

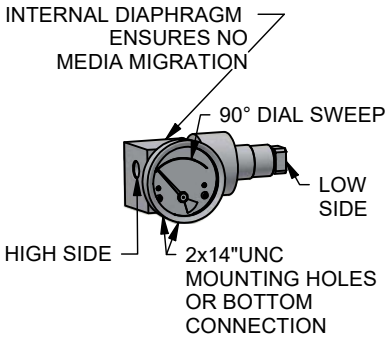
DIAPHRAGM TYPE MECHANICAL DIFFERENTIAL PRESSURE GAUGE

PRESSURE GAUGES

The Reotemp Series D31 diaphragm-type differential pressure gauge is a proven choice for filtration monitoring, flow measurement, and HVAC system applications. It's especially suited for high static pressure applications where no migration of process media between the high and low sides is permitted. A rolling diaphragm, magnet, and calibrated rotary movement isolate the media while delivering accurate, repeatable readings.



D31



Product Overview



Fillable

FEATURES / BENEFITS

- Rugged, Compact, Cost Effective Design
- Weatherproof Rated to NEMA 4/IP65
- Working Pressure Up to to 3,000 psi
- Over-range Protection to Max Working Pressure on High Side
- Popular for HVAC System Monitoring
- 5 Year Warranty

SPECIFICATIONS

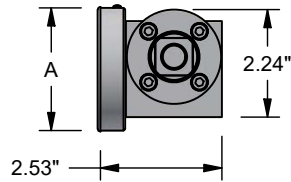
Accuracy	± 2% Full Scale Ascending
Range	5-100 PSID
Wetted Materials	Body: Aluminum, 316SS, Brass, or Monel Internal Parts: SS 302 Spring (Inconel Spring for NACE) and ceramic magnet Diaphragm and Gaskets: Buna-N, Viton, or EPDM
Lens	Glass (Standard), Plastic, or Safety Glass
Case	304SS, 316SS, or Engineered Plastic
Fillable	Yes
Maximum Working Pressure	3,000 psi
Environmental Protection	NEMA 4/IP65

Process Temperature Limits °F

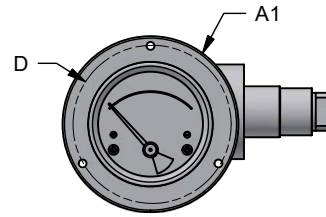
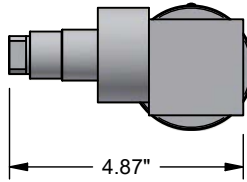
Elastomer	-40	-4	32	67	102	137	175	200	250
Buna-N	X	A						A	X
Viton	X	X						A	D
EPDM	A	A						A	X

- Gauge will function stated accuracy.
- A Gauge will function properly but accuracy will be affected.
- D A dry gauge will function properly but accuracy will be affected.
- X Gauge is not recommended at this temperature.

DIAPHRAGM TYPE MECHANICAL DIFFERENTIAL PRESSURE GAUGE



304SS Case with In-Line Connections



304SS Case with Front Flange

Dial	A	A1	D
2.5"	2.60"	3.66"	3.27"
3.5"	3.27"	4.29"	3.90"
4"	4.11"	5.16"	4.76"
4.5"	4.71"	5.75"	5.35"
6"	6.07"	7.13"	6.73"

DIAPHRAGM TYPE MECHANICAL DIFFERENTIAL PRESSURE GAUGE

HOW TO ORDER: Choose options to build a part number. For example: **D3125PAB-E4XXX-M2**

D31	25P	A	B	-E	4	XX
SERIES	DIAL SIZE/ CASE MATERIAL	BODY	DIAPHRAGM & GASKETS	CONNECTION LOCATION	CONNECTION SIZE	SWITCH OR TRANSMITTER TYPE & HOUSING
D31 = Mechanical DP Gauge Diaphragm Style (5-100 psid)	XXX = No Dial 25S = 2.5" Dial, 304SS Case 35S = 3.5" Dial, 304SS Case 40S = 4" Dial, 304SS Case 45S = 4.5" Dial, 304SS Case 60S = 6" Dial, 304SS Case 25E = 2.5" Dial, 304SS Case with Front Flange 35E = 3.5" Dial, 304SS Case with Front Flange 40E = 4" Dial, 304SS Case with Front Flange 45E = 4.5" Dial, 304SS Case with Front Flange 60E = 6" Dial, 304SS Case with Front Flange 25P = 2.5" Dial, Plastic Case 45P = 4.5" Dial, Plastic Case 60P = 6" Dial, Plastic Case 256 = 2.5" Dial, 316SS Case 356 = 2.5" Dial, 316SS Case 406 = 4" Dial, 316SS Case 456 = 4.5" Dial, 316SS Case 606 = 6" Dial, 316SS Case	A = Aluminum S = 316SS B = Brass M = Monel Wetted	B = Buna-N V = Viton E = EPDM Wetted	-B = Back/Rear -E = End/In-Line/Side -L = Bottom/Lower with Manifold Spracing	4 = 1/4" FNPT 2 = 1/2" FNPT ⁶ 8 = 1/8" FNPT ⁶ Achieved with adapters which are shipped loose.	XX = None A7 = Single Reed Switch, DIN Plug ⁴ A8 = Dual Reed Switch, DIN Plug ⁵ A9 = Single Reed Switch, Terminal Strip ⁴ A0 = Dual Reed Switch, Terminal Strip ⁵ D3 = Single Reed Switch, Explosion Proof Enclosure ^{1,4} D4 = Dual Reed Switch, Explosion Proof Enclosure ^{1,5} ⁴ If option code FS is not ordered, switch will be set to 80% full scale increasing. ⁵ If option code FS is not ordered, switch will be set to 30% full scale increasing and 80% full scale increasing.

X	-PD5	-M2
ELECTRICAL SPECIFICATION	PRESSURE RANGE	OPTIONS
X = None A = SPDT, 3 VA AC (RMS) or DC (Max), 0.3 Vac/ VDC (Max) B = SPST, 10VA AC (RMS) or DC (Max), 0.5 Amp AC (RMS) or DC (Max), 100 Vac/ VDC (Max)	-PD5 = 0-5 psid -PD10 = 0-10 psid -PD20 = 0-20 psid -PD50 = 0-50 psid -PD100 = 0-100 psid <i>For Additional Range Codes See Page 109</i>	-M3 = Wall Mounting Aluminum Kit ⁷ -M8 = Wall Mounting Stainless Steel Kit ⁷ -M1 = 2" Pipe Aluminum Mounting Bracket -M2 = 2" Pipe Stainless Steel Mounting Bracket -6F = Glycerin Fill ² -SF = Silicone Fill ² -SG = Laminated Safety Glass -MP = Max Pointer (Not Available with SG) ² -NC = NACE -TS = SS Tag -OX = Cleaned for Oxygen -R1 = 1% Full Scale Ascending Accuracy ³ -PA = Plastic Lens -C3 = 3pt Calibration Certificate -FS = Factory Set Point for Switch (30-100% of range)

¹Ratings for Enclosure Only:

USA/Canada

UL/CSA Approved for:

Class I, Div. 1, Groups B, C, and D
 Class II, Div. 1, Groups E, F, and G
 Class III

CSA Approved for:

Class I, Zone 1 & 2, Group IIB+H2

ATEX/IECEX

FM Approved for:

II 2 G Ex d IIC Ta = -20°C/60°C, IP66
 II 2 D Ex tD A21 Ta = -20°C/60°C, IP66

² Reduces Accuracy

⁷ Not available with back mount.

PRESSURE GAUGE RANGES AND CODES

SPECIAL RANGE TYPES

Receiver Ranges			Refrigerant Ranges			Tank Level Ranges	
Code	Element	Dial Range	Code	Dial Range	Refrigerant	Code	Range
P60	3-15 psi	0-100%	N06	-30inHg to 160 psi	Ammonia	F14	0-24ft H ₂ O
P61	3-15 psi	0-10 sq rt	R06	-30inHg to 160 psi	R134A	F15	0-30ft H ₂ O
P62	3-15 psi	0-100% & 0-10 sq.rt.	R06A	-30inHg to 160 psi	R22	F15C	0-40ft H ₂ O
			R06C	-30inHg to 160 psi	R404A	F16	0-60ft H ₂ O
			N07	-30inHg to 200 psi	Ammonia	F165	0-100ft H ₂ O
			N08	-30inHg to 300 psi	Ammonia		

DIFFERENTIAL PRESSURE RANGES (DP GAUGES ONLY)

psid		inH ₂ Od		bard		mbard		kPad	
Code	Range	Code	Range	Code	Range	Code	Range	Code	Range
PD1	0-1 psid	ID10	0-10 inH ₂ Od	BD1	0-1 bard	MD40	0-40 mbard	AD2.5	0-2.5 kPad
PD3	0-3	ID20	0-20	BD1.6	0-1.6	MD60	0-60	AD6	0-6
PD5	0-5	ID30	0-30	BD2.5	0-2.5	MD100	0-100	AD10	0-10
PD10	0-10	ID50	0-50	BD4	0-4	MD160	0-160	AD25	0-25
PD20	0-20	ID100	0-100	BD6	0-6	MD250	0-250	AD40	0-40
PD50	0-50	ID150	0-150	BD7	0-7	MD400	0-400	AD100	0-100
PD100	0-100	ID200	0-200	BD11	0-11	MD600	0-600	AD250	0-250
PD200	0-200	ID400	0-400	BD55	0-55	MD1000	0-1000	AD700	0-700
PD6000	0-6000			BD400	0-400				