

# Diaphragm Pressure Gauges Standard Series Sealgaug<sup>®</sup> Type 422.12 - Dry Case Type 423.12 - Liquid-filled Case

WIKA Datasheet 42X.12

## Applications

- With liquid filled case for applications with high dynamic pressure pulsations or vibration
- Suitable for corrosive environments and gaseous or liquid media that will not obstruct the pressure system
- Process industry: chemical/petrochemical, power stations, mining, on and offshore, environmental technology, mechanical engineering and plant construction

## Special features

- Excellent load-cycle stability
- Heavy duty cast iron case
- High overpressure safety

## Standard Features

### Design

EN 837-3

### Sizes

4" & 6" (100 & 160 mm)

### Accuracy class

± 1.5% of span

### Ranges

Vacuum / Compound to 200 psi  
Pressure from 10" H<sub>2</sub>O to 100" H<sub>2</sub>O (6" flange diameter)  
Pressure from 6 psi to 600 psi (4" flange diameter)  
or other equivalent units of pressure or vacuum

### Working pressure

Steady: full scale value  
Fluctuating: 0.9 x full scale value

### Overpressure safety

< 6 psi: 5 x full scale value  
≥ 6 psi: 3 x full scale value, max. 600 psi

### Operating temperature

Ambient: -4°F to +140°F (-20°C to +60°C)  
Medium: +212°F (+100°C) maximum



Diaphragm Pressure Gauge Model 422.12

### Temperature error

Additional error when temperature changes from reference temperature of 68°F (20°C) ±0.8% for every 18°F (10°C) rising or falling. Percentage of span.

### Weather protection

Weather resistant (NEMA 3 / IP54) - dry case  
Weather tight (NEMA 4X / IP65) - liquid-filled case

### Pressure connection and lower diaphragm housing

Material: carbon steel, black finish  
Lower mount (LM)  
1/2" NPT female

### Case and upper diaphragm housing

Material: cast iron, black finish  
Case with black-painted steel bayonet ring

### Diaphragm element

≤ 30 psi: 316L stainless steel  
> 30 psi: carbon steel  
All ranges with Buna-N sealing gasket

### Movement

Material: copper alloy with nickel-alloy wearable parts

### Dial

White aluminum with black lettering

**Pointer**

Black aluminum, adjustable

**Window**

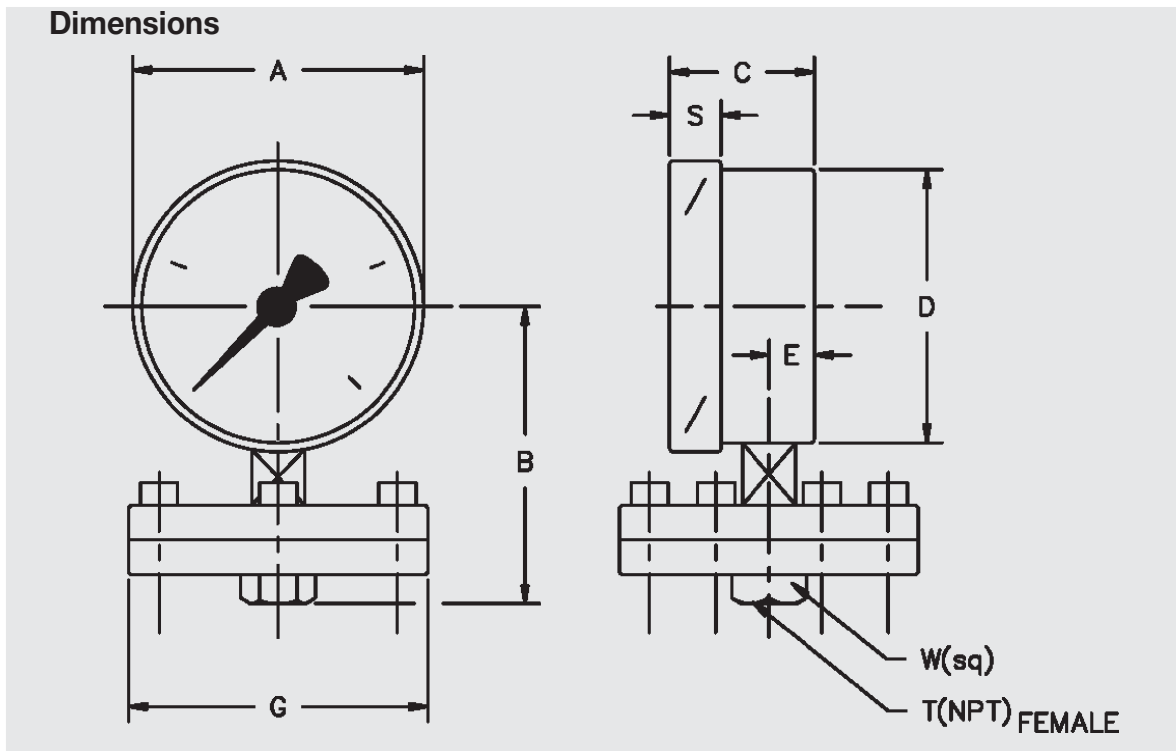
Flat instrument glass with Buna-N gasket

**Case fill**

Glycerine 99.7% - Type 423.12

**Optional extras**

- 10X overpressure safety, max. 600 psi
- Underpressure safe to -30" Hg
- Silicone for fluorolube case filling
- Special connections limited to wrench flat area
- Open flange connections (300# ASME maximum)
- Safety glass or acrylic window
- Cleaned for oxygen service
- Extended media temperature to +392°F
- Exotic metal or PTFE lining for open flanges
- Alarm contacts switches (magnetic or inductive)
- Special process connections
- Custom dial layout

**Dimensions**

Size		A	B	C	D	E	G <sup>1</sup>	S	T	W	Weight
4"	mm	100	104	49.5	99	15.5	100	17.5		27	
	in	4.0	4.09	1.95	3.90	0.61	3.94	0.69	1/2"	1.06	4.5 lb.
6"	mm	160	134	49.5	159	15.5	100	17.5		27	
	in	6.0	5.28	1.95	6.26	0.61	3.94	0.69	1/2"	1.06	6.5 lb.

<sup>1</sup> For ranges 100"H<sub>2</sub>O and lower, G dimension changes to 160 mm (6") and weight increases by 2.9 lb.

**Ordering information**

Pressure gauge model / Nominal size / Scale range / Size of connection / Optional extras required  
 Specifications and dimensions given in this leaflet represent the state of engineering at the time of printing.  
 Modifications may take place and materials specified may be replaced by others without prior notice.

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# Sealgauge® Diaphragm Gauges

Cast Iron Case

Process Industry Series • 316 SS Steel Wetted Parts • Type 43X.12

## Pressure Gauges

### Application

Industrial type suitable for environments where the fluid medium does not clog connection or corrode steel or 316 stainless steel. Built to withstand highly viscous and crystallizing medium. Diaphragm mechanically linked to movement, allowing use of a metallic diaphragm at low pressures. Eliminates system liquid filling and permits overpressurization up to five times the full scale range. Housing bolts limit maximum pressures to 600 PSI.

**Sizes** (All sizes not stocked)

4" and 6" (100 and 160 mm)

### Accuracy

± 1.5% of span

**Ranges** (All ranges not stocked)

Vacuum / Compound to 30" HG / 0 / 200 PSI

Pressure from 10" H<sub>2</sub>O to 100" H<sub>2</sub>O (6" flange diameter)

Pressure from 6 PSI to 600 PSI (4" flange diameter)

or other equivalent units of pressure or vacuum

### Working Range

Steady: Full scale value

Fluctuating: 0.9 x full scale value

### Overpressure Safety

≤ 6 PSI 5 X full scale value

> 6 PSI to 30 PSI 3 X full scale value

> 30 PSI 5 X full scale value, max. 600 PSI

### Operating Temperature

Ambient: -4°F to 140°F (-20°C to 60°C)

Media: max. 212°F (+100°C)

### Temperature Error

Additional error when temperature changes from reference temperature of 68°F (20°C) ±0.5% for every 18°F (10°C) rising or falling. Percentage of span.

## Standard Features

### Connection

316 stainless steel

Lower mount (LM)

1/2" NPT Female

### Diaphragm Housing

Upper: cast iron, black finish

Lower: 316 stainless steel

### Diaphragm Element

432.12: 316 stainless steel

### Diaphragm Gasket

Buna-N

### Movement

Material: copper alloy

### Dial

White aluminum with black lettering



### Pointer

Adjustable black aluminum

### Case

Black iron with integral top housing and black steel twist-lock ring

### Weather Protection

Weather resistant (NEMA 3 / IP 54) - dry case

Weather tight (NEMA 4X / IP 65) - liquid-filled case

### Standard Scales

PSI, Inches of H<sub>2</sub>O

### Window Gasket

Buna-N

### Window

Flat instrument glass

### ORDER OPTIONS (min. order may apply)

10 X overpressure safety, max. 600 PSI

Underpressure safe to -30 "Hg

Liquid filled version (**4X3.12**)

Glycerine, silicone, or fluorocarbon case filling

Special connections limited to wrench flat area

Open flange connections (300# ANSI maximum)

Safety glass window

Acrylic plastic window

Cleaned for oxygen service

Extended media temperature up to 392°F

DIN standards

Custom dial layout

Other pressure scales available

Alarm contact switches magnetic and inductive

Transmitters

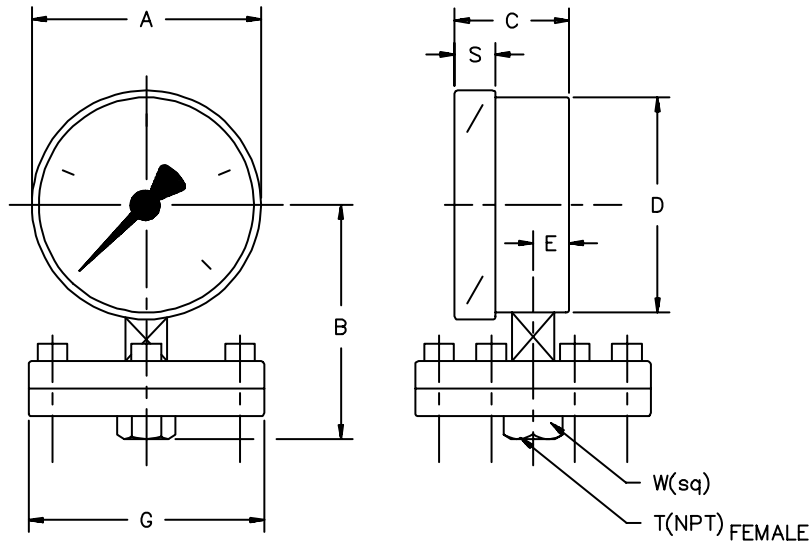
Diaphragm, wetted parts lined for open flange connections such

as: PTFE Foil, PFA or ECTFE powder coating, Hastelloy® B2 & C4, Monel®, Tantalum or Titanium

Only male threaded connections are available with special materials.

**APM 43X.12**  
**(APM 04.02)**

**Dimensions:**



A\* NOMINAL SIZE

TYPE	WEIGHT	KEY	A*	B	C	D	E	G	S	T	W
43X.12 4"	4.5 lbs.	mm	100	104	49.5	99	15.5	100	17.5	--	27
		in	4	4.09	1.95	3.90	0.61	3.94	0.69	1/2"	1.06
43X.12 6"	6.5 lbs.	mm	160	134	49.5	159	15.5	100	17.5	--	27
		in	6	5.28	1.95	6.26	0.61	3.94	0.69	1/2"	1.06

NOTE: For ranges 4 PSI and lower, G dimension changes to 160 mm (6") and weight increases by 2.9 lbs.

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THE MEASURE OF  
**Total Performance™**

**Ordering Information:**

State computer part number (if available) / type number / size / range / connection size and location / options required.

Specifications given in this price list represent the state of engineering at the time of printing. Modifications may take place and the specified materials may change without prior notice

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