



Tube-spring manometers filled - up with glycerol

Type:
12MT 63 12MT 160
12MT 100

Mounting

Radial (R)

Usage

For measuring of pressure and vacuum of low-viscosity non-crystallizing gasses and liquids, not aggressive to copper and copper alloys at heavy dynamic and pulsing loads.

Nominal dimensions (ND)

63, 100, 160 mm

Class of precision

ND63 - 2,5 (1,6)
ND100 - 1,6 (1)
ND160 - 1,6 (1)

Measurement ranges

kPa	MPa	bar
0 ... 100		0 ... 1
0 ... 160		0 ... 1,6
0 ... 250		0 ... 2,5
0 ... 400		0 ... 4
0 ... 600		0 ... 6
	0 ... 1	0 ... 10
	0 ... 1,6	0 ... 16
	0 ... 2,5	0 ... 25
	0 ... 4	0 ... 40
	0 ... 6	0 ... 60
	0 ... 10	0 ... 100
	0 ... 16	0 ... 160
	0 ... 25	0 ... 250
	0 ... 40	0 ... 400
	0 ... 60	0 ... 600
-100 ... 0		-1 ... 0
-100 ... 60		-1 ... 0,6
-100 ... 150		-1 ... 1,5
-100 ... 300		-1 ... 3
-100 ... 500		-1 ... 5
	-0,1 ... 0,9	-1 ... 9
	-0,1 ... 1,5	-1 ... 15
	-0,1 ... 2,4	-1 ... 24
	-0,1 ... 4	-1 ... 40

Recommended measuring values

At static loads - 3/4 from the scale range
At pulsing loads - 2/3 from the scale range
At a brief measuring - the scale range

Permitted temperatures

Ambient $T_{min} - 20^{\circ}C$ $T_{max} + 60^{\circ}C$
Of the measured fluid $T_{max} + 60^{\circ}C$ / with soft solder /
 $T_{max} + 100^{\circ}C$ / with hard solder /

Stud types

Brass, radial (bottom connection), with mounting thread and wrench number :

ND63 - M12x1,5 (G 1/4") SW 14
ND100 - M20x1,5 (G 1/2") SW 22
ND160 - M20x1,5 (G 1/2") SW 22

Measuring element

≤ 10 MPa – alloyed copper, round

> 10 MPa – alloyed copper, multiple tube-spring

Driving mechanism



Dial

aluminium, white
graduation - black

Arrow

aluminium, black

Box

ND63 - stainless steel
ND100 - stainless steel
ND160 - aluminium casting with polyester coating

Filler

Glycerol 99,7%

Options

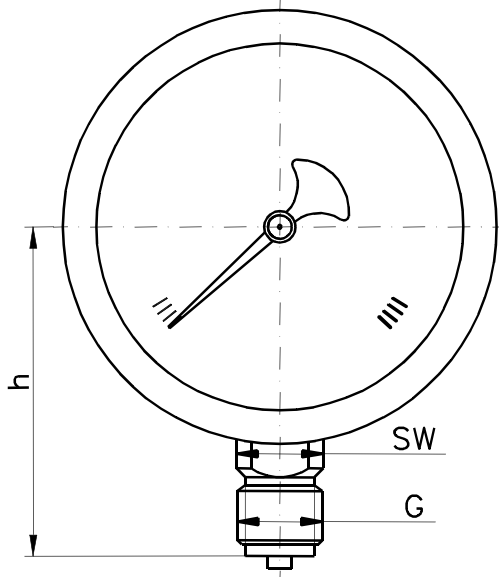
B -bayonet lock for ND 100 and ND160
R... - temperature scale in °C for freons
FA - front mounting flange
FB - rear mounting flange
DI - pin throttle

Other mounting threads
Other measuring units

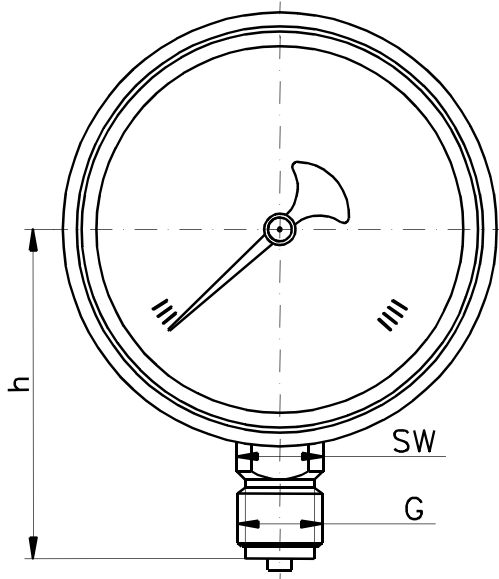
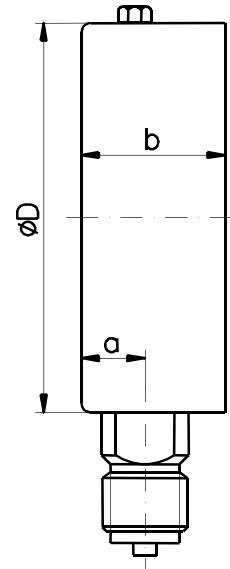


Tube-spring manometers filled-up with glycerol
Mounting and overall dimensions

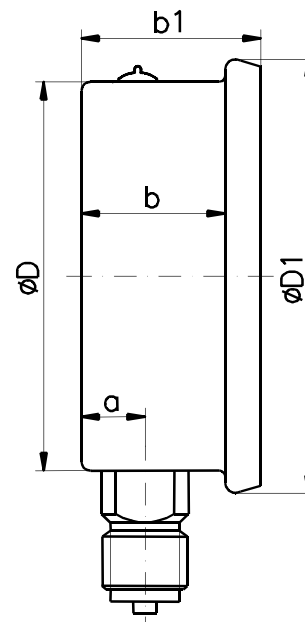
Type:
12MT 63 12MT 160
12MT 100



ND 160



ND 63, ND 100



ND	Dimensions [mm]									Weight [kg]
	a	b	b1	D	D1	h	G		SW	
63	9	24	33	63	70	60	M12x1,5	G1/4"	14	0,210
100	13	36	46	100	110	85	M20x1,5	G1/2"	22	0,750
160	13	47	-	160	-	118	M20x1,5	G1/2"	22	1,800

AUSTA Ltd, 01.2004

AUSTA Ltd. reserves the right to change the design and dimensions of the devices without changing the type and way of measurement



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12MT-0003-R



Tube-spring manometers filled-up with glycerol

Type:
 12MT 63 AE 12MT 63 AC
 12MT 100 AE
 12MT 160 AE

Mounting

Central axial stub (AC)
 Displaced axial stub (AE)

Usage

For measuring of pressure and vacuum of low-viscosity and non-crystallizing gasses and fluids, not aggressive to copper and copper alloys at heavy dynamic and pulsing loads.

Nominal dimensions (ND)

63, 100, 160 mm

Class of precision

ND63 - 2,5 (1,6)
 ND100 - 1,6 (1)
 ND160 - 1,6 (1)

Measurement ranges

kPa	MPa	bar
0 ... 100		0 ... 1
0 ... 160		0 ... 1,6
0 ... 250		0 ... 2,5
0 ... 400		0 ... 4
0 ... 600		0 ... 6
	0 ... 1	0 ... 10
	0 ... 1,6	0 ... 16
	0 ... 2,5	0 ... 25
	0 ... 4	0 ... 40
	0 ... 6	0 ... 60
	0 ... 10	0 ... 100
	0 ... 16	0 ... 160
	0 ... 25	0 ... 250
	0 ... 40	0 ... 400
	0 ... 60	0 ... 600
-100 ... 0		-1 ... 0
-100 ... 60		-1 ... 0,6
-100 ... 150		-1 ... 1,5
-100 ... 300		-1 ... 3
-100 ... 500		-1 ... 5
	-0,1 ... 0,9	-1 ... 9
	-0,1 ... 1,5	-1 ... 15
	-0,1 ... 2,4	-1 ... 24
	-0,1 ... 4	-1 ... 40

Recommended measuring values

At static loads - $\frac{3}{4}$ from the scale range
 At pulsing loads - $\frac{2}{3}$ from the scale range
 At a brief measuring - the scale range

Permitted temperatures

Ambient $T_{min} - 20^{\circ}C$ $T_{max} + 60^{\circ}C$
 Of the measured fluid $T_{max} + 60^{\circ}C$ / with soft solder /
 $T_{max} + 100^{\circ}C$ / with hard solder /

Stub types

Brass, central axial or displaced
 (rear connection), with mounting thread and wrench number :
 ND63 - M12x1,5 (G 1/4") SW 14
 ND100 - M20x1,5 (G 1/2") SW 17
 ND160 - M20x1,5 (G 1/2") SW 17

Measuring element

≤ 10 MPa – alloyed copper, round

> 10 MPa – alloyed copper, multiple tube-spring

Driving mechanism



Dial

aluminium, white
 graduation - black

Arrow

aluminium, black

Box

ND63 - stainless steel
 ND100 - stainless steel
 ND160 - aluminium casting, with polyester coating

Filler

glycerol 99,7%

Options

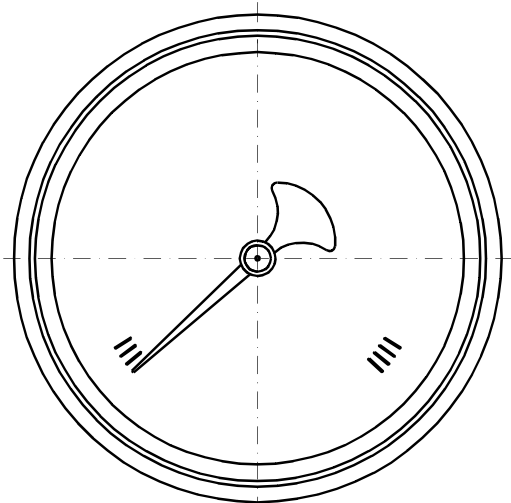
B - bayonet locker for ND100 and ND160
 R... - temperature scale in $^{\circ}C$ for freons
 FA - front mounting flange
 FB - rear mounting flange
 DI - pin throttle

Other mounting threads
 Other measuring units

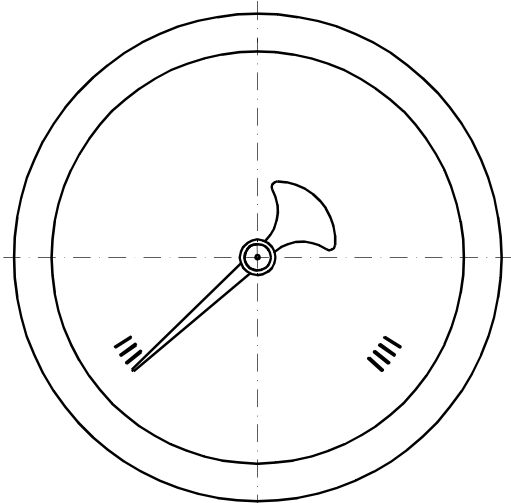
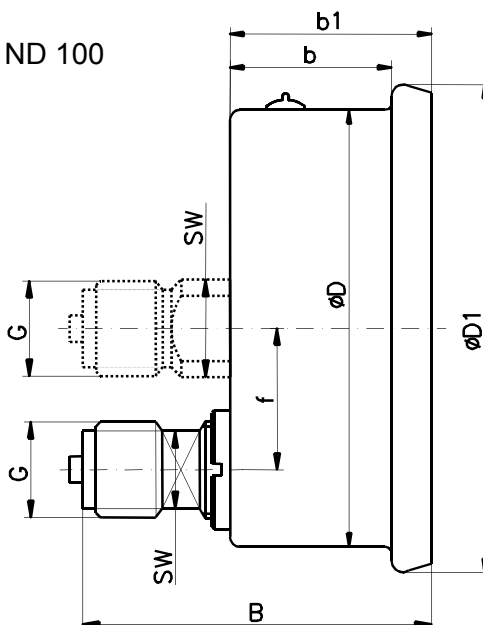


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Mounting and overall dimensions

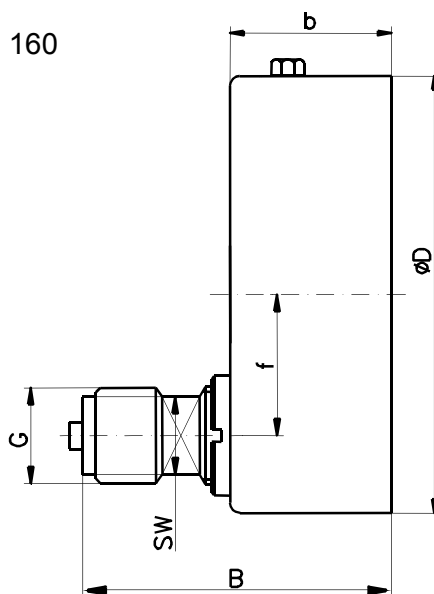
Type:
12MT 63 AE 12MT 63 AC
12MT 100 AE
12MT 160 AE



ND 63, ND 100



ND 160



ND	Dimensions , [mm]								Weight [kg]	
	f	b	b1	D	D1	B	G			
63	19	24	33	63	70	57	M12x1,5	G1/4"	14	0,210
100	34	36	46	100	110	72	M20x1,5	G1/2"	17	0,750
160	52	47	-	160	-	84	M20x1,5	G1/2"	17	1,800

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12MTAC(AE)-0004-R