

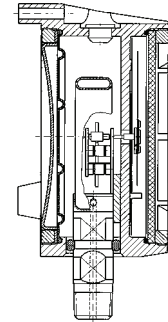
Bourdon tube pressure gauges type "Process Gauge"



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- Extremely robust pressure gauge for offshore and onshore applications
- Glass-fibre reinforced safety housing with solid baffle wall and blow-out
- Integrated pressure compensation diaphragm
- Tightness-tested with helium
- GOSSTANDART-certified



Application For corrosive gaseous and liquid media which are not highly viscous and do not crystallise. Specially suitable for the oil and chemical industries.

Technical specifications

Type

D 1

Nominal size

4½"

Accuracy class

Grade 2A as per ASME B 40.100 (corresponds to class 0.5)

Ranges (EN 837-1/5)

-1/0 to -1/+15 bar
0/0.6 to 0/600 bar

Application area

Static load: full scale value
Dynamic load: 0.9 x full scale value
Short-term: 1.3 x full scale value

Operating temperature range

Medium: $T_{max} = +100\text{ °C}$
Ambient: $T_{min} = -40\text{ °C}$
 $T_{max} = +65\text{ °C}$
with glycerine filling $-20/+65\text{ °C}$

Temperature performance

Indication error when the temperature of the measuring system deviates from the normal temperature of 20 °C:
rising temperature approx. $\pm 0.4\text{ %}/10\text{ K}$
falling temperature approx. $\pm 0.4\text{ %}/10\text{ K}$
of full scale value

Degree of protection

IP 45 (EN 60529)

Standard version

Connection

Stainless steel 316 L
bottom or bottom back
½-14 NPT – spanner size SW 22

Measuring element

Bourdon tube, stainless steel 316 Ti/316 L
≤ 60 bar "C" type tube
> 60 bar helical tube tightness-tested with helium

Movement

Stainless steel

Dial

Aluminium, white
Dial marking black

Pointer

Micro-adjustable pointer, brass, black
Gear brass, nickel-plated

Housing

PP-GF20, black,
with solid baffle wall
and blow-out
Integrated back flange

Screw type bezel

PP-GF20, black, internal

Window

Plastic (PMMA)

Options

- Glycerine filling (type D6)
- Silicone oil filling (type D 6)
- Special scales
- Measuring system copper alloy (type 1x1)
- Measuring system Monel
- Laminated safety glass window
- Reference pointer
- Max. pointer
- Electrical contacts
- Other process connections

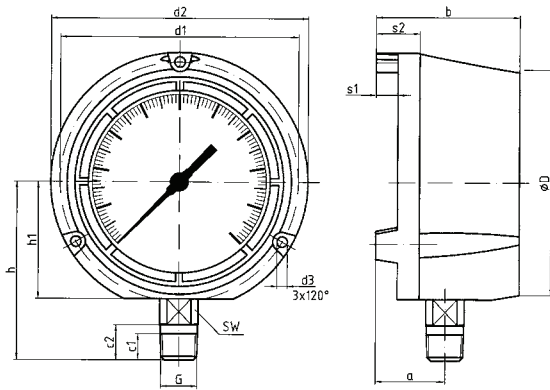


See page 75 for prices.

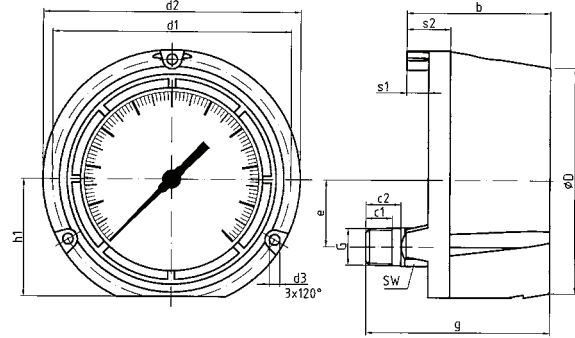
Bourdon tube pressure gauges type "Process Gauge" Type D 1/D 6 – NG 4½"

1 Housing types and dimensions

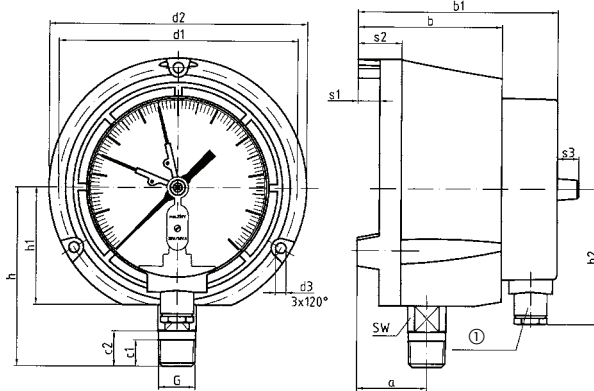
Bottom connection



Centre back connection

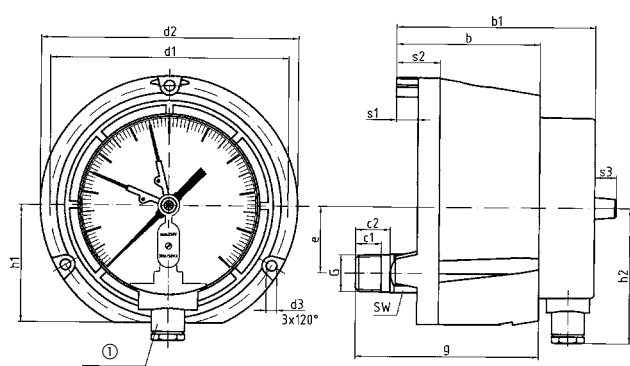


Bottom connection, with electrical contact



① Cable gland

Centre back connection, with electrical contact



① Cable gland

Dimensions (mm)

Nominal size (NG)	a	b	b1	c1	c2	d1	d2	d3	ØD	e	G	g	h	h1	h2	s1	s2	s3	SW
4½" (D 1/D 6)	40	82.5	114.5	15	20	137	148	6	129	38	½-14 NPT	105.5	102	67	78	12.5	25	12.5	22

Bourdon tube pressure gauges type "Process Gauge"

DG: M

Type	RF 130PG, D101	RF 130PG, D111	RF 130PG, D102	RF 130PG, D112
Version				
Housing Ø	4 ½"	4 ½"	4 ½"	4 ½"
Housing	PP-GF 20, black, with internal screw type bezel			
Measuring element	Copper alloy, (> 60 bar 316 Ti/316 L)		Stainless steel 316 Ti/316 L	
Accuracy class	Grade 2A as per ASME B 40.100 (corresponds to class 0.5)			
Connection	½-14 NPT	½-14 NPT	½-14 NPT	½-14 NPT
PG	2	2	3	3
Range (bar)	Part no.	Part no.	Part no.	Part no.
Price €				
-1/0	87901101	87901111	87901102	87901112
-1/+0.6	87902101	87902111	87902102	87902112
-1/+1.5	87903101	87903111	87903102	87903112
-1/+3	87904101	87904111	87904102	87904112
-1/+5	87905101	87905111	87905102	87905112
-1/+9	87906101	87906111	87906102	87906112
-1/+15	87907101	87907111	87907102	87907112
Price €				
0/0.6	87909101	87909111	87909102	87909112
0/1	87910101	87910111	87910102	87910112
0/1.6	87911101	87911111	87911102	87911112
0/2.5	87912101	87912111	87912102	87912112
0/4	87913101	87913111	87913102	87913112
0/6	87914101	87914111	87914102	87914112
0/10	87915101	87915111	87915102	87915112
0/16	87916101	87916111	87916102	87916112
0/25	87917101	87917111	87917102	87917112
0/40	87918101	87918111	87918102	87918112
Price €				
0/60	87919101	87919111	87919102	87919112
0/100	87920101	87920111	87920102	87920112
0/160	87921101	87921111	87921102	87921112
0/250	87922101	87922111	87922102	87922112
0/400	87923101	87923111	87923102	87923112
Price €				
0/600	87924101	87924111	87924102	87924112

Version with glycerine filling

RF 130PG Gly, D601	RF 130PG Gly, D611	RF 130PG Gly, D602	RF 130PG Gly, D612
4 ½"	4 ½"	4 ½"	4 ½"
PP-GF 20, black, with internal screw type bezel			
Copper alloy (> 60 bar 316 Ti/316 L)		Stainless steel 316 Ti/316 L	
Grade 2A as per ASME B 40.100 (corresponds to class 0.5)			
½-14 NPT	½-14 NPT	½-14 NPT	½-14 NPT
2	2	3	3
Part no.	Part no.	Part no.	Part no.
87901601	87901611	87901602	87901612
87902601	87902611	87902602	87902612
87903601	87903611	87903602	87903612
87904601	87904611	87904602	87904612
87905601	87905611	87905602	87905612
87906601	87906611	87906602	87906612
87907601	87907611	87907602	87907612
87909601	87909611	87909602	87909612
87910601	87910611	87910602	87910612
87911601	87911611	87911602	87911612
87912601	87912611	87912602	87912612
87913601	87913611	87913602	87913612
87914601	87914611	87914602	87914612
87915601	87915611	87915602	87915612
87916601	87916611	87916602	87916612
87917601	87917611	87917602	87917612
87918601	87918611	87918602	87918612
87919601	87919611	87919602	87919612
87920601	87920611	87920602	87920612
87921601	87921611	87921602	87921612
87922601	87922611	87922602	87922612
87923601	87923611	87923602	87923612
87924601	87924611	87924602	87924612

Minimum order quantity for non-stock items = 10 pieces.

* Pressure unit psi available at no extra charge

Diaphragm seals MD 30 standard version with threaded connection



MD 30, PN 100

- Can be disassembled and cleaned
- Applications up to 250 bar
- Welded diaphragm
- Many process connections available



Chapter 1



Chapter 3



MD 30, PN 100

2

Application For mounting to Bourdon tube pressure gauges, pressure transducers or pressure switches. For corrosive, viscous, polluted or hot media.

Technical specifications

Process connection/lower body

Stainless steel 316 L
G $\frac{1}{2}$ B or $\frac{1}{2}$ NPT

Diaphragm

Stainless steel 316 L

Seal

FKM (Viton)

Instrument connection/upper body

Stainless steel 316 L
Welded connection

Retaining flanges

Stainless steel 316 L

Spacer ring

Stainless steel 316 L (for PN 100)

Screws and nuts

Stainless steel 304

Pressure transmission liquid

Paraffin oil (FM 09), FDA-listed

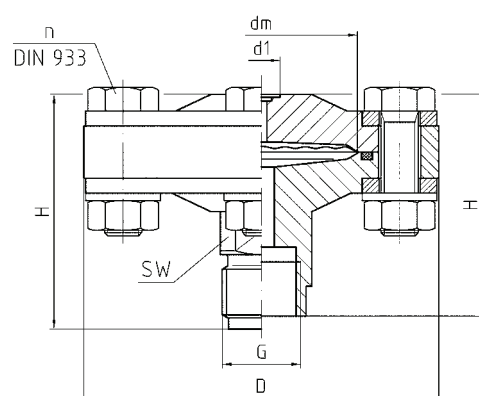
Pressure ranges

See price list section

Nominal pressure

PN 25 to PN 250

Dimensions (mm)



G	d1	PN	dm	D	H	n	SW
G $\frac{1}{2}$	10	25	36	95	60	4xM10	22
G $\frac{1}{2}$ B	10	25	36	95	63	4xM10	22
$\frac{1}{2}$ -14NPT	10	25	36	95	63	4xM10	22
G $\frac{1}{2}$	10	100	36	95	60	4xM10	22
G $\frac{1}{2}$ B	10	100	36	95	63	4xM10	22
$\frac{1}{2}$ -14NPT	10	100	36	95	63	4xM10	22
G $\frac{1}{2}$	10	250	56	95	56	8xM10	22
G $\frac{1}{2}$ B	10	250	56	95	79	8xM10	22
$\frac{1}{2}$ -14NPT	10	250	56	95	76	8xM10	22

Options

Process connection/lower body

- Special materials/coatings
- Other connection threads

Diaphragm

- Special materials/coatings

Seal

- Other materials

Instrument connection/upper body

- Adapter for instrument connection G $\frac{1}{4}$ B/G $\frac{1}{2}$ B
- Cooling element (> 100 °C)
- Capillary tube

Screws/nuts/spacer ring

- Other materials

Miscellaneous

- Other filling liquids

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See page 176
for prices.

Diaphragm seals MD 40 for the paper and pulp industries

2



- Special flange connection for the pulp and paper industries
- Compact design
- Can be welded directly to the pressure gauge
- Various tubus lengths available



Application For mounting to Bourdon tube pressure gauges, pressure transducers or pressure switches. For corrosive, highly viscous, polluted or hardening media. Typical application areas:

- Paper industry
- Pulp industry
- Lacquer industry

Technical specifications

Process connection/tubus
Stainless steel 316 L, DN 48
Loose retaining flange
Stainless steel 304

Diaphragm
Stainless steel 316 L

Seal
NBR (Perbunan)

Instrument connection
Stainless steel 316 L
Welded connection

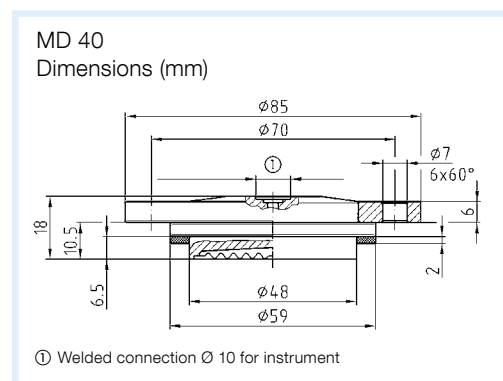
Pressure transmission liquid
Paraffin oil (FM 09), FDA-listed

Pressure ranges
See price list section

Nominal pressure
PN 40

Scope of delivery

- Diaphragm seal
- Screws M 6 x 20 (galvanised steel)
- Seal (NBR) 59 x 48 x 2 mm



Options

- Process connection/tubus**
- Extended tubus 18 mm (also suitable for O ring seal)
 - Special materials
 - Silicone-free version

Diaphragm

- Special materials

Instrument connection

- Adapter for instrument connection G $\frac{1}{4}$ B/G $\frac{1}{2}$ B
- Cooling element (> 100 °C)
- Capillary tube

Other

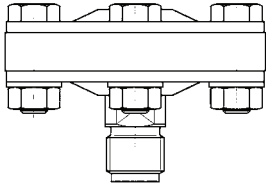
- Other filling liquids




See page 176 for prices.

Diaphragm seals MD 30/40

DG: M, PG: 3

	MD 30 standard version							
	Nominal pressure	Process connection	Minimum range* (in bar) at nominal size				Part no.	Price €
			63	100	160	DMU		
	PN 25	Stainless steel 316 L, G $\frac{1}{2}$ B	0.6	0.6	0.6	0.6	31417W	
	PN 100	Stainless steel 316 L, G $\frac{1}{2}$ B	0.6	0.6	0.6	0.6	31331W	
	PN 250	Stainless steel 316 L, G $\frac{1}{2}$ B	0.6	0.6	0.6	0.6	31332W	
Extra charges								
Process connection G $\frac{1}{2}$ B, PFA-coated								
Process connection $\frac{1}{2}$ -14 NPT								
Process connection $\frac{1}{2}$ -14 NPT, PFA-coated								
Process connection G $\frac{1}{2}$ female thread								

	MD 40 version for the paper and pulp industries		
	Instrument connection stainless steel 316 L, welded connection		
	Process connection stainless steel 316 L, DN 48, PN 40 (including seal and screws)		
	Retaining flange stainless steel 304, ranges 0/1.6 to 0/40 bar*		
		Part no.	Price €
Direct connection	31347W		
Spare parts/accessories			
6 screws M6 x 20	31418		
Spare seal, Perbunan 59 x 48 x 2	31419		

* Valid for standard pressure transmission liquid with direct mounting (without capillary tube) and a room temperature and a temperature of the medium of 20 °C.

** Without spacer ring.

Blue part no. = in-stock items