



Since 1971

# Low Pressure Gauge Steel Case

P-1D

- Low Cost
- Range from 6 inH<sub>2</sub>O to 15 PSI including Vacuum and Compound Range
- Capsule Actuated System
- Steel case with black enamel or chrome plated
- For use with gases which does not corrode copper alloy

HAWK 69B series capsule system pressure gauges are designed to measure low pressure from 6 inH<sub>2</sub>O to 15 PSI. These use a diaphragm capsule as its sensing element. The sensing element consists two half capsules which are soldered together. The diaphragm capsule element expands by subject to pressure. The expansion is converted into the rotary motion of the pointer by a movement. This motion makes users read the scale easily. The wetted parts can be in beryllium copper or brass.



69B  
Series

## Typical Application

- Medical and pharmaceutical industry
- Industrial OEM equipment
- Low pressure pneumatic systems
- Gas detector

## Specifications

### Operating

Steady: 100%\*full scale value

Sudden: 130%\*full scale value

All HAWK capsule low pressure gauge are with over-range protection up to 1.3 times of full scale value. Special design for high over-pressure (5 times) protection on request. HAWK Supplies a wide selection of range from 6 inH<sub>2</sub>O to 15 PSI including vacuum and compound range.

### Temperature limit

Ambient: -20 to 60°C

Media: max 60°C-Copper

Winder range request, please consult the factory.

### Temperature effect

Accuracy of measurement will be affected by the temperature change. This inaccuracy may as high as  $\pm 0.3\%$  for 10°C temperature change.

### Dial Size

2 1/2" (63mm), 3" (75mm),

4" (100mm).

### Case

Steel Case with black enamel (chrome plated on request).

### Ring

Polycarbonate.

### Socket

Brass (chrome plated on request).

### Movement

Brass movement with overload and underload stops.

### Capsule Element

Beryllium Copper or Bronze.

### Window

Polycarbonate.

### Pointer

Anodized aluminum with black finish.

### Accuracy

$\pm 3-2-3\%$  of span(2-1-2%-option) (Grade B to ASME B40.1).

### Zero-Adjustment

Adjustable screw on dial.

### Scale

PSI, kPa, mmH<sub>2</sub>O, mbar, inH<sub>2</sub>O, oz./in<sup>2</sup> (single or dual scale).

### Connection

1/8", 1/4", 3/8" NPT standard, JIS, DIN available.

### Mounting

Flushing panel mounting.

### Weatherproof

NEMA 2/IP43 enclosure.



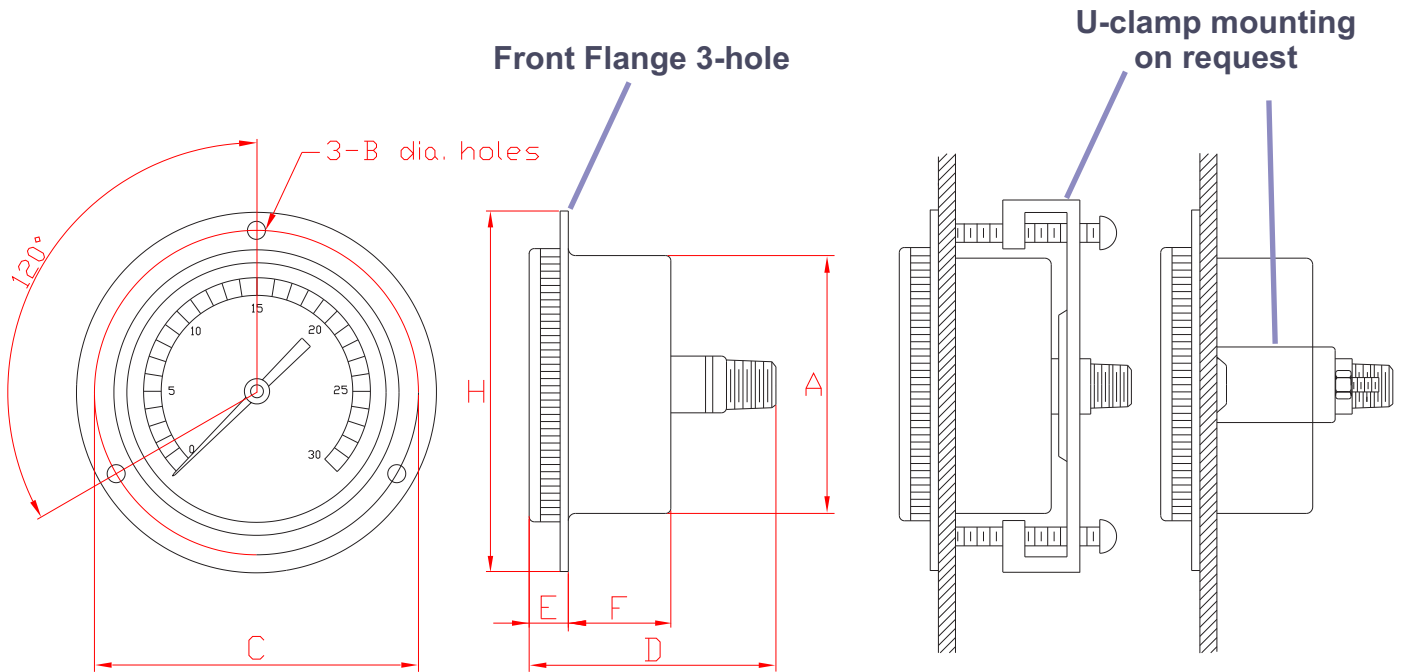
**HAWK**

Since 1971

# Low Pressure Gauge Steel Case

P-1D

## Dimensions



Dimensions, in.(mm)

Type No	Dial Size	A	B	C	D	E	F	G	H	J	K	L	Weight
69B	2.5"	2.60" (68)	0.19" (5)	3.07" (78)	2.21" (56)	0.28" (7)	0.98" (25)		3.35" (85)				0.18-0.23 Kg

Type No	Dial Size	A	B	C	D	E	F	G	H	J	K	L	Weight
69B	3"	3.11" (79)	0.19" (5)	3.70" (94)	2.52" (64)	0.35" (9)	1.10" (28)		4.09" (104)				0.30-0.37 Kg

Type No	Dial Size	A	B	C	D	E	F	G	H	J	K	L	Weight
69B	4"	4.06" (103)	0.19" (5)	4.58" (116)	2.52" (64)	0.35" (9)	1.10" (28)		5.04" (128)				0.39-0.46 Kg



**HAWK**

Since 1971

# Low Pressure Gauge Steel Case

P-1D

## Pressure Range

■ The other scales and ranges (DIN) are available in request.

■ Not all listed ranges and scales are in stock, consult your distributors for available.

### VACUUM RANGES

#### Mbar

BVH	-16	BVT	-300
BVJ	-25	BVU	-400
BVL	-40	BVV	-500
BVO	-100	BVW	-600
BVR	-200	BVX	-1000

#### Kpa

KVE	-1.6	KVN	-10
KVG	-2.5	KVP	-20
KVJ	-4	KVT	-40
KVK	-5	KVV	-60
KVL	-6	KVX	-100

#### mmH2O

HVE	-160
HVF	-200
HVJ	-400
HVM	-600
HVO	-1000
HVR	-2000
HVV	-4000
HVW	-5000
HVX	-6000
HVZ	-10000

#### inH2O

JVE	-10
JVF	-15
JVG	-20
JVI	-30
JVM	-60
JVO	-100
JVP	-150
JVQ	-200

Code Range

### PRESSURE RANGES

#### PSI

P25	3
P28	5
P31	10
P32	15

#### Mbar

B20	16	B32	200
B23	20	B33	250
B26	40	B35	400
B28	60	B37	600
B30	100	B39	1000

#### kPa

K14	1.6	K23	10
K16	2.5	K25	20
K19	4	K29	40
K20	5	K31	60
K21	6	K33	100

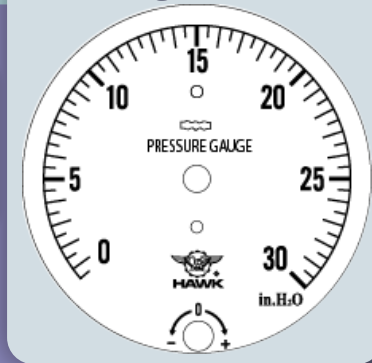
#### mmH2O

H14	160	H26	2000
H15	200	H27	2500
H19	400	H30	4000
H21	600	H32	6000
H23	1000	H34	10000

#### inH2O

J14	10	J24	100
J15	15	J25A	160
J16	20	J26	200
J19	30		
J22	60		

### Single Scale



### COMPOUND RANGES

#### Mbar

BCQ	-6/10
BCS	-10/10
BCW	-20/20
BOA	-30/30
BOC	-50/50
BOE	-80/80
BOF	-100/100
BOJ	-200/200
BOM	-300/300
BOP	-500/500

#### Kpa

KCQ	-1.25/1.25
KCR	-1.5/1.5
KCU	-2/2
KOB	-5/5
KOD	-8/8
KOI	-16/25
KOK	-20/20
KOM	-25/40
KON	-30/30
KOP	-50/50

#### mmH2O

HCN	-60/100
HCP	-100/100
HCT	-200/200
HCV	-250/400
HCY	-500/500
HOA	-800/800
HOB	-1000/1000
HOF	-2000/2000
HOI	-3000/3000
HOJ	-5000/5000

#### inH2O

JCL	-5/5
JCM	-10/10
JCN	-15/15
JCO	-20/20
JCP	-30/30
JCQ	-50/50
JCQA	-60/60
JCR	-100/100
JCS	-150/150
JCT	-200/200

Code Range

### PRESSURE RANGES

#### mbar & mmH2O

Q22	16	Q32	200
Q23	20	Q33	250
Q26	40	Q35	400
Q28	60	Q37	600
Q30	100	Q39	1000

#### oz./in2. & inH2O

F27	6	F301	35
F271	9	F31	60
F28	12	F32	100
F29	20	F33	160
F30	30	F34	250

### VACUUM RANGES

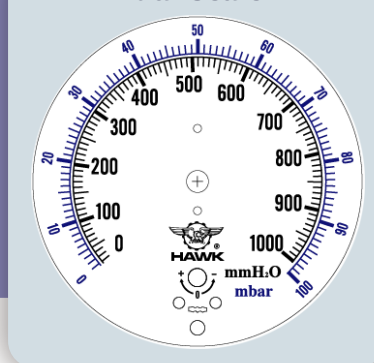
#### mbar & mmH2O

QVH	-16	QVR	-200
QVI	-20	QVS	-250
QVL	-40	QVU	-400
QVN	-60	QVW	-600
QVO	-100	QVX	-1000

#### oz./in2. & inH2O

FVR	-6	FVU1	-35
FVR1	-9	FVV	-60
FVS	-12	FVW	-100
FVT	-20	FVX	-160
FVU	-30	FVY	-250

### Dual Scale



### COMPOUND RANGES

#### mbar & mmH2O

QCP	-5/5	QOG	-100/100
QCS	-10/10	QOI	-125/125
QCU	-12.5/12.5	QOK	-200/200
QCW	-20/20	QON	-300/300
QOD	-50/50	QOQ	-500/500



**HAWK**

Since 1971

# Low Pressure Gauge Steel Case

P-1D

## Order Information

Example:

Series	Model	Dial	Wetted Parts	Process Connection	Pressure Range	Option	
P-1D-69	B	25	B	M 4	Q 3 0	H-Z U	
	<b>B</b> -Lower Back Connection	<b>25</b> -2 1/2" (63mm) <b>03</b> -3" (75mm) <b>04</b> -4" (100mm)	<b>B</b> -Brass	<b>M</b> -Male <b>F</b> -Female <b>OL</b> -Others	4-1/4"NPT 8-1/8"NPT 7-7/16"UNF H-G3/8 E-G1/4 G-R3/8 B-R1/4	Please refer to the range table and write down the code you need. Vacuum Compound Pressure	<b>ZU</b> -U-clamp  Other options please check the next page

## Option

**ZC** Certificate of Accuracy (Factory)

**ZE** Certificate of Accuracy (TAF)

**ZI** Certificate of Accuracy (NIST)

**ZN** NACE-MR0175-2002 Heat Treatment

**ZX** Cleaned for Oxygen Service (Use No Oil)

**ZY** Stainless Steel Tag Plate

**ZU** Stainless Steel U-Clamp Bracket

**OM** Stop Pin at 6 O'clock

**OP** Stop Pin



# Low Pressure Gauge Steel Case

P-1D

## 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: MKDP1D69A3-E