

Pressure Gage

45APE Series

The 45APE Series gage instrument is a mechanical gage for pressure indication. It includes two adjustable SPDT switches. These snap-acting switches can be used for start and stop, to trip alarms and to shut down equipment. Ranges are available from 30 psi (207 kPa) [2.06 bar] thru 5,000 psi (34.48 Mpa) [344.73 bar].

The 45APE Series utilizes a bourdon tube sensing unit with a stainless steel dual-sector geared movement. Each of the sectors drives separate pointers when pressure is applied to the bourdon tube. The indicating pointer (visible pointer) shows actual pressure reading, including below and beyond the low and high trip points. The low and high trip points are adjustable independently on the gage front lens. The switch operator pointer (behind the dial) is calibrated to follow the indicating pointer. The low and high trip point indicators arrest the switch operator pointer. As pressure decreases or increases through the principal of lost motion, the respective snap-switch is tripped.

The 45APE Series models are widely used in applications requiring pressure indication and Form C low and high pressure switches.

Basic Models

45APE Series gage instrument - Surface mount
(square case) version

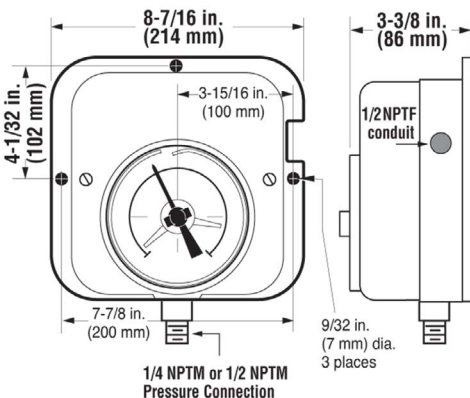
45APEF Series gage instrument - Panel mount
(round case) version



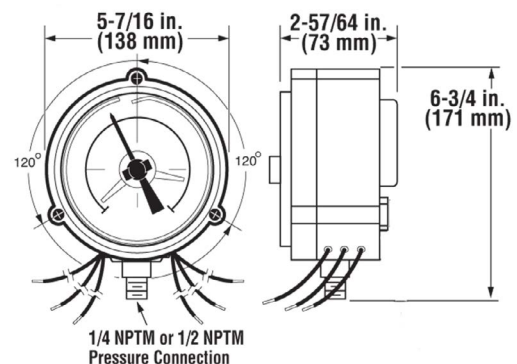
Certain models listed for non-hazardous locations. Pending for hazardous location.

Dimensions

Surface Mount Models



Panel Mount Models



Specifications

Dial: White on black, dual scale, psi and kPa standard, 4-1/2 in. (114 mm) diameter

Case: Die cast aluminum, surface or panel mount

Overrange: Do not exceed 10% FS above full range

Process Connection:

1/4 NPTM thru 1000 psi; 1/2 NPTM 1500 - 5,000 psi

Sensing Element: Bronze or 316 stainless steel bourdon tube

Gage Accuracy: Indicating pointer within switch points with hysteresis of <1%; ±2% for first and last quarters of scale; middle half of scale is ±1%. Indicating pointer above or below trip point:

Range	Accuracy (+/-) above or below trip point only
< 100	10
100-300	4
400-1500	2
2000	12
3000-5000	8

Reading based on testing performed with switch point at mid scale which represents worst case.

Switch Point Accuracy: ±1.5%.

Switch Reset Deadband: Approximately 10% FS

Pressure Relief Disc: Back of case (except EX models)

Snap-Acting Switches: 2-SPDT; 2 A @ 250 VAC

Wire Connections (Surface Mount):

1/2 NPTF conduit entry with terminal block

Wire Connections (Panel Mount):

Wire leads, 18 AWG (1.0 mm2) x 9 in. (229 mm) long

Weight: 5 lbs 6 oz (2.4 kg) approximately

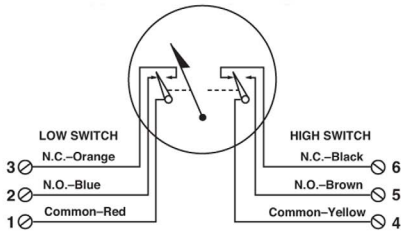
Explosion-proof models: 21 lb. (9.5 kg) approximately

Dimensions: 10 x 9 x 6 in. (254 x 229 x 152 mm) approximately

Explosion-proof models: 12 x 12 x 9 in (305 x 305 x 229 mm) approximately

CSA Certified Models: 45APE Series models with pressure range thru 5000 psig (34.4 MPa) [344 bar] are CSA approved for non-hazardous locations. Explosion-proof EX models with pressure range thru 5000 psig (34.4 MPa) [344 bar] are CSA approved for Hazardous locations Class I, Groups, C & D.

Typical Wiring Diagram



Contact Ratings: 2-SPDT snap-switches; 2 A @ 250 VAC

NOTE: Diagram shows the pointer in the at rest (shelf) position.

How to Order

Options listed below. All configurations may not be available. Call your sales representative or FW Murphy for more information.

45APE

Base Model

45APE
45APEF

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S

Bourdon Tube and Socket

A = Bronze / Brass std. <=1000 psi

S = 316 Stainless Steel / 316 Stainless Steel

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100

Ranges

Specify Vacuum/psi

30V100 = 30" vac-100 psi

30 = 0-30 psi

60 = 0-60 psi

100 = 0-100 psi

200 = 0-200 psi

300 = 0-300 psi

400 = 0-400 psi

600 = 0-600 psi

1000 = 0-1000 psi

1500 = 0-1500 psi

2000 = 0-2000 psi

3000 = 0-3000 psi

5000 = 0-5000 psi

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EX

Options

Verify Option Availability, Not All Options Can Be Provided For Every Model.

EX = Explosion-Proof; Approved for Hazardous Areas Class I, Groups C and D to <=5000 psig

EL = (EXLC) Explosion-Proof Less Case

Approximate Shipping Weight and Dimensions		
Model	Weight	Dimension
45APE	5 lbs 6 oz (2.4 kg)	10 x 9 x 6 in. (254 x 229 x 152 mm)
45APEF	5 lbs 6 oz (2.4 kg)	10 x 9 x 6 in. (254 x 229 x 152 mm)
Explosion Proof	21 lb. (9.5 kg)	12 x 12 x 9 in (305 x 305 x 229 mm)