

Refrigerant Pressure Gauge

Stainless Steel Case

P-1P

- ⇒ Red Temperature Indication on Dial
- ⇒ 100% Leak tested to ensure integrity to 1×10^{-4} CC per second of gas at rated pressure
- ⇒ Heavy Duty Bourdon Tube/Rotary Geared Movement
- ⇒ Field Liquid Fillable
- ⇒ Zero Adjustable Pointer for 4" and 6"



Typical Applications:

- ☑ Suitable for use on all freon service applications

HAWK 47L, 47B, series

refrigerant pressure gauges are ideally suited for refrigeration applications such as testing automotive, industrial and residential air conditioning at high quality performance requirement.

The red temperature equivalent scale provides easy analysis of the refrigeration system. The all SS construction are good in use on demanding applications where corrosion resistance, rugged environment resistance and reliable operation are required.

Liquid Filling or dampened movement is available to diminish the effects of vibration, pulsation and shock and further enhances the gauge life.

Specifications

Operating

Steady: 100%*full scale value
Pulsation: 90%*full scale value
Sudden: 130%*full scale value

The appropriate operating range falls in the middle half of the gauge (25% to 75% of full scale). If you choose the unsuitable range, the fatigue of bourdon tube may be resulted.

Temperature limit

Ambient: -40 to 100°C(Dry Gauge)
-10 to 65°C(Glycerine Filled Gauge)
-50 to 80°C(Silicon Filled Gauge)
Media: max 60°C-Brass, 125°C-SS(Standard)
300°C(Optional)

Temperature effect

Accuracy of measurement will be effected by the temperature change. This inaccuracy may as high as $\pm 0.3\%$ for 12°C temperature change.

Dial Size

4" (100mm) or 6" (150mm)
2 1/2" (63mm) or 3 1/2" (85mm)

Case&Ring

Stainless Steel 304 (SS316-option),
polished bayonet ring

Socket

316 Stainless Steel or Brass

Movement

Stainless steel movement with overload and underload stops-standard, silicon dampened movement on request

Bourdon Tube

316SS, Phosphor bronze or Brass

Window

Plain Glass-standard
Tempered safety, Polycarbonate or Laminated safety glass-optional

Pointer

Anodized aluminum with black finish

Accuracy

$\pm 1.0\%$ of span for 4" and 6"
(Grade 1A to ASME B40.1)
 $\pm 2-1-2\%$ of span for 2 1/2" and 3 1/2"
(Grade A to ASME B40.1)

Zero Adjustment

Micro-adjustable pointer for 4" and 6"

Scale

PSI, kPa, Mpa, bar, kg/cm², inHg, cmHg, mmHg (single or dual scale)

Connection

1/2", 3/8", 7/16"-20 UNF, 1/4" NPT standard JIS, DIN, M14*1.0 and M20*1.5 available

Mounting

Stem or Flushing U-clamp mounting
Panel or Flushing U-clamp mounting
Surface mounting

Weatherproof

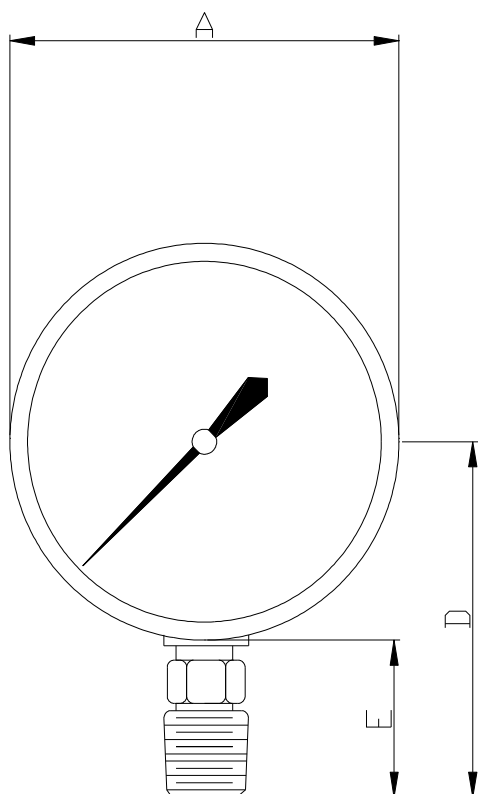
NEMA 4X/IP65 enclosure

Refrigerant Pressure Gauge

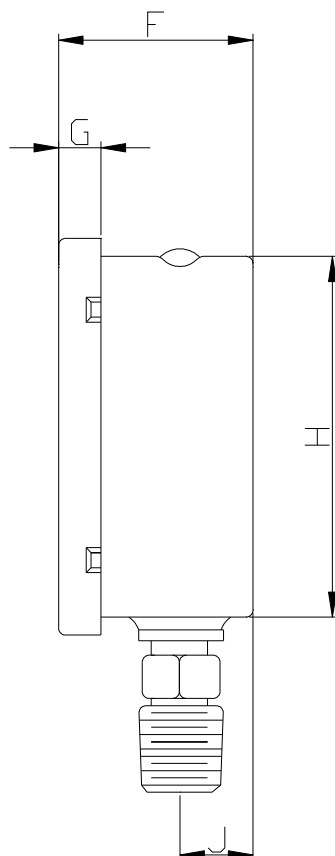
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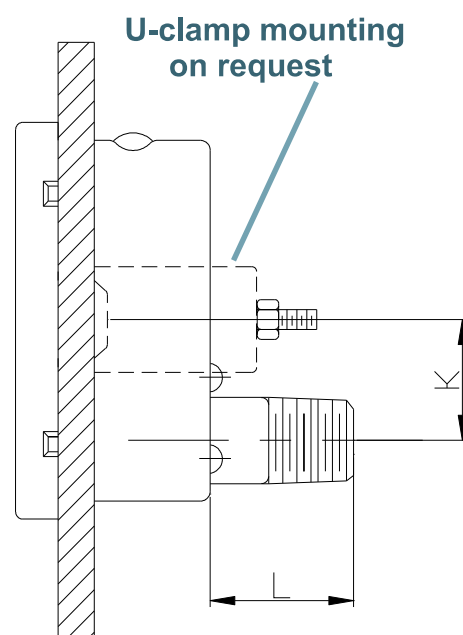
Dimensions



47L(Bottom Connection)



47B(Lower Back Connection)



4"(100mm) Dial Size

Dimensions, in.(mm)

Type No.:	A	B	C	D	E	F	G	H	J	K	L	Weight
47L(4")	4.33" (110)			4.41" (112)	1.49" (38)	1.89" (48)	0.47" (12)	3.94" (100)	0.79" (20)			0.49-0.55 Kg
47B(4")	4.33" (110)					1.89" (48)	0.47" (12)	3.94" (100)		1.18" (30)	1.26" (32)	0.58-0.64 Kg

6"(150mm) Dial Size

Dimensions, in.(mm)

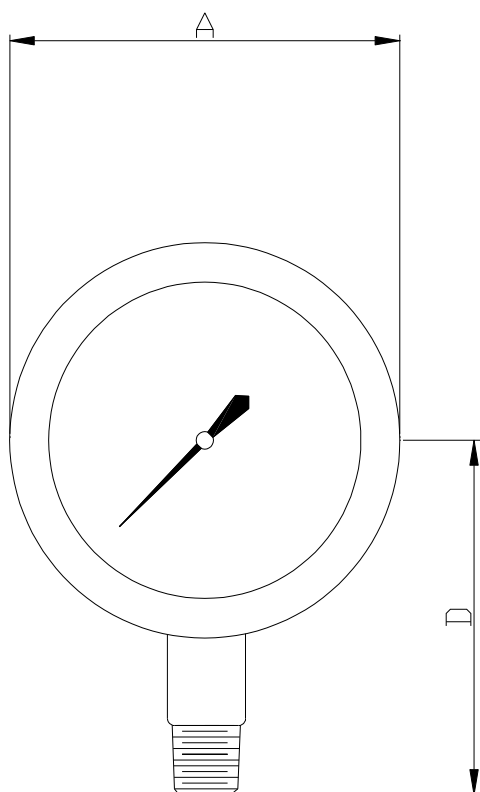
Type No.:	A	B	C	D	E	F	G	H	J	K	L	Weight
47L(6")	6.23" (160)			4.72" (120)	1.58" (40)	1.97" (50)	0.51" (13)	5.91" (150)	0.79" (20)			1.02-1.12 Kg
47B(6")	6.23" (160)					1.97" (50)	0.51" (13)	5.91" (150)		1.26" (32)	1.26" (32)	1.12-1.20 Kg

Refrigerant Pressure Gauge

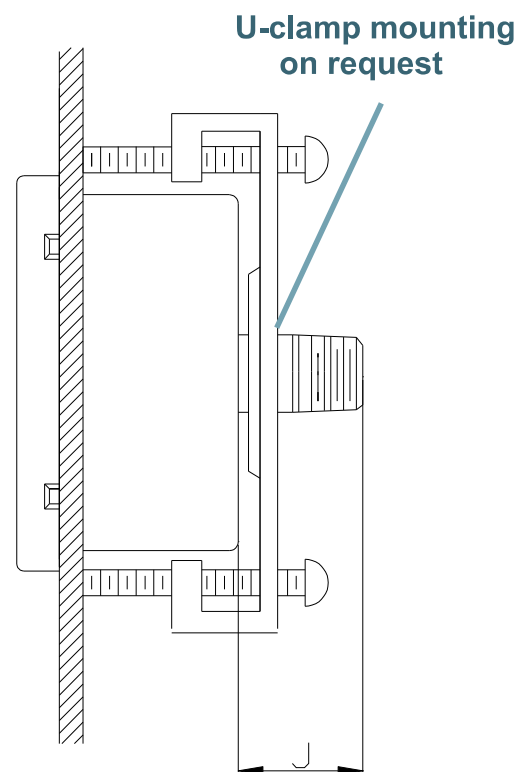
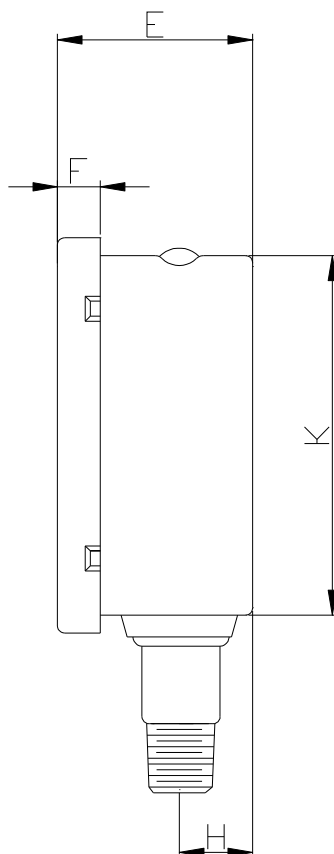
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Dimensions



47L(Bottom Connection)



**47B(Center Back Connection)
Lower Back Connection on request**

2 1/2"(63mm) Dial Size

Dimensions, in.(mm)

Type No.:	A	B	C	D	E	F	G	H	J	K	L	Weight
47L(2.5")	2.67" (68)			2.21" (56)	1.26" (32)	0.39" (10)		0.47" (12)		2.44" (62)		0.15-0.20 Kg
47B(2.5")	2.67" (68)				1.26" (32)	0.39" (10)			0.91" (23)	2.44" (62)		0.15-0.20 Kg

3 1/2"(90mm) Dial Size

Dimensions, in.(mm)

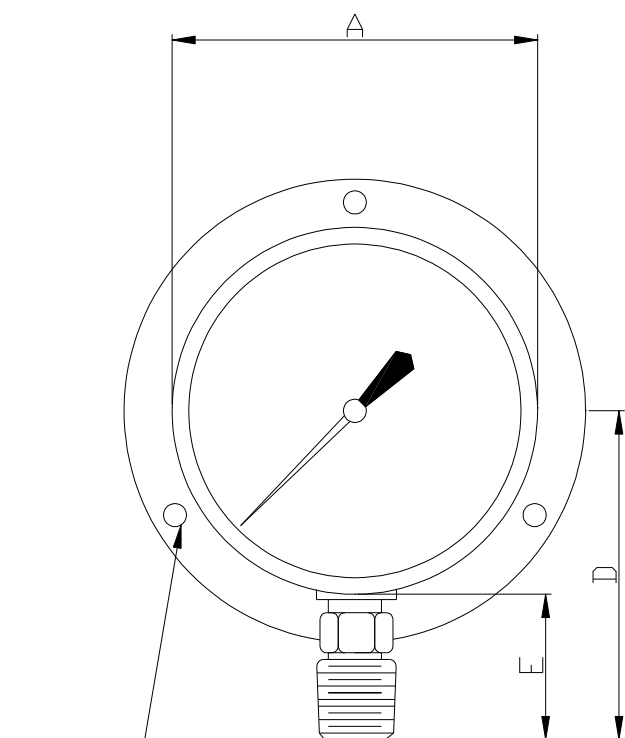
Type No.:	A	B	C	D	E	F	G	H	J	K	L	Weight
47L(3.5")	4.01" (102)			3.07" (78)	1.34" (34)	0.47" (12)		0.47" (12)		3.58" (91)		0.30-0.37 Kg
47B(3.5")	4.01" (102)				1.34" (34)	0.47" (12)			0.91" (23)	3.58" (91)		0.30-0.37 Kg

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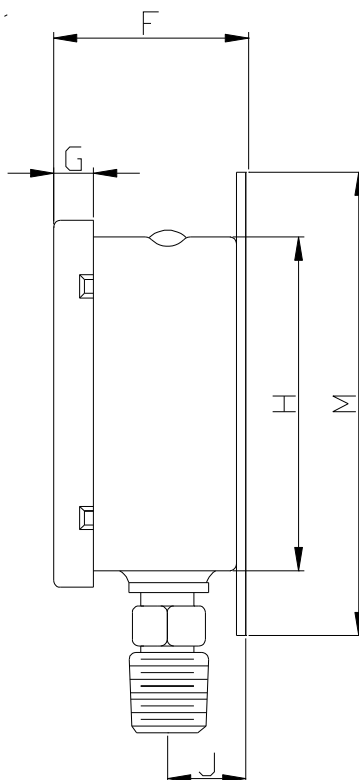
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Dimensions

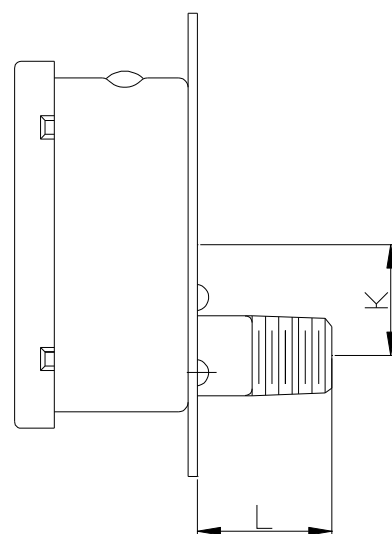


3-B dia.holes
on C dia.B.C.

47L(Bottom Connection)



47B(Lower Back Connection)



4"(100mm) Dial Size

Back Flange

Dimensions, in.(mm)

Type No.:	A	B	C	D	E	F	G	H	J	K	L	M	Weight
47L(4")	4.33" (110)	0.20" (5)	4.73" (120)	4.41" (112)	1.49" (38)	1.89" (48)	0.47" (12)	3.94" (100)	0.79" (20)			5.12" (130)	0.59-0.65 Kg
47B(4")	4.33" (110)	0.20" (5)	4.73" (120)			1.89" (48)	0.47" (12)	3.94" (100)		1.18" (30)	1.26" (32)	5.12" (130)	0.68-0.74 Kg

6"(150mm) Dial Size

Dimensions, in.(mm)

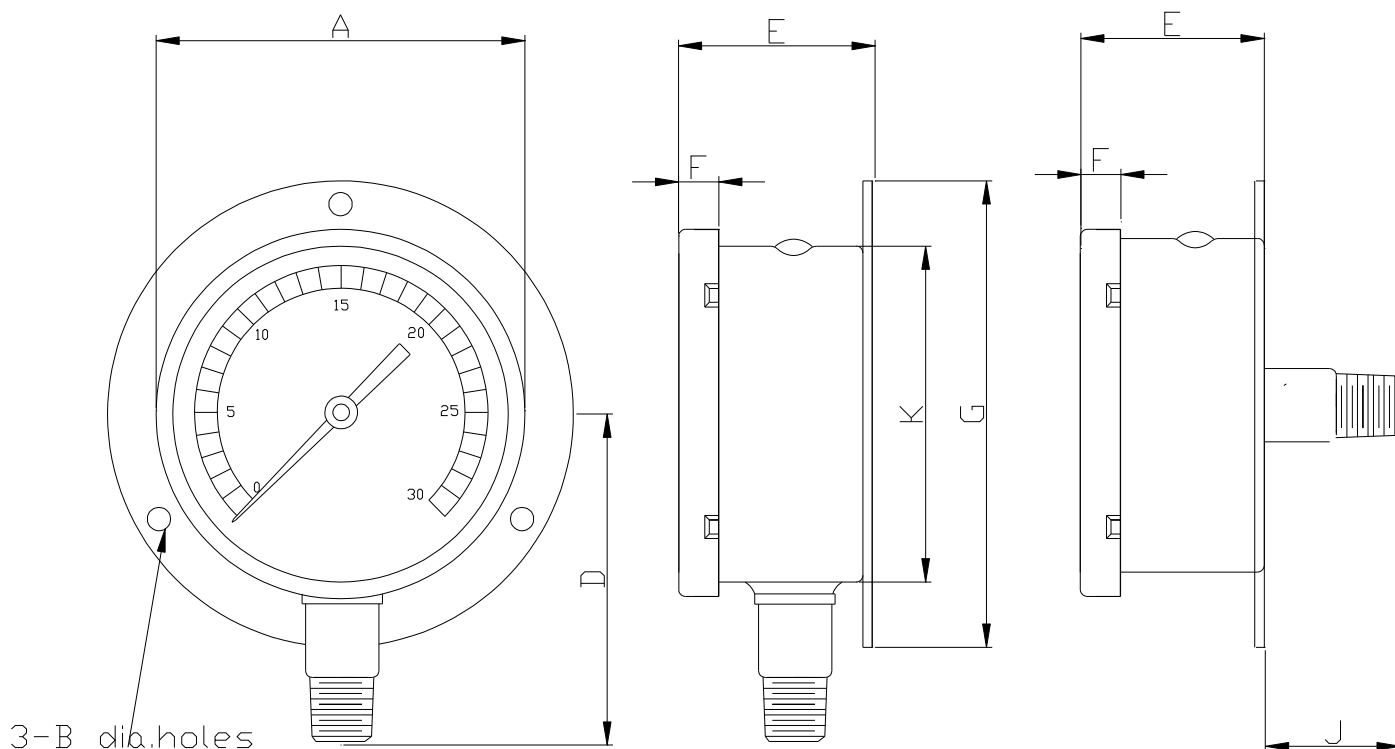
Type No.:	A	B	C	D	E	F	G	H	J	K	L	M	Weight
47L(6")	6.23" (160)	0.24" (6)	7.01" (178)	4.72" (120)	1.58" (40)	1.97" (50)	0.51" (13)	5.91" (150)	0.79" (20)			7.72" (196)	1.27-1.37 Kg
47B(6")	6.23" (160)	0.24" (6)	7.01" (178)			1.97" (50)	0.51" (13)	5.91" (150)		1.26" (32)	1.26" (32)	7.72" (196)	1.37-1.45 Kg

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47L(Bottom Connection)

47B(Center Back Connection)
Lower Back Connection on request

Back Flange

2 1/2"(63mm) Dial Size

Dimensions, in.(mm)

Type No.:	A	B	C	D	E	F	G	H	J	K	L	Weight
47L(2.5")	2.67" (68)	2.67" (4)	2.67" (80)	2.21" (56)	1.26" (32)	0.39" (10)	3.46" (88)			2.44" (62)		0.18-0.25 Kg
47B(2.5")	2.67" (68)	2.67" (4)	2.67" (80)		1.26" (32)	0.39" (10)	3.46" (88)		0.91" (23)	2.44" (62)		0.18-0.25 Kg

3 1/2"(90mm) Dial Size

Dimensions, in.(mm)

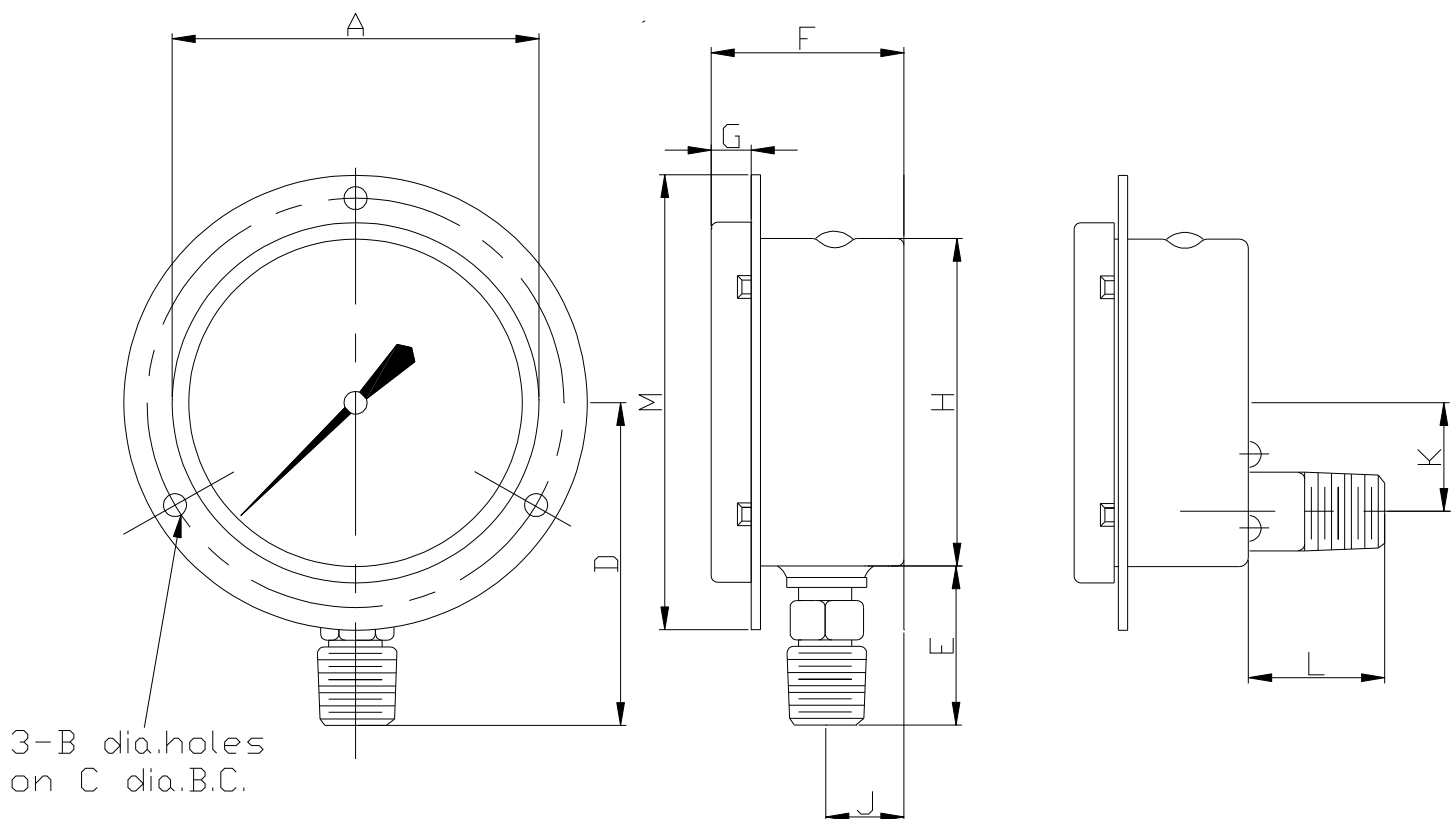
Type No.:	A	B	C	D	E	F	G	H	J	K	L	Weight
47L(3.5")	4.01" (102)	0.24" (6)	4.72" (120)	3.07" (78)	1.34" (34)	0.47" (12)	5.16" (131)			3.58" (91)		0.37-0.45 Kg
47B(3.5")	4.01" (102)	0.24" (6)	4.72" (120)		1.34" (34)	0.47" (12)	5.16" (131)		0.91" (23)	3.58" (91)		0.37-0.45 Kg

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47L(Bottom Connection)

47B(Lower Back Connection)

4"(100mm) Dial Size

Front Flange

Dimensions, in.(mm)

Type No.:	A	B	C	D	E	F	G	H	J	K	L	M	Weight
47L(4")	4.33" (110)	0.20" (5)	4.73" (120)	4.41" (112)	1.49" (38)	1.89" (48)	0.47" (12)	3.94" (100)	0.79" (20)			5.12" (130)	0.59-0.65 Kg
47B(4")	4.33" (110)	0.20" (5)	4.73" (120)			1.89" (48)	0.47" (12)	3.94" (100)		1.18" (30)	1.26" (32)	5.12" (130)	0.68-0.74 Kg

6"(150mm) Dial Size

Dimensions, in.(mm)

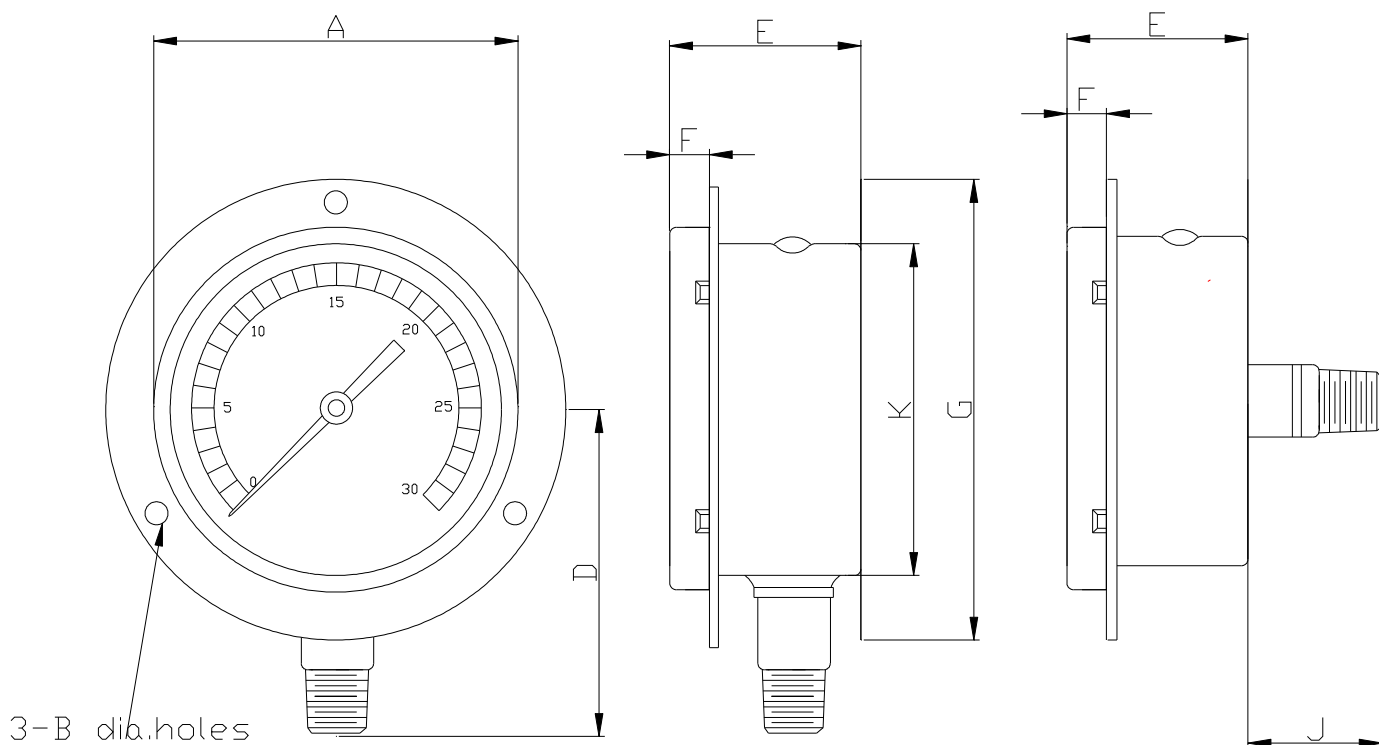
Type No.:	A	B	C	D	E	F	G	H	J	K	L	M	Weight
47L(6")	6.23" (160)	0.24" (6)	7.01" (178)	4.72" (120)	1.58" (40)	1.97" (50)	0.51" (13)	5.91" (150)	0.79" (20)			7.72" (196)	1.27-1.37 Kg
47B(6")	6.23" (160)	0.24" (6)	7.01" (178)			1.97" (50)	0.51" (13)	5.91" (150)		1.26" (32)	1.26" (32)	7.72" (196)	1.37-1.45 Kg

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47L(Bottom Connection)

47B(Center Back Connection)
Lower Back Connection on request

Front Flange

2 1/2"(63mm) Dial Size

Dimensions, in.(mm)

Type No.:	A	B	C	D	E	F	G	H	J	K	L	Weight
47L(2.5")	2.67" (68)	2.67" (4)	2.67" (80)	2.21" (56)	1.26" (32)	0.39" (10)	3.46" (88)			2.44" (62)		0.18-0.25 Kg
47B(2.5")	2.67" (68)	2.67" (4)	2.67" (80)		1.26" (32)	0.39" (10)	3.46" (88)		0.91" (23)	2.44" (62)		0.18-0.25 Kg

3 1/2"(90mm) Dial Size

Dimensions, in.(mm)

Type No.:	A	B	C	D	E	F	G	H	J	K	L	Weight
47L(3.5")	4.01" (102)	0.24" (6)	4.72" (120)	3.07" (78)	1.34" (34)	0.47" (12)	5.16" (131)			3.58" (91)		0.37-0.45 Kg
47B(3.5")	4.01" (102)	0.24" (6)	4.72" (120)		1.34" (34)	0.47" (12)	5.16" (131)		0.91" (23)	3.58" (91)		0.37-0.45 Kg

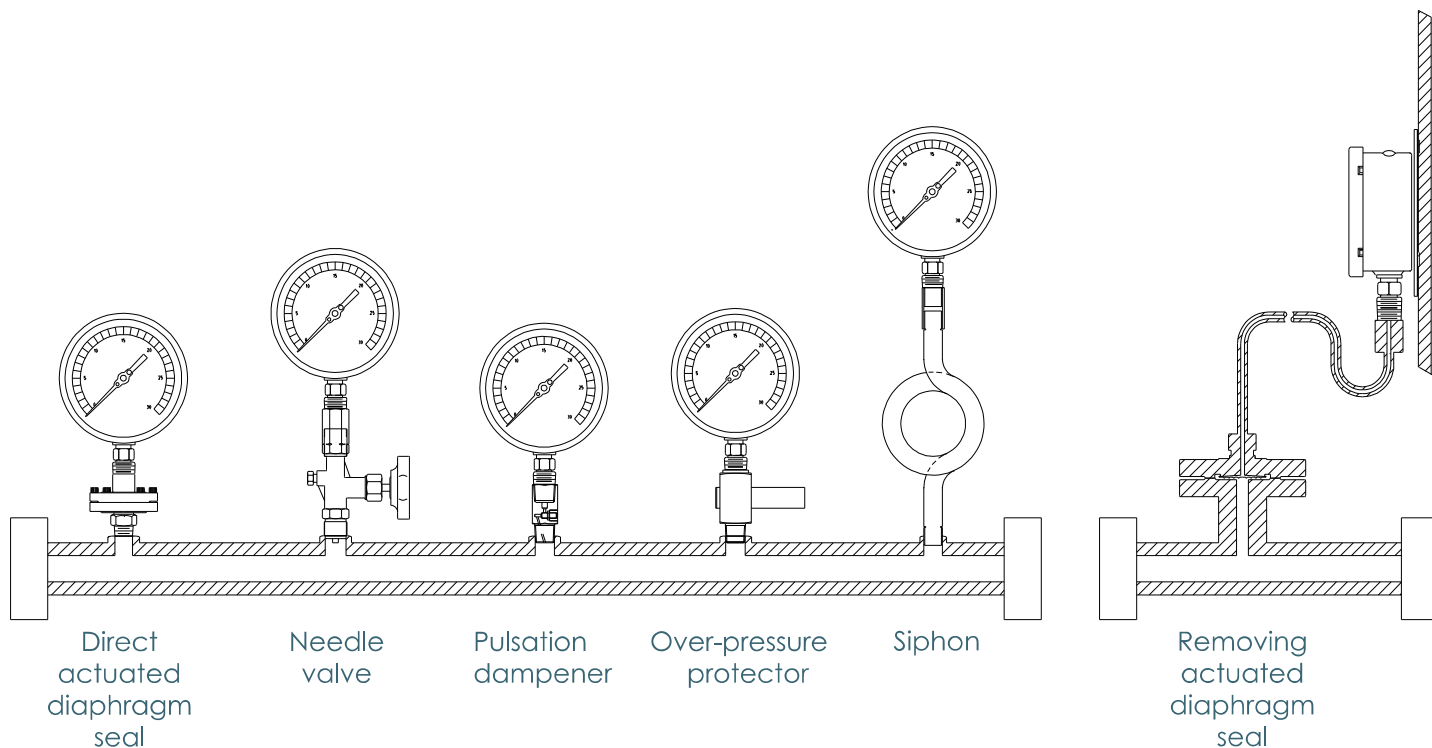
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Accessories

Please refer to HAWK diaphragm seal and accessories data sheets for detailed information.



Pressure Ranges

1. The other scales and ranges (DIN) are available in request.
2. Not all listed ranges and scales are in stock, consult your distributors for available.

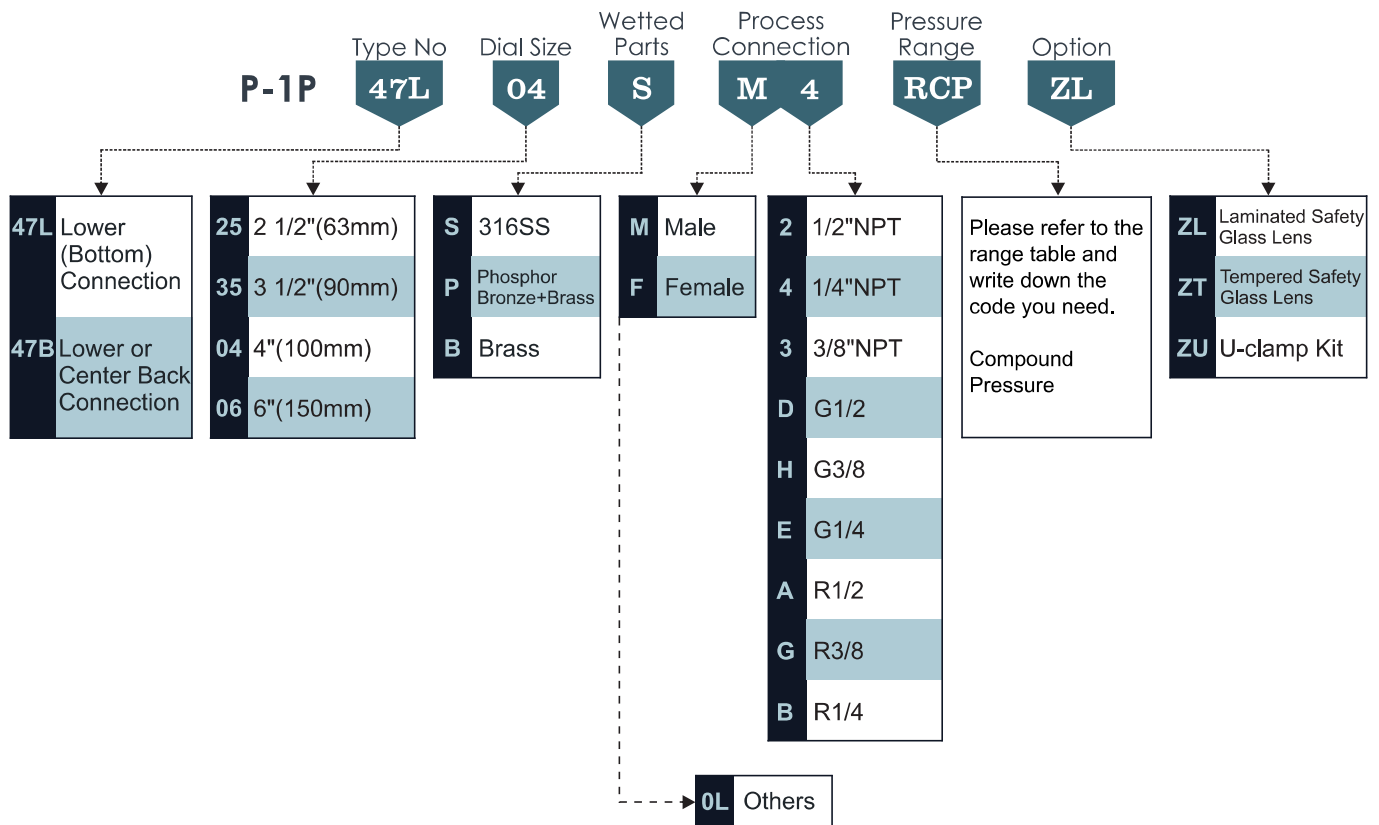
Freon Pressure Ranges					
Code	Range	Code	Range	Code	Range
ICK	30inHg/0/120PSI (or 150PSI)	ICO	-100/0/1500 kPa	ICR	0/34 bar
ICL	0/500 PSI	ICP	0/3500 kPa	ICS	-0.1/0/1.5 Mpa
ICM	-76cmHg/0/15 kg/cm ²	ICQ	-1/0/15 bar	ICT	0/3.5 Mpa
ICN	0/35 kg/cm ²				

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Order Information



Option

Certificate of Accuracy (NIST)

ZI

Improved Accuracy

Z1



ZC

Certificate of Accuracy (Factory)

ZE

Certificate of Accuracy (TAF)

NACE-MR0175-2002 Heat Treatment

ZN



ZX

Cleaned for Oxygen Service

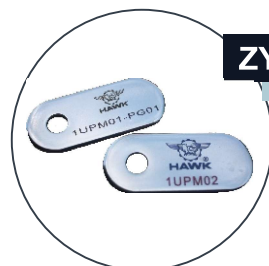
Dampener

08



ZY

Stainless Steel Tag Plate

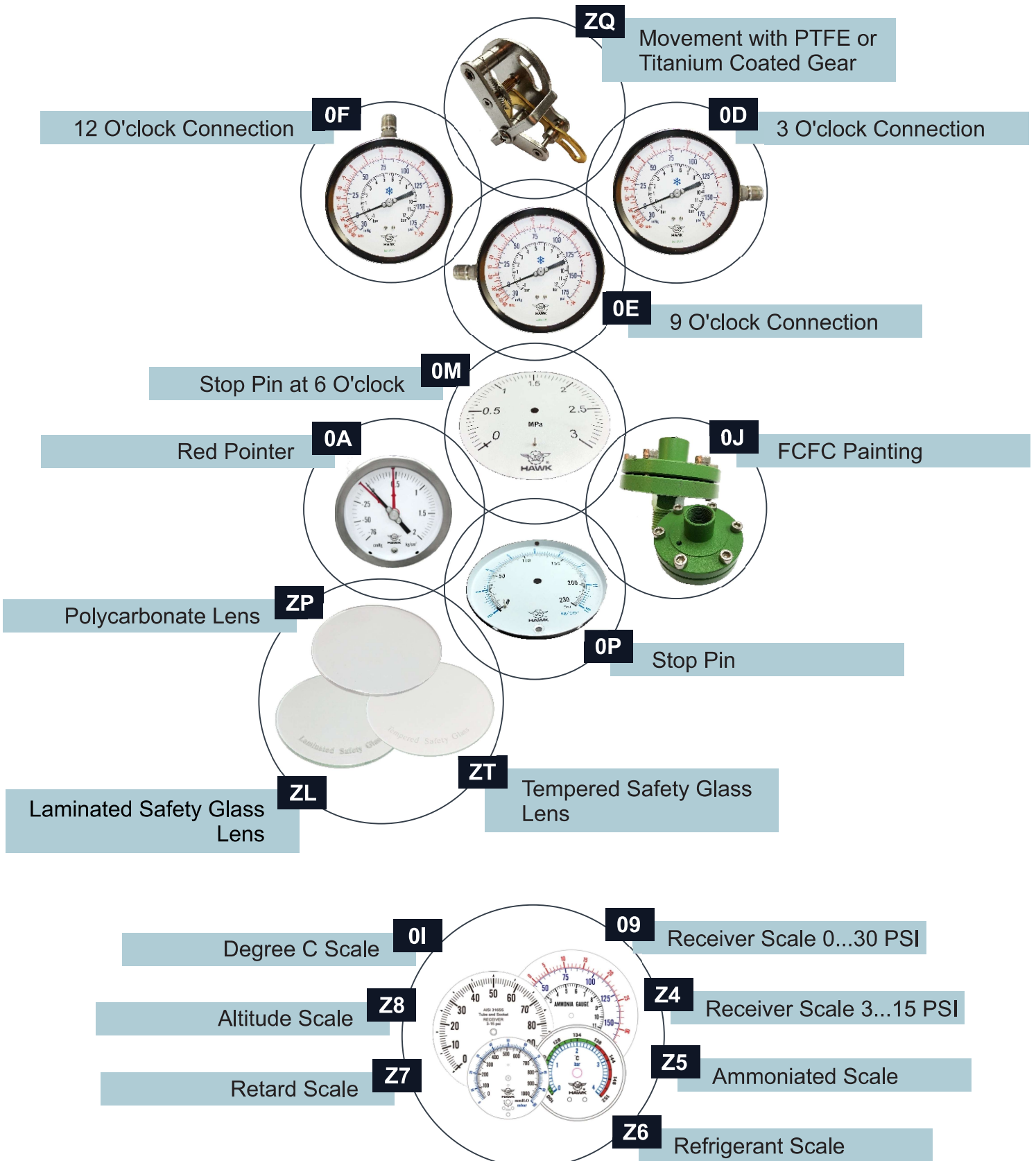


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Options



Refrigerant Pressure Gauge

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Limited Warranty and Liability

HAWK GAUGE CO.,LTD warrants all its mechanical instruments to be free from defects in materials and workmanship. HAWK agrees to repair or replace any pressure gauges if returned to our factory, transportation charges prepaid, and after which examination reveals is to be defective due to faculty workmanship or material.

This warrant should not apply to subject to the following terms and conditions:

- A.** The product has not been subjected to misuse, neglect, abuse , accident, incorrect mounting, improper use or misapplication such as negligence, accident, vandalism, shock or vibration.
- B.** The performance of any system of which HAWK's products are a component part.
- C.** The product has not been exposed to any other service, range or environment of greater severity than that for which the products were designed.
- D.** The product has not been altered or repaired by anyone except HAWK GAUGE or its authorized service agencies.
- E.** The serial number or date code has not been removed, defaced or changed.
- F.** The actual pressure&temperature occurring exceed the values specified for HAWK Process gauge.

Unless otherwise specified in a manual or warranty card, or agree to in a writing signed by HAWK GAUGE office, HAWK Process gauge products shall be warranted for one years from the date of sale.

This warranty is in lieu of all other warranties expressed or implied, and of all obligations or liabilities on its part for damages including but not limited to consequential damages, following the use of misuse of instruments sold by it.

No agent is authorized to assume for it any liability except as set forth above.

Note

HAWK GAUGE CO.,LTD reserves the right to make product improvements and change its specifications at any time stated throughout this brochure without notification. Please contact the factory on all critical dimensions and specifications for verification.

HAWK GAUGE is not expert in the customer's technical field and therefore doesn't warrant suitability of it's product for the application selected by customer.



Data Sheet No: MKDP1P47A1-E