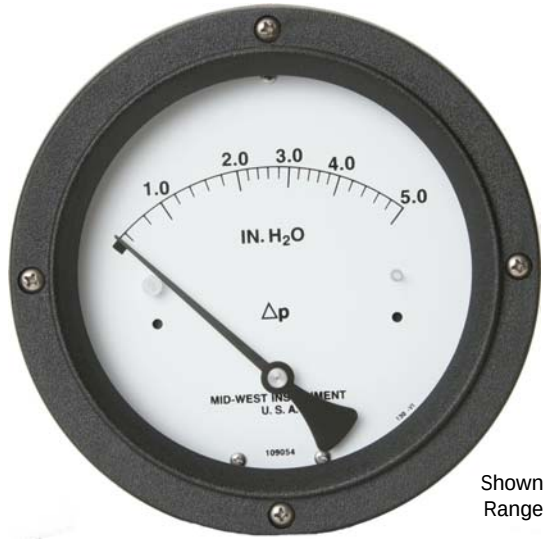
Mid-West® Instrument

"Diaphragm Type"
Differential Pressure Gauge & Switch
Model 130



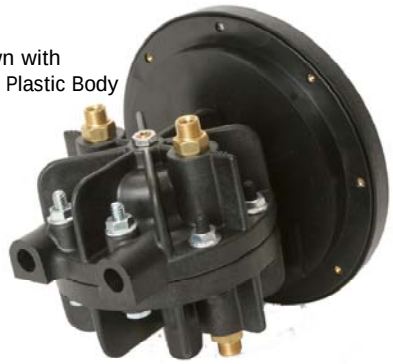
Shown here with Range 0-5" H2O

Model 130 is a rugged general purpose differential pressure gauge with a 4-1/2" round dial.

Common Applications: Tank Level Monitoring Horizontal or Vertical Flow, Liquid Level, Indication/Balancing, Filter Monitoring for Gases, Water Treatment Applications and Vacuum Application

"A World Leader in Differential Pressure Gauges & Switches

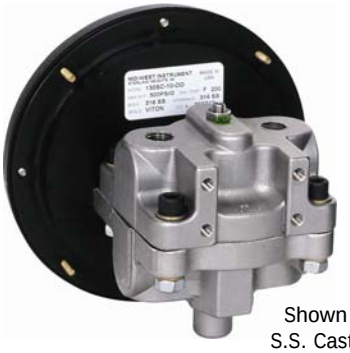
The low range capability of the **Model 130** is ideally suited for flow, liquid level and vacuum applications. Magnetic coupling between the sensing element and the indicating pointer provides for complete isolation of the process fluid within the pressure capsule. The few internal metal parts are 316L Stainless Steel.



Shown with Engineered Plastic Body

Model 130:

- Housing materials: Glass-Reinforced Engineered Plastic, Aluminum, 316L Stainless Steel and Brass
- Accuracy: 0-5" thru 0-9.9" H2O ±5% Full Scale Ascending 0-10" thru0-400" H2O ±2% Full Scale Ascending
- Weather-resistant construction standard.
- Use on virtually all reasonably clean liquids or gases.
- Over-range protection to full rated working pressure.
- Diaphragm design allows use of dissimilar fluids on high and low side of gauge.
- Can be used with vacuum or pressure applications
- Shatter resistant lens.
- 4-1/2" plastic dial assemblies standard.
- Variety of Uni-directional Dial types
- ¼" FNPT & ½" FNPT Process Connections
- DP Ranges available in: Inches H2O, PSID, mbar, and Kpa
- Available with Square Root dials for flow measurement



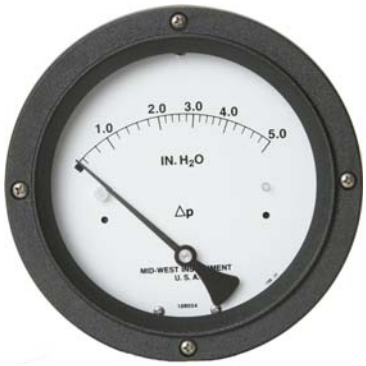
Shown with S.S. Cast Body

Model	Accuracy	Min. ΔP Range	Max. ΔP Range	Max. Working Pressure PSIG (bar)	Optional Switches
130	±2% or 5%	0-5" H_20 (0-12.4 mbar)	0-400" H_20 (0-1 bar)	*300 (20) **500 (34)	1 & 2 switches Hermetically Sealed

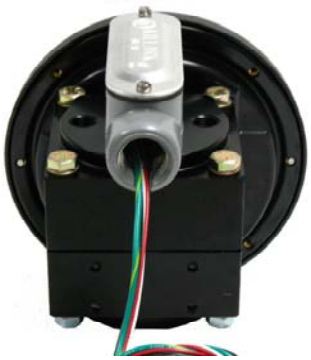
*Glass-Reinforced Engineered Plastic **Aluminum, Brass and Stainless Steel

Switches available on Aluminum, Brass & 316 S.S. bodies only.

“Diaphragm Type”
Differential Pressure Gauge
Switch Options
Model 130



Model 130 in Explosion Proof (left)
and NEMA 4X (right) enclosures

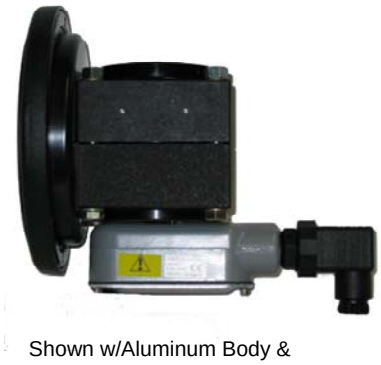


Shown w/Aluminum Body &
(1) Reed Switch in Condulet enclosure

Model 130 is available in Aluminum, Brass and 316SS bodies only with one or two hermetically sealed reed switches for low and/or high limit alarm. These CSA listed switches are Single Pole Double Throw (SPDT) with adjustable set points. Switches can be set to activate/deactivate on rising or falling pressure. Switches are enclosed in a weather resistant housing. Switch setting is readily made with a screw adjustment.

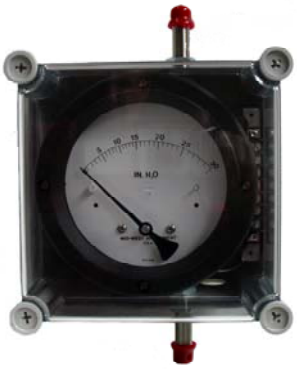
CSA listed control switching is available in non-corrosive molded plastic enclosures.
These are oil tight, dust tight and watertight per NEMA Type 4X standards.

CSA listed control switching is available in an explosion-proof enclosure which complies with NEC Class I, Groups C and D; Class II Groups E, F, and G; NEMA 7 and 9 standards. These are machined cast-aluminum enclosures with 1/2" FNPT conduit connection and 24" wire leads.



Shown w/Aluminum Body &
(1) Reed Switch with
Condulet enclosure and
Plug-In Connector
(Din 46350-PG 11)

Model	130
Type	SPDT
Power	3 W
Max Current	0.25 Amps
Max Voltage VAC/VDC	125 VAC/VDC
Setting Full Scale	10-90%
Hysterisis (Max / Norm)	10% / 5% (FS)
Repeatability	1% F.S.
Connections	(3) 24" Leads 22 AWG



Shown in NEMA 4X
Plastic enclosures

Factory preset switch at no extra charge (Specify Setting)
Specify increasing or decreasing range to be set.

Proof Pressure: Two times rated working pressure or 10,000 PSI whichever is lower at ambient temperature

Temperature Limits: -40°F (-40°C) to +200°F (+93°C) - These limits are based on the entire instrument being saturated to these temperatures. System (process) temperatures may exceed these limitations with proper installation. Contact our customer service representative for details.

Standards: Gauges either conform to and/or are designed to the requirements of the following standards:

ASME B1.20.1	NACE MR0175
ASME B40.100	NEMA Std. No. 250
CSA-C22.2 No. 14.25 and 30	SAE J514
EN-61010-1	UL Std. No. 50,508 and 1203

6500 Dobry Dr. • Sterling Heights, MI 48314 USA • Tel: 800-648-5778 Tel: 586-254-6500 Fax: 586-254-6509
Web Site: www.midwestinstrument.com • Email: sales@midwestinstrument.com

Mid-West® Instrument

Standard Dial Ranges: Model 130

Range Type				
IN H_2O	PSID	Kpa	mbar	Flow Scales
0-5”	0-5	0-1.6	0-16	0-1.0
0-10”	0-10	0-2.5	0-25	0-1.25
0-15”	0-15	0-4.0	0-40	0-1.5
0-20"		0-6.0	0-60	0-1.75
0-25"		0-10	0-100	0-2.0
0-30"		0-16	0-160	0-2.5
0-40"		0-25	0-250	0-3.0
0-50"		0-40	0-400	0-3.5
0-60"		0-60	0-600	0-4.0
0-75"		0-100	0-1000	0-4.5
0-100"				0-5.0
0-135"				0-5.5
0-150"				0-6.0
0-200"				0-6.5
0-300"				0-7.0
0-400"				0-7.5
				0-8.0
				0-8.5
				0-9.0
				0-9.5
				0-10
Available Multipliers for Flow Dials: X10, X100, X1000, and X10,000				
Note: Not all ranges available in all diaphragm materials				

The above mentioned ranges are some of the most popular requested today.
Mid-West Instrument can provide special un-cataloged dial range requirements.
As well as multiple scale dials, multiple color dials and special decals.
Please consult factory for complete information.

Model	Min. ΔP Range	Max. ΔP Range
130	0-5" H2O (0-12.4 mbar)	0-400" H2O (0-1 bar)

Proof Pressure: Two times rated working pressure at ambient temperature

Temperature Limits: -40°F (-40°C) to +200°F (+93°C) - These limits are based on the entire instrument being saturated to these temperatures. System (process) temperatures may exceed these limitations with proper installation. Contact our customer service representative for details.

Standards: Model 130-142 Series gauges either conform to and/or are designed to the requirements of the following standards:

ASME B1.20.1
ASME B40.100
CSA-C22.2 No. 14.25 and 30
EN-61010-1
NACE MR0175
NEMA Std. No. 250
SAE J514
UL Std. No. 50,508 and 1203

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Standard Model Specifications: 130-PC-00-OO

Glass-Reinforced Engineered Plastic Body, 316 Stainless Steel Internal Metal Parts
Ceramic Magnet, Buna-N Diaphragm and Seals, ¼" Steel Compression Tube Fittings,
4-1/2" round dial, Engineered Plastic Case with Shatter Resistant Acrylic Lens,
(Aluminum, Brass & Stainless Steel Bodies-Dual ¼" FNPT Top & Bottom)
Accuracy ±5% Full Scale (Ascending) 0-5" H_2O to 0-9.9" H_2O or equivalent
Accuracy ±2% Full Scale (Ascending) 0-10" H_2O to 0-400" H_2O or equivalent

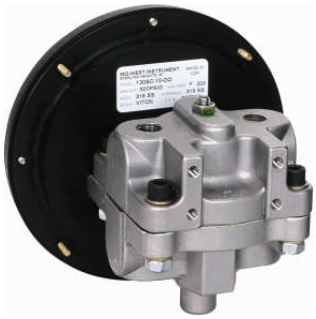
Mid-West Instrument
1-800-648-5778

Range 0-5 IN H_2O to 0-400 IN H_2O (0-12.4 mbar to 0-1 bar)

1	2	3	4	5	6	7	8
1	3	0					

Basic Model

Range:_____



2	Material
P	Glass-Reinforced Engineered Plastic Body / 316 Stainless Steel Internal Metal Parts **(300 PSIG SWP)**
A	Aluminum Body / 316 Stainless Steel Internal Metal Parts **(500 PSIG SWP)**
B	Brass Body / 316 Stainless Steel Internal Metal Parts **(500 PSIG SWP)**
S	316 Stainless Steel Body / 316 Stainless Steel Internal Metal Parts **(500 PSIG SWP)**
Z	Special ***(Un-coded Options)***
3	**Dial Size & Type**
C	4-1/2" Round Uni-Directional Dial w/Engineered Plastic Housing Assembly
E	3-1/2" Round Uni-Directional Dial w/Anodized Aluminum Housing Dial Case
G	4-1/2" Round Uni-Directional Dial w/Anodized Aluminum Housing Dial Case
T	Non-Indicating DP Switch Only
Z	Special ***(Un-coded Options)***
4	**Seal Materials**
0	Buna-N
1	Viton®-A Registered Trademark of Dupont **(0-20" H2O to 0-400" H2O)**
2	Silicone **(0-5" H2O to 0-100" H2O)**
5	Ethylene Propylene **(0-20" H2O to 0-400" H2O)**
9	Special ***(Un-coded Options)***
5	**Process Connections**
0	1/4" C.S. compression tube fittings **(2 ea. Model P)** or ¼" FNPT Top & Bottom Connections **(Models A, B, & S)**
1	1/4" 316 Stainless Steel compression tube fittings (2)
2	1/4" FNPT Brass Adapters **(Model P only)**
3	1/4" FNPT Stainless Steel Adapters (2) **(Model P only)**
4	1/2" FNPT Stainless Steel Adapters (2) **(all models except P)**
9	Special ***(Un-coded Options)***

Factory preset switches at no charge (Specify Setting)

Standard Model Specifications – continued Model 130

6	Additional Options
O	None
B	Drain & Bleed Plugs, 316 Stainless Steel (2) **(Model 130 P only)**
D	Drain & Bleed for Model 130 P in NEMA 4X Enclosure
E	Drain & Bleed for all other Model 130's in NEMA 4X Enclosure
F	Carbon Steel 2" Pipe Mounting Kit
G	Stainless Steel 2" Pipe Mounting Kit
H	Hastelloy C Internal Wetted Parts & Fittings **(Contact Factory for Availability)**
M	Maximum Indicator Follower Pointer
N	NACE
Q	CRN **(Canadian Registration Number)**
S	Shatter Proof Glass Lens **(Available only with 4-1/2" metal front)**
T	Oxygen Cleaning
U	Stainless Steel Tag with S.S. Wire
V	Stainless Steel Tag and S.S. Screw **(Contact Factory on Switch Options) Not on Gauge Body for Hazardous Locations**
W	Wall Mount Kit **(Not Available with Back Connections)**
Z	Special ***(Un-coded Options)***
	NOTE: Not All Options Available in Combination with other Options

7	Electrical Configurations (CE marked, except N & P) **Switch** option not available for 130-PC Models
H	One (1) Reed Switch with Condulet Enclosure
I	Two (1) Reed Switches with Condulet Enclosure
J	One (1) Reed Switch with Condulet Enclosure with Plug-in connector (DIN 43650/IP65-PG11)
K	Two (1) Reed Switches with Condulet Enclosure with Plug-in connector (DIN 43650/IP65-PG11)
L	One (1) Switch in NEMA 4X Plastic Enclosure
M	Two (2) Switches in NEMA 4X Plastic Enclosure
N	One (1) Switch in explosion proof enclosure with glass window cover. CSA & UL Listed **(1)**
P	Two (2) Switches in explosion proof enclosure with glass window cover. CSA & UL Listed **(1)**
Z	Special ***(Un-coded Options)***

(1) Complete assembly 3rd Party Certified Class I, Div.1, Groups C & D; Class II, Div. 1, Groups E, F, & G.

8	Electrical Specifications (For Resistive Loads)
A	SPDT 3W, 0.25 Amp, 125 VAC/VDC (standard) (Switch adjustable range of 10-90%)
Z	Special ***(Unc-oded Options)***
Note:	The use of diaphragm seals is not recommended for Model 130 gauges
WARNING	**Attempts to install such seals on Model 130 gauges will void warranty**

MID-WEST INSTRUMENT has been serving a variety of industries (Power, Chemical, Petro-Chemical, HVAC, Water Filtration etc…) for over 50 years. Over 1,000,000 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 or contact us toll free at **1-800-648-5778** and one of our knowledgeable sales coordinators will be happy to assist you.

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