

HIRLEKAR
PRECISION

Differential Pressure Instruments



- Filter Monitoring
- Flow Monitoring
- Level Measurement
- Pressure Monitoring

Introduction

Hirlekar Precision is one of the largest manufacturers of differential pressure gauges and switches in the world. It is a strategic & resourceful, yet cost effective vital link in the supply chain management of the customers from demanding industries of developed countries located throughout the world.



Global Reach

Hirlekar Precision exports around 80% of production to more than 50 countries around the world. Hirlekar Precision's products are available directly or through competent distributors in more than 45 countries with backing of trained engineers to maximize productivity of our valued customers.

WHAT WOULD YOU GET FROM US?

Hirlekar Precision beats competitors on quality, delivery, price, performance and service. A few of our core strengths are:-

Private labeling

We private label our instruments for many leading instrument manufacturers. You could sell the gauges with your logo and product sticker as your own product.

Fast delivery

We understand the importance of fast shipping and 'Just in Time' delivery. Our standard gauges ship within one week*.



World Class shipping partners

Efficient communication and logistics management has ensured strong interdependence with customers spread far and wide. UPS, FedEx and DHL are Hirlekar Precision's shipping partners.

Export oriented & trusted

Our products are sold in/ used in more than 50 countries around the world! Be assured of a world class experience with Hirlekar Precision - right from product enquiry to manufacturing to product packaging.

Continuous employee participation

Hirlekar Precision encourages employees to participate in the formation & implementation of corporate goals, to support the efforts in being a socially responsible organization, and to conduct business with the highest degree of integrity &

Independent, dedicated teams

Our factory in Pune has focused dedicated and independent teams in Engineering, Sales & Marketing, Purchase, Production, Quality control & Dispatch departments



Efficient communications

We respond to your queries as quickly as possible, on an average within one day. You can communicate with us in Deutsch, English, Hindi, Marathi and Gujarathi.

Highly customizable

Gauge body material, dial size, gauge glass, seals, process connections - these are some of the parameters that can be customized by you. More than 100million combinations available!



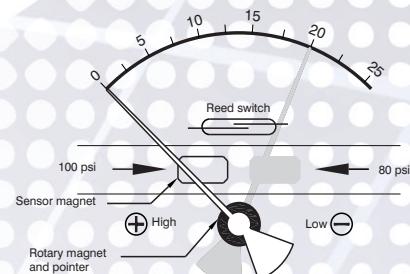
Operating Principle

What is the operating principle of our differential gauges?

Hirlekar Precision manufactures differential gauges based on magnetic coupling principle.

What is the basic operating principle?

High and Low pressures are separated by a sensor assembly consisting of a magnet, diaphragm and a range spring. The difference in pressure causes the assembly to move in proportion to the change against the range spring. A rotary magnet, located in a separate body compartment and isolated from the acting pressures, is rotated by magnetic coupling as per the linear movement of the sensor assembly. A pointer attached to the rotary magnet indicates differential pressure on the dial.



What are the advantages of magnetically coupled gauges?

Cost effective: They are compact, cost effective and are available in 6 dial sizes.

No threat of blow out: Magnetic coupling isolates the indicating mechanism window from the pressure chamber so no threat of blow out. Blow out disk not required.

Eliminates balancing: Our gauges automatically reset after line surges and cold start. No adjustment pointer required.

Over range protection: The instrument is fully protected for over range of up to respective maximum working pressure from the high side.

High line pressure, low differential pressure:

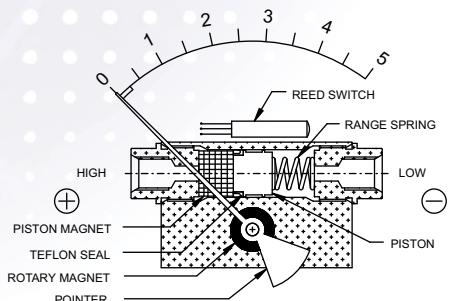
Customizable: Over 100 million combinations of our gauges available

What are the two types of differential gauges we manufacture?

Depending upon the construction, Hirlekar Precision manufactures two types of differential pressure gauges based on the magnetic coupling principle:

Piston type: Used where migration of measuring media from HI to LO is allowed.

Diaphragm type: Used where migration of media from HI to LO is not allowed.



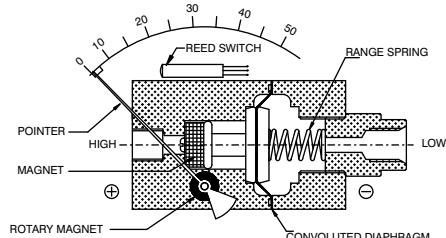
What are Diaphragm gauges?

Basic Operating Principle:

In the Hirlekar Precision diaphragm gauges, the movement of the convoluted/ rolling diaphragm is converted into appropriate calibrated rotary movement of the pointer through a magnetic connection.

Zero Migration:

This type of differential pressure gauge is used in applications where zero migration of media from HP to LP is permitted.



Is one type of gauge better than the other?

No. Piston and diaphragm type differential gauges are unique. The selection of the appropriate type of gauge depends upon a host of factors. The primary factor is - Is migration of measuring media from HI to LO allowed in your application.

Models in piston type & diaphragm type

Piston type: 200 DPG, D200 DPG, 150 DPG, 100 DPG, DX 10, PR 10, EX 200DPG

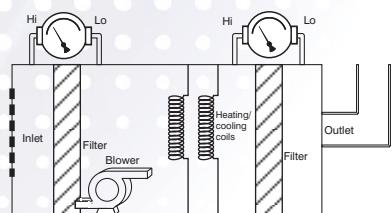
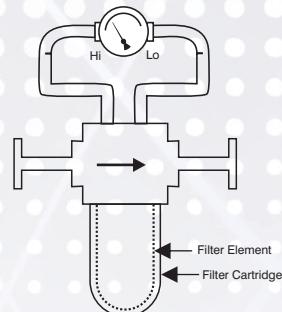
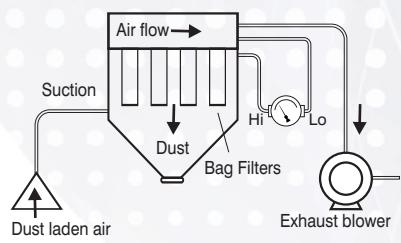
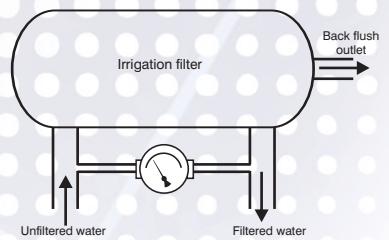
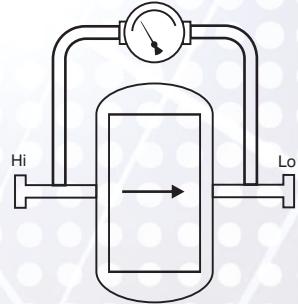
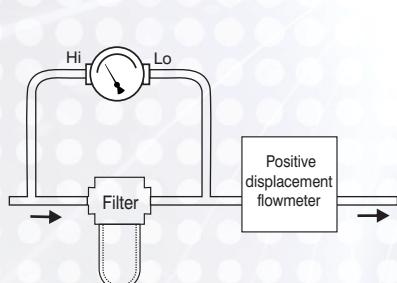
Diaphragm type: 200 DGR, 300 DGC, 320 DGC, 400 DGC, 600 DGC, 700 DGC, DX 20, PR 20, GX 100, EX 200DGR, EX 300DGC, EX 400 DGC

Applications

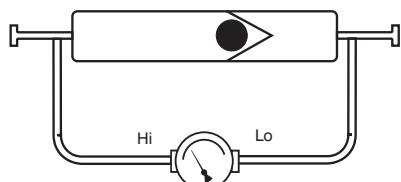
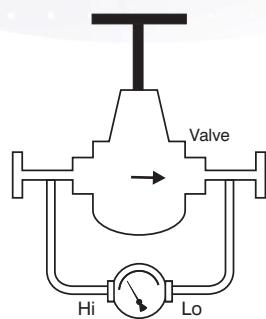
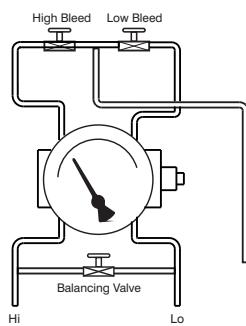
Applications

A few of the applications of our differential pressure gauges are mentioned below. For additional detail, please log on to: www.hirlekarprecision.com

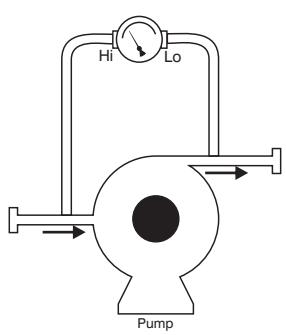
Filter Monitoring



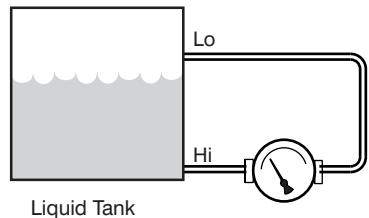
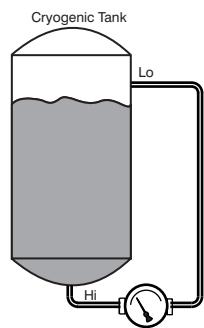
Flow Monitoring



Pressure Monitoring



Level Measurement





200 DPG

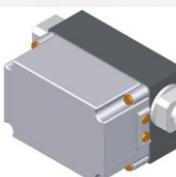
ΔP Range: 0 to 0.25 upto 70 bar
0 to 5 upto 1050 psi

COMBINATIONS

Gauge



Switch



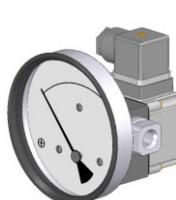
Gauge + switch

(with a terminal strip inside)



Gauge + switch

(with a DIN plug on top)



MOUNTING BRACKETS

Surface mounting



Specifications

Accuracy

±2% of the FSD (Ascending)

Migration

Minor from high to low port

Range

0-0.25 to 0-70 bar or equivalent range in other units

First marking on the scale

20% of the FSD

Sensing element

Piston

Body material, SS 302 spring, ceramic magnet & seals
Stainless steel (SS 304): 2", 2.5", 3.5", 4", 4.5", 6.0"

Engineering polymer: 2.5", 4.5", 6"

Bayonet: 4.0"

Direct, front flange, 2" pipe & surface mounting

200 bar for Aluminum & Brass, 400 bar for SS & Monel

0 to 80°C (32 to 175°F)

Aluminum, Brass, SS 316 & Monel

Buna-N, Viton, EPDM

Float glass(Std.), toughened glass, acrylic & safety glass.

1/4" NPT(F) (Std.), 1/4" BSP(F) and others through adaptor

In-line, rear, bottom, in-line & bottom, in-line & back

Up to the max. working pressure from high & low side

IP 65 / NEMA-4

Options

Liquid filling (glycerine/ silicone)

1 or 2 SPSTs with a DIN plug

Red follower pointer

1 or 2 SPSTs with a terminal strip

Customer logo

1 or 2 SPSTs with a built in relay

Dual scale

1 or 2 SPDTs with a DIN plug

Color band

1 or 2 SPDTs with a terminal strip

Filter mesh in (+) connection

Reverse port (pointer moves from right to left)

Descending calibration

Thick body for 450bar application

Switches (Adjustable in 20-100% of FSD)

Available in engineering polymer (EP) Case



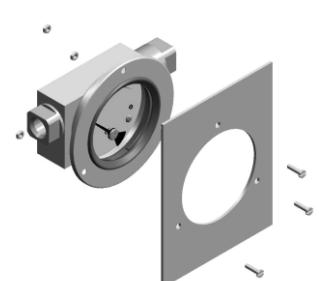
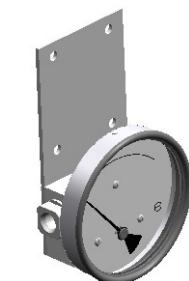
- Removable glass
- Strong and durable
- Panel mounting possible
- Condensation can be cleaned
- Light weight

MOUNTING BRACKETS

Horizontal pipe mounting

Vertical pipe mounting

Panel / Flange mounting





DX 10

ΔP Range: 0 to 0.25 upto 10 bar
0 to 3.5 upto 140 psi

COMBINATIONS

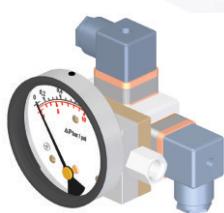
Gauge



Gauge + switch (with a DIN plug on top)



Gauge + switch (with 2 DIN plugs)



MOUNTING BRACKETS

Surface mounting



Specifications

Accuracy	±3% of the FSD (Ascending)
Migration	Minor from high to low port
Range	0-0.25 to 0-10 bar/psi or psi/kPa dual scale
First marking on the scale	15% of the FSD
Sensing element	Magnetic piston with compression spring
Wetted parts	SS 316, SS 302 compression spring, seals & ceramic magnet
Case material & dial size	Stainless steel (SS 304): 2.5", 3.5", 4.0" Engineering polymer: 2.5"
Mounting	Bayonet: 4.0"
Maximum working pressure	Direct, front flange, 2" pipe & surface mounting 100, 250 & 400 bar.
Maximum process temperature	0 to 80°C (32 to 175°F)
Enclosure	Engineering Polymer
Seals	Buna-N & Viton
Window	Float glass(Std.), toughened glass, acrylic & safety glass.
Connection	1/4" BSP(F) Std. Optional 1/4" NPT(F)
Porting	In-line
Over range protection	Up to the max. working pressure from high & low side
Protection for gauge & switch	IP 65

Options

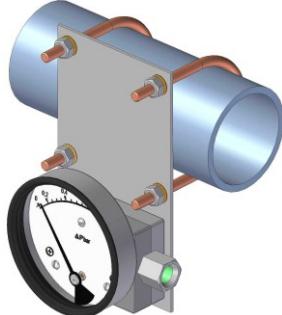
Liquid filling (glycerine/ silicone)	1 or 2 SPSTs with a DIN plug
Red follower pointer	1 or 2 SPDTs with a DIN plug
Customer logo	
Dual scale	
Color band	
<i>DP range can be changed easily at site by replacing range spring. (Available only in gauges with colour band or zones without any graduations)</i>	

Available in engineering polymer (EP) Case

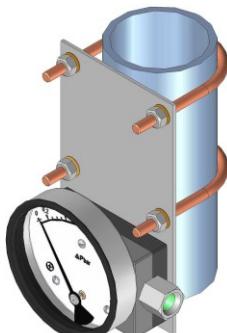


- Removable glass
- Strong and durable
- Panel mounting possible
- Condensation can be cleaned
- Light weight

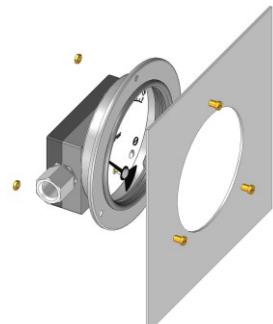
Horizontal pipe mounting



Vertical pipe mounting



Panel / Flange mounting





200 DGR

ΔP Range: 0 to 0 to 0.25 upto 7 bar
0 to 5 upto 100 psi

COMBINATIONS

Gauge



Switch



Gauge + switch

(with a terminal strip inside)



Gauge + switch

(with a DIN plug on top)



MOUNTING BRACKETS

Surface mounting



Specifications

Accuracy

±2% of the FSD (Ascending)

Migration

No migration. Zero leakage from high to low port

Range

0-0.25 to 0-7 bar or equivalent ranges in other units

First marking on the scale

15% of the FSD

Sensing element

Diaphragm, body material, SS 302 spring & ceramic magnet

Wetted parts

Stainless steel (SS 304): 2.5", 3.5", 4", 4.5", 6"

Case material & dial size

Engineering polymer: 2.5", 4.5", 6"

Mounting

Bayonet: 4"

Maximum working pressure

Direct, front flange, 2" pipe & surface mounting

Maximum process temperature

200 bar / 3000 psi

Body material

0 to 80°C (32 to 175°F)

Diaphragm

Aluminum, Brass, SS 316, Monel

Window

Buna-N, Viton, EPDM

Connection

Float glass(Std.), toughened glass, acrylic & safety glass

Porting

1/4" NPT(F) (Std.), 1/4" BSP(F) and others through adaptor

Over range protection

In-line, rear, bottom, in-line & bottom.

Protection for gauge & switch

Up to the max. working pressure from high side.

Never pressurize only LP side beyond 25 bar

IP 65 / NEMA-4

Options

Liquid filling (glycerine/ silicone)

1 or 2 SPSTs with a DIN plug

Red follower pointer

1 or 2 SPSTs with a terminal strip

Customer logo

1 SPST with a built in relay

Dual scale

1 or 2 SPDTs with a terminal strip

Color band

1 or 2 SPDTs with a DIN plug

Filter mesh in (+) connection

Descending calibration

Switches (Adjustable in 30-100% of FSD)

Liquid filling (glycerine/ silicone)

1 or 2 SPSTs with a DIN plug

Red follower pointer

1 or 2 SPSTs with a terminal strip

Customer logo

1 SPST with a built in relay

Dual scale

1 or 2 SPDTs with a terminal strip

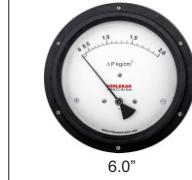
Color band

1 or 2 SPDTs with a DIN plug

Filter mesh in (+) connection

Descending calibration

Available in engineering polymer (EP) Case



6.0"



4.5"



2.5"

- Removable glass
- Strong and durable
- Panel mounting possible
- Condensation can be cleaned
- Light weight

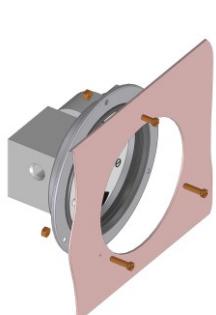
Horizontal pipe mounting



Vertical pipe mounting



Panel / Flange mounting





300 DGC

ΔP Range: 0 to 0.075 upto 4 bar
0 to 1 upto 60 psi

COMBINATIONS

Gauge

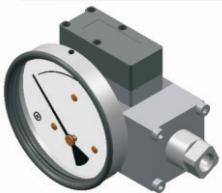


Switch



Gauge+switch

(with a terminal strip inside)



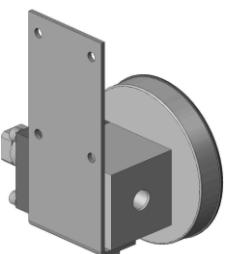
Gauge+switch

(with a DIN plug on top)



MOUNTING BRACKETS

Surface mounting



Specifications

Accuracy

±2% of the FSD (Ascending)

Migration

No migration ; Zero leakage from high to low port

Range

0-0.075 to 0-4 bar or equivalent ranges in other units

First marking on the scale

15% of the FSD

Sensing element

Diaphragm, body material, SS 302 spring & ceramic magnet

Wetted parts

Stainless steel (SS 304): 2", 2.5", 3.5", 4", 4.5", 6"

Case material & dial size

Engineering polymer: 2.5", 4.5", 6"

Mounting

Bayonet: 4"

Maximum working pressure

Direct, front flange, 2" pipe & surface mounting

Maximum process temperature

100 bar / 1500 psi

Body material

0 to 80°C (32 to 175°F)

Diaphragm

Aluminum, Brass, SS 316 & Monel

Window

Buna-N, Viton, EPDM

Connection

Float glass(Std.), toughened glass, acrylic & safety glass

Porting

1/4" NPT(F) (Std.), 1/4" BSP(F) and others (through adaptor)

Over range protection

In-line, rear, bottom, bottom & vent, in-line & vent, in-line & bottom, in-line & back, bottom vent & inline

Protection for gauge & switch

Up to the max. working pressure from high side

IP 65 / NEMA-4

Options

Liquid filling

1 or 2 SPSTs with a DIN plug

Red follower pointer

1 or 2 SPSTs with a terminal strip

Customer logo

1 SPST with a built in relay

Dual scale

1 or 2 SPDTs with a terminal strip

Colour band

1 or 2 SPDTs with a DIN plug

Filter mesh in (+) connection

Descending calibration

Instrument can be calibrated with square root scale for flow measurement.

Switches (Adjustable in 30-100% of FSD)

Liquid filling

1 or 2 SPSTs with a DIN plug

Red follower pointer

1 or 2 SPSTs with a terminal strip

Customer logo

1 SPST with a built in relay

Dual scale

1 or 2 SPDTs with a terminal strip

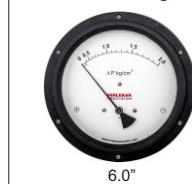
Colour band

1 or 2 SPDTs with a DIN plug

Filter mesh in (+) connection

Descending calibration

Available in engineering polymer (EP) Case



6.0"



4.5"



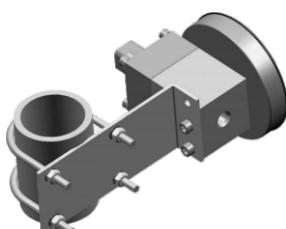
2.5"

- Removable glass
- Strong and durable
- Panel mounting possible
- Condensation can be cleaned
- Light weight

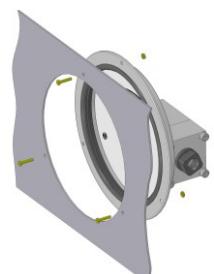
Horizontal pipe mounting



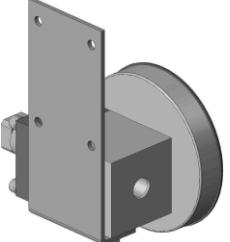
Vertical pipe mounting



Panel / Flange mounting



Surface mounting



DIAPHRAGM



400 DGC

ΔP Range: 0 to 25 upto 600 mm H₂O
0 to 1 upto 25 inch H₂O

COMBINATIONS

Gauge



Switch



Gauge + switch (with a DIN plug on top)



MOUNTING BRACKETS

Surface mounting



Specifications

Accuracy	±2% of the FSD (Ascending)
Migration	No migration. Zero leakage from high to low port
Range	0-25 to 0-600 mm H ₂ O or similar ranges in other units
First marking on the scale	15% of the FSD
Sensing element	Diaphragm, body material, SS 302 spring & ceramic magnet
Wetted parts	Stainless steel (SS 304): 2.5", 3.5", 4", 4.5", 6.0"
Case material & dial size	Engineering polymer: 2.5", 4.5", 6"
Mounting	Bayonet: 4.0"
Maximum working pressure	Direct, front flange, 2" pipe & surface mounting
Maximum process temperature	35 bar / 500 psi.
Body material	0 to 80°C (32 to 175°F)
Diaphragm	Aluminum, SS 316
Window	Buna-N, Viton, EPDM
Connection	Float glass(Std.), toughened glass, acrylic & safety glass
Porting	1/4" NPT - F (Std.), Optional 1/4" BSP - F with adaptor
Over range protection	In-line, rear, bottom, bottom & vent, in-line & vent, in-line & bottom.
Protection for gauge & switch	Up to the max. working pressure from high side
	IP 65 / NEMA-4

Options

Liquid filling	1 or 2 SPSTs with a DIN plug
Red follower pointer	1 or 2 SPSTs with a terminal strip
Customer logo	1 SPST with a built in relay
Dual scale	1 or 2 SPDTs with a terminal strip
Colour band	1 or 2 SPDTs with a DIN plug
Filter mesh in (+) connection	
Descending calibration	

Switches (Adjustable in 20-80% of FSD)

Available in engineering polymer (EP) Case

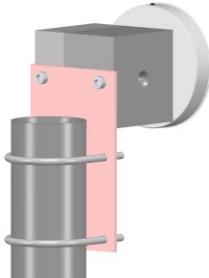


- Removable glass
- Strong and durable
- Panel mounting possible
- Condensation can be cleaned
- Light weight

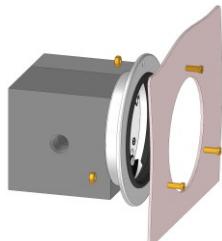
Horizontal pipe mounting



Vertical pipe mounting



Panel / Flange mounting



DIAPHRAGM



600 DGC

ΔP Range: 0 to 25 upto 1250 mm H₂O
0 to 1 upto 50 inch H₂O

COMBINATIONS

Gauge



Switch



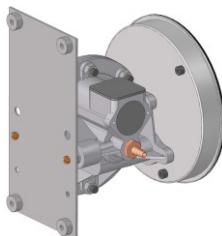
Gauge+switch

(With a DIN plug on top)



MOUNTING BRACKETS

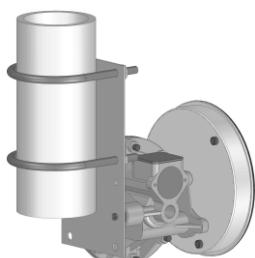
Surface mounting



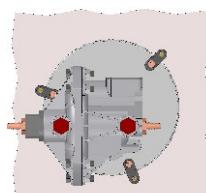
Horizontal pipe mounting



Vertical pipe mounting



Panel / Flange mounting



Specifications

Accuracy	±3% of the FSD (Ascending)
Migration	No migration ; Zero leakage from high to low port
Range	0-25 to 0-1250 mm of water
First marking on the scale	15% of the FSD
Sensing element	Diaphragm, body material, SS 302 spring & ceramic magnet
Wetted parts	Stainless steel (SS 304)
Case material	112mm. (4.4") (Other dial sizes on request)
Dial size in mm(inch)	Flush (Std.), 2" pipe & surface mounting on request
Mounting	2.4 bar / 35psi
Maximum working pressure	0 to 60°C (32 to 140°F)
Maximum process temperature	Engineering polymer
Body material	Buna-N, Viton, EPDM
Diaphragm	Float glass(Std.), toughened glass & acrylic on request.
Window	1/8" NPT(F)
Connection	In-line, back, In-line & back
Porting	Up to the max. working pressure from high side
Over range protection	IP 65 / NEMA-4
Protection for gauge & switch	

Options

Liquid filling (glycerine/ silicone)	1 or 2 SPSTs with a DIN plug
Customer logo	1 SPDT with a DIN plug
Dual scale	
Color band	
Filter mesh in (+) connection	
Descending calibration	

Switch can be added anytime on the field.

Accessories supplied with instrument





700 DGC

ΔP Range: 0 to 750 upto 40000 mmH₂O
0 to 1 upto 60 psi

COMBINATIONS

Gauge

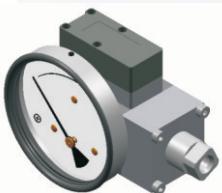


Switch



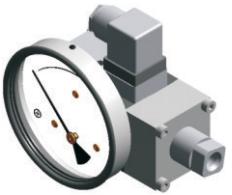
Gauge+switch

(with a terminal strip inside)



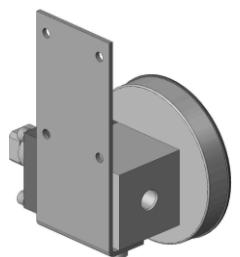
Gauge+switch

(with a DIN plug on top)



MOUNTING BRACKETS

Surface mounting



Specifications

Accuracy

$\pm 2\%$ of the FSD (Ascending)

Migration

No migration ; Zero leakage from high to low port

Range

0-0.075 to 0-4 bar or equivalent ranges in other units

First marking on the scale

15% of the FSD

Sensing element

Diaphragm, body material, SS 302 spring & ceramic magnet

Wetted parts

Stainless steel (SS 304): 2.5", 3.5", 4", 4.5", 6"

Case material & dial size

Engineering polymer: 2.5", 4.5", 6"

Mounting

Direct, front flange, 2" pipe & surface mounting

Maximum working pressure

100 bar / 1500 psi

Maximum process temperature

0 to 80°C (32 to 175°F)

Body material

Aluminum, Brass, SS 316 & Monel

Diaphragm

Buna-N, Viton, EPDM

Window

Float glass(Std.), toughened glass, acrylic & safety glass

Connection

1/4" NPT(F) (Std.), 1/4" BSP(F) and others through adaptor

Porting

In-line, rear, bottom, bottom & vent, in-line & vent, in-line & bottom.

Over range protection

Up to the max. working pressure from high side

Protection for gauge & switch

IP 65 / NEMA-4

Options

Liquid filling (glycerine/ silicone)

1 SPST with a DIN plug

Red follower pointer

1 or 2 SPSTs with a terminal strip

Customer logo

1 SPST with a built in relay

Dual scale

1 or 2 SPDTs with a terminal strip

Colour band

1 or 2 SPDTs with a DIN plug

Filter mesh in (+) connection

Descending calibration

Switches (Adjustable in 30-100% of FSD)

1 SPST with a DIN plug

1 or 2 SPSTs with a terminal strip

1 SPST with a built in relay

1 or 2 SPDTs with a terminal strip

1 or 2 SPDTs with a DIN plug

Available in engineering polymer (EP) Case



6.0"



4.5"



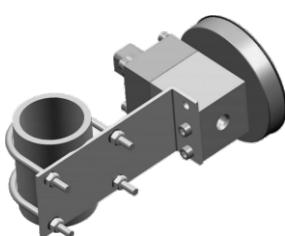
2.5"

- Removable glass
- Strong and durable
- Panel mounting possible
- Condensation can be cleaned
- Light weight

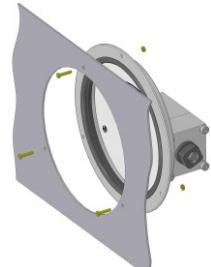
Horizontal pipe mounting



Vertical pipe mounting



Panel / Flange mounting





DX 20

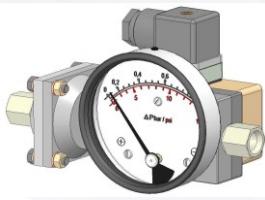
ΔP Range: 0 to 0.16 upto 2 bar
0 to 2.4 upto 30 psi

COMBINATIONS

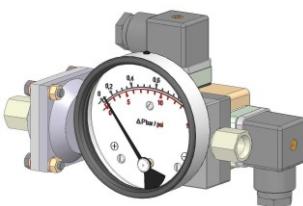
Gauge



Gauge+switch (With a DIN plug on top)

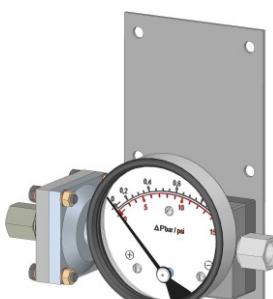


Gauge+switch (with 2 DIN plugs)



MOUNTING BRACKETS

Surface mounting



Specifications

Accuracy	±5% of FSD (Ascending)
Migration	No migration ; Zero leakage from high to low port
Range	0-0.16 to 0-2 bar. bar/psi dual scale
First marking on the scale	15% of FSD
Sensing element	Diaphragm
Wetted parts	SS316 body, SS 302 spring, diaphragm & ceramic magnet
Case material & dial size	Stainless steel (SS 304): 2.5", 3.5", 4"
Mounting	Engineering polymer: 2.5"
Maximum working pressure	Direct, 2" pipe & surface mounting
Maximum process temperature	100 bar.
Enclosure	0 to 80°C (32 to 175°F)
Diaphragm	Engineering Polymer
Window	Buna-N, Viton, EPDM
Connection	Float glass (Std.), toughened glass, acrylic & safety glass.
Porting	1/4" BSP(F) (Std.), Optional: 1/4"NPT(F)
Over range protection	In-line
Protection for gauge & switch	Up to the max. working pressure from high side
	IP 65

Options

Liquid filling (glycerine/ silicone)	1 or 2 SPSTs with a DIN plug
Red follower pointer	1 or 2 SPDTs with a DIN plug
Customer logo	
Dual scale	
Color band	

DP range can be changed easily at site by replacing range spring.

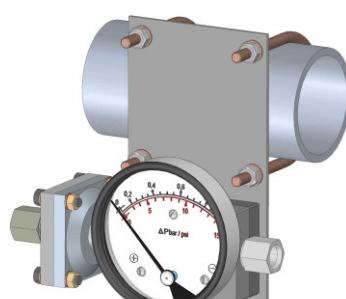
(Available only in gauges with color band or zones without any graduations)

Available in engineering polymer (EP) Case

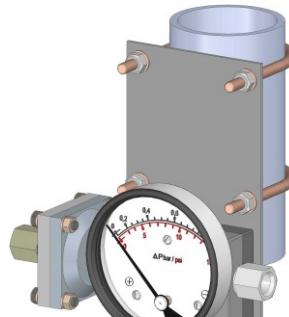


- Removable glass
- Strong and durable
- Panel mounting possible
- Condensation can be cleaned
- Light weight

Horizontal pipe mounting



Vertical pipe mounting





Center Zero Gauge

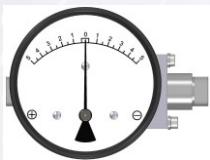
CZ 300DGC

Low range CZ 400DGC also available. Visit www.hirlekarprecision.com

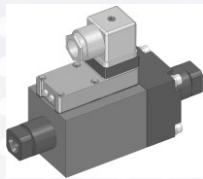
ΔP Range: 0.075 - 0 - 0.075 bar
upto 4 - 0 - 4 bar

COMBINATIONS

Gauge



Switch



Gauge + switch

(with a terminal strip inside)



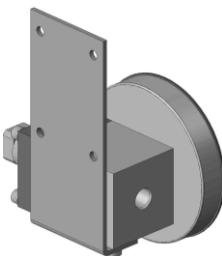
Gauge + switch

(with a DIN plug on top)



MOUNTING BRACKETS

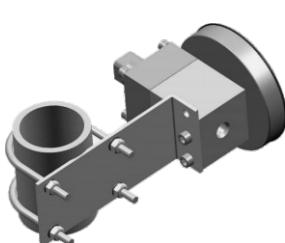
Surface mounting



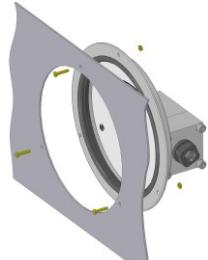
Horizontal pipe mounting



Vertical pipe mounting



Panel / Flange mounting



Specifications

Accuracy	$\pm 2\%$ of the FSD (Ascending)
Migration	No migration ; Zero leakage from high to low port
Range	0.075-0-0.075 to 4-0-4 bar or equivalent ranges in other units
First marking on the scale	20% of the FSD
Sensing element	Diaphragm, body material, SS 302 spring & ceramic magnet
Wetted parts	Stainless steel (SS 304): 2.5", 3.5", 4", 4.5", 6"
Case material & dial size	Engineering polymer: 2.5", 4.5", 6"
Mounting	Bayonet: 4"
Maximum working pressure	Direct, front flange, 2" pipe & surface mounting
Maximum process temperature	100 bar / 1500 psi
Body material	0 to 80°C (32 to 175°F)
Diaphragm	Aluminum, Brass, SS 316 & Monel
Window	Buna-N, Viton, EPDM
Connection	Float glass(Std.), toughened glass, acrylic & safety glass
Porting	1/4" NPT(F) (Std.), 1/4" BSP(F) and others through adaptor
Over range protection	In-line, rear, bottom, bottom & vent, in-line & vent, in-line & bottom
Protection for gauge & switch	in-line & back, bottom vent in-line
	Up to the max. working pressure from high side
	IP 65 / NEMA-4

Options

Liquid filling
Customer logo
Dual scale
Colour band

Switches

1 or 2 SPDTs with a terminal strip
1 or 2 SPDTs with a DIN plug

Available in engineering polymer (EP) Case



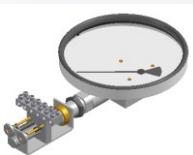
- Removable glass
- Strong and durable
- Panel mounting possible
- Condensation can be cleaned
- Light weight

**COMBINATIONS**

Gauge+switch
(with a terminal strip inside)

**Switch**

Gauge+switch
(Without Ex-proof enclosure)



Switch*
(Without Ex-proof enclosure)



*Locally available explosion proof enclosures can be used

Hazardous Area**EX 200DPG**

Other EX products also available. Visit www.hirlekarprecision.com

ΔP Range: 0 to 0.25 upto 10 bar
0 to 5 upto 150 psi

Specifications

Accuracy	$\pm 2\%$ of the FSD (Ascending)
Migration	Minor from high to low port
Range	0-0.25 to 0-10 bar or equivalent range in other units
First marking on the scale	20% of the FSD
Sensing element	Piston
Wetted parts	Body material, SS 302 spring, ceramic magnet & seals
Case material & dial size	Stainless steel (SS 304): 2.5", 3.5", 4", 4.5", 6.0"
Mounting	Engineering polymer: 2.5", 4.5", 6.0"
Maximum working pressure	Surface, 2" pipe mountings
Maximum process temperature	200 bar for Aluminum & Brass, 400 bar for SS & Monel
Body material	0 to 80°C (32 to 175°F)
Seals	Aluminum, Brass, SS 316, Monel
Window	Buna-N, Viton, EPDM
Connection	Float glass(Std.), toughened glass, acrylic & safety glass.
Porting	1/4" NPT(F) (Std.), 1/4" BSP(F) (Opt.)
Over range protection	Bottom (right side), back
Protection for gauge & switch	Up to the max. working pressure from high & low side

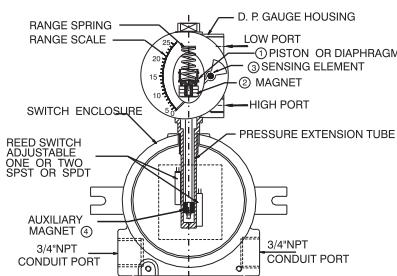
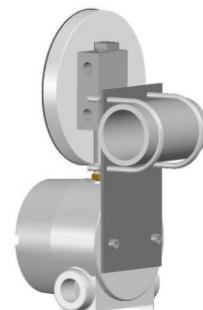
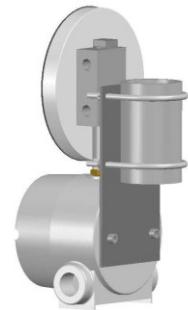
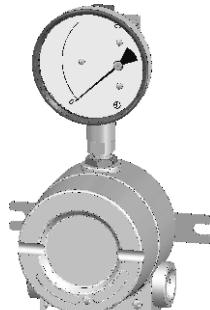
Options

Liquid filling (glycerine/ silicone)	1 or 2 SPSTs with a terminal strip
Red follower pointer	1 or 2 SPDTs with a terminal strip
Customer logo	
Dual scale	
Color band	
Filter mesh in (+) connection	
Descending calibration	

Enclosure Approvals**Available in engineering polymer (EP) Case**

- Removable glass
- Strong and durable
- Panel mounting possible
- Condensation can be cleaned
- Light weight

Ex-proof enclosure make	Certification	Electrical connection	Mounting
Akron Electric USA	UL, CSA, FM, CENELEC, KEMA / ATEX approved. Compliance to EN 50 014:1971+A1...A5 and EN 50 018: 1977+A1...A3. Ref: UL:E139669 / CSA:LR86146-5 KEMA: 03ATEX2460 U 0539 Ex II 2G EEx d II C	2 X 3/4" NPTF conduit ports on either side as shown	Two slots provided suitable for M6 / 1/4" UNC screw.
FCC India	Compliance to EN 50014: 1977 + A1:1999+A2:1999 and EN 50281-1-1:1998 + A1:2002 Ref: DNV-2006-OSL-ATEX-0075 / Ex II 2 GD EEx d IIC T6	3 X 3/4" ET conduit ports as shown.	Two elliptical holes provided suitable for M6 / 1/4"UNC screw.

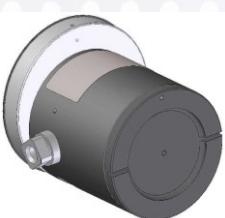
ASSEMBLY**MOUNTING BRACKETS****Horizontal pipe mounting****Vertical pipe mounting****Surface mounting**


Hazardous Area

PR 10

COMBINATIONS

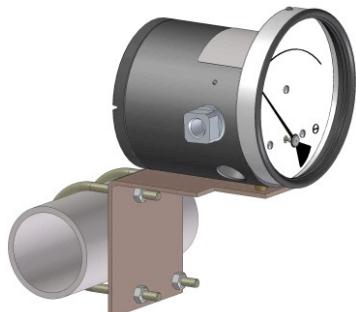
Gauge + switch
(with a terminal strip inside)


COMMON MOUNTING BRACKET
Specifications

Accuracy	±2% of the FSD (Ascending)
Migration	Minor from high to low port
Range	0-0.25 to 0-10 bar or equivalent range in other units
First marking on the scale	20% of the FSD
Sensing element	Piston
Wetted parts	Body material, SS 302 spring, ceramic magnet & seals
Case material & dial size	Stainless steel (SS 304): 4.5", 6.0"
Mounting	Direct or 2" horizontal / vertical pipe mounting bracket
Maximum working pressure	400 bar / 6000 psi
Maximum process temperature	0 to 80°C (32 to 175°F)
Body material	SS316 attached to flameproof aluminum enclosure
Seals	Buna-N, Viton & EPDM.
Window	Float glass(Std.), toughened glass, & safety glass.
Connection	1/4" NPT(F) (Std.), 1/4" BSP(F) through adaptor
Porting	In-line only
Over range protection	Up to the max. working pressure from high & low side
Protection for gauge & switch	IP 66/ NEMA-4
Electrical connection	1/2"NPT(F) for 2 conduit ports at bottom, left and right 40° from center line
Net weight	Cable glands and plugs are not supplied with the instrument. Approximately 2.000 kgs.

Options

Customer logo	1 or 2 SPSTs with a terminal strip
Dual scale	1 or 2 SPDTs with a terminal strip
Color band	
Filter mesh in (+) connection	

Switches (Adjustable in 30-100% of FSD)
Horizontal pipe mounting

Vertical pipe mounting

Approval

 This gauge is
Ex d IIC T6 IP66
 approved

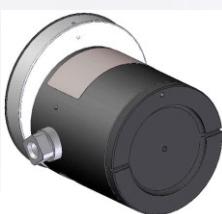
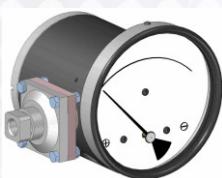


Hazardous Area

PR 20

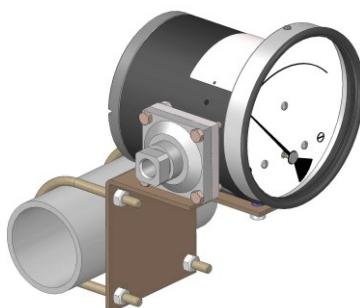
COMBINATIONS

Gauge + switch
(with a terminal strip inside)

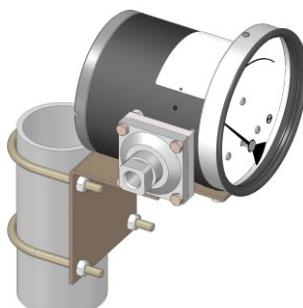


COMMON MOUNTING BRACKET

Horizontal pipe mounting



Vertical pipe mounting



This gauge is
Approval Ex d IIC T6 IP66
approved

Specifications

Accuracy	±2% of the FSD (Ascending)
Migration	No migration : Zero leakage from high to low port
Range	0-0.075 to 0-4 bar or equivalent range in other units
First marking on the scale	20% of the FSD
Sensing element	Diaphragm
Wetted parts	Body material, SS 302 spring, ceramic magnet & seals
Case material & dial size	Stainless steel (SS 304): 4.5", 6.0"
Mounting	Direct or 2" horizontal / vertical pipe mounting bracket
Maximum working pressure	100 bar / 1500 psi
Maximum process temperature	0 to 80°C (32 to 175°F)
Body material	SS316 attached to flameproof aluminium enclosure
Diaphragm	Buna-N, Viton, EPDM
Window	Float glass(Std.), toughened glass, & safety glass.
Connection	1/4" NPT(F) (Std.), 1/4" BSP(F) through adaptor
Porting	In-line only
Over range protection	Up to the max. working pressure from high & low side
Protection for gauge & switch	IP 66 / NEMA-4
Electrical connection	1/2"NPT(F) for 2 conduit ports at bottom, left and right 40° from center line. Cable glands and plugs are not supplied with the instrument.
Net weight	Approximately 2.500 kgs.

Options

Customer logo	1 or 2 SPSTs with a terminal strip
Dual scale	1 or 2 SPDTs with a terminal strip
Color band	
Filter mesh in (+) connection	

Switches (Adjustable in 40-100% of FSD)

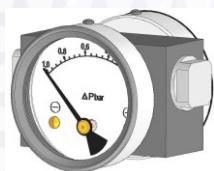


Double Dial Gauge
(Dial readable from both sides)

D200 DPG

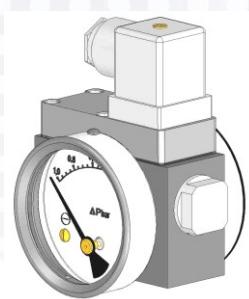
COMBINATIONS

Gauge



Gauge+switch

(with a DIN plug on top)



Specifications

Accuracy	±5% of the FSD (Ascending)
Migration	Minor from high to low port
Range	0-0.25 to 0-10 bar or equivalent range in other units
First marking on the scale	20% of the FSD
Sensing element	Piston
Wetted parts	Body material, SS 302 spring, ceramic magnet & seals
Case material	Stainless steel (SS 304)
Dial size in inch /mm	2.5"
Mounting	Direct
Maximum working pressure	350 bar for Al, Br ; 450 bar for SS
Maximum process temperature	0 to 80°C (32 to 175°F)
Body material	Aluminum, SS 316, Brass
Seals	Buna-N, Viton & EPDM
Window	Float glass(Std.), toughened glass, acrylic & safety glass.
Connection	1/4" NPT(F) (Std.) Optional: 1/4" BSP(F)
Porting	In-line, bottom
Over range protection	Up to the max. working pressure from high & low side
Protection for gauge & switch	IP 65 / NEMA-4

Options

Liquid filling (glycerine/ silicone)	1 or 2 SPSTs with a DIN plug on top
Red follower pointer	1 SPDT with a DIN plug on top
Customer logo	
Dual scale	
Color band	
Filter mesh in (+) connection	

Switches (Adjustable in 20-100% of FSD)

1 or 2 SPSTs with a DIN plug on top
1 SPDT with a DIN plug on top

Special products

Hirlekar Precision manufactures certain specialized differential pressure instruments for the OEM Industry. These products are manufactured at the Hirlekar Precision facility where the other products are produced. These products are categorized as special products as they require a longer lead time and/or a standard minimum order quantity.



320 DGC
Irrigation Industry



GX 100
Natural Gas Filtration



Float Gauge
Cryogenic Industry

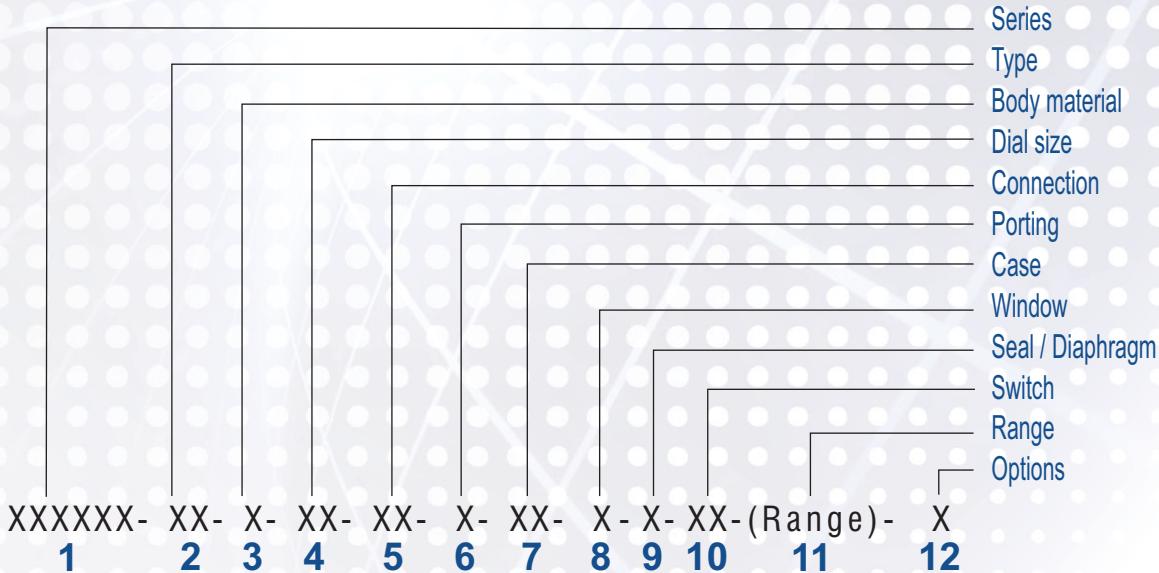
NEW: Polymer Case

How to order?

Unique Gauge Ordering Code

All of the Hirlekar Precision gauge models can be ordered through a unified 12 point ordering code shown below. Please mention the entire code at the time of ordering.

Ordering code sequence



Example: 200DPG-G-S-2.5-4N-2-SS-F-B-21-(0-1bar)-C

Engineering Polymer (EP) Case

The EP Case is a removable case made of high-strength glass reinforced engineering polymer nylon. The EP Case comes in three sizes: 2.5" (63mm), 4.5" (115mm) and 6.0" (150mm).



Advantages

In case of condensation, fogging occurs inside the case which affects visibility. Remove the outer part of the EP Case, clean the glass and reattach the cover. No need to send the gauge for cleaning. Recommended in areas witnessing severe temperature fluctuations.

Removable Glass cover
Panel Mounting possible
Condensate can be cleaned
Light weight
Strong & durable

Which gauges come with optional EP Case?

Piston Gauges: 200 DPG, DX 10, EX 200DPG

Diaphragm Gauges: 200 DGR, 300 DGC, 400 DGC, 700 DGC, GX 100, CZ Gauges, EX gauges

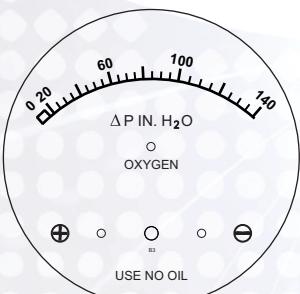
Types of dials

Types of dials we print

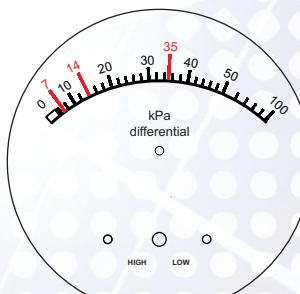
Hirlekar Precision prints a variety of dials.
Some of the dials we print are below. Please contact us for customized dials.

All our dial printing is done in our in-house printing department

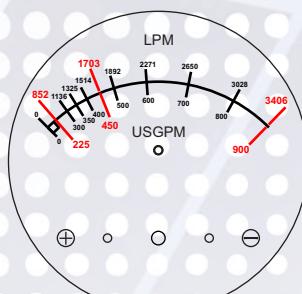
Standard Indication



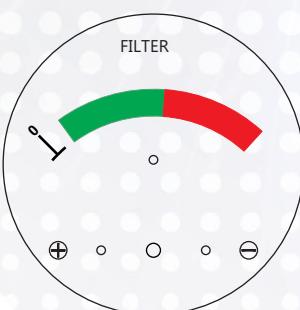
Call out



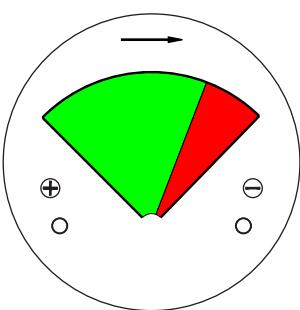
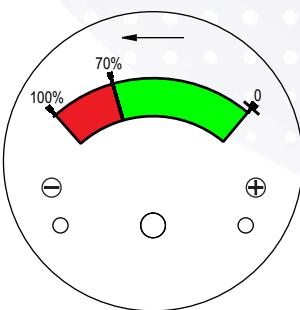
Dual Scale



Color bands



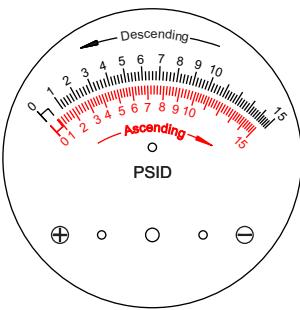
The image shows a circular analog pressure gauge. The scale is marked from 0 to 1.5 in increments of 0.5. The numbers 1.0 and 1.5 are at the top right, and 0.5 is at the bottom left. A red arrow points to the 0.5 mark. Below the scale, the text "kg/cm²" is written above "bar (x 0.1MPa)". There are four small circles with symbols (+, -, x, ÷) around the perimeter.



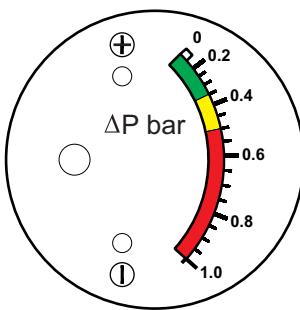
An analog pressure gauge with a circular face. The scale ranges from 0 to 1.5 bar, with major markings at 0, 0.2, 0.4, 0.6, 0.8, 1.0, and 1.5. The needle is positioned exactly halfway between the 1.0 and 1.5 markings, indicating a pressure of 1.0 bar. The gauge has a black frame and white markings. There are '+' and '-' terminals on the left side, and two open circles on the right side.

The diagram shows a cross-section of a dewar. The left side is labeled "LIQUID N₂" and the right side is labeled "LIQUID O₂/Ar". The dewar contains three concentric circles, with the innermost circle being red at the bottom and yellow at the top.

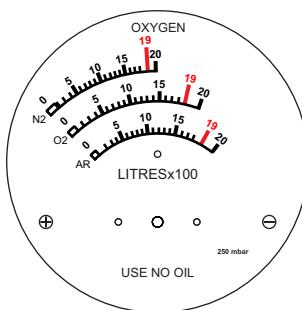
Mirror scale



Vertical marking



Three scales



HIRLEKAR PRECISION

Hirlekar Precision

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Factory:

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T.P. Scheme II, Ramtekadi
Pune 411 013, INDIA
Tel. :+91 98 2304 3051
E-mail: sales@hirlekarprecision.com



Represented by