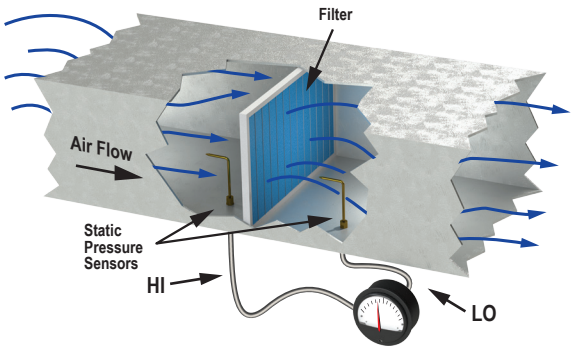
- Gauges include:
  (3) angled mounting brackets with short and long screws
  (2) brass hose barb connectors with 1/8" NPT threads*
  (2) 1/8" NPT threaded plugs
- *Note: Plastic tubing with a minimum inside diameter of 0.170 inches and less than 0.275 inches can be used with the brass hose barb connectors.

See our website www.AutomationDirect.com for complete Engineering drawings.

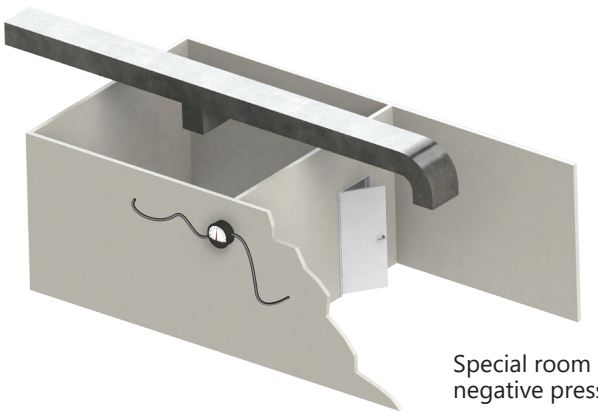
DGA shown with included brackets, screws, fittings and plugs

Application Examples

Air/gas flow as a function of blower static pressure

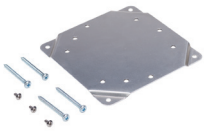


Filter condition monitoring



Special room positive or negative pressure indication

ProSense® Differential Pressure Gauges Accessories



Part No. DGA-B

Part No. DGA-R

Part No. DGA-T

Part DGA-B shown with DGA Differential Pressure Gauge

Part DGA-R shown with DGA Differential Pressure Gauge

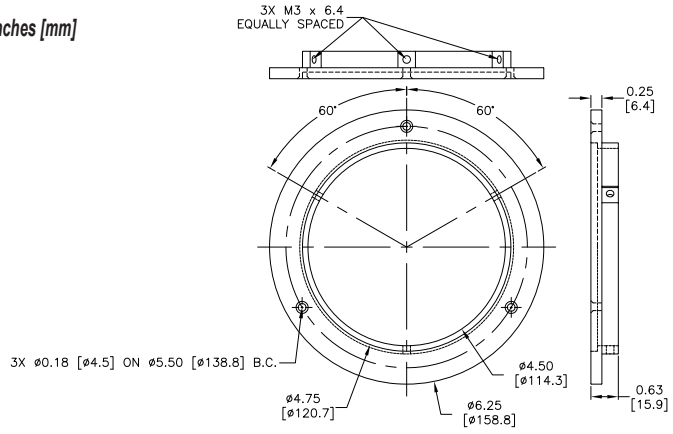
Applications

- DGA-T Static Pressure Tip:
  Use the DGA-T to sense static pressure in ducts, across filters, coils, fans, etc. The angled tip is brass, has a 4" insertion depth and four radial 0.04" sensing holes. The tip also has a compression fitting for use with 1/4" OD metal or plastic tubing.
- DGA-B Surface Mount Bracket:
  Mount the DGA gauge to the pre-drilled holes in the metal DGA-B mounting bracket and then mount the bracket to any vertical flat surface.
- DGA-R Panel Mount Flange:
  Secure the plastic flange to the DGA gauge with the three set screws in the flange. The DGA can now be mounted to a panel using the three mounting holes in the flange and the included mounting screws.

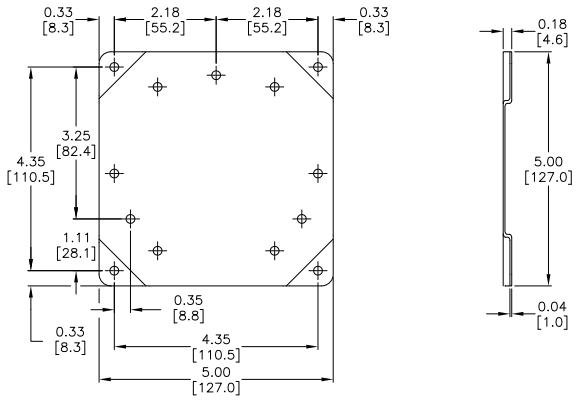
ProSense Differential Pressure Gauges Accessories				
Part Number	**Description**	**Pcs/Pkg**	**Wt(lb)**	**Price**
DGA-T	ProSense static pressure tip with compression fitting, brass, for use with DGA series differential pressure gauges or DPTA series differential pressure transmitters.	1	0.07	$3?#k:
DGA-B	ProSense surface mount bracket, aluminum, for use with DGA series differential pressure gauges. Hardware included.	1	0.1	$-3?#l:
DGA-R	ProSense panel mount flange, ABS plastic, for use with DGA series differential pressure gauges. Hardware included.	1	0.15	$3?#n:

Dimensions

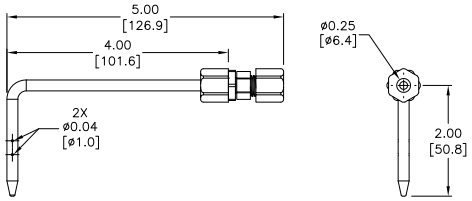
inches [mm]



Part No. DGA-R



Part No. DGA-B



Part No. DGA-T

See our website www.AutomationDirect.com for complete Engineering drawings.

Siphons

Part No. SSP545-ADC

Part No. SSP556-ADC

Part No. SSP595-ADC

Description

Siphons, also called pigtails, are used to protect pressure gauges, transmitters, transducers, and switches from the effect of high-temperature pressure media such as steam. Inside the coil or pigtail portion of the siphon, the pressure media forms condensate that is lower in temperature than the media. The condensate prevents the higher temperature media from coming in direct contact with the pressure instrument. When the siphon is first installed, it should be filled with water or any other suitable separating liquid.

Features

- Ideal for protecting pressure instruments from hot media temperatures in steam pressure applications
- Available in brass, carbon steel, or stainless steel for compatibility with different media
- 1/4in male NPT process connections
- 5-year warranty

Example assembly of SSP series siphon, NVA series isolation valve, and G25 series pressure gauge. The female coupling is not available from AutomationDirect.

Siphon Selection

Part Number	Description	Pcs/Pkg	Wt(lb)	Price	Drawing Link
SSP545-ADC	Winters siphon, brass body, 1/4in male NPT x 1/4in male NPT.	1	0.45	$56x6:	PDF
SSP556-ADC	Winters siphon, carbon steel body, 1/4in male NPT x 1/4in male NPT.	1	0.45	$56x7:	PDF
SSP595-ADC	Winters siphon, stainless steel body, 1/4in male NPT x 1/4in male NPT.	1	0.45	$56x8:	PDF

Siphon Specifications

Material*	Schedule 40 brass, schedule 80 carbon steel or schedule 80 304 SS (all types seamless)
Style	180° coil
Connection	1/4in male NPT x 1/4in male NPT
Maximum Operating Pressure	Schedule 40: Brass, 500 psi at 680°F (360°C) Schedule 80: Carbon steel, 304 SS, 1,650 psi at 630°F (332°C)
Maximum Operating Temperature	Schedule 40: Brass, 680°F (360°C) Schedule 80: Carbon steel, 304 SS, 630°F (332°C) Recommended for applications above 100°F (37°C)
Warning (brass siphons only)	**WARNING:** This product can expose you to chemicals, including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

** To avoid the possibility of galvanic corrosion, it is recommended not to use dissimilar metals together.*

Click on the thumbnail or go to https://www.automationdirect.com/VID-PC-0005 for a short video Winters products.

Pressure Snubbers

Description

Pressure Snubbers are used to protect pressure measurement instruments such as gauges, transmitters, transducers and switches by suppressing the effect of pressure pulsations and spikes commonly found in harsh applications involving reciprocating pumps and compressors, hydraulic presses or fluid power systems. The SSN series of pressure snubbers incorporates a sintered, porous 316 stainless steel snubbing element with a large surface area to slow rapid pressure changes and surges, thereby improving readability and preventing wear and damage to delicate instrument mechanisms. These pressure snubbers are available with brass or stainless steel bodies and porous snubbing elements designed for water, air or heavy oil viscosity applications.

Part No. SSN515-ADC

Part No. SSN518-ADC

Example assembly of SSN series snubber and G25 series pressure gauge.

Features

- Incorporates a sintered, porous 316 stainless steel snubbing element with a large surface area to ensure long term effectiveness
- Available in the three standard viscosity classifications of heavy oil, water and air
- Brass or stainless steel bodies depending upon pressure media and operating pressure
- 1/4in male NPT x 1/4in female NPT process connections
- ASME B40.100 compliant
- 5-year warranty

Pressure Snubber Selection

Part Number	Description	Pcs/Pkg	Wt(lb)	Price	Drawing Link
SSN515-ADC	Winters water snubber, porous brass element, brass body, 1/4in male NPT x 1/4in female NPT.	1	0.17	$56xa:	PDF
SSN516-ADC	Winters air snubber, porous brass element, brass body, 1/4in male NPT x 1/4in female NPT.	1	0.17	$56xb:	PDF
SSN517-ADC	Winters heavy oil snubber, porous brass element, brass body, 1/4in male NPT x 1/4in female NPT.	1	0.17	$56x9:	PDF
SSN518-ADC	Winters water snubber, porous stainless steel element, stainless steel body, 1/4in male NPT x 1/4in female NPT.	1	0.17	$56xd:	PDF
SSN519-ADC	Winters air snubber, porous stainless steel element, stainless steel body, 1/4in male NPT x 1/4in female NPT.	1	0.17	$56xe:	PDF
SSN520-ADC	Winters heavy oil snubber, porous stainless steel element, stainless steel body, 1/4in male NPT x 1/4in female NPT.	1	0.17	$56xc:	PDF

Pressure Snubber Specifications

Body*	316 Stainless Steel	Brass
Connection**	1/4in male NPT x 1/4in female NPT process connections	
Operating Temperature	-320°F to 1,500°F (-195°C to 815°C)	-65°F to 650°F (-53°C to 343°C)
Operating Pressure	Maximum 20,000 psi (137,900 kPa)	Maximum 10,000 psi (68,950 kPa)
Burst Pressure	60,000 psi (413,700 kPa)	30,000 psi (206,850 kPa)
Snubbing Element	Sintered, porous type 316 SS	Sintered, porous brass
Retainer	300 series SS	300 series SS
Warning (brass internals only)	N/A	**WARNING:** This product can expose you to chemicals, including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

** To avoid the possibility of galvanic corrosion, it is recommended not to use dissimilar metals together.*
*** Snubbers are uni-directional. Sensor must be installed into the snubbers female connection.*

Click on the thumbnail or go to https://www.automationdirect.com/VID-PC-0005 for a short video Winters products.

Adjustable Pressure Snubbers

Description

Adjustable pressure snubbers are used to protect pressure measurement instruments such as gauges, transmitters, transducers and switches by suppressing the effect of pressure pulsations and spikes commonly found in harsh applications involving reciprocating pumps and compressors, hydraulic presses or fluid power systems. The SAS series of pressure snubbers incorporates an adjustable stem snubbing element to slow rapid pressure changes and surges, thereby improving readability and preventing wear and damage to delicate instrument mechanisms. These pressure snubbers are available with brass or stainless steel bodies and adjustable stem snubbing element to meet a wide variety of media viscosity applications.

Part No. SAS540-ADC

Part No. SAS542-ADC

Features

- Adjustable stem snubbing element to meet a wide variety of media viscosity applications.
- Brass or stainless steel bodies depending upon pressure media
- 1/4in male NPT x 1/4in female NPT process connections
- ASME B40.100 compliant
- 5-year warranty

Example assembly of SAS series adjustable snubber and G25 series pressure gauge.

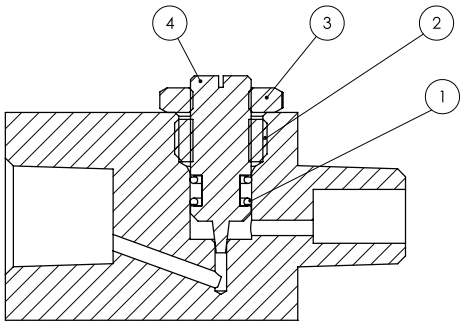
Adjustable Pressure Snubber Selection

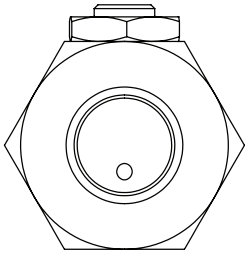
Part Number	Description	Pcs/Pkg	Wt(lb)	Price	Drawing Link
SAS540-ADC	Winters snubber, adjustable brass stem and PTFE seal element, brass body, 1/4in male NPT x 1/4in female NPT.	1	1.10	$;56xf:	PDF
SAS542-ADC	Winters snubber, adjustable stainless steel stem and PTFE seal element, stainless steel body, 1/4in male NPT x 1/4in female NPT.	1	1.10	$56xg:	PDF

Adjustable Pressure Snubber Specifications

Body*		316 Stainless Steel	Brass
Connection**		1/4in male NPT x 1/4in female NPT process connections	
Operating Temperature		-40°F to 248°F (-40°C to 120°C)	
Operating Pressure		6,000 psi maximum	
Materials (reference chart below)	1 - Gland Washer	316 SS	316 SS
	2 - Gland Seal	PTFE (Polytetrafluoroethylene)/ Graphite	PTFE (Polytetrafluoroethylene)/Graphite
	3 - Gland	316 SS	Brass
	4 - Stem	316 SS	Brass
Warning		N/A	**WARNING:** This product can expose you to chemicals, including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

** To avoid the possibility of galvanic corrosion, it is recommended not to use dissimilar metals together.*
*** Snubbers are uni-directional. Sensor must be installed into the snubbers female connection.*





Click on the thumbnail or go to https://www.automationdirect.com/VID-PC-0005 for a short video Winters products.

Manual Isolation and Throttling Needle Valves

Description

Manual isolation and throttling needle valves are commonly used to block and isolate pressure instruments such as gauges, transmitters, transducers and switches from the sensed media pressure allowing for quick and easy removal and maintenance of the instruments without shutting down the process. The one-piece, weld-free stainless steel body provides strength, safety, and corrosion resistance for a wide variety of process fluids and gases. Available in either a soft seat or hard seat version, these valves provide leak-tight shut-off. Needle valves are also used in flow-metering applications, especially when a constant, calibrated, low flow rate must be maintained. The needle shaped plunger, small orifice and tapered seat allow for precise manual regulation of flow rate.

Part No. NVA1000-ADC

Example assembly of NVA series isolation valve and G25 series pressure gauge.

Features

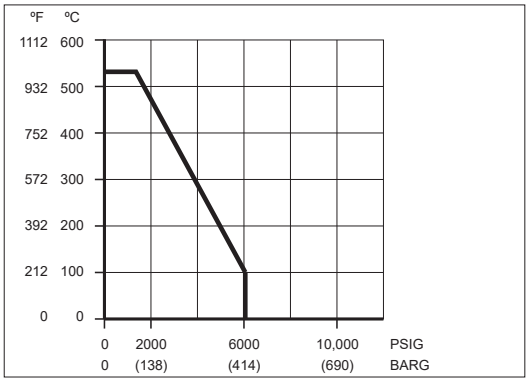
- Excellent flow regulation and leak tight
- The one-piece body construction (no welding) provides strength, safety and corrosion resistance
- "Slow opening" prevents sudden pressure surge and instrument damage
- Materials include carbon steel and stainless steel
- Available in Soft and Hard Seat (6,000 psi)
- ASME B1.20.1 compliant
- 5-year warranty

Manual Isolation and Throttling Needle Valve Selection

Part Number	Description	Pcs/Pkg	Wt(lb)	Price	Drawing Link
NVA1000-ADC	Winters manual isolation and throttling needle valve, straight body soft seat, single handle, stainless steel body, 1/4in male NPT inlet(s), 1/4in female NPT outlet(s).	1	1.10	$56xh:	PDF
NVA2000-ADC	Winters manual isolation and throttling needle valve, straight body hard seat, single handle, stainless steel body, 1/4in male NPT inlet(s), 1/4in female NPT outlet(s).	1	1.10	$-56xi:	PDF

Manual Isolation and Throttling Needle Valve Specifications

Connection	1/4in male NPT x 1/4in female NPT process connections
Maximum Pressure	6,000 psi @ 212°F (100°C)
Operating Temperature	32°F to 977°F (0°C to 525°C)



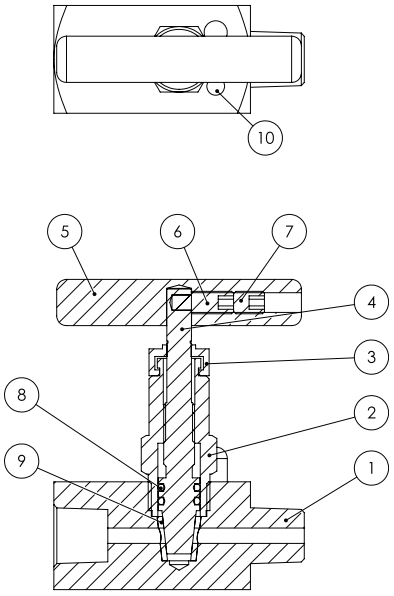
The maximum pressure and temperature are directly related for the NVA series valves. This derating chart should be used to find the maximum pressure allowed at the operating temperature.

Click on the thumbnail or go to https://www.automationdirect.com/VID-PC-0005 for a short video Winters products.

Manual Isolation and Throttling Needle Valves

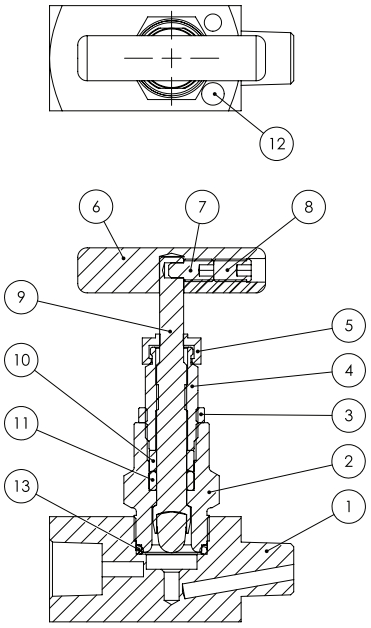
Soft Seat Manual Isolation and Throttling Needle Valve Materials		
Description	Component Number	Component Material
Body*	1	316 SS
Bonnet	2	316 SS
Dustcap	3	Nylon
Needle / Needle Tip	4	316 SS
Handle	5	304 SS
Screw	6	304 SS
Fastening Screw	7	304 SS
O-ring	8	FKM (Viton®)
Seat	9	Delrin
Slotted Spring Pin	10	304 SS

** To avoid the possibility of galvanic corrosion, it is recommended not to use dissimilar metals together.*



Hard Seat Manual Isolation and Throttling Needle Valve Materials		
	Component Number	Component Material
Body*	1	316 SS
Bonnet	2	316 SS
Adapter Locknut	3	304 SS
Adapter	4	316 SS
Dustcap	5	Nylon
Handle	6	304 SS
Screw	7	304 SS
Fastening Screw	8	304 SS
Needle / Needle Tip	9	316 SS
Gland Washer	10	304 SS
Gland Packing	11	PTFE (Polytetrafluoroethylene)/ Graphite
Dwell Pin	12	304 SS
Gland Packing	13	PTFE/Graphite

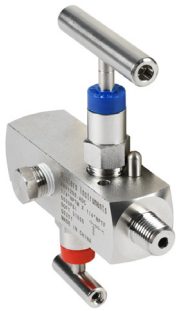
** To avoid the possibility of galvanic corrosion, it is recommended not to use dissimilar metals together.*



Manual Block and Bleed Needle Valves

Description

Manual block and bleed needle valves are commonly used to block and isolate pressure instruments such as gauges, transmitters, transducers and switches from the sensed media pressure. They allow for easy removal and maintenance of the instruments without shutting down the process. Additionally, the 1/4" NPT bleed port allows pressure in the sensed line to be bled off without disturbing the permanent piping installation. The one-piece, weld-free stainless steel body provides strength, safety, and corrosion resistance for a wide variety of process fluids and gases. Available in either a soft seat or hard seat version, these valves provide leak-tight shut-off. Needle valves are also used in flow-metering applications, especially when a constant, calibrated, low flow rate must be maintained. The needle-shaped plunger, small orifice and tapered seat allow for precise manual regulation of flow rate.



Part No. BBV1200-ADC

Example assembly of BBV series block and bleed valve and G25 series pressure gauge.

Features

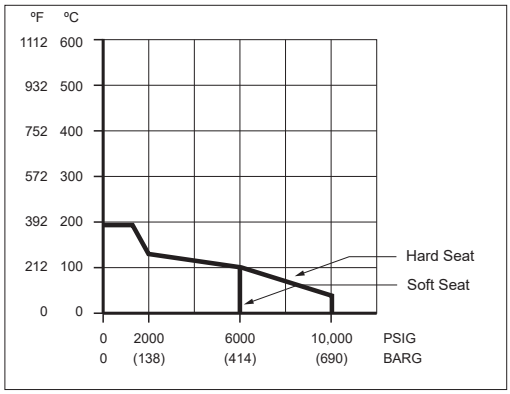
- The one-piece body construction (no welding) provides strength and corrosion resistance
- Block & bleed design allows pressure to be bled off without disturbing the permanent piping installation, allowing quick and easy removal or replacement of instruments
- Available in Soft Seat (6,000 psi) and Hard Seat (10,000 psi)
- All stems are 316 stainless steel
- 5-year warranty

Manual Block and Bleed Needle Valve Selection

Part Number	Description	Pcs/Pkg	Wt(lb)	Price	Drawing Link
BBV1200-ADC	Winters manual block and bleed needle valve, straight body soft seat, double handles, stainless steel body, 1/4in male NPT inlet(s), 1/4in female NPT outlet(s).	1	2.20	$-056xj:	PDF
BBV3200-ADC	Winters manual block and bleed needle valve, straight body hard seat, double handles, stainless steel body, 1/4in male NPT inlet(s), 1/4in female NPT outlet(s).	1	2.20	$056xk:	PDF

Manual Isolation and Throttling Needle Valve Specifications

Connection	1/4in male NPT x 1/4in female NPT process connections
Maximum Pressure	Soft Seat: 6,000 psi @ 212°F (100°C) Hard Seat: 10,000 psi @ 104°F (40°C)
Operating Temperature	32°F to 383°F (0°C to 195°C)



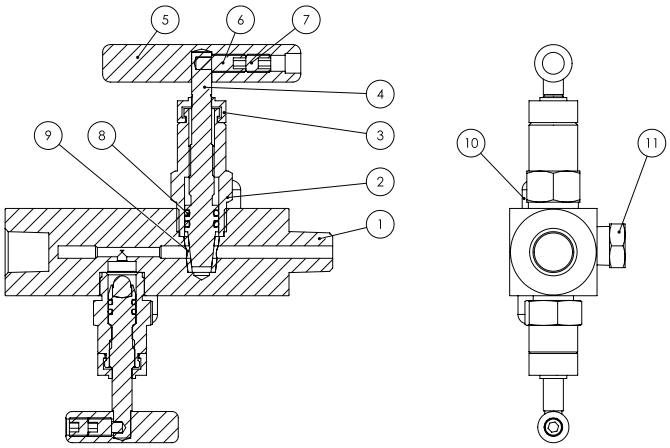
The maximum pressure and temperature are directly related for the BBV series valves. This derating chart should be used to find the maximum pressure allowed at the operating temperature.

Click on the thumbnail or go to https://www.automationdirect.com/VID-PC-0005 for a short video Winters products.

Manual Block and Bleed Needle Valves

Soft Seat Manual Isolation and Throttling Needle Valve Materials		
Description	Component Number	Component Material
Body*	1	316 SS
Bonnet	2	316 SS
Dustcap	3	Nylon
Needle / Needle Tip	4	316 SS
Handle	5	304 SS
Screw	6	304 SS
Fastening Screw	7	304 SS
O-rings	8	FKM (Viton®)
Seat	9	Delrin
Dwell Pin	10	304 SS
Vent Plug	11	316 SS

** To avoid the possibility of galvanic corrosion, it is recommended not to use dissimilar metals together.*



Hard Seat Manual Isolation and Throttling Needle Valve Materials		
Description	Component Number	Component Material
Body*	1	316 SS
Bonnet	2	316 SS
Dustcap	3	Nylon
Needle / Needle Tip	4	316 SS
Handle	5	304 SS
Screw	6	304 SS
Fastening Screw	7	304 SS
O-rings	8	FKM (Viton®)
Dwell Pin	9	304 SS
Vent Plug	10	316 SS

** To avoid the possibility of galvanic corrosion, it is recommended not to use dissimilar metals together.*