

## Pressure gauges with diaphragm in grey irons case with or without filling

Accuracy class 1.6

Nominal sizes ND 100, 160

Connection position bottom, radial



P1593



P1592

### Description

The design principle and material selection of our pressure gauges allow them to meet the stringent demands occurring in service in industrial processing plants.

Diaphragm pressure gauges have a relatively high actuating force. The annular clamped diaphragm is extensively insensitive to jarring or vibration. A high resistance to overpressure is achieved by underpropping the diaphragm.

With highly viscous, crystallizing or strongly heterogeneous media, open process connections which ensure that the gauges are easy to clean, e.g. by flushing, are used.

### Special features

- o High resistance to overpressure
- o rugged grey irons case
- o damping of the indicator by glycerine filling
- o Highly suitable for extremely viscous or crystallizing media

### Measuring ranges

0 ... 16 mbar to 0 ... 250 mbar

0 ... 0.4 bar to 0 ... 40 bar


and all corresponding ranges for negative or negative and positive gauge pressure

### Applications

Food and beverages industries,  
mechanical engineering,  
plant and apparatus construction.

Models: P1592, P1593, P1785, P1786

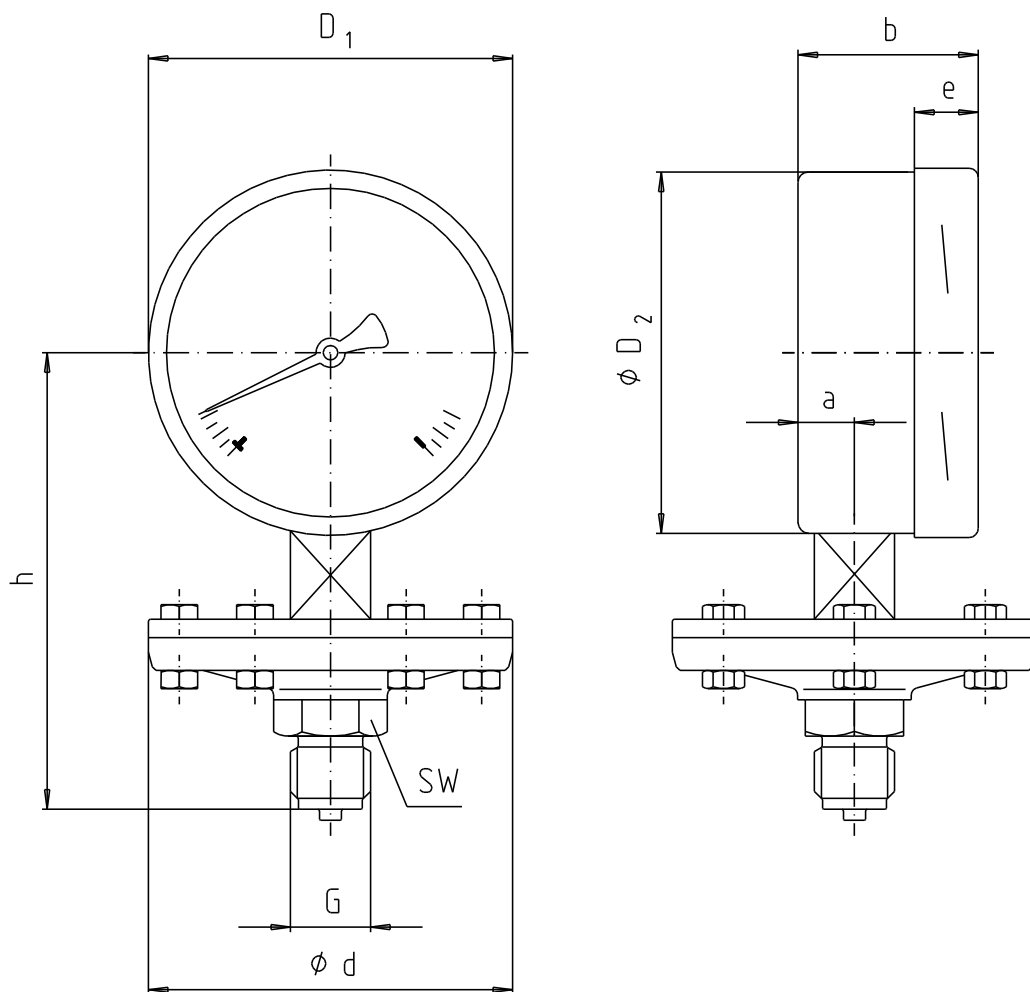
## Technical data

Models	P1592	P1593	P1785	P1786	Options
Nominal size	100	160	100	160	
	without filling		with filling		
Symbol					
Accuracy class <sup>1)</sup> in accordance with	1,6 to EN 837-3 EN 8307-3				
Ranges	0 ... 16 to 0 ... 250 mbar: flange diameter Ø 160 mm 0 ... 0,4 bis 0 ... 40 bar: flange diameter Ø 100 mm plus all corresponding ranges for negative or negative and positive guage pressure				10 mbar
Applications	Constant load: full scale value Alternating load: 0,9 x full scale value				
Overload protection	≤ 0.4 bar : 5 x full scale value > 0.4 bar : 5 x full scale value, max. 40 bar				overloadable: 10 x full scale value; max. 40 bar
Liquid filling	none		Glycerine 86%, Water 14 %		
Temperatures - Medium - Ambient	Tmin. -20°C, Tmax 100°C Tmin. -20°C, Tmax. 60°C				
Temperature drift	≤0,8% / 10 K if deviation from normal temperatue 20°C				
Protection to EN 60 529 / IEC 529	IP 54		IP 65		
Case	grey irons				
Upper flange	grey irons				
Process connection and lower flange	Steel, black finish G 1/2 B, SW 27				Other threads on request
Elastic measuring element	Stainless steel				
Movement	Copper alloy, bearing parts nickel silver				
Dial	Aluminium, white, scale and imprint black				Dual scale
Pointer	Aluminium, black				
Window	Glass lens				
Bezel	Bayonet ring black painted, stainless steel				
Seal to: pressure chamber filled internal chamber	NBR (Perbunan)		NBR bellows (Perbunan)		metal bellows (stainless steel)
Components in contact with medium					Stainless steel: model P2330, P2331, P2332, P2333
Open process connection					to DIN / ANSI from DN 15 to DN 80 components in contact with medium coated with: PTFE, Hastelloy, Monel, Nickel, Tantal, Titan, Silver

1) with liquid filling: ≤ 25 mbar, accuracy class 2,5

## Dimensions

Standard version



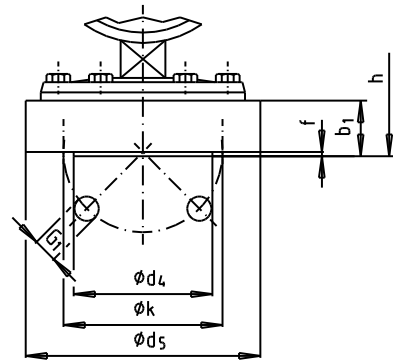
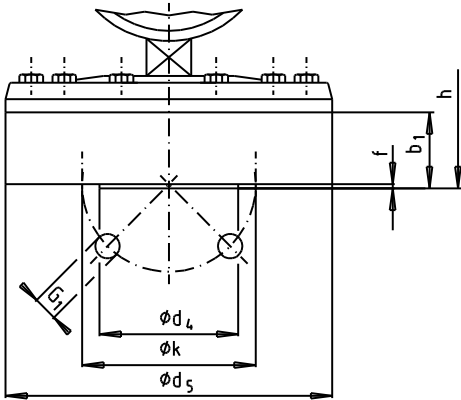
Model	Ranges (bar)	ND	Dimensions (mm)									Weight (kg)
			d	a	b	$D_1$	$D_2$	e	G	$h \pm 2$	SW	
P1592	$\leq 0,25$	100	160	15,5	49,5	101	99	17,5	G 1/2 B	135	27	3,4
P1593		160		15,5	49,5	161	159	17,5	G 1/2 B	165	27	4,3
P1785	$\geq 0,4$	100	100	15,5	49,5	101	99	17,5	G 1/2 B	135	27	2,1
P1786		160		15,5	49,5	161	159	17,5	G 1/2 B	165	27	3,0

Connection to EN 837-3

### Options with DIN process connection DIN DN 25 1), PN 10 to 40

Ranges 0 ... 16 to 0 ... 250 mbar

Ranges 0 ... 0.4 to 0 ... 40 bar



Model	Process connection DIN DN 25 PN 10 to 40	Dimensions in mm								Weight ( kg )
		ND	d	k	d <sub>4</sub> <sup>2)</sup>	b <sub>1</sub>	f	G <sub>1</sub>	h ± 2	
P1592	≤ 0.25	100	16	85	68	36	2	4 x M 12	122	5.30
P1593		160	0	85	68	36	2	4 x M 12	152	5.90
P1785	≥ 0.4	100	11	85	68	25	2	4 x M 12	111	3.50
P1786		160	5	85	68	25	2	4 x M 12	141	3.90

Other dimensions as in standard version

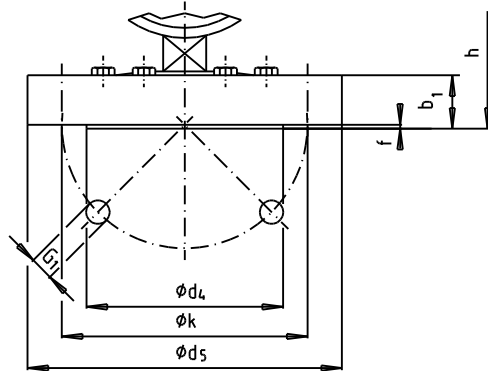
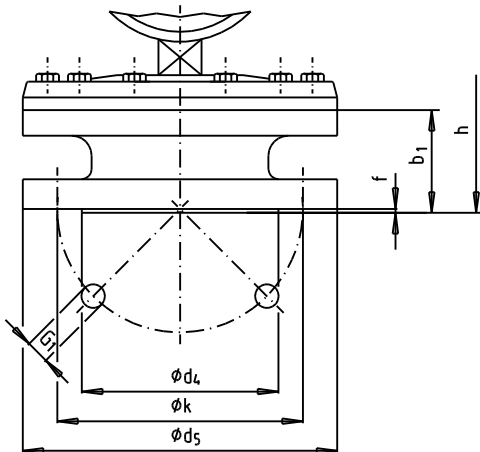
1) Suitable for connection to mating flange to DIN 2566, 2567, 2581, 2583, 2633, 2635, 2642, 2653, 2656 and 2673

2) Sealing strip form D.

### Options with DIN process connection DN 50 1), PN 10 to 40

Ranges 0 ... 16 to 0 ... 250 mbar

Ranges 0 ... 0.4 to 0 ... 40 bar



Model	Process connection DIN DN 50 PN 10 to 40	Dimensions in mm								Weight ( kg )
		ND	d <sub>5</sub>	k	d <sub>4</sub> <sup>2)</sup>	b <sub>1</sub>	f	G <sub>1</sub>	h ± 2	
P1592	≤ 0.25	100	165	125	102	54	3	4 x Ø 18	140	6.50
P1593		160		125	102	54	3	4 x Ø 18	170	7.20
P1785	≥ 0.4	100	165	125	102	30	3	4 x Ø 18	106	4.50
P1786		160		125	102	30	3	4 x Ø 18	136	5.10

Other dimensions as in standard version.

1) Suitable for connection to mating flange to DIN 2566, 2567, 2581, 2583, 2633, 2635, 2642, 2653, 2656 and 2673

2) Sealing strip form D.

Modifications reserved