

DPG 200

Magnetic piston differential pressure gauges (and/or switches)
for static pressure up to 200 bar or 400 bar

Differential pressure ranges:
0...0.25 to 0...70 bar differential pressure
0...5 to 0...1050 psi differential pressure



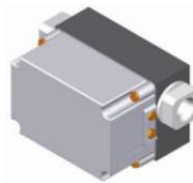
Specification:

Accuracy:	±2% FS (calibrated at ascending pressure)
Migration:	Minor, from high (+) to low (-) port
Pressure ranges:	0...0.25 to 0...70 bar or equivalent ranges in other pressure units
First marking on the scale:	at 20% FS
Sensing element:	Magnetic piston
Wetted parts:	Body material, st.st. AISI 302 spring, ceramic magnet and seals
Case materials:	Stainless steel (st.st.) AISI 304, available for case diameters DS 50 (2.0"), DS 63 (2.5"), DS 80 (3.5"), DS 100 (4.0"), DS 115 (4.5") and DS 150 (6.0") or Polymer, available for case diameters DS 63 (2.5"), DS 115 (4.5") and DS 150 (6.0") or Bajonet type case, available for case diameter DS 100 (4.0")
Mounting:	Direct, with front flange or with bracket for 2" pipes or for surface mounting
Max. working pressure:	200 bar (for aluminum and brass), 400 bar (for stainless steel and Monel)
Max. working temperature:	0...80°C (32...175°F)
Body material:	Aluminum, brass, or stainless steel AISI 316 or Monel
Seals:	Buna-N or Viton or EPDM
Window:	Float glass (std.), toughened glass, acrylic glass or safety glass
Pressure connections:	1/4" NPT F (std.) or 1/4" BSP female, or others through adapters
Porting:	In-line, rear, bottom, in-line and bottom, in-line and back
Over range protection:	Up to the max. working pressure from high (+) and low (-) side
Protection for gauge and switch:	IP 65 (NEMA-4)

Versions:



Gauge



Switch



Gauge+Switch
with terminal strip inside



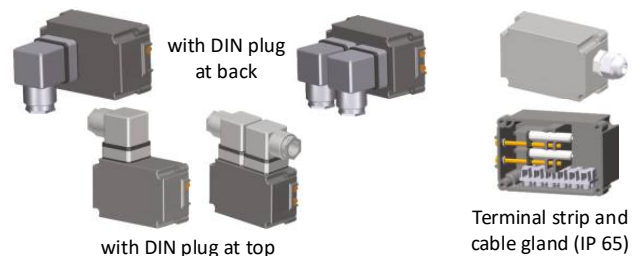
Gauge+Switch
(with DIN plug on top)

Switch (contacts):

Adjustable 20...100% FS

- 1 or 2 SPSTs with DIN plug(s)
- 1 or 2 SPSTs with a terminal strip
- 1 or 2 SPST with a built in relay
- 1 or 2 SPDTs with a terminal strip
- 1 or 2 SPDTs with DIN plug(s)

Switch covers:



with DIN plug at top

Terminal strip and cable gland (IP 65)

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max. static pressure 200 bar / 400 bar



Mounting brackets:



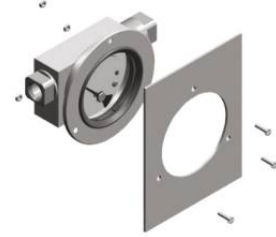
Surface mounting



horizontal pipe mounting



vertical pipe mounting

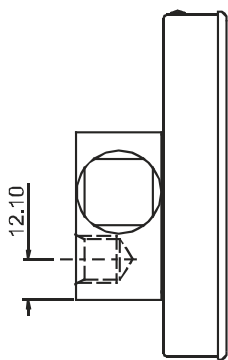
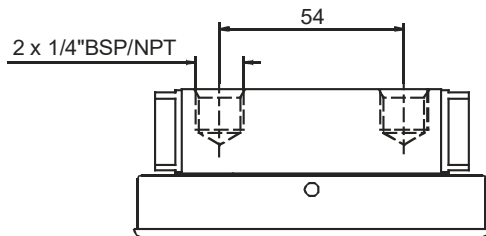


Front flange for panel

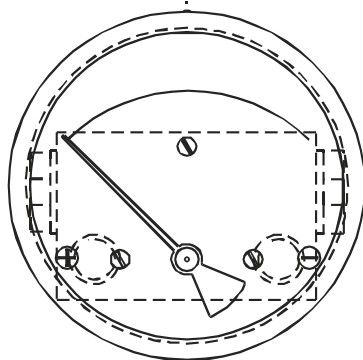
Options:

- Housing with dampening liquid filling (glyerine or silicone oil)
- Red follower pointer
- Customers logo on dial
- Dual scale (2 pressure units)
- Color band / coloured sectors on dial
- Filter mesh in (+) connection
- Reverse pressure ports (pointer moves from right to left)
- Calibration at descending pressure
- Mounting brackets (see above)
- Thick body for up to 450 bar application

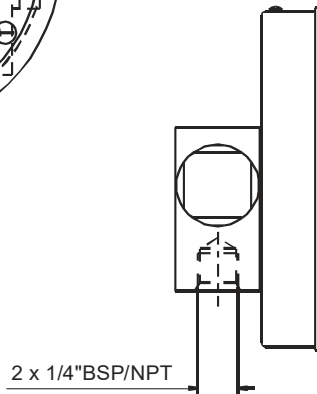
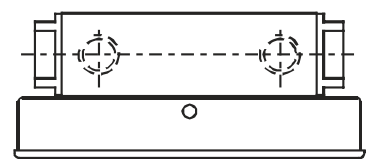
Porting details:



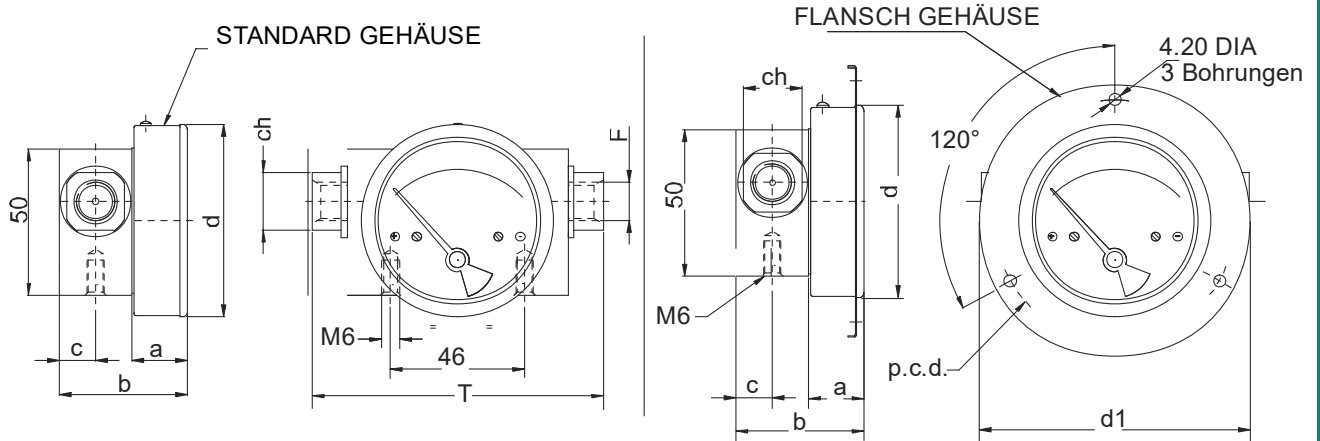
Back porting



Bottom porting



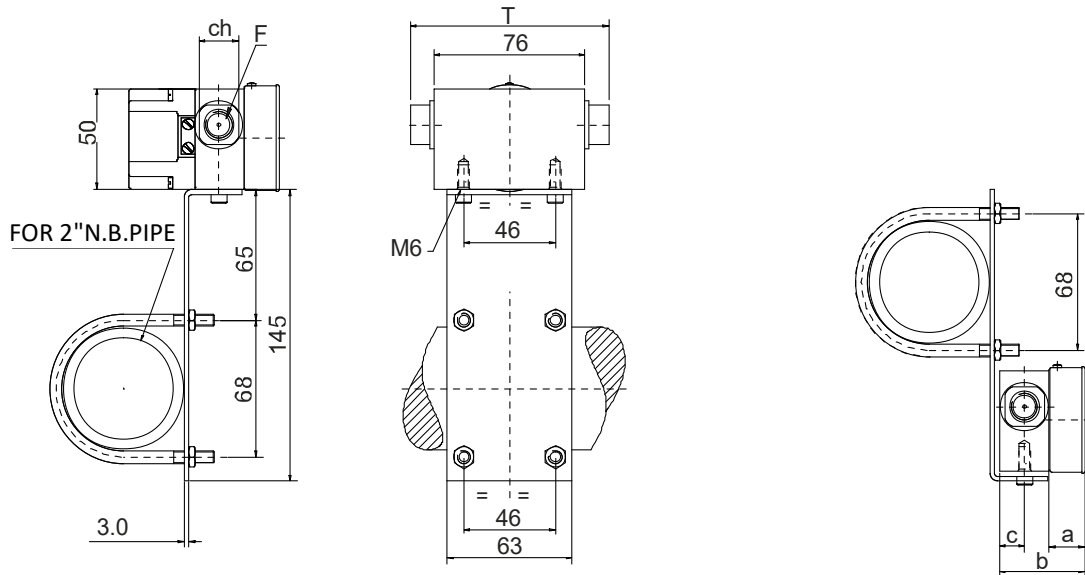
Standard dimensions:



Dial- ϕ	F	a	b	c	d	d1	T	ch	p.c.d.
DS 50 (2")	1/4" BSP - 1/4" NPT	18	43	12.5	53	79	100	20	69
DS 63 (2,5")	1/4" BSP - 1/4" NPT	19	44	12.5	66	93	100	20	83
DS 80 (3,5")	1/4" BSP - 1/4" NPT	19	44	12.5	83	109	100	20	99
DS 100 (4")	1/4" BSP - 1/4" NPT	19	44	12.5	104.3	131	100	20	121
DS 115 (4,5")	1/4" BSP - 1/4" NPT	19	44	12.5	119.7	146	100	20	136
DS 150 (6")	1/4" BSP - 1/4" NPT	19	44	12.5	154.3	181	100	20	171

Panel cut out = d+ 1

Mounting brackets:



Bracket mounting for gauge + switch

Bracket mounting for gauge

Dial ϕ	F	a	b	c	T	ch
DS 50 (2")	1/4" BSP - 1/4" NPT	18	43	12.5	100	20
DS 63 (2,5")	1/4" BSP - 1/4" NPT	19	44	12.5	100	20
DS 80 (3,5")	1/4" BSP - 1/4" NPT	19	44	12.5	100	20
DS 100 (4")	1/4" BSP - 1/4" NPT	19	44	12.5	100	20
DS 115 (4,5")	1/4" BSP - 1/4" NPT	19	44	12.5	100	20
DS 150 (6")	1/4" BSP - 1/4" NPT	19	44	12.5	100	20

DPG 200 Magnetic piston differential pressure gauges

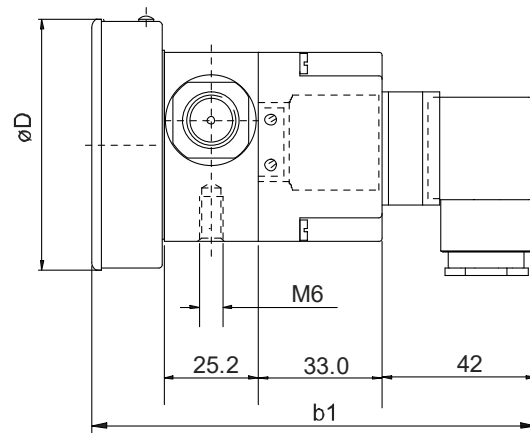
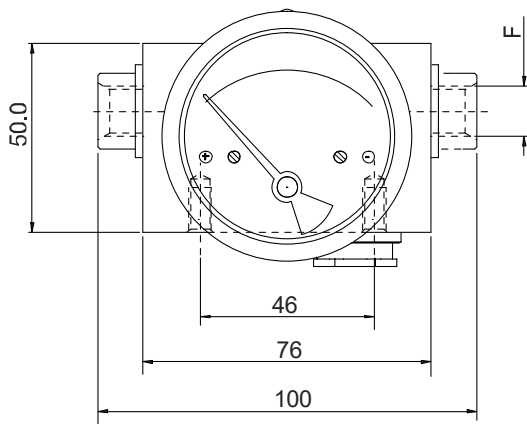
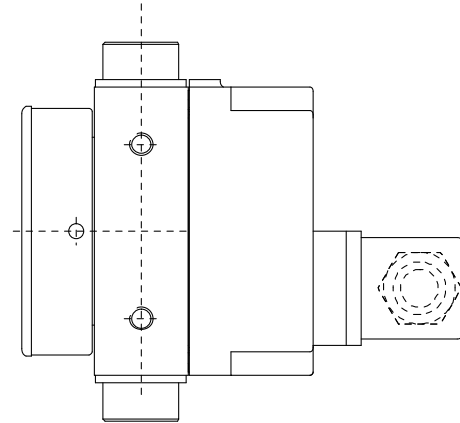
max. static pressure 200 bar / 400 bar

LR-Cal

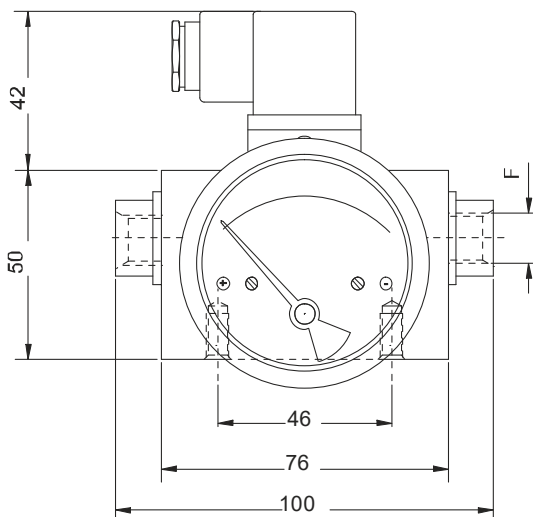


Gauge + Switch with Reed contacts with DIN plug at back

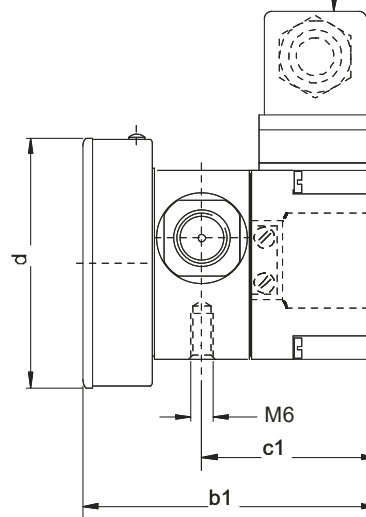
Dial \varnothing	F	d	b1
DS 50 (2")	1/4" BSP - 1/4" NPT	53	102.5
DS 63 (2,5")	1/4" BSP - 1/4" NPT	66	103.5
DS 80 (3,5")	1/4" BSP - 1/4" NPT	83	103.5
DS 100 (4")	1/4" BSP - 1/4" NPT	104.3	103.5
DS 115 (4,5")	1/4" BSP - 1/4" NPT	119.7	103.5
DS 150 (6")	1/4" BSP - 1/4" NPT	154.3	103.5



Gauge + Switch with Reed contacts with DIN plug on top



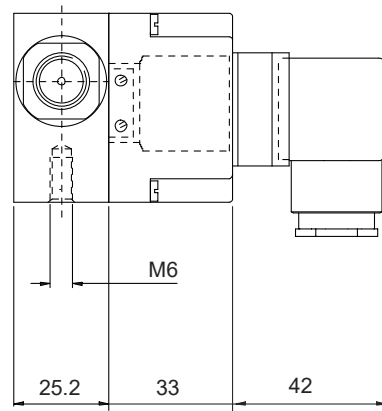
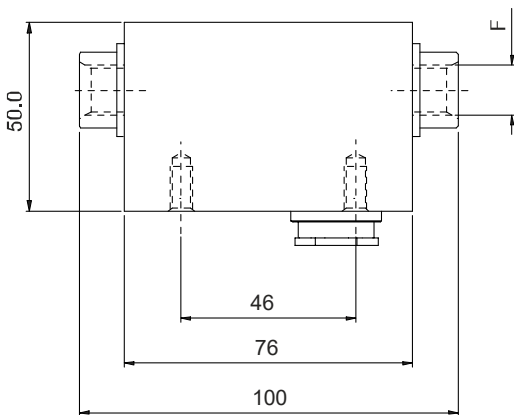
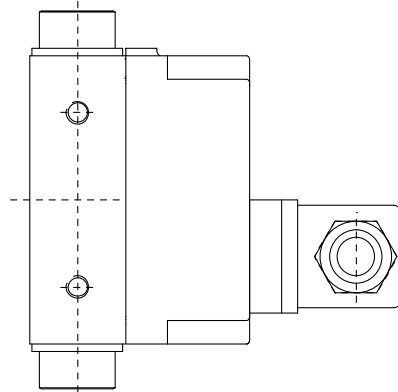
TOP MOUNTED DIN PLUG



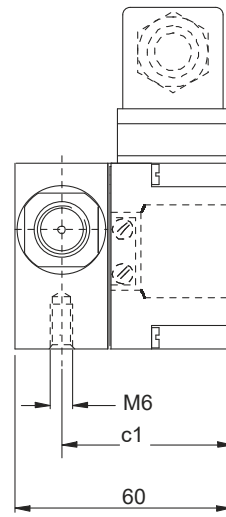
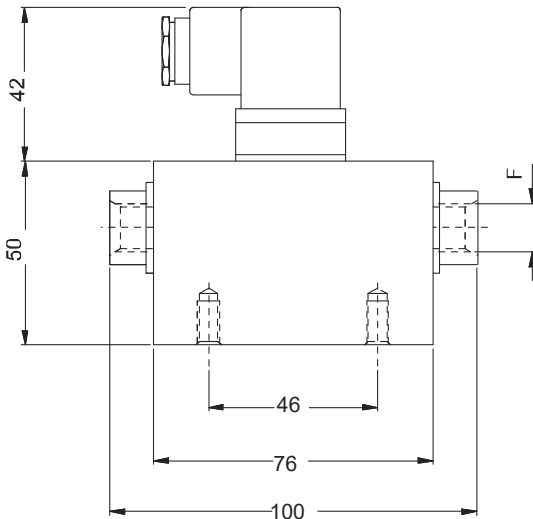
Dial \varnothing	F	b1	c1	d
DS 50 (2")	1/4" BSP - 1/4" NPT	78	47.5	53
DS 63 (2,5")	1/4" BSP - 1/4" NPT	79	47.5	66
DS 80 (3,5")	1/4" BSP - 1/4" NPT	79	47.5	83
DS 100 (4")	1/4" BSP - 1/4" NPT	79	47.5	104.3
DS 115 (4,5")	1/4" BSP - 1/4" NPT	79	47.5	119.7
DS 150 (6")	1/4" BSP - 1/4" NPT	79	47.5	154.3

Switch with DIN plug at back

F = 1/4" BSP - 1/4" NPT



Switch with DIN plug on top

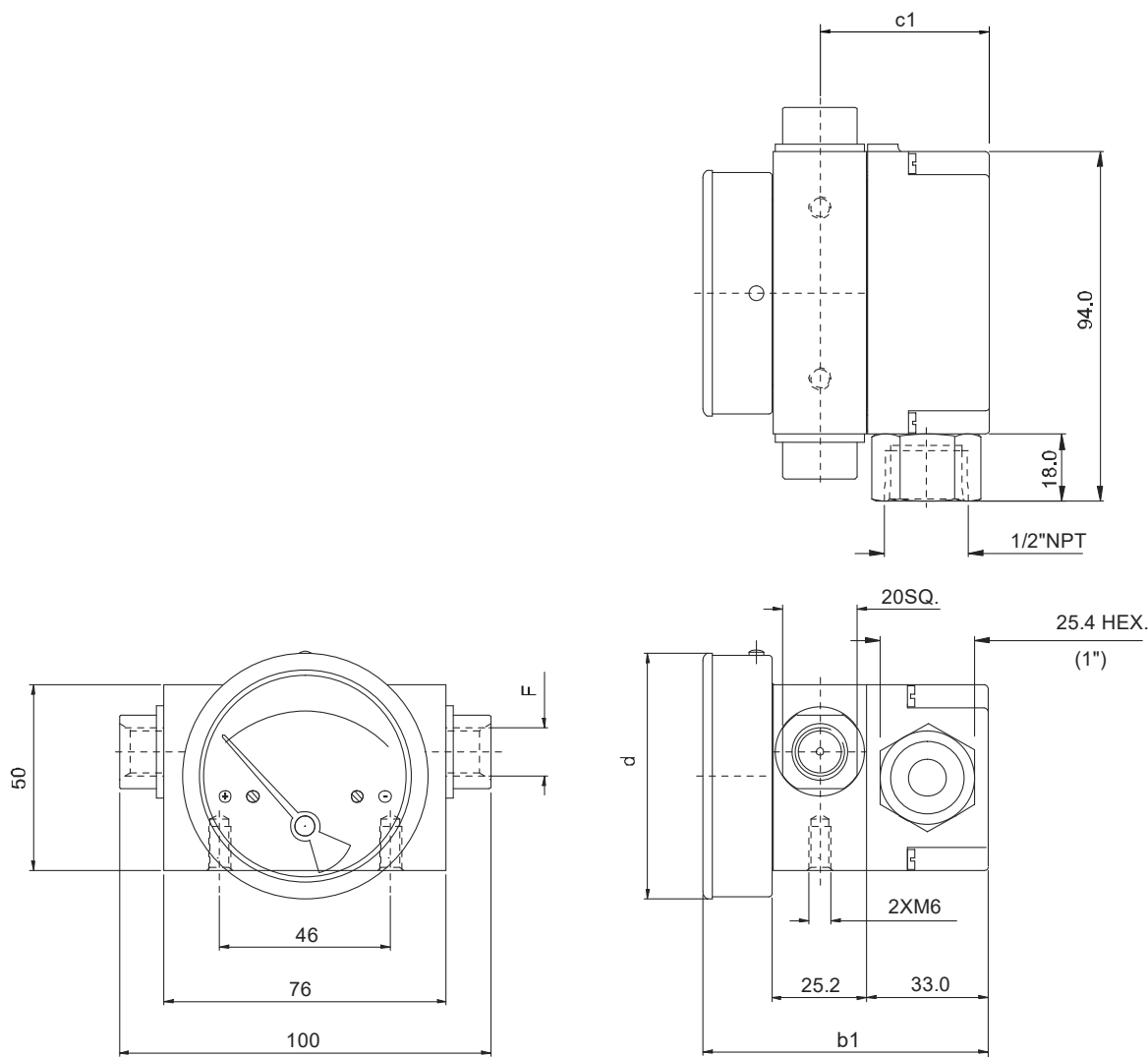


F = 1/4" BSP - 1/4" NPT
c1 = 47,5

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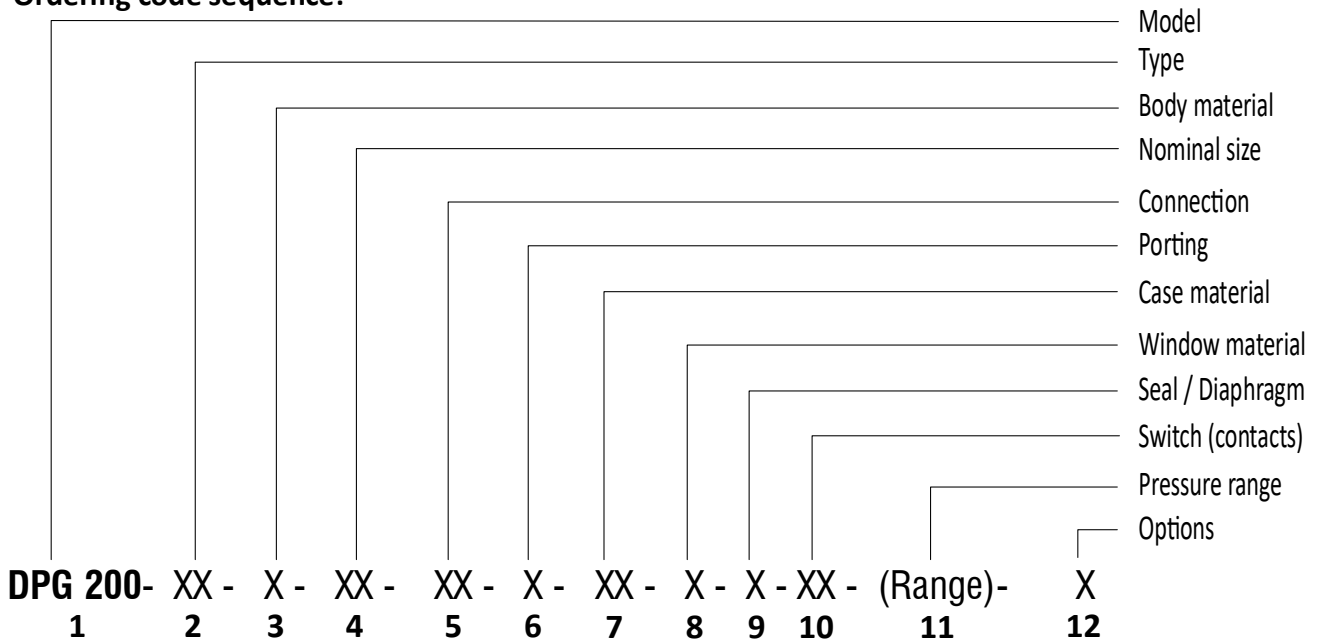


Gauge + Switch with Reed contacts with terminal strip and 1/2" NPT conduit connection



Dial \varnothing	F	b1	c1	d
DS 50 (2")	1/4" BSP - 1/4" NPT	78	47.5	53
DS 63 (2,5")	1/4" BSP - 1/4" NPT	79	47.5	66
DS 80 (3,5")	1/4" BSP - 1/4" NPT	79	47.5	83
DS 100 (4")	1/4" BSP - 1/4" NPT	79	47.5	104.3
DS 115 (4,5")	1/4" BSP - 1/4" NPT	79	47.5	119.7
DS 150 (6")	1/4" BSP - 1/4" NPT	79	47.5	154.3

Ordering code sequence:



1 Model	DPG 200	
2 Type	G	Gauge
	GS	Gauge + Switch
3 Body material	A	Aluminum
	B	Brass
4 Nominal size	2.0	DS 50 (2.0")
	2.5	DS 63 (2.5")
	3.5	DS 80 (3.5")
	4.0	DS 100 (4.0")
5 Connection	4N	1/4" NPT F (std.)
	ZZ	Special connection sizes using adaptor
6 Porting	1	In-Line (std.)
	2	Rear / back
	3	Bottom
7 Case material	S4	Stainless steel AISI 304 (std.)
	F4	Stainless steel AISI 304 flange
	EP	Polymer (only DS 63, DS 115 and DS 150)
	BF	Bayonet (only DS 100 with safety glass)
8 Window material	F	Glass (std.)
	T	Toughened glass
9 Seal / Diaphragm	B	Buna-N (std.)
	V	Viton
10 Switch (contacts)	see next page	
11 Pressure range	see next page	
12 Options	see next page	

10 Switch (contacts) select option and specifications

0	None
1	One SPST, with DIN plug *)
2	One SPST, with terminal strip
2A	One SPST, with built in relay
3	Two SPSTs, with DIN plug *)
4	Two SPSTs, with terminal strip
4A	Two SPSTs, with built in relay

+

SPST specification (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 DIN plug *)
6	One SPDT, with terminal strip
7	Two SPDTs, with two DIN plugs
8	Two SPDTs, with terminal strip

+

SPDT specification (AC/DC max)

1 standard	2	3	4
3 VA	5 VA	5 VA	60 VA
30 V	125 V	175 V	400 V
0.3 Amp	0.25 Amp	0.25 Amp	1 Amp
adjustable	adjustable	adjustable	factory set

Example switch selection 21 is 1 SPST with terminal strip with switch specification 10VA, 100V, 0.5Amp
*) DIN plug mounted on the top

11 Pressure ranges standard ranges: (other ranges and pressure units on request)

kg/cm²	0.25	-	0.5	0.75	1	-	1.6	2	2.5	3	3.5	4	5	-	6	7	9	10
bar	0.25	-	0.5	0.75	1	-	1.6	2	2.5	3	3.5	4	5	-	6	7	9	10
mbar	250	-	500	750	1000	-	-	-	-	-	-	-	-	-	-	-	-	-
psi	-	5	8	-	15	20	25	30	-	40	50	60	-	80	-	100	-	-
kPa	25	-	50	75	100	-	160	200	250	300	350	400	500	-	600	700	900	1000

12 Options

0	none
A	Housing glycerine filled (affects accuracy)
B	Red follower pointer on acrylic window (affects accuracy)
C	Customer logo on dial
D	Dual scale
E	Dial with color band or colored sectors
F	Filter mesh in (+) connection
G	Reverse ports (pointer moves from right to left)
H	Descending calibration (long delivery time)
N	NACE
S	Housing filled with silicone oil (affects accuracy)
I	Oxygen service (contact factory)
K	32 mm thick body for high pressure application (350 bar at aluminum case, 450 bar at stainless steel case)
P	DIN plug at back on plastic switch cover
Q	Metallic switch cover with tamper proof plastic plugs (minimum order quantity applies)
M1	2" horizontal pipe mounting bracket
M2	Surface mounting bracket
M3	2" vertical pipe mounting bracket

Please contact us (dt-export@leitenberger.de) for special versions and executions.