

# Capsule Gauges for Low Pressure

Crimped-on ring case stainless steel

**KPChg 80**  
**KPChgG 80**

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

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

IP54

IP65 for model KPChgG

### Case Ventilation

Model KPChgG case ventilation closable  
ventilation required for internal pressure compensation

### Case Filling

Model KPChgG glycerin

### Nominal Case Size

80 mm (3")

### Wetted Parts

Type – 1	connection	brass
	diaphragm capsule	CuBe alloy
	O-ring sealing	NBR
Type – 3	connection	stainless steel 316L (1.4404)
	diaphragm capsule	stainless steel 316L (1.4404)
	O-ring sealing	FPM

### Case Configuration

Connection	screwed
Position of the connection	- bottom connection - centre back connection ( <b>rm</b> )
Mounting device	- without - back flange for surface mounting ( <b>Rh</b> ) - front flange for panel mounting ( <b>Fr</b> ) - u-clamp for panel mounting ( <b>BFr</b> )

### Pressure Ranges (DIN EN 837-3)

Model KPChg 80 rm	0 – 2.5 mbar to 0 – 600 mbar (0 – 1 inH <sub>2</sub> O to 0 – 250 inH <sub>2</sub> O)
Model KPChg	0 – 25 mbar to 0 – 600 mbar (0 – 10 inH <sub>2</sub> O to 0 – 250 inH <sub>2</sub> O)
Model KPChgG 80 / 80 rm	0 – 100 mbar to 0 – 600 mbar (0 – 40 inH <sub>2</sub> O to 0 – 250 inH <sub>2</sub> O)

### Process Connection

G ½B (½" BSP)

### Window

Model KPChg	acrylic glass
Model KPChgG (with punched hole for zero adjustment)	polycarbonate

### 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)
- Increased degree of protection, e.g. IP65
- 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

## Accessories

See catalogue heading 11

[www.armano-messtechnik.com](http://www.armano-messtechnik.com)

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

Bottom Connection											Centre Back Connection										
without mounting device											without mounting device										
without code letters											code letters <b>rm</b>										
with back flange for surface mounting																					
code letters <b>Rh</b>																					
with front flange for panel mounting											with front flange for panel mounting										
code letters <b>rmFr</b>											code letters <b>rmFr</b>										
																					recommended panel cut out Ø 84 ±0.5 mm (3.31 ±0.02")
with u-clamp for panel mounting											with u-clamp for panel mounting										
code letters <b>rmBFr</b>											code letters <b>rmBFr</b>										
																					recommended panel cut out Ø 81 ±0.5 mm (3.19 ±0.02")

Dimensional Data (mm/inch) and Weight (kg/lb)																					
NCS	a	a1	b	b1	b2	c	c1	c2	c3	D	D1	d1	d2	d3	g	g1	G	G1	h <sup>-1</sup>	h1 <sup>-1</sup>	
80 3"	16 0.63	20 0.79	43 1.69	37 1.46	47 1.85	6 0.24	3 0.12	20 0.79	19 0.75	79 3.11	86 3.39	95 3.74	110 4.33	4.8 0.19	67 2.64	66 2.6	G 1/2 B M20x1.5	1/2" NPT	76 2.99	75 2.95	

**Case Ventilation**

Model KPChgG  
case ventilation no. 26  
(reclosable, IP65)

s	s1	s2	s3	SW	approx. weight <sup>1)</sup>	
					KPChg	KPChgG
9 0.35	6 0.24	1 0.04	6 0.24	22 0.87	0.37 0.82	0.50 1.1

<sup>1)</sup> data for versions without mounting device

## Ordering Information

Basic Model		Capsule Gauge for Low Pressure with Crimped-on Ring Case					KPChg	
Case filling	without						without code letters	
	glycerin						<b>G</b>	
Nominal case size	case Ø 80 mm (3")						<b>80</b>	
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				<b>rm</b>		
	mounting device	without				without code letters		
back flange for surface mounting				<b>Rh</b>				
front flange for panel mounting				<b>Fr</b>				
	u-clamp for panel mounting				<b>BFr</b>			
Pressure ranges	mbar			inH <sub>2</sub> O				
	vacuum	compound	pressure	vacuum	compound	pressure		
	-2.5 / 0 <sup>1)</sup>	-1 / +1.5 <sup>1)</sup> -1.5 / +1 <sup>1)</sup>	0 - 2.5 <sup>1)</sup>	-1 / 0 <sup>1)</sup>	-0.4 / +0.6 <sup>1)</sup> -0.6 / +0.4 <sup>1)</sup>	0 - 1 <sup>1)</sup>	<b>rm only</b>	
	-4 / 0	-1.5 / +2.5 -2.5 / +1.5	0 - 4	-1.6 / 0	-0.6 / +1 -1 / +0.6	0 - 1.6		
	-6 / 0	-2 / +4 -4 / +2	0 - 6	-2.5 / 0	-1 / +1.5 -1.5 / +1	0 - 2.5		
	-10 / 0	-4 / +6 -6 / +4	0 - 10	-4 / 0	-1.5 / +2.5 -2.5 / +1.5	0 - 4		
	-16 / 0	-6 / +10 -10 / +6	0 - 16	-6 / 0	-2 / +4 -4 / +2	0 - 6		
	-25 / 0	-10 / +15 -15 / +10	0 - 25	-10 / 0	-4 / +6 -6 / +4	0 - 10		
	-40 / 0	-15 / +25 -25 / +15	0 - 40	-16 / 0	-6 / +10 -10 / +6	0 - 16		
	-60 / 0	-20 / +40 -40 / +20	0 - 60	-25 / 0	-10 / +15 -15 / +10	0 - 25		<b>e.g. 0 - 60 mbar</b>
	-100 / 0	-40 / +60 -60 / +40	0 - 100	-40 / 0	-15 / +25 -25 / +15	0 - 40		
	-160 / 0	-60 / +100 -100 / +60	0 - 160	-60 / 0	-20 / +40 -40 / +20	0 - 60		
	-250 / 0	-100 / +150 -150 / +100	0 - 250	-100 / 0	-40 / +60 -60 / +40	0 - 100		
	-400 / 0	-150 / +250 -250 / +150	0 - 400	-160 / 0	-60 / +100 -100 / +60	0 - 160		
	-600 / 0	-200 / +400 -400 / +200	0 - 600	-250 / 0	-100 / +150 -150 / +100	0 - 250		
Process connection	standard thread	G ½B				<b>G ½B</b>		
	options	½" NPT				<b>½" NPT</b>		
		M20x1.5				<b>M20x1.5</b>		
		G ¼B				<b>G ¼B</b>		
		¼" NPT				<b>¼" NPT</b>		
	M12x1.5				<b>M12x1.5</b>			
Options	see page 4							
<b>Example</b>						<b>KPChg 80 - 1, 0 - 60 mbar, G ½B</b>		

<sup>1)</sup> 180 angular degrees

## Ordering Information, Further Options

Basic Model	Capsule Gauge for Low Pressure with Crimped-on Ring Case		KPChg												
<b>Model code</b>			see page 3												
<b>Options</b>	red mark	on the dial													
	plastic clip	red or green, external at the crimped-on ring													
	special adjustment														
	case polished														
	silicone-free version														
	restrictor screw in the pressure inlet port, material: like process connection brass or stainless steel	orifice Ø 0.3 mm (0.01")													
	overrange protection (üs) and/or vacuum protection (us) <sup>1)</sup>	for types – 1 (copper alloy) <table border="0" style="margin-left: 20px;"> <tr> <td>3-fold üs<sup>2)</sup> or us</td> <td></td> </tr> <tr> <td>10-fold üs</td> <td>from 0 – 25 mbar</td> </tr> <tr> <td>10-fold us</td> <td>from –100 / 0 mbar</td> </tr> </table> combination 10-fold üs and 10-fold us only for compound ranges from measuring span 100 mbar for types – 3 (stainless steel) <table border="0" style="margin-left: 20px;"> <tr> <td>3-fold üs<sup>2)</sup> or us</td> <td></td> </tr> <tr> <td>10-fold üs</td> <td>from 0 – 25 mbar</td> </tr> <tr> <td>10-fold us</td> <td>from –100 / 0 mbar</td> </tr> </table> combination 10-fold üs and 3-fold us only for compound ranges from measuring span 40 mbar	3-fold üs <sup>2)</sup> or us		10-fold üs	from 0 – 25 mbar	10-fold us	from –100 / 0 mbar	3-fold üs <sup>2)</sup> or us		10-fold üs	from 0 – 25 mbar	10-fold us	from –100 / 0 mbar	
3-fold üs <sup>2)</sup> or us															
10-fold üs	from 0 – 25 mbar														
10-fold us	from –100 / 0 mbar														
3-fold üs <sup>2)</sup> or us															
10-fold üs	from 0 – 25 mbar														
10-fold us	from –100 / 0 mbar														
	instrument tag	stainless steel plate 12x55 mm (0.47x2.17"), wire mounting sticker on the case coverage													

**Special Versions:** Please describe your requirements in cleartext!

<sup>1)</sup> max. –1000 mbar  
<sup>2)</sup> only for unfilled devices