

Capsule Gauges for Low Pressure

Bayonet ring case stainless steel

KPCh
KPChG

Standard Versions

Information on general and metrological features (e.g. load limits/temperature resistance) and standard pressure ranges/scale divisions can be found in model overview 6000.

Accuracy (DIN EN 837-3)

Class 1.6

Case

With bayonet ring, stainless steel 304 (1.4301)

Degree of Protection (DIN EN 60 529/IEC 529)

IP54

IP65 for model KPChG

Case Ventilation

Model KPChG 100

case ventilation closable
ventilation required for internal
pressure compensation
via blow-out device

Model KPChG 160

Case Filling

Model KPChG

glycerin

Nominal Case Size

Model KPCh

100, 160, 250 mm (4, 6, 10")

Model KPChG

100, 160 mm (4, 6")

Wetted Parts

Type – 1

connection
diaphragm capsule
O-ring sealing

brass
CuBe alloy
NBR

Type – 3

connection
diaphragm capsule
O-ring sealing

stainless steel 316L (1.4404)
stainless steel 316L (1.4404)
FPM

Case Configuration

Connection

screwed

Position of the connection

- bottom connection
- centre back connection (**rm**)

Mounting device

- without
- back flange for surface mounting (**Rh**)
- front flange for panel mounting (**Fr**)

Pressure Ranges (DIN EN 837-3)

Model KPCh

0 – 2.5 mbar to 0 – 600 mbar
(0 – 1 inH₂O to 0 – 250 inH₂O)

Model KPChG

0 – 100 mbar to 0 – 600 mbar
(0 – 40 inH₂O to 0 – 250 inH₂O)

Process Connection

G ½ B (½" BSP)

Window

Model KPCh

instrument glass for type – 1 and 250 – 3
laminated safety glass for type – 3

specifics for case configuration Fr

instrument glass pressure ranges
≤ 16 mbar (≤ 6.4 inH₂O)

acrylic glass pressure ranges
≥ 25 mbar (≥ 10 inH₂O)

(with punched hole for zero adjustment)

Model KPChG

acrylic glass
(with punched hole for zero adjustment)



Movement

Brass/German silver

for type – 1

Stainless steel

for type – 3

Dial

Aluminum white, scale black

Pointer

Aluminum black

Zero Adjustment

On the front side

Ordering Information, Standard Pressure Ranges, Options

See pages 3 and 4

Further Options

- Position of connection radial at 3 o'clock, 9 o'clock, 12 o'clock or position of connection other than vertical installation (90°) for models without case filling
- GOST version for Russia and Kazakhstan

Special Versions Upon Request

- Other process connections
- Other pressure ranges and/or special scales, e.g. dual scale mbar/kPa, coloured fields or ranges, dial inscriptions, negative scale
- Case parts 316L (1.4404)
- Wetted parts free of grease and oil for type – 3
- Oxygen version for type – 3 (without case filling)
- Version for higher medium temperatures
- Other position of connection
- Model KPCh: increased measurement accuracy (without case filling)

Accessories

See catalogue heading 11

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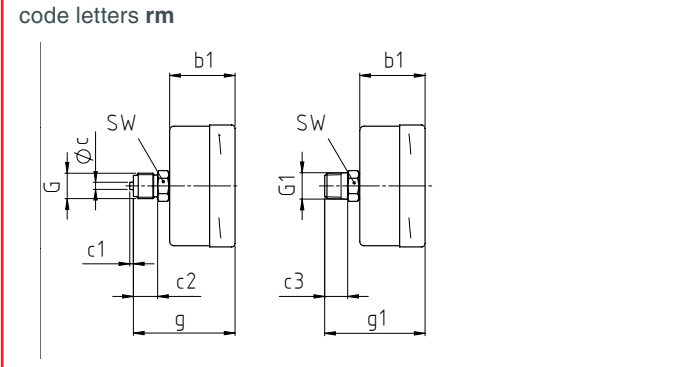
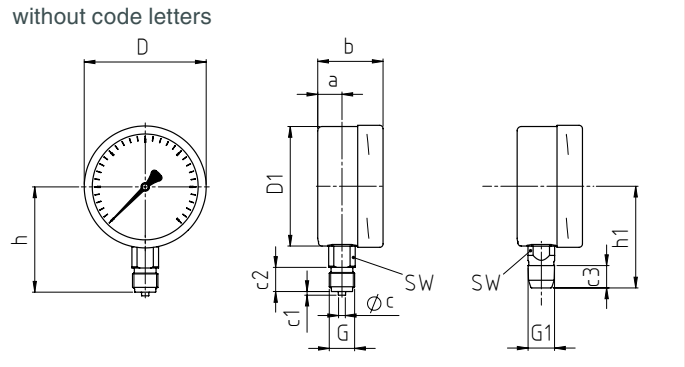
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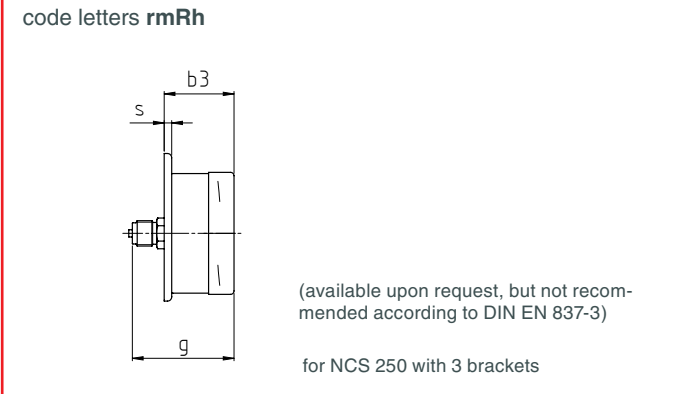
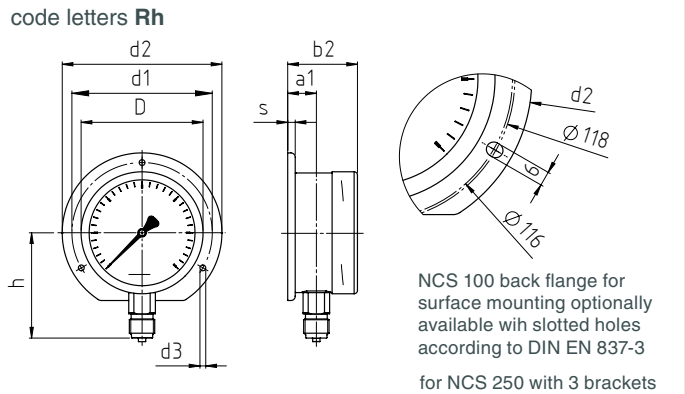
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Case Configurations, Code Letters, Dimensional Data and Weight, Case Ventilation

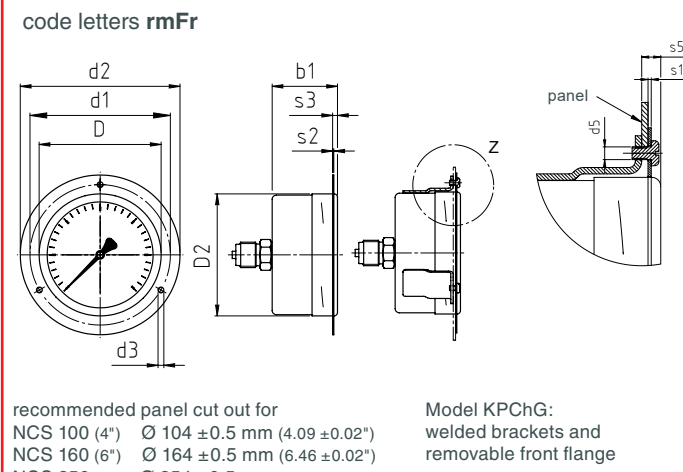
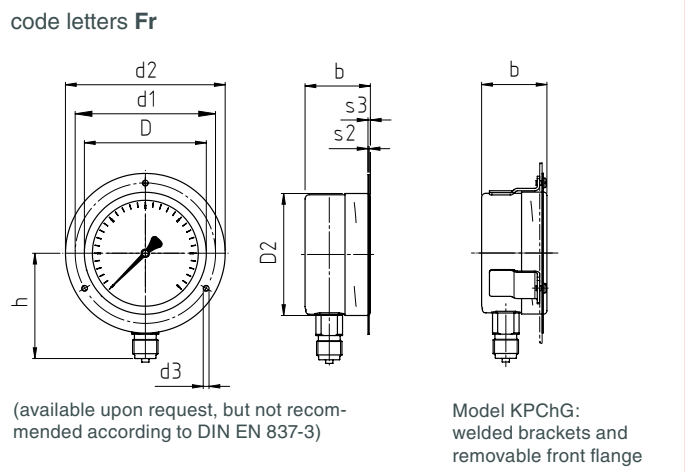
Bottom Connection Centre Back Connection



with back flange for surface mounting



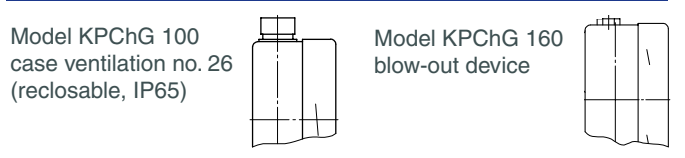
with front flange for panel mounting



Dimensional Data (mm/inch) and Weight (kg/lb)

NCS	a	a1	b	b1	b2	b3	c	c1	c2	c3	D	D1	D2	d1	d2	d3	G	G1	g	g1	h ^{±1}	h1 ^{±1}
100 ≤16 mbar	15.5 0.61	19 0.75	55 2.17	55 2.17	59 2.32	59 2.32	6 0.24	3 0.12	20 0.79	19 0.75	101 3.98	99 3.9	103 4.06	116 4.57	132 5.2	4.8 0.19	G ½B M20x1.5	½" NPT	85 3.35	84 3.31	87 3.43	84 3.31
100 ≥25 mbar	20 0.79	23 0.91	55 2.17	55 2.17	59 2.32	59 2.32	6 0.24	3 0.12	20 0.79	19 0.75	101 3.98	99 3.9	103 4.06	116 4.57	132 5.2	4.8 0.19	G ½B M20x1.5	½" NPT	85 3.35	84 3.31	87 3.43	84 3.31
160 ≤16 mbar	15 0.59	18 0.71	55 2.17	55 2.17	58 2.28	58 2.28	6 0.24	3 0.12	20 0.79	19 0.75	161 6.34	159 6.26	163 6.42	178 7.01	196 7.72	5.8 0.23	G ½B M20x1.5	½" NPT	85 3.35	84 3.31	115 4.53	114 4.49
160 ≥25 mbar	15 0.59	18 0.71	51 2.01	51 2.01	54 2.13	54 2.13	6 0.24	3 0.12	20 0.79	19 0.75	161 6.34	159 6.26	163 6.42	178 7.01	196 7.72	5.8 0.23	G ½B M20x1.5	½" NPT	81 3.19	80 3.15	115 4.53	114 4.49
250	15.5 0.61	17.5 0.69	58 2.28	58 2.28	60 2.36	60 2.36	6 0.24	3 0.12	20 0.79	19 0.75	251 9.88	249 9.8	-	270 10.63	285 11.22	5.8 0.23	G ½B M20x1.5	½" NPT	88 3.46	87 3.43	165 6.5	164 6.46

Case Ventilation



s	s1	s2	s3	s5	SW	approx. weight ¹⁾	
						KPCh	KPChG
6 0.24	1 0.04	2 0.08	5.5 0.22	7 0.28	22 0.87	0.60 1.32	0.95 2.09
6 0.24	1 0.04	2 0.08	5.5 0.22	7 0.28	22 0.87	0.60 1.32	0.95 2.09
6 0.24	1.5 0.06	2.5 0.1	6 0.24	8 0.31	22 0.87	1.00 2.2	1.80 3.97
6 0.24	1.5 0.06	2.5 0.1	6 0.24	8 0.31	22 0.87	0.95 2.09	1.80 3.97
6 0.24	-	2 0.08	8.5 0.33	-	22 0.87	2.00 4.41	-

¹⁾ data for versions without mounting device

Ordering Information

Basic Model		Capsule Gauge for Low Pressure with Bayonet Ring Case				KPCh
Case filling	without					without code letters
	glycerin					G
Nominal case size	case Ø 100, 160, 250 mm (4, 6, 10")				100, 160, 250	
Wetted material	copper alloy				- 1	
	stainless steel				- 3	
Case configuration	case/connection	screwed				without code letters
	position of the connection	bottom connection				without code letters
		centre back connection				rm
	mounting device	without				without code letters
back flange for surface mounting				Rh		
				front flange for panel mounting	Fr	
Pressure ranges	mbar			inH ₂ O		
	vacuum	compound	pressure	vacuum	compound	pressure
	-2.5 / 0 ¹⁾	-1 / +1.5 ¹⁾	0 - 2.5 ¹⁾	-1 / 0 ¹⁾	-0.4 / +0.6 ¹⁾	0 - 1 ¹⁾
		-1.5 / +1 ¹⁾			-0.6 / +0.4 ¹⁾	
	-4 / 0	-1.5 / +2.5	0 - 4	-1.6 / 0	-0.6 / +1	0 - 1.6
		-2.5 / +1.5			-1 / +0.6	
	-6 / 0	-2 / +4	0 - 6	-2.5 / 0	-1 / +1.5	0 - 2.5
		-4 / +2			-1.5 / +1	
	-10 / 0	-4 / +6	0 - 10	-4 / 0	-1.5 / +2.5	0 - 4
		-6 / +4			-2.5 / +1.5	
	-16 / 0	-6 / +10	0 - 16	-6 / 0	-2 / +4	0 - 6
		-10 / +6			-4 / +2	
	-25 / 0	-10 / +15	0 - 25	-10 / 0	-4 / +6	0 - 10
		-15 / +10			-6 / +4	
	-40 / 0	-15 / +25	0 - 40	-16 / 0	-6 / +10	0 - 16
		-25 / +15			-10 / +6	
	-60 / 0	-20 / +40	0 - 60	-25 / 0	-10 / +15	0 - 25
		-40 / +20			-15 / +10	
	-100 / 0	-40 / +60	0 - 100	-40 / 0	-15 / +25	0 - 40
		-60 / +40			-25 / +15	
	-160 / 0	-60 / +100	0 - 160	-60 / 0	-20 / +40	0 - 60
		-100 / +60			-40 / +20	
	-250 / 0	-100 / +150	0 - 250	-100 / 0	-40 / +60	0 - 100
		-150 / +100			-60 / +40	
	-400 / 0	-150 / +250	0 - 400	-160 / 0	-60 / +100	0 - 160
		-250 / +150			-100 / +60	
	-600 / 0	-200 / +400	0 - 600	-250 / 0	-100 / +150	0 - 250
		-400 / +200			-150 / +100	
Process connection	standard thread	G ½ B				G ½ B
	options	½" NPT				½" NPT
		M20x1.5				M20x1.5
		G ¼ B ²⁾				G ¼ B
		¼" NPT ²⁾				¼" NPT
		M12x1.5 ²⁾				M12x1.5
Options	see page 4					
Example					KPCh 100 - 1, 0 - 60 mbar, G ½ B	

¹⁾ for NCS 100 (4"): 180 angular degrees

²⁾ not for NCS 250 (10")

