

# Mid-West<sup>®</sup> Instrument

## “Diaphragm Type”

### Differential Pressure Gauge, Switch, or Transmitter

## Model 142

### Aluminum Bronze & Monel



## FOR SEA WATER APPLICATIONS

Ideally suited for use on Sea Water or salt Water applications.



Pictures do not represent actual body material

Model 142  
with 2-1/2" Dial



#### Features:

- Total separation of high and low pressures by a Convuluted Elastomer Diaphragm.
- Over range protection to full rated working pressure.
- Body Materials: Aluminum/Bronze or Monel
- Monel Spring & Internal metal parts
- 1/4" FNPT FNPT Process Connection (std)
- Sensor magnetically coupled to the indicating pointer and optional switches.
- Weather-resistant construction standard.
- Shatter resistant acrylic lens.
- Variety of Dial type and Sizes: 2-1/2", 3-1/2", 4-1/2" & 6"
- DP Ranges available in: Inches H<sub>2</sub>O, PSID, bar, and Kpa
- Temperature Limits: -40°F(-40°C) to +200°F(+93°C)

*“A World Leader  
in Differential Pressure Gauges,  
Switches & Transmitters*



Model 142  
with 2-1/2" Dial  
& 4-20mA Transmitter



Model 142 0-100" H<sub>2</sub>O  
with 4-1/2" Dial

Model	Accuracy	Available $\Delta P$ Ranges	Max. Line Pressure PSIG	Optional Switches
142	$\pm 3/2/3\%$	0-100" H <sub>2</sub> O, 0-5 PSID, 0-10 PSID 0-15 PSID, 0-20 PSID	1000	1 or 2 Switches or 4-20 mA Transmitter

# “Diaphragm Type” Differential Pressure Gauge Switch & Transmitter Options Model 142



**Model 142 available with “AA” switch option**

(1) Reed switch located inside NEMA 4x enclosure with 7 position terminal strip. An opening at rear of enclosure accepts ½” flexible weather-proof or conduit connector (supplied by customer).

**Model 142 available with “BA” switch option**

(2) Reed switches located inside NEMA 4x enclosure with 7 position terminal strip. An opening at rear of enclosure accepts ½” flexible weather-proof or conduit connector (supplied by customer).

**Model 142 “Delta Meters”** are available with either one or two hermetically sealed reed switches for either high alarm, low alarm, or both and a 4-20mA transmitter depending on model. The switches are Single Pole Double Throw (SPDT) or Single Pole Single Throw (SPST) with adjustable set points. Switches can be set to activate/deactivate on rising or falling pressure.

**Model 142** standard switch enclosure is non-corrosive molded plastic that is oil tight, dust tight, and water tight per NEMA 4X/IP66. External access to the switch adjustment is provided. 4-20 mA Transmitter enclosures is Aluminum that is oil tight, dust tight, and water tight per NEMA 4X/IP66 as well. An external zero pin is available for simple remote zeroing. Switch leads are 24”, 18 Awg, and are color coded where applicable.



**Model 142 shown with “TT” transmitter option.**

4-20 mA Transmitter in NEMA 4X/IP66 Aluminum Enclosure. 7 position terminal strip and opening at rear of enclosure accepts ½” flexible weather-proof or conduit connector (supplied by customer).

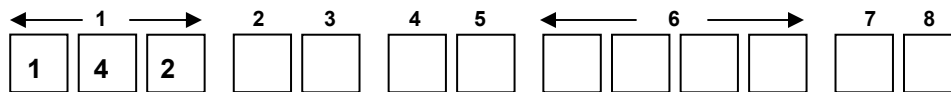
Model Type	142 SPDT	142 SPST NO	142 Transmitter 4-20mA
Power	3 W	25 W	4-20 mA Loop Power
Max Current	0.25 Amps	0.5 Amps	8-28 VDC Loop Powered 2-Wire interface
Max Voltage VAC/VDC	125 VAC/VDC	230 VAC/VDC	1000 Ohm max Loop resistance at 28 vdc
Setting Full Scale	15-95% 15-9	5%	20-100%
Hysteresis (Max / Norm)	10% / 5% (FS)	15% / 8% (FS)	N/A
Repeatability	1% F.S.	1% F.S.	1% F.S.
Connections	(3) 24" Leads 22 AWG	(2) 24" Leads 22 AWG	Terminal Strip

## Standard Model Number Sequence: 142-MA-00-00

1000 PSIG Working Pressure, Monel body, Monel Internal Metal Parts,  
Ceramic Magnets, Buna-N Diaphragm and Seals, Teflon Guide Bushings, 1/4" FNPT Back Connections,  
2-1/2" Round Dial, Engineered Plastic Dial Case with Shatter Resistant Acrylic Lens  
Accuracy  $\pm 3/2/3\%$  Full Scale (Ascending)

**Ranges Model 142: 0-100" H<sub>2</sub>O, 0-5, 0-10, 0-15, & 0-20 PSID**

*Gauge Body and Internal components are considered wetted parts.*



Basic Model

Range: \_\_\_\_\_



Pictures do not represent  
actual body material



2	Material
<b>M</b>	Monel Body / Monel Internal Metal Parts & Teflon Guide Bushings
<b>N</b>	Aluminum/Bronze Body / Monel Internal Metal Parts & Teflon Guide Bushings
<b>Z</b>	Special ( <i>Un-coded Options</i> )
3	Dial Size & Type
<b>A</b>	2-1/2" Round Dial w/Engineered Plastic Dial Case
<b>C</b>	4-1/2" Round Dial w/Engineered Plastic Dial Case
<b>E</b>	3-1/2" Round Dial w/Anodized Aluminum Dial Case
<b>G</b>	4-1/2" Round Dial w/Anodized Aluminum Dial Case
<b>J</b>	6" Round Dial w/Engineered Plastic Dial Case
<b>T</b>	Non-Indicating DP Switch Only
<b>Z</b>	Special ( <i>Un-coded Options</i> )
4	Seal Materials
<b>0</b>	Buna-N ( <i>Standard</i> )
<b>1</b>	Viton®-A Registered Trademark of Dupont
<b>5</b>	Ethylene Propylene
<b>9</b>	Special ( <i>Un-coded Options</i> )
5	Process Connections
<b>0</b>	1/4" FNPT Back Connections ( <i>Standard</i> )
<b>2</b>	Dual 1/4" FNPT Top & Bottom Connections ( <i>Non-Electrical Option Units Only</i> )
<b>3</b>	1/4" FNPT Bottom Connections
<b>4</b>	7/16"-20 straight thread O-Ring ( <i>Back Connections only</i> )
<b>9</b>	Special ( <i>Un-coded Options</i> )

## Model 142 - continued

6	Additional Options
<b>O</b>	NONE
<b>A</b>	Reversed High / Low Process Connections. <i>(Not available with transmitter options T)</i>
<b>E</b>	Two (2) 1/4-20 Mounting Holes
<b>F</b>	Carbon Steel 2" Pipe Mounting Kit <i>(Not available with reverse port switch option)</i>
<b>G</b>	Stainless Steel 2" Pipe Mounting Kit <i>(Not available with reverse port switch option)</i>
<b>L</b>	Liquid Fill <i>(Glycerin Fill Standard) (1) (Not available with shatterproof glass lens)</i>
<b>M</b>	Maximum Indicator Follower Pointer <i>(Not available w/3-1/2", 6" Dial or Liquid fill options) (Not available with shatterproof lens)</i>
<b>S</b>	Shatter Proof Glass Lens <i>(4-1/2" available with "G" option Aluminum Dial Case only) (Not available with liquid fill)</i>
<b>T</b>	Oxygen Cleaning
<b>U</b>	Stainless Steel Tag with S.S. Wire
<b>V</b>	Stainless Steel Tag and S.S. Screw <i>(Contact factory on switch options)</i>
<b>W</b>	Wall Mount Kit
<b>Z</b>	Special <b>(Un-coded Options)</b>
	<i>(1) Silicone Fill available please contact factory</i>
	<b>NOTE: Not All Options Available in Combination with other Options</b>
7	Electrical Configurations
<b>O</b>	None
<b>A</b>	One (1) Reed Switch in NEMA 4X/IP66 Enclosure
<b>B</b>	Two (2) Reed Switches in NEMA 4X/IP66 Enclosure
<b>T</b>	4-20 mA Transmitter in NEMA-4X/IP66 aluminum enclosure <b>(3)</b>
<b>Z</b>	Special <b>(Un-coded Options)</b>
	<b>(3)</b> Contact factory for tank level or flow applications with transmitter configuration
8	Electrical Specifications (For Resistive Loads)
<b>A</b>	SPDT 3W, 0.25 Amp, 125 VAC/VDC <i>(Switch adjustable range of 15-95%)</i>
<b>B</b>	SPST, 25W, 0.5 Amp., 230 VAC/VDC <i>(Normally Open) (Switch adjustable range of 15-95%)</i>
<b>T</b>	4-20 mA Transmitter (8-28 VDC Loop Power) <i>(± 2% Accuracy from 20-100% of scale, Ascending)</i>
<b>Z</b>	Special <b>(Unc-oded Options)</b>

Factory preset switches at no charge (Specify Setting)

**MID-WEST INSTRUMENT** has been serving a variety of industries (Power, Chemical, Petro-Chemical, HVAC, Water Filtration etc...) for over 50 years. Over 2,000,000 DP Gauges have been produced bearing the Mid-West name or private branded for our OEM customers!

Mid-West understands that in today's demanding environment, flexibility, quick response time and the ability to ship most of our product line in 2 weeks or less is essential to our customers. Standard configurations can be customized and modified to suit our customer's needs for ease of installation or retrofit.

If you are in need of additional information please visit our web site at [www.midwestinstrument.com](http://www.midwestinstrument.com) or contact us toll free at **1-800-648-5778** and one of our knowledgeable sales coordinators will be happy to assist you.