Capsule Gauges for Low Pressure

Crimped-on Ring Case Stainless Steel

KPChg
KPChgG

Standard Versions

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

Accuracy (EN 837-3)
Class 1.6

Case
with polished crimped-on ring, 1.4301 (304 stainless steel)

Case Protection Type (EN 60 529 / IEC 529)
IP 54

Case Ventilation
Model KPChgG 100 Blow-out plug
Ventilation required for internal pressure compensation
Model KPChgG 160 Blow-out device

Case Filling
for model KPChg**G**: Glycerine

Nominal Case Size
100, 160 (mm) (4", 6")

Wetted Parts

Type –1:	Connection:	brass
	Diaphragm capsule:	CuBe-alloy
	O-ring sealing:	NBR
Type –3:	Connection:	1.4571 (316 stainless steel)
	Diaphragm capsule:	1.4571 (316 stainless steel)
	O-ring sealing:	FPM

Case Configuration

Connection:	screwed
Position of the connection:	bottom connection, optional: centre back connection **(rm)**
Mounting device:	without, optional back flange for surface mounting **(Rh)** / front flange for panel mounting **(Fr)** or u-clamp for panel mounting **(BFr)**, see page 2

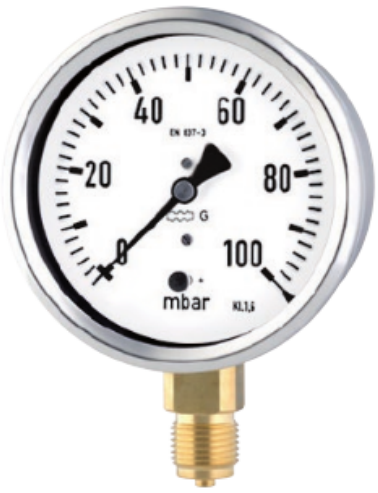
Pressure Ranges (EN 837-3)
KPChg 0- 2.5 mbar (0- 1.0 "WC) to 0-600 mbar (0-250 "WC)
KPChgG 0-100 mbar (0- 40 "WC) to 0-600 mbar (0-250 "WC)

Process Connection
G ½ B (½" BSP)

Window
Pressure ranges ≤ 16 mbar (6 "WC): instrument glass (punched for zero adjustment)
Pressure ranges ≥ 25 mbar (10 "WC): acrylic glass (punched for zero adjustment)

Movement
Brass / German silver for type –1
Stainless steel for type –3

Dial
Aluminium, black figures, white background



Pointer
Aluminium, black

Zero Adjustment
Frontsided

Ordering Information, Standard Pressure Ranges, Options

see pages 3 and 4

Special Versions and further Options among others

- Other process connections upon request
- Other pressure ranges and / or special scales, e.g. double scale mbar/kPa, coloured fields or areas, dial inscriptions, negative scale etc.
- Case parts 1.4404 (316 L stainless steel) upon request
- Increased case protection type, e.g. IP 65 upon request
- Wetted parts free of grease and oil for type –3 upon request
- Oxigen version for type –3 without case filling upon request
- Execution for higher medium temperatures upon request
- Position of the connection radial at 3 o'clock, 9 o'clock, 12 o'clock (others upon request) or position of connection other than vertical installation (90°) for types without case filling
- Increased precision upon request
- GOST-version for Russia, Ukraine, Kazakhstan

Accessory

see catalogue heading 11

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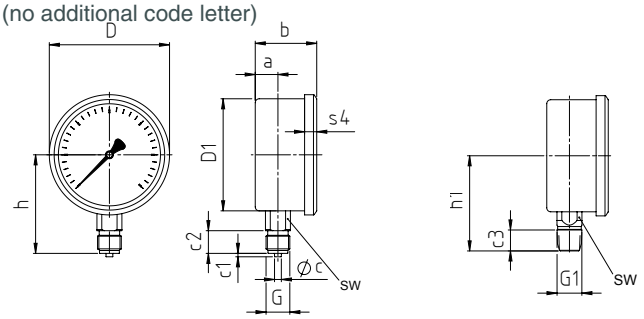
Case Configurations, Code Letters, Dimensional Data and Weights, Blow-out Device

Bottom connection

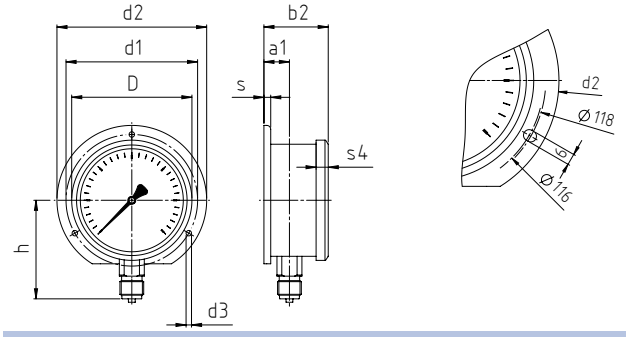
no mounting device

(no additional code letter)



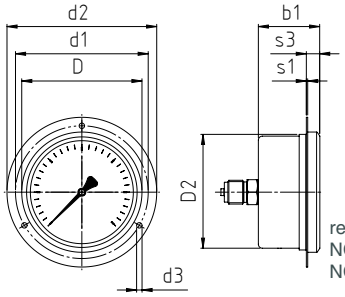
with back flange for surface mounting

code letters: **Rh**



with front flange for panel mounting

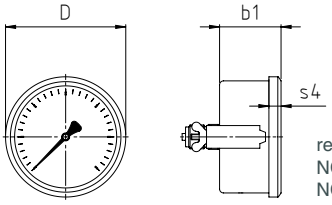
code letters: **rmFr**



recommended panel cut out
NCS 100 (4"): Ø 104 ± 0.5 mm (0.02")
NCS 160 (6"): Ø 164 ± 0.5 mm (0.02")

with u-clamp for panel mounting

code letters: **rmBFr**

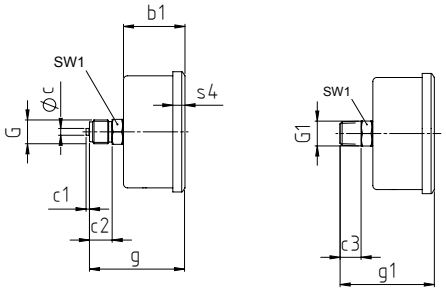


recommended panel cut out
NCS 100 (4"): Ø 102 ± 0.5 mm (0.02")
NCS 160 (6"): Ø 162 ± 0.5 mm (0.02")

Centre back connection

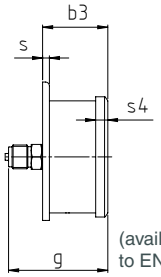
no mounting device

code letters: **rm**



with back flange for surface mounting

code letters: **rmRh**



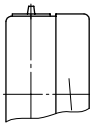
(available upon request, but according to EN 837-3 not recommended)

Dimensional data (mm/ inches) and weights (kg/ lb)

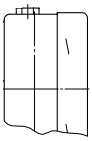
NCS	a	a1	b	b1	b2	b3	c	c1	c2	c3	D	D1	D2	d1	d2	d3	G	G1	g	g1	h±1	h1±1
100 (4") ≤ 16 mbar	15.5 **.61**	19 **.75**	55 **2.17**	55 **2.17**	58.5 **2.3**	59 **2.32**	6 **.24**	3 **.12**	20 **.79**	19 **.75**	106 **4.17**	99 **3.9**	103 **4.06**	116 **4.57**	132 **5.2**	4.8 **.19**	G ½ B (½ BSP) M 20 x 1.5	½" NPT	85 **3.35**	84 **3.31**	87 **3.43**	84 **3.31**
100 (4") ≥ 25 mbar	15.5 **.61**	23 **.91**	55 **2.17**	55 **2.17**	58.5 **2.3**	59 **2.32**	6 **.24**	3 **.12**	20 **.79**	19 **.75**	106 **4.17**	99 **3.9**	103 **4.06**	116 **4.57**	132 **5.2**	4.8 **.19**	G ½ B (½ BSP) M 20 x 1.5	½" NPT	85 **3.35**	84 **3.31**	87 **3.43**	84 **3.31**
160 (6") ≤ 16 mbar	15 **.59**	18 **.71**	55 **2.17**	55 **2.17**	58 **2.28**	58 **2.28**	6 **.24**	3 **.12**	20 **.79**	19 **.75**	167 **6.57**	159 **6.26**	163 **6.42**	178 **7.01**	196 **7.72**	5.8 **.23**	G ½ B (½ BSP) M 20 x 1.5	½" NPT	85 **3.35**	84 **3.31**	115 **4.53**	114 **4.49**
160 (6") ≥ 25 mbar	15 **.59**	18 **.71**	51 **2.01**	51 **2.01**	54 **2.13**	54 **2.13**	6 **.24**	3 **.12**	20 **.79**	19 **.75**	167 **6.57**	159 **6.26**	163 **6.42**	178 **7.01**	196 **7.72**	5.8 **.23**	G ½ B (½ BSP) M 20 x 1.5	½" NPT	81 **3.18**	80 **3.15**	115 **4.53**	114 **4.49**

Blow-out device

Model KPChgG 100
Blow-out plug 19



Model KPChgG 160
Blow-out device



s	s1	s3	s4	SW	SW1	approx. weight [1] KPChg	KPChgG
6 **.24**	1 **.04**	11.5 **.45**	10.5 **.41**	22 **.87**	22 **.87**	0.55 **1.21**	0.85 **1.87**
6 **.24**	1 **.04**	11.5 **.45**	10.5 **.41**	22 **.87**	22 **.87**	0.55 **1.21**	0.85 **1.87**
6 **.24**	1.5 **.06**	12.5 **.49**	11.5 **.45**	22 **.87**	22 **.87**	0.95 **2.09**	1.80 **3.97**
6 **.24**	1.5 **.06**	12.5 **.49**	11.5 **.45**	22 **.87**	22 **.87**	0.90 **1.98**	1.75 **3.86**

[1] Information for version without mounting device

Ordering Information with Standard Pressure Ranges, Options

Basic Model:	Capsule Gauge for Low Pressure, Crimped-on Ring Case		KPChg
Case Filling:	without		without code letters
	glycerine		**G**
Nominal Case Size:	case-Ø 100, 160 (mm) (4", 6")		**100, 160**
Wetted Material:	copper alloy		**–1**
	stainless steel		**–3**
Case Configuration:	case / connection	screwed	without code letters
	position of the connection	bottom	without code letters
		centre back	**rm**
	mounting device	without	without code letters
		back flange for surface mounting	**Rh**
		front flange for panel mounting	**Fr**
		u-clamp for panel mounting	**BFr**

Pressure Ranges:

mbar			inchWC		
Vacuum	Compound Ranges	Pressure	Vacuum	Compound Ranges	Pressure
–2.5 – 0[1]	–1 – 1.5[1]	0 – 2.5[1]	–1.0 – 0	–0.4 – 0.6	0 – 1.0
	–1.5 – 1[1]			–0.6 – 0.4	
–4 – 0	–1.5 – 2.5	0 – 4	–1.6 – 0	–0.6 – 1.0	0 – 1.6
	–2.5 – 1.5			–1.0 – 0.6	
–6 – 0	–2 – 4	0 – 6	–2.5 – 0	–1.0 – 1.5	0 – 2.5
	–4 – 2			–1.5 – 1.0	
–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	e.g. **0-60 mbar**
–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 (½" BSP)	**G ½ B**
	options:	½" NPT	**½" NPT**
		M20x1.5	**M 20 x 1.5**
		G ¼ B (¼" BSP)	**G ¼ B**
		¼" NPT	**¼" NPT**
		M12x1.5	**M 12 x 1.5**
Options:	see page 4		

Example: **KPChg 100-1, 0-60 mbar, G ½ B**

[1] for NCS 100: 180 angular degrees

Further Options regarding Ordering Information

Basic Model:	Capsule Gauge for Low Pressure, Crimped-on Ring Case			KPChg
Model Code:				see page 3
Options:	red mark	on the dial		
	plastic clip	red or green external at the crimped-on ring		
	special adjustment			
	window	acrylic glass (PMMA)		
		polycarbonate (PC)		
		instrument glass		
	blow-out device Ø 1" (25 mm) in the back of the case			
	blow-out plug 24 (reclosable)			
	case ventilation no. 22 for outdoor installation			
	case polished			
	silicone-free version			
	restrictor screw in pressure inlet port material: as process connection, brass or stainless steel	orifice Ø 0.3 mm (0.01")		
	overrange protection (üs) and / or **low pressure protection** (us)[1]			
		for types **–1** (copper alloy)	3-times üs or us[2]	
			10-times üs 0 - 25 mbar and above	
			10-times us -100 - 0 mbar and above	
		combination	10-times üs and 10-times us	
			only for gauge-vacuum-ranges for spans 100 mbar (40 "WC) and above	
		for types **–3** (stainless steel)	3-times üs or us[2]	
			10-times üs 0 - 25 mbar and above	
			10-times us -100 - 0 mbar and above	
		combination	10-times üs and 3-times us	*(order at the moment still as cleartext)*
			only for gauge-vacuum-ranges for spans 40 mbar (16 "WC) and above	
	measuring point marking	with stainless steel-plate 12 mm x 55 mm (0.47" x 2.17"), wire mounting		
		or sticker on the case coverage		

Special Versions: Please describe your requirements clearly

[1] max. -1000 mbar
[2] only for dry versions

Changes, replacement of materials and printing errors excepted