

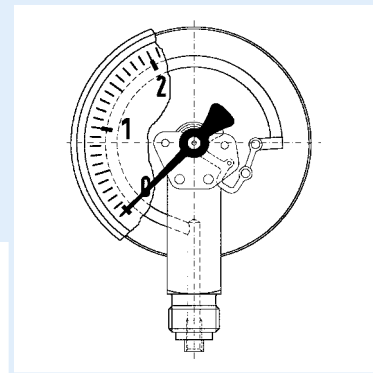
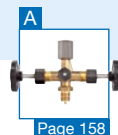
Glycerine filled Bourdon tube pressure gauges

EN 837-1

1



- Robust stainless steel housing
- Can be used in case of heavy vibrations and high, dynamic pressure loads
- Longer service life due to less wear and corrosion protection of the measuring system
- No steaming up of the inside of the window in case of outdoor applications



Application For gaseous and liquid media which are not highly viscous, do not crystallise and do not attack copper alloys. For measurements in areas with high vibration levels and high, dynamic pressure loads. ! For measuring gas or vapour, these gauges must be used in accordance with the table "Selection Criteria as per EN 837-2" (see appendix)!

Technical specifications

Type
D 7

Nominal size
50 – 63

Accuracy class (EN 837-1/6)
1.6

Ranges (EN 837-1/5)
-1/0 to -1/+15 bar
0/0.6 to 0/400 bar
NG 63 to 0/600 bar

Application area
Static load: $\frac{3}{4}$ x full scale value
Dynamic load: $\frac{2}{3}$ x full scale value
Short-term: full scale value

Operating temperature range

Medium: $T_{max} = +60\text{ }^{\circ}\text{C}$
Ambient: $T_{min} = -20\text{ }^{\circ}\text{C}$
 $T_{max} = +60\text{ }^{\circ}\text{C}$

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 K
falling temperature approx. $\pm 0.4\text{ } \%$ /10 K
of full scale value

Degree of protection

IP 65 (EN 60529)
with housing vent ($\leq 25\text{ bar}$): IP 54

Standard version

Connection
Brass, bottom or centre back
G $\frac{1}{4}$ B – spanner size SW 14
(EN 837-1/7.3)

Measuring element
Bourdon tube, copper alloy
 $\leq 60\text{ bar}$ "C" type tube
> 60 bar helical tube

Movement
Brass

Dial
Aluminium, white
Dial marking black

Pointer
Aluminium, black

Housing
Stainless steel 304
with blow-out

Crimped bezel
Stainless steel 304

Window
Plastic

Filling liquid
Glycerine (99.5 %)

Options

- Filling liquid silicone oil
- Back flange (NG 63)
- Clamp fixing
- 3-hole fixing, panel mounting bezel
- Crimped bezel polished
- Special scales
- Clip reference pointer, red, adjustable (NG 63)
- Damping screw
- Other process connections

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See page 44 for prices.

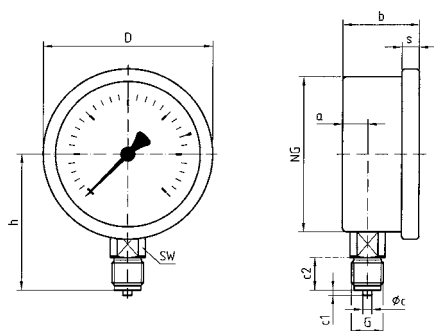
Glycerine filled Bourdon tube pressure gauges

Type D 7 – NG 50/63

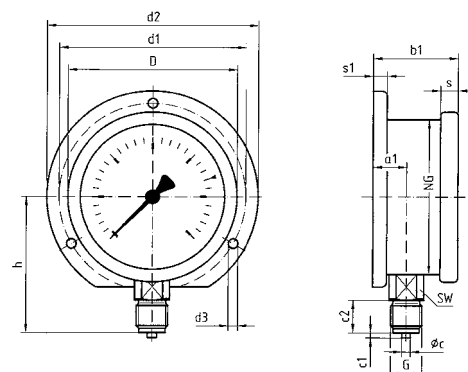
Housing types and dimensions

1

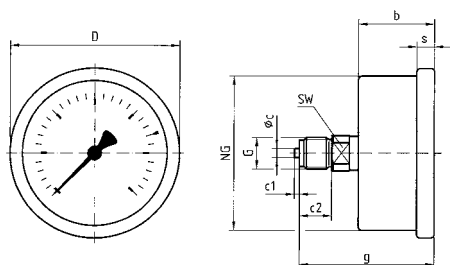
Bottom connection



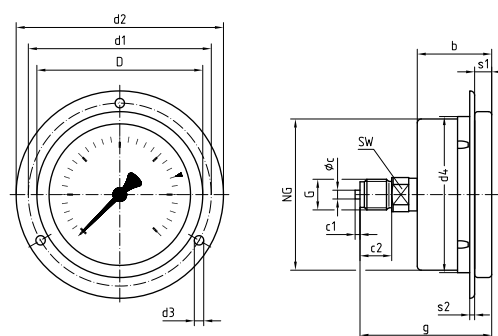
Bottom connection, back flange (NG 63)



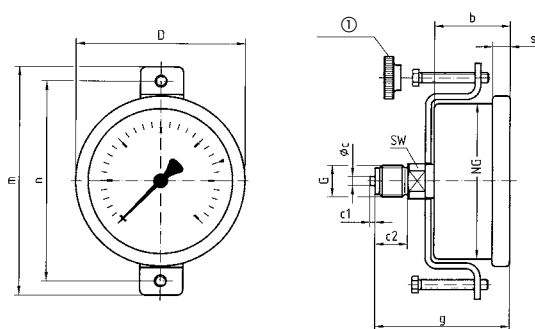
Centre back connection



Centre back connection, 3-hole fixing, panel mounting bezel



Centre back connection, with clamp fixing



① Rotary knob

Dimensions (mm)

Nominal size (NG)	a	a1	b	b1	Øc	c1	c2	d1*	d2	d3*	d4	D	G	g	h	m	n	s	s1	s2	SW
50	11	-	28	-	5	2	13	-	-	-	-	53	G ¹ / ₄ B	51	45.5	82	73	4.5	-	-	14
63	9.5	13	30.5	34	5	2	13	75	85	3.6	64	68	G ¹ / ₄ B	53.3	53	94	82	7	5.5	2	14

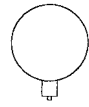
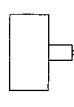
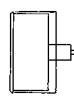
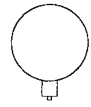
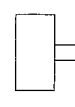
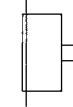
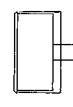
* Dimensions as per DIN 16063.

Glycerine filled Bourdon tube pressure gauges

EN 837-1

DG: M, PG: 2

1

Type	RF50Gly, D701	RF50Gly, D711	RF50Gly, D751	RF63Gly, D701	RF63Gly, D711	RF63Gly, D731	RF63Gly, D751
Version							
Housing Ø	50	50	50	63	63	63	63
Housing	Stainless steel 304 with crimped bezel 304, plastic window						
Measuring element	Bourdon tube, copper alloy						
Accuracy class	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Connection	G¼B	G¼B	G¼B	G¼B	G¼B	G¼B	G¼B
			Clamp fixing			3-hole fixing, panel mounting bezel 304	Clamp fixing
				* Dual scale, bar outer, black – psi inner, red			
Range (bar)	Part no.	Part no.	Part no.	Part no.	Part no.	Part no.	Part no.
-1/0	85051701	85051711	85051751	85101701	85101711	85101731	85101751
-1/+0.6	85052701	85052711	85052751	85102701	85102711	85102731	85102751
-1/+1.5	85053701	85053711	85053751	85103701	85103711	85103731	85103751
-1/+3	85054701	85054711	85054751	85104701	85104711	85104731	85104751
-1/+5	85055701	85055711	85055751	85105701	85105711	85105731	85105751
-1/+9	85056701	85056711	85056751	85106701	85106711	85106731	85106751
-1/+15	85057701	85057711	85057751	85107701	85107711	85107731	85107751
0/0.6	85059701	85059711	85059751	85109701	85109711	85109731	85109751
0/1	85060701	85060711	85060751	85110701	85110711	85110731	85110751
0/1.6	85061701	85061711	85061751	85111701	85111711	85111731	85111751
0/2.5	85062701	85062711	85062751	85112701	85112711	85112731	85112751
0/4	85063701	85063711	85063751	85113701	85113711	85113731	85113751
0/6	85064701	85064711	85064751	85114701	85114711	85114731	85114751
0/10	85065701	85065711	85065751	85115701	85115711	85115731	85115751
0/16	85066701	85066711	85066751	85116701	85116711	85116731	85116751
0/25	85067701	85067711	85067751	85117701	85117711	85117731	85117751
0/40	85068701	85068711	85068751	85118701	85118711	85118731	85118751
0/60	85069701	85069711	85069751	85119701	85119711	85119731	85119751
0/100	85070701	85070711	85070751	85120701	85120711	85120731	85120751
0/160	85071701	85071711	85071751	85121701	85121711	85121731	85121751
0/250	85072701	85072711	85072751	85122701	85122711	85122731	85122751
0/315				86818701	86818711	86818731	86818751
0/400	85073701	85073711	85073751	85123701	85123711	85123731	85123751
0/600	---	---	---	85124701	85124711	85124731	85124751

* Append the code Z001 to the part number for single scales.
Minimum order quantity for non-stock items = 25 pieces.

Blue part no. = in-stock items

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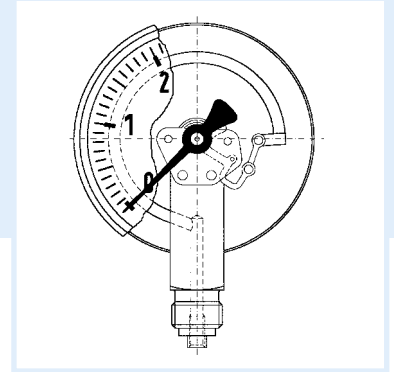
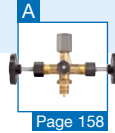
See page 72 for extra charges.

Glycerine filled Bourdon tube pressure gauges

EN 837-1



- Compact design
- Can be used in case of heavy vibrations and high, dynamic pressure loads
- Longer service life due to less wear and corrosion protection of the measuring system
- No steaming up of the inside of the window in case of outdoor applications



Application For gaseous and liquid media which are not highly viscous, do not crystallise and do not attack copper alloys. For measurements in areas with high vibration levels and high, dynamic pressure loads.
! For measuring gas or vapour, these gauges must be used in accordance with the table "Selection Criteria as per EN 837-2" (see appendix)!

Technical specifications

Type

D 7

Nominal size

80 – 100

Accuracy class (EN 837-1/6)

1.6

Ranges (EN 837-1/5)

-1/0 to -1/+15 bar
0/1 to 0/400 bar

Application area

Static load: $\frac{3}{4}$ x full scale value
Dynamic load: $\frac{2}{3}$ x full scale value Short-term: full scale value

Operating temperature range

Medium: $T_{\max} = +60\text{ }^{\circ}\text{C}$
Ambient: $T_{\min} = -20\text{ }^{\circ}\text{C}$
 $T_{\max} = +60\text{ }^{\circ}\text{C}$

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 65 (EN 60529)
with housing vent ($\leq 25\text{ bar}$): IP 54

Standard version

Connection

Brass, bottom NG 80-100 G $\frac{1}{2}$ B – spanner size SW 22
Brass, centre back NG 80 G $\frac{1}{4}$ B – spanner size SW 14
NG 100 G $\frac{1}{2}$ B – spanner size SW 22
(EN 837-1/7.3)

Measuring element

Bourdon tube, copper alloy
 $\leq 60\text{ bar}$ "C" type tube
 $> 60\text{ bar}$ helical tube

Movement

Brass

Dial

Aluminium, white
Dial marking, black

Pointer

Aluminium, black

Housing

Stainless steel 304 with blow-out

Crimped bezel

Stainless steel 304

Window

Plastic (Makrolon)

Filling liquid

Glycerine (99.5 %)

Options

- Filling liquid silicone oil
- Clamp fixing
- 3-hole fixing, panel mounting bezel (NG 100)
- Back flange
- Crimped bezel polished
- Measuring system stainless steel (up to 1000 bar)
- Special scales
- Damping screw
- Other process connections



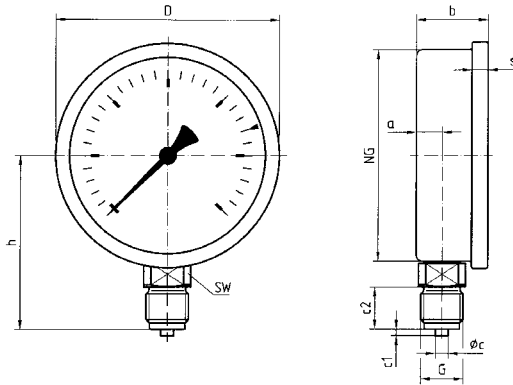
See page 47 for prices.

Glycerine filled Bourdon tube pressure gauges

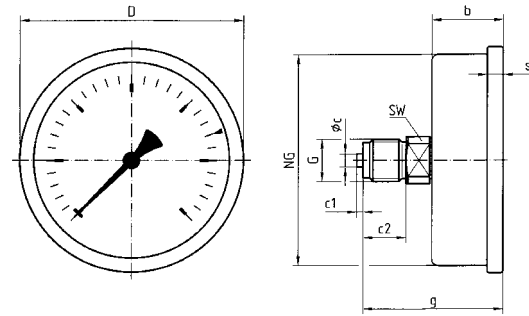
Type D 7 – NG 80/100

1 Housing types and dimensions

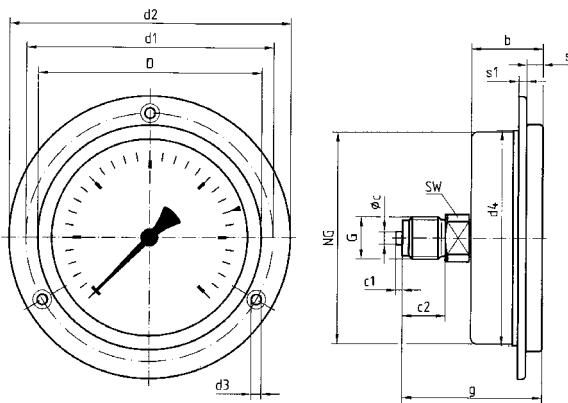
Bottom connection



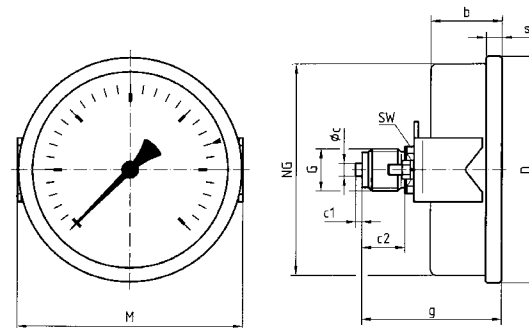
Centre back connection



Centre back connection, 3-hole fixing, panel mounting bezel (NG 100)



Centre back connection, clamp fixing



Dimensions (mm)

Nominal size (NG)	a	b	Øc	c1	c2	d1*	d2	d3*	d4	D	g	G	h	M	s	s1	SW
80 Ms ax	-	33.5	5	2	13	-	-	-	-	85	56.5	G¼B	-	82	7	-	14
80 VA ax	-	33.5	5	2	13	-	-	-	-	85	59	G¼B	-	82	7	-	14
80 Ms rad	12.2	33.5	6	3	20	-	-	-	-	85	-	G½B	71	-	7	-	22
80 VA rad	12.2	33.5	6	3	20	-	-	-	-	85	-	G½B	79.5	-	7	-	22
100 Ms	12.2	33.5	6	3	20	116	132	4.8	101	106	65.5	G½B	81	106	7	3.8	22
100 VA	11.8	33.5	6	3	20	116	132	4.8	101	106	76.5	G½B	90	106	7	3.8	22

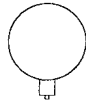


* Dimensions as per DIN 16064.

Glycerine filled Bourdon tube pressure gauges

EN 837-1

DG: M, PG: 2

Measuring system copper alloy

Type	RF80Gly, D701	RF80Gly, D711	RF80Gly, D751
Version			
Housing Ø	80	80	80
Housing	Stainless steel 304 with crimped bezel 304, plastic window		
Measuring element	Bourdon tube, copper alloy		
Accuracy class	1.6	1.6	1.6
Connection	G½B	G¼B	G¼B
			Clamp fixing
Range (bar)	Part no.	Part no.	Part no.
-1/0	85151701	85151711	85151751
-1/+0.6	85152701	85152711	85152751
-1/+1.5	85153701	85153711	85153751
-1/+3	85154701	85154711	85154751
-1/+5	85155701	85155711	85155751
-1/+9	85156701	85156711	85156751
-1/+15	85157701	85157711	85157751
0/1	85160701	85160711	85160751
0/1.6	85161701	85161711	85161751
0/2.5	85162701	85162711	85162751
0/4	85163701	85163711	85163751
0/6	85164701	85164711	85164751
0/10	85165701	85165711	85165751
0/16	85166701	85166711	85166751
0/25	85167701	85167711	85167751
0/40	85168701	85168711	85168751
0/60	85169701	85169711	85169751
0/100	85170701	85170711	85170751
0/160	85171701	85171711	85171751
0/250	85172701	85172711	85172751
0/400	85173701	85173711	85173751
0/600	---	---	---
0/1000	---	---	---
Extra charges (without PG)			
Class 1.0	---	---	---

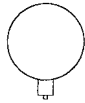


Minimum order quantity = 10 pieces.



See page 72 for extra charges.

DG: M, PG: 3

Measuring system stainless steel

Type	RF80EGly, D702	RF80EGly, D712	RF80EGly, D752
Version			
Housing Ø	80	80	80
Housing	Stainless steel 304 with crimped bezel 304, plastic window		
Measuring element	Bourdon tube, stainless steel 316 Ti/316 L		
Accuracy class	1.6	1.6	1.6
Connection	G½B	G¼B	G¼B
			Clamp fixing
Range (bar)	Part no.	Part no.	Part no.
-1/0	85151702	85151712	85151752
-1/+0.6	85152702	85152712	85152752
-1/+1.5	85153702	85153712	85153752
-1/+3	85154702	85154712	85154752
-1/+5	85155702	85155712	85155752
-1/+9	85156702	85156712	85156752
-1/+15	85157702	85157712	85157752
0/1	85160702	85160712	85160752
0/1.6	85161702	85161712	85161752
0/2.5	85162702	85162712	85162752
0/4	85163702	85163712	85163752
0/6	85164702	85164712	85164752
0/10	85165702	85165712	85165752
0/16	85166702	85166712	85166752
0/25	85167702	85167712	85167752
0/40	85168702	85168712	85168752
0/60	85169702	85169712	85169752
0/100	85170702	85170712	85170752
0/160	85171702	85171712	85171752
0/250	85172702	85172712	85172752
0/400	85173702	85173712	85173752
0/600	85174702	85174712	85174752
0/1000	85175702	85175712	85175752
Price €	Price €	Price €	

Blue part no. = in-stock items

Glycerine filled Bourdon tube pressure gauges

EN 837-1

DG: M, PG: 2

DG: M, PG: 3

Measuring system copper alloy

Type	RF100Gly, D701	RF100Gly, D711	RF100Gly, D731	RF100Gly, D751
Version				
Housing Ø	100	100	100	100
Housing	Stainless steel 304 with crimped bezel 304, plastic window			
Measuring element	Bourdon tube, copper alloy			
Accuracy class	1.6	1.6	1.6	1.6
Connection	G½B	G½B	G½B	G½B
			3-hole fixing, panel mounting bezel, stainless steel	Clamp fixing
Range (bar)	Part no.	Part no.	Part no.	Part no.
-1/0	85201701	85201711	85201731	85201751
-1/+0.6	85202701	85202711	85202731	85202751
-1/+1.5	85203701	85203711	85203731	85203751
-1/+3	85204701	85204711	85204731	85204751
-1/+5	85205701	85205711	85205731	85205751
-1/+9	85206701	85206711	85206731	85206751
-1/+15	85207701	85207711	85207731	85207751
0/1	85210701	85210711	85210731	85210751
0/1.6	85211701	85211711	85211731	85211751
0/2.5	85212701	85212711	85212731	85212751
0/4	85213701	85213711	85213731	85213751
0/6	85214701	85214711	85214731	85214751
0/10	85215701	85215711	85215731	85215751
0/16	85216701	85216711	85216731	85216751
0/25	85217701	85217711	85217731	85217751
0/40	85218701	85218711	85218731	85218751
0/60	85219701	85219711	85219731	85219751
0/100	85220701	85220711	85220731	85220751
0/160	85221701	85221711	85221731	85221751
0/250	85222701	85222711	85222731	85222751
0/400	85223701	85223711	85223731	85223751
0/600	---	---	---	---
0/1000	---	---	---	---
Extra charges (without PG)				
Class 1.0	---	---	---	---

Measuring system stainless steel

RF100EGly, D702	RF100EGly, D712	RF100EGly, D732	RF100EGly, D752
100	100	100	100
Stainless steel 304 with crimped bezel 304, plastic window			
Bourdon tube, stainless steel 316 Ti/316 L			
1.6	1.6	1.6	1.6
G½B	G½B	G½B	G½B
		3-hole fixing, panel mounting bezel, stainless steel	Clamp fixing
Part no.	Part no.	Part no.	Part no.
85201702	85201712	85201732	85201752
85202702	85202712	85202732	85202752
85203702	85203712	85203732	85203752
85204702	85204712	85204732	85204752
85205702	85205712	85205732	85205752
85206702	85206712	85206732	85206752
85207702	85207712	85207732	85207752
85210702	85210712	85210732	85210752
85211702	85211712	85211732	85211752
85212702	85212712	85212732	85212752
85213702	85213712	85213732	85213752
85214702	85214712	85214732	85214752
85215702	85215712	85215732	85215752
85216702	85216712	85216732	85216752
85217702	85217712	85217732	85217752
85218702	85218712	85218732	85218752
85219702	85219712	85219732	85219752
85220702	85220712	85220732	85220752
85221702	85221712	85221732	85221752
85222702	85222712	85222732	85222752
85223702	85223712	85223732	85223752
85224702	85224712	85224732	85224752
85225702	85225712	85225732	85225752
Price €	Price €	Price €	Price €

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

Blue part no. = in-stock items



See page 72 for extra charges.