

## Diaphragm pressure gauges // Type MPE



Type MPE

### Your advantages

Type	MPE
	<ul style="list-style-type: none"> <li>• Suitable for outdoor use - Closed system</li> <li>• Case complete stainless steel</li> <li>• Without electrical auxiliary power</li> </ul>

### Technical data

Type	MPE
Version	Bayonet ring case
Nominal size	100 mm, 160 mm
Accuracy	EN 837-1, class 1.6 (with protective foil class 2.5)
Medium / Application	Liquid media, including aggressive, contaminated or viscous media
Process connection	Thread see table, stainless steel
Measurement system	Diaphragm made of stainless steel (40 ... 250 mbar) or Duratherm (0.4 ... 40 bar) Optionally with PTFE lining
Degree of protection according to EN 60529	IP54 (unfilled), IP65 (filled)
Ambient temperature	-20 to 60 °C
Storage temperature	-40 to 70 °C (-20 to 70 °C with case filling)
Medium temperature	Max. 100 °C (max 70 °C with case filling)
Nominal use temperature	20 °C*
Pressure load capacity	<b>Of full-scale value</b>
→ Resting load	100 %
→ Dynamic load	90 %
→ Overload	Up to 5-times, max. 40bar

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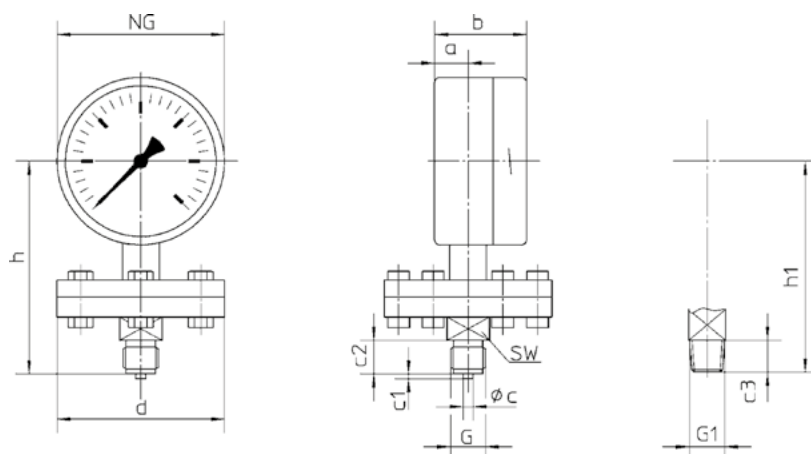
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Челябинск (351)202-03-61  
Череповец (8202)49-02-64  
Ярославль (4852)69-52-93

## Types and dimensions



Dimensions [mm]													Weight [kg] (approx)*	
NS	Measuring flange $\varnothing$ d	a	b	c	c1	c2	c3	G	G1	h $\pm$ 2	h1 $\pm$ 2	SW	unfilled	filled
100	100	20	55	6	3	20	19	G $\frac{1}{2}$	$\frac{1}{2}$ NPT	127	126	22	1.85	2.25
	160												3.45	3.65
160	100	20	55	6	3	20	19	G $\frac{1}{2}$	$\frac{1}{2}$ NPT	157	156	22	2.20	3.20
	160												3.80	4.80

### Open flange 2707 a

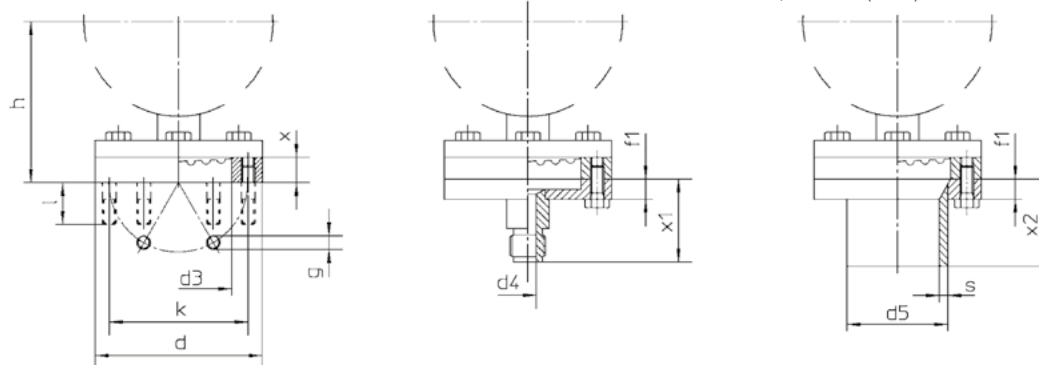
(with double-end studs if requested)

#### Optionally available:

Connection flange with thread connection G $\frac{1}{2}$  B ( $\frac{1}{2}$ " BSP) or  $\frac{1}{2}$ " NPT, with enlarged inlet orifice.

#### Optionally available:

Connection flange with welding connection for measuring flange  $\varnothing$  100 mm (3.94").



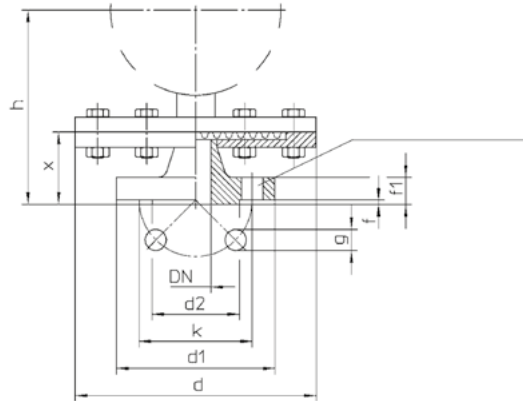
Dimensions [mm]													Weight [kg] (approx)*				
Measuring flange $\varnothing$ d	d3	d4	d5**	f1	g	h $\pm$ 2		k	l	x	x1	x2	s	unfilled		filled	
						NS 100	NS 160							NS 100	NS 160	NS 100	NS 160
100	63.5	10	60.3	12	6 x M8	96	126	83	25	15	46	50	5	1.65	2.00	2.05	3.00
160	123				8 x M8			140						2.80	3.15	3.20	4.15

\* For different display ranges and material the weights differ considerably

\*\* Other pipe diameters on request

### Open flanges according to DIN EN 1092-1, DN 15, 20, 25 and 50, PN10 to PN40,

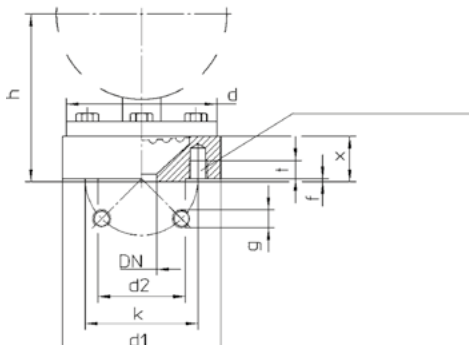
Measuring flange  $\varnothing d = 160$  mm



Dimensions [mm]											Weight [kg] (approx.)*			
Measuring flange $\varnothing d$	DN	d1	d2	f	f1	g	h $\pm$ 2		k	x	unfilled		filled	
							NS 100	NS 160			NS 100	NS 160	NS 100	NS 160
160	15	95	45	2	16	4 x 14	127	157	65	46	4.15	4.50	4.55	5.50
	20	105	58		18		129	159	75	48	4.45	4.80	4.85	5.80
	25	115	68	20	4 x 18	137	167	85	56	4.60	4.95	5.00	5.95	
	50	165	102			137	167	125	56	6.05	6.40	6.45	7.40	

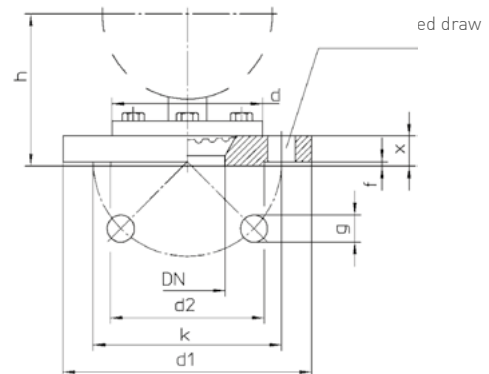
### DN 15, 20 and 25

Measuring flange  $\varnothing d = 100$  mm



### DN 50

Measuring flange  $\varnothing d = 100$  mm



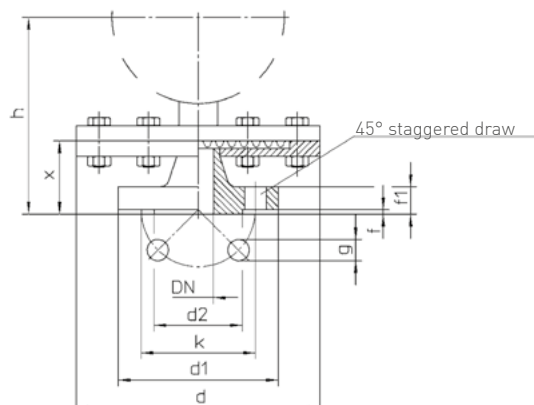
Dimensions [mm]											Weight [kg] (approx.)*			
Measuring flange $\varnothing d$	DN	d1	d2	f	g	h $\pm$ 2		k	t	x	unfilled		filled	
						NS 100	NS 160				NS 100	NS 160	NS 100	NS 160
100	15	99	45	2	4 x M12**	106	157	65	12	30	2.30	2.65	2.70	3.65
	20	105	58			103	133	75	22	2.40	2.75	2.80	3.75	
	25	115	68	4 x $\varnothing$ 18	101	131	85	20	2.50	2.85	2.90	3.85		
	50	165	102		101	131	125	20	3.60	3.95	4.00	4.95		

\* For different display ranges and material the weights differ considerably

\*\* With double-end studs M12 x 35 on request

### Open flange according to ASME, 1/2", 1" and 2", PN 150, 300 or 600 lb / sq.in. , ASME B 16,5 RF

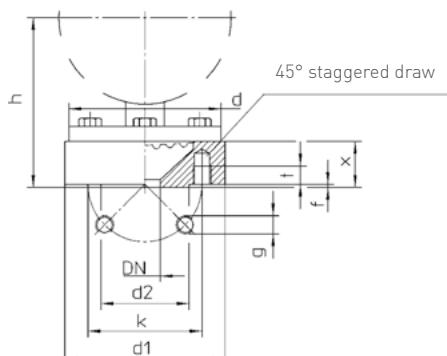
Measuring flange  $\varnothing d = 160$  mm



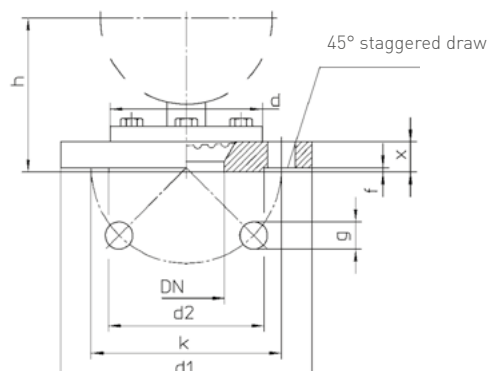
Dimensions [mm]											Weight [kg] (approx.)*			
Measuring flange $\varnothing d$	DN	d1	d2	f	f1	g	h $\pm$ 2		k	x	unfilled		filled	
							NS 100	NS 160			NS 100	NS 160	NS 100	NS 160
160	1/2"	88.9	34.9	1.6	11.1	16	137	167	60.3	56	3.85	4.20	4.25	5.20
	1"	108	50.8				14.3	145			175	79.4	64	4.45
	2"	152	92.1	19	19	153	183	121	72	6.10	6.45	6.50	7.45	

### DN 1/2" and 1", PN 150, 300 or 600 lb / sq.in.

Measuring flange  $\varnothing d = 100$  mm



### DN 2"



Dimensions [mm]													Weight [kg] (approx.)*						
Measuring flange $\varnothing d$	DN	d1		d2	f		g	h $\pm$ 2****		k		t	x			unfilled		filled	
		150	300		150	600		4 x UNF 2B	at 300 lb / sq.in.		150		300	150	300	600	NS		NS
		lb / sq.in.		lb / sq.in.			100		160	lb / sq.in.		lb / sq.in.					100	160	100
100	1/2"	99		34.9	1.6	6.4	1/2 - 20	111	141	60.3	66.7	15	30	35	2.55	2.90	2.95	3.90	
	1"	108	124					50.8	5/8 -						79.4	88.9			
	2"	152	165	92.1			18**/**	103	133	121	127		19.1	22.2	32	3.90	4.25	4.30	5.25

\* For different display ranges and material the weights differ considerably

\*\* 150 lb./sq.in: 1/2 - 20 UNF - 2B (1")

\*\*\* 300 and 600 lb./sq.in: 8x  $\varnothing$  19 (0.75") (2")

\*\*\*\* 150 and 600 lb./sq.in: differences as of dimension "x"

Order code														
<b>Diaphragm pressure gauges unfilled</b>														
Bayonet ring case made of stainless steel							MPE							
<b>Nominal size</b>														
100 mm							3							
160 mm							4							
<b>Connection thread</b>														
G½ B bottom							1							
M20 x 1.5 bottom							3							
½ NPT bottom							B							
<b>Connection material</b>														
Stainless steel							3							
<b>Display range</b>														
-10...0 mbar	Ø 160 mm measuring flange									356				
-16...0 mbar	Ø 160 mm measuring flange									366				
-25...0 mbar	Ø 160 mm measuring flange									376				
-40...0 mbar	Ø 160 mm measuring flange									386				
-60...0 mbar	Ø 160 mm measuring flange									396				
-100...0 mbar	Ø 160 mm measuring flange									406				
-160...0 mbar	Ø 160 mm measuring flange									416				
-250...0 mbar	Ø 160 mm measuring flange									426				
-1...1.5 bar	Ø 100 mm measuring flange									515				
-1...3 bar	Ø 100 mm measuring flange									525				
-1...0.6 bar	Ø 100 mm measuring flange									505				
-1...5 bar	Ø 100 mm measuring flange									535				
-1...9 bar	Ø 100 mm measuring flange									545				
-1...15 bar	Ø 100 mm measuring flange									555				
0...0.6 bar	Ø 100 mm measuring flange									015				
0...1 bar	Ø 100 mm measuring flange									025				
0...1.6 bar	Ø 100 mm measuring flange									035				
0...2.5 bar	Ø 100 mm measuring flange									045				
0...4 bar	Ø 100 mm measuring flange									055				
0...6 bar	Ø 100 mm measuring flange									065				
0...10 bar	Ø 100 mm measuring flange									075				
0...16 bar	Ø 100 mm measuring flange									085				
0...25 bar	Ø 100 mm measuring flange									095				
0...40 bar	Ø 100 mm measuring flange									105				
0...60 mbar	Ø 160 mm measuring flange									116				
0...100 mbar	Ø 160 mm measuring flange									126				
0...160 mbar	Ø 160 mm measuring flange									136				
0...250 mbar	Ø 160 mm measuring flange									146				
0...400 mbar	Ø 100 mm measuring flange									156				
<b>Mounting flange</b>														
Ohne										0				
<b>Options</b>														
None										0				
<b>Filled case</b>														
Unfilled case										0				
<b>Example article number</b>							<b>MPE</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>356</b>	<b>0</b>	<b>0</b>	<b>0</b>

Order code			
<b>Diaphragm pressure gauges filled</b>			
Bayonet ring case made of stainless steel		MPE	
<b>Nominal size</b>			
100 mm		3	
160 mm		4	
<b>Connection thread</b>			
G½ B bottom		1	
M20 x 1.5 bottom		3	
½ NPT bottom		B	
<b>Connection material</b>			
Stainless steel			3
<b>Display range</b>			
-160...0 mbar	Ø 160 mm measuring flange		416
-250...0 mbar	Ø 160 mm measuring flange		426
-1...1.5 bar	Ø 100 mm measuring flange		515
-1...3 bar	Ø 100 mm measuring flange		525
-1...0.6 bar	Ø 100 mm measuring flange		505
-1...5 bar	Ø 100 mm measuring flange		535
-1...9 bar	Ø 100 mm measuring flange		545
-1...15 bar	Ø 100 mm measuring flange		555
0...0.6 bar	Ø 100 mm measuring flange		015
0...1 bar	Ø 100 mm measuring flange		025
0...1.6 bar	Ø 100 mm measuring flange		035
0...2.5 bar	Ø 100 mm measuring flange		045
0...4 bar	Ø 100 mm measuring flange		055
0...6 bar	Ø 100 mm measuring flange		065
0...10 bar	Ø 100 mm measuring flange		075
0...16 bar	Ø 100 mm measuring flange		085
0...25 bar	Ø 100 mm measuring flange		095
0...40 bar	Ø 100 mm measuring flange		105
0...160 mbar	Ø 160 mm measuring flange		136
0...250 mbar	Ø 160 mm measuring flange		146
0...400 mbar	Ø 100 mm measuring flange		156
<b>Mounting flange</b>			
None			0
<b>Options</b>			
None			0
<b>Filled case</b>			
Filled case (glycerine)			G
<b>Example article number</b>		MPE	3 1 3 416 0 0 G

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