

- Wide temperature application
- Excellent corrosion resistance
- Fights vibration & pulsations
- Strong construction for long life
- High purity and cleanness

ALL STAINLESS STEEL/SS CASE PRESSURE GAUGES



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COMPANY PROFILE

HAWK GAUGE has developed, manufactured and marketed the instruments for the pressure, temperature, level and flow measurements since 1971. From its foundation in 1971, we quickly carved a niche in the highly competitive instrumentation market with its innovative designs and quality manufacturing. Nowadays many millions of measuring devices made by us are used in a wide variety of applications worldwide. With our unremitting effort over 50 years, today we have been successful in becoming a major manufacturer on the world market for the instrumentation. We achieve high customer satisfaction through reliability, quick reaction times and quality.

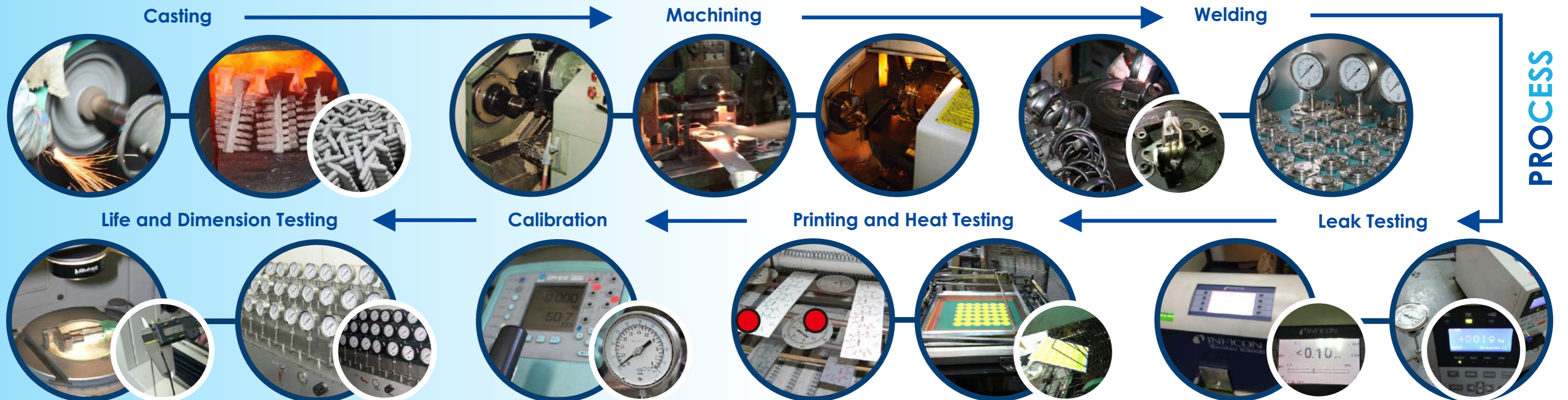
MANAGEMENT/QUALITY/PROCESS

The management system of HAWK GAUGE has been certified to ISO9001. All applicable process descriptions, work instructions, forms, etc. are summarized and standardized in our quality management guide and made accessible to all employees through our server.

We use the smart enterprise resource planning (ERP) system integrated internal and external management information across an entire organization, embracing finance/accounting, manufacturing, sales and service, customer relationship management, etc. Through automated system, we can offer the most effective way to fulfill our world customers' business growth objectives.

In order to offer the best quality products to our customers, we are working continuously at improving the knowledge, skill and motivation of our employees and proficient processes.

Our engineers, technical staff and product marketing specialists can work with the customs to choose the right product to meet your goals.



For fulfilling the requirements of high quality from various industries, HAWK GAUGE supplies all stainless steel pressure gauges. These gauges are with all stainless steel material construction including cases, rings, bourdon tubes, movements, sockets, screws and washers.

HAWK all stainless steel gauges are used in demanding applications where corrosion resistance and reliable operation are required. Typical applications include incinerators, chemical and petrochemical processing, food and beverage processing, medical and pharmaceutical plants, powerplants, industrial OEM equipments, hydraulic monitoring systems, power generating stations, offshore oil platforms, pulp and paper mills, pneumatic systems, level measurement, fertilizer plants and on shipboard.

PROCESS MEDIA

Since the measuring element of the pressure gauge may be directly exposed to measuring medium, you should obtain complete information about the medium and select the correct gauge materials that would not be affected by medium. The medium may be corrosive and HAWK all stainless steel gauges perform well to resist corrosion. The wetted parts of the pressure gauges can be in Brass, 316/316L stainless steel, and Monel.

ENVIRONMENT

The ambient atmosphere in which the gauge is to be installed will have a direct effect on the use, service life, and accuracy of the gauge. Some airborne particles maybe corrosive to damage. This atmosphere may attack the Inner and outer parts and then damage its pressure system. HAWK all stainless steel pressure gauges with stainless steel case and ring are sealed weatherproof and durable. The 316SS case can be supplied as option.

TEMPERATURE

Temperature need to be considered when selecting a pressure gauge. All welded SS construction pressure gauge without filling liquid can withstand continuous ambient temperatures as high as 212°F (100°C). The gauge combined with our cooling system can withstand fluid/air temperatures up to 750°F (400°C). Accuracy of measurement will be effected by the ambient temperature. This inaccuracy may be as much as 0.3% for 20°F (12°C) temperature change.

CASE AND RING

HAWK all stainless steel pressure gauges have 304-stainless steel cases. Three different ring/cover styles are offered including bayonet, crimped, and push-in types.

DIAL SIZE

Selecting enough dial size may let users read easily. HAWK supplies varied selections of all stainless steel gauge sizes including 1 ½"(40mm), 2"(50mm), 2 ½"(63mm), 3"(75mm), 3 ½"(90mm), 4"(100mm), 4 ½"(115mm) and 6"(150mm).

RANGE

The appropriate operating pressure range falls in the middle half (25% to 75% of full scale). If you choose the unsuitable range, the fatigue of bourdon tube may be resulted, HAWK Supplies a wide selection of range from vacuum through 23000 PSI pressure including compound.

ACCURACY

Selecting a gauge with sufficient accuracy to satisfy your requirements. Temperature change will reduce the accuracy of the gauges, check the individual specifications for available accuracy.

CONNECTION

HAWK pressure gauge are available in a wide variety of connections. NPT threads are the standard configurations, BSP and JIS are available. If you have a requirement for a connection not listed, please contact with our offices/agnets/distributors.

MOUNTING

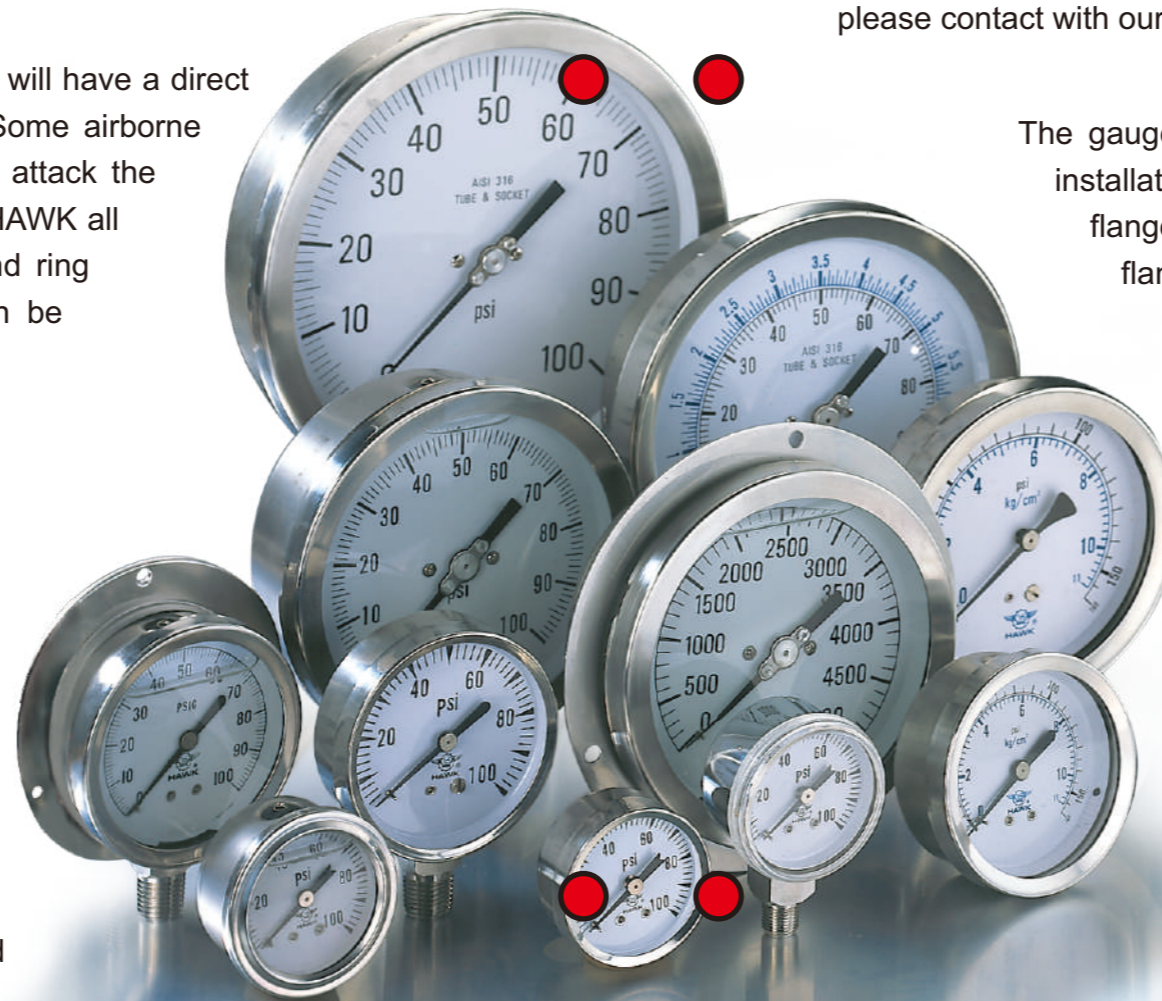
The gauge can be selected in stem, flush or surface mounting for the different installation requirements from the users. The surface mounting is usually in flange style. Regarding the flush mounting, HAWK offers the U-clamp and flange for choice.

LIQUID FILLED

HAWK supplies several types of liquid filled pressure gauges. The liquid filling may be glycerin or silicone. The liquid filled pressure gauges dampen Pulsation and the filling can lubricate the gauge internals. Liquid filled gauge are also suited for rugged environment such as high vibration/pulsation/shock applications.

DIAPHRAGM SEAL

HAWK all pressure gauge is popular to used with the diaphragm seal. Diaphragm seals are used to isolate pressure measuring element of gauge from the media which may be corrosive, viscous, contaminated, hot or sedimentary. HAWK offers different diaphragm seal styles for the applications. For the deatiled information, Please refer to the HAWK diaphragm seal catalog.



All Stainless Steel/SS Case Pressure Gauges

Features

P-1

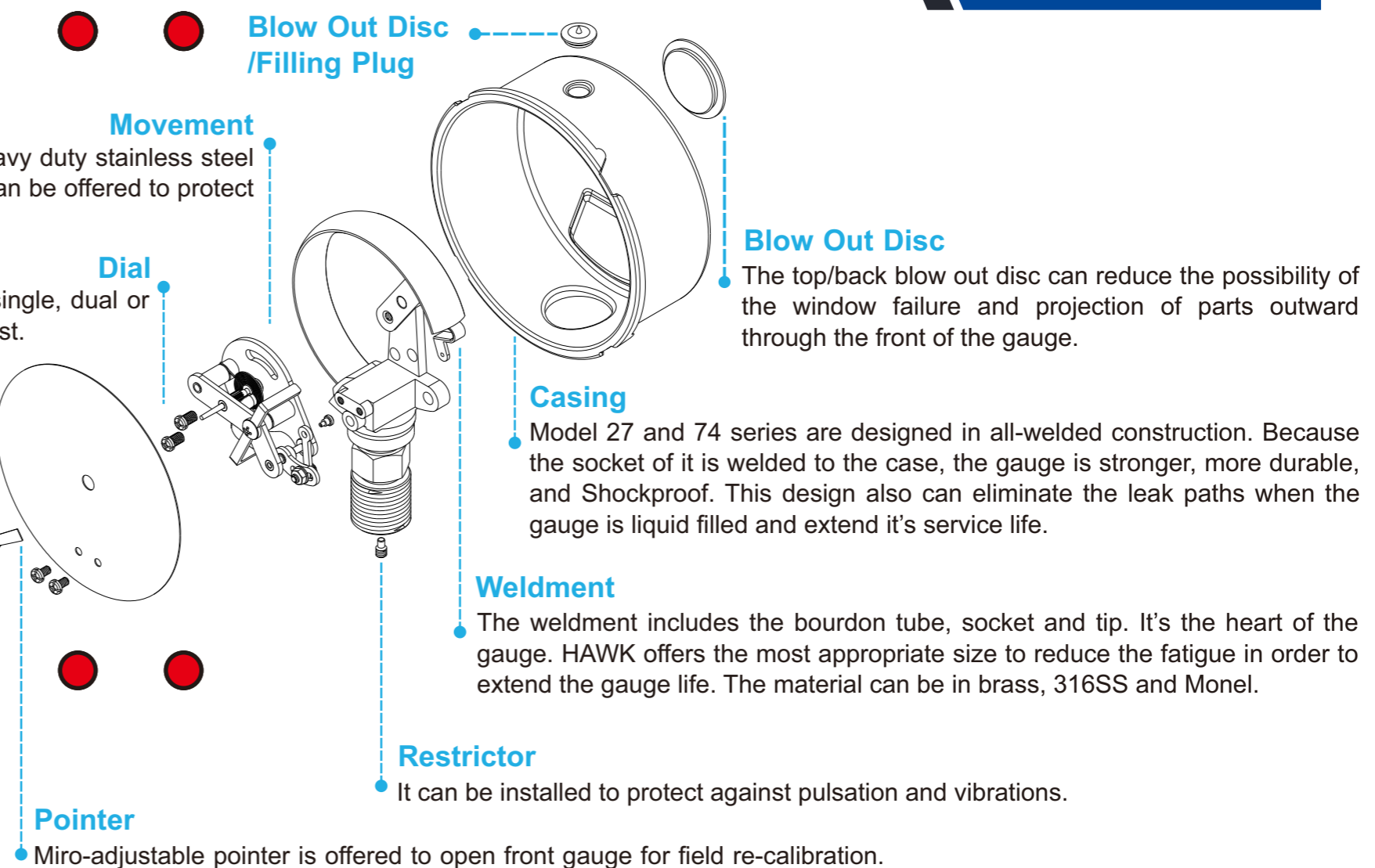
It's the most important part of the gauge. It controls the moving of the pointer. The HAWK heavy duty stainless steel bushed movements provide improved stability and smoothness. Max and min pressure stop can be offered to protect against damage caused by sudden vacuum and over pressure.

HAWK supplies various dials to different requirements from customers. The dials can be in single, dual or three in one (triple) scale. The colorful and fluorescent customized dials are available on request.

The window can be in plain glass, tempered safety glass, laminated safety glass and PC.

Tree different ring styles are offered including bayonet, crimped and Push-in type.

Purity/Art/Speciality



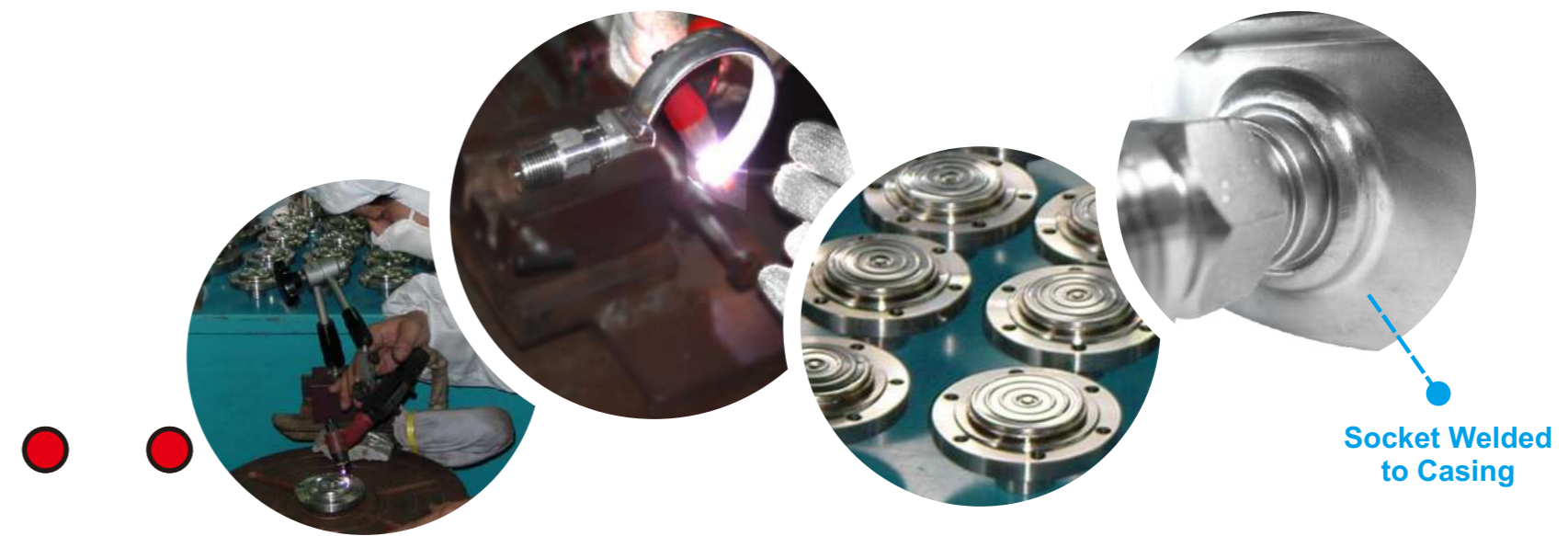
Blow Out Disc
The top/back blow out disc can reduce the possibility of the window failure and projection of parts outward through the front of the gauge.

Casing
Model 27 and 74 series are designed in all-welded construction. Because the socket of it is welded to the case, the gauge is stronger, more durable, and Shockproof. This design also can eliminate the leak paths when the gauge is liquid filled and extend it's service life.

Weldment
The weldment includes the bourdon tube, socket and tip. It's the heart of the gauge. HAWK offers the most appropriate size to reduce the fatigue in order to extend the gauge life. The material can be in brass, 316SS and Monel.

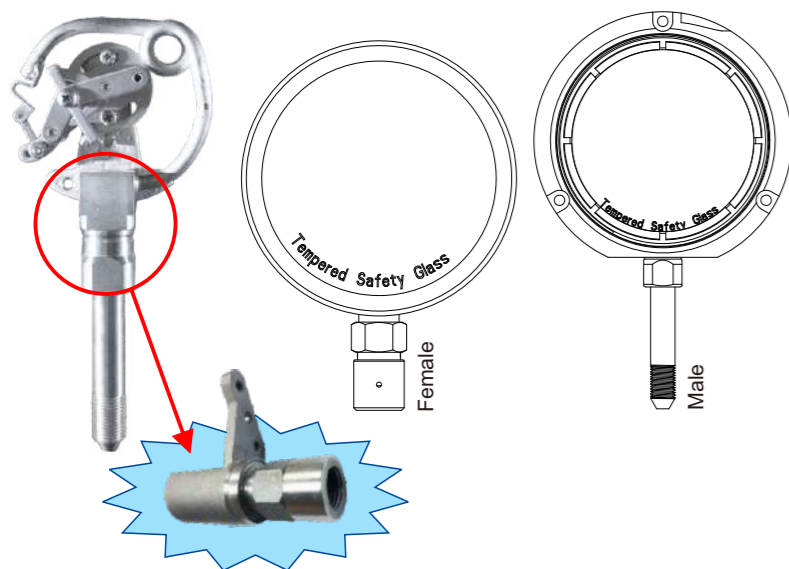
Restrictor
It can be installed to protect against pulsation and vibrations.

Pointer
Miro-adjustable pointer is offered to open front gauge for field re-calibration.



There are various types of end connections that a pressure gauge can have. Depending upon the types of applications the pressure gauges are being used for, you can choose the right type of end connections. **HAWK** offer 5 common types of the end connections including thread, flange, clamp, Autoclave Engineers high pressure fitting and stub tube. If you have the requirement for the other connections not listed, Kindly contact with us for the detailed information.

▶ Autoclave Engineers High Pressure Connection

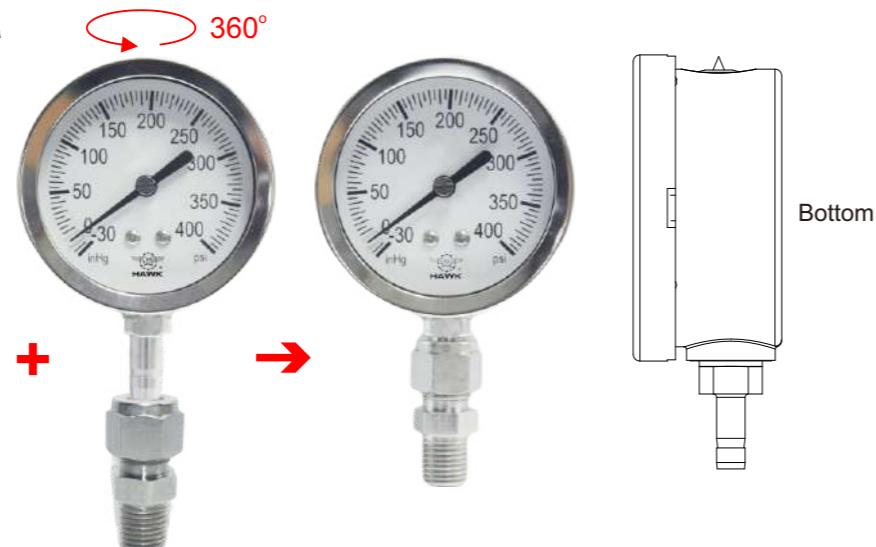


The Autoclave Engineers high pressure connection is a refinement of the original cone & thread joint in high pressure measurement technology and has become an industrial standard since its development by almost hundred years ago. Normally this connection consists a simple two-piece design (gland and collar) and tube plug. The gauge is available in female connection or male connection with extension plug depending on your valves and fittings. The threads of the gland are right-hand while the threads of the collar and tubing are left-hand to prevent rotation of the collar during assembly.

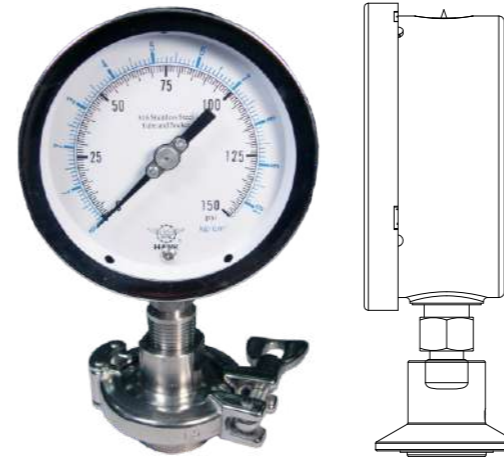
▶ Stub Tube Connection



HAWK stub tube gauges allow easy installation in instrumentation systems and facilitate complete 360° positioning, unlike traditional threaded gauges. The PTFE tape, sealant or sealing washer is eliminated from the system to reduce the potential for improper installation.



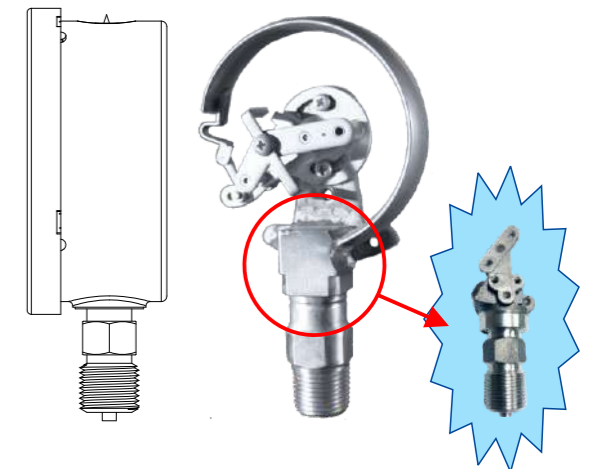
▶ Clamp Connection



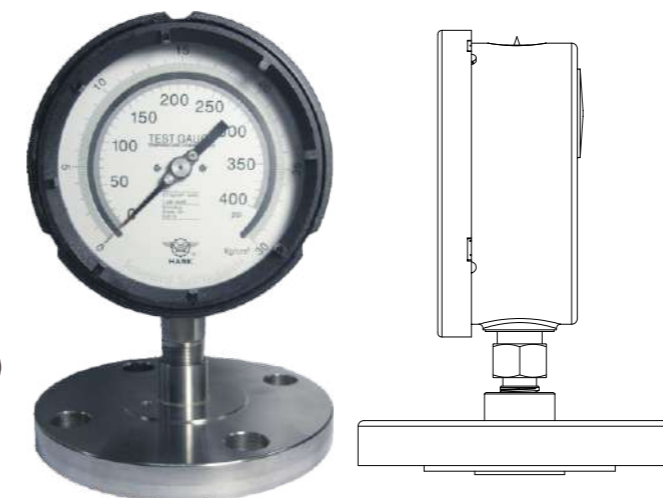
The clamp connections are used for the detachable connection of pipelines as well as for the connection of machines, apparatus and containers. They consist of two clamp ferrules, a sealing element and a clamp closure. The advantages of clamp connections compared with bolted flanges are; the small size and low weight, and the ease installation and assembly by the clamp which can be rotated to the most convenient position. The clamp enables frequent removal from the process by user. It is popular with the diaphragm seal to make the CIP (Cleaned in Place) and SIP (Steamed in Place) for hygienic applications.

▶ Thread Connection

The threaded connections are most popular installation for pressure measurement. They are directly attached to the process by means of a male or female NPT, BSP, BSPT or other standards. The assembly is simple, because the sections simply screw together. Once installing, you shall select an appropriate sealing ring or sealing washer for the parallel thread pressure fitting (e.g. BSP threads). The sealing of tapered thread pressure fitting (e.g. NPT threads) is PTFE tape or an equivalent sealant. The threaded connection gauges are affordable and ensure quick assembly for the users, without any difficulty.



▶ Flange Connection



The flange by means of a ANSI, DIN or JIS standard are one of the easiest connections to be installed or uninstalled for the pipeline. These are also one of the most commonly used end connections at present. As these are fastened to the pipe flanges, assembling or disassembling them is quick and easy. An important point to be mentioned about these types of end connections is that they are secured with several bolts. Thus, they ultimately need less tightening torque than what a threaded end connection requires. Hence, flanged end connections pressure gauge can be effectively used for various types of valves. The flanged connection is recommended to use for the pipes larger than 50mm.

All Stainless Steel/SS Case Pressure Gauges

Specifications

Matrix (P-1A)



Models

Specifications	25L	26L	74L	24L	21L	27L
Accuracy	2-1-2%(1%-Option)	2-1-2%(1%-Option)	2-1-2%(1%-Option)	2-1-2%(1%-Option)	2-1-2%(1%) 1.0%(0.5%)	2-1-2%(1%) 1.0%(0.5%)
Socket to Case Seal	Open Style	Open Style	Welded Style	O-ring Style	O-ring Style	Welded Style
Case Material	304SS(316SS-Option)	304SS(316SS-Option)	304 Stainless Steel	304 Stainless Steel	304SS(316SS-Option)	304SS(316SS-Option)
Dial Sizes (Code)	40mm(15)	40mm(15)	50mm(02) 63mm(25)	40mm(15) 63mm(25)	63mm(25) 100mm(04)	63mm(25) 100mm(04)
	50mm(02)	50mm(02)	75mm(03)	50mm(02) 75mm(03)	90mm(35) 150mm(06)	90mm(35) 115mm(45)
	63mm(25)	63mm(25)	100mm(04)	100mm(04)		150mm(06)
Dial Material	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Ring Style	Polished Push-in Ring	Polycarbonate Cover	Polished Crimped Ring	Polished Crimped Ring	Polished Bayonet Ring	Polished Bayonet Ring
Ring Material	304 Stainless Steel	304 Stainless Steel	304SS	304 Stainless Steel	304 Stainless Steel	304 Stainless Steel
Bourdon Tube Material	316LSS	316LSS	316LSS	316LSS	316LSS	316LSS
Socket Material	316LSS	316LSS	316SS	316LSS	316LSS	316SS
Connection Size	1/8"NPT(8) 1/4"NPT(4) 3/8"NPT(3) 1/2"NPT(2) 3/4"NPT(5) 1"NPT(1) G1/8(F) G1/4(E) G3/8(H) G1/2(D) R1/8(C) R1/4(B) R3/8(G) R1/2(A) M14*1.0(K) M20*1.5(J) 7/16"-20UNF(7) 9/16"-18UNF(9)					
Mounting	Stem	Stem	Stem/Surface	Stem/Surface	Stem/Surface	Stem/Surface
Movement	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Range	Vac/10,000 PSI	Vac/10,000 PSI	Vac/15,000 PSI	Vac/15,000 PSI	Vac/23,000 PSI	Vac/23,000 PSI
Pointer	Non-adjustment(Aluminum)	Non-adjustment(Aluminum)	Non-adjustment(Aluminum)	Non-adjustment(Aluminum)	Adjustment, Micro-adjustment	Adjustment, Micro-adjustment
Window	Plain Glass	Polycarbonate Glass	Polycarbonate	Polycarbonate	Tempered Safety Glass	Tempered Safety Glass
Weatherproof	NEMA 3X/IP54	NEMA 3X/IP54	NEMA 4X/IP65	NEMA 4X/IP65	NEMA 4X/IP65	NEMA 4X/IP65
Dry or Liquid Filling	Dry	Dry	Dry but Liquid Fillable	Dry or Liquid Filled	Dry or Liquid Filled	Dry but Liquid Fillable
Safety Style	Pressure Relief Open	Pressure Relief Open	Pressure Relief Plug	Pressure Relief Plug	Pressure Relief Plug(Back-Option)	Pressure Relief Plug(Back-Option)
Major Options						
Glycerin Filled	ZG	N/A	N/A	Available	Available	Available
Silicone Filled	ZS	N/A	N/A	Available	Available	Available
Disc Blow Out Back	ZD	N/A	N/A	Available	N/A Available	Available
Back Flange	ZB	N/A	N/A	Available	N/A Available	Available
Tempered Glass Lens	ZT	N/A	N/A	Available	N/A Available	Available
PC Lens	ZP	Available	-	Available	Available	Available
Dampened Movement	ZM	Available	Available	Available	Available	Available
NACE Treatment	ZN	N/A	N/A	N/A	Available	Available
Receiver/Ammonia/Refrigerant Scale	Z4,Z5,Z6	N/A	N/A	Available	Available	Available

All Stainless Steel/SS Case Pressure Gauges

Specifications

Matrix (P-1A)



Models

Specifications	25B	26B	74B	24B	21B	27B
Accuracy	2-1-2%(1%-Option)	2-1-2%(1%-Option)	2-1-2%(1%-Option)	2-1-2%(1%-Option)	2-1-2%(1%) 1.0%(0.5%)	2-1-2%(1%) 1.0%(0.5%)
Socket to Case Seal	Open Style	Open Style	Welded Style	O-ring Style	O-ring Style	Welded Style
Case Material	304SS(316SS-Option)	304SS(316SS-Option)	304 Stainless Steel	304 Stainless Steel	304SS(316SS-Option)	304SS(316SS-Option)
Dial Sizes (Code)	40mm(15)	40mm(15)	50mm(02) 63mm(25)	40mm(15) 63mm(25)	63mm(25) 100mm(04)	63mm(25) 100mm(04)
	50mm(02)	50mm(02)	75mm(03)	50mm(02) 75mm(03)	90mm(35) 150mm(06)	90mm(35) 115mm(45)
	63mm(25)	63mm(25)	100mm(04)	100mm(04)		150mm(06)
Dial Material	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Ring Style	Polished Push-in Ring	Polycarbonate Cover	Polished Crimped Ring	Polished Crimped Ring	Polished Bayonet Ring	Polished Bayonet Ring
Ring Material	304 Stainless Steel	304 Stainless Steel	304SS	304 Stainless Steel	304 Stainless Steel	304 Stainless Steel
Bourdon Tube Material	316LSS	316LSS	316LSS	316LSS	316LSS	316LSS
Socket Material	316SS	316SS	316SS	316SS	316LSS	316SS
Connection Size	1/8"NPT(8) 1/4"NPT(4) 3/8"NPT(3) 1/2"NPT(2) 3/4"NPT(5) 1"NPT(1) G1/8(F) G1/4(E) G3/8(H) G1/2(D) R1/8(C) R1/4(B) R3/8(G) R1/2(A) M14*1.0(K) M20*1.5(J) 7/16"-20UNF(7) 9/16"-18UNF(9)					
Mounting	Stem	Stem	Stem/Surface/Flushing	Stem/Surface/Flushing	Stem/Surface/Flushing	Stem/Surface/Flushing
Movement	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Range	Vac/10,000 PSI	Vac/10,000 PSI	Vac/15,000 PSI	Vac/15,000 PSI	Vac/23,000 PSI	Vac/23,000 PSI
Pointer	Non-adjustment(Aluminum)	Non-adjustment(Aluminum)	Non-adjustment(Aluminum)	Non-adjustment(Aluminum)	Adjustment, Micro-adjustment	Adjustment, Micro-adjustment
Window	Plain Glass	Polycarbonate	Polycarbonate	Polycarbonate	Tempered Safety Glass	Tempered Safety Glass
Weatherproof	NEMA 3X/IP54	NEMA 3X/IP54	NEMA 4X/IP65	NEMA 4X/IP65	NEMA 4X/IP65	NEMA 4X/IP65
Dry or Liquid Filling	Dry	Dry	Dry or Liquid Fillable	Dry or Liquid Filled	Dry or Liquid Filled	Dry or Liquid Filled
Safety Style	Pressure Relief Open	Pressure Relief Open	Pressure Relief Plug	Pressure Relief Plug	Pressure Relief Plug(Back-Option)	Pressure Relief Plug(Back-Option)
Major Options						
Glycerin Filled	ZG	N/A	N/A	Available	Available	Available
Silicone Filled	ZS	N/A	N/A	Available	Available	Available
Disc Blow Out Back	ZD	N/A	N/A	Available	N/A Available	Available
Front Flange	ZB	N/A	N/A	Available	N/A Available	Available
Tempered Glass Lens	ZT	N/A	N/A	Available	N/A Available	Available
PC Lens	ZP	Available	-	Available	Available	Available
Dampened Movement	ZM	Available	Available	Available	Available	Available
NACE Treatment	ZN	N/A	N/A	N/A	Available	Available
U-Clamp	ZU	N/A	N/A	Available	Available	Available

All Stainless Steel/SS Case Pressure Gauges

Specifications

Matrix (P-1F)



Models

Specifications	25L			26L		24L			21L			P-1W-73L			
Accuracy	±2-1-2%			±2-1-2%		±2-1-2%			±2-1-2%			±1.0%			
Socket to Case Seal	Open Style			Open Style		O-ring Style			O-ring Style			One Piece Forged Style			
Case Material	304 Stainless Steel			304 Stainless Steel		304 Stainless Steel			304 Stainless Steel			Brass			
Dial Sizes (Code)	40mm(15) 50mm(02) 63mm(25)			40mm(15) 50mm(02) 63mm(25)		40mm(15) 63mm(25) 100mm(04)			50mm(02) 75mm(03)			63mm(25) 100mm(04)			
Dial Material	Aluminum			Aluminum		Aluminum			Aluminum			Aluminum			
Ring Style	Polished Push-in Ring			Polycarbonate Cover		Polished Crimped Ring			Polished Bayonet Ring			Polished Push-in Cover			
Ring Material	304 Stainless Steel			304 Stainless Steel		304 Stainless Steel			304 Stainless Steel			Brass			
Bourdon Tube Material	Brass			Brass		Brass			Brass Monel K500			Brass			
Socket Material	Brass			Brass		Brass			Brass Monel K400			Brass			
Connection Size	1/2"NPT(2)	3/8"NPT(3)	1/4"NPT(4)	1/8"NPT(8)	7/16"UNF(7)	9/16"UNF(9)	G1/2(D)	G3/8(H)	G1/4(E)	G1/8(K)	R1/2(A)	R3/8(G)	R1/4(B)	R1/8(C)	
Mounting	Stem			Stem		Stem/Surface			Stem/Surface			Stem			
Movement	Brass			Brass		Brass			Brass/Stainless Steel			Brass			
Range	Vac/10,000 PSI			Vac/10,000 PSI		Vac/15,000 PSI			Vac/23,000 PSI			Vac/15,000 PSI			
Pointer	Anodized Aluminum			Anodized Aluminum		Anodized Aluminum			Anodized Aluminum			Anodized Aluminum			
Window	Plain Glass			Polycarbonate		Polycarbonate			Tempered Safety Glass			Polycarbonate			
Weatherproof	NEMA 3/IP54			NEMA 3/IP54		NEMA 4/IP65			NEMA 4/4X/IP65			NEMA 4/IP65			
Dry or Liquid Filling	Dry			Dry		Dry or Liquid Filled			Dry or Liquid Filled			Dry or Liquid Filled			
Safety Style	Pressure Relief Open			Pressure Relief Open		Pressure Relief Plug			Pressure Relief Plug(Back-Option)			Pressure Relief Plug			
Major Options															
Glycerin Filled	ZG	N/A			N/A		Available			Available			Available		
Silicone Filled	ZS	N/A			N/A		Available			Available			Available		
Disc Blow Out Back	ZD	N/A			N/A		N/A Available			Available			N/A		
Back Flange	ZB	N/A			N/A		N/A Available			Available			N/A		
Tempered Glass Lens	ZT	N/A			N/A		N/A Available			Available			Available		
PC Lens	ZP	Available			-		Available			Available			Available		
Dampened Movement	ZM	Available			Available		Available			Available			Available		
NACE Treatment	ZN	N/A			N/A		N/A			Available			N/A		
Receiver/Ammonia/ Refrigerant Scale	(Z4,Z5,Z6)	N/A			N/A		Available			Available			Available		

All Stainless Steel/SS Case Pressure Gauges

Specifications

Matrix (P-1F)



Models

Specifications	25B			26B		24B			21B			P-1W-73B					
Accuracy	±2-1-2%			±2-1-2%		±2-1-2%			±2-1-2%			±1.0%			±2-1-2%		
Socket to Case Seal	Open Style			Open Style		O-ring Style			O-ring Style			One Piece Forged Style					
Case Material	304 Stainless Steel			304 Stainless Steel		304 Stainless Steel			304 Stainless Steel			Brass					
Dial Sizes (Code)	40mm(15) 50mm(02) 63mm(25)			40mm(15) 50mm(02) 63mm(25)		40mm(15) 50mm(02) 63mm(25) 75mm(03) 100mm(04)			63mm(25) 100mm(04) 90mm(35) 150mm(06)			63mm(25) 100mm(04)					
Dial Material	Aluminum			Aluminum		Aluminum			Aluminum			Aluminum					
Ring Style	Polished Push-in Ring			Polycarbonate Cover		Polished Crimped Ring			Polished Bayonet Ring			Polished Push-in Cover					
Ring Material	304 Stainless Steel			304 Stainless Steel		304 Stainless Steel			304 Stainless Steel			Brass					
Bourdon Tube Material	Brass			Brass		Brass			Brass Monel K500			Brass					
Socket Material	Brass			Brass		Brass			Brass Monel K400			Brass					
Connection Size	1/2"NPT(2)	3/8"NPT(3)	1/4"NPT(4)	1/8"NPT(8)	7/16"UNF(7)	9/16"UNF(9)	G1/2(D)	G3/8(H)	G1/4(E)	G1/8(K)	R1/2(A)	R3/8(G)	R1/4(B)	R1/8(C)			
Mounting	Stem			Stem		Stem/Surface/Flushing			Stem/Surface/Flushing			Stem/Flushing					
Movement	Brass			Brass		Brass			Brass Stainless Steel			Brass					
Range	Vac/10,000 PSI			Vac/10,000 PSI		Vac/15,000 PSI			Vac/23,000 PSI			Vac/15,000 PSI					
Pointer	Anodized Aluminum			Anodized Aluminum		Anodized Aluminum			Anodized Aluminum			Anodized Aluminum					
Window	Plain Glass			Polycarbonate		Polycarbonate			Tempered Safety Glass			Polycarbonate					
Weatherproof	NEMA 3/IP54			NEMA 3/IP54		NEMA 4X/IP65			NEMA 4/4X/IP65			NEMA 4/IP65					
Dry or Liquid Filling	Dry			Dry		Dry or Liquid Filled			Dry or Liquid Filled			Dry or Liquid Filled					
Safety Style	Pressure Relief Plug			Pressure Relief Plug		Pressure Relief Plug			Pressure Relief Plug(Back-Option)			Pressure Relief Plug					
Major Options																	
Glycerin Filled	ZG	N/A			N/A		Available			Available			Available				
Silicone Filled	ZS	N/A			N/A		Available			Available			Available				
Disc Blow Out Back	ZD	N/A			N/A		N/A Available			Available			N/A				
Front Flange	ZB	N/A			N/A		N/A Available			Available			N/A				
Tempered Glass Lens	ZT	N/A			N/A		N/A Available			Available			Available				
PC Lens	ZP	Available			-		Available			Available			Available				
Dampened Movement	ZM	Available			Available		Available			Available			Available				
NACE Treatment	ZN	N/A			N/A		N/A			Available			N/A				
U-Clamp	ZU	N/A			N/A		Available			Available			Available				

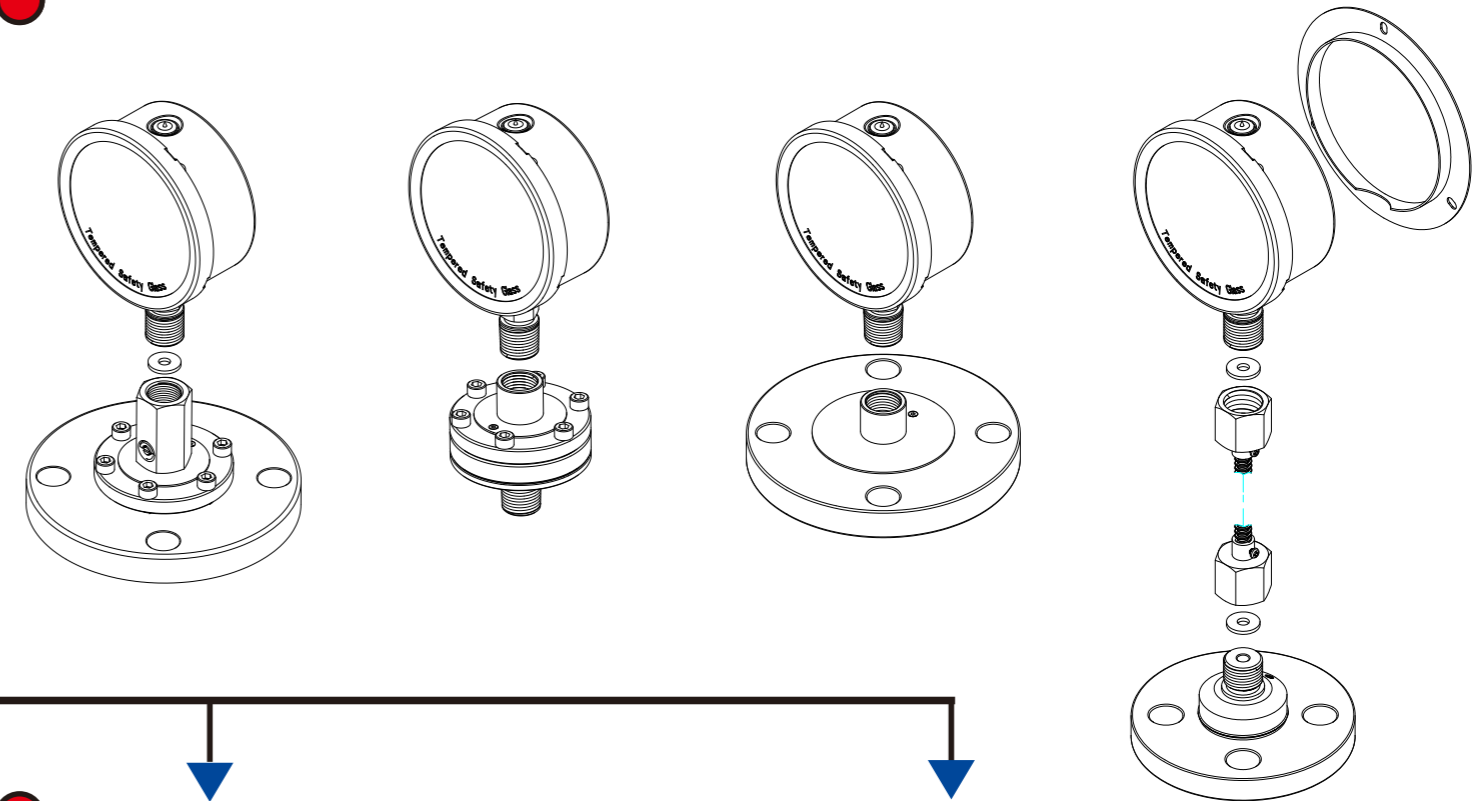
All Stainless Steel/SS Case Pressure Gauges

Diaphragm Seal

Diaphragm Seal

A diaphragm seal utilizes an elastic thin diaphragm as a protective device which is used to isolate the pressure measuring element from the pressure medium. The volume between the diaphragm and the instrument's sensing element is completely filled with a compatible fluid. The process fluid pressure is transmitted to a gauge, transmitter, transducer, switch, or any other instrument by the movement of the diaphragm and the replacement of the liquid filled in the pressure element. Used in a variety of process applications, diaphragm seals are intended for use where:

- The process medium might freeze or solidify in the pressure connection and sensing element due to changes in ambient temperatures.
- The measuring medium would corrode or attack the material of the pressure sensing element.
- The pressure medium contains suspended solids or is highly viscous to clog the pressure sensing element.
- When changing process medium, the system requires flushing to prevent contamination.
- The process medium or ambient at the measuring point has a very high temperature and the temperature of the measuring instrument would rise to an undesirable degree.
- For hygienic reasons, absolutely no dead space is allowed.
- The mounting and reading possibilities at the measuring point are very difficult.



Flange Seal



The flange connection is directly attached to the process by means of an ANSI, DIN, JIS or HG flange. The flange design is the most popular and common for the diaphragm seal.

In-Line Seal



The in-line sealed type diaphragm seal is designed for flow-through applications. The diaphragm seal forms an integral part of the process line. This avoids any obstructions in the system. This eliminates the disadvantage of the dead volume, because the in-line seal is without corners, edges and dead spaces. They are particularly suitable for rapidly flowing, heavily loaded or viscous media which may damage or clog the process connection of the measuring instrument.

Sanitary Seal



The sanitary diaphragm face design enables deep cleaning of the surface. The quick-connection enables frequent removal from the process when cleaned in place (CIP) or steamed in place (SIP). These diaphragm seals are popular for hygienic process media applications. The connection can be in Tri-Clamp, APC, IDF, SMS, RJT, Cherry-Tank Spud and so on.

Thread Seal



The threaded type diaphragm seal connection is directly attached to the process by means of a male or female. The process connection is available in NPT, BSP or BSPT thread. It's an easy way to install into the process for the customers.

All Stainless Steel/SS Case Pressure Gauges

Accessories

Options



Electrical Warning Contact

The Limit-value electrical warning contacts are designed for opening or closing electric and pneumatic circuits in relation to the position of the pointer on the instrument. These electrical contact devices are usually combined with the measuring instruments (pressure gauges and dial thermometers) for a continuous reading. We recommend strongly the use of control relay for your system in order to increase the working life of contacts. For intrinsic safety applications, an appropriate barrier must be used for your system.



08-Pulsation Dampener

The pulsation dampeners are designed to reduce the effect of pressure fluctuation and sudden pressure changes. The needle-type dampener features an adjustable needle valve to adjust the conditions of operation. The porous-type dampener is made using a porous metal disc as the flow restrict. The discs having a wide range of porosity are available and usually made of stainless steel. These dampeners make easier taken an accurate reading and help to increase life of the instruments at rugged conditions such as pulsations and shock found in compressors, pumps, hydraulic machines, fluid power system and chemical installations etc.



0B-Gauge Releasing Port

The releasing port design allows the user to clean the bourdon tube by soap/detergent in order to assure the purity of their processing liquid.

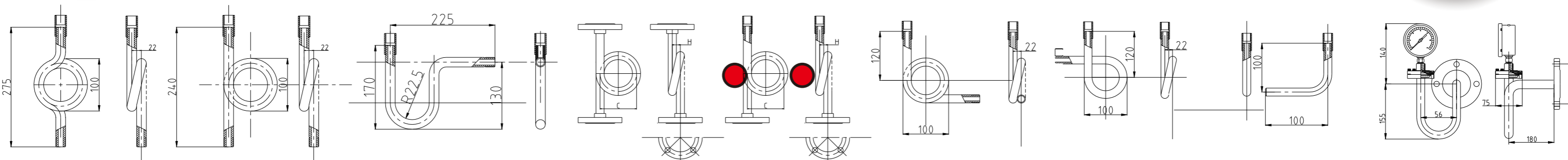
ZV-Rubber Cover

HAWK Rubber Cover is to protect the gauge against shocks, impacts, corrosion and atmospheric influences.



Siphon

In order to reduce the effect of high temperature steam and effect of rapid pressure surges, Instrument siphons are supplied to prevent live steam directly entering a pressure gauge, pressure transmitter/transducer and pressure switch sensing element. A siphon filled with water or any other suitable separating liquid should be installed between the instrument and instrument line. The siphon can be attached to the process by means of a thread or flange connection. When a instrument is to be used for steam pressures, a siphon is recommend for your applications.



ZK-Max/Min Set Hand

The red set hand can be used to indicate a specific operating or a desired predetermined reference point. It is attached to the dial with a grommet and can be adjusted manually without removing the ring and window of the gauge. It can be installed and took off easily, to allow the user adjust the suitable working range whenever they need.



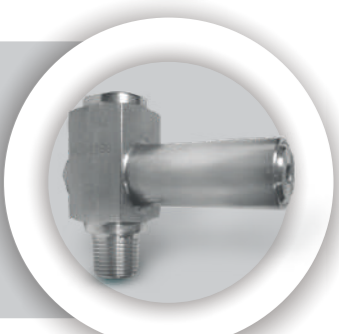
ZW-Electrical Alarm Contract

HAWK Limit-value electrical warning contacts are designed for opening or closing electric and pneumatic circuits in relation to the position of the pointer on the instrument. These electrical contact devices are usually combined with the measuring instruments (pressure gauges and dial thermometers) for a continuous reading. We recommend strongly the use of control relay for your system in order to increase the working life of contacts. For intrinsic safety applications, an appropriate barrier must be used for your system.



0L-Over-pressure Protector

The over-pressure protectors are designed to protect the pressure instrument against short pressure peaks which may exceed the max operating pressure range.



ZY-Stainless Steel Tag Plate

The SS Tag plate laser with tag number can help the user to identify the equipment.



ZJ-Max/Min Registering Pointer

The max/min registering pointer can be installed on most HAWK pressure gauges and temperature gauges. This accessory allows the user to know what the highest or lowest pressure or temperature has been in your process. This device includes a pointer, an acrylic lens and a knob. The user can reset the pointer manually through the external knob.



All Stainless Steel/SS Case Pressure Gauges

Accessories

Options



Z3-316SS Case

316SS Cases is an excellent choice when the user installs the gauge outdoor. Grade 316SS has a better resistance to chemicals and chlorides than grade 304 stainless steel. When it comes to applications with chlorinated solutions or exposures to salt environment, the grade 316 stainless steel is considered superior.



ZD-Disc Blow Out Back

Disc Blow Out protection is used to protect the gauge being blown up in pieces, in case of high pressure leak happen from the failure of bourdon tube. When the pressure inside the gauge case reach some set pressure, normally it will be in 1-3 PSI, the disc or the entire back case will break and release the over pressure from back side.



ZF-Front Flange Case

HAWK provide different case styles for different mounting requests. The Front Flange cases usually used in panel mounting applications.

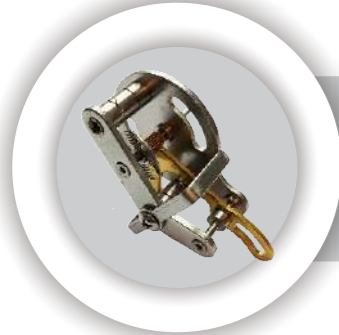
ZB-Back Flange Case

HAWK provide different case styles for different mounting requests. The Back Flange cases are usually used in surface mounting applications.



ZU-Stainless Steel U-Clamp Bracket

The U-shape Clamp is great for panel mounting gauge with a connection on the back. You can use the U-Clamp individual or you can install with the Front Flange to get an advanced performance.



ZQ-Movement with PTFE coated gear/ ZZ-Movement with Titanium coated gear

Movements that are coated in PTFE or Titanium will slide with ease, causing less heat, less wear & tear & reducing fire risk. PTFE's or Titanium's coefficient of friction is one of the lowest than other materials.



3 or 6 or 9 O'clock Connection

HAWK can provide gauges with multiple direction connections. It allows the user install the gauge from different angles with no limits.

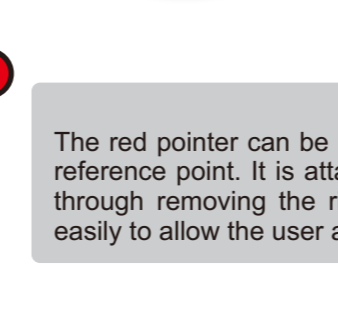
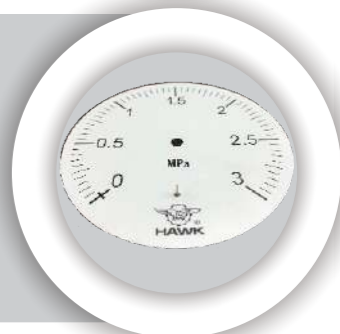


OP-Stop Pin

A gauge using a stop pin or internal stops could prevent free pointer motion to the actual zero pressure pointer.

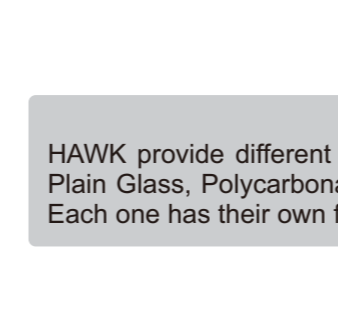
OM-Stop Pin at 6 O'clock

HAWK could set the pointer stop pin to protect the movement in different locations according to different applications.



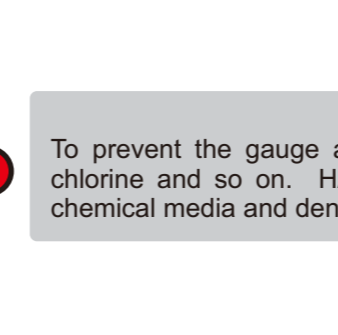
0A-Red Pointer

The red pointer can be used to indicate a specific operating or a desired predetermined reference point. It is attached to the dial with a grommet and can be adjusted manually through removing the ring and window of the gauge. It can be installed and took off easily to allow the user adjust the suitable working range whenever they need.



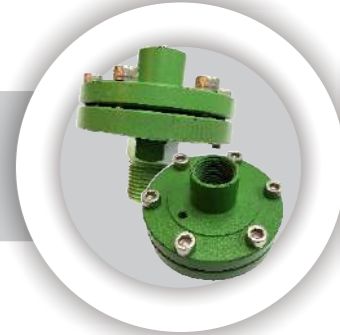
Gauge Windows

HAWK provide different gauge window styles for the different requirements. There are Plain Glass, Polycarbonate Glass, Tempered Safety Glass and Laminated Safety Glass. Each one has their own features.



Coating Process

To prevent the gauge attacked from special process chemical media such as acids, chlorine and so on. HAWK provide different coating material to correspond different chemical media and density



All Stainless Steel/SS Case Pressure Gauges

Accessories

How to Order

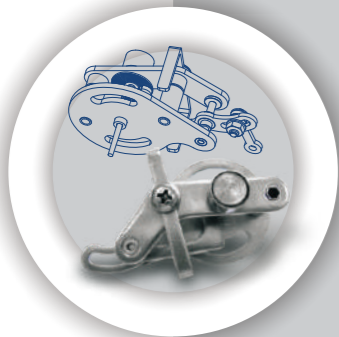
Transmitter/Tranducer



The analog indicating pressure transmitter/transducer is developed by using a bourdon tube pressure gauge and a pressure sensor. It is ideal for all industrial applications when a local pressure reading and a remote signal transmission to a programmable logic controller or other computer-based system are required.

Three functions including local read out, voltage or current signal output and 2 switching points (option) in one instrument can reduce the cost by eliminating many of parts and labor associated with conventional in-house assemblies. The pressure gauge can continue to monitor your system even if an electrical power cut.

Stabilizer Movement



HAWK dampened movement is a good ideal for pressure gauge which is used in heavy vibration and pulsation applications. This device can eliminate the flutter of the pointer, so the user needn't to do liquid filling for the pressure gauges. This mechanism also supplies the higher operating temperature than the liquid filled pressure gauge.

Pointer Jack

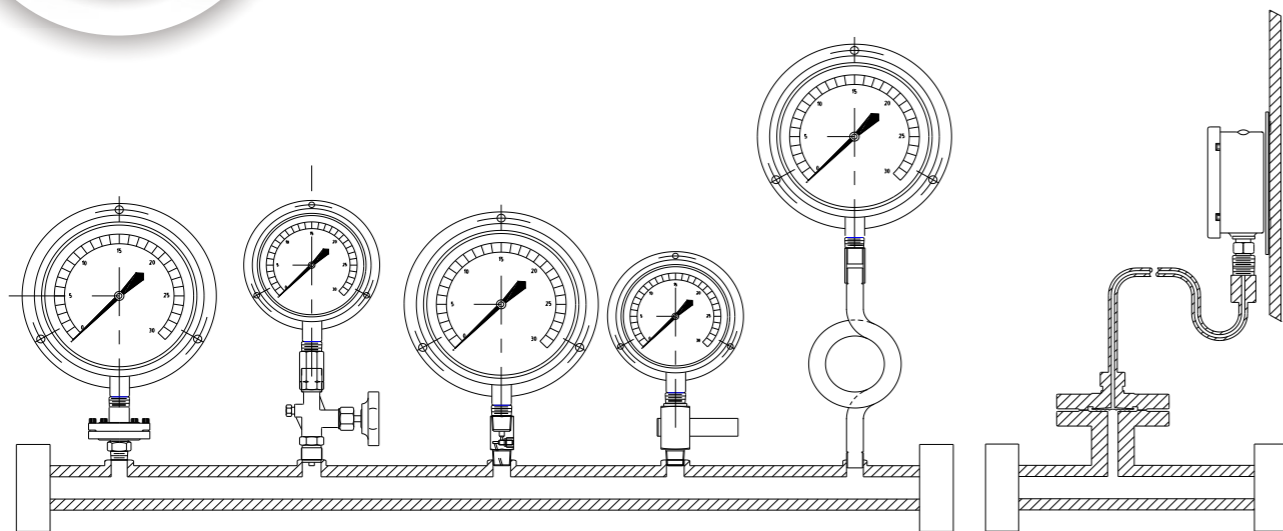


It is required for removing the pointer of a pressure gauge without causing damage to the dial face, pointer, pointer shaft or movement of the gauge.

Needle Valve



The needle-type valves are designed for multiple applications in pressure and flow instruments, including transmitters, gauges and switches where throttling or shut-off is required. These compact valves can be used to isolate the instruments from the pressure medium and are rugged in construction to withstand high pressure and temperature. The valves are rated for pressure as high as 400 bar.



Direct actuated diaphragm seal

Needle valve

Pulsation dampener

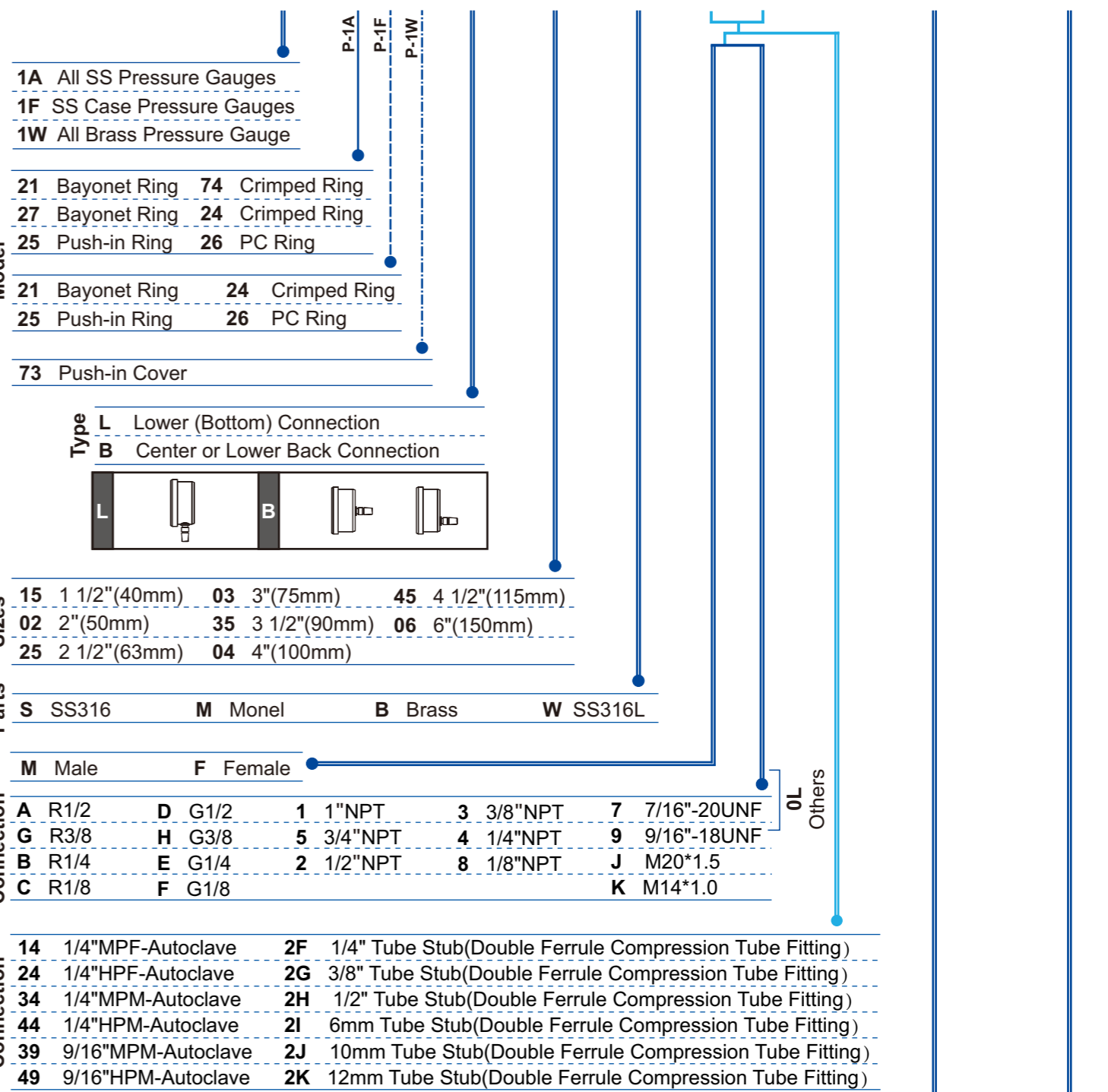
Over-pressure protector

Siphon

Removing actuated diaphragm seal

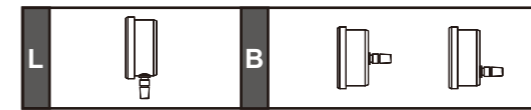
Example:

Series	Model	Type	Dial Size	Wetted Parts	Process Connection	Pressure Range	Option
P - 1A	27	L	04	B	M 2	P 5 0	H-Z G



- 1A All SS Pressure Gauges
- 1F SS Case Pressure Gauges
- 1W All Brass Pressure Gauge
- 21 Bayonet Ring
- 27 Bayonet Ring
- 25 Push-in Ring
- 74 Crimped Ring
- 24 Crimped Ring
- 26 PC Ring
- 73 Push-in Cover

- Type L Lower (Bottom) Connection
- Type B Center or Lower Back Connection



Dial Sizes	Wetted Parts	Standard Process Connection	Specific Process Connection
15 1 1/2"(40mm)	S SS316	A R1/2	14 1/4"MPF-Autoclave
02 2"(50mm)	M Monel	G R3/8	24 1/4"HPF-Autoclave
25 2 1/2"(63mm)	B Brass	B R1/4	34 1/4"MPM-Autoclave
03 3"(75mm)	W SS316L	D G1/2	44 1/4"HPM-Autoclave
35 3 1/2"(90mm)		E G1/4	39 9/16"MPM-Autoclave
06 6"(150mm)		F G1/8	49 9/16"HPM-Autoclave
			2F 1/4" Tube Stub(Double Ferrule Compression Tube Fitting)
			2G 3/8" Tube Stub(Double Ferrule Compression Tube Fitting)
			2H 1/2" Tube Stub(Double Ferrule Compression Tube Fitting)
			2I 6mm Tube Stub(Double Ferrule Compression Tube Fitting)
			2J 10mm Tube Stub(Double Ferrule Compression Tube Fitting)
			2K 12mm Tube Stub(Double Ferrule Compression Tube Fitting)

Please refer to the range table (From Page 28 to 29), and write down the code you need

Please refer to the accessories/options (From Page 18 to 22), and write down the code you need

All Stainless Steel/SS Case Pressure Gauges

Dimensions

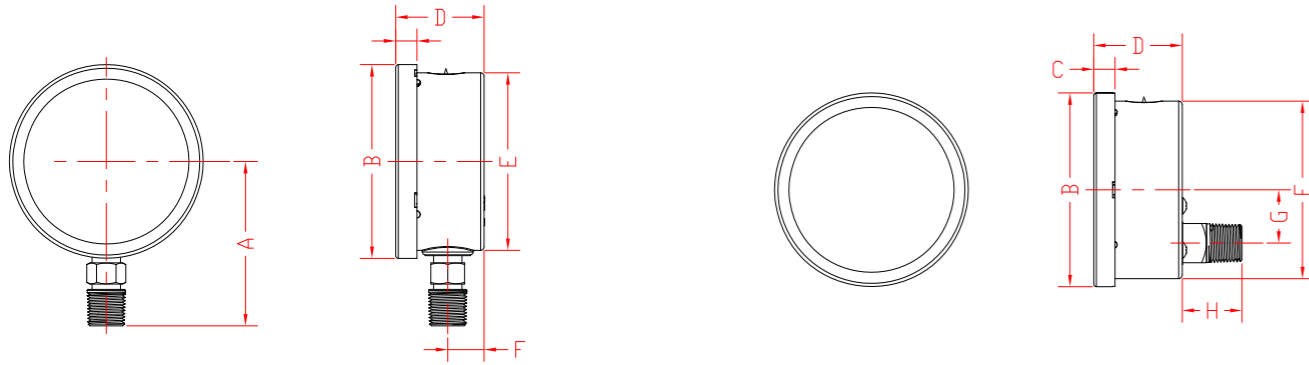
Dimensions



Bottom connection

Standard Design

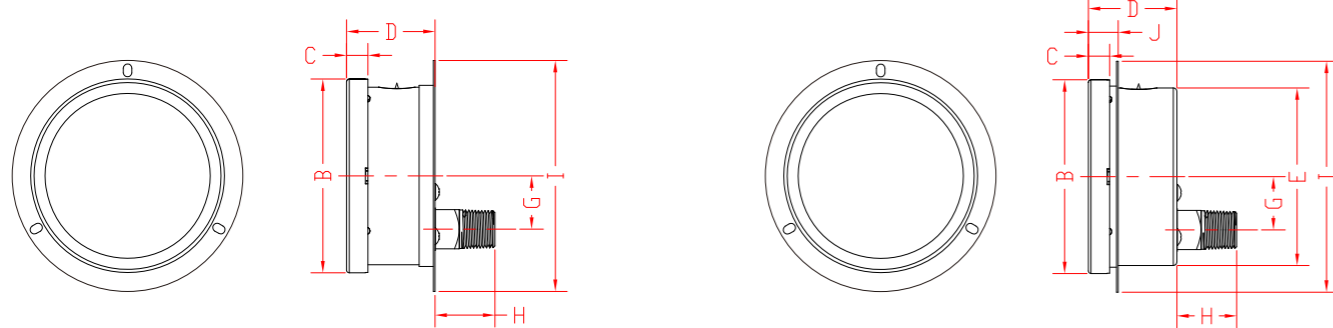
Back connection



With Front/Back Flange

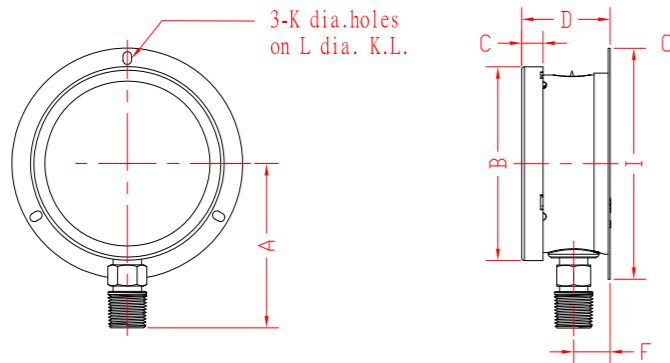
Back connection with back flange

Back connection with front flange



Bottom connection with back flange

3-K dia.holes on L dia. K.L.



Dimensions in mm.

Model	Nominal Size	A	B	C	D	E	F	G	H	I	J	K	L
21 L/B	2.5" (63mm)	57.5	68	9.4	33	61.7	11.3	-	24.2	88	12.3	4	80
	3.5" (90mm)	72.5	100.8	11.7	35.2	91.2	12.1	-	24	130	16.7	4.8	122.4
	4" (100mm)	92.5	109.1	12	49.8	100	20.5	30	33.7	130	16.8	4.8	122.4
	6" (150mm)	120.7	160	12.5	50.8	150	20	30	33.3	196	18	6	178

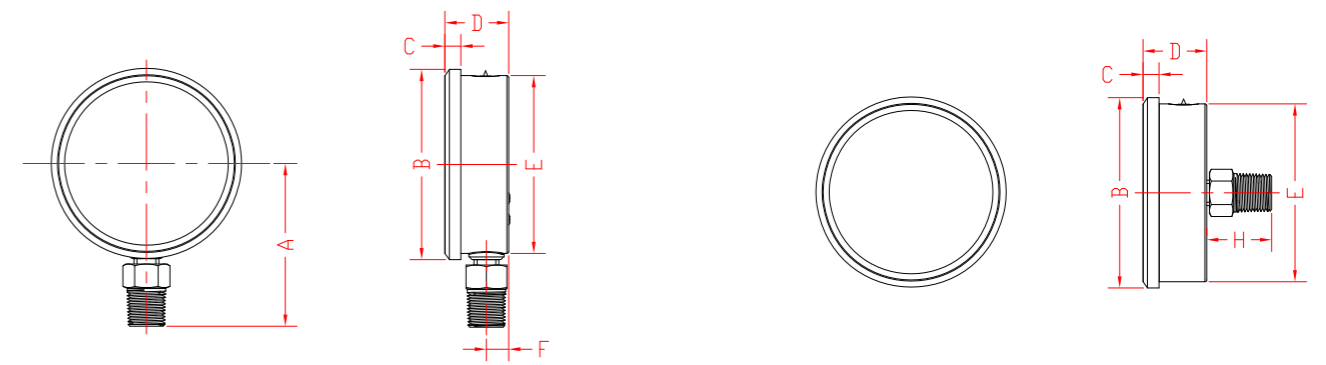
Model	Nominal Size	A	B	C	D	E	F	G	H	I	J	K	L
27 L/B	2.5" (63mm)	58.5	68	9.4	33	61.7	11.3	-	25.2	88	12.6	4	80
	3.5" (90mm)	74	100.8	11.7	35.2	91.2	12.1	-	25	130	16.7	4.8	122.4
	4" (100mm)	92.5	109.1	12	49.8	100	20.5	30.4	41	130	16.6	4.8	122.4
	6" (150mm)	120.7	160	12.5	50.8	150	20	30.4	41	196	18	6	178



Bottom connection

Standard Design

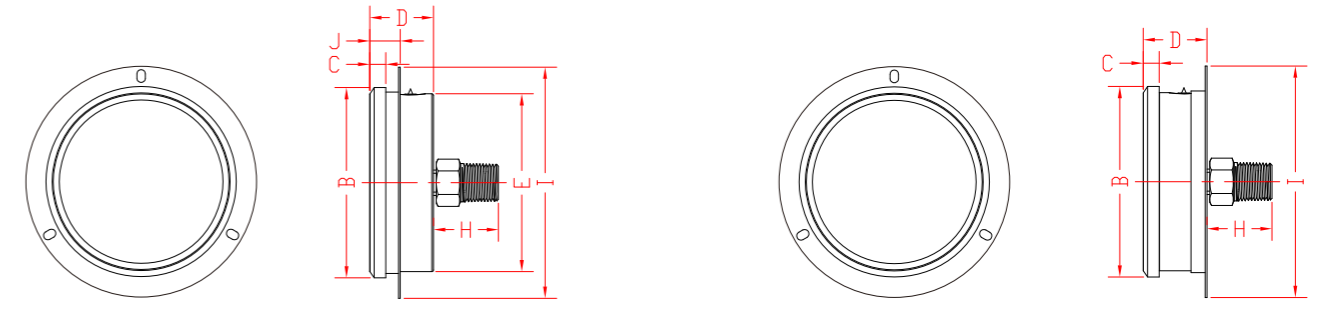
Back connection



With Front/Back Flange

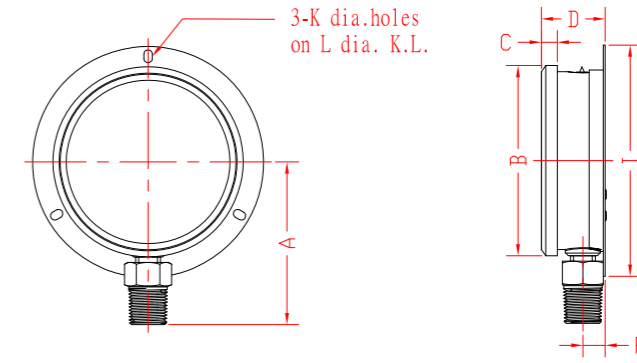
Back connection with back flange

Back connection with front flange



Bottom connection with back flange

3-K dia.holes on L dia. K.L.



Dimensions in mm.

Model	Nominal Size	A	B	C	D	E	F	G	H	I	J	K	L
24 L/B	1.5" (40mm)	42.5	48.9	7	27	44	12.5	-	20	-	-	-	-
	2" (50mm)	51.5	57.9	7	30.8	53	11.5	-	24	-	-	-	-
	2.5" (63mm)	75.5	69	9.3	34	61.7	11.1	-	23.2	88	14.4	4	80
	3" (75mm)	67.5	86.9	9.3	35.5	79.8	11.6	-	25.2	106	18	5	92
4" (100mm)	91.5	107	10	35.8	100	12.5	-	36.5	130	17	4.8	122.4	

Model	Nominal Size	A	B	C	D	E	F	G	H	I	J	K	L
74 L/B	2.5" (63mm)	58.5	69	8	34	61.7	11.1	-	25.2	88	13.1	4	80
	3" (75mm)	68	86.9	9.3	35.5	79.8	11.6	-	25.2	106	-	5	92
	4" (100mm)	86	107	9	35.8	100	12.5	-	37.8	130	17.1	4.8	122.4

Type 21 and 27 Nominal Size 63, 90, 100, 150

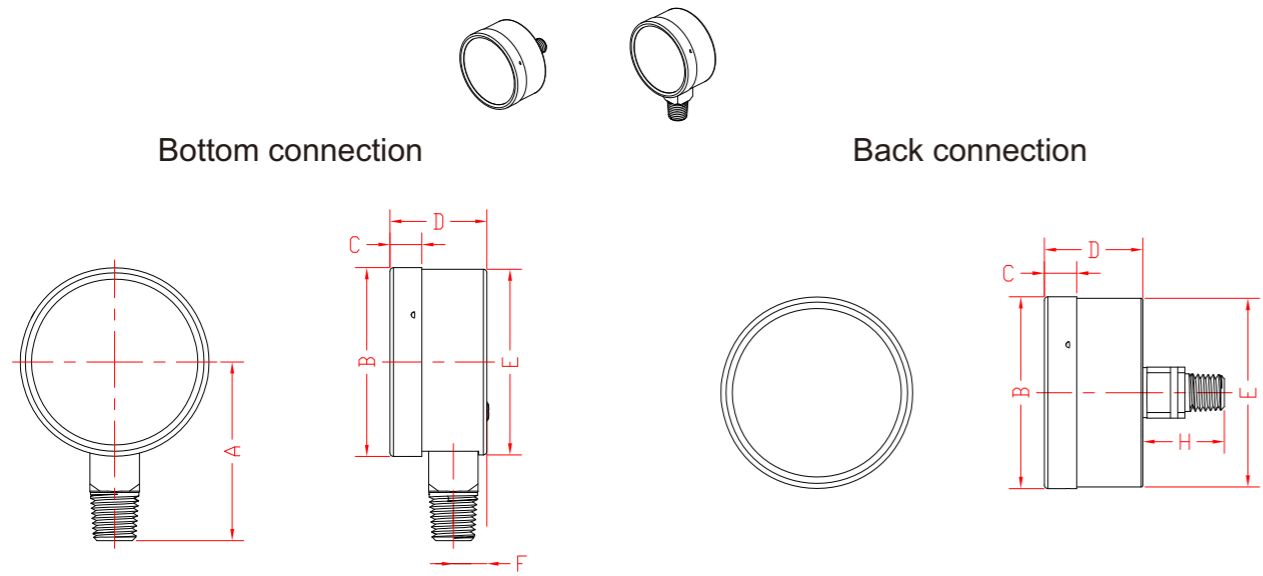
Type 24 and 74 Nominal Size 40, 50, 63, 75, 100

All Stainless Steel/SS Case Pressure Gauges

Dimensions

Dimensions

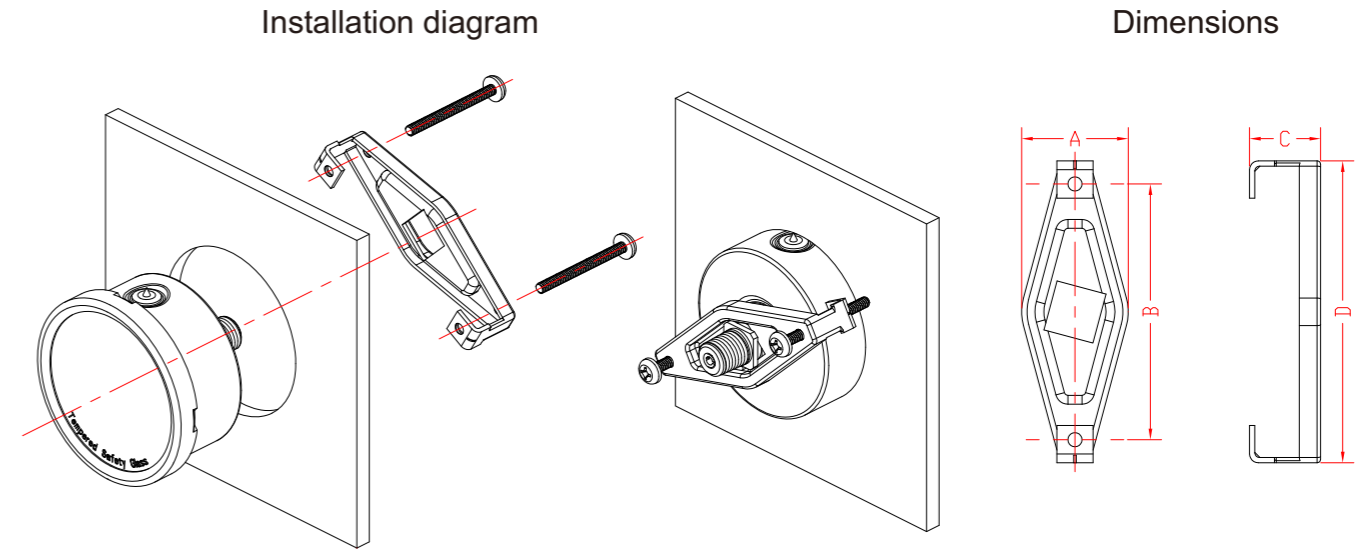
Type 25 Nominal Size 40, 50, 63



Dimensions in mm.

Model	Nominal Size	A	B	C	D	E	F	G	H	I	J	K	L
25 L/B	1.5" (40mm)	40	42.9	9.5	27.7	42	9.8	-	18	-	-	-	-
	2" (50mm)	50.5	53.4	10	27.2	52.5	9.8	-	22.7	-	-	-	-
	2.5" (63mm)	53.5	63.9	10.6	27.7	63	9.5	-	22.7	-	-	-	-

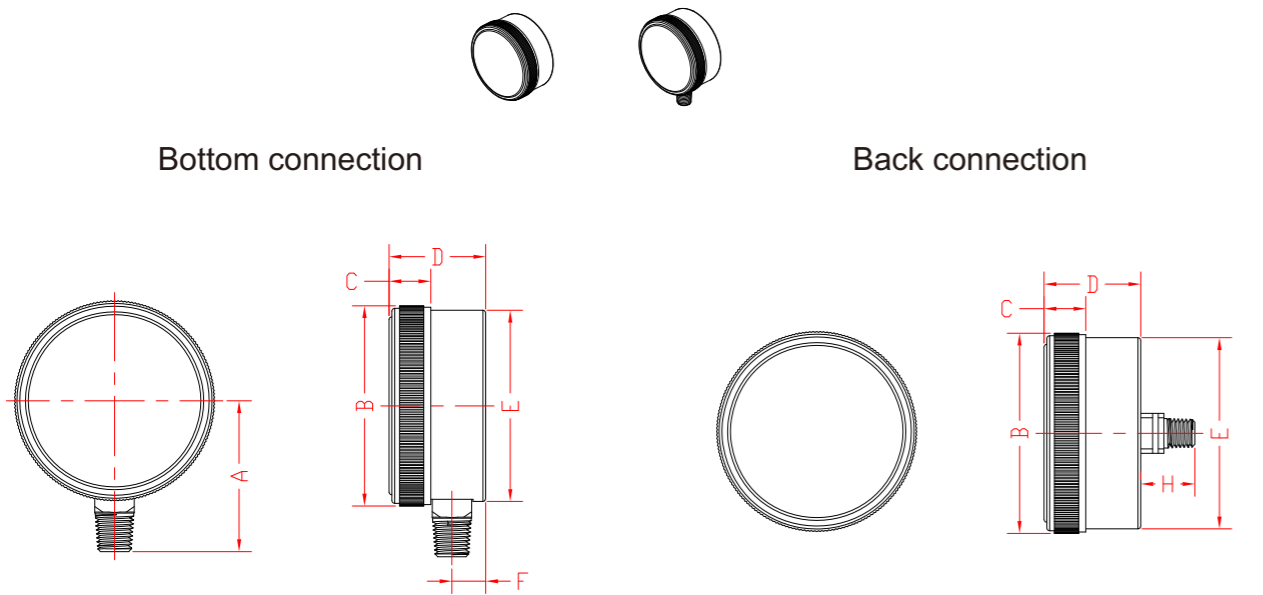
U-CLAMP



Dimensions in mm.

Model	Nominal Size	A	B	C	D
21B25 24B25 27B25 74B25	2" (63mm)	30	72	20.7	85
21B03 27B03	3" (75mm)	30	92	17.1	105
24B35 74B35	3.5" (90mm)	30	100.2	17.1	114
24B04 74B04	4" (100mm)	30	110	11	123.7

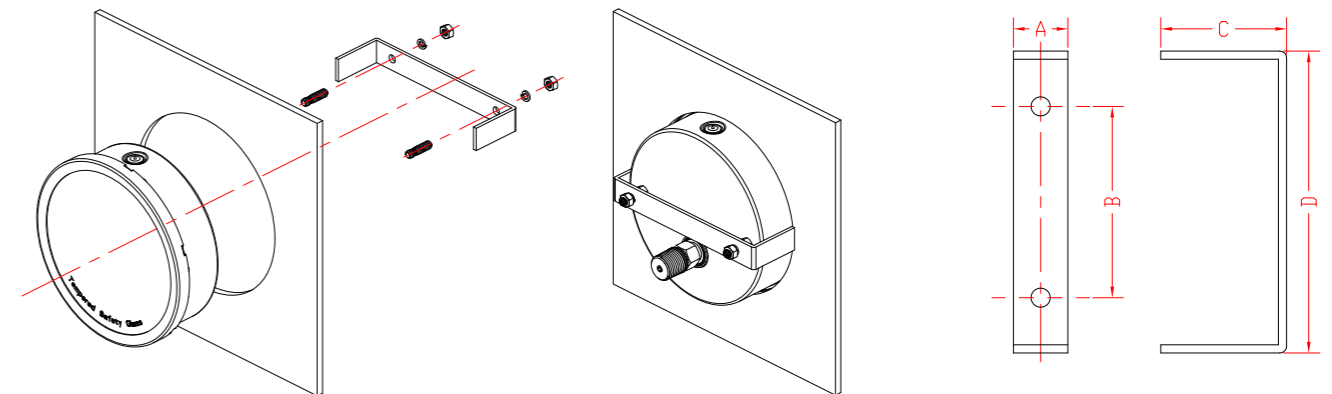
Type 26 Nominal Size 63, 90, 100



Dimensions in mm.

Model	Nominal Size	A	B	C	D	E	F	G	H	I	J	K	L
26 L/B	1.5" (63mm)	40	42.9	9.5	27.7	42	9.8	-	17.2	-	-	-	-
	2" (90mm)	50.5	58	10.5	29.2	53.3	10.7	-	20.5	-	-	-	-
	2.5" (100mm)	53.5	71	14.8	34.3	67.8	12	-	19.2	-	-	-	-

Installation diagram



Dimensions in mm.

Model	Nominal Size	A	B	C	D
21B04 27B04	4" (100mm)	20	70	46	110.5
21B06 27B06	6" (150mm)	20.5	117	46	158

All Stainless Steel/SS Case Pressure Gauges

Range Table

Pressure Ranges

SINGLE SCALE						DUAL SCALE							
PSI		Bar		kPa		Kg/cm ²		Bar & PSI		kPa & PSI		Kg/cm ² & PSI	
Code	Range	Code	Range	Code	Range	Code	Range	Code	Range	Code	Range	Code	Range
P30	8	R1	0.4	K29	40	G1	0.4	X9	0.4 Bar/PSI	Y16	40 kPa/PSI	W9	0.4 Kg/cm ² /PSI
P31	10	R2	0.6	K31	60	G2	0.6	X11	0.6 Bar/PSI	Y18	60 kPa/PSI	W11	0.6 Kg/cm ² /PSI
P32	15	R3	1	K33	100	G3	1	X12	1 Bar/PSI	Y22	100 kPa/PSI	W12	1 Kg/cm ² /PSI
P33	20	R4	1.6	K34	160	G4	1.6	X13	1.6 Bar/PSI	Y25	160 kPa/PSI	W13	1.6 Kg/cm ² /PSI
P35	30	R5	2	K35	200	G5	2	X14	2 Bar/PSI	Y26	200 kPa/PSI	W14	2 Kg/cm ² /PSI
P37	40	R6	2.5	K36	250	G6	2.5	X15	2.5 Bar/PSI	Y27	250 kPa/PSI	W15	2.5 Kg/cm ² /PSI
P38	50	R7	3	K37	300	G7	3	X16	3 Bar/PSI	Y28	280 kPa/PSI	W16	3 Kg/cm ² /PSI
P39	60	R8	4	K38	400	G9	4	X18	4 Bar/PSI	Y31	400 kPa/PSI	W18	4 Kg/cm ² /PSI
P39A	70	R9	5	K39	500	G10	5	X19	5 Bar/PSI	Y32	500 kPa/PSI	W19	5 Kg/cm ² /PSI
P40	80	R11	6	K40	600	G11	6	X20	6 Bar/PSI	Y33	600 kPa/PSI	W20	6 Kg/cm ² /PSI
P41	100	R12	7	K41	700	G12	7	X21	7 Bar/PSI	Y34	700 kPa/PSI	W21	7 Kg/cm ² /PSI
P42	150	R13	10	K42	1000	G13	10	X22	10 Bar/PSI	Y36	1000 kPa/PSI	W22	10 Kg/cm ² /PSI
P43	160	R13A	11	K42A	1100	G13A	11	X23	11 Bar/PSI	Y36A	1100 kPa/PSI	W23	11 Kg/cm ² /PSI
P44	200	R13B	14	K42B	1400	G13C	14	X24	14 Bar/PSI	Y37	1400 kPa/PSI	W24	14 Kg/cm ² /PSI
P44A	230	R13C	15	K42C	1500	G13B	15	X25	15 Bar/PSI	Y38	1500 kPa/PSI	W25	15 Kg/cm ² /PSI
P45	250	R14	16	K43	1600	G14	16	X26	16 Bar/PSI	Y39	1600 kPa/PSI	W26	16 Kg/cm ² /PSI
P46	300	R15	20	K44	2000	G15	20	X28	20 Bar/PSI	Y40	2000 kPa/PSI	W28	20 Kg/cm ² /PSI
P47	350	R16	25	K45	2500	G16	25	X29	25 Bar/PSI	Y41	2500 kPa/PSI	W29	25 Kg/cm ² /PSI
P48	400	R16B	28	K55A	2800	G16A	28	X30	28 Bar/PSI	Y42	2800 kPa/PSI	W30	28 Kg/cm ² /PSI
P48C	430	R17	30	K46	3000	G17	30	X31	30 Bar/PSI	Y43	3000 kPa/PSI	W31	30 Kg/cm ² /PSI
P49	500	R18	35	K47	3500	G18	35	X32	35 Bar/PSI	Y44	3500 kPa/PSI	W32	35 Kg/cm ² /PSI
P50	600	R19	40	K48	4000	G19	40	X33	40 Bar/PSI	Y45	4000 kPa/PSI	W33	40 Kg/cm ² /PSI
P50B	700	R20	50	K49	5000	G20	50	X34	50 Bar/PSI	Y46	5000 kPa/PSI	W34	50 Kg/cm ² /PSI
P51	800	R20A	55	K49A	5500	G20A	55	X34A	56 Bar/PSI	Y46A	5600 kPa/PSI	W34B	56 Kg/cm ² /PSI
P51A	850	R21	60	K50	6000	G21	60	X35	60 Bar/PSI	Y47	6000 kPa/PSI	W35	60 Kg/cm ² /PSI
P52	1,000	R22	70	K51	7000	G22	70	X36	70 Bar/PSI	Y48	7000 kPa/PSI	W36	70 Kg/cm ² /PSI
P53	1,500	R23	100	K52	10000	G23	100	X39	100 Bar/PSI	Y50	10000 kPa/PSI	W39	100 Kg/cm ² /PSI
P54	2,000	R23A	140	K52B	14000	G23A	140	X40	140 Bar/PSI	Y51	14000 kPa/PSI	W40	140 Kg/cm ² /PSI
P55	2,500	R24	160	K53	16000	G24	160	X42	160 Bar/PSI	Y53	16000 kPa/PSI	W42	160 Kg/cm ² /PSI
P56	3,000	R25	200	K54	20000	G25	200	X43	200 Bar/PSI	Y54	20000 kPa/PSI	W43	200 Kg/cm ² /PSI
P57	3,500	R26	250	K55	25000	G26	250	X44	250 Bar/PSI	Y55	25000 kPa/PSI	W44	250 Kg/cm ² /PSI
P58	4,000	R26A	280	K55A	28000	G26A	280	X44A	280 Bar/PSI	Y56	28000 kPa/PSI	W44A	280 Kg/cm ² /PSI
P58A	4,300	R27	300	K56	30000	G27	300	X45	300 Bar/PSI	Y57	30000 kPa/PSI	W45	300 Kg/cm ² /PSI
P59	5,000	R28	350	K56A	35000	G28	350	X46	350 Bar/PSI	Y58	35000 kPa/PSI	W46	350 Kg/cm ² /PSI
P60	6,000	R29	400	K57	40000	G29	400	X47	400 Bar/PSI	Y59	40000 kPa/PSI	W47	400 Kg/cm ² /PSI
P60B	7,000	R30	500	K58	50000	G30	500	X48	500 Bar/PSI	Y60	50000 kPa/PSI	W48	500 Kg/cm ² /PSI
P61	8,000	R30A	550	K58A	55000	G30A	550	X48A	560 Bar/PSI	Y60A	56000 kPa/PSI	W48A	560 Kg/cm ² /PSI
P61A	8,500	R31	600	K59	60000	G31	600	X49	600 Bar/PSI	Y61	60000 kPa/PSI	W49	600 Kg/cm ² /PSI
P62	10,000	R33	700	K60	70000	G32	700	X50	700 Bar/PSI	Y62	70000 kPa/PSI	W50	700 Kg/cm ² /PSI
P63	15,000	R33	1000	K61	100000	G33	1000	X52	1000 Bar/PSI	Y64	100000 kPa/PSI	W52	1000 Kg/cm ² /PSI
P64	20,000	R33A	1400	K61A	140000	G33A	1400	X53	1400 Bar/PSI	Y65	140000 kPa/PSI	W53	1400 Kg/cm ² /PSI
P65	23,000	R34	1600	K62	160000	G34	1600	X55	1600 Bar/PSI	Y67	160000 kPa/PSI	W55	1600 Kg/cm ² /PSI

Vacuum Ranges

SINGLE SCALE						DUAL SCALE							
InHg		Bar		kPa		Kg/cm ²		Bar & PSI		kPa & PSI		Kg/cm ² & PSI	
Code	Range	Code	Range	Code	Range	Code	Range	Code	Range	Code	Range	Code	Range
PV1	-30/0	RV1	-1/0	KV1	-0.04	GV1	-1/0	XV1	-1 Bar/PSI	YV1	-100 kPa/PSI	WV1	-76 cmHg/inHg

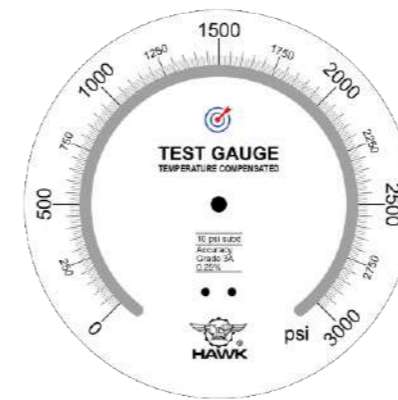
The other scales and ranges not listed are available in request. Kindly consult your distributors for the detailed information.

Range Table

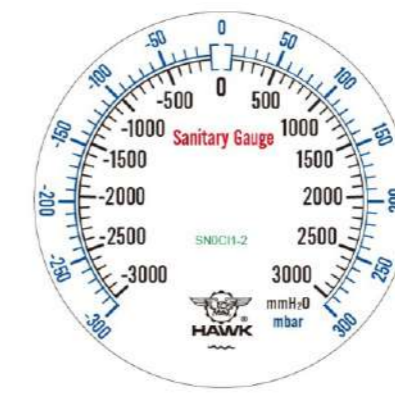
Compound Ranges

SINGLE SCALE						DUAL SCALE							
PSI		Bar		kPa		Kg/cm ²		Bar & PSI		kPa & PSI		Kg/cm ² & PSI	
Code	Range	Code	Range	Code	Range	Code	Range	Code	Range	Code	Range	Code	Range
PCA1	VAC/8.5	RCA	-1/0.6	KOQ	-100/60	GCA	-1/0.6	XCA	-1/0.6 Bar/PSI	YCA	-100/60 kPa/PSI	WCA	-1/0.6 Kg/cm ² /PSI
PCA	VAC/15	RCB	-1/1	KOR	-100/100	GCB	-1/1	XCB	-1/1 Bar/PSI	YCB	-100/100 kPa/PSI	WCB	-1/1 Kg/cm ² /PSI
PCA2	VAC/20	RCC	-1/1.5	KOS	-100/150	GCC	-1/1.5	XCC	-1/1.5 Bar/PSI	YCC	-100/150 kPa/PSI	WCC	-1/1.5 Kg/cm ² /PSI
PCB	VAC/30	RCD	-1/2	KOS1	-100/200	GCD	-1/2	XCD	-1/2 Bar/PSI	YCD	-100/200 kPa/PSI	WCD	-1/2 Kg/cm ² /PSI
PCB1	VAC/40	RCE	-1/2.5	KOS2	-100/250	GCE	-1/2.5	XCE	-1/2.5 Bar/PSI	YCE	-100/250 kPa/PSI	WCE	-1/2.5 Kg/cm ² /PSI
PCB2	VAC/45	RCF	-1/3	KOT	-100/300	GCF	-1/3	XCF	-1/3 Bar/PSI	YCF	-100/300 kPa/PSI	WCF	-1/3 Kg/cm ² /PSI
PCC	VAC/60	RCG	-1/4	KOT2	-100/400	GCG	-1/4	XCG	-1/4 Bar/PSI	YCG	-100/400 kPa/PSI	WCG	-1/4 Kg/cm ² /PSI
PCC1	VAC/70	RCH	-1/5	KOU	-100/500	GCH	-1/5	XCH	-1/5 Bar/PSI	YCH	-100/500 kPa/PSI	WCH	-1/5 Kg/cm ² /PSI
PCD	VAC/100	RCJ	-1/7	KOU2	-100/700	GCJ	-1/7	XCJ	-1/7 Bar/PSI	YCJ	-100/700 kPa/PSI	WCJ	-1/7 Kg/cm ² /PSI
PCD1	VAC/130	RCK	-1/9	KOV	-100/900	GCK	-1/9	XCK	-1/9 Bar/PSI	YCK	-100/900 kPa/PSI	WCK	-1/9 Kg/cm ² /PSI
PCE	VAC/150	RCL	-1/10	KOV1	-100/1000	GCL	-1/10	XCL	-1/10 Bar/PSI	YCL	-100/1000 kPa/PSI	WCL	-1/10 Kg/cm ² /PSI
PCF	VAC/160	RCM	-1/11	KOV2	-100/1100	GCM	-1/11	XCM	-1/11 Bar/PSI	YCM	-100/1100 kPa/PSI	WCM	-1/11 Kg/cm ² /PSI
PCG	VAC/200	RCO	-1/14	KOV4	-100/1400	GCO	-1/14	XCO	-1/14 Bar/PSI	YCO	-100/1400 kPa/PSI	WCO	-1/14 Kg/cm ² /PSI
PCG1	VAC/210	RCP	-1/15	KOW	-100/1500	GCP	-1/15	XCP	-1/15 Bar/PSI	YCP	-100/1500 kPa/PSI	WCP	-1/15 Kg/cm ² /PSI
PCG2	VAC/230	RCR	-1/19	KOW2	-100/1900	GCR	-1/19	XCR	-1/19 Bar/PSI	YCR	-100/1900 kPa/PSI	WCR	-1/19 Kg/cm ² /PSI
PCH	VAC/300	RCS	-1/20	KOW3	-100/2000	GCS	-1/20	XCS	-1/20 Bar/PSI	YCS	-100/2000 kPa/PSI	WCS	-1/20 Kg/cm ² /PSI
PCH1	VAC/350	RCT	-1/24	KOX	-100/2400	GCT	-1/24	XCT	-1/24 Bar/PSI	YCT	-100/2400 kPa/PSI	WCT	-1/24 Kg/cm ² /PSI
PCI	VAC/400	RCU	-1/25	KOX1	-100/2500	GCU	-1/25	XCU	-1/25 Bar/PSI	YCU	-100/2500 kPa/PSI	WCU	-1/25 Kg/cm ² /PSI
PCI1	VAC/450	RCV	-1/27	KOX2	-100/2700	GCV	-1/27	XCV	-1/27 Bar/PSI	YCV	-100/2700 kPa/PSI	WCV	-1/27 Kg/cm ² /PSI
PCJ	VAC/500	RCW	-1/30	KOY	-100/3000	GCW	-1/30	XCW	-1/30 Bar/PSI	YCW	-100/3000 kPa/PSI	WCW	-1/30 Kg/cm ² /PSI
PCK	VAC/600	RCW1	-1/35	KOZ	-100/3500	GCW1	-1/35	XCX	-1/35 Bar/PSI	YCX	-100/3500 kPa/PSI	WCX	-1/35 Kg/cm ² /PSI
PCK1	VAC/700	RCX	-1/40	KOZ1	-100/4000	GCX	-1/40	XCX	-1/40 Bar/PSI	YCY	-100/4000 kPa/PSI	WCY	-1/40 Kg/cm ² /PSI
PCL	VAC/850	RCY	-1/50	KOZ2	-100/5000	GCY	-1/50	XCZ	-1/50 Bar/PSI	YCY	-100/5000 kPa/PSI	WCZ	-1/50 Kg/cm ² /PSI
PCM	VAC/1000	RCZ	-1/60	KOZ3	-100/6000	GCZ	-1/60	XC1	-1/60 Bar/PSI	YC1	-100/6000 kPa/PSI	WC1	-1/60 Kg/cm ² /PSI
PCN	VAC/1500	RC0	-1/100	KOZ7	-100/10000	GC0	-1/100	XC2	-1/100 Bar/PSI	YC2	-100/10000 kPa/PSI	WC2	-1/100 Kg/cm ² /PSI

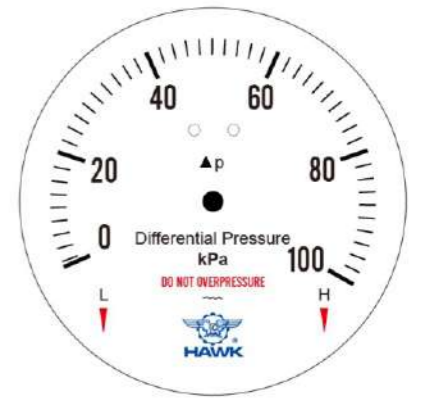
Single Scale



Dual Scale



Customize Dial



Triple Pressure Ranges

Bar & kPa & PSI											
Code	Range	Code	Range	Code	Range	Code	Range	Code	Range	Code	Range
ZV1	-1 Bar/kPa/PSI	ZCI	-1/6 Bar/kPa/PSI	ZCT	-1/24 Bar/kPa/PSI	Z20	6 Bar/kPa/PSI	Z31	30 Bar/kPa/PSI	Z43	200 Bar/kPa/PSI
ZCA	-1/0.6 Bar/kPa/PSI	ZCJ	-1/7 Bar/kPa/PSI	Z11	0.6 Bar/kPa/PSI	Z21	7 Bar/kPa/PSI	Z33	40 Bar/kPa/PSI	Z44	250 Bar/kPa/PSI
ZCB	-1/1 Bar/kPa/PSI	ZCK	-1/9 Bar/kPa/PSI	Z12	1 Bar/kPa/PSI	Z22	10 Bar/kPa/PSI	Z34	50 Bar/kPa/PSI	Z44A	280 Bar/kPa/PSI
ZCC	-1/1.5 Bar/kPa/PSI	ZCL	-1/10 Bar/kPa/PSI	Z13	1.6 Bar/kPa/PSI	Z23	11 Bar/kPa/PSI	Z35	60 Bar/kPa/PSI	Z45	300 Bar/kPa/PSI
ZCD	-1/2 Bar/kPa/PSI	ZCM	-1/11 Bar/kPa/PSI	Z14	2 Bar/kPa/PSI	Z24	14 Bar/kPa/PSI	Z36	70 Bar/kPa/PSI	Z47	400 Bar/kPa/PSI
ZCE	-1/2.5 Bar/kPa/PSI	ZCO	-1/14 Bar/kPa/PSI	Z15	2.5 Bar/kPa/PSI	Z26	16 Bar/kPa/PSI	Z39	100 Bar/kPa/PSI	Z48	500 Bar/kPa/PSI
ZCF	-1/3 Bar/kPa/PSI	ZCP	-1/15 Bar/kPa/PSI	Z16	3 Bar/kPa/PSI	Z28	20 Bar/kPa/PSI	Z39A	110 Bar/kPa/PSI	Z49	600 Bar/kPa/PSI
ZCG	-1/4 Bar/kPa/PSI	ZCR	-1/19 Bar/kPa/PSI	Z18	4 Bar/kPa/PSI	Z29	25 Bar/kPa/PSI	Z40	140 Bar/kPa/PSI	Z50	700 Bar/kPa/PSI
ZCH	-1/5 Bar/kPa/PSI	ZCS	-1/20 Bar/kPa/PSI	Z19	5 Bar/kPa/PSI	Z30	28 Bar/kPa/PSI	Z42	160 Bar/kPa/PSI	Z52	1000 Bar/kPa/PSI