



GAUGE & GAUGE+SWITCH

Designed to measure differential pressure as low as 15 mm of water.

600 DGC instrumentTM is designed for use in air handling units, pharmaceutical and medical equipments & HVAC. It also finds applications in level, flow & filter resistance measurement. It is compact, lightweight, reliable and most important, affordable.

600 DGC is a quality diaphragm instrument. It's engineering polymer body with a stainless steel case and vibration resistant design, makes it rugged. This instrument is suitable for air and other non corrosive gases & fluids. Its strong magnetic coupling provides consistent performance and smooth pointer movement.

600 DGC has a DP range from 15 to 1000 mm of water. It has in-line as well as back porting. This instrument is available with a switch. A gauge can also be easily upgraded by adding a switch later by the user.

OEMs can order instruments with their logo on dial.



Gauge with switch

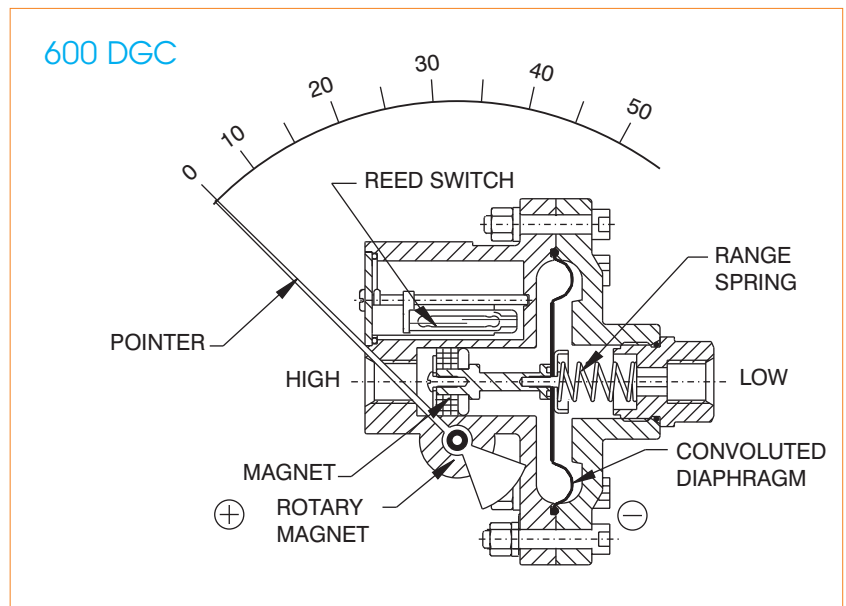


OPERATING PRINCIPLE

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.

Switch : Reed switches are located adjacent to the pressure chamber and are activated by the magnetic field of the sensor assembly



TECHNICAL DATA (MODEL 600 DGC)

Ranges	:	0-25 upto 1250mm H ₂ O
Units of calibration	:	Kg/cm ² , mbar, mm H ₂ O, IN H ₂ O, psi
Operating principle	:	Magnetic coupling with a diaphragm sensor.
Working pressure	:	2.4 bar / 35 psi
Accuracy	:	±3 % of FSD (Ascending)
Dial sizes	:	4.4"(112 mm), other dial sizes on request
Body Material	:	Engineering polymer
Temperature	:	60°C Max. for the media.
Protection	:	IP 65 for gauge
Migration of media	:	Zero migration between high and low pressures.
Connections	:	1/8" NPT(Female)
Wetted parts	:	Diaphragm, body material ceramic magnet, SS 304 spring
Seals	:	Buna-N, (Standard), Viton, EPDM
Porting	:	In line (standard), Back.
Switch	:	SPST or SPDT, one or two.
Dial case	:	Stainless steel case
Window	:	Glass (Standard), Acrylic, Toughened glass on request.
Other options	:	Glycerine filling, red resettable follower pointer, dual scale, strainer in (+) connection



Ambit Instruments Pty Ltd.
42 Titan Drive, Carrum Downs
Victoria 3201, Australia
Phone : +61 3 9776 8888
Fax : +61 3 9776 8656
Email : contact@ambitinst.com.au
Website : www.ambitinst.com.au

600 DGC

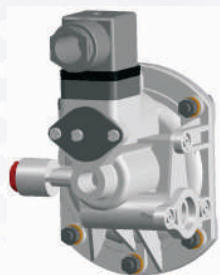
ΔP Range: 0 to 25 upto 1250 mm H₂O
0 to1 upto 50 inch H₂O

COMBINATIONS

Gauge



Switch



Gauge+switch (With a DIN plug on top)

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 column
First marking on the scale	15% of the FSD
Sensing element	Diaphragm
Wetted parts	Diaphragm, body material, SS 302 spring & ceramic magnet
Case material	Stainless steel (SS 304)
Dial size in mm(inch)	112mm. (4.4") (Other dial sizes on request)
Mounting	Flush (Std.), 2" pipe & surface mounting on request
Maximum working pressure	2.4 bar / 35psi
Maximum process temperature	0 to 60°C (32 to 140°F)
Body material	Engineering polymer
Diaphragm	Buna-N, Viton, EPDM
Window	Float glass(Std.), toughened glass & acrylic on request.
Connection	1/8" NPT(F)
Porting	In-line, back, In-line & back
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)
Customer logo
Dual scale
Color band
Filter mesh in (+) connection
Descending calibration

Switches (Adjustable in 20-80% of FSD)

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

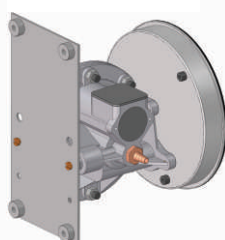
Switch can be added anytime on the field.

Accessories supplied with instrument



MOUNTING BRACKETS

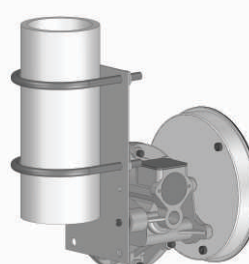
Surface mounting



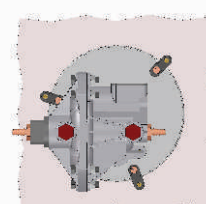
Horizontal pipe mounting



Vertical pipe mounting



Panel / Flange mounting





SELECT MODEL

- 1 Series** **600 DGC**
- 2 Type** G Gauge S Switch
GS Gauge + Switch
- 3 Body material** P Engineering Polymer
- 4 Dial size** 3.5 3.5" (80 mm) 4.5 4.5" (115 mm)
4.0 4.0" (100 mm) 6.0 6.0" (150 mm)
4.4 4.4" (112 mm) (Std.)
- 5 Connection** 8N 1/8" NPT (F)
- 6 Porting** 1 In-line
2 Back
- 7 Case** S4 SS 304 (Std.)
F4 SS 304 flange
EP Engineering polymer (available in 4.5", 6.0" only)
- 8 Window** F Glass (Std.) A Acrylic
T Toughened glass L Safety glass
- 9 Seals/Diaphragm** B Buna-N (Std.) E EPDM
V Viton
- 10 Switch** Select option & Specifications

Advantages :

Instrument automatically resets after line surges and cold start.
This eliminates balancing of differential pressure instrument after such events.

Notes

- Longer lead time for non-standard dial sizes and flange case
- For SS 316 case, please contact factory (MOQ applies).
- Liquid filling + Follower pointer available.
- Switch adjustment range between 20-80% of full scale deflection (FSD).
Switches mounted at the back. For specific details, please contact factory.
- Mounting bracket: Aluminum (Standard) ; SS (Optional)

0	None
1	One SPST, with a DIN plug
3	Two SPSTs, with a DIN plug

+

SPST Specifications (AC/DC max)

1 Standard	2	3	4
10 VA	40 VA	100 VA	60 VA
100 V	230 V	300 V	240 V
0.5 Amp	1 Amp	1 Amp	3 Amp
Adjustable	Adjustable	Adjustable	Adjustable

5	One SPDT, with a DIN plug
---	---------------------------

Example: Switch selection 31 is 2 SPSTs with DIN plug with switch specifications 10VA, 100V, 0.5Amp

+

SPDT Specifications (AC/DC max)

1 Standard	2	3
3 VA	5 VA	5 VA
30 V	125 V	175 V
0.3 Amp	0.25 Amp	0.25 Amp
Adjustable	Adjustable	Adjustable

11 Range

Standard ranges : (Other ranges & units on request)

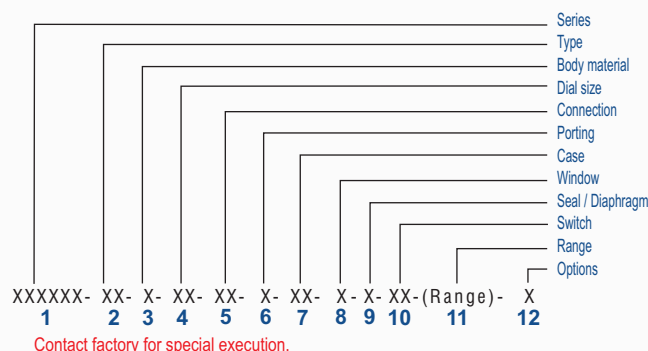
mmH2O	25	50	75	100	125	150	200	250	375	500	750	1000	1250
InH2O	1	2	3	4	5	6	8	10	15	-	-	-	-
mbar	2.5	5.0	7.5	10	12.5	15	20	25	37.5	50	75	100	125
Pa	250	500	750	-	-	-	-	-	-	-	-	-	-

12 Options

- 0 None
A Glycerine*
B Red follower pointer on acrylic window*
C Customer Logo
D Dual scale
E Color band
F Filter mesh in (+) connection
H Descending calibration (long delivery time)
S Silicone oil*
M1 2" horizontal pipe mounting bracket
M2 Surface mounting bracket
M3 2" vertical pipe mounting bracket

* Affects accuracy

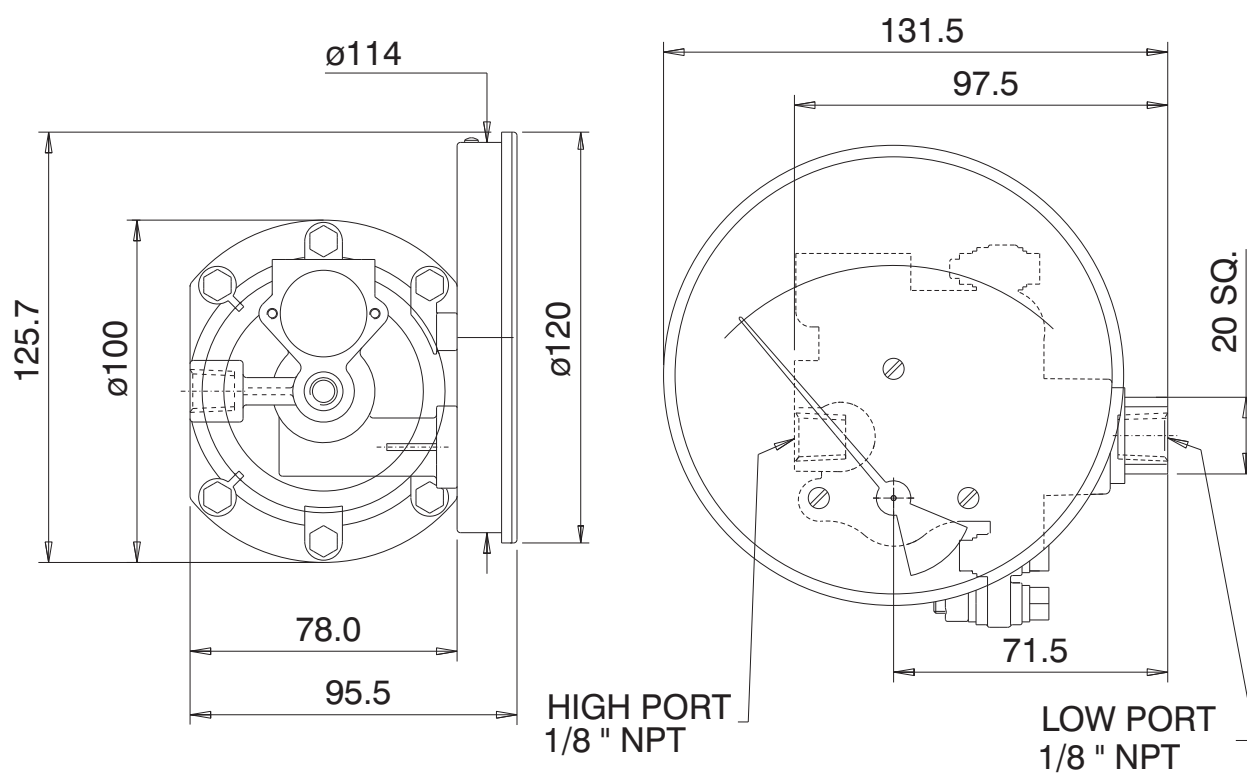
Ordering code sequence



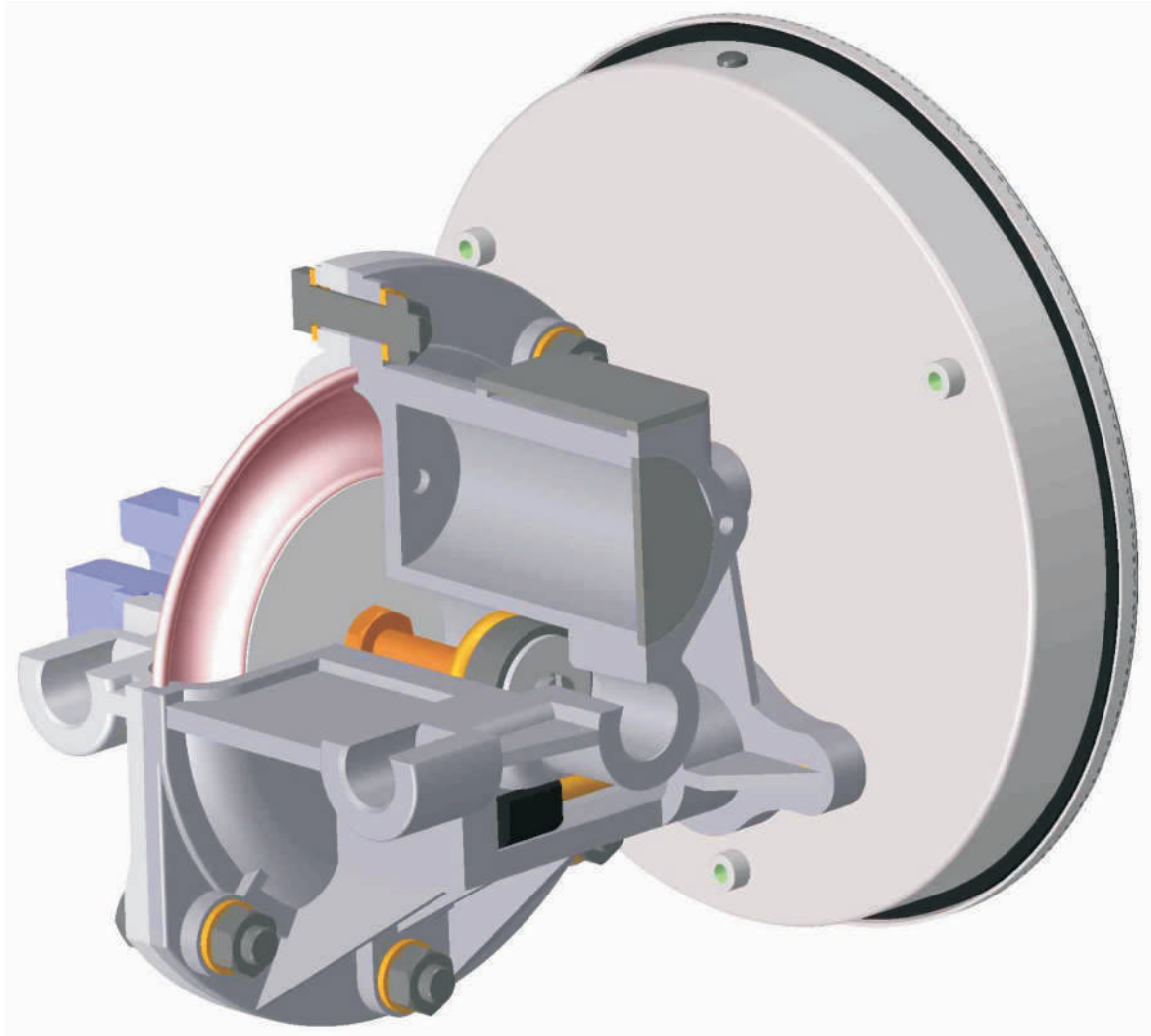
Contact factory for special execution.



STANDARD DIMENSIONS



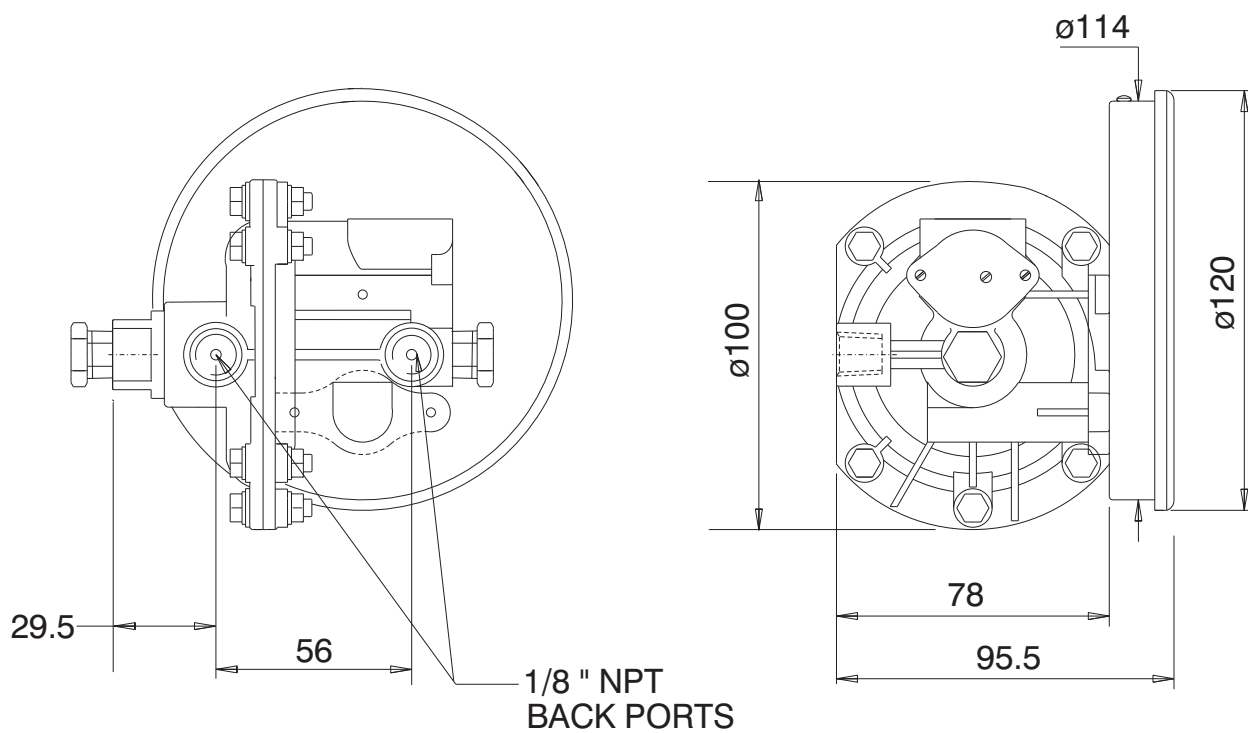
CUT SECTION



PORTING DETAILS



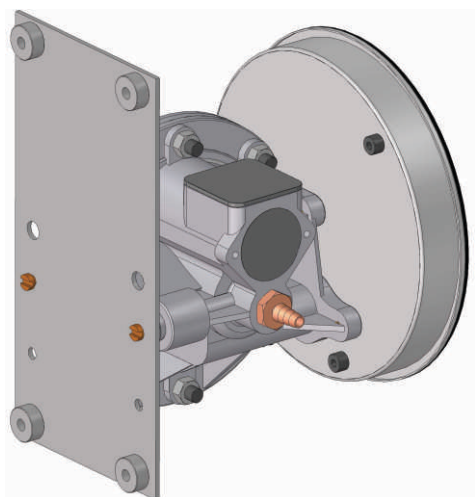
BACK PORT





MOUNTING COMBINATIONS

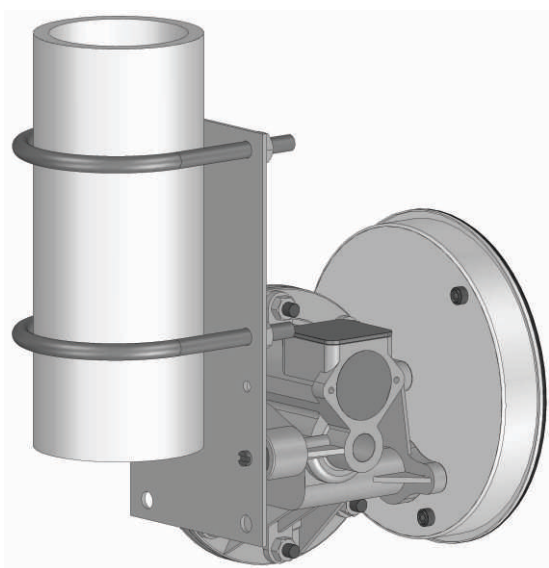
SURFACE MOUNTING



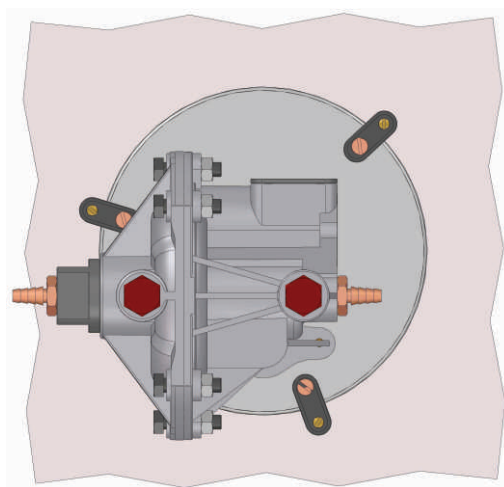
HORIZONTAL PIPE MOUNTING



VERTICAL PIPE MOUNTING



PANEL MOUNTING



SWITCH COMBINATIONS

With DIN Plug

