

# UTILITY GAGE

1.5", 2" and 2.5" Dials with Back Connection; 2" Dials with Dual PSI/Bar x100 kPa Scales



UGI



UGJ



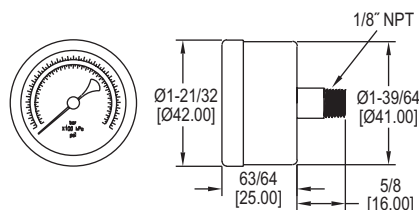
UGJ Back



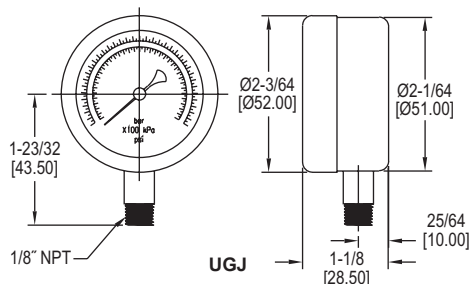
UGK



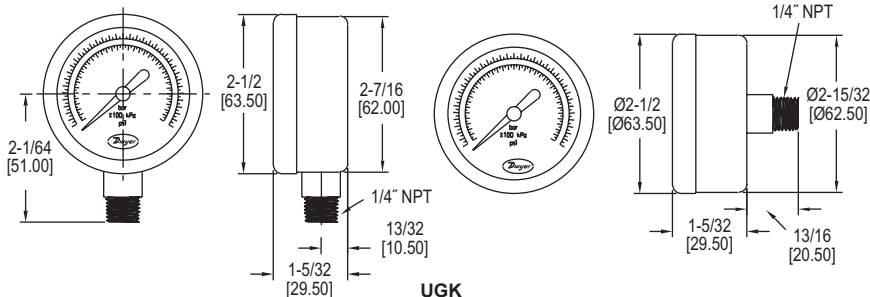
UGK Back



UGI



UGJ



UGK

The **SERIES UGI & UGJ** Utility Gages possess dual psi and bar (x100 kPa) scales with  $\pm 2.5\%$  accuracy. The **SERIES UGK** Gages have dual psi and bar (x100 kPa) scales with  $\pm 1.5\%$  accuracy. They are designed with black steel housings. Wetted parts include a brass socket and phosphor bronze tube. A wide offering of ranges are available from full vacuum to 300 psi. The center back mounting and compact size makes this gage the perfect choice for pneumatic air regulators.

## FEATURES/BENEFITS

- Dual scale provides reading in easily recognizable units
- Good accuracy gage for value-sensitive applications
- Compact size provides for mounting with dimensional limitations
- Higher accuracy gage for value-sensitive applications requiring more precise measurement
- Back or bottom mounting and compact size provides for mounting with dimensional limitations

## APPLICATIONS

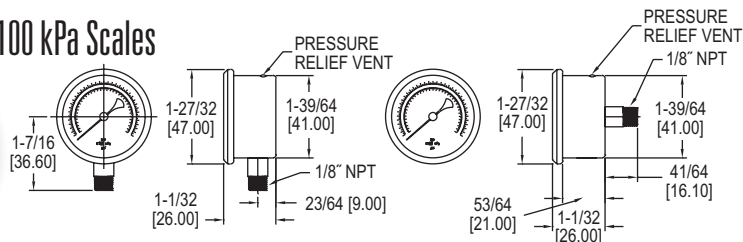
- Air regulators
- Pneumatic systems

MODEL CHART	
Model	Range
UGI-B10141N	30" Hg to 0
UGI-B10341N	0 to 30 psi
UGI-B10441N	0 to 60 psi
UGI-B10541N	0 to 100 psi
UGI-B10641N	0 to 160 psi
UGI-B10741N	0 to 200 psi
UGI-B11041N	0 to 300 psi

MODEL CHART	
Model	Range
UGJ-C10121N	30" Hg to 0
UGJ-C10321N	0 to 30 psi
UGJ-C10421N	0 to 60 psi
UGJ-C10521N	0 to 100 psi
UGJ-C10621N	0 to 160 psi
UGJ-C10721N	0 to 200 psi
UGJ-C11021N	0 to 300 psi
<b>Note:</b> For back connect gages, change 21N to 41N.	

SPECIFICATIONS	
<b>Service:</b>	Compatible gases and liquids.
<b>Wetted Materials:</b>	Brass connector, phosphor bronze tube.
<b>Housing:</b>	Black painted steel.
<b>Lens:</b>	Polycarbonate.
<b>Accuracy:</b>	UGI & UGJ: $\pm 2.5\%$ FS; UGK: 1.5% FS.
<b>Pressure Limit:</b>	FS range.
<b>Temperature Limits:</b>	-4 to 140°F (-20 to 60°C).
<b>Size:</b>	UGI: 1.5" (40 mm); UGJ: 2" (50 mm); UGK: 2.5" (63 mm).
<b>Process Connection:</b>	UGI: 1/8" male NPT center back; UGJ: 1/8" NPT; UGK: 1/4" male NPT.
<b>Weight:</b>	UGI: 2.1 oz (59 g); UGJ: 3.8 oz (108 g); UGK: 5.1 oz (145 g) bottom, 5.5 oz (155 g) back.

USA: California Proposition 65  
 ⚠ WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

**Dwyer****SERIES SG1 & SG3****1.5" INDUSTRIAL PRESSURE GAGE****2.5% FS Accuracy, 316 SS or Brass Wetted Parts, Dual PSI/Bar x100 kPa Scales****SG1 Bottom****SG1 Back****SG3 Bottom****SG3 Back**

The **SERIES SG1** Gages are perfect for applications where resistance to corrosion is necessary. The stainless steel case and ring offer excellent protection from harsh processes. The SG1 gages are an economical choice where ambient corrosion and vibration are a concern. Gages are suitable for all fluids that are compatible with brass and bronze, and are available with bottom or back connections.

The **SERIES SG3** Gages have dual psi and bar (x100 kPa) scales with  $\pm 2.5\%$  full-scale accuracy. The Series SG3 gages are designed with 304 SS housings and 316 SS wetted parts for excellent chemical compatibility. These gages cover a wide variety of ranges from full vacuum to 300 psi. Units can withstand ambient temperatures up to 140°F (60°C). Bottom or back 1/8" NPT connection options available.

**FEATURES/BENEFITS**

- Stainless steel housing to resist ambient corrosion for longer service life in harsh environments
- Good accuracy gage for value-sensitive applications requiring more precise measurement and where vibration is a concern
- Back or bottom mounting and compact size provides for mounting with dimensional limitations

**APPLICATIONS**

- Vacuums in pneumatic conveying lines
- Positive pressure in compressed air headers
- Corrosive ambient environments

**OPTIONS**

Use order code:	Description
<b>NISTCAL-PG1</b>	NIST traceable calibration certificate

**SPECIFICATIONS**

**Service:** Compatible gases and liquids.  
**Wetted Materials:** SG1: Brass connector, bronze tube; SG3: 316 L SS tube, 316 SS connector.  
**Housing:** 304 SS.  
**Lens:** Polycarbonate.  
**Accuracy:**  $\pm 2.5\%$  FS.

**Pressure Limit:** FS range.  
**Temperature Limits:** -4 to 140°F (-20 to 60°C).  
**Size:** 1.5" (40 mm).  
**Process Connections:** 1/8" male NPT.  
**Weight:** SG1: 2.2 oz (63 g) bottom, 2.3 oz (65 g) back; SG3: 2.4 oz (70 g) bottom, 2.5 oz (72 g) back.

**MODEL CHART**

Model	Range	Model	Range
<b>SG1-B10121N</b>	0 to 30" Hg	<b>SG3-B10121N</b>	30" Hg to 0
<b>SG1-B10321N</b>	0 to 30 psi	<b>SG3-B10321N</b>	0 to 30 psi
<b>SG1-B10421N</b>	0 to 60 psi	<b>SG3-B10421N</b>	0 to 60 psi
<b>SG1-B10521N</b>	0 to 100 psi	<b>SG3-B10521N</b>	0 to 100 psi
<b>SG1-B10621N</b>	0 to 160 psi	<b>SG3-B10621N</b>	0 to 160 psi
<b>SG1-B10721N</b>	0 to 200 psi	<b>SG3-B10721N</b>	0 to 200 psi
<b>SG1-B11021N</b>	0 to 300 psi	<b>SG3-B11021N</b>	0 to 300 psi

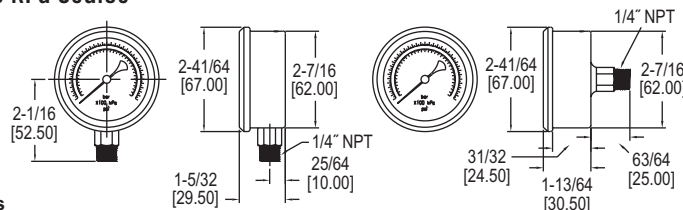
**Note:** For SG1 back connect, change 21N to 41N.  
 For SG3 back connect, change 21N to 41N.

**ACCESSORIES**

Model	Description
<b>A-445B</b>	U-bracket mounting kit for 1.5" and 2.5" gage

USA: California Proposition 65

⚠WARNING: Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**SERIES SGY & SGZ****2.5" INDUSTRIAL PRESSURE GAGE****1.5% FS Accuracy, 316 SS or Brass Wetted Parts, Dual PSI/Bar x100 kPa Scales****SGZ Bottom****SGZ Back with Accessory Pointers****SGY Bottom****SGY Back with Accessory Pointers**

The **SERIES SGY & SGZ** Gages have dual psi and bar (x100 kPa) scales with  $\pm 1.5\%$  full-scale accuracy. The Series SGZ and SGY gages are designed with 304 SS housings and the SGZ is designed with 316 SS wetted parts for excellent chemical compatibility or SGY brass wetted parts for compatible gases. These gages cover a wide variety of ranges in either bottom or back connection configurations. Series SGZ gages employ an easy-open breather plug on top, which allows liquid filled units to breathe, relieving any built up internal pressures. Plug easily pops open and does not need to be entirely removed or cut like a typical gages' rubber plug grommet.

**FEATURES/BENEFITS**

- Stainless steel housing and wetted parts to resist ambient corrosion for longer service life in harsh environments
- Higher accuracy gage for value-sensitive applications requiring more precise measurement and where vibration is a concern
- Optional sliding pointer clearly mark to make visible critical ranges and high and low points
- Liquid fillable gage with easy open breather plug provides smoother damped movement of pointer
- Back or bottom mounting and compact size provides for mounting with dimensional limitations

**ACCESSORIES**

Model	Description
<b>A-445D</b>	U-bracket mounting kit for 2.5" gage
<b>A-499R</b>	Red sliding color pointer
<b>A-499Y</b>	Yellow sliding color pointer
<b>A-499G</b>	Green sliding color pointer

**OPTIONS**

Use order code:	Description
<b>NISTCAL-PG1</b>	NIST traceable calibration certificate

**SPECIFICATIONS**

**Service:** Compatible gases and liquids.  
**Wetted Materials:** SGZ: 316 L SS Tube, 316 SS connector; SGY: Brass connection, bronze tube.  
**Housing:** 304 SS.  
**Lens:** Polycarbonate.  
**Accuracy:**  $\pm 1.5\%$  FS.  
**Pressure Limit:** FS range.

**Temperature Limits:** -4 to 140°F (-20 to 60°C).  
**Size:** 2.5" (63 mm).  
**Process Connections:** 1/4" male NPT.  
**Weight:** 4.9 oz (141 g) bottom, 5.8 oz (164 g) back. Add 3.7 oz (104 g) for glycerin fill.

**APPLICATIONS**

- Vacuums in pneumatic conveying lines
- Positive pressure in compressed air headers
- Corrosive ambient environments

**MODEL CHART**

Model	Range	Model	Range
<b>SGZ-D10122N</b>	30" Hg to 0	<b>SGY-D10122N</b>	30" Hg to 0
<b>SGZ-D10322N</b>	0 to 30 psi	<b>SGY-D10322N</b>	0 to 30 psi
<b>SGZ-D10422N</b>	0 to 60 psi	<b>SGY-D10422N</b>	0 to 60 psi
<b>SGZ-D10522N</b>	0 to 100 psi	<b>SGY-D10522N</b>	0 to 100 psi
<b>SGZ-D10622N</b>	0 to 160 psi	<b>SGY-D10622N</b>	0 to 160 psi
<b>SGZ-D10722N</b>	0 to 200 psi	<b>SGY-D10722N</b>	0 to 200 psi
<b>SGZ-D11022N</b>	0 to 300 psi	<b>SGY-D11022N</b>	0 to 300 psi
<b>SGZ-D11122N</b>	0 to 500 psi	<b>SGY-D11122N</b>	0 to 500 psi
<b>SGZ-D11222N</b>	0 to 1000 psi	<b>SGY-D11222N</b>	0 to 1000 psi

**Note:** To order with glycerin fill add -GF to the end of the model. For back connect, change 22N to 42N.

USA: California Proposition 65

⚠WARNING: Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# CONTRACTOR GAGE

Large, Easy-to-Read Dial, Internal Surge Suppressor



The **SERIES SG5** Contractor Gages are ideally manufactured for contractors because of their large dial and compact design. Since the gages are lightweight and slim, they are easy to transport. The large 4.5" scale makes them simple to read. The Series SG5 gages possess psi scales with 1% full-scale accuracy. The gages are made with a stainless steel housing and brass wetted parts. Units can withstand temperatures of -4 to 140°F (-20 to 60°C). These qualities make the SG5 series perfect for contractors and industrial applications. A wide offering of ranges are available from full vacuum to 300 psi.

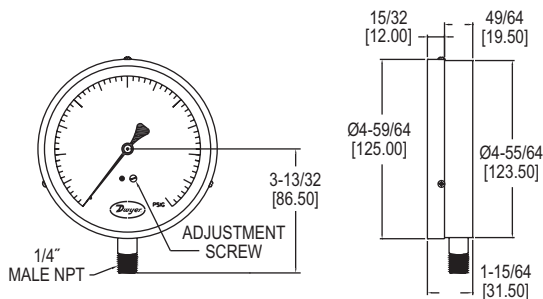
## FEATURES/BENEFITS

- Stainless steel housing resists ambient corrosion for longer service life in harsh environments
- High accuracy gage for applications requiring more precise measurement
- Lightweight and slim, yet large easy to read gage make them easy to carry and read
- Specified with high ambient temperature rating means more robust uses and longer service-life

## APPLICATIONS

- Contractor applications
- Industrial applications

OPTION	
Use order code:	Description
NISTCAL-PG1	NIST traceable calibration certificate



## SPECIFICATIONS

**Service:** Compatible gases and liquids.  
**Wetted Materials:** Brass connection, bronze tube.  
**Housing:** 304 SS.  
**Lens:** Plastic.  
**Accuracy:** ±1% FS.  
**Pressure Limits:** Full scale range.  
**Temperature Limits:** -4 to 140°F (-20 to 60°C).  
**Size:** 4.5" (115 mm).  
**Process Connections:** 1/4" male NPT.  
**Weight:** 10.4 oz (295 g).

## MODEL CHART

Model	Range
SG5-G0122N	30" Hg to 0
SG5-G0322N	0 to 30 psi
SG5-G0422N	0 to 60 psi
SG5-G0522N	0 to 100 psi
SG5-G0622N	0 to 160 psi
SG5-G0722N	0 to 200 psi
SG5-G0822N	0 to 300 psi

USA: California Proposition 65

⚠ WARNING: Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## SERIES SGP & SGO

# 4" STAINLESS STEEL SCHAEFFER GAGE

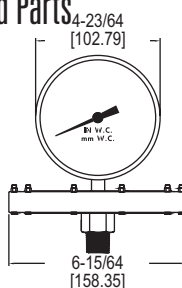
1.6% Full-Scale Accuracy, 316, 316L SS & PTFE Wetted Parts



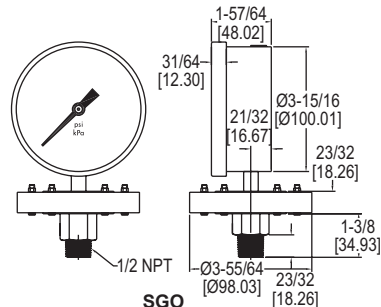
SGP



SGO



SGP



SGO

The **SERIES SGP & SGO** Gages have dual English/metric scales with ±1.6% full scale accuracy. The Series SGP gages are designed with 304 SS housings, a 316L SS chamber and a 316 SS diaphragm for excellent chemical compatibility. The SGO has a PTFE protected steel diaphragm. Units can withstand ambient temperatures up to 149°F (65°C) and process temperatures up to 248°F (120°C). Ranges are available from full vacuum, compound and pressures to 235 in w.c. are available. Micrometer adjustable pointer allows for re-zeroing gage in field.

## FEATURES/BENEFITS

- Stainless steel housing and wetted parts resist ambient corrosion for longer service life in harsh environments
- Wetted parts permit use in chemical applications
- High accuracy gage for applications requiring more precise measurement
- Models that support vacuum to higher pressure ranges provide a selection to meet specific applications
- Specified with high ambient and process temperature ratings mean more robust uses and longer service-life

## APPLICATIONS

- Chemical
- Refinery
- Fertilizer
- Petrochemical
- Power
- Pharmaceutical
- Pulp and paper
- Cement

## SPECIFICATIONS

**Service:** Compatible gases and liquids.  
**Wetted Materials:** 316L SS chamber with SGP: 316 SS diaphragm; SGO: PTFE diaphragm.  
**Housing:** 304 SS.  
**Lens:** Glass.  
**Accuracy:** ±1.6% FS.  
**Pressure Limit:** 130% FS.  
**Temperature Limit:** Ambient: -13 to 149°F (-25 to 65°C); Process: 248°F (120°C).  
**Size:** 4" (100 mm).  
**Process Connection:** 1/2" male NPT.  
**Enclosure Rating:** NEMA 3 (IP54).  
**Weight:** 3.1 lb (1.4 kg).

## OPTION

Use order code:	Description
NISTCAL-PG1	NIST traceable calibration certificate

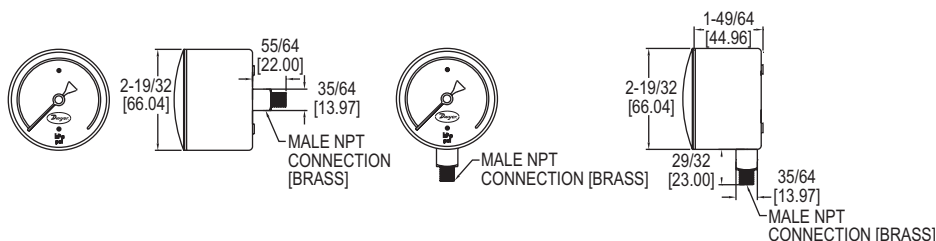
## MODEL CHART

Model	Range	Model	Range
SGP-F8024N	0 to 10 in w.c. (0 to 250 mm)	SGO-F0124N	30" Hg-0 (-100 to 0 kPa)
SGP-F8124N	0 to 15 in w.c. (0 to 400 mm)	SGO-F0224N	0 to 15 psi (0 to 100 kPa)
SGP-F8224N	0 to 25 in w.c. (0 to 600 mm)	SGO-F0324N	0 to 30 psi (0 to 200 kPa)
SGP-F8324N	0 to 40 in w.c. (0 to 1000 mm)	SGO-F0424N	0 to 60 psi (0 to 400 kPa)
SGP-F8424N	0 to 60 in w.c. (0 to 1600 mm)	SGO-F0524N	0 to 100 psi (0 to 700 kPa)
SGP-F8524N	0 to 80 in w.c. (0 to 2000 mm)	SGO-F0624N	0 to 150 psi (0 to 1000 kPa)
SGP-F8624N	0 to 100 in w.c. (0 to 2500 mm)	SGO-F0724N	0 to 200 psi (0 to 1400 kPa)



**Dwyer****SERIES LPG5****2.5" LOW PRESSURE GAGE**

3-2-3% Full Scale Accuracy in a 2.5" Gage



The **SERIES LPG5** Low Pressure Gages offer top of the line performance for pressure applications from 10 in w.c. to 10 psi. The LPG5 gages possess dual scales with 3-2-3% full-scale accuracy on a 2.5" dial. Units are made with a chrome plated steel housing and brass wetted parts. Units can withstand temperatures of -4 to 140°F (-20 to 60°C). This series is meant for the measurement of low pressures of gases and liquids and is ideal for air flow indication, liquid level and draft measurement. Series LPG5 gages are available with either a bottom or back connection option.

**FEATURES/BENEFITS**

- Chrome plated steel housing and brass wetted parts resist ambient for longer service life in harsh environments
- Low pressure gage provides a selection to meet specific applications
- Specified with high ambient and process temperature ratings mean more robust uses and longer service-life
- Good accuracy gage for value-sensitive applications requiring more precise measurement and where vibration is a concern

**APPLICATIONS**

- Air flow indication
- Liquid level
- Draft measurement

**OPTIONS**

Use order code:	Description
<b>NISTCAL-PG1</b>	NIST traceable calibration certificate

**SPECIFICATIONS**

**Service:** Compatible gases and liquids.  
**Wetted Materials:** Brass connection, bronze tube.  
**Housing:** Chrome plated steel.  
**Lens:** Polycarbonate.  
**Accuracy:**  $\pm$  3-2-3% FS.  
**Pressure Limits:** Full scale range.  
**Temperature Limits:** -4 to 140°F (-20 to 60°C).  
**Size:** 2.5" (63 mm).  
**Process Connections:** 1/4" male NPT.  
**Weight:** 8 oz (227 g).

**MODEL CHART**

Model	Range in w.c. (kPa)	Model	Range psi (kPa)
<b>LPG5-D8022N</b>	0 to 10 (0 to 2.5)	<b>LPG5-D9922N</b>	0 to 5 (0 to 35)
<b>LPG5-D8122N</b>	0 to 15 (0 to 3.75)	<b>LPG5-D0022N</b>	0 to 10 (0 to 70)
<b>LPG5-D8222N</b>	0 to 35 (0 to 8.75)		
<b>LPG5-D8422N</b>	0 to 60 (0 to 15)		
<b>LPG5-D8622N</b>	0 to 100 (0 to 25)		
<b>LPG5-D8822N</b>	0 to 200 (0 to 50)		

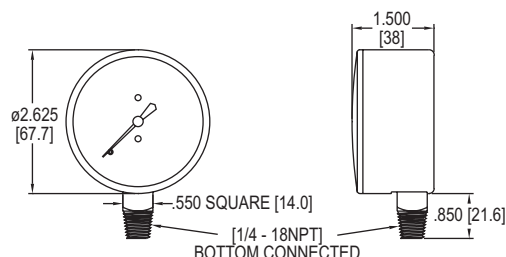
**Note:** Change 22N to 42N for back connection option.

USA: California Proposition 65

⚠ WARNING: Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**SERIES LPG4****2.5" LOW PRESSURE GAGE**

1.5% Full-Scale Accuracy in a 2.5" Gage



Our **SERIES LPG4** gages offer top of the line performance and accuracy for pressure and vacuum applications up to and including 160 in w.c. The LPG4 is constructed from a single beryllium-copper diaphragm affixed to a precision-machined brass plate. This innovative design, together with a high-precision, milled-teeth brass movement and nickel-silver pinion and bearing surface, provide the user with a top of the line low pressure instrument.

**FEATURES/BENEFITS**

- Low pressure gage provides a selection to meet specific applications
- Specified with high ambient and process temperature ratings mean more robust uses and longer service-life
- High accuracy gage for applications requiring more precise measurement is a concern

**APPLICATIONS**

- Air flow indication
- Liquid level
- Draft measurement

**MODEL CHART**

Model	Range	Model	Range
<b>LPG4-D7122N</b>	-10 to 0 in w.c. (-2.5 to 0 kPa)	<b>LPG4-D8322N</b>	0 to 40 in w.c. (0 to 10 kPa)
<b>LPG4-D7222N</b>	-15 to 0 in w.c. (-4 to 0 kPa)	<b>LPG4-D8422N</b>	0 to 60 in w.c. (0 to 15 kPa)
<b>LPG4-D7322N</b>	-25 to 0 in w.c. (-6 to 0 kPa)	<b>LPG4-D8522N</b>	0 to 80 in w.c. (0 to 20 kPa)
<b>LPG4-D7422N</b>	-40 to 0 in w.c. (-10 to 0 kPa)	<b>LPG4-D8622N</b>	0 to 100 in w.c. (0 to 25 kPa)
<b>LPG4-D7522N</b>	-60 to 0 in w.c. (-15 to 0 kPa)	<b>LPG4-D8722N</b>	0 to 160 in w.c. (0 to 40 kPa)
<b>LPG4-D7622N</b>	-80 to 0 in w.c. (-20 to 0 kPa)	<b>LPG4-D8922N</b>	-4 to 0 to 6 in w.c. (-1 to 0 to 1.5 kPa)
<b>LPG4-D7722N</b>	-100 to 0 in w.c. (-25 to 0 kPa)	<b>LPG4-D9022N</b>	-6 to 0 to 10 in w.c. (-1.5 to 0 to 2.5 kPa)
<b>LPG4-D7822N</b>	-160 to 0 in w.c. (-40 to 0 kPa)	<b>LPG4-D9122N</b>	-8 to 0 to 16 in w.c. (-2 to 0 to 4 kPa)
<b>LPG4-D7922N</b>	-235 to 0 in w.c. (-60 to 0 kPa)	<b>LPG4-D9222N</b>	-16 to 0 to 24 in w.c. (-4 to 0 to 6 kPa)
<b>LPG4-D8022N</b>	0 to 10 in w.c. (0 to 2.5 kPa)	<b>LPG4-D9322N</b>	-24 to 0 to 40 in w.c. (-6 to 0 to 10 kPa)
<b>LPG4-D8122N</b>	0 to 15 in w.c. (0 to 3.75 kPa)	<b>LPG4-D9422N</b>	-30 to 0 to 50 in w.c. (-7.5 to 0 to 12.5 kPa)
<b>LPG4-D8222N</b>	0 to 25 in w.c. (0 to 6 kPa)	<b>LPG4-D9522N</b>	-40 to 0 to 60 in w.c. (-10 to 0 to 15.0 kPa)

**SPECIFICATIONS**

**Service:** Compatible gases & liquids.  
**Wetted Materials:** Brass and beryllium copper.  
**Housing:** Drawn steel, black finish.  
**Lens:** Polycarbonate (removable).  
**Accuracy:**  $\pm$  1.5% FS.  
**Pressure Limit:** 100% of range scale.  
**Temperature Limits:** Process: -40 to 160°F (-40 to 70°C); Ambient: -40 to 140°F (-40 to 60°C).  
**Size:** 2.5" (63 mm).  
**Process Connections:** 1/4" male NPT.  
**Enclosure Rating:** NEMA 3 (IP54).  
**Weight:** 7.3 oz (0.21 kg).

**OPTIONS**

Use order code:	Description
<b>NISTCAL-PG1</b>	NIST traceable calibration certificate

USA: California Proposition 65

⚠ WARNING: Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# 2.5" STAINLESS STEEL LOW PRESSURE GAGES

Brass or 316 SS Wetted Parts



SGX



SGF

The **SERIES SGX & SGF** Gages have dual English/metric scales with  $\pm 1.6\%$  full scale accuracy. The Series SGX/SGF gages are designed with 304 SS housings and brass or 316 SS wetted parts. Units can withstand ambient temperatures up to 149°F (65°C) and process temperatures up to 212°F (100°C). Ranges of vacuum, compound and pressures to 235 in w.c. are available. Included on the dial is a convenient zero adjustment screw which allows the user to easily re-zero the needle.

## FEATURES/BENEFITS

- Stainless steel housing and wetted parts resist ambient corrosion for longer service life in harsh environments
- High accuracy gage for applications requiring more precise measurement
- Models that support vacuum to higher pressure ranges provide a selection to meet specific applications
- Specified with high ambient and process temperature ratings mean more robust uses and longer service-life
- Field adjustable zeroing screw simplifies installation and calibration

## APPLICATIONS

- Pneumatic
- Draft measurement
- Filter monitoring
- Liquid level

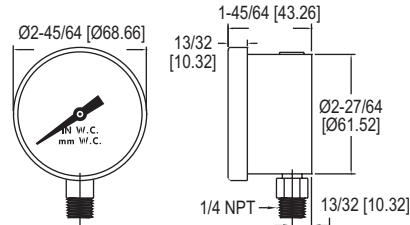
## OPTIONS

Use order code:	Description
NISTCAL-PG1	NIST traceable calibration certificate

## SPECIFICATIONS

**Service:** Compatible gases & liquids.  
**Wetted Materials:** SGX: Brass; SGF: 316/316L SS.  
**Housing:** 304 SS.  
**Lens:** Glass.  
**Accuracy:**  $\pm 1.6\%$  FS on positive pressure ranges 15 in w.c. and greater;  $\pm 2.5\%$  FS on all other ranges.

**Pressure Limit:** Full-scale value.  
**Temperature Limits:** Ambient: -13 to 149°F (-25 to 65°C); Process: 212°F max. (100°C max.).  
**Size:** 2.5" (63 mm).  
**Process Connections:** 1/4" male NPT.  
**Enclosure Rating:** NEMA 3 (IP54).  
**Weight:** 4.6 oz (0.13 kg).



## MODEL CHART - 316 SS Gages

Model	Range in w.c. (mm)
SGF-D7122N	-10 to 0 (-250 to 0)
SGF-D7322N	-25 to 0 (-600 to 0)
SGF-D7522N	-60 to 0 (-1600 to 0)
SGF-D7722N	-100 to 0 (-2500 to 0)
SGF-D8022N	0 to 10 (0 to 250)
SGF-D8122N	0 to 15 (0 to 400)
SGF-D8222N	0 to 25 (0 to 600)
SGF-D8322N	0 to 40 (0 to 1000)
SGF-D8422N	0 to 60 (0 to 1600)
SGF-D8622N	0 to 100 (0 to 2500)
SGF-D8722N	0 to 160 (0 to 4000)

## MODEL CHART - Brass Gages

Model	Range in w.c. (mm)
SGX-D7122N	-10 to 0 (-250 to 0)
SGX-D7322N	-25 to 0 (-600 to 0)
SGX-D7522N	-60 to 0 (-1600 to 0)
SGX-D7722N	-100 to 0 (-2500 to 0)
SGX-D8022N	0 to 10 (0 to 250)
SGX-D8122N	0 to 15 (0 to 400)
SGX-D8222N	0 to 25 (0 to 600)
SGX-D8322N	0 to 40 (0 to 1000)
SGX-D8422N	0 to 60 (0 to 1600)
SGX-D8722N	0 to 160 (0 to 4000)
SGX-D8922N	-4 to 0 to 6 (-100 to 0 to 150)
SGX-D9122N	-8 to 0 to 16 (-200 to 0 to 400)
SGX-D9722N	-80 to 0 to 160 (-2000 to 0 to 4000)

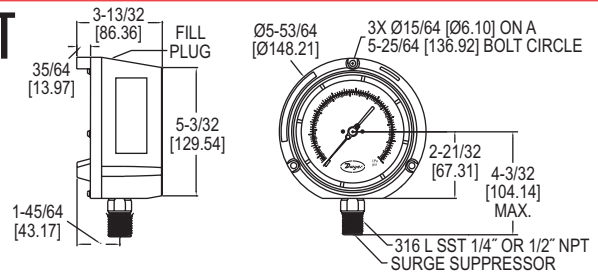
USA: California Proposition 65

⚠ WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

## SERIES 765

# PROCESS GAGE WITH DAMPENED MOVEMENT

$\pm 0.5\%$  Accuracy, Safety Blow-Out Back



The **SERIES 765** Process Gage with Dampened Movement minimizes effects of vibration without liquid filling. With this dampened movement the 765 gages are ideal for use in any application where high pulsation or vibration exists. The 765 gages offer dual scale range (psi/kPa) with  $\pm 0.5\%$  full-scale accuracy. They are designed with a Phenolic safety-case and have a solid front with a blow-out back. Excellent chemical compatibility is insured with the 316L SS socket and Bourdon tube. A wide offering of ranges are available from full vacuum to 20,000 psi. The 765 process gage comes standard with bottom 1/4" or 1/2" male NPT connections.

## FEATURES/BENEFITS

- Liquid-free dampened movement minimizes effect of vibration and cost to maintain
- Stainless steel socket and Bourdon tube permit use in chemical applications
- High accuracy gage for applications requiring more precise measurement
- Models that support vacuum to high pressure ranges provide a selection to meet specific applications
- Specified with high ambient and process temperature ratings mean more robust uses and longer service-life

## APPLICATIONS

- Process applications
- Chemical
- Refinery
- Fertilizer
- Petrochemical
- Power
- Pharmaceutical
- Pulp and paper
- Cement

## OPTIONS

Use order code:	Description
NISTCAL-PG1	NIST traceable calibration certificate

## SPECIFICATIONS

**Service:** Compatible gases & liquids.  
**Wetted Materials:** 316L SS socket and Bourdon tube.  
**Housing:** Phenolic plastic with safety blow-out back.  
**Lens:** Polycarbonate.  
**Accuracy:**  $\pm 0.5\%$  ANSI/ASME Grade 2A.  
**Pressure Limit:** 125% FS < 1500 psi, 115% FS for 2000 to 5000 psi, 110% FS > 10,000 psi.

**Temperature Limits:** -40 to 200°F (-40 to 93°C).  
**Size:** 4-1/2" (114.3 mm) dial face.  
**Process Connections:** 1/4" or 1/2" NPT male.  
**Enclosure Rating:** IP65 (NEMA 4).  
**Weight:** 37 oz (1040 g).  
**Agency Approval:** Meets the technical requirements of EU Directive 2011/65/ EU (RoHS II).

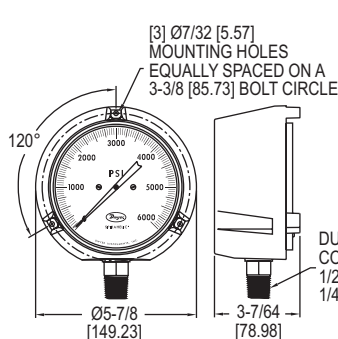
## MODEL CHART

Example	765	-01	2N	-FMR	765-012N-FMR
Series	765				4.5" process gage
Range		01 02 03 04 05 06 07 08 09 10 11			30" Hg-0 VAC (-100 to 0 kPa) 0 to 30 psi (0 to 206 kPa) 0 to 60 psi (0 to 410 kPa) 0 to 100 psi (0 to 680 kPa) 0 to 160 psi (0 to 1100 kPa) 0 to 200 psi (0 to 1370 kPa) 0 to 300 psi (0 to 2060 kPa) 0 to 400 psi (0 to 2770 kPa) 0 to 500 psi (0 to 3400 kPa) 0 to 600 psi (0 to 4100 kPa) 0 to 1000 psi (0 to 6800 kPa)
Process Connection			2N 4N		1/4" male NPT 1/2" male NPT
Additional Options				FMR SG45	Flush mounted ring Safety glass lens

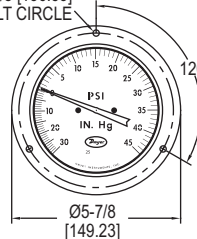
For additional ranges contact factory.

**Dwyer****SERIES 7000 & 7000B****SPIRAHELIC® DIRECT DRIVE PRESSURE GAGE**

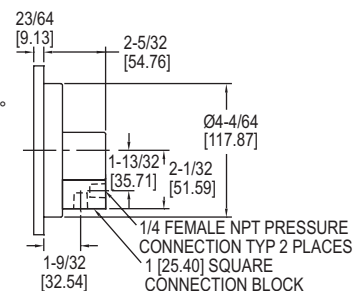
Panel Mount, 4-1/2" &amp; 8-1/2" Dials, ASME Grades 2A &amp; 3A

**GRADE 2A ACCURACY****7112 (4-1/2" Dial)****7000B**

[3] Ø 7/32 [5.56]  
MOUNTING HOLES  
EQUALLY SPACED  
ON A 5-3/8 [136.53]  
BOLT CIRCLE



DUAL PRESSURE  
CONNECTION  
1/2 MALE NPT  
1/4 FEMALE NPT



The **SERIES 7000 & 7000B** Spirahelic® Pressure Gages employ a unique triple helix Bourdon tube for precision measurement of compatible gases and liquids. The direct drive design reduces friction and mass, resulting in exceptionally good responsiveness, repeatability and accuracy. Because there are no gears, springs, linkages or other complicated mechanisms, wear is practically eliminated. The Series 7000 has solid brass or 316 stainless steel connection block features convenient dual 1/4" female NPT ports-one each on back and bottom. Block also includes integral filter plug to keep dirt out. Safety is assured with solid front case design and rear blowout hole. Gages fit ASME standard panel cutouts, 4.94" (125 mm) -7100; 6.5" (165.1 mm) -7300. The Series 7000B Spirahelic® Direct Drive Pressure Gages comes with turret mount housings and standard with a dual-size 1/2" male NPT and 1/4" female NPT process connection.

**FEATURES/BENEFITS**

- Direct drive design with single moving part maximizes lifespan and accuracy without the need to recalibrate
- Elastic Bourdon tube resists overpressure and returns to original setting
- Blowout hole prevents early failure from high overpressure conditions
- Single element sensing means total lower cost of ownership because of long service life and lower cost to maintain

**APPLICATIONS**

- Systems with high cycle rates
- Process with problematic pressure surges and spikes
- Environmental with continuous vibration shock

**MODEL CHART - 4-1/2" DIAL, GRADE 2A ACCURACY (1/2% OF FS)**

Model	Range (psig)
7112-G030	30
7112-G060	60
7112-G100	100
7112-G200	200

**MODEL CHART - GRADE A ACCURACY (2%-1%-2%)**

Model	Range (psig)
7100B-G100	100
7100B-G200	200
7100B-G300	300

**MODEL CHART - GRADE 2A ACCURACY (1/2% OF FS)**

Model	Range (psig)
7112B-G030	30
7112B-G060	60
7112B-G100	100
7112B-G160	160
7112B-G200	200
7112B-GC010	1000

**ACCESSORIES**

Model	Description
A-341	Brass adapter, 1/4" male NPT to G 1/2A (per ISO 228/1) parallel thread 2-1/2" length

**SPECIFICATIONS**

**Service:** Compatible gases & liquids.

**Wetted Materials:** Grade A accuracy: Inconel® X-750 alloy Bourdon tube, nickel plated brass connection block; Grade 2A accuracy: Inconel® X-750 alloy Bourdon tube, type 316L SS connection block.

**Housing:** Black polycarbonate case and clear acrylic cover.

**Accuracy:** Grade A (2%-1%-2%); Grade 2A (0.5% FS).

**Pressure Limit:** 150% of full-scale. Gage will maintain its specifications for overpressures up to 150% max. range. Normal operation should be between 25% and 75% of full-scale.

**Temperature Limits:** -65 to 180°F (-53.9 to 82.2°C).

**Sizes:** 4-1/2" dial face (114.3 mm), 8-1/2" dial face (215.9 mm), design conforms to ASME B40.1.

**Process Connections:** 7000: Two 1/4" female NPT field-selectable back or bottom connection; 7000B: Dual size 1/2" male NPT X 1/4" female NPT, bottom connections.

**Weight:** 7000: 4-1/2" dial face: 16.3 oz (462.1 g); 8-1/2" dial face: 27.3 oz (773.9 g); 7000B: 18.2 oz (516 g).

**Standard Accessory:** One 1/4" male NPT stainless steel plug.

**Note:** Additional ranges and accuracy requirements are available. Please consult the factory for details.

**PRECISION DESIGN ENSURES MAINTENANCE-FREE PERFORMANCE**

**Solid front case** combined with rear blowout plug provides highest level of operator safety.

**Direct drive movement** - no cams, gears or linkages. Provides longer operating life than standard "C" Bourdon gages.

**Precision balanced pointer** with reduced friction produces higher responsiveness than standard gage.

**High impact plastic case and lens** allows gages to last through the most demanding applications.

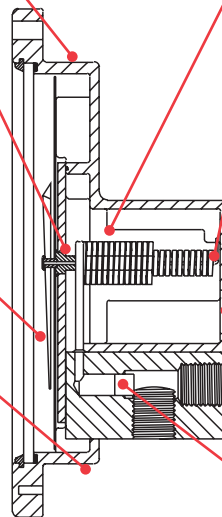
**Design of small diameter tubing** wound in spiral/helical coil acts like a liquid filled gage without the fill.

**Center post bearing carrier** supports pointer shaft and coil.

**Rear blowout hole** covered with label. This safety enhancement directs an overpressure surge or spike away from operators.

**Case and shock protection** ribs help prevent damage to Bourdon tube in the event of severe shock.

**Filter plug** protects Bourdon tube from particulate damage and reduces pressure surges.



USA: California Proposition 65

⚠WARNING: Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

Inconel® is a registered trademark of Huntington Alloys Corporation

# WEATHERPROOF OR BRASS DIGITAL PRESSURE GAGE

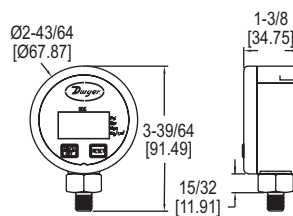
±0.5% FS Accuracy, Weatherproof, Economic Plastic Housing, Brass Wetted Parts



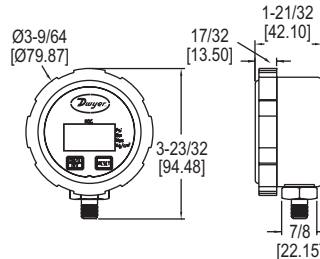
BDG



WDG



BDG



WDG

The **SERIES BDG-01** Brass Digital Pressure Gage measures gas pressure with ±0.5% FS accuracy at an affordable price. With brass wetted material, the series BDG is designed for your specific applications of compatible gases. Its design allows for easy installation. User-selectable units of measure let one gage be used for various pressure scales.

The **SERIES WDG** Weatherproof Digital Pressure Gage measures gas and liquid pressure with high accuracy at an affordable price. It's rugged weatherproof design stands up to outdoor and industrial environments. The 4-digit backlit display with four selectable units makes readings easily visible to prevent reading errors. The WDG comes with 304L stainless steel wetted material for a wide range of compatible liquids and gases.

## FEATURES/BENEFITS

- Brass wetted materials for use with compatible gases
- Backlit display provides easy viewing of gage measurement
- Selectable units provide readings in easily recognizable units for user
- Well-suited gage for application designs specifying simple operation and accuracy
- Rugged weatherproof enclosure enables a range of use outdoor or indoor where water is present

## APPLICATIONS

- Pneumatic
- Draft measurement
- Filter monitoring
- Industrial
- Outdoor
- HVAC roof-top
- Flow

OPTIONS	
Use order code:	Description
NISTCAL-PG1	NIST traceable calibration certificate

## SPECIFICATIONS

**Service:** BDG: Compatible gases; WDG: Compatible gases and liquids.  
**Wetted Materials:** BDG: Brass and silicone sensor; WDG: 304L SS.  
**Housing Materials:** BDG: ABS plastic; WDG: Fiberglass reinforced PP plastic.  
**Accuracy:** BDG: ±0.5% FS; WDG: ±0.5% FS for ranges up to 1000 psig (68.94 bar); ±1% FS for 5000 psig (344.74 bar) range.  
**Long Term Stability:** ±0.05% FS per year.  
**Pressure Limits:** 2X pressure range; Burst pressure: 3X pressure range.  
**Enclosure Rating:** BDG: IP10; WDG: IP65.  
**Temperature Limits:** 14 to 140°F (-10 to 60°C).  
**Thermal Effect:** ±0.04% FS per °C.  
**Size:** 2.5" O.D.  
**Process Connection:** 1/4" male NPT.  
**Display:** 4-digit LCD (1-1/4 x 5/8").  
**Power Requirements:** 3 V CR123A lithium metal battery, installed functional, user replaceable.  
**Battery Life:** 2 to 3 years typ.  
**Weight:** BDG: 0.29 lb (0.13 kg); WDG: 0.34 lb (0.15 kg).

MODEL CHART				
Model	Pressure Ranges			
	Range (psig)	bar	mPa	kg/cm <sup>2</sup>
BDG-01	0 to 150	10.342	1.034	10.545
WDG-01	0 to 50	3.45	0.34	3.52
WDG-02	0 to 100	6.89	0.69	7.03
WDG-03	0 to 300	20.68	2.07	21.09
WDG-05	0 to 1000	68.94	6.89	70.30
WDG-06	0 to 5000	344.74	34.47	351.5



# 0.5% & 1% DIGITAL PRESSURE GAGE

Economic Gage With Selectable Engineering Units, Rubber Boot



DPGA



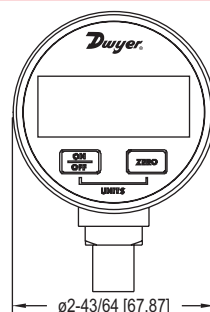
DPGW



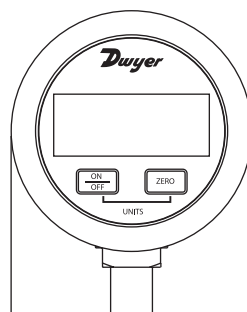
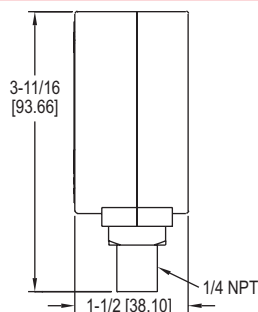
DPGAB



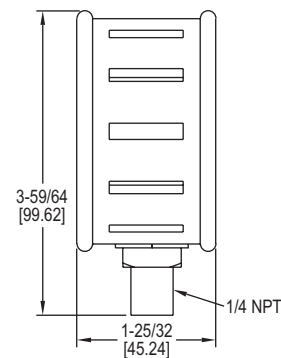
DPGWB



DPGA &amp; DPGW



DPGAB &amp; DPGWB



The **SERIES DPGA** is the only economic digital pressure gage with selectable engineering units on the market. With its 1% accuracy and digital push-button zero, the DPGA is the perfect choice for digitally monitoring the pressures of air and compatible gases.

The **SERIES DPGW** is the only economic digital pressure gage for liquids with the ability to select engineering units on the market. With its 1% accuracy and digital push-button zero, the DPGW is the perfect choice for digitally monitoring the pressures of air and compatible liquids and gases.

The **SERIES DPGWB/DPGAB** pressure gages offer 0.5% full scale accuracy in a rugged, easy-to-use unit at prices comparable to mechanical gages. The DPGWB stainless steel wetted material makes it suitable for a wide variety of liquids or gases. The gages feature user-selectable units of measure allowing one gage to be used for a variety of pressure scales. The DPGWB/DPGAB come with a protective rubber boot to protect against short drops and rough handling.

## FEATURES/BENEFITS

- Push-button zero reduce installation and service time
- High accuracy provides exceptional measurement for minimizing costly out of specification conditions
- Selectable unit button provides reading in easily recognizable units
- Well-suited gage for compatible gas (DPGA) or liquid (DPGW) applications specifying simple operation and accuracy

## APPLICATIONS

- Process applications
- Process start-up
- OEM applications

## SPECIFICATIONS

**Service:** DPGA & DPGAB: Air and compatible gases; DPGW & DPGWB: Liquids and compatible gases.

**Wetted Materials:** DPGA & DPGAB: 316L SS, silicone sensor; DPGW & DPGWB: 316L SS.

**Housing Materials:** ABS plastic.

**Accuracy:** DPGA & DPGW:  $\pm 1.0\%$  FS (includes linearity, hysteresis, repeatability); DPGAB & DPGWB:  $\pm 0.5\%$  FS (includes linearity, hysteresis, repeatability).

**Pressure Limits:** 2X pressure range. Vacuum range max. pressure is 30 psig.

**Temperature Limits:** 30 to 120°F (-1 to 49°C).

**Thermal Effect:** 0.05% FS/°F.

**Size:** 2.62" OD x 1.52" deep.

**Process Connections:** 1/4" male NPT.

**Display:** 4-digit LCD (.425" H x .234" W digits).

**Power Requirements:** 9 V alkaline battery, included, user replaceable.

**Auto Shut-off:** 20 minute auto shut-off.

**Weight:** 5.6 oz (160 g).

## ACCESSORIES

Model	Description
A-293	Protective rubber boot

## OPTIONS

To order add suffix:	Description
-NIST	NIST traceable calibration certificate
Example: DPGA-04-NIST	

## MODEL CHART

Model	Model	Range	Pressure Ranges											Resolution
			psig	kg/cm <sup>2</sup>	bar	in Hg	ft w.c.	kPa	oz/in <sup>2</sup>	in w.c.	mbar	cm w.c.	mm Hg	psi
DPGA-00	DPGW-00	30" Hg to 0 (psi)	-14.70	-1.033	-1.013	-29.93	-33.94	-101.4	-235.2	-407.3	-1013	-1034	-761	0.01
DPGA-04	DPGW-04	0 to 5 psi	5.000	.3515	.3447	10.18	11.53	34.47	80.0	138.4	344.7	351.5	258.6	0.002
DPGA-05	DPGW-05	0 to 15 psi	15.00	1.055	1.034	30.54	34.60	103.4	240.0	415.2	1034	1055	776	0.01
DPGA-06	DPGW-06	0 to 30 psi	30.00	2.109	2.068	61.1	69.2	206.8	480.0	830	2068	2109	1551	0.01
DPGA-07	DPGW-07	0 to 50 psi	50.00	3.515	3.447	101.8	115.3	344.7	800	1384	3447	3515	2586	0.02
DPGA-08	DPGW-08	0 to 100 psi	100.0	7.03	6.89	203.6	230.7	689	1600	2768	-	-	-	0.1
DPGA-09	DPGW-09	0 to 200 psi	200.0	14.06	13.79	407.2	461.3	1379	3200	-	-	-	-	0.1
DPGA-10	DPGW-10	0 to 300 psi	300.0	21.09	20.68	611	692	2068	4800	-	-	-	-	0.1
DPGA-11	DPGW-11	0 to 500 psi	500.0	35.15	34.47	1018	1153	3447	-	-	-	-	-	0.2

Compound range available: DPGW-12: 30" Hg-0-100 psi.

## MODEL CHART

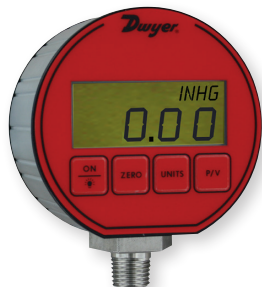
Model	Model	Range	Pressure Ranges											Resolution
			psig	kg/cm <sup>2</sup>	bar	in Hg	ft w.c.	kPa	oz/in <sup>2</sup>	in w.c.	mbar	cm w.c.	mm Hg	psi
DPGAB-00	DPGWB-00	30" Hg to 0 (psi)	-14.70	-1.033	-1.013	-29.93	-33.94	-101.4	-235.2	-407.3	-1013	-1034	-761	0.01
DPGAB-04	DPGWB-04	0 to 5 psi	5.000	.3515	.3447	10.18	11.53	34.47	80.0	138.4	344.7	351.5	258.6	0.002
DPGAB-05	DPGWB-05	0 to 15 psi	15.00	1.055	1.034	30.54	34.60	103.4	240.0	415.2	1034	1055	776	0.01
DPGAB-06	DPGWB-06	0 to 30 psi	30.00	2.109	2.068	61.1	69.2	206.8	480.0	830	2068	2109	1551	0.01
DPGAB-07	DPGWB-07	0 to 50 psi	50.00	3.515	3.447	101.8	115.3	344.7	800	1384	3447	3515	2586	0.02
DPGAB-08	DPGWB-08	0 to 100 psi	100.0	7.03	6.89	203.6	230.7	689	1600	2768	-	-	-	0.1
DPGAB-09	DPGWB-09	0 to 200 psi	200.0	14.06	13.79	407.2	461.3	1379	3200	-	-	-	-	0.1
DPGAB-10	DPGWB-10	0 to 300 psi	300.0	21.09	20.68	611	692	2068	4800	-	-	-	-	0.1
DPGAB-11	DPGWB-11	0 to 500 psi	500.0	35.15	34.47	1018	1153	3447	-	-	-	-	-	0.2

Compound range available: DPGWB-12: 30" Hg-0-100 psi



# DIGITAL PRESSURE GAGE

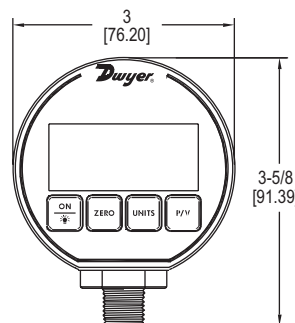
±0.25% or ±0.5% FS Accuracy, NEMA 4X (IP66) Aluminum Housing



DPG-000



DPG-100



Replace your outdated analog gages with the new **SERIES DPG** Digital Pressure Gage. The Series DPG has a high  $\pm 0.25\%$  or  $\pm 0.5\%$  full-scale accuracy. The 4 digit digital display will reduce the potential for errors in readings by eliminating parallax error commonly produced with analog gages. Series DPG is battery powered and has an auto-shut off to conserve battery life. Battery life, on average, will last 2000 hours. A 4 button key pad allows easy access to features without the need to work through complex menus or difficult key combinations. These features include backlight, peak and valley, tare or auto zero and conversion of the pressure units.

## FEATURES/BENEFITS

- High accuracy provides exceptional measurement minimizing costly out of specification conditions
- Backlit 4-digit display provides clear parallax-free reading reducing potential for errors
- Battery-powered gage with auto-shutoff eliminates wiring and prolongs battery life reducing service calls
- Push-button zero reduce installation and service time

## APPLICATIONS

- Process applications
- Replacement for legacy analog gages
- OEM applications

## ACCESSORIES

Model	Description
A-183	Protective rubber boot
A-184	Carrying case



DPG-100 with Protective Rubber Boot



Protective Carrying Case

## SPECIFICATIONS

**Service:** Compatible liquids and combustible gases (for FM listing see Agency Approvals below).  
**Wetted Materials:** Type 316L SS.  
**Housing Materials:** Polycarbonate front & back cover, anodized aluminum extruded housing with recessed grooves, polycarbonate overlay, Buna-N O-rings, 316L SS sensor construction.  
**Accuracy:** DPG-000:  $\pm 0.5\%$  FS; DPG-100:  $0.25\%$  FS;  $\pm 1$  least significant digit @ 70°F (21°C) (includes linearity, hysteresis, repeatability).  
**Pressure Limit:** 2x pressure range for models  $\leq 1000$  psi; 5000 psi for 3000 psi range; 7500 psi for 5000 psi range.  
**Enclosure Rating:** Designed to meet NEMA 4/4X (IP66).  
**Temperature Limits:** 0 to 130°F (-18 to 55°C).

**Thermal Effect:** Between 70 to 130°F is 0.016%/F; Between 32 to 70°F is 0.026%/F; Between 10 to 32°F is 0.09%/F.  
**Size:** 3.00" OD x 1.90" deep (max).  
**Process Connection:** 1/4" male NPT.  
**Weight:** 8.84 oz (275 g).  
**Display:** 4 digit (.425" H x .234" W digits).  
**Power Requirements:** (2) AAA alkaline batteries, included, user replaceable.  
**Battery Life:** 2000 hours typical; Low battery indicator.  
**Auto Shut-Off:** Gage: 60 minute auto shut-off. Auto shut-off may be disengaged; Backlight: 2 minute auto shut-off.  
**Agency Approvals:** DPG-000: CE; DPG-100: CE, FM approved to be intrinsically safe for Class I, Division I, Groups A, B, C and D, for ranges 0-15 to 0-3000 psi.

## OPTIONS

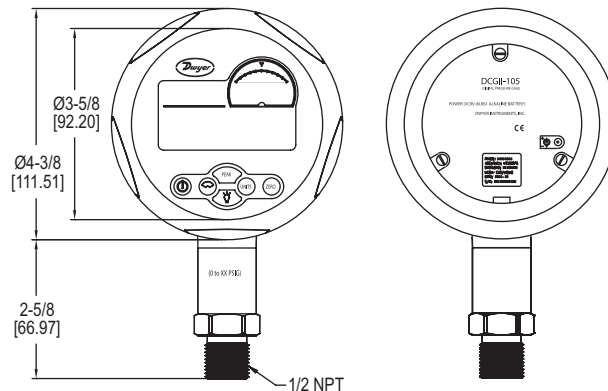
To order add suffix:	Description
-NIST	NIST traceable calibration certificate
Example: DPG-002-NIST	

MODEL CHART												
Model $\pm 0.5\%$	Model $\pm 0.25\%$	Range psi	Pressure Ranges									
			kg/cm <sup>2</sup>	bar	in Hg	ft w.c.	kPa	oz/in <sup>2</sup>	in w.c.	mbar	cm w.c.	mm Hg
DPG-000*	-	-14.70 to 0	-1.033	-1.013	-29.93	-33.94	-101.4	-235.2	-407.3	-1013	-1034	-760.7
DPG-002*	DPG-102	15.00	1.055	1.034	30.54	34.61	103.4	240	415.2	1034	1055	775.7
DPG-003*	DPG-103	30.00	2.109	2.069	61.08	69.21	206.9	480	830.4	2069	2109	1551
DPG-004*	DPG-104	50.00	3.515	3.448	101.8	115.4	344.8	800	1384	3448	3515	2586
DPG-005*	DPG-105	100.0	7.03	6.895	203.6	230.7	689.5	1600	2768	6895	7031	5172
DPG-006*	DPG-106	200.0	14.06	13.79	407.2	461.4	1379	3200	5536	-	-	-
DPG-007*	DPG-107	300.0	21.09	20.69	610.8	692.1	2069	4800	8304	-	-	-
DPG-008*	DPG-108	500.0	35.15	34.48	1018	1154	3448	8000	-	-	-	-
DPG-009*	DPG-109	1000	70.3	68.98	2036	2307	6895	-	-	-	-	-
DPG-010*	DPG-110	3000	210.9	206.9	6108	6921	-	-	-	-	-	-
DPG-011*	DPG-111*	5000	351.5	344.8	-	-	-	-	-	-	-	-
DPG-020*	-	-14.70 to 15.00	-1.033 to 1.055	-1.013 to 1.034	-29.93 to 30.54	-33.94 to 34.61	-101.4 to 103.4	-235.2 to 240	-407.3 to 415.2	-1013 to 1034	-1034 to 1055	-760.7 to 775.7
DPG-021*	-	-14.70 to 30.00	-1.033 to 2.109	-1.013 to 2.069	-29.93 to 61.08	-33.94 to 69.21	-101.4 to 206.9	-235.2 to 480	-407.3 to 830.4	-1013 to 2069	-1034 to 2109	-760.7 to 1551
DPG-022*	-	-14.70 to 45.00	-1.033 to 3.164	-1.013 to 3.103	-29.93 to 91.63	-33.94 to 103.8	-101.4 to 310.3	-235.2 to 720	-407.3 to 1245	-1013 to 3102	-1034 to 3164	-760.7 to 2327
DPG-023*	-	-14.70 to 60.00	-1.033 to 4.218	-1.013 to 4.137	-29.93 to 122.2	-33.94 to 138.4	-101.4 to 413.7	-235.2 to 960	-407.3 to 1661	-1013 to 4137	-1034 to 4218	-760.7 to 3103
DPG-024*	-	-14.70 to 100.0	-1.033 to 7.03	-1.013 to 6.895	-29.93 to 203.6	-33.94 to 230.7	-101.4 to 689.5	-235.2 to 1600	-407.3 to 2768	-1013 to 6895	-1034 to 7031	-760.7 to 5172

\*Model is not FM approved.

## DIGITAL CALIBRATION PRESSURE GAGE

±0.05% FS Accuracy, 316 SS Wetted Parts



The **SERIES DCGII** Digital Calibration Pressure Gauge offers a complete pressure gage with calibration capabilities. With a precise 0.05% full scale accuracy and large 5 digit resolution, this gage can be used in critical industrial applications where precision is most important. This versatile gage only requires one 9V battery or power adapter and can operate up to 5,000 working hours. The Series DCGII 0.05% Digital Pressure Gauge can display percent of range, pressure swings or alarm set points. This pressure gage comes complete with eleven selectable pressure units, backlight and zeroing capability.

## FEATURES/BENEFITS

- Highest accuracy provides exceptional measurement for calibration minimizing costly out of specification conditions
- Stainless steel housing resists ambient corrosion for longer service life in harsh environments
- Lightweight and slim, yet large easy to read battery-powered gage make them easy to carry and read
- Specified with high ambient temperature rating means more robust uses and longer service-life
- Indicator can display pressure swings, minimum and maximum peak detection with alarm set points provides a multipurpose tool where critical calibration is needed

## APPLICATIONS

- Field gage calibration
- Permanent installation
- Burst disc testing
- Torque data logging
- Pressure regulator testing and hydrostatic leak testing

## SPECIFICATIONS

**Service:** Compatible, non-combustible liquids and gases.

**Wetted Materials:** 316 SS.

**Other Materials:** Housing: Aluminum alloy; Display: Acrylic MR200; Buttons: Silicon gel; Back plate: 304 SS; Back seal: Oil-proof latex.

**Accuracy:** 0.05% FS; ±1 least significant digit.

**Temperature Accuracy:** ±1°C.

**Pressure Limits:** 120% FS.

**Temperature Limits:** 14 to 122°F (-10 to 50°C).

**Compensated Limits:** 32 to 122°F (0 to 50°C).

**Process Connection:** 1/2" male NPT.

**Display:** 5-digit LCD with blue backlight.

**Power Requirements:** 9 V alkaline battery, not included, or power adapter accessory.

**Battery Life:** Up to 10,000 hours (600 working hours @ default 3 times/s).

**Auto Shut-Off:** Backlight: On/off, 10 s, 20 s, 30 s.

**Weight:** 1.28 lb (0.58 kg).

**Agency Approvals:** CE.

## MODEL CHART

Model	Range (psig)	kPa	mPa	kgf/cm <sup>2</sup>	in H <sub>2</sub> O	in Hg	mm Hg	psi	mbar	bar
DCGII-100	-14.7 to 0	-101.35	-0.1013	-1.0335	-406.90	-29.929	-760.21	-14.700	1013.5	-1.0135
DCGII-101	0 to 15	103.42	0.1034	1.0546	415.20	30.540	775.72	15.000	1034.2	1.0342
DCGII-102	0 to 30	206.84	0.2067	2.1092	830.40	61.080	1551.4	30.000	2068.4	2.0684
DCGII-103	0 to 60	413.69	0.4134	4.2184	1660.8	122.16	3102.9	60.000	4136.9	4.1369
DCGII-104	0 to 100	689.48	0.6890	7.0307	2768.0	203.60	5171.5	100.00	6894.8	6.8948
DCGII-105	0 to 200	1379.0	1.3780	14.061	5536.0	407.20	1034.3	200.00	1379.0	13.790
DCGII-106	0 to 300	2068.4	2.0670	21.092	8304.0	610.80	1551.4	300.00	2068.4	20.684
DCGII-107	0 to 500	3447.4	3.4450	35.153	1384.0	1018.0	2585.7	500.00	3447.4	34.474
DCGII-108	0 to 1000	6894.8	6.8900	70.307	2768.0	2036.0	5171.5	1000.00	6894.8	68.948
DCGII-109	0 to 2000	1379.0	13.780	140.61	5536.0	4072.0		2000.00		137.90

## ACCESSORIES

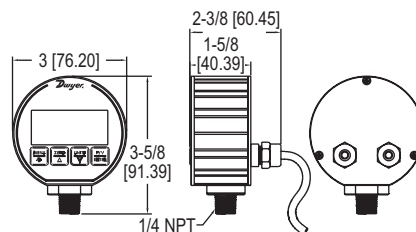
Model	Description
A-644	9 V DC power adapter
BBV-0N	2-valve block manifold
PCHP-10	Pneumatic calibration pump

## OPTIONS

Use order code:	Description
NISTCAL-PG2	NIST traceable pressure calibration certificate

# DIGITAL PRESSURE GAGE

## 3-in-1: Gage, Transmitter and Switch



The **SERIES DPG-200** Digital Pressure Gage has a precise  $\pm 0.25\%$  full-scale accuracy. The 4 digit digital display will reduce the potential for errors in readings by eliminating parallax error commonly produced with analog gages. The DPG-200 is packaged in a durable extruded aluminum case designed to meet NEMA 4X (IP66). The unit is powered by 12 to 24 VDC/VAC and contains two alarm set points along with a 4-20 mA process output. A four-button keypad allows easy access to features. These features include backlight, peak and valley, auto zero and conversion of the pressure units. Pressure ranges also in mbar, kg/cm<sup>2</sup>, oz/in<sup>2</sup>, in Hg, mm Hg, ft w.c. and ft sw for various models.

### FEATURES/BENEFITS

- High accuracy provides exceptional measurement minimizing costly out of specification conditions
- Backlit 4-digit display provides clear parallax-free reading reducing potential for errors
- Durable aluminum case to meet NEMA 4X (IP66) requirements supports use in harsh or outdoor environments
- Push-button zero reduce installation and service time

### APPLICATIONS

- Process control
- Compressor control

MODEL CHART						
Model	Range (psig)	Pressure Ranges				
		bar	ft w.c.	kPa	in w.c.	cm w.c.
DPG-200	-14.70-0	-1.013	-33.94	-101.4	-407.3	-1034
DPG-202	15.00	1.034	34.61	103.4	415.2	1055
DPG-203	30.00	2.069	69.21	206.9	830.4	2109
DPG-204	50.00	3.448	115.4	344.8	1384	3515
DPG-205	100.0	6.895	230.7	689.5	2768	7031
DPG-206	200.0	13.79	461.4	1379	5536	-
DPG-207	300.0	20.69	692.1	2069	8304	-
DPG-208	500.0	34.48	1154	3448	-	-
DPG-209	1000	68.98	2307	6895	-	-
DPG-210	3000	206.9	6921	-	-	-
DPG-211	5000	344.8	-	-	-	-

Compound range available: DPG-220 range: 30" Hg-0-15 psi.

### SPECIFICATIONS

#### DIGITAL GAGE SPECIFICATIONS

**Service:** Liquids and non-combustible compatible gases.  
**Wetted Materials:** Type 316L SS.  
**Enclosure:** Black polycarbonate front & back cover, anodized aluminum extruded enclosure with recessed grooves, polycarbonate overlay, Buna-N O-rings, 316L SS sensor construction.  
**Accuracy:** 0.25% FS  $\pm 1$  least significant digit (includes linearity, hysteresis, repeatability).  
**Pressure Limit:** 2x pressure range for models  $\leq 1000$  psi; 5000 psi for 3000 psi range; 7500 psi for 5000 psi range.  
**Temperature Limits:** 0 to 158°F (0 to 70°C).  
**Process Connection:** 1/4" male NPT.  
**Display:** 4 digit (.425" H x .234" W digits).  
**Size:** 3.00" OD x 1.90" deep (not including cables).  
**Weight:** 8.84 oz (275 g).

#### SWITCH SPECIFICATIONS

**Switch Type:** 2 SPDT form C contacts.  
**Electrical Rating:** 0.5 A @ 125 VAC resistive, 1 A @ 24 VDC.  
**Relay Differential:** 1 least significant digit.  
**Electrical Connections:** 3 ft (.91 m) cable.  
**Mounting Orientation:** Mount in any position.  
**Set Point Adjustment:** Via menu.

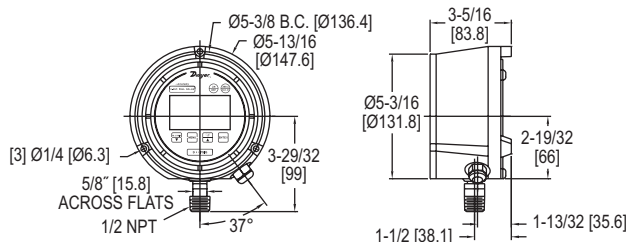
#### TRANSMITTER SPECIFICATIONS

**Temperature Limits:** 0 to 158°F (0 to 70°C).  
**Thermal Effect:** Between 70 to 158°F = 0.016%/°F. Between 0 to 70°F = 0.026%/°F.  
**Power Requirements:** 12 to 24 VAC  $\pm 20\%$  50 to 400 Hz, 12 to 24 VDC  $\pm 20\%$ .  
**Output Signal:** 4 to 20 mA.  
**Loop Resistance:** 600  $\Omega$  max.  
**Power Consumption:** 0.8 W max.  
**Electrical Connections:** 3 ft (.91 m) cable.  
**Enclosure Rating:** Designed to meet NEMA 4X (IP66).

## SERIES DSGT

# DIGITAL INDICATING TRANSMITTER

## $\pm 0.25\%$ Full-Scale Accuracy



The **SERIES DSGT** Digital Indicating Transmitter is a versatile multi-function process gage that features an excellent 0.25% full-scale accuracy. This all-in-one digital gage package is designed to reduce installation costs, instrument cost, and save space where an application requires a gage, transmitter, and switches. The Series DSGT gage comes standard with a loop-powered 4 to 20 mA transmitter. The Series DSGT gage is enclosed in a durable fiberglass reinforced thermoplastic case that is designed to meet NEMA 4 IP56 requirements. The gage features a menu-driven display for easy customization. User selectable features include 12 engineering units of measure, password protected calibration and disable functions, as well as an adjustable bar graph and update/dampening rates.

### FEATURES/BENEFITS

- All-in-one digital gage package is designed to reduce installation costs, instrument cost, and save space where an application requires a gage, transmitter, and switches
- Durable fiberglass reinforced thermoplastic case to meet NEMA 4 (IP56) requirements supports use in harsh environments
- Password protected calibration and disable functions helps to insure no errors by untrained personnel

### APPLICATIONS

- Process
- Outdoor
- Compressor
- OEM

MODEL CHART							
Model	Range (psig)	Model	Range (psig)	Model	Range (psig)	Model	Range (psig)
DSGT-101-C0S	30" Hg-0 to 15	DSGT-106-C0S	0 to 100	DSGT-109-C0S	0 to 300	DSGT-116-C0S	0 to 5000
DSGT-102-C0S	30" Hg-0 to 30	DSGT-107-C0S	0 to 160	DSGT-110-C0S	0 to 600	DSGT-117-C0S	0 to 8000
DSGT-104-C0S	0 to 30	DSGT-108-C0S	0 to 200	DSGT-112-C0S	0 to 1000	DSGT-118-C0S	0 to 10000
DSGT-105-C0S	0 to 60						

### SPECIFICATIONS

#### GAGE SPECIFICATIONS

**Service:** Compatible, non-combustible liquids & gases.  
**Wetted Materials:** 17 to 4 stainless steel sensor, 316 SS socket.  
**Housing Materials:** Fiberglass reinforced thermoplastic case.  
**Accuracy:** 0.25% FS (includes linearity, hysteresis, repeatability).  
**Pressure Limit:** 2 x FS range.  
**Process Connection:** 1/2" male NPT.  
**Display:** 5 digit (0.88" high).

#### TRANSMITTER SPECIFICATIONS

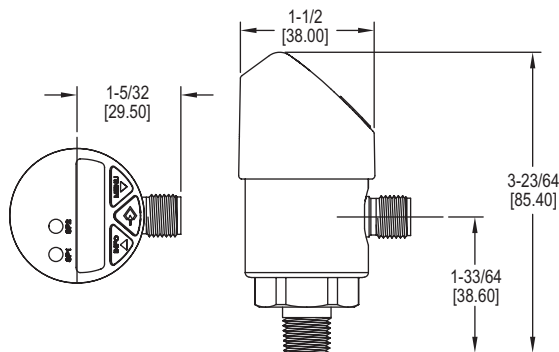
**Power Requirements:** 12 to 36 VDC (loop powered).  
**Memory Back Up Supply:** (2) C alkaline batteries, installed functional, user replaceable.  
**Output Signal:** 4 to 20 mA.  
**Response Time:** 100 ms.  
**Temperature Limits:** 14 to 140°F (-10 to 60°C).  
**Thermal Effects:** 0.04% FS/°F.  
**Electrical Connections:** 3 ft flying leads.  
**Loop Resistance:** DC; 0 to 1090  $\Omega$  max.  
**Set Point Adjustments:** Adjustable through menu selections.  
**Weight:** 1.45 lb (.66 kg).

### OPTIONS

Use order code:	Description
NISTCAL-PT1	NIST traceable calibration certificate

# DIGITAL PRESSURE TRANSMITTER WITH SWITCHES

Two Solid State Switches, LED Display



The **SERIES DPT** Digital Pressure Transmitter with Switches combines a large, 14-segment LED display with two programmable solid state switches into one compact unit. A unique, 3-way rotating design allows the DPT to meet specific installation requirements without any retrofitting. The display and electrical connection can be rotated independently to maximize visibility while still orienting the electrical connection in the best position for the cable connector. Large, ergonomically designed push buttons allow for quick/easy programming and thin-film piezoresistive sensor technology guarantees long-term reliability and stability.

## FEATURES/BENEFITS

- Compact size, lightweight, and high accuracy supports multiple installation methods to support application need and footprint
- Rotating display and electrical connection to maximize visibility while orienting the electrical connection in the best position for the cable connector

## APPLICATIONS

- Calibration
- Hydraulics and pneumatics
- Machine tools
- Compressors and pumps
- Machine building

## SPECIFICATIONS

**Service:** Compatible gases, liquids or vapors.

**Wetted Materials:** Pressure connection: 316 L SS; Pressure sensor: 316 L SS (13-8 PH for ranges above 150 psi).

**Housing:** 316 L lower body, heat and chemical resistant fiberglass reinforced plastic (PBT) plastic head, TPE-E keyboard, PC display window.

**Accuracy:** 1.0% FS (includes non-linearity, hysteresis, zero point).

**Pressure Limit:** See table.

**Temperature Limits:** 32 to 176°F (0 to 80°C).

**Process Connections:** 1/4" male NPT.

**Display:** Red LED 4-digit (0.35" H digits).

**Weight:** 7 oz (0.2 kg).

## SWITCH SPECIFICATIONS

**Switch Type:** PNP.

**Electrical Rating:** 250 mA.

**Electrical Connections:** M 12x1, 5-pin.

**Mounting Orientation:** Mount in any position.

## TRANSMITTER SPECIFICATIONS

**Temperature Limits:** 32 to 176°F (0 to 80°C).

**Thermal Effect:** 0.2% FS / 10k.

**Power Requirements:** 15 to 35 VDC.

**Output Signal:** DPT-A: 4 to 20 mA; DPT-V: 0 to 10 VDC.

**Loop Resistance:** DPT-A: ≤ 0.5k; DPT-V: > 10k.

**Power Consumption:** ≤ 100 mA.

**Electrical Connections:** M 12x1, 5-pin.

**Enclosure Rating:** IP67.

MODEL CHART								
0 to 10 VDC Model	4 to 20 mA Model	Range (psig)	Maximum Pressure (psig)	Burst Pressure (psig)	Pressure Ranges			
					bar	MPa	kPa	kg/cm <sup>2</sup>
DPT-V00	DPT-A00	-14.5 to 0	30	75	1.034	.1034	103.4	1.055
DPT-V01	DPT-A01	0 to 15	30	75	1.034	.1034	103.4	1.055
DPT-V02	DPT-A02	0 to 25	60	150	1.724	.1724	172.4	1.758
DPT-V03	DPT-A03	0 to 30	60	150	2.068	.2068	206.8	2.109
DPT-V04	DPT-A04	0 to 50	100	250	3.447	.3447	344.7	3.515
DPT-V05	DPT-A05	0 to 100	200	500	6.895	.6895	689.5	7.031
DPT-V06	DPT-A06	0 to 160	290	500	11.03	1.103	1103	11.25
DPT-V07	DPT-A07	0 to 200	400	1500	13.79	1.378	1378	14.06
DPT-V08	DPT-A08	0 to 300	600	1500	20.68	2.068	2068	21.09
DPT-V09	DPT-A09	0 to 500	1000	2500	34.47	3.447	3447	35.15
DPT-V10	DPT-A10	0 to 1000	1740	7975	68.95	6.895	6895	70.31

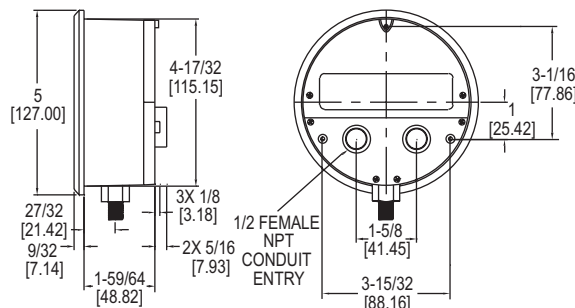
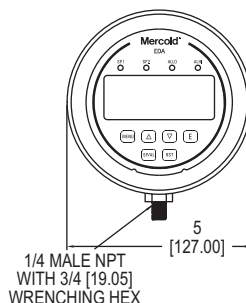
OPTIONS	
Use order code:	Description
NISTCAL-PT1	NIST traceable calibration certificate

ACCESSORIES	
Model	Description
A-195	6' (2 m) shielded cable with 5 pin female M-12 connections



# ELECTRONIC PRESSURE CONTROLLER

## 2 Switches, Indicating Gage, and Transmitter in One Package



**SERIES EDA** Electronic Pressure Control is an extremely versatile compact package that can replace a separate gage, two switches, and a transmitter in a system saving money, installation time, and panel space. The EDA incorporates two SPDT relays that have the on and off points fully adjustable over the range for control or alarm use. Front face has LED indicators for switch status and a large backlight two-line display showing process value and indication units. Programming is easy with simple menu structure, two-line display, and external programming buttons. Weatherproof housing is ideal for a wide variety of applications with panel mount, flush mount, or pipe mount ability. Features include zero set, adjustable dampening, menu lock out, peak and valley indication, removable terminal blocks, adjustable time delay, and scalable transmitter output.

### FEATURES/BENEFITS

- Versatile compact package that can replace a separate gage, two switches, and a transmitter in a system saving money, installation time, and panel space
- Fully programmable to meet simple or complex application needs
- Test mode function simulates input over the range without pressuring to easily test switches and transmitter output function
- Failsafe relay output choices in case of sensor failure, over pressure, high temperature limit, low temperature limit, or keypad short
- Selectable alternation of set points between the relays for even wear on duplex pump applications
- Weatherproof housing is ideal for a wide variety of applications with panel mount, flush mount, or pipe mount ability

### APPLICATIONS

- Process control
- Compressor control
- SCFM duct flow
- Filter status
- Duct or building static pressure
- Damper and fan control

### SPECIFICATIONS

**Service:** Compatible liquids and gases.

**Wetted Materials:** 316L SS.

**Housing:** Glass filled plastic.

**Accuracy:**  $\pm 1\%$  of FS including linearity, hysteresis, and repeatability (indicator and transmitter).

**Stability:**  $< \pm 2\%$  of FS per year.

**Pressure Limits:** 1.5 x range.

**Temperature Limits:** Ambient: 20 to 140°F (-6.6 to 60°C); Process: 0 to 176°F (-18 to 80°C).

**Compensated Temperature Limits:** 32 to 122°F (0 to 50°C).

**Thermal Effect:**  $\pm 0.05\%$  of FS/°F.

**Display:** 4-digit backlit LCD (digits: 0.60"H x 0.33" W).

**Power Requirements:** 12 to 30 VDC/AC.

**Power Consumption:** 2.5 watts.

**Electrical Connections:** Removable terminal blocks with two 1/2" female NPT conduit connections.

**Enclosure Rating:** Meets NEMA 4X (IP66).

**Warm Up Time:**  $< 10$  s.

**Mounting Orientation:** Any position.

**Weight:** 1.18 lb (535 g).

**Agency Approvals:** CE, UL.

### SWITCH SPECIFICATIONS

**Switch Type:** 2 SPDT relays.

**Electrical Rating:** 5 A @ 120/240VAC, 1 A @ 30 VDC.

**Repeatability:**  $\pm 1\%$  of FS (switching only).

**Set Points:** Adjustable 0-100% of FS.

**Switch Indication:** External LED for each relay on the front panel.

**Switch Reset:** Manual or automatic.

### TRANSMITTER SPECIFICATIONS

**Output Signal:** 4 to 20 mA, 1 to 6 VDC, 1 to 5 VDC, 0 to 5 VDC, or 0 to 10 VDC (direct or reverse output selection).

**Minimum Excitation:** 14 VDC.

**Zero and Span Adjustments:** Menu scalable within the range.

MODEL CHART							
Example	EDA	W	-N1	E1	-02	T0	-AT
Series	EDA						EDAW-N1E1-02T0-AT
Housing		W					Weatherproof
Process Connection			N1				1/4" NPT male bottom
Electrical Connection				E1			Two 1/2" female NPT conduit connections
Range					02 03 04 05 06 07 08 09 10		0 to 20 psi (1.379 bar) 0 to 60 psi (4.14 bar) 0 to 100 psi (6.89 bar) 0 to 150 psi (10.34 bar) 0 to 300 psi (20.68 bar) 0 to 600 psi (41.4 bar) 0 to 1000 psi (68.9 bar) 0 to 1500 psi (103.4 bar) 0 to 3000 psi (206.8 bar)
Transmitter Output						T0 T1 T2 T3 T4 T5	None 4 to 20 mA 1 to 5 VDC 0 to 5 VDC 1 to 6 VDC 0 to 10 VDC
Options						AT NIST 23444	Aluminum adhesive tag NIST certificate Oxygen cleaning

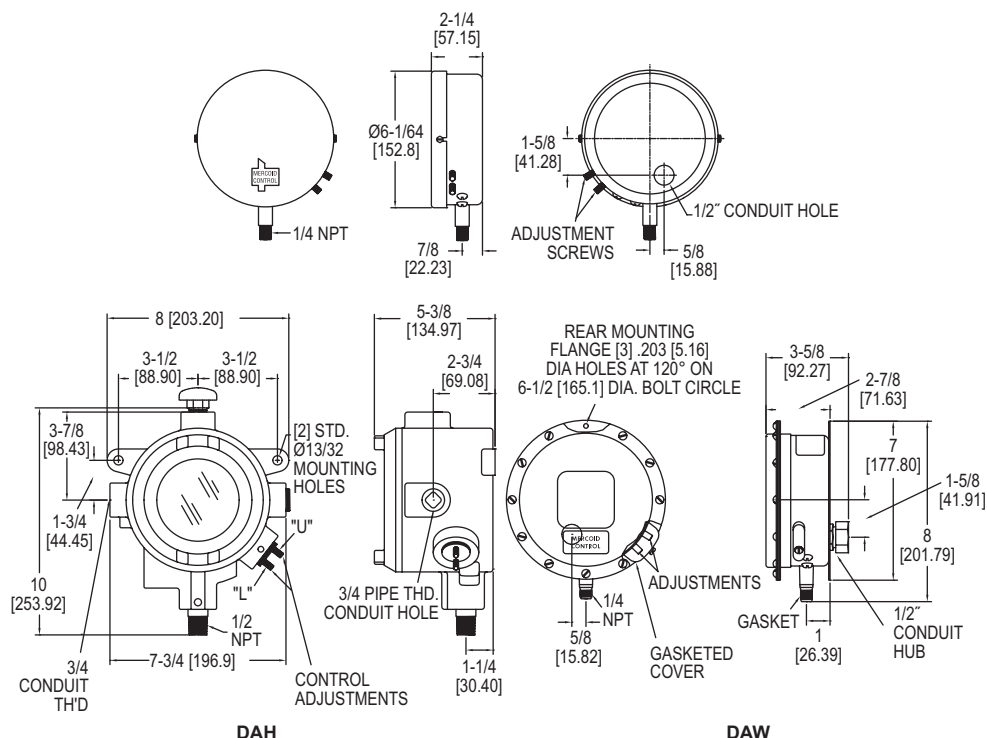
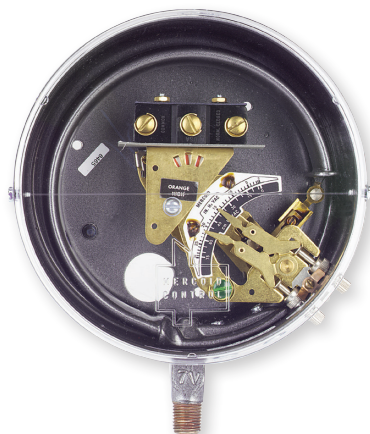
**Dwyer**

SERIES DA/DS | MERCOID® BY DWYER



# BOURDON TUBE PRESSURE SWITCHES

Pressure Ranges to 8000 psi (551.6 bar)



Customers tell us that the **SERIES DA/DS** are the best pressure switches made. The Mercoïd DA/DS Series is one of the world's broadest lines of pressure switches. The DA/DS Series has extremely high sensitivity and great repeatability. The DA Models are equipped with two external adjustments, one for setting high pressure operating point, the other for setting low pressure operating point. Deadband, the difference between high and low setpoints, is adjustable over the full-scale. The DS Models are equipped with a single external adjustment for setting operating point only. For mercury-free switches, choose between the snap action switch or hermetically sealed snap action switch. Hermetically sealed mercury switch also available.

## FEATURES/BENEFITS

- Visible calibrated dial provides an easy and fast check without having to open device causing dangerous conditions to operators
- On/off indication (except hermetically sealed snap switch models) gives operator clear indication of state of switched equipment that could be located in another location
- Adjustable or fixed deadband supports control applications by reducing equipment wear-out by unnecessary recycling
- External switch set-point adjustment reduces set-up time
- Pressure ranges of full vacuum to 8000 psig gives application designers the ability to specify standard equipment, simplifying install and training, and reducing servicing costs
- UL listed, CSA approved, many models FM approved to support rigorous process applications and regulations
- General purpose, weatherproof or explosion-proof enclosures for a variety of indoor or outdoor environments meeting the needs of multiple applications and uses

## APPLICATIONS

- Compressors
- Mechanical HVAC or process equipment
- Pump control

## SPECIFICATIONS

**Wetted Materials:** Brass, 403 SS, or 316 SS.

**Temperature Limit:** 180°F (82°C).

**Pressure Limit:** Maximum pressure of the operating range.

**Enclosure Rating:** General purpose, weatherproof or explosion-proof.

**Repeatability:** ±1% of full operating range, ±1.5% on DS-7300 models.

**Switch Type:** SPST mercury switch, SPDT mercury switch, SPDT snap switch, or SPDT hermetically sealed snap switch. Other circuit types available.

**Electrical Rating:** See model charts.

**Electrical Connections:** Screw terminal.

**Conduit Connection:** General purpose: 1/2" hole for conduit hub; Weatherproof: 1/2" conduit hub; Explosion-proof: 3/4" female NPT.

**Process Connection:** General purpose and weatherproof: 1/4" male NPT, 1/2" male NPT on ranges 15S and 16S; Explosion-proof: 1/2" male NPT and 1/4" female NPT.

**Mounting Orientation:** Vertical.

**Set Point Adjustment:** Thumbscrew.

**Weight:** General purpose: 4 lb (1.8 kg); Weatherproof: 6 lb (2.7 kg); Explosion-proof: 8 lb (3.5 kg).

**Deadband:** See model chart.

**Agency Approvals:** CSA, FM, UL (mercury switch units are not CE approved) (Consult factory for FM approved models).

USA: California Proposition 65

⚠ WARNING: Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# BOURDON TUBE PRESSURE SWITCHES

Pressure Ranges to 8000 psi (551.6 bar)

MODEL CHART - D SERIES PRESSURE SWITCH WITH SNAP ACTION SWITCH AND GENERAL PURPOSE ENCLOSURE							
Bourdon Tube Material	Adjustable Operating Range (psig)	Adjustable Deadband SPDT: 10 A @ 120/240 VAC		Fixed Deadband SPDT: 15 A @ 120/240 AC		Hermetically Sealed, Fixed Deadband SPDT: 5 A @ 120/240 VAC, 5 A res. @ 30 VDC	
		Minimum Deadband (psig)	Model	Fixed	Model	Fixed	Model
Brass	0 to 30" Hg VAC	13.5" Hg	DA-7031-153-2	3" Hg	DS-7231-153-2	5" Hg	DS-7331-153-2
Brass	10" Hg VAC to 12	6	DA-7031-153-3	1.5	DS-7231-153-3	3	DS-7331-153-3
Brass	25" Hg VAC to 50	12	DA-7031-153-27	2.5	DS-7231-153-27	3.75	DS-7331-153-27
Brass	1/8 to 15	6	DA-7031-153-1	1.5	DS-7231-153-1	3	DS-7331-153-1
Brass	1/8 to 20	6	DA-7031-153-3A	1.5	DS-7231-153-3A	3	DS-7331-153-3A
Brass	1 to 35	7.5	DA-7031-153-4	1.5	DS-7231-153-4	3	DS-7331-153-4
Brass	2 to 60	9	DA-7031-153-5	2	DS-7231-153-5	3	DS-7331-153-5
Brass	5 to 100	13.5	DA-7031-153-6	2.5	DS-7231-153-6	3.75	DS-7331-153-6
Brass	5 to 150	24	DA-7031-153-7	3	DS-7231-153-7	5.25	DS-7331-153-7
Brass	10 to 200	24	DA-7031-153-8	4	DS-7231-153-8	6.75	DS-7331-153-8
Brass	10 to 300	37.5	DA-7031-153-9	5	DS-7231-153-9	9	DS-7331-153-9
403 stainless steel	30" Hg VAC to 60	18	DA-7021-153-25S	3.5	DS-7221-153-25S	5.25	DS-7321-153-25S
403 stainless steel	30" Hg VAC to 75	22.5	DA-7021-153-26S	3.5	DS-7221-153-26S	5.25	DS-7321-153-26S
403 stainless steel	2 to 60	13.5	DA-7021-153-5S	3	DS-7221-153-5S	4.5	DS-7321-153-5S
403 stainless steel	5 to 100	19.5	DA-7021-153-6S	3.5	DS-7221-153-6S	5.25	DS-7321-153-6S
403 stainless steel	10 to 200	22.5	DA-7021-153-8S	4	DS-7221-153-8S	7.125	DS-7321-153-8S
403 stainless steel	10 to 300	28.5	DA-7021-153-9S	6	DS-7221-153-9S	10.5	DS-7321-153-9S
403 stainless steel	40 to 350	30	DA-7021-153-9AS	6	DS-7221-153-9AS	10.5	DS-7321-153-9AS
403 stainless steel	25 to 600	67.5	DA-7021-153-10S	10	DS-7221-153-10S	18	DS-7321-153-10S
403 stainless steel	50 to 1000	142.5	DA-7021-153-11S	20	DS-7221-153-11S	33	DS-7321-153-11S
403 stainless steel	100 to 1500	195	DA-7021-153-12S	30	DS-7221-153-12S	52.5	DS-7321-153-12S
403 stainless steel	300 to 2500	390	DA-7021-153-13S	60	DS-7221-153-13S	90	DS-7321-153-13S
403 stainless steel	500 to 5000	1350	DA-7021-153-15S	200	DS-7221-153-15S	300	DS-7321-153-15S
403 stainless steel	800 to 8000	2250	DA-7021-153-16S	500	DS-7221-153-16S	5.25	DS-7341-153-26E
316 stainless steel	30" Hg VAC to 75	15	DA-7041-153-26E	3.5	DS-7241-153-26E	6	DS-7341-153-23E
316 stainless steel	5 to 75	12	DA-7041-153-23E	4	DS-7241-153-23E	5.25	DS-7341-153-6E
316 stainless steel	10 to 100	15	DA-7041-153-6E	3.5	DS-7241-153-6E	6.75	DS-7341-153-24E
316 stainless steel	10 to 150	16.5	DA-7041-153-24E	4	DS-7241-153-24E	12	DS-7341-153-9E
316 stainless steel	10 to 300	42	DA-7041-153-9E	8	DS-7241-153-9E	18	DS-7341-153-21E
316 stainless steel	30 to 400	78	DA-7041-153-21E	10	DS-7241-153-21E	37.5	DS-7341-153-22E
316 stainless steel	75 to 800	180	DA-7041-153-22E	25	DS-7241-153-22E	52.5	DS-7341-153-11E
316 stainless steel	100 to 1000	285	DA-7041-153-11E	35	DS-7241-153-11E	112.5	DS-7341-153-13E
316 stainless steel	200 to 2500	600	DA-7041-153-13E	75	DS-7241-153-13E		

MODEL CHART - D SERIES PRESSURE SWITCH WITH MERCURY SWITCH AND GENERAL PURPOSE ENCLOSURE

Bourdon Tube Material	Adjustable Operating Range (psig)	Adjustable Deadband			
		Minimum Deadband (psig)	SPDT 4 A @ 120 V, 2 A @ 240 V AC/DC	SPST Open on Increase 10 A @ 120 V, 5 A @ 240 V AC/DC	SPST Close on Increase 10 A @ 120 V, 5 A @ 240 V AC/DC
Brass	30" to 0 Hg VAC	2" Hg	DA-31-153-2	DA-31-2-2	DA-31-3-2
Brass	10" Hg VAC to 12	1	DA-31-153-3	DA-31-2-3	DA-31-3-3
Brass	25" Hg VAC to 50	3.5	DA-31-153-27	DA-31-2-27	DA-31-3-27
Brass	1/8 to 15	1	DA-31-153-1	DA-31-2-1	DA-31-3-1
Brass	1/8 to 20	1	DA-31-153-3A	DA-31-2-3A	DA-31-3-3A
Brass	1 to 35	1.75	DA-31-153-4	DA-31-2-4	DA-31-3-4
Brass	2 to 60	3	DA-31-153-5	DA-31-2-5	DA-31-3-5
Brass	5 to 100	3.75	DA-31-153-6	DA-31-2-6	DA-31-3-6
Brass	5 to 150	6	DA-31-153-7	DA-31-2-7	DA-31-3-7
Brass	10 to 200	8	DA-31-153-8	DA-31-2-8	DA-31-3-8
Brass	10 to 300	12	DA-31-153-9	DA-31-2-9	DA-31-3-9
403 stainless steel	30" Hg VAC to 60	6	DA-21-153-25S	DA-21-2-25S	DA-21-3-25S
403 stainless steel	30" Hg VAC to 75	8	DA-21-153-26S	DA-21-2-26S	DA-21-3-26S
403 stainless steel	2 to 60	4	DA-21-153-5S	DA-21-2-5S	DA-21-3-5S
403 stainless steel	5 to 100	6	DA-21-153-6S	DA-21-2-6S	DA-21-3-6S
403 stainless steel	10 to 200	8	DA-21-153-8S	DA-21-2-8S	DA-21-3-8S
403 stainless steel	10 to 300	14	DA-21-153-9S	DA-21-2-9S	DA-21-3-9S
403 stainless steel	40 to 350	14	DA-21-153-9AS	DA-21-2-9AS	DA-21-3-9AS
403 stainless steel	25 to 600	25	DA-21-153-10S	DA-21-2-10S	DA-21-3-10S
403 stainless steel	50 to 1000	60	DA-21-153-11S	DA-21-2-11S	DA-21-3-11S
403 stainless steel	100 to 1500	90	DA-21-153-12S	DA-21-2-12S	DA-21-3-12S
403 stainless steel	300 to 2500	150	DA-21-153-13S	DA-21-2-13S	DA-21-3-13S
403 stainless steel	500 to 5000	450	DA-21-153-15S	DA-21-2-15S	DA-21-3-15S
403 stainless steel	800 to 8000	750	DA-21-153-16S	DA-21-2-16S	DA-21-3-16S
316 stainless steel	30" Hg VAC to 75	7	DA-41-153-26E	DA-41-2-26E	DA-41-3-26E
316 stainless steel	5 to 75	3	DA-41-153-23E	DA-41-2-23E	DA-41-3-23E
316 stainless steel	10 to 100	7	DA-41-153-6E	DA-41-2-6E	DA-41-3-6E
316 stainless steel	10 to 150	6	DA-41-153-24E	DA-41-2-24E	DA-41-3-24E
316 stainless steel	10 to 300	18	DA-41-153-9E	DA-41-2-9E	DA-41-3-9E
316 stainless steel	30 to 400	30	DA-41-153-21E	DA-41-2-21E	DA-41-3-21E
316 stainless steel	75 to 800	75	DA-41-153-22E	DA-41-2-22E	DA-41-3-22E
316 stainless steel	100 to 1000	100	DA-41-153-11E	DA-41-2-11E	DA-41-3-11E
316 stainless steel	200 to 2500	210	DA-41-153-13E	DA-41-2-13E	DA-41-3-13E

## OPTIONS

### Weatherproof Enclosure - Series DAW

**Note:** To order, add "W" to model number after DA or DS, change 1 to 3.

**Example:** DAW-33-153-7

### Explosion-Proof Enclosure - Series DAH

Suitable for Class I, Groups C and D; NEMA 7; Class II, Groups E, F, G; Class III NEMA 9 and 9A, Division 1.

**Note:** To order, add "H" to model number after DA or DS. **Example:** DAH-31-153-7

### FM Approved

For general purpose and explosion-proof models see agency approvals.

**Note:** To order, add "F" to model number after DA, DS, DAH or DSH.

**Examples:** DAF-31-153-7 or DAHF-31-153-7

### Other Options (Consult Factory)

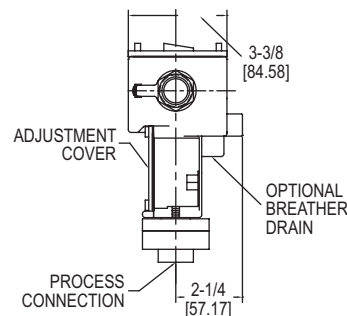
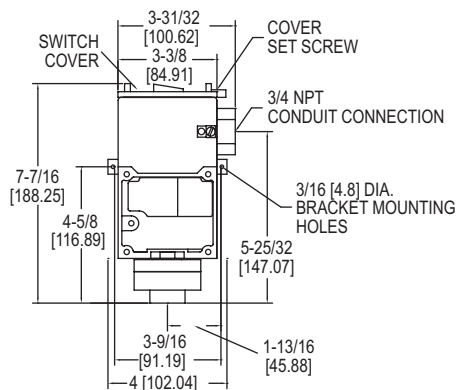
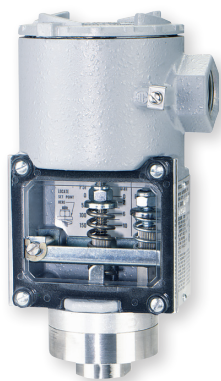
DPDT switches or other switch types, fixed deadband mercury switch units for low deadband applications, manual reset operation, two-stage operation, acetal bushed movement for applications with high amounts of vibration and/or pulsation, fungus proofing, siphon, diaphragm seals, mounting flange and remote connection.

USA: California Proposition 65

⚠ WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

# DIAPHRAGM OPERATED PRESSURE SWITCHES

Visible Setpoint, Adjustable Deadband, Hermetically Sealed Snap Switch, Weatherproof and Explosion-Proof



The **SERIES SA1100** Diaphragm Operated Pressure Switches are weatherproof and explosion-proof in one economical enclosure. Extremely rugged construction assures excellent reliability in chemical, petroleum and industrial plants. New design also provides burst pressure protection to 3000 psi (206 bar). The rolling diaphragm design maintains a constant effective area to minimize friction. This results in a minimum deadband as low as 5% of full-scale. Since many applications require higher deadbands, the SA1100 includes a separate adjustment of this when necessary. A pump being used to control liquid level in a tank would be a typical situation where this feature would be important. Both setpoint and deadband adjustments are protected, yet clearly visible behind a clear polycarbonate window and are fully isolated from the electrical components for additional safety. A 7/16" open-end wrench is the only tool required to change settings. Terminal blocks are provided for switch wiring connections and both internal and external ground screws are included. Standard housing is weatherproof to NEMA standards 1 through 4X and 13; explosion-proof to NEMA 7, Class I, Groups B, C & D; NEMA 9, Class II, Groups E, F & G. Optional construction adds drain to meet NEMA 3R IP54.

## FEATURES/BENEFITS

- Explosion-proof and weatherproof housing provides device protection for outdoor use or harsh environment operation
- Burst pressure protection prevents device failure where high-pressure surges may damage device costing down-time and repair/replacement
- Adjustable deadband reduces equipment cycling and potential failure
- Visible set-point and deadband adjustments provide an easy and fast check without having to open device causing dangerous conditions to operators

## APPLICATIONS

- Chemical, petroleum, food and drug processing industries
- Used indoor, outdoor or in explosion-proof area
- Pump control

## SPECIFICATIONS

**Wetted Materials:** See pressure chamber and diaphragm material in model chart.

**\*Temperature Limits:** -30 to 180°F (-35 to 82°C) standard; ATEX compliant at Ambient Temperature: -4 to 167°F (-20 to 75°C); Process Temperature: -4 to 167°F (-20 to 75°C).

**Pressure Limit:** 1200 psig (82.6 bar).

**\*Enclosure Rating:** Weatherproof and Explosion-proof. Listed with UL and CSA for Class I, Groups B, C and D; Class II Groups E, F, and G. ATEX Compliant 0344 II 2 G EEx d IIC T6 Process Temperature 75°C. Weatherproof UL Rated Type 4. Meets NEMA 4X (IP66).

\*Options that do not have ATEX

**Switch Type:** SPDT or DPDT snap switch.

**Electrical Rating:** See model chart.

**Electrical Connections:** Screw terminal.

**Conduit Connection:** 3/4" female NPT.

**Process Connection:** 1/2" female NPT.

**Mounting Orientation:** Within 20° of vertical.

**Set Point Adjustment:** Internal 7/16" hex nuts.

**Weight:** 3.5 lb (1.6 kg).

**Deadband:** See deadband chart.

**\*Agency Approvals:** ATEX, CE, CSA, UL.

## SWITCH DEADBAND CHART

Range Number	Adjustable Operating Range		Approximate Minimum Deadband		Approximate Maximum Deadband	
			Low	High	Low	High
11	10-150	0.7-10	4.0	0.28	7.5	0.52
12	20-250	1.4-17.2	5.0	0.35	12.5	0.86
13	30-500	2.0-34	12	0.83	45	3.1

## MODEL CHART

Example	SA11	13	E	-A	4	-K	2	SA1113E-A4-K2
Construction	SA11							Series designator, weatherproof NEMA 4X, explosion-proof NEMA 7, 9
Adjustable Pressure Ranges		11 12 13						Adjustable range 10 to 150 psig (0.7-10 bar) Adjustable range 20 to 250 psig (1.4-17.2 bar) Adjustable range 30 to 500 psig (2.0-34.0 bar)
Circuit (Switch) Options			E HS HG					Snap action switch rated 15 A @ 125/250/480 VAC, 1/8 HP @ 125 VAC, 1/4 HP @ 250 VAC, 1/2 A @ 125 VDC resistive, 1/4 A @ 250 VDC resistive Hermetically sealed snap action switch rated 5 A @ 125/250 VAC, 5 A resistive @ 30 VDC* Hermetically sealed snap action switch with gold contacts rated 1A @ 125 VAC, 1 A resistive @ 30 VDC*
Pressure Chamber Material (Wetted)				A S				Aluminum 316 SS
Diaphragm Material (Wetted)					4 5			Buna-N diaphragm and O-ring Fluorocarbon diaphragm and O-ring
Circuit (Switch) Type						K L		SPDT DPDT (not available with HS or HG switch options)
Process Connection							2	1/2 inch female NPT
*Options							AT DRAIN	ATEX certified construction Housing with drain - allows condensate to be drained from inside enclosure (meets NEMA 3R instead of 4X)

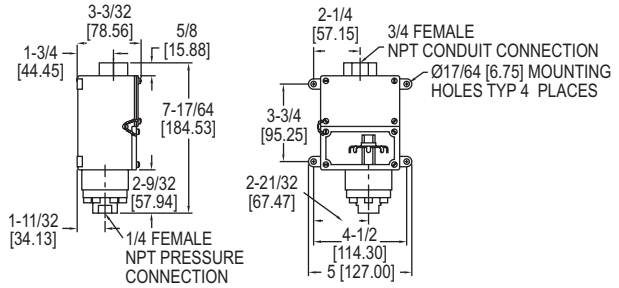
\*Options that do not have ATEX

Examples: SA1111E-A4-K2; SA1111E-S5-K2



# WEATHERPROOF DIAPHRAGM OPERATED PRESSURE SWITCHES

Visible Setpoint, Fixed Deadband, Pressure Ranges to 1400 psi



With extremely rugged construction the **SERIES 1000W** provides excellent reliability in chemical, petroleum and industrial plants. Bellville spring movement permits mounting of control in any position and helps prevent contact chatter. New design also provides high over-pressure protection. Weatherproof housing is standard.

## FEATURES/BENEFITS

- Weatherproof housing is ideal for a wide variety of applications where dust or water is present
- Spring movement design provides for control in any mounting position and prevents contact chatter reducing false or inconsistent switching

## APPLICATIONS

- Chemical, petroleum, food and drug processing industries
- Process and Industrial applications

## SPECIFICATIONS

**Wetted Materials:** See pressure chamber and diaphragm material in model chart.  
**Temperature Limits:** -30 to 170°F (-35 to 77°C).  
**Pressure Limit:** 3000 psig (206.8 bar).  
**Enclosure Rating:** Weatherproof, meets NEMA 4X (IP66).  
**Switch Type:** SPDT snap switch.  
**Electrical Rating:** 15 A @ 125/250 VAC resistive.

**Electrical Connections:** Screw type.  
**Conduit Connection:** 3/4" female NPT.  
**Process Connection:** 1/4" female NPT.  
**Mounting Orientation:** Any position.  
**Set Point Adjustment:** Internal thumbwheel.  
**Weight:** 3 lb (1.4 kg).  
**Deadband:** See model chart.  
**Agency Approvals:** CE, UL.

## MODEL CHART

Aluminum Pressure Chamber Polyamide Diaph. Model	316 SS Pressure Chamber FEP Diaph. Model	Adjustable Operating Range psig (bar)	Approx.* Deadband (Fixed) psig (bar)
1003W-A1-D	1003W-B3-D	5 to 40 (.48 to 2.8)	2 (.14)
1004W-A1-D	1004W-B3-D	10 to 70 (.69 to 4.8)	4 (.28)
1005W-A1-D	1005W-B3-D	25 to 200 (1.7 to 13.8)	8 (.55)
1006W-A1-D	1006W-B3-D	50 to 350 (3.5 to 24.1)	15 (1.0)
1007W-A1-D	1007W-B3-D	75 to 550 (5.2 to 37.9)	30 (2.1)
1008W-A1-D	1008W-B3-D	100 to 900 (6.9 to 62.1)	50 (3.5)
1009W-A1-D	1009W-B3-D	200 to 1400 (13.8 to 96.5)	75 (5.2)

\*Deadband 10-15% larger when using 316 SS diaphragm.

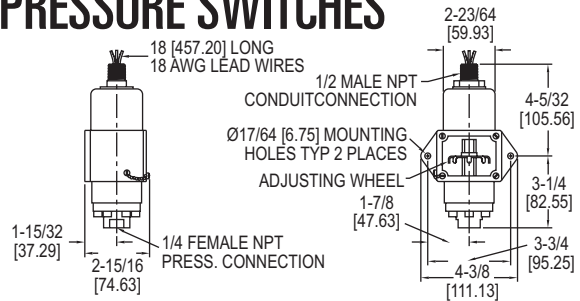
**Note:** To order, change A1 to B2 for 316 SS diaphragm and pressure chamber.

**Example:** 1003W-B2-D. Values shown are for mid-scale.

## SERIES 1000E | MERCOID® BY DWYER

# EXPLOSION-PROOF DIAPHRAGM OPERATED PRESSURE SWITCHES

Visible Setpoint, Fixed Deadband, Pressure Ranges to 1400 psi



The **SERIES 1000E** has the same rugged construction as used in Series 1000W plus explosion-proof design are combined in this new unit. UL listed for Class I, Groups A, B, C & D; Class II, Groups E, F & G. Bellville spring movement permits mounting of control in any position and helps prevent contact chatter. High over-pressure protection and vibration resistance are also featured.

## FEATURES/BENEFITS

- Weatherproof housing is ideal for a wide variety of applications where dust or water is present
- Spring movement design provides for control in any mounting position and prevents contact chatter reducing false or inconsistent switching
- UL listed to support rigorous process applications and regulations

## APPLICATIONS

- Chemical, petroleum, food and drug processing industries
- Process and industrial applications

## SPECIFICATIONS

**Wetted Materials:** See pressure chamber and diaphragm material in model chart.  
**Temperature Limits:** -30 to 170°F (-35 to 77°C).  
**Pressure Limit:** 3000 psig (206.8 bar).  
**Enclosure Rating:** Explosion-proof, UL listed for Class I, Groups A, B, C and D; Class II, Groups E, F, and G.  
**Switch Type:** SPDT snap switch. Hermetically sealed optional.  
**Electrical Rating:** 15 A @ 125/250/480 VAC res., 0.5 A @ 125 VDC, 0.25 A @ 250 VDC.

**Wiring Connections:** 18 AWG, 18" (460 mm) color-coded leads: N.O. (yellow), N.C. (black), and common (red).  
**Conduit Connection:** 1/2" male NPT.  
**Process Connection:** 1/4" female NPT.  
**Mounting Orientation:** Any position.  
**Set Point Adjustment:** Internal thumbwheel.  
**Weight:** 3 lb (1.4 kg).  
**Deadband:** See model chart.  
**Agency Approvals:** CE, UL.

## MODEL CHART

Aluminum Pressure Chamber Polyamide Diaph. Model	316 SS Pressure Chamber FEP Diaph. Model	Adjustable Operating Range psig (bar)	Approx.* Deadband (Fixed) psig (bar)
1003E-A1-J	1003E-B3-J	5 to 40 (.48 to 2.8)	2.5 (.17)
1004E-A1-J	1004E-B3-J	10 to 70 (.69 to 4.8)	5 (.34)
1005E-A1-J	1005E-B3-J	25 to 200 (1.7 to 13.8)	10 (.69)
1006E-A1-J	1006E-B3-J	50 to 350 (3.5 to 24.1)	18 (1.2)
1007E-A1-J	1007E-B3-J	75 to 550 (5.2 to 37.9)	36 (2.5)
1008E-A1-J	1008E-B3-J	100 to 900 (6.9 to 62.1)	60 (4.1)
1009E-A1-J	1009E-B3-J	200 to 1400 (13.8 to 96.5)	90 (6.2)

\*Deadband 10-15% larger when using 316 SS diaphragm.

**Note:** To order, change A1 to B2 for 316 SS diaphragm and pressure chamber.

**Example:** 1003E-B2-J. Values shown are for mid-scale.

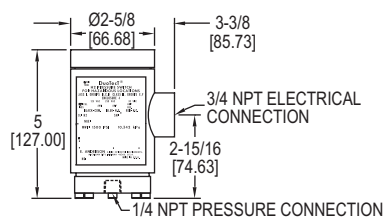
**Dwyer**

SERIES H2 | W. E. ANDERSON™ BY DWYER



# DUAL-ACTION EXPLOSION-PROOF PRESSURE SWITCHES

Explosion-proof and Weatherproof Enclosure



Explosion-Proof, UL & CSA Listed for Class I, Groups B, C & D and Class II, Groups E, F & G. The **SERIES H2** is designed for sequencing two different actions as pressure of a liquid or gas increases or decreases. The design consists of two concentric pistons operated by a single diaphragm with one pressure chamber. Each piston actuates a separate switch independent of the other. The switches may be adjusted to operate together, at opposite ends of the range or at two intermediate set points. The threaded top is removed to field adjust or service switches without disturbing electrical or pressure connections. The Duotect® switch is explosion-proof and weatherproof. It can be mounted in any position and is not affected by vibration.

## FEATURES/BENEFITS

- Explosion-proof and weather-proof housing provides device protection for outdoor use or harsh environment operation
- UL listed, CSA approved to support rigorous process applications and regulations
- Independent piston action design for either gas or liquid allows switches to active together or independently based on settings
- Mounting in any position and not affected by vibration provides reliable switching for equipment

## APPLICATIONS

- Mechanical HVAC or process equipment
- Chemical, petroleum, food and drug processing industries
- Process and Industrial applications

## SPECIFICATIONS

**Wetted Materials:** 316 SS chamber with FEP diaphragm and Buna-N O-ring standard. Fluoroelastomer or EPDM O-ring optional.

**Temperature Limit:** 275°F (135°C). CSA approved: -20 to 90°C (-4 to 184°F).

**Pressure Limit:** 1500 psig (103 bar).

**Enclosure Rating:** UL listed explosion-proof, Class I, Groups B, C, and D. Class II Groups E, F, and G. Meets NEMA 4X (IP66). CSA optional. Class I, Groups B, C & D. Class II, Groups E, F, & G -20°C ≤ Tamb ≤ 75°C T6 [optional -20°C ≤ Tamb ≤ 40°C T5] Type 4.

**Switch Type:** Two SPDT snap switches.

**Electrical Rating:** 5 A @ 125/250 VAC. 5 A res., 3 A ind. @ 30 VDC. Gold contacts or 10 A switch optional.

**Electrical Connections:** 18 AWG, 18" (460 mm) long.

**Conduit Connection:** 3/4" female NPT.

**Process Connection:** 1/4" female NPT.

**Mounting Orientation:** Any position.

**Set Point Adjustment:** Internal nut.

**Weight:** 2 lb (.9 kg).

**Deadband:** Approximately 10% of range.

**Agency Approvals:** CSA, UL.

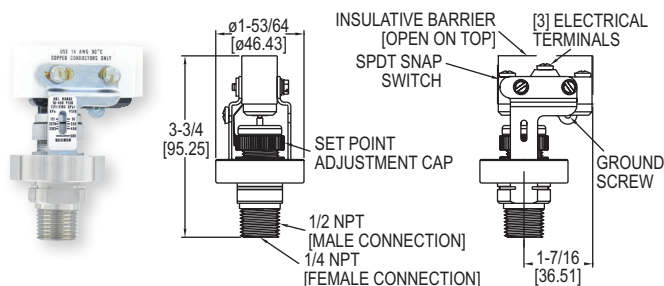
## MODEL CHART

Model	Low Range psig (bar)	High Range psig (bar)
H2S-1	3 to 40 (0.21 to 2.76)	5 to 75 (0.35 to 5.17)
H2S-2	25 to 250 (1.72 to 17.2)	30 to 400 (2.07 to 27.6)
H2S-3	100 to 1000 (6.89 to 68.9)	150 to 1500 (10.3 to 103)

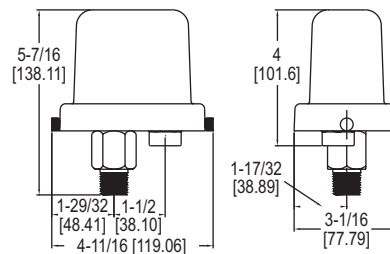
SERIES A1F | MERCOID® BY DWYER

# LOW COST OEM PRESSURE SWITCH

Field Adjustable with Weather-Proof Enclosure



A1F



A1F with weatherproof enclosure

Low cost and precision made, the **SERIES A1F** Pressure Switch is ideal for OEM industrial applications. Wetted materials of 316 SS and fluorocarbon ensure great chemical compatibility with a wide range of process media. The open case style is perfect for panel mounting applications like pump skids. Weatherproof enclosure is available in polycarbonate offering a low cost weatherproof switch. Superior 15 A contact allows direct control of motors or pumps without the use of external relays, a true cost savings. Features include a convenient indicating scale for quick and easy field adjustment.

## FEATURES/BENEFITS

- 15 A contact allows direct control reducing costs and reliability by having to introduce additional contacts and relays
- Case style allows use for panel mounting application with optional weather-proof enclosure for use in outdoor environments
- Field adjustable reduces installation time bring application on-line faster
- Wetted material provides support for wider range of process media

## APPLICATIONS

- OEM
- Compressors
- Motor control
- Process equipment
- Pump control

## SPECIFICATIONS

**Service:** Compatible liquids and gases.

**Wetted Materials:** Pressure chamber: 316 SS; Diaphragm: Fluorocarbon.

**Temperature Limit:** -40 to 175°F (-40 to 80°C).

**Pressure Limits:** 500 psig (34 bar).

**Enclosure Rating:** No rating for open construction. Installed properly within an optional weatherproof enclosure meets NEMA 4X (IP66) standards.

**Switch Type:** SPDT snap switch.

**Electrical Rating:** 15 A @ 120/240/480 VAC; 1/8 HP @ 125 VAC; 1/4 HP @ 250 VAC.

**Electrical Connection:** Screw terminals.

**Process Connection:** 1/4" female NPT and 1/2" male NPT.

**Mounting Orientation:** Within 20° of vertical.

**Set Point Adjustment:** Knurled screw cap with indicating scale.

**Deadband:** Fixed. See deadband chart.

**Weight:** 10.5 oz (297 g).

**Agency Approvals:** cUL, UL.

## MODEL CHART

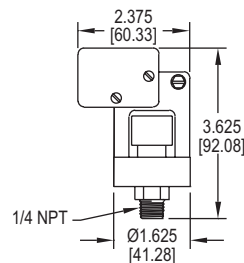
Model	Range psig (bar)	Deadband at Min. Range psig (bar)	Deadband at Max. Range psig (bar)
A1F-O-SS-1-1	2 to 15 (0.14 to 1.03)	2 (0.14)	3 (0.21)
A1F-O-SS-1-2	4 to 75 (0.28 to 5.17)	4 (0.27)	15 (1.0)
A1F-O-SS-1-3	8 to 225 (0.55 to 15.5)	8 (0.55)	25 (1.7)
A1F-O-SS-1-4	16 to 450 (1.1 to 31.0)	15 (1.0)	50 (3.5)

**Note:** Optional enclosure factory installed. To order, change O to PC.

**Example:** A1F-PC-SS-1-1

## ECONOMICAL PRESSURE SWITCH

Vacuum and Compound Ranges Available, Adjustable Set Point



**SERIES A1PS/A1VS** Economical Pressure Switches are designed with a 15 Amp SPDT switch for direct control of pumps and motors. Available in pressure, vacuum, or compound ranges, the switches offer a field adjustable set point. Easily adjust the switch by aligning the top of the self locking adjusting nut with the desired setting indicated on the adjacent range scale. Connection is 1/4" male NPT for quick installation and can be mounted in any position.

## FEATURES/BENEFITS

- 15 A contact allows direct control reducing costs and reliability by having to introduce additional contacts and relays
- Field adjustable reduces installation time bring application on-line faster

## APPLICATIONS

- OEM
- Process equipment
- Compressors
- Motor control
- Pump control

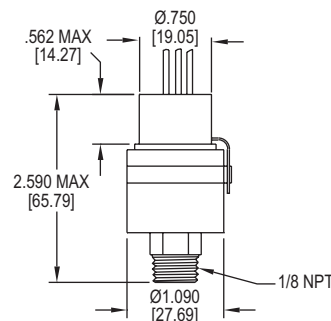
## MODEL CHART

Model	Set Point Range (kPa)	Repeatability (kPa)	Deadband (approx.) (kPa)	Model	Set Point Range (kPa)	Repeatability (kPa)	Deadband (approx.) (kPa)
A1PS-14	1.5 to 3.5 psi (10 to 24)	±0.15 psi (1)	0.5 to 1.7 psi (3 to 11)	A1VS-14	6-28" Hg (-20 to -94)	±1.2" Hg (-4)	3-14" Hg (-10 to -47)
A1PS-24	3 to 40 psi (21 to 276)	±1.0 psi (7)	2 to 5 psi (14 to 34)	A1VS-24	28" Hg to 3.5 psig (-94 to 24)	±1.2" Hg (-4), ±0.15 psi (1)	6" Hg - 1.5 psi (-20 to 10)
A1PS-34	30 to 150 psi (207 to 1034)	±5.0 psi (34)	5 to 30 psi (34 to 207)				
A1PS-44	100 to 500 psi (689 to 3445)	±20.0 psi (138)	30 to 120 psi (207 to 827)				

## SERIES APS/AVS

## ADJUSTABLE PRESSURE SWITCH

Vacuum and Pressure Ranges, 5 A Switch, Compact Size



Miniature **SERIES APS/AVS** Adjustable Switches offer reliable switching for pressure/vacuum alarm, shutdown or control. The units are readily adjustable throughout their range using the locking adjusting ring and indicating pointer. The body is constructed of stainless steel for durability in harsh environments. Switches include 12" (30 cm) wire leads sealed with epoxy for additional protection.

## FEATURES/BENEFITS

- Field adjustable with simple indicating pointer reduces installation time bring application on-line faster
- Stainless steel construction provides a durable solution in harsh environments

## APPLICATIONS

- OEM
- Process equipment
- Compressors
- Motor control
- Pump control

## MODEL CHART

Model	Set Point Range psi (bar)		Repeatability psi (bar)	Deadband psi (bar)	Model	Set Point Range "Hg (cm Hg) VAC		Repeatability "Hg (cm Hg)
	Decreasing	Increasing				Decreasing	Increasing	
APS-150	0.8 to 28.5 (.06 to 2.0)	1.6 to 30.0 (.11 to 2.1)	±0.6(.04)	0.8 to 1.3 (.06 to .09)	AVS-150	1.6 to 27.1 (4.1 to 68.6)	2.7 to 28.2 (6.9 to 71.6)	±1.2 (3.1)
APS-250	2.0 to 48.0 (.14 to 3.3)	3.0 to 50.0 (.21 to 3.5)	±1.0(.07)	1 to 1.7 (.07 to .12)	AVS-250	4.0 to 24.8 (10.2 to 63.0)	5.1 to 28.2 (13.0 to 71.6)	±2.0 (5.1)
APS-350	3.0 to 96.5 (.21 to 6.7)	4.5 to 100 (.31 to 6.9)	±2.0(.14)	1.6 to 4 (.11 to .28)	AVS-350	6.0 to 21.5 (15.2 to 54.6)	8.4 to 28.2 (21.3 to 71.6)	±4.0 (10.2)
APS-450	7.5 to 242 (.52 to 16.7)	9.7 to 250 (.67 to 17.2)	±5.0(.35)	2.5 to 9 (.17 to .62)				
APS-550	15.0 to 485 (1.0 to 33.4)	20.0 to 500 (1.4 to 34.5)	±10.0(.69)	5 to 22 (.35 to 1.5)				

## SPECIFICATIONS

**Service:** Compatible liquids or gases.  
**Wetted Materials:** Capsule: 17-7 PH SS; Fitting: 303 SS.  
**Temperature Limits:** -65 to 225°F (-54 to 107°C), a set point change of up to 2% when used below -10°F (-23°C) or above 125°F (52°C).  
**Pressure/Vacuum Limits:** 150% of range.  
**Switch Type:** SPDT snap action.

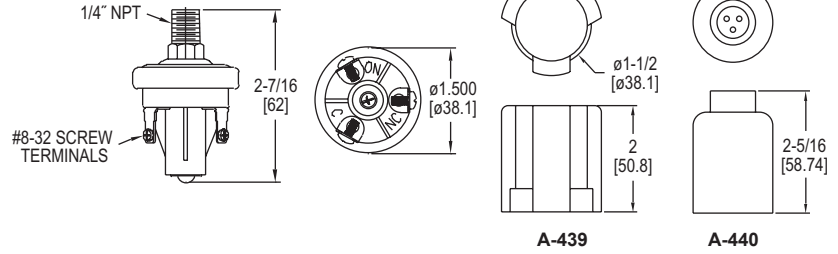
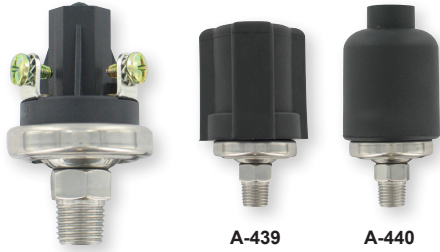
**Electrical Ratings:** 5 A @ 250 VAC, 3 A @ 28 VDC.  
**Electrical Connections:** 3-wire, 20 AWG insulated with PVC, 12" (30 cm) length.  
**Process Connection:** 1/8" male NPT.  
**Set Point:** Field adjustable.  
**Cycling:** Not to exceed 20 CPM.  
**Sensor Element:** Capsule.  
**Weight:** 3 oz (85 g).  
**Agency Approvals:** UR.

**Dwyer**

SERIES A6 | MERCOID® BY DWYER

**DURABLE PRESSURE SWITCH**

Designed for Extended Duty, Simple and Reliable



**SERIES A6** Durable Pressure Switches have been specifically designed to stand up to extended duty applications. These switches are constructed with a polyimide film diaphragm and are compatible with a variety of fluids. For ease of installation, the switches come with a 1/4" male NPT process connection and can be mounted in any orientation. The Series A6 pressure switches are compact and have great set-point integrity, and feature simple, easy set-point field adjustment.

**FEATURES/BENEFITS**

- High switch cycle means long life for extended duty applications
- Mounting in any position and feature simple makes a reliable switching for equipment and OEM applications

**APPLICATIONS**

- OEM
- Process equipment
- Process applications

**MODEL CHART**

Model	Set Point Range psi (bar)	
	NC	NO
A6-153221	0.5 to 1 (0.03 to 0.07)	1.1 to 3.1 (0.08 to 0.21)
A6-253221	1.1 to 3 (0.08 to 0.21)	2.27 to 6.05 (0.16 to 0.42)
A6-353221	3.1 to 7 (0.21 to 0.48)	4.22 to 10.75 (0.29 to 0.74)
A6-453221	8 to 13 (0.55 to 0.90)	12.3 to 17.5 (0.85 to 1.21)
A6-553221	14 to 24 (0.97 to 1.66)	18.6 to 31.8 (1.28 to 2.19)
A6-653221	25 to 50 (1.73 to 3.45)	33.1 to 61 (2.28 to 4.21)
A6-753221	51 to 90 (3.52 to 6.21)	65.6 to 112.3 (4.53 to 7.75)
A6-853221	91 to 150 (6.28 to 10.35)	114.7 to 198.3 (7.94 to 13.68)

**SPECIFICATIONS**

**Service:** Air, motor oils, transmission oils, jet fuels, and similar hydrocarbon media.

**Wetted Materials:** Base: 304 SS; Diaphragm: Polyamide film.

**Temperature Limits:** -40 to 248°F (-40 to 120°C).

**Pressure Limits:** Operating pressure: 150 psi (10.3 bar) for 0.5-24 psi set point ranges, 250 psi (17.2 bar) for 25 to 150 psi set-point ranges; Proof pressure: 500 psi (34.5 bar); Burst pressure: 750 psi (51.7 bar) for 0.5-24 psi set point ranges, 1250 psi (86.2 bar) for 25-150 psi set point ranges.

**Enclosure Rating:** General purpose or with cover: IP65 - weatherproof.

**Repeatability:** ±10% of set point.

**Set Point Tolerance:** ±15% of range.

**Switch Type:** 1 SPST NO, 1 SPST NC. NO and NC switch independent from each other.

**Electrical Ratings:** Resistive: 15 A @ 6 VDC, 8 A @ 12 VDC, 4 A @ 24 VDC; Inductive: 1 A @ 120 VAC, 0.5 A @ 240 VAC.

**Electrical Connections:** #8-32 screw terminals.

**Process Connection:** 1/4" NPT male. **Mounting Orientation:** Switch can be installed in any position.

**Set-point Adjustment:** Screw.

**Weight:** 0.13 lb (0.06 kg).

**ACCESSORIES**

Model	Description
A-439	Weatherproof IP65 cover
A-440	Weatherproof IP65 with fly-wire holes

USA: California Proposition 65

⚠ WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov



SERIES AP | MERCOID® BY DWYER

**DIAPHRAGM OPERATED PRESSURE SWITCHES**

Visible Setpoint Adjustment, Compact



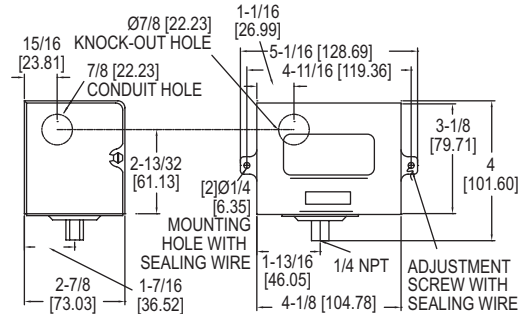
Reliable and convenient, **SERIES AP** pressure switch is a compact switch Reliable and convenient, series AP pressure switch is a compact for instrument air or other low pressure applications. Visible set point and external adjustment add convenience. Used on air, non-corrosive gas or liquid service compatible with wetted parts. Units are available in weather-proof and explosion-proof housing.

**FEATURES/BENEFITS**

- Explosion-proof and weatherproof housing provides device protection for outdoor use or harsh environment operation
- External switch set point adjustment reduces set-up time

**APPLICATIONS**

- Low pressure applications
- Instrument air

**SPECIFICATIONS**

**Wetted Materials:** Nylon reinforced Buna-N and steel. PTFE and 316 SS optional.

**Temperature Limits:** -30 to 150°F (-35 to 66°C).

**Pressure Limit:** See model chart.

**Enclosure Rating:** General purpose. Weatherproof and explosion-proof optional.

**Switch Type:** SPDT mercury switch or SPDT snap switch. Other switch types available.

**Electrical Rating:** Mercury switch: 4 A @ 120 VAC/DC, 2 A @ 240 VAC/DC; Snap switch: 15 A @ 120 VAC, 8 A @ 240 VAC, 0.5 A @ 120 VDC, 0.25 A @ 240 VDC.

**Electrical Connections:** Screw terminal.

**Conduit Connection:** 7/8" (22.23 mm) hole for 1/2" (12.7 mm) conduit hub.

**Process Connection:** 1/4" female NPT.

**Mounting Orientation:** Vertical for mercury switch models, any position for snap switch models.

**Set Point Adjustment:** External screw.

**Weight:** General purpose: 2 lb (0.9 kg).

**Deadband:** See model chart.

**Agency Approvals:** FM, UL. For FM consult factory.

**MODEL CHART**

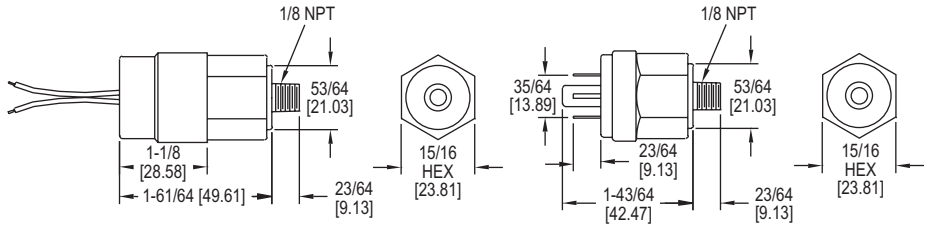
Model	Switch* Type SPDT	Ranges	Switch Deadband		Max. Press. psig(bar)
			Low	High	
AP-153-33	Mercury	10 in VAC to 50 in w.c. (2.5 to 12.4 kPa)	5 in w.c. (1.2 kPa)	6 in w.c. (1.49 kPa)	15 (1.03)
AP-153-37	Mercury	1 to 30 psig (.07 to 2.1 bar)	0.4 psig (0.03 bar)	0.75 psig (0.05 bar)	60 (4.14)
AP-153-39	Mercury	10 to 125 psig (.69 to 8.6 bar)	2 psig (0.14 bar)	6 psig (0.04 bar)	160 (11.0)
AP-7021-153-33	Snap	10 in VAC to 50 in w.c. (2.5 to 12.4 kPa)	8 in w.c. (2.0 kPa)	10 in w.c. (2.49 kPa)	15 (1.03)
AP-7021-153-37	Snap	1 to 30 psig (.07 to 2.1 bar)	0.75 psig (0.05 bar)	1.5 psig (0.10 bar)	60 (4.14)
AP-7021-153-39	Snap	10 to 125 psig (.69 to 8.6 bar)	3 psig (0.21 bar)	7 psig (0.48 bar)	160 (11.0)

\*Mercury switch units are not CE approved.



# SUBMINIATURE PRESSURE SWITCH

Field Adjustable



Designed for OEM applications, the **SERIES A2** is economical and is equipped with high proof pressure capabilities for demanding applications. The A2 is available with either spade terminals or flying leads (submersible). Switches with spade terminals can be easily adjusted in the field.

## FEATURES/BENEFITS

- High-proof pressure means capable to meet application demands
- Easy to adjust switches means shorter install and service times

## APPLICATIONS

- OEM

## SPECIFICATIONS

**Service:** Compatible liquids and gases.  
**Wetted Materials:** Polyamide film and brass.  
**Temperature Limits:** -40 to 250°F (-40 to 121°C).  
**Pressure Limits:** 500 psi (34 bar).  
**Enclosure Rating:** IP66 (flying lead models only).  
**Repeatability:** ±5% of highest set point.  
**Switch Type:** SPST, 100 VA, 42 V.  
**Electrical Connection:** 1/4" (6.3 mm) spade terminals or flying leads.  
**Process Connection:** 1/8" male NPT.  
**Weight:** 0.14 lb (0.06 kg).  
**Deadband:** 1 to 2 psi (0.07 to 0.14 bar).

## MODEL CHART

Model	Range psi (bar)	Electrical Connection	NO/NC	Model	Range psi (bar)	Electrical Connection	NO/NC
A2-5801	2 to 25 (.14 to 1.72)	Spade terminals	NO	A2-6811	20 to 100 (1.4 to 6.89)	Spade terminals	NC
A2-58032*	2 to 25 (.14 to 1.72)	Flying leads	NO	A2-68132*	20 to 100 (1.4 to 6.89)	Flying leads	NC
A2-5811	2 to 25 (.14 to 1.72)	Spade terminals	NC	A2-7801	50 to 150 (3.5 to 10.3)	Spade terminals	NO
A2-58132*	2 to 25 (.14 to 1.72)	Flying leads	NC	A2-78032*	50 to 150 (3.5 to 10.3)	Flying leads	NO
A2-6801	20 to 100 (1.4 to 6.89)	Spade terminals	NO	A2-7811	50 to 150 (3.5 to 10.3)	Spade terminals	NC
A2-68032*	20 to 100 (1.4 to 6.89)	Flying leads	NO	A2-78132*	50 to 150 (3.5 to 10.3)	Flying leads	NC

\*Flying lead models are not field adjustable. Set point must be given at time of order. **Note:** To order, add suffix -PRESET and indicate the set point desired (must be in the set point range) in psi units and whether the trip point is on an increase "I" or decrease "D".

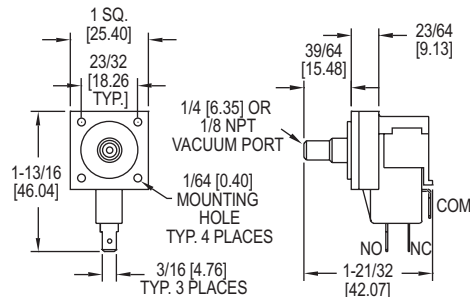
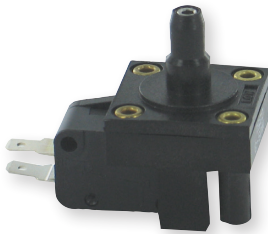
**Example:** A2-28032-PRESET 5 psi I.

USA: California Proposition 65  
 ⚠ WARNING: Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## SERIES MVS

# MINIATURE VACUUM SWITCH

SPDT N/O or N/C Switch, Adjustable Set Point, Ideal for OEM's



Compact, lightweight, and adjustable, the **SERIES MVS** Miniature Vacuum Switch is specially designed for OEM applications. This low cost switch has a minimum life expectancy of 10 million cycles and has an extremely fast response time. Typical applications for the MVS are HVAC, home appliance, dairy systems, medical, office equipment, and pump control.

## FEATURES/BENEFITS

- High switch cycle means long life for extended duty applications

## APPLICATIONS

- OEM
- HVAC applications
- Medical equipment
- Dairy equipment
- Pump control

## MODEL CHART

Model	Set Point in H <sub>2</sub> O (mbar)	
	Minimum	Maximum
MVS-1	3 (8)	8 (20)
MVS-2	9 (21)	80 (199)
MVS-3	81 (200)	330 (822)
MVS-4*	3 (8)	8 (20)
MVS-5*	9 (21)	80 (199)
MVS-6*	81 (200)	330 (822)

\*Models have 1/8" male NPT process connections

## SPECIFICATIONS

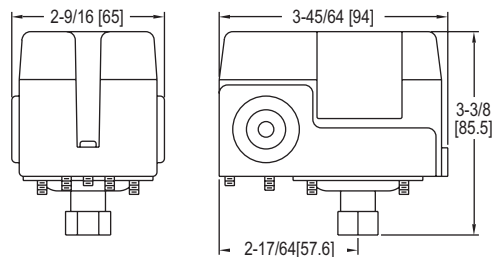
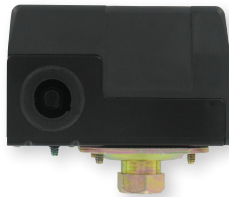
**Service:** Air or compatible fluids.  
**Wetted Materials:** Enclosure: Polycarbonate; Diaphragm: Polyurethane.  
**Temperature Limits:** 40 to 150°F (4 to 66°C).  
**Pressure Limits:** Up to maximum range.  
**Repeatability:** ±20%.  
**Switch Type:** SPDT normally open or normally closed.  
**Electrical Rating:** Range 3 to 8 in w.c.: 3 A, 125/250 VAC; Range 9 to 80 in w.c.: 10 A, 125/250 VAC; Range 81 to 330 in w.c.: 15 A, 125/250 VAC.  
**Contacts:** Silver with brass terminals.  
**Electrical Connections:** Terminals 0.187" x 0.20" spade for use with quick disconnects.  
**Process Connections:** Models MVS 1 to MVS 3: Smooth port 0.25" diameter; Models MVS 4 to MVS 6: 1/8" male NPT.  
**Mounting:** Use #2 screws through eyelets.  
**Weight:** Less than 0.671 oz (19 g.)  
**Agency Approvals:** cULus.

**Dwyer**

SERIES CXA | MERCOID® BY DWYER

# WATER PUMP PRESSURE SWITCH

Simple, Reliable, Adjustable Set Point and Deadband



The **SERIES CXA** Water Pump Pressure Switches have been proven reliable for controlling automatic water systems. These switches are very popular for use on water well pumps and pumping systems. The set point and dead-band are both easily adjustable via screws inside the cover. For ease of installation, the switches come with a 1/4" female NPT process connection and can be mounted in any orientation. The series CXA's simple design makes it a great switch for an installer at any skill level.

**FEATURES/BENEFITS**

- The set point and deadband are both easily adjustable reducing time to install and operation
- Mounting in any position and feature simple makes a reliable switch that can be installed by any skill level

**APPLICATIONS**

- Electric water pumps
- Water system applications
- Well pumps
- Pumping systems

**SPECIFICATIONS**

**Service:** Compatible liquids and gases.  
**Wetted Materials:** Silicone, steel, and SS.

**Temperature Limits:** 140°F (60°C).

**Pressure Limits:** See model chart.

**Enclosure Rating:** General purpose.

**Repeatability:** ±5 psig (±0.3 bar).

**Switch Type:** DPST snap action (see model chart).

**Electrical Ratings:** 20 A @ 120 VAC, 12 A @ 240 VAC, 9.6 A @ 240 VAC (3 phase), 8.6 A @ 32 VDC, 3.1 A @ 120 VDC, 1.6 A @ 240 VDC.

**Electrical Connections:** Screw terminal.

**Conduit Connection:** 7/8" hole for 1/2" conduit hub (2 places).

**Process Connection:** 1/4" female NPT.

**Mounting Orientation:** Switch can be installed in any position.

**Set Point Adjustment:** Internal screws.

**Weight:** 0.75 lb (0.34 kg).

**Deadband:** See model chart.

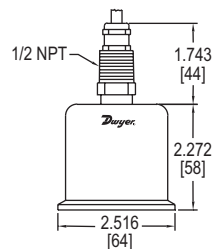
**MODEL CHART**

Model	Switch Type	Range psig (bar)	Approx. Adjustable Deadband psig (bar)	Max. Pressure psig (bar)
CXA-S1	NC	15 to 80 (1.0 to 5.5)	15 to 30 (1.0 to 2.1)	129 (8.9)
CXA-S2	NC	30 to 100 (2.1 to 6.9)	20 to 35 (1.4 to 2.4)	179 (12.3)
CXA-S3	NC	35 to 150 (2.4 to 10.3)	30 to 40 (2.1 to 2.8)	204 (14.1)
CXA-R1	NO	15 to 80 (1.0 to 5.5)	15 to 30 (1.0 to 2.1)	129 (8.9)
CXA-R2	NO	30 to 100 (2.1 to 6.9)	20 to 35 (1.4 to 2.4)	179 (12.3)
CXA-R3	NO	35 to 150 (2.4 to 10.3)	30 to 40 (2.1 to 2.8)	204 (14.1)

**SERIES 681**

# SANITARY PRESSURE TRANSMITTER

No Liquid Fill Diaphragm, Sanitary Clamp Fitting



The **SERIES 681** Sanitary Pressure Transmitter is designed to meet 3A standards for applications in food, dairy, beverage and pharmaceutical processing, liquid level control, and sanitary pipelines. The unit is fully sealed to withstand high pressure wash-down in Clean-in-Place (CIP) and Sterilize-in-Place (SIP) installations. The Series 681 is designed with a unique, no liquid fill diaphragm and a sanitary clamp pressure fitting for easy installation with negligible clamping effect. A conduit fitting, shielded cable with vent tube and sealed screws for zero and span adjustment combine to make the Series 681 completely watertight.

**FEATURES/BENEFITS**

- Fully sealed to withstand Clean-in-Place and Sterilize-in-Place installations supports regulatory conditions for sanitary processes
- Sanitary clamp fitting makes for easy installation

**APPLICATIONS**

- Sanitary process applications
- Food and beverage processing
- Water processing
- Dairy processing
- Pharmaceutical processing

**SPECIFICATIONS**

**Service:** Compatible liquids and gases.  
**Wetted Parts:** 316L SS.

**Accuracy:** ±2.0% FS (includes non-linearity, hysteresis and non-repeatability).

**Temperature Limits:** -40 to 260°F (-40 to 125°C) 10 to 90% RH, non-condensing.

**Pressure Limits:** See table.

**Compensated Temperature Range:** 20 to 180°F (-7 to 80°C).

**Thermal Effect:** Zero and span shift: ±2.0% FS/100°F.

**Power Requirements:** 9 to 30 VDC.

**Output Signal:** 4 to 20 mA, 2-wire.

**Zero and Span Adjustment:** ±0.5 mA, non-interactive.

**Response Time:** ≤ 10 ms.

**Loop Resistance:** 800 Ω.

**Electrical Connections:** 1/2" conduit fitting and strain relief with 15 ft (4.5 m) cable.

**Process Connection:** 2" or 1-1/2" sanitary clamp fitting male NPT.

**Clamping Effect:** Zero and span shift: ±0.15% FS for ranges up to 30 psi; ±0.25% FS for ranges >30 psi.

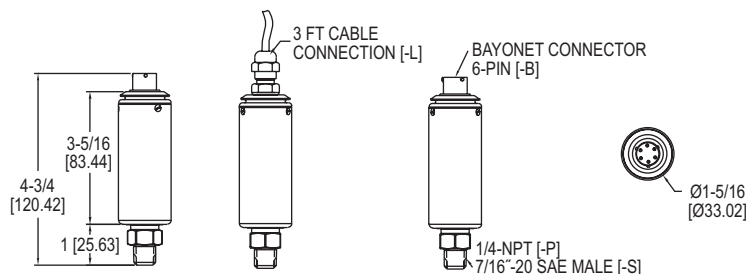
**Weight:** 8 oz (227 g).

**MODEL CHART**

Model	Range	Overpressure	Sanitary Clamp Connection
681-02	0 to 1 psi	50 psi	2"
681-12	0 to 2 psi	100 psi	2"
681-42	0 to 15 psi	150 psi	2"
681-52	0 to 30 psi	150 psi	2"
681-62	0 to 60 psi	180 psi	2"

# HIGH ACCURACY PRESSURE TRANSMITTER

±0.05% FS, <±0.25% FS Total Error Band



The **SERIES 644** High Accuracy Pressure Transmitter is a robust transmitter designed for high accuracy pressure applications. Boasting an accuracy of ±0.05% FS RSS (<±0.25% TEB), the 644 is intended for precise measurements in the critical applications.

## FEATURES/BENEFITS

- High accuracy provides exceptional measurement for insuring tight-control and minimizing costly out of specification conditions
- NIST calibrated to provide traceability for regulated processes where production and documentation is monitored
- Low thermal error over a wide range of temperatures helps to insure accurate pressure measurement and process operation

## APPLICATIONS

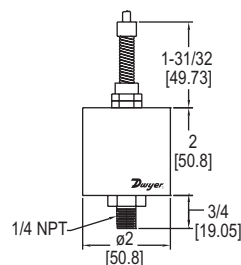
- Calibration equipment
- Hydraulic/pneumatic controls
- Test benches
- Transportation
- Pulp and paper mills
- Power generation

## SPECIFICATIONS

**Service:** Compatible gases and liquids.  
**Wetted Materials:** 17- 4 PH SS.  
**Accuracy:** ±0.05% FS RSS.  
**Total Error Band (Includes all thermal effects):** <±0.25% FS over entire temperature compensated range.  
**Stability:** < 0.15% FS/year.  
**Temperature Limits:** -40 to 185°F (-40 to 85°C).  
**Pressure Limits:** Proof pressure and burst pressure: See pressure limits table below.  
**Compensated Temperature Range:** -4 to 140°F (-20 to 60°C).  
**Power Requirements:** 9 to 30 VDC for current output; 15 to 30 VDC for voltage output.  
**Minimum Supply Voltage:** Min. supply voltage (VDC) for current output = 9 + 0.02 x loop resistance Ω (loop resistance Ω = line resistance + receiver resistance).  
**Output Signal:** 0 to 10 VDC (4-wire); 4 to 20 mA (2-wire).  
**Response Time:** < 10 ms (voltage output), < 80 ms (current output).  
**Max Current Consumption:** 4 to 20 mA: 22 mA; 0 to 10 VDC: 20 mA.  
**Electrical Connections:** 3 ft cable or 6-pin male bayonet connector.  
**Process Connection:** 1/4" male NPT or 7/16"-20 male SAE with O-ring.  
**Enclosure Rating:** NEMA 4X (IP65).  
**Mounting Orientation:** Vertical.  
**Weight:** 9 oz (254 g).  
**Agency Approvals:** CE.

MODEL CHART						
Example	644	-L	-V	-00	-P	644-L-V-00-P
<b>Series</b>	644					Industrial pressure transmitter
<b>Electrical Connection</b>		L B				3 ft cable Male 6-pin bayonet
<b>Signal Output</b>			V C			0 to 10 volt 4 to 20 mA
<b>Range</b>				00 01 02 03 04 05 06 07 08 09 10 11		0 to -14.7 psig 0 to 15 psig 0 to 25 psig 0 to 50 psig 0 to 100 psig 0 to 150 psig 0 to 200 psig 0 to 300 psig 0 to 500 psig 0 to 750 psig 0 to 1000 psig 0 to 15 psia
<b>Process Connection</b>					P S	1/4" male NPT 7/16"-20 SAE male

ACCESSORIES	
Model	Description
A-495	6-pin female bayonet mate connector

**Dwyer****SERIES 682****INDUSTRIAL PRESSURE TRANSMITTER****±0.13% FS Accuracy, External Adjustments, 4 to 20 mA Output**

The **SERIES 682** Industrial Pressure Transmitter is designed to withstand environmental effects such as shock, vibration, temperature, and EMI/RFI. The electronics and capacitive sensor are packaged in a welded stainless steel housing and meets NEMA 4 (IP65) protection ratings.

**FEATURES/BENEFITS**

- Weather-proof welded housing provides device protection for outdoor use or harsh environment operation
- Not affected by environmental effects such as temperature, shock, vibration, and EMI/RFI provides reliable switching for equipment
- External span and zero adjustments reduce installation and service time

**APPLICATIONS**

- Off-road equipment
- Compressor control
- Industrial refrigeration
- Hydraulic systems
- Industrial engines

MODEL CHART					
Model*	Range	Overpressure	Model*	Range	Overpressure
682-1	0 to 50 psi	150 psi	682-3	0 to 250 psi	500 psi
682-2	0 to 100 psi	300 psi	682-4	0 to 500 psi	1000 psi

\*Units calibrated in bar also available. Consult factory.

**SPECIFICATIONS**

**Service:** Compatible liquids and gases.

**Wetted Parts:** 17-4 PH SS.

**Accuracy:** ±0.13% FS (includes non-linearity, hysteresis and non-repeatability).

**Temperature Limits:** -40 to 260°F (-40 to 125°C) 10 to 90% RH, non-condensing.

**Pressure Limit:** See table.

**Compensated Temperature Range:** -4 to 176°F (-20 to 80°C).

**Thermal Effect: Zero shift:** 1.0% FS/100°F span shift: ±1.5% FS/100°F.

**Power Requirements:** 9 to 30 VDC.

**Output Signal:** 4 to 20 mA, 2-wire.

**Zero and Span Adjustment:** ±0.5 mA, non-interactive.

**Response Time:** 5 ms.

**Loop Resistance:** 800 Ω.

**Electrical Connections:** 2 ft (51 cm) multiconductor cable.

**Process Connection:** 1/4" male NPT.

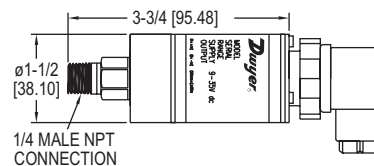
**Weight:** 8 oz (227 g).

**Shock:** 200 g operating.

**Vibration:** 20 g 50-2000 Hz.

**OPTIONS**

Use order code:	Description
NISTCAL-PT1	NIST traceable calibration certificate

**SERIES 672****LOW PRESSURE TRANSDUCER****Single Pressure Connection, Ranges down to 10 in w.c.**

The **SERIES 672** Low Pressure Transducer is a perfect solution to any The Series 672 Low Pressure Transducer is a perfect solution to any application where a very accurate low pressure transducer is necessary. Using variable capacitance technology, the Series 672 is designed to measure pressures as low as 10 in w.c. up to 400 in w.c., very low ranges for a single connection pressure transducer. The 672 also features a 0.25% FS accuracy. Use the Series 672 in liquid level, flood warning, waste water, clean room, and open channel flow applications.

**FEATURES/BENEFITS**

- Low range high accuracy provides precise control for process applications

**APPLICATIONS**

- Liquid level
- Flood warning
- Waste water
- Clean room
- Open flow applications

MODEL CHART		
Model	Operating Range	Output
672-1-A	0 to 10 in w.c.	4-20 mA, 2-wire
672-2-A	0 to 15 in w.c.	4-20 mA, 2-wire
672-3-A	0 to 25 in w.c.	4-20 mA, 2-wire
672-4-A	0 to 50 in w.c.	4-20 mA, 2-wire
672-5-A	0 to 100 in w.c.	4-20 mA, 2-wire
672-6-A	0 to 150 in w.c.	4-20 mA, 2-wire
672-7-A	0 to 200 in w.c.	4-20 mA, 2-wire
672-8-A	0 to 300 in w.c.	4-20 mA, 2-wire
672-9-A	0 to 400 in w.c.	4-20 mA, 2-wire

**Note:** For voltage output models change -A to -V.

**SPECIFICATIONS**

**Service:** Compatible liquids and gases.

**Wetted Materials:** 318 duplex SS, ceramic, fluoroelastomer (FKM).

**Housing Material:** 318 stainless steel.

**Accuracy:** ±0.25% FS (RSS). Includes non-linearity, hysteresis, and non-repeatability.

**Stability:** 0.25% FS/1 year.

**Temperature Limits:** -40 to 212°F (-40 to 100°C).

**Compensated Temperature Limits:** -5 to 140°F (-20 to 60°C).

**Pressure Limits:** 29 psi (2 bar) for up to 85 in w.c. (0.2 bar) ranges; 58 psi (4 bar) for 85 to 140 in w.c. (0.2 to 0.35 bar); 73 psi (5 bar) for 141 to 400 in w.c. (0.35 to 1 bar).

**Thermal Effects:** Zero: 1.0%FS/100°F (2.0%FS/100°C); Span: 1.0%FS/100°F (2.0%FS/100°C).

**Power Requirements:** 4 to 20 mA: 9 to 35 VDC; 0 to 5 VDC: 7.5 to 35 VDC.

**Output Signal:** 4 to 20 mA (2-wire) or 0 to 5 VDC (3-wire).

**Zero & Span Adjustment:** ±10% FS each (by potentiometer).

**Response Time:** 5 ms.

**Max Loop Resistance:** 1.325 kΩ.

**Electrical Connections:** Large DIN 43650 connector with mating plug.

**Process Connection:** 1/4"-18 NPT male.

**Enclosure Rating:** NEMA 4X (IP66).

**Weight:** 11.6 oz (330 g).

**OPTIONS**

Use order code:	Description
NISTCAL-PT1	NIST traceable calibration certificate



# PRESSURE TRANSMITTER

±0.25% FS Accuracy, 4-20 mA Signal, Ranges to 1000 psi



Cable Anchor



Conduit Version

The low cost **SERIES 673** Pressure Transmitter is a fixed range transmitter designed for harsh environments and suitable for high shock and vibration applications. Constructed of stainless steel, the Series 673 provides a 4 to 20 mA output signal with 0.25% accuracy. Use the Series 673 in industrial OEM equipment, hydraulic systems, HVAC equipment, industrial engines and compressor control.

## FEATURES/BENEFITS

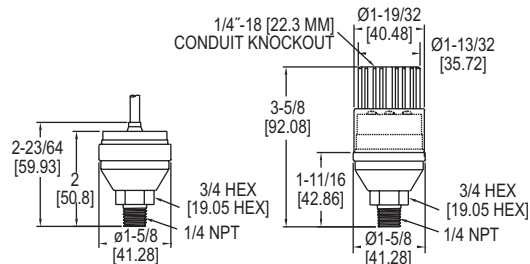
- High-shock and vibration resistant insures stability in controlling pressure for process applications

## APPLICATIONS

- OEM
- Industrial engines
- Hydraulic systems
- Compressors
- HVAC equipment

MODEL CHART			
Model	Range psi	Model	Range psi
673-1	0 to 1	673-1C	0 to 1
673-2	0 to 2	673-2C	0 to 2
673-3	0 to 5	673-3C	0 to 5
673-4	0 to 10	673-4C	0 to 10
673-5	0 to 25	673-5C	0 to 25
673-6	0 to 50	673-6C	0 to 50
673-7	0 to 100	673-7C	0 to 100
673-8	0 to 200	673-8C	0 to 200
673-9	0 to 500	673-9C	0 to 500
673-10	0 to 1000	673-10C	0 to 1000
673-14	-14.7 to 100	673-14C	-14.7 to 100

\*The model numbers followed by a "C" represent the conduit version, which is hand tightened to ensure proper electrical seal.



Cable Anchor

Conduit Version

## SPECIFICATIONS

**Service:** Liquid, gas, or vapor.  
**Wetted Materials:** 17-4 PH SS.  
**Accuracy:** ±0.25% FS (RSS), (includes non-linearity, hysteresis and non-repeatability).  
**Temperature Limits:** -40 to 185°F (-40 to 85°C).  
**Compensated Temperature Limits:** -40 to 176°F (-40 to 80°C).  
**Pressure Limits:** 2 x max range.  
**Thermal Errors:** Zero: ±3.6% FS/100°F (100°C); Span: ±2.7% FS/100°F (100°C).  
**Power Requirements:** 9 to 30 VDC.  
**Output:** 4 to 20 mA, 2-wire.  
**Zero & Span Adjustment:** Fixed.  
**Response Time:** 5 ms.  
**Loop Resistance:** 0 to 800 Ω.  
**Stability:** 0.5% FS/year.  
**Shock:** 200 g.  
**Vibration:** 20 g.  
**Electrical Connections:** 2 ft (61 cm) multiconductor cable.  
**Conduit Connection:** 1/4"-18 (22.3 mm) knockout.  
**Enclosure:** Stainless steel and Valox.  
**Weight:** 2.3 oz (65 g).

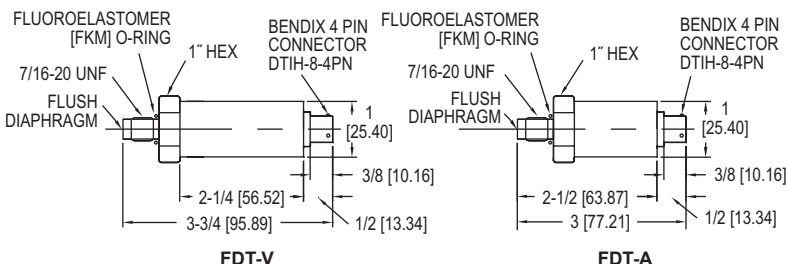
## OPTIONS

Use order code:	Description
NISTCAL-PT1	NIST traceable calibration certificate

## SERIES FDT

# FLUSH DIAPHRAGM TRANSMITTER

Non-Liquid Filled, ±0.5% FS Accuracy, SS Wetted Parts



FDT-V

FDT-A

The **SERIES FDT** Flush Diaphragm Transmitter is designed for highly cyclical conditions. Flush sensor feature prevents any potential inaccuracies due to build-up or blockage which is a typical problem found in most non-flush transmitter sensors.

## FEATURES/BENEFITS

- Performs well in high cyclical environments with the presence of water-hammering or spiking for long service life

## APPLICATIONS

- OEM
- Hydraulic systems
- Process systems

MODEL CHART				
Example	FDT	-A	-01	-NPT
Series	FDT			Flush diaphragm transmitter
Output		A	V	4 to 20 mA 0 to 5 VDC
Range		01	02	03
		04	06	11
		12	15	
				100 psi 150 psi 200 psi 300 psi 500 psi 1000 psi 2000 psi 5000 psi
Options				-NPT 1/4" male NPT -C08 0.25% FS accuracy

Note: Contact factory for additional range availability.

## SPECIFICATIONS

**Service:** Compatible liquids and gases, adhesives, slurries, materials that can harden, or where a pressure cavity is not desired.  
**Wetted Materials:** 316 & 15-5 SST.  
**Accuracy:** ±0.5% FS (includes non-linearity, hysteresis, and repeatability).  
**Stability:** ±0.25% FS per year.  
**Temperature Limits:** -40 to 200°F (-40 to 93°C).  
**Compensated Temperature Limits:** 0 to 170°F (-18 to 77°C).  
**Pressure Limit:** 150% FS; Burst: 200% FS.  
**Thermal Effect:** ±1.5% FSO over compensated range.  
**Power Requirements:** 8 to 38 VDC.  
**Output Signal:** FDT-A: 4 to 20 mA DC; FDT-V: 0 to 5 VDC.  
**Response Time:** <1 ms.  
**Loop Resistance:** FDT-A: 0 to 1.5 Ω; FDT-V: 100 Ω.  
**Electrical Connections:** 4-pin.  
**Process Connection:** 7/16-20 UNF male flush diaphragm. Optional 1/4" male NPT.  
**Enclosure Rating:** NEMA 4X (IP66).  
**Mounting Orientation:** Mount in any position.  
**Weight:** 2 oz (57 g).  
**Agency Approvals:** CE.

## ACCESSORIES

Model	Description
A-168	Mating connector for 4 pin M-12

## OPTIONS

Use order code:	Description
NISTCAL-PT1	NIST traceable calibration certificate

# INDUSTRIAL PRESSURE TRANSMITTER

Complete Offering of Ranges, Connections and Outputs



626/628 Pressure Transmitters  
with General Purpose Housing (-GH)



626/628 Pressure Transmitters  
with Conduit Box Housing (-CB) and LCD display



\*Please see our website for dimensional drawings.

The **SERIES 626** Pressure Transmitters possess a highly precise 0.25% full scale accuracy piezo-resistive sensor contained in a compact, rugged, NEMA 4X (IP66) stainless steel general purpose housing or cast aluminum conduit housing. The **SERIES 628** Pressure Transmitters are ideal for OEMs with 1% full scale accuracy sensors. The corrosion resistant 316L stainless steel wetted parts allow the Series 626 and 628 transmitters to measure the pressure in a multitude of processes from hydraulic oils to chemicals. The Series 626 and 628 are available in absolute and pressure ranges with a variety of optional outputs, process connections and electrical terminations to allow you to select the right transmitter for your application.

## FEATURES/BENEFITS

- NEMA 4X rated enclosure provides protection in harsh environments permitting outdoor monitoring or in areas where dust and particulate matter exists
- Robust 316 SS oil filled sensor provides shock and vibration resistance insuring stability in controlling pressure for process applications
- A wide range of models and connections that can meet pressure measurement specifications from low to very high

## APPLICATIONS

- Compressors
- Pumping systems
- Irrigation equipment
- Hydraulic
- Industrial process monitoring

## SPECIFICATIONS

**Service:** Compatible gases and liquids.

**Wetted Materials:** Type 316L SS.

**Accuracy:** 626: 0.25% FS; 626: 0.20% RSS; 628: 1.0% FS; 628: 0.5% RSS; 626 Absolute Ranges: 0.5% FS; 626 absolute ranges: 0.30% RSS. (Includes linearity, hysteresis, and repeatability.)

**Temperature Limit:** 0 to 178°F (-18 to 80°C).

**Compensated Temperature Range:** 0 to 175°F (-18 to 79°C).

**Thermal Effect:** ±0.02% FS/°F (includes zero and span).

**Pressure Limits:** See table.

**Power Requirements:** 10 to 30 VDC (for 4 to 20 mA, 0 to 5, 1 to 5, 1 to 6 VDC outputs); 13 to 30 VDC (for 0 to 10, 2 to 10 VDC outputs); 5 VDC ±0.5 VDC (for 0.5 to 4.5 VDC ratio-metric output), 10 to 35 VDC (for 4 to 20 mA with -CB option); 13 to 35 VDC or isolated 16 to 33 VAC (for selectable output with -CB option).

**Output Signal:** 4 to 20 mA, 0 to 5 VDC, 1 to 5 VDC, 0 to 10 VDC, or 0.5 to 4.5 VDC, or selectable 0 to 5, 1 to 5, 0 to 10, 2 to 10 VDC for -CB option.

**Response Time:** 300 ms.

**Loop Resistance:** 0 to 1000 Ohms max.  $R_{max} = 50 (V_{ps} - 10)$  Ohms (4 to 20 mA output), 0 to 1250 Ohms max.  $R_{max} = 50 (V_{ps} - 10)$  Ohms (4 to 20 mA output with -CB option), 5K Ohms (0 to 5, 1 to 5, 1 to 6, 0 to 10, 2 to 10, 0.5 to 4.5 VDC output).

**Stability:** 1.0% FS/year (Typ.).

**Current Consumption:** 38 mA maximum (for 4 to 20 mA output); 10 mA maximum (for 0 to 5, 1 to 5, 1 to 6, 0 to 10, 2 to 10, 0.5 to 4.5 VDC output); 140 mA maximum (for all 626/628/629-CH with optional LED).

**Electrical Connections:** Conduit Housing (-CH): terminal block, 1/2" female NPT conduit; General Purpose Housing (-GH): cable DIN EN 175801-803-C.

**Process Connection:** 1/4" male or female NPT and BSPT.

**Enclosure Rating:** NEMA 4X (IP66).

**Mounting Orientation:** Mount in any position.

**Weight:** 10 oz (283 g).

**Agency Approvals:** CE, NSF, UL.

# INDUSTRIAL PRESSURE TRANSMITTER

Complete Offering of Ranges, Connections and Outputs

MODEL CHART									
Example	626	-00	-CH	-P1	-E1	-S1	-AT	626-00-CH-P1-E1-S1-AT	
Accuracy	626							0.25% full scale accuracy	
	628							1.0% full scale accuracy	
Range		00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 22 15 16 18 19 26 67 71 75 81						0 to 15 psia <sup>⑤</sup> 0 to 30 psia <sup>⑤</sup> 0 to 50 psia <sup>⑤</sup> 0 to 100 psia <sup>⑤</sup> 0 to 200 psia <sup>⑤</sup> 0 to 300 psia <sup>⑤</sup> 0 to 5 psi 0 to 15 psi 0 to 30 psi 0 to 50 psi 0 to 100 psi 0 to 150 psi 0 to 200 psi <sup>⑥</sup> 0 to 300 psi <sup>⑥</sup> 0 to 500 psi <sup>⑥</sup> 0 to 600 psi <sup>⑥</sup> 0 to 1000 psi 0 to 1500 psi <sup>⑥</sup> 0 to 3000 psi 0 to 5000 psi 0 to 8000 psi 0 to 0.5 bar 0 to 2.5 bar 0 to 10 bar 0 to 40 bar	
Housing			CB GH					Conduit box housing General purpose housing	
Process Connection				P1 P2 P3 P5 P9				1/4" male NPT 1/4" female NPT 1/4" male BSPT 1/4" female SAE with refrigerant valve depressor <sup>①</sup> 1/2" male NPT <sup>①</sup>	
Electrical Connection					E1 E3 E4 E5 E6 E8 E9			Cable gland with 3' of prewired cable Cable gland with 9' of prewired cable DIN EN 175801-803-C <sup>①</sup> 1/2" female NPT conduit <sup>②</sup> M-12 4 pin connector-UL <sup>④</sup> Packard connector M-12 4 pin connector non-UL	
Signal Output						S1 S2 S4 S5 S7 S8		4 to 20 mA 1 to 5 VDC 0 to 5 VDC 0 to 10 VDC 0.5 to 4.5 VDC <sup>①③</sup> Selectable 0 to 5, 1 to 5, 0 to 10, 2 to 10 VDC <sup>②</sup>	
Options							AT LCD NIST NW	Aluminum tag LCD indication <sup>②</sup> NIST traceable certificate NSF/ANSI 61/372 certified	

①Available with -GH housing only, NEMA 4 (IP65)    ②Available with -CB housing only    ③Power requirement: 5 VDC ±10%  
 ④Available with -GH housing only    ⑤Absolute ranges for 626 are 0.5% FS accuracy and for 628 are 2% FS accuracy  
 ⑥UL listed pump controllers, fire-component - See online certificate for information and limitations

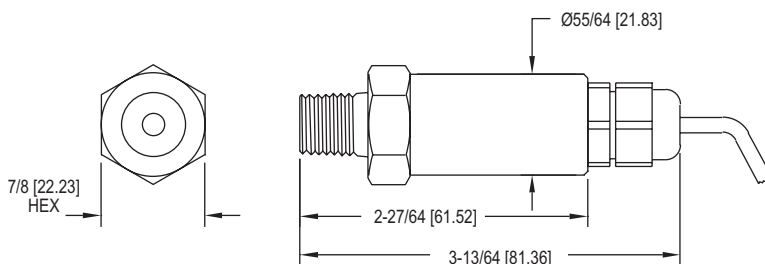
**Note:** Bar ranges are only available with -GH housing. 0-3000 psi range is only available with -GH housing.

PRESSURE LIMITS							
Range Number	Pressure Range	Maximum Pressure (psig)	Over Pressure (psig)	Range Number	Pressure Range (psig)	Maximum Pressure (psig)	Over Pressure (psig)
00	0 to 15 psia	30	45	12	0 to 200	400	1000
30	15 to 0 psia	30	45	13	0 to 300	600	1500
06	0 to 5 psig	10	50	14	0 to 500	1000	2500
07	0 to 15 psig	30	150	15	0 to 1000	2000	5000
08	0 to 30 psig	60	300	16	0 to 1500	3000	5000
09	0 to 50 psig	100	300	18	0 to 3000	6000	7500
10	0 to 100 psig	200	500	19	0 to 5000	7500	10000
11	0 to 150 psig	300	750	26	0 to 8000	10000	12000

ACCESSORIES	
Model	Description
A-164	16.4' (5 m) cable with M-12 4-pin female connector
A-960	3' packard cable
A-961	9' packard cable
A-962	20' packard cable

## OEM PRESSURE TRANSMITTER

±1.0% FS Accuracy, NEMA 4X (IP66)



The **SERIES 628CR** Pressure Transmitter, contains a low cost ceramic sensor enclosed in a compact, rugged, NEMA 4X (IP65) stainless steel body. Ideal for the budget conscious OEMs that require high levels of performance, reliability and stability at an unbeatable price. The 628CR enclosure is small and lightweight for optimum compatibility with OEM systems. The design allows for a variety of pressure ranges from 30 to 500 psi and optional electrical connections allowing you to select the right transmitter for your application.

## FEATURES/BENEFITS

- NEMA 4X rated enclosure provides protection in harsh environments permitting outdoor monitoring or in applications where dust and particulate matter exists
- A wide range of models that can meet exacting pressure measurement application specifications
- High reliability and response provides excellent control in demanding OEM applications

## APPLICATIONS

- Pump monitoring
- Compressors
- Irrigation equipment
- HVAC
- Pneumatic systems

## SPECIFICATIONS

**Service:** Compatible gases and liquids.  
**Wetted Materials:** Ceramic, fluoroelastomer, 316L SS.  
**Accuracy:** ±1.0% FS (includes linearity, hysteresis and repeatability).  
**Stability:** ±0.25% FS/year.  
**Temperature Limits:** 0 to 185°F (-18 to 85°C).  
**Compensated Temperature Range:** 0 to 175°F (-18 to 79°C).  
**Pressure Limit:** Max pressure: 2x range; Burst pressure: 3x range.  
**Thermal Effect:** ±0.04% FS/°F.  
**Power Requirements:** 9 to 30 VDC.  
**Output Signal:** 4 to 20 mA.  
**Response Time:** 3 ms typ.  
**Loop Resistance:** 0 to 1200 Ω max.  
**Current Consumption:** 40 mA max.  
**Electrical Connections:** Cable or DIN connector.  
**Process Connection:** 1/4" male NPT or 1/4" male BSPT.  
**Enclosure Rating:** NEMA 4X (IP66).  
**Mounting Orientation:** Mount in any position.  
**Weight:** 4.0 oz.  
**Agency Approvals:** CE.

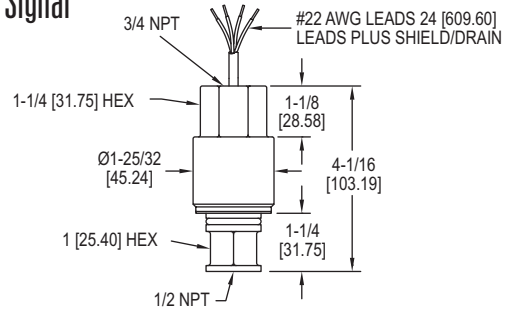
## MODEL CHART

Example	628CR	-08	-GH	-P1	-E1	-S1	628CR-08-GH-P1-E1-S1
Series	628CR						Pressure transmitter
Range		08 09 10 12 13 14 71 90 91 75 92 93 81					0 to 30 psi 0 to 50 psi 0 to 100 psi 0 to 200 psi 0 to 300 psi 0 to 500 psi 0 to 2.5 bar 0 to 4 bar 0 to 6 bar 0 to 10 bar 0 to 16 bar 0 to 25 bar 0 to 40 bar
Housing			GH				General purpose housing
Process Connection				P1 P3			1/4" male NPT 1/4" male BSPT
Electrical Connection					E1 E3 E4		Cable gland with 3' of prewired cable Cable gland with 9' of prewired cable DIN EN 175801-803-C
Signal Output						S1	4 to 20 mA
Options						AT NIST	Aluminum tag NIST traceable certificate



# FIXED RANGE PRESSURE TRANSMITTER

Stainless Steel, Explosion-Proof, Accuracy  $\pm 0.30\%$ , 4 to 20 mA or 1 to 5 VDC Signal



The **SERIES 636** Pressure Transmitter is a low cost, fixed range, stainless steel transmitter with  $\pm 0.30\%$  accuracy. It is designed to continuously measure pressure for years in even the toughest environmental and media conditions. Transmitters are explosion-proof, (FM approved) and meet NACE standards for off-shore applications.

## FEATURES/BENEFITS

- Long service life and lower cost to maintain reduces total cost of ownership
- Explosion-proof housing for use in applications where protection of process and personnel is needed

## APPLICATIONS

- Off-shore
- Process applications

MODEL CHART			
4 to 20 mA OUT	1 to 5 VDC OUT	Operating Range, PSI	Operating Range, Bar
636-0	636-0-LP	0 to 15	0 to 1
636-1	636-1-LP	0 to 30	0 to 2
636-2	636-2-LP	0 to 100	0 to 7
636-3	636-3-LP	0 to 300	0 to 20

OPTIONS	
Use order code:	Description
NISTCAL-PT1	NIST traceable calibration certificate

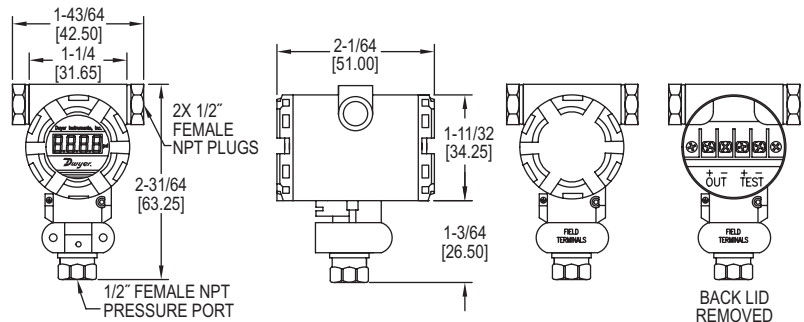
## SPECIFICATIONS

**Service:** Liquid, gas or vapor.  
**Wetted Materials:** 316 L SS.  
**Fill Fluid:** DC 200 silicone (standard).  
**Accuracy:**  $\pm 0.30\%$  of calibrated span.  
**Stability:**  $\pm 0.5\%$  of upper range limit for six months.  
**Temperature Limits:** Electronics (ambient): -40 to 140°F (-40 to 60°C); Process interface: -40 to 212°F (-40 to 100°C).  
**Pressure Limits:** 300% upper range limit.  
**Compensated Temperature Range:** -20 to 180°F (-29 to 82°C).  
**Thermal Effect:** (includes zero and span). Between -20 and 180°F (-29 and 82°C).  $\pm 2.0\%$  per 50°F (28°C).  
**Power Requirements:** 12 to 30 VDC (636), 8 to 14 VDC (636LP), reverse polarity protection.  
**Output Signal:** 4 to 20 mA DC, limited to 30 mA DC (636), 1 to 5 VDC (636LP).  
**Zero & Span Adjustments:** Null: 4.0 mA  $\pm 2\%$  span (636), 1 VDC  $\pm 1\%$  span (636LP); Span: 16.0 mA  $\pm 1\%$  span (636), 4 VDC  $\pm 1\%$  span (636LP).  
**Loop Resistance:** 900  $\Omega$  max @ 30 V.  
**Electrical Connection:** 3/4" female NPT 24" (61 cm), 22 AWG.  
**Process Connection:** 1/2" female NPT.  
**Enclosure Rating:** NEMA 4 (IP56).  
**Weight:** 0.83 lb (374 g).  
**Agency Approvals:** CSA, FM.  
 FM and CSA approved explosion-proof for Class I, Division 1, Groups B, C, & D, Class II Groups E, F, & G Class III.

## SERIES IWP

# INDUSTRIAL WEATHERPROOF PRESSURE TRANSMITTER

Exceptional Reliability for Harsh Environments



The **SERIES IWP** Pressure Transmitter provides an exceptional value solution to pressure measurement in industrial conditions requiring high-performance, stability and long service life. The precise operation under dirty and wet conditions, make the Series IWP an ideal choice for petroleum, chemical and metallurgical industry applications.

## FEATURES/BENEFITS

- Rugged, weather-proof design supports use in harsh environments

## APPLICATIONS

- Harsh environments
- Process
- Chemical
- Petroleum
- Metallurgical

OPTIONS	
Use order code:	Description
NISTCAL-PT1	NIST traceable calibration certificate

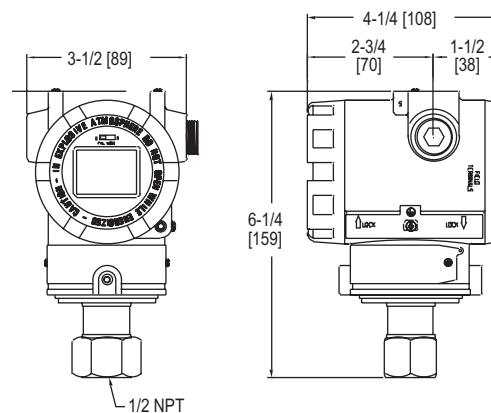
## SPECIFICATIONS

**Service:** Gases and liquids compatible with wetted materials.  
**Wetted Materials:** 304 and 316 stainless steel.  
**Accuracy:** 0.5% FS.  
**Stability:**  $< 0.2\%$  FS per year.  
**Temperature Limits:** -22 to 203°F (-30 to 95°C).  
**Compensated Temperature Limits:** 32 to 158°F (0 to 70°C).  
**Pressure Limits:** 1.5 x pressure range.  
**Temperature Coefficient:** 0.3% FS per 10°C.  
**Power Requirements:** 12 to 36 VDC.  
**Output Signal:** 4 to 20mA.  
**Loop Resistance:** 1200  $\Omega$  max.  
**Electrical Conduit Connection:** 1/2" female NPT.  
**Process Connection:** 1/2" female NPT.  
**Enclosure Rating:** IP65.

MODEL CHART			
Model	Pressure Range	Model	Pressure Range
IWP-00	0 to 30 psig	IWP-04	0 to 300 psig
IWP-01	0 to 50 psig	IWP-05	0 to 500 psig
IWP-02	0 to 100 psig	IWP-06	0 to 1000 psig
IWP-03	0 to 200 psig	IWP-10	0 to 30 psia

# EXPLOSION-PROOF PRESSURE TRANSMITTER

HART®, Push Button Configuration, Rangeability (100:1)



The Mercoid® **SERIES 3200G** Smart Pressure Transmitter is a microprocessor-based high performance transmitter, which has flexible pressure calibration, push button configuration, and programmable using HART® Communication. The Series 3200G is capable of being configured with the zero and span buttons, a field calibrator is not required for configuration. The transmitter software compensates for thermal effects, improving performance. EEPROM stores configuration settings and stores sensor correction coefficients in the event of shutdowns or power loss. The Series 3200G is FM approved for use in hazardous (Classified) locations. The 100:1 rangeability allows the smart transmitter to be configured to fit any application.

## FEATURES/BENEFITS

- Completely configurable using zero/span buttons (no calibrator required)
- Rangeability (100:1)
- High accuracy ( $\pm 0.075\%$ )
- Automatic sensor temperature compensation
- Fail-mode process function

## APPLICATIONS

- Water and wastewater
- Chemical and petrochemical
- Pulp and paper
- Oil and gas
- Food and beverage

## SPECIFICATIONS

**Service:** Compatible gases, steam, liquids or vapors.  
**Wetted Materials:** 316L SS.  
**Accuracy:**  $\pm 0.075\%$  FS (@ 20°C).  
**Rangeability:** 100:1 turn down.  
**Stability:**  $\pm 0.125\%$  FSO/yr.  
**Temperature Limits:** Process: -40 to 248°F (-40 to 120°C); Ambient: Without LCD -40 to 185°F (-40 to 85°C); With LCD -22 to 176°F (-30 to 80°C).  
**Thermal Effect:**  $\pm 0.125\%$  span/32°C.  
**Power Requirements:** 11.9 to 45 VDC.  
**Output Signal:** 4 to 20 mA / HART® Communication.  
**Response Time:** 0.12 s.  
**Damping Time:** 0.25 to 60 s.  
**Loop Resistance:** Operation: 0 to 1500  $\Omega$ ; HART® Communication: 250 to 500  $\Omega$ .  
**Electrical Connection:** Two 1/2" female NPT conduit, screw terminal.  
**Process Connections:** 1/2" female NPT.  
**Display:** Optional 5 digit LCD.  
**Enclosure Rating:** NEMA 4X (IP66) and explosion proof for Class I, Div I Groups A, B, C and D.  
**Weight:** 5.5 lb (2.5 kg).  
**Agency Approvals:** ATEX, CE, FM.

## MODEL CHART

Model	Range psi (kPa)	Calibrated Span (Min. to Max.) psi (kPa)	Max. Pressure psi (bar)	LCD Display
3200G-1-FM-1-1	-14.5 to 21 (-100 to 150)	0.22 to 21 (1.5 to 150)	58 (4)	No
3200G-2-FM-1-1	-14.5 to 217 (-100 to 1500)	2 to 217 (15 to 1500)	580 (40)	No
3200G-3-FM-1-1	0 to 725 (0 to 5000)	7.25 to 725 (50 to 5000)	2000 (138)	No
3200G-4-FM-1-1	0 to 3600 (0 to 25000)	36 to 3600 (250 to 25000)	10000 (690)	No
3200G-5-FM-1-1	0 to 8500 (0 to 60000)	87 to 8700 (600 to 60000)	11600 (800)	No
3200G-1-FM-1-1-LCD	-14.5 to 21 (-100 to 150)	0.22 to 21 (1.5 to 150)	58 (4)	Yes
3200G-2-FM-1-1-LCD	-14.5 to 217 (-100 to 1500)	2 to 217 (15 to 1500)	580 (40)	Yes
3200G-3-FM-1-1-LCD	0 to 725 (0 to 5000)	7.25 to 725 (50 to 5000)	2000 (138)	Yes
3200G-4-FM-1-1-LCD	0 to 3600 (0 to 25000)	36 to 3600 (250 to 25000)	10000 (690)	Yes
3200G-5-FM-1-1-LCD	0 to 8500 (0 to 60000)	87 to 8700 (600 to 60000)	11600 (800)	Yes

**Note:** Contact factory for custom calibration.

## ACCESSORIES

Model	Description
A-630	Stainless steel angle type bracket with SS bolts
A-631	Stainless steel flat type bracket with SS bolts
BBV-0N	2-valve block manifold
DevCom2000	HART® Communication Protocol Software

## EXPLOSION-PROOF PRESSURE TRANSMITTER

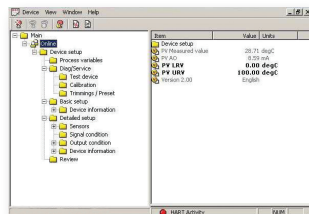
HART®, Push Button Configuration, Rangeability (100:1)

MODEL CHART															
Example	3200G	-2	-FM	-3	-1	-LES	S2	A1	05	S	2	-05	-LCD	3200G-2-FM-3-1-LESS2A105S2-05-LCD	
Series	3200G													3200G Explosion-Proof Pressure Transmitter	
Range		1 2 3 4 5												-14.5 to 21 psig (factory set 0 to 21 psig) -14.5 to 217 psig (factory set 0 to 217 psig) 0 to 725 psig 0 to 3600 psig 0 to 8500 psig	
Approval			FM ATEX WP											FM approved ATEX approved Weatherproof only (Only available with 316 SS housing)	
Process Connection				1 3										1/2" female NPT Diaphragm seal	
Electrical Connection					1									1/2" female NPT	
Diaphragm Seal Type						LED LES LFD LFS								1 extended diaphragm seal direct mount 1 extended diaphragm seal capillary type high 1 flush diaphragm seal direct mount 1 flush diaphragm seal capillary type	
Mounting Flange							S2 S3							2" (50 mm) 316L SS 3" (80 mm) 316L SS	
Mounting Flange Rating								A1 A2 D1 D2 J1 J2						ANSI class 150# ANSI class 300# DIN PN 10/16 DIN PN 25/40 JIS 10 K JIS 20 K	
Extension Length									00 05 10 15					No extension (standard for flush mount) 2" extension 4" extension 6" extension	
Diaphragm Material										S P H T				316L SS diaphragm PTFE and 316L SS diaphragm Hastelloy C-276 diaphragm Tantalum diaphragm	
Fill Fluid											2			Silicon oil (-40 to 400°F)	
Capillary Length												XX		0 to 20 feet	
Options													LCD SSH NIST CC	5 digit LCD 316 SS housing (only available with WP approval) NIST calibration Custom calibration	

## CUSTOM CALIBRATION VALUES

Primary Units	in w.c., ft w.c., mm w.c., in Hg, psig, g/cm <sup>2</sup> , kg/cm <sup>2</sup> , Pa, kPa, bar, mbar, Torr, Atm, mm Hg
Upper Range Limit	20 mA value
Lower Range Limit	4 mA value
Damping Time	0 to 60 seconds
Display Mode	Primary unit, %, mA, rotate

## MODEL DEVCOM2000

HART® COMMUNICATION PROTOCOL SOFTWARE  
Includes USB HART Modem

## DevCom2000 Software



## HART Field Device



## Windows®-Based PC

## USB HART Modem

The **MODEL DEVCOM2000** HART® Communicator Software turns your PC into a full-featured HART® communicator. Now it is possible to configure transmitters and control valves at the desktop or in the field. DevCom2000 uses device descriptions (DDs) to retrieve data that is stored in the memory of smart field devices. This software is a simple, reliable and secure method to add new measurement values to control systems without the need of additional wires. This software eliminates the need to purchase and maintain a separate handheld HART® communicator.

## FEATURES/BENEFITS

- Complete DD library
- Includes USB HART modem
- USB 1.1 and 2.0 compatible
- Self powered modem

## APPLICATIONS

- For use with pressure transmitters and control-valves in:
  - Water and wastewater
  - Chemical and petrochemical
  - Oil and gas
  - Pulp and paper
  - Food and beverage

MODEL CHART	
Model	Description
DevCom2000	HART® Communicator Software

## SPECIFICATIONS

## HART® Communicator Software

DD Library: Included.

Generic DD: Included.

Operating System: Windows NT®, Windows® 2000, Windows XP®, Windows® Vista (32/64), Windows® 7 (32/64).

## USB HART MODEM

Material: High strength ABS plastic.

Temperature Limits: 0 to 50°C (32 to 122°F).

Storage Temperature: -40 to 85°C (-40 to 185°F).

Humidity: 0 to 99% (non-condensing).

HART® Cable Length: 4' (1.2 m).

HART® Cable Connectors: Mini-grabber.

USB Cable Length: 18" (0.5 m).

USB Cable Connector: USB Type A.

USB: USB 1.1, USB 2.0.

Power: USB port provides power to unit.

Current Draw: 20 mA.

Output: 600 mVpp.

Leakage: &lt; 10 uA.

Isolation Voltage: 1500 VDC.

HART®: HART® 4, HART® 5, HART® 6,

HART® 7, HART® Physical Layer Spec

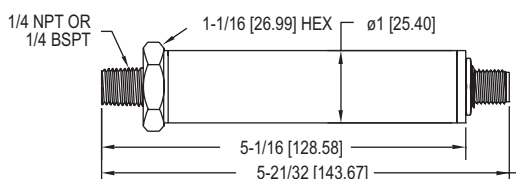
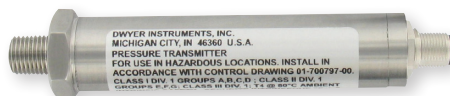
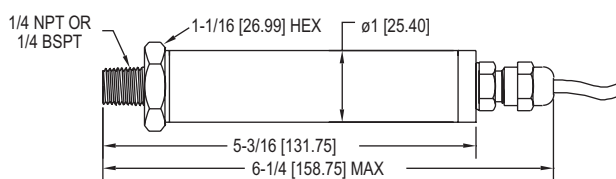
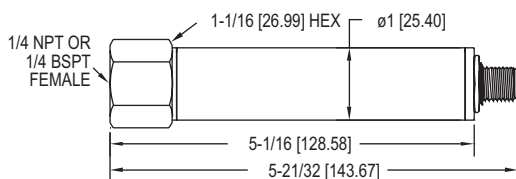
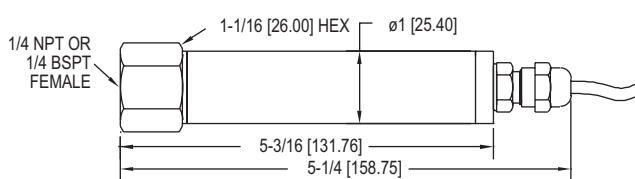
HCF SPEC-54.

Weight: 3 oz (85 g).

Agency Approvals: CE.

# INTRINSICALLY SAFE PRESSURE TRANSMITTER

## For Use In Hazardous Locations


**Male NPT/BSPT Connector with Male M-12 Connector**

**Male NPT/BSPT Connector with Cable Gland**

**Female NPT/BSPT Connector with Male M-12 Connector**

**Female NPT/BSPT Connector with Cable Gland**


The Dwyer **SERIES IS626** Intrinsically Safe Pressure Transmitter can be used to accurately measure compatible gases and liquids compatible with its 316/316L stainless steel wetted parts. Series IS626 full-scale accuracy is 0.25%. Designed for industrial environments with a NEMA 4X (IP66) housing, this transmitter resists most effects of shock and vibration. Models are available with a 3' cable or M-12 4 pin connection.

The IS626 is UL listed for use in Hazardous (Classified) Locations. The protection method is by Intrinsic Safety, "ia". It was investigated by UL under UL Standard 913 Sixth Edition and CSA Standard No. 157-92.

### FEATURES/BENEFITS

- Exceptional accuracy for insuring tight-control and minimizing costly out of specification conditions
- NEMA 4x rated enclosure provides protection in harsh environments permitting outdoor monitoring or in areas where dust and particulate matter exists
- Robust sensor provides shock and vibration resistance insuring stability in controlling pressure for process applications

### APPLICATIONS

- Monitoring pressure in hazardous environments
- Process

### SPECIFICATIONS

**Service:** Compatible gases and liquids.

**Wetted Materials:** Type 316, 316L SS.

**Accuracy:** 0.25% FS; Absolute range: 0.5% FS (includes linearity, hysteresis, and repeatability).

**Temperature Limit:** 0 to 176°F (-18 to 80°C).

**Compensated Temperature Range:** 0 to 176°F (-18 to 80°C).

**Thermal Effect:** ±0.02% FS/°F (includes zero and span).

**Pressure Limits:** See Pressure Range Table.

**Power Requirements:** 10 to 28 VDC.

**Output Signal:** 4 to 20 mA.

**Response Time:** 50 ms.

**Loop Resistance:** 0 - 900 Ω max.

**Current Consumption:** 38 mA (max).

**Electrical Connections:** 3 ft cable or 4-pin M-12 connector.

**Process Connection:** 1/4" male or female NPT and BSPT.

**Enclosure Rating:** NEMA 4X (IP66).

**Mounting Orientation:** Mount in any position.

**Weight:** 8.9 oz (252 g).

**Agency Approvals:** CE, cULus Intrinsically Safe to UL Standard 913.

**For use in Hazardous (Classified) Locations:**

**Class I Div. 1 Groups A,B,C,D**

**Class II Div. 1 Groups E,F,G**

**Class III Div. 1**

**Temperature Code: T4 @ 80°C ambient**

**Install in accordance with control drawing 01-700797-00.**

**WARNING** To prevent ignition of flammable or combustible atmospheres, disconnect power before servicing.

**Use with approved safety barriers using entity evaluation.**

MODEL CHART			
Model	Range	Maximum Pressure (psig)	Over Pressure (psig)
IS626-00-GH-P1-E1-S1	15 psia*	30	150
IS626-07-GH-P1-E1-S1	15 psig	30	150
IS626-08-GH-P1-E1-S1	30 psig	60	300
IS626-09-GH-P1-E1-S1	50 psig	100	300
IS626-10-GH-P1-E1-S1	100 psig	200	500
IS626-11-GH-P1-E1-S1	150 psig	300	750
IS626-12-GH-P1-E1-S1	200 psig	400	1000
IS626-13-GH-P1-E1-S1	300 psig	600	1500
IS626-14-GH-P1-E1-S1	500 psig	1000	2500
IS626-15-GH-P1-E1-S1	1000 psig	2000	5000
IS626-16-GH-P1-E1-S1	1500 psig	3000	5000
*Absolute pressure ranges are not UL approved.			
<b>Note:</b> For optional M-12 4 pin electrical connection, change E1 to E6.			

ACCESSORIES	
Model	Description
A-295	Female four pin M-12 to cable gland connector
A-231	16' (5 m) shielded cable with 4 pin female M-12 connection
MTL5541	Galvanic barrier
MTL7706	Intrinsically safe zener barrier

OPTIONS	
To order add suffix:	Description
-NIST	NIST traceable calibration certificate
<b>Example:</b> IS626-00-GH-P1-E1-S1-NIST	