

# MEP5-MMN5 Safety industrial pressure gauges

Ø 100 mm

Corrosive atmospheres and fluids

Resistant to transient overpressure

Excellent accuracy: Class 1

Sensing element: stainless steel (MEP5) or monel (MMN5)

Robust construction - fully welded process connection

Wide variety of pressure ranges

Watertight, can be filled with a dampening fluid

Conforms to S3 Safety to the European standard EN 837-1

signed with  to Pressure Directive PED 97/23/CE and

ATEX Directive 94/9/CE for II 2 GD c - I M2 : glass window

model only

These gauges have been specifically designed to fulfil the requirements of aggressive environments and fluids. External parts, sensing element and connection are made of stainless steel.

These versions have been developed with solid front and blow-out back which immediately releases in the event of accidental tube rupture.

These safety gauges include a special compensating diaphragm which maintains accuracy by equalizing internal and atmospheric pressures.



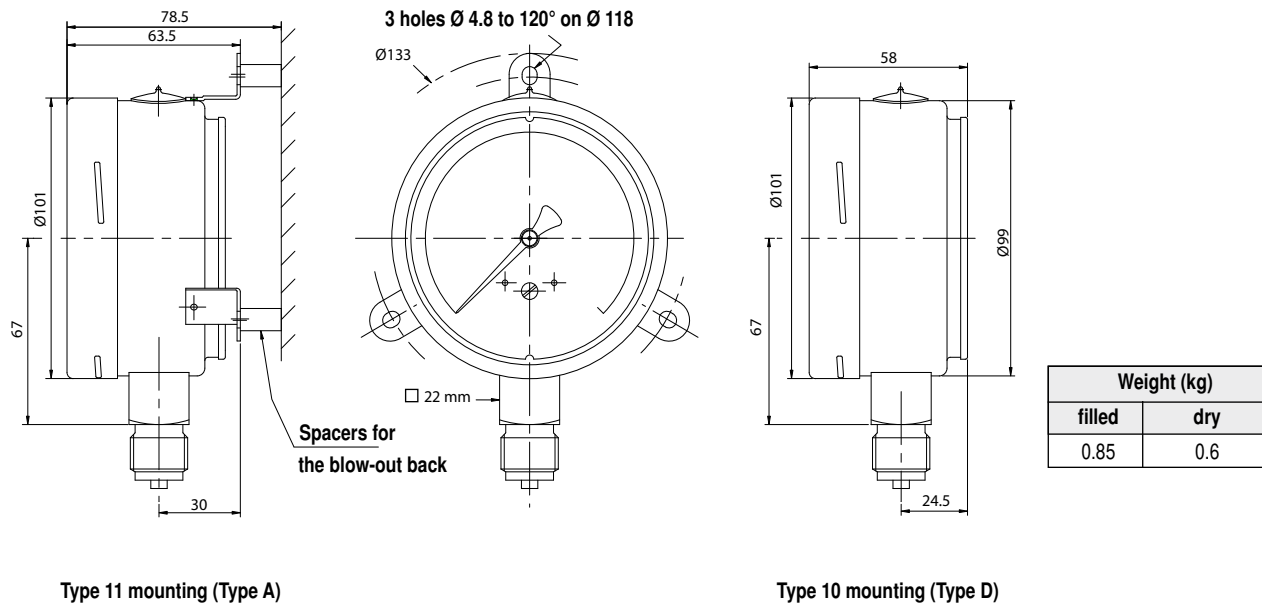
## Specifications (20°C)

<b>Measurement range</b>	<b>MEP5:</b> from -1...0 to 0...1600 bar <b>MMN5:</b> from -1... 0 to 0...600 bar
<b>Working pressure</b> <i>(-1 ...600 bar)</i>	steady: 100% of full scale value Fluctuating: 90% of full scale value Short time 130% of full scale value
<i>(1000 ...1600 bar)</i>	steady: 75% of full scale value Short time: 100% of full scale value
<b>Gauge working temperature</b>	-20...70°C The gauge may be used on fluid temperatures up to 200°C providing that the gauge temperature does not exceed 70°C.
<b>Thermal drift</b>	± 0.4% for a variation of ±10°C (50°F) in relation to the reference temperature +20°C (68°F)
<b>Accuracy class</b>	Class 1(class 2,5 for 0.4 bar)
<b>Protection rating</b>	IP 67 (EN 60529)
<b>Case and bezel ring</b>	1.4301 (AISI 304) st. steel, bayonet lock type. Case with baffle wall and blow-out back With filling plug disc at the top of the case.
<b>Connection</b>	22 mm square, G1/2 or 1/2NPT <b>MEP5</b> 1.4571 (316Ti) or 1.4404 (316L) st. steel, <b>MMN5</b> monel 400
<b>Sensing element</b>	<b>MEP5</b> P ≤ 2.5 bar and P ≥ 1000 bar: 1.4404 (316L) stainless steel, solid drawn tube. 2.5 < P < 1000 bar: 1.4571 (316Ti) st. steel, rolled welded tube. <b>MMN5</b> monel 400 Tube shape: < 60 bar: in C shaped ≥ 60 bar: helicoil
<b>Movement</b>	Stainless steel with zero and overrange stops
<b>Window</b>	Safety laminated glass, 4 mm thick
<b>Window gasket</b>	Elastomer (PVC/NBR)
<b>Dial</b>	Aluminium alloy. Black graduations and figures on white background
<b>Pointer</b>	Aluminium alloy, balanced, black painted
<b>Compensation diaphragm</b>	Elastomer (PVC/NBR)

## Options

Sensing element 1.4404 (AISI 316L) solid drawn tube (for 2.5 < P < 1000 bar).	<b>Code 0816</b>
Window material: polycarbonate.	<b>Code 0753</b>
Micrometer adjustable pointer (P ≥ 1,6 bar).	<b>Code 0678</b>
Friction adjustable pointer.	<b>Code 0679</b>
Oxygen application.	<b>Code 0765</b>
Overrange protection device:	
<b>RAS1:</b> accuracy Class 1 (≤ 600 bar). Overrange between: 1,2 to 3 times the scale. ( <b>MEP5</b> ) 1,2 to 1,5 times the scale. ( <b>MMN5</b> )	<b>Code 0191</b>
<b>RAS2:</b> accuracy Class 2 (≤ 1000 bar). Overrange between: 1,4 to 5 times the scale. ( <b>MEP5</b> ) 1,3 to 2,5 times the scale. ( <b>MMN5</b> )	<b>Code 0192</b>
Dashpot mechanical dampening. Scale 0-1 bar ; 0-1,6 bar ; 0-2,5 bar - Pressure ± 1,6 %. Scale P > 2,5 bar - Pressure ± 1 %.	<b>Code 0655</b>
Adjustable class 0.6.	<b>Code 0840</b>
Restrictor screw.	<b>Code 0771</b>
Special threads	

## Dimensions (mm)



Type 11 mounting (Type A)

Type 10 mounting (Type D)

## Ordering details - MEP5-MMN5

		Mxx5xxxxxx
<b>Family</b>	1' digit	
Pressure gauges		M
<b>Type</b>	2'...3' digit	
MEP (stainless steel)		EP
MMN (Monel) <sup>(1)</sup>		MP
<b>Nominal diameter</b>	4' digit	
Ø 100 mm		5
<b>Type of mounting and connection position*</b>	5' digit	
bottom connection, 3 back lugs		A
bottom connection		D
* Option Stainless steel case and bezel ring 1.4404 (316L) change A with 1 and D with 4		
<b>Hydraulic connection</b>	6' digit	
G 1/4 (male)		2
G 1/2 (male)		3
1/4 NPT (male)		5
1/2 NPT (male)		6
M20x1.50		9
<b>Liquid filling</b>	7' digit	
Dry		0
BH1 fluid (glycerin/water) (except 0.4 bar)		1
BH2 fluid (glycerin) (except 0.4 and 0.6)		2
BH3 fluid (silicone) (except 0.4 bar)		3
BH5 fluid (use with oxygen 160 bar maxi) (except 0.4 bar)		5
<b>Unit of measurement</b>	8' digit	
bar		B
kPa		D
kg/cm <sup>2</sup>		F
psi		H
<b>Pressure range</b>	9'...10' digit	
See codes in table <sup>(1)</sup>		xx

bar, kPa	ranges bar		ranges kPa		psi	ranges psi	
57	-0.4 +	0	-40 +	0	57		
58	-0.6 +	0	-60 +	0	58		
59	-1 +	0	-100 +	0	59	-30"Hg +	0
72	-1 +	0.6	-100 +	60	73	-30"Hg +	15
74	-1 +	1.5	-100 +	150	75	-30"Hg +	30
76	-1 +	3	-100 +	300	76	-30"Hg +	60
77	-1 +	5	-100 +	500	78	-30"Hg +	100
79	-1 +	9	-100 +	900	79	-30"Hg +	150
81	-1 +	15	-100 +	1500	81	-30"Hg +	220
82	-1 +	24	-100 +	2400	82	-30"Hg +	300
11	0 +	0.4	0 +	40	11	0 +	6
12	0 +	0.6	0 +	60	12	0 +	10
15	0 +	1	0 +	100	15	0 +	15
16	0 +	1.6	0 +	160	16	0 +	20
18	0 +	2.5	0 +	250	17	0 +	30
19	0 +	4	0 +	400	19	0 +	60
20	0 +	6	0 +	600	21	0 +	100
22	0 +	10	0 +	1000	22	0 +	160
24	0 +	16	0 +	1600	23	0 +	200
26	0 +	25	0 +	2500	25	0 +	300
27	0 +	40	0 +	4000	26	0 +	400
29	0 +	60	0 +	6000	27	0 +	600
31	0 +	100	0 +	10000	30	0 +	1000
33	0 +	160	0 +	16000	31	0 +	1500
35	0 +	250	0 +	25000	34	0 +	3000
38	0 +	400	0 +	40000	38	0 +	6000
39	0 +	600	0 +	60000	40	0 +	10000
41*	0 +	1000	0 +	100000	41*	0 +	15000
42*	0 +	1600	0 +	160000	1D*	0 +	20000

\* Working pressure steady: 75% of full scale value

<sup>(1)</sup> Monel version (MMN5) is not available in codes 57, 58, 42, 1D.

### Uncoded options

PNEUMATIC RECEIVER	0.2-1 bar 3-15 psi
0 - 10 lin.	
0 - 10 √	
0 - 100 lin.	
0 - 100 √	

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