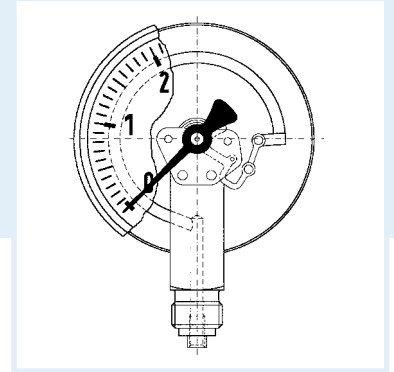


Standard Bourdon tube pressure gauges

EN 837-1



- For pneumatic and heating system applications
- Design as per EN 837-1
- Accuracy class 1.6
- Corrosion-resistant, highly impact-resistant plastic housing
- Many customised versions available



Application For gaseous and liquid media which are not highly viscous, do not crystallise and do not attack copper alloys.

! 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 1

Nominal size

40 – 50 – 63 – 80 – 100

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

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 $20\text{ }^{\circ}\text{C}$:

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 32 (EN 60529)

Standard version

Connection

Brass, bottom or centre back

NG 40 G $\frac{1}{8}$ B – SW 12

NG 50-63 G $\frac{1}{4}$ B – SW 14

NG 80-100 bottom G $\frac{1}{2}$ B – spanner size SW 22

NG 80-100 centre back G $\frac{1}{4}$ B – spanner size SW 14

(EN 837-1/7.3)

Measuring element

Bourdon tube, copper alloy

≤ 60 bar "C" type tube

> 60 bar helical tube

Movement

Brass

Dial

Plastic, white

Dial marking black

Pointer

Plastic, black

Housing

Black ABS, highly impact-resistant and corrosion-resistant

Window

Clip-in plastic, NG 80-100 with adjustable red reference pointer

Options

- Damping screw
- Reference pointer
- Special scales
- Other process connections

i

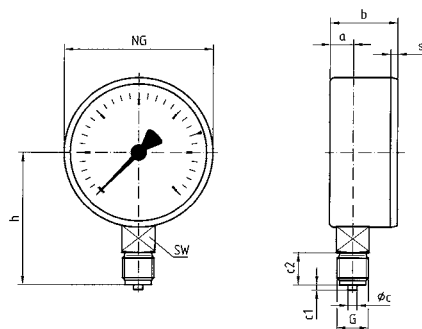
See the catalogue DOMESTIC TECHNOLOGY for special heating and sanitary versions. See page 28 for prices.

Standard Bourdon tube pressure gauges

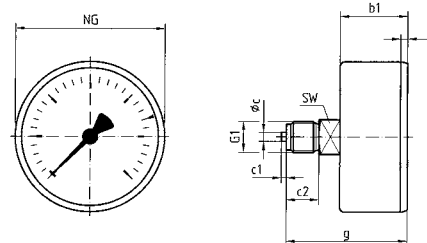
Type D 1 – NG 40/50/63/80/100

1 Housing types and dimensions

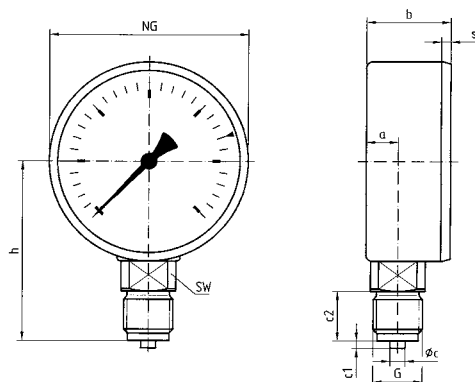
NG 40/50/63 – bottom connection



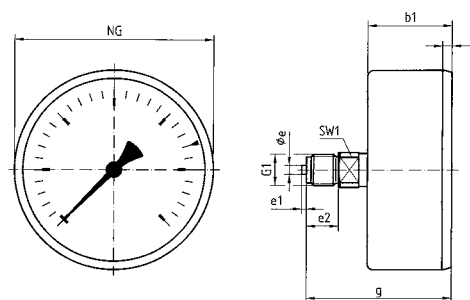
NG 40/50/63 – centre back connection



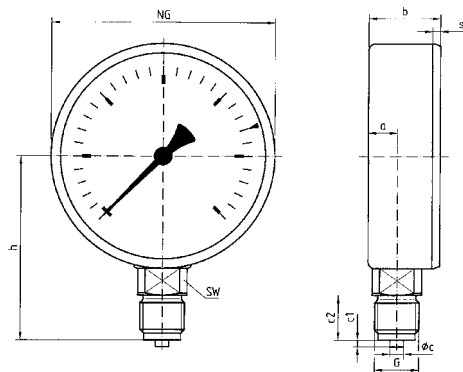
NG 80 – bottom connection



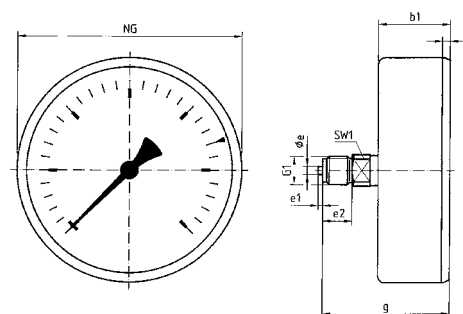
NG 80 – centre back connection



NG 100 – bottom connection



NG 100 – centre back connection



Dimensions (mm)

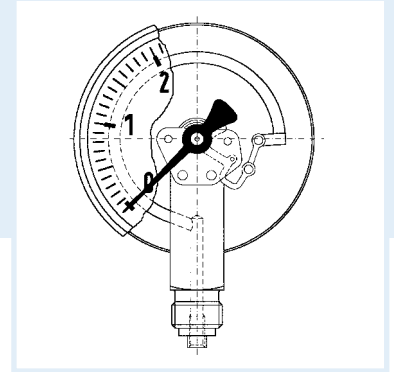
Nominal size (NG)	a	b	b1	Øc	c1	c2	Øe	e1	e2	g	G	G1	h	s	SW	Spanner size SW1
40	9.5	25	25	4	2	10	-	-	-	41.5	G $\frac{1}{8}$ B	G $\frac{1}{8}$ B	36	3	12	-
50	10.3	26.8	27.1	5	2	13	-	-	-	47.1	G $\frac{1}{4}$ B	G $\frac{1}{4}$ B	45	3.8	14	-
63	9.8	29.7	30.4	5	2	13	-	-	-	50.4	G $\frac{1}{4}$ B	G $\frac{1}{4}$ B	51.5	3.7	14	-
80	12.8	32.8	32.8	6	3	20	5	2	13	55.8	G $\frac{1}{2}$ B	G $\frac{1}{4}$ B	72	2.8	22	14
100	15.5	34.5	32	6	3	20	5	2	13	55	G $\frac{1}{2}$ B	G $\frac{1}{4}$ B	82	3.5	22	14

Standard Bourdon tube pressure gauges

EN 837-1



- For pneumatic and heating system applications
- Robust steel or stainless steel housing
- Accuracy class 1.6
- Many customised versions available



Application For gaseous and liquid media which are not highly viscous, do not crystallise and do not attack copper alloys.

! 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 2/D 3

Nominal size
40 – 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

Application area
Static load: $\frac{3}{4}$ x full scale value
Dynamic load: $\frac{2}{5}$ x full scale value
Short-term: full scale value

Standard version

Connection
Brass, bottom or centre back
NG 40 G $\frac{1}{8}$ B – spanner size SW 12
NG 50-63 G $\frac{1}{4}$ B – spanner size SW 14
(EN 837-1/7.3)

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

Movement
Brass

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

Degree of protection

IP 32 (EN 60529)

Dial

Plastic, white
Dial marking black

Pointer

Plastic, black

Housing

D 2 – black sheet steel
D 3 – stainless steel 304

Window

Clip-in plastic

Options

- Panel mounting bezel
- 3-hole fixing, panel mounting bezel
- Damping screw
- Reference pointer
- Special scales
- Other process connections

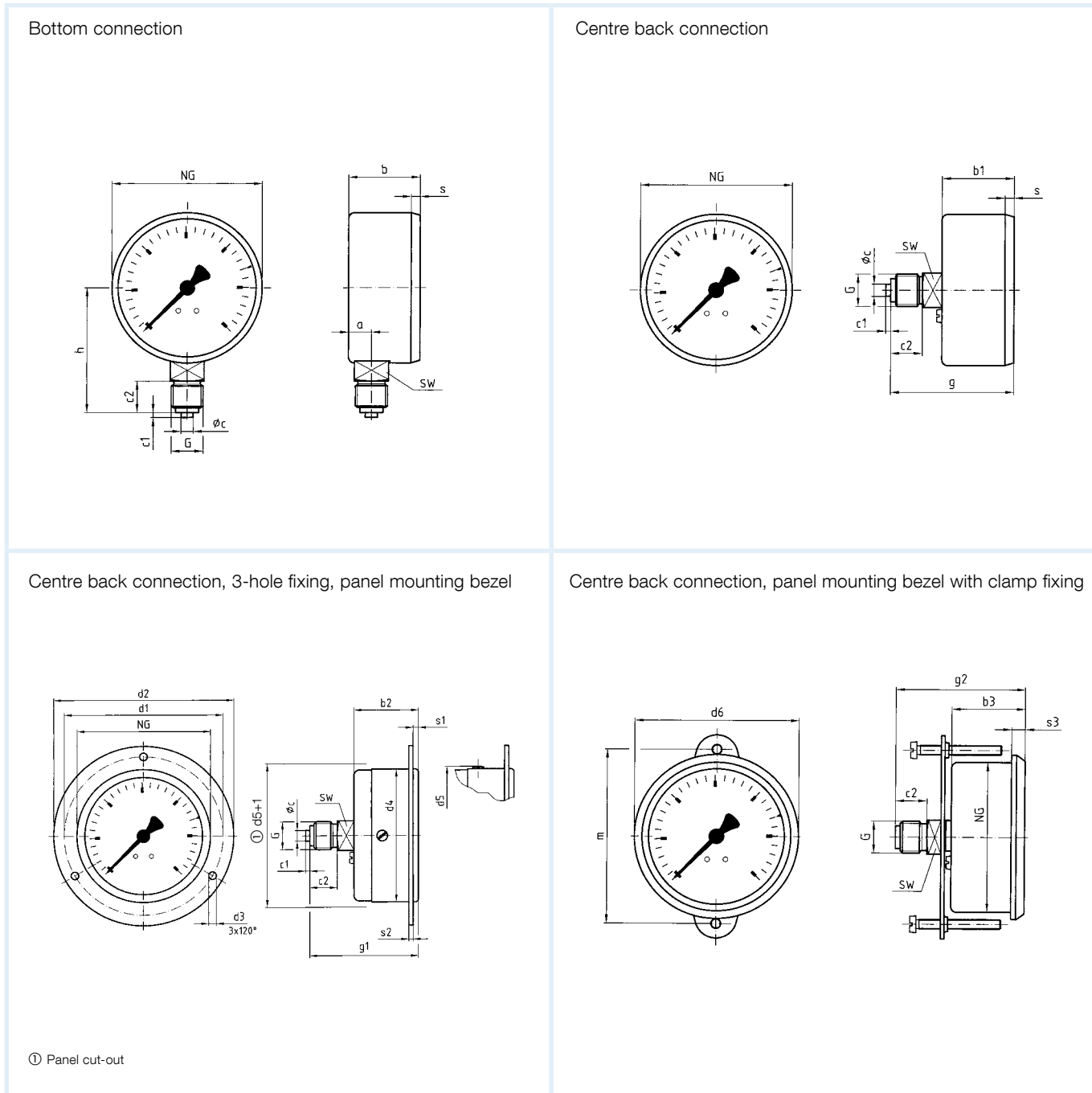
i

See the catalogue DOMESTIC TECHNOLOGY for special heating and sanitary versions. See page 29 for prices.

Standard Bourdon tube pressure gauges

Type D 2/D 3 – NG 40/50/63

1 Housing types and dimensions



Dimensions (mm)

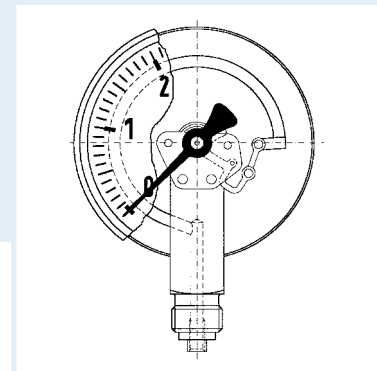
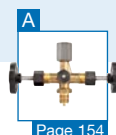
Nominal size (NG)	a	b	b1	b2	b3	ϕ_c	c1	c2	d1	d2	d3	d4	d5	d6	g	g1	g2	G	h	m
40	8.5	23.5	25	26	28	4	2	10	51	61	3.6	41	45	44	41.5	42.5	46.6	G $\frac{1}{8}$ B	36	50
50	10.5	26	26	27.5	30.3	5	2	13	60	71	3.6	50	54	54	47	49	51.3	G $\frac{1}{4}$ B	45	58
63	9.5	29.4	29.4	30.3	30.3	5	2	13	75	85	3.6	63	66.5	67.8	50.4	51.3	53.3	G $\frac{1}{4}$ B	51.5	72
Nominal size (NG)	s	s1	s2	s3	SW															
40	3	2.5	2	5.2	12															
50	3.8	2.5	2	5.4	14															
63	3.7	2.5	2	5.6	14															

Standard Bourdon tube pressure gauges

EN 837-1



- For domestic and mechanical engineering applications
- Robust steel housing
- Window with adjustable reference pointer
- Many customised versions available



Application For gaseous and liquid media which are not highly viscous, do not crystallise and do not attack copper alloys.
! 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 2

Nominal size
80 – 100

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

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 $20\text{ }^{\circ}\text{C}$:
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 32 (EN 60529)

Standard version

Connection

Brass, bottom:
NG 80 – 100 G $\frac{1}{2}$ B – spanner size SW 22
Brass, centre back:
NG 80 – 100 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
 $> 60\text{ bar}$ helical tube

Movement

Brass

Dial

Plastic, white
Dial marking black

Pointer

Plastic, black

Housing

Sheet steel, black

Window

Clip-in plastic, with adjustable red reference pointer

Options

- Stainless steel housing (NG 100)
- Push on bezel
- Instrument glass window
- 3-hole fixing, panel mounting bezel
- Damping screw
- Reference pointer
- Special scales
- Other process connections

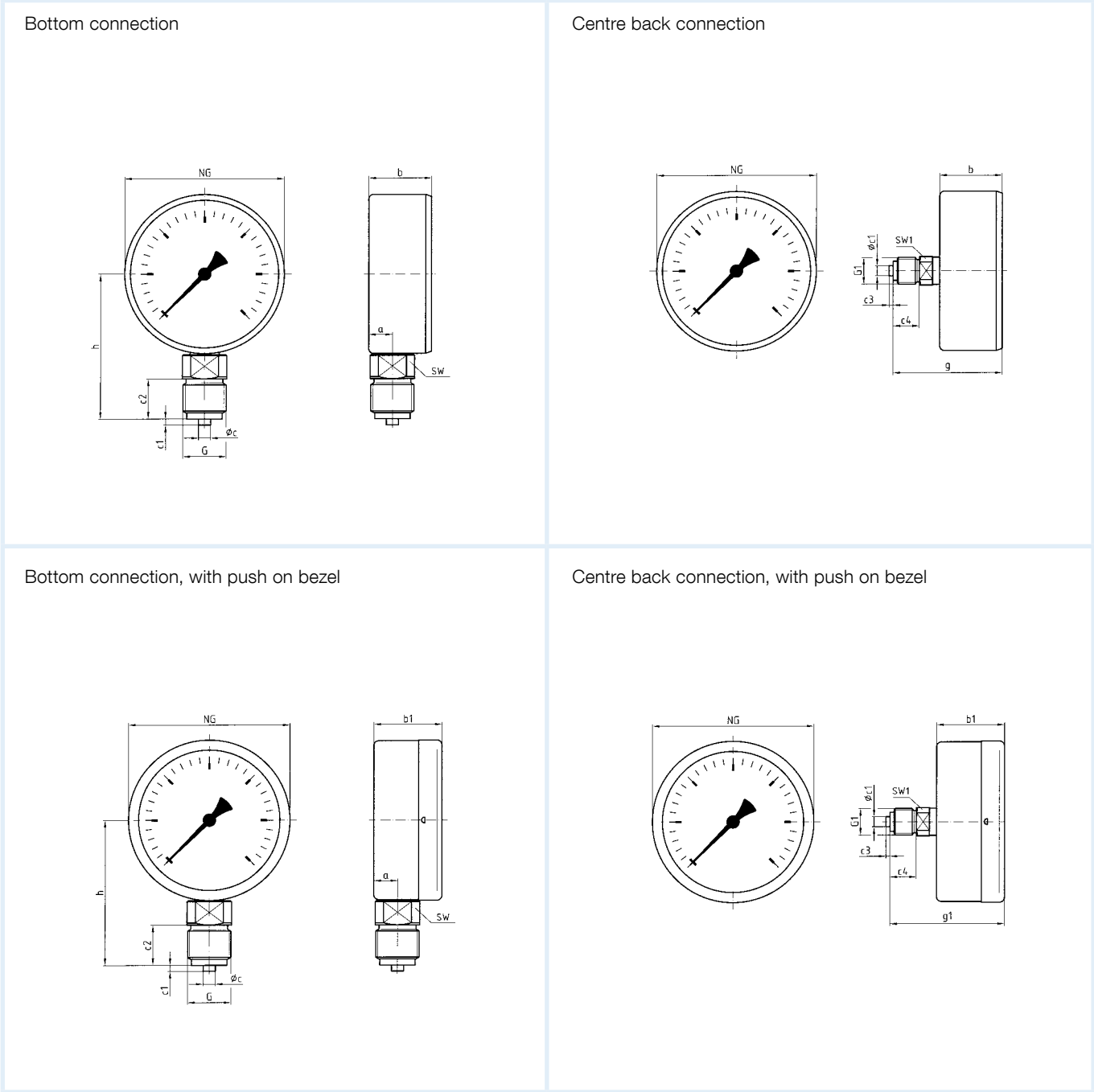
i

See the catalogue DOMESTIC TECHNOLOGY for special heating and sanitary versions.
See page 29 for prices.

Standard Bourdon tube pressure gauges

Type D 2 – NG 80/100

1 Housing types and dimensions



Dimensions (mm)

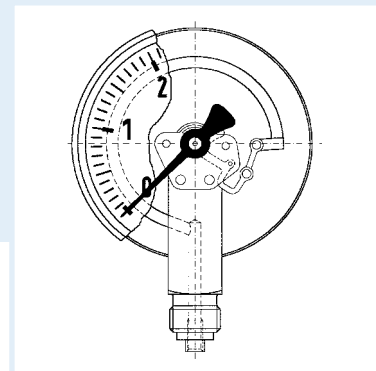
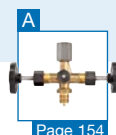
Nominal size (NG)	a	b	b1	ϕ_c	c1	c2	ϕ_{c1}	c3	c4	g	g1	G	G1	h	SW	Spanner size SW1
80	11.7	31	33.5	6	3	20	5	2	13	54	56.5	G1/2B	G1/4B	72	22	14
100	11	29.5	34	6	3	20	5	2	13	52.5	57	G1/2B	G1/4B	82	22	14

Standard Bourdon tube pressure gauges

EN 837-1



- For domestic and mechanical engineering applications
- With reference pointer on dial
- Robust steel housing
- Many customised versions available



Application For gaseous and liquid media which are not highly viscous, do not crystallise and do not attack copper alloys.

! 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 2

Nominal size
160

Accuracy class (EN 837-1/6)
1.6

Ranges (EN 837-1/5)
-1/0 to -1/+15 bar
0/0.6 to 0/40 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 $20\text{ }^{\circ}\text{C}$:
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 32 (EN 60529)

Standard version

Connection

Brass, bottom: $G\frac{1}{2}B$ – spanner size SW 22

Measuring element

Bourdon tube, copper alloy
 ≤ 60 bar "C" type tube
 > 60 bar helical tube

Movement

Brass

Dial

Aluminium, white
Dial marking black with adjustable reference pointer

Pointer

Aluminium, black

Housing

Sheet steel, black

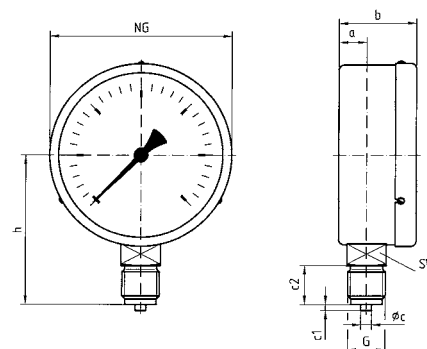
Push on bezel

Sheet steel, black

Window

Instrument glass

Bottom connection



Dimensions (mm)

Nominal size (NG)	a	b	$\varnothing c$	c1
160	15.5	50	6	3
Nominal size (NG)	c2	G	h	SW
160	20	$G\frac{1}{2}B$	116	22

i

See the catalogue DOMESTIC TECHNOLOGY for special heating and sanitary versions. See page 29 for prices.

Options









- Damping screw
- Special scales
- Other process connections

Standard Bourdon tube pressure gauges

EN 837-1

DG: M, PG: 2

1

Type	RF40, D101	RF40, D111	RF50, D101	RF50, D111	RF63, D101	RF63, D111	RF80, D101	RF100, D101	
Version									
Housing Ø	40	40	50	50	63	63	80	100	
Housing	ABS highly impact-resistant, clip-in plastic window								
Measuring element	Bourdon tube, copper alloy								
Accuracy class	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	
Connection	G½B	G½B	G¼B	G¼B	G¼B	G¼B	G½B	G½B	
PU*	100 piece	100 piece	100 piece	100 piece	100 piece	100 piece	50 piece	50 piece	
								With adjustable red reference pointer on window	
Range (bar)	Part no.	Part no.	Part no.	Part no.	Part no.	Part no.	Part no.	Part no.	
Price €									
-1/0	85001101	85001111	85051101	85051111	85101101	85101111	85151101	85201101	
-1/+0.6	---	---	---	---	85102101	85102111	85152101	85202101	
-1/+1.5	---	---	---	---	85103101	85103111	85153101	85203101	
-1/+3	---	---	---	---	85104101	85104111	85154101	85204101	
-1/+5	---	---	---	---	85105101	85105111	85155101	85205101	
-1/+9	---	---	---	---	85106101	85106111	85156101	85206101	
-1/+15	---	---	---	---	85107101	85107111	85157101	85207101	
Price €									
0/0.6	85009101	85009111	85059101	85059111	85109101	85109111	85159101	85209101	
0/1	8510101	8510111	85060101	85060111	85110101	85110111	85160101	85210101	
0/1.6	85011101	85011111	85061101	85061111	85111101	85111111	85161101	85211101	
0/2.5	85012101	85012111	85062101	85062111	85112101	85112111	85162101	85212101	
0/4	85013101	85013111	85063101	85063111	85113101	85113111	85163101	85213101	
0/6	85014101	85014111	85064101	85064111	85114101	85114111	85164101	85214101	
0/10	85015101	85015111	85065101	85065111	85115101	85115111	85165101	85215101	
0/16	85016101	85016111	85066101	85066111	85116101	85116111	85166101	85216101	
0/25	85017101	85017111	85067101	85067111	85117101	85117111	85167101	85217101	
0/40	85018101	85018111	85068101	85068111	85118101	85118111	85168101	85218101	
Price €									
0/60	85019101	85019111	85069101	85069111	85119101	85119111	85169101	85219101	
0/100	85020101	85020111	85070101	85070111	85120101	85120111	85170101	85220101	
0/160	85021101	85021111	85071101	85071111	85121101	85121111	85171101	85221101	
0/250	85022101	85022111	85072101	85072111	85122101	85122111	85172101	85222101	
0/400	---	---	85073101	85073111	85123101	85123111	85173101	85223101	

* Minimum order quantity for non-stock items = 100 pieces











See page 31 for extra charges.

Standard Bourdon tube pressure gauges

EN 837-1

DG: M, PG: 2

1

Type	RF40, D201	RF40, D211	RF40, D231*	RF40, D251*	RF50, D201	RF50, D211	RF50, D231*	RF50, D251*
Version								
Housing Ø	40	40	40	40	50	50	50	50
Housing	Black sheet steel, plastic clip-in window							
Measuring element	Bourdon tube, copper alloy							
Accuracy class	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Connection	G $\frac{1}{8}$ B	G $\frac{1}{8}$ B	G $\frac{1}{8}$ B	G $\frac{1}{8}$ B	G $\frac{1}{4}$ B	G $\frac{1}{4}$ B	G $\frac{1}{4}$ B	G $\frac{1}{4}$ B
			3-hole fixing, panel mounting bezel, stainless steel	Panel mounting bezel stainless steel, polished, with clamp fixing			3-hole fixing, panel mounting bezel, stainless steel	Panel mounting bezel stainless steel, polished, with clamp fixing
Range (bar)	Part no.	Part no.	Part no.	Part no.	Part no.	Part no.	Part no.	Part no.
Price €								
-1/0	85001201	85001211	85001231	85001251	85051201	85051211	85051231	85051251
-1/+0.6	---	---	---	---	---	---	---	---
-1/+1.5	---	---	---	---	---	---	---	---
-1/+3	---	---	---	---	---	---	---	---
-1/+5	---	---	---	---	---	---	---	---
-1/+9	---	---	---	---	---	---	---	---
-1/+15	---	---	---	---	---	---	---	---
Price €								
0/1	85010201	85010211	85010231	85010251	85060201	85060211	85060231	85060251
0/1.6	85011201	85011211	85011231	85011251	85061201	85061211	85061231	85061251
0/2.5	85012201	85012211	85012231	85012251	85062201	85062211	85062231	85062251
0/4	85013201	85013211	85013231	85013251	85063201	85063211	85063231	85063251
0/6	85014201	85014211	85014231	85014251	85064201	85064211	85064231	85064251
0/10	85015201	85015211	85015231	85015251	85065201	85065211	85065231	85065251
0/16	85016201	85016211	85016231	85016251	85066201	85066211	85066231	85066251
0/25	85017201	85017211	85017231	85017251	85067201	85067211	85067231	85067251
0/40	85018201	85018211	85018231	85018251	85068201	85068211	85068231	85068251
Price €								
0/60	85019201	85019211	85019231	85019251	85069201	85069211	85069231	85069251
0/100	85020201	85020211	85020231	85020251	85070201	85070211	85070231	85070251
0/160	85021201	85021211	85021231	85021251	85071201	85071211	85071231	85071251
0/250	85022201	85022211	85022231	85022251	85072201	85072211	85072231	85072251
0/400	---	---	---	---	85073201	85073211	85073231	85073251

* Dual scale, bar outer, black – psi inner, red
 Minimum order quantity for non-stock items = 100 pieces.











See page 31 for extra charges.

Standard Bourdon tube pressure gauges

EN 837-1

DG: M, PG: 2

1

Type	RF63, D201	RF63, D211	RF63, D231*	RF63, D251*	RF80, D201	RF100, D201	RF100, D211	RF160, D201	
Version									
Housing Ø	63	63	63	63	80	100	100	160	
Housing	Black sheet steel, plastic clip-in window							Push on bezel, instrument glass	
Measuring element	Bourdon tube, copper alloy								
Accuracy class	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	
Connection	G¼B	G¼B	G¼B	G¼B	G½B	G½B	G¼B	G½B	
			3-hole fixing, panel mounting bezel, stainless steel	Panel mounting bezel stainless steel, polished, with clamp fixing	With adjustable red reference pointer				
Range (bar)	Part no.	Part no.	Part no.	Part no.	Part no.	Part no.	Part no.	Part no.	
Price €									
-1/0	85101201	85101211	85101231	85101251	85151201	85201201	85201211	85251201	
-1/+0.6	85102201	85102211	85102231	85102251	85152201	85202201	85202211	85252201	
-1/+1.5	85103201	85103211	85103231	85103251	85153201	85203201	85203211	85253201	
-1/+3	85104201	85104211	85104231	85104251	85154201	85204201	85204211	85254201	
-1/+5	85105201	85105211	85105231	85105251	85155201	85205201	85205211	85255201	
-1/+9	85106201	85106211	85106231	85106251	85156201	85206201	85206211	85256201	
-1/+15	85107201	85107211	85107231	85107251	85157201	85207201	85207211	85257201	
Price €									
0/0.6	85109201	85109211	85109231	85109251	85159201	85209201	85209211	85259201	
0/1	85110201	85110211	85110231	85110251	85160201	85210201	85210211	85260201	
0/1.6	85111201	85111211	85111231	85111251	85161201	85211201	85211211	85261201	
0/2.5	85112201	85112211	85112231	85112251	85162201	85212201	85212211	85262201	
0/4	85113201	85113211	85113231	85113251	85163201	85213201	85213211	85263201	
0/6	85114201	85114211	85114231	85114251	85164201	85214201	85214211	85264201	
0/10	85115201	85115211	85115231	85115251	85165201	85215201	85215211	85265201	
0/16	85116201	85116211	85116231	85116251	85166201	85216201	85216211	85266201	
0/25	85117201	85117211	85117231	85117251	85167201	85217201	85217211	85267201	
0/40	85118201	85118211	85118231	85118251	85168201	85218201	85218211	85268201	
Price €									
0/60	85119201	85119211	85119231	85119251	85169201	85219201	85219211		
0/100	85120201	85120211	85120231	85120251	85170201	85220201	85220211		
0/160	85121201	85121211	85121231	85121251	85171201	85221201	85221211		
0/250	85122201	85122211	85122231	85122251	85172201	85222201	85222211		
0/400	85123201	85123211	85123231	85123251	85173201	85223201	85223211		

* Dual scale, bar outer, black – psi inner, red
 Minimum order quantity for non-stock items = 100 pieces.



See page 31 for extra charges.