

Piston type Diff. pressure gauge series DPG 200

For gaseous and liquid media
not highly viscous or crystallizing
Pressure range of 0...0.25 bar to 0...10 bar

General features

- Differential pressure measuring ranges
0...0.25 bar to 0...10 bar
- Max. working pressure 200 bar for Aluminium & Brass
- Over range protection up to Max. working pressure
- Available in engineering polymer(EP) case
- Switch adjustment range between 20-100% of full scale deflection(FSD).

Application area

- For gaseous and liquid media that are not highly viscous or crystallising.
- Filter systems, Pump monitoring
- Cooling circuits, Pipeline systems

General specification

Accuracy

±2% of F.S (Ascending)

Differential pressure range

0...0.25 bar to 0...10 bar (Standard)
up to 70 bar or equivalent range in other units

Sensing element

Piston

Wetted parts

Body material, SUS 302 spring, ceramic magnet & seals

Case material & Dial size

St. steel (SUS 304) : 50, 63, 80, 100, 115, 150 mm
Engineering polymer : 63, 115, 150 mm
Bayonet : 100 mm

Mounting

Direct, frontflange, 2" pipe & surface mounting

Max. working pressure

200 bar for Aluminium & Brass
400 bar for St. Steel & Monel

Seals

Buna-N, Viton, EPDM

Window

Float glass(Standard)
Toughened glass, acrylic & safety glass



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Connection

1/4" NPT(F) (Standard)
PF 1/4"(F) and others through adaptor

Porting

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

Over range protection

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

Protection for gauge & switch

IP 65 / NEMA-4

Option

Liquid filling (Glycerin, Silicon)
Revers port (pointer moves from right to left)

Switches

1 or 2 SPSTs with a DIN plug
1 or 2 SPSTs with a terminal strip
1 or 2 SPSTs with a built in relay
1 or 2 SPDTs with a DIN plug
1 or 2 SPDTs with a terminal strip



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Ordering Information

Model code **DPG200** · [] · [] · [] · [] · [] · [] · []

Dial size

- 2 : 50 mm(2.0")
- 3 : 63 mm(2.5")
- 4 : 80 mm(3.5")
- 5 : 100 mm(4.0")
- 6 : 115 mm(4.5")
- 7 : 150 mm(6.0")

Porting

- 1 : Bottom
- 3 : Back
- 5 : End connection
In-line, Standard

Liquid filling

- 0 : Dry type
- 1 : Glycerin
- 2 : Silicon

Option

Refer to option table

Pressure range

Refer to pressure range table

Unit of measurement

B : bar/mbar P : psi
K : kPa X : others

Process connection

N4 : NPT 1/4"(F)
G4 : PF 1/4"(F)

Differential Pressure Range Code

Code	Range
R135	0...0.25 bar
R138	0...0.5 bar
R23	0...1 bar
R26	0...1.6 bar
R27	0...2 bar
R28	0...2.5 bar
R29	0...3 bar
R30	0...4 bar
R31	0...5 bar
R32	0...6 bar
R33	0...10 bar
YY	Others

Option

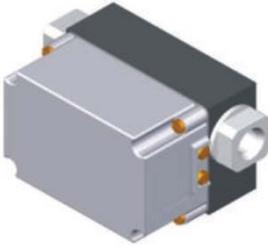
- Body material : S - St. steel 316, M - Monel
- Case material : S - St. steel 316, P - Engineering polymer (63, 115, 150 mm only)
- Window : A - Acrylic, T - toughnrf glass, S - Safety glass
- Seals : E - EPDM, V - Viton
- Switch : 1SD - One SPST with DIN Plug (Top), 10VA, 100V, 0.5 Amp
2SD - Two SPSTs with DIN plug (Top), 10VA, 100V, 0.5 Amp
1DD - One SPDT with DIN plug (Top), 3VA, 30V, 0.3 Amp
2DD - Two SPDTs with DIN plug (Back), 3VA, 30V, 0.3 Amp

How to Order

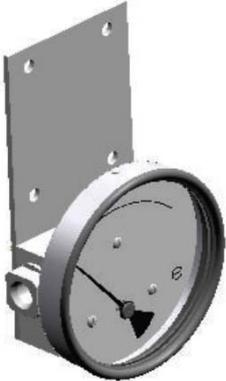
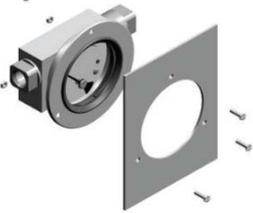
DPG200.650.N4BR26.P

DPG200, 115mm, Cl. 2.0% of FS, End connection, Dry, NPT 1/4"(F), 0...1 bar, Engineering polymer

Combination

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
			

Engineering polymer case

			<ul style="list-style-type: none"> ● Removable glass ● Strong and durable ● Panel mounting possible ● Condensation can be cleaned ● Light weight
150 mm	115 mm	63 mm	

Switch setting

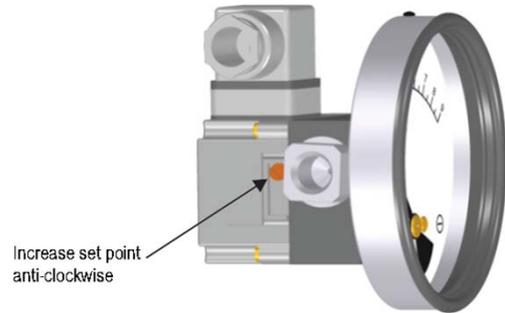
Please follow these instructions when your differential pressure instruments are supplied with switch. The switches are normally factory set to save time at customer's end. However they are field adjustable.

CAUTION Supply should not exceed switch rating. For higher supply, use of relay circuit is recommended.

Switch adjustment

Switch adjustment screw is located on plastic cover. Rotate the screw anti-clockwise to increase the set point and clockwise to decrease the set point. One or two trials may be necessary to attain the exact set point. Above procedure to be followed by putting the instrument on test bed or while in actual service.

NOTE Instrument and switch has IP65 protection. PG7 or PG 9 glands provided for cables. Use cable sizes dia 3 to 6.5 mm and dia 4 to 8 mm respectively.



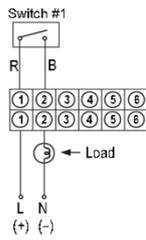
View from high pressure side

SPST Switch

SPDT Switch

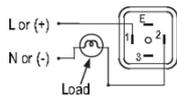
Switches are provided as per customer equipment. Please refer gauge label for switch specification.

One SPST switch
Reed switches & terminal strip connection

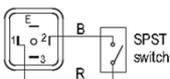


Reed switches & Din plug connection

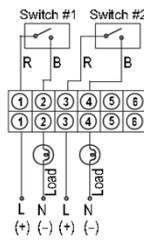
View of socket for supply connections



View of plug after removing the socket

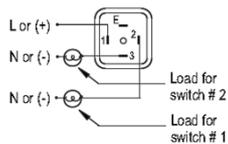


Two SPST switches
Reed switches & terminal strip connection

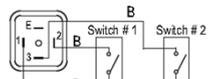


Reed switches & Din plug connection

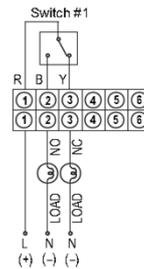
View of socket for supply connections



View of plug after removing the socket

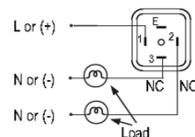


One SPDT switch
Reed switches & terminal strip connection

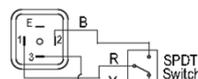


Reed switches & Din plug connection

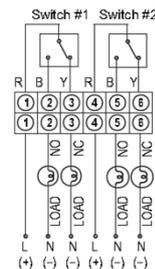
View of socket for supply connections



View of plug after removing the socket



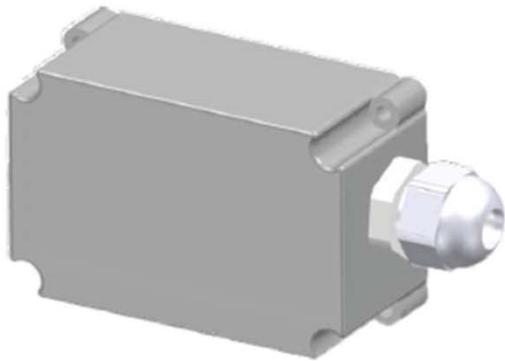
Two SPDT switches
Reed switches & terminal strip connection



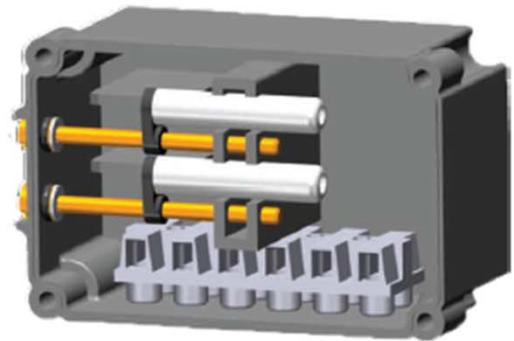
Legend R=Red, B=Black, Y=Yellow, L=Live or +ve supply, N=Neutral or -ve supply
* Body to be suitably earthed while using gauge+switch and only switch.

Switch cover combinations

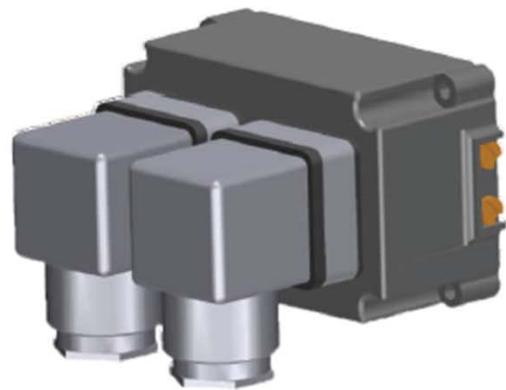
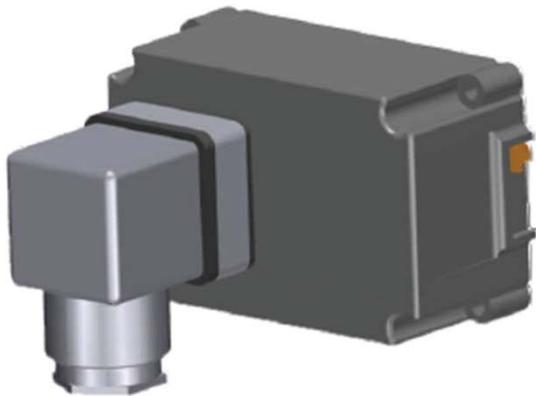
Terminal strip and cable gland (IP65)



Switch cover inside view



DIN plug at back

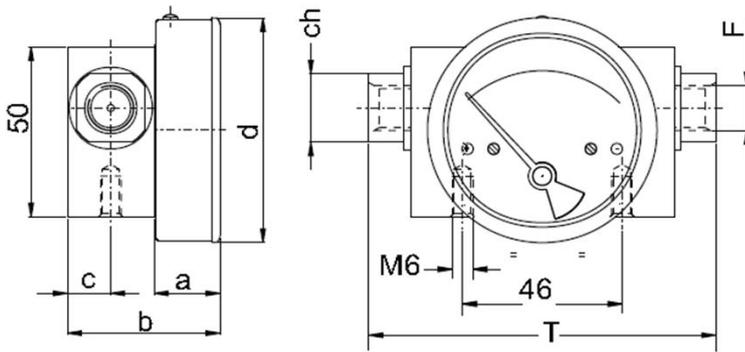


DIN plug at top



Outline drawing

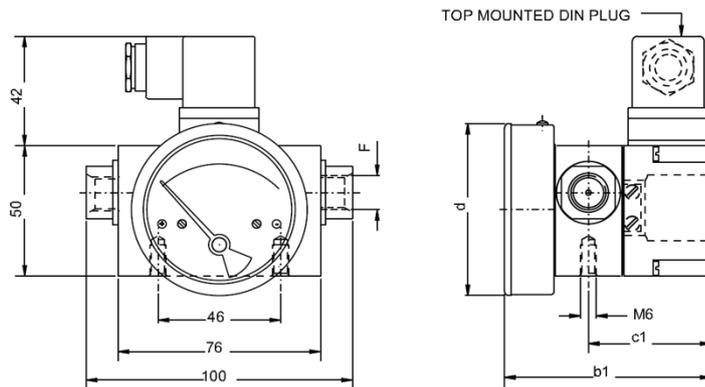
Standard Dimension



(Unit : mm)

Dial ϕ	F	a	b	c	d	d1	T	ch
50 (2.0")	1/4"BSP-1/4"NPT	18	43	12.5	53	79	100	20
63 (2.5")	1/4"BSP-1/4"NPT	19	44	12.5	66	93	100	20
80 (3.5")	1/4"BSP-1/4"NPT	19	44	12.5	83	109	100	20
100 (4.0")	1/4"BSP-1/4"NPT	19	44	12.5	104.3	131	100	20
115 (4.5")	1/4"BSP-1/4"NPT	19	44	12.5	119.7	146	100	20
150 (6.0")	1/4"BSP-1/4"NPT	19	44	12.5	154.3	181	100	20

Gauge+Switch with Reed contacts with DIN plug on Top



(Unit : mm)

Dial ϕ	F	b1	c1	d
50 (2.0")	1/4"BSP-1/4"NPT	78	47.5	53
63 (2.5")	1/4"BSP-1/4"NPT	79	47.5	66
80 (3.5")	1/4"BSP-1/4"NPT	79	47.5	83
100 (4.0")	1/4"BSP-1/4"NPT	79	47.5	104.3
115 (4.5")	1/4"BSP-1/4"NPT	79	47.5	119.7
150 (6.0")	1/4"BSP-1/4"NPT	79	47.5	154.3

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