

# **Technical Instructions**

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# **POWERS® Controls** GA 142 AP Analog Pressure Gauges



Description	The GA 142 Analog Pressure Gauge is a round dial instrument displaying the value of input pressure over an angular displacement of 270°.					
Specifications	Accuracy	2-1/2% of full scale for middle half of the scale, 3-1/2% elsewhere				
	Connection	1/8-inch NPT male or barbed connector for 1/4-inch OD tubing. See Table 2				
	Shipping weight					
	1-1/2 inches 2-1/2 inches	0.5 lb (0.23 kg) 1 lb (0.45 kg)				
Operation	As the input pressure increases, the curved bourdon tube tends to straighten out action moves the gear and linkage, which is attached to the end of the bourdon t making the pointer rotate clockwise.					
Calibration and Adjustments	Use a master gauge to check the pressure reading. If the gauge does not indicate th measurement, adjust the gauge pointer.					

#### Table 1. Product Numbers.

	Product Number							
Range	1-	1/2-in	2-1/2-in					
	Panel-mount Pipe-mount		Panel-mount	Pipe-mount				
0 to 30 psi	142-0274 (barb)	—	142-0277 (barb)	142-0311 (back)				
0 to 30 psi 0 to 200 kPa	—	142-0373* (back) 142-0426* (bottom)	_	—				
0 to 30 psi 0 tp 200 Kpa RoHS Certified	_	142-0473* (back) 142-0476* (bottom)	_	_				
0 to 100 psi				142-0312 (back)				
0 to 160 psi				142-0313 (back)				

\* Dual Scale Gauges. Pipe-mount fitting threads are Teflon taped. No logo.

Gauge Size Inches (mm)	Hole Size Inches (mm)	Cutout used in Standard Panel Template*				
1-1/2 (38)	1-11/16 (42)	G-1				
2-1/2 (64)	2-21/32 (68)	G-3				

Table 2. Hole Sizes for Panel-mounted Gauges.

\* See 155-223P25 (TB 196) for further information.



Figure 1. Dimensions for 142-0426.

Figure 2. Dimensions for Table 3.

Product	Nominal		Dimensions							ations
Number	Size	Α	В	С	D	E	F	G	Major	Minor
142-0274	1-1/2" (38)	1-13/16 (46)	1-19/32 (40)		3/4 (19)	1-1/8 (29)	21/32 (17)	1-1/8 (29)	5	1
142-0277	2-1/2" (64)	2-7/8 (73)	2-5/8 (67)	7/32 (5)	1 (25)	—	7/8 (29)	2 (51)	5	1
142-0311	2-1/2" (64)	2-23/32 (69)	2-11/16 (68)	_	1 (25)	—	7/8 (22)	—	5	1
142-0312	2-1/2" (64)	2-23/32 (69)	2-11/16 (68)		1 (25)	—	7/8 (22)	—	10	2
142-0313	2-1/2" (64)	2-23/32 (69)	2-11/16 (68)		1 (25)	—	7/8 (22)	—	20	5
142-0373	1-1/2" (38)	1-5/8 (41)	1-9/16 (40)	_	7/8 (22)	—	5/8 (16)	—	5 (20)	1 (5)
142-0426		See Figure 1.								

Table 3. Dimensions in Inches (mm). See Figure 2.



## Table 4. Dimensions in Inches (mm) for Gauge 142-0473.

Dial Size Inches (mm)	А	В	с	F1	к	W	Weight Oz (kg)
	Back	Back		NPT		Back	Back
1.5 (38)	1.64 (42)	1.01 (26)	1.60 (41)	1/8	0.62 (16)	0.44 (11)	1.55 oz (0.044 kg)

**NOTE**: Teflon tape to be applied around the circumference of the brass socket pipe thread leaving only the first one-half to two threads free of tape.

### Table 5. Dimensions in Inches (mm) for Gauge 142-0476.



Dial Size Inches (mm)	А	В	с	F1	G	н	м	w	Weight Oz (kg)
	Lower	Lower		NPT				Lower	Lower
1.5 (38)	1.66 (42)	1.07 (27)	1.60 (41)	1/8	1.41 (36	0.38 (10)	0.62 (16)	0.56 (14)	1.62 oz (0.046 kg)

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