

Direct mount pressure gauge DN 100, Type A1203

Section: 1

Sheet No.: 32GB

Date: December 1997

Standard stainless pressure gauge

- The TEMPRESS A1203 pressure gauge has been designed and constructed using AISI 316 stainless and acid-proof steel
- Available in both liquid-filled and dry version
- Bottom or rear mount
- Twelve different thread connections, e.g. G $\frac{1}{2}$ B
- Scale in accordance with international standard



Modular design

The modular design of the TEMPRESS direct mount pressure gauge means it can be adapted to suit every application where the instrument can be fitted directly via the thread connection.

The wide range of connectors has made it possible to supply the necessary thread types.

Temperature compensation

The unique temperature compensation system ensures an accurate display. Under conditions where the ambient temperature may vary, automatic compensation is made for temperature changes of up to 60°C.

Safety pressure gauge

The temperature compensation system also functions as a blow-out mechanism. Should the measuring system burst due to excess pressure, the temperature compensation system is pushed out the back of the instrument.

The TEMPRESS direct mount pressure gauge is DNV (Det Norske Veritas) approved.

Specifications

Type A1203	Pressure gauge, direct mount
Case size Case material Display face Bezel	DN 100 AISI 316, natural Acrylic or toughened glass AISI 316
Connection	AISI 316 for thread type, see ordering key
Measuring system	AISI 316
Liquid filling	Span \leq 2 bar Silicone Span $>$ 2 bar Glycerine <i>Option</i> Silicone Dry gauge
Measuring range	From -1 bar to +1000 bar see ordering key
Minimum span	1 bar
Accuracy	Cl. 1,0 (\pm 1 % FS)

TEMPRESS reserves the right to change without notice

Agent:



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Media and ambient temperatures

	Glass type	Media temperature				Ambient temperature			
		min.	max.	min.	max.	min.	max.	min.	max.
Dry gauge	Acrylic	-20°C	130°C	-4°F	265°F	-10°C	70°C	14°F	160°F
	Toughened	-20°C	200°C	-4°F	390°F	-10°C	120°C	14°F	250°F
Liquid filled gauge		Filling liquid							
Standard gauge	Glycerine	0°C	100°C*)	32°F	210°F*)	0°C	60°C*)	32°F	140°F*)
	Silicone	-40°C	70°C*)	-40°F	160°F*)	-40°C	50°C*)	-40°F	120°F*)

*) The average value of the maximum ambient temperature and the media temperature must not exceed the maximum ambient temperature.

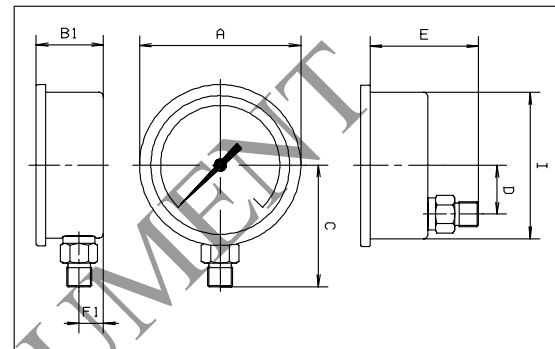
Example: at a media temperature of 100°C the ambient temperature must not exceed 20°C, when glycerine filled.

$$\frac{\text{Media temperature} + \text{Ambient temperature}}{2} = \leq \text{maximum ambient temperature} \left(\frac{100^\circ\text{C} + 20^\circ\text{C}}{2} = 60^\circ\text{C} \right)$$

Compensated temperature range

Span	Liquid filled	Glycerine	Silicone
		°C	NA
≤ 2 bar	°C	NA	0-40
≤ 29 psi	°F	NA	32-105
> 2 bar - < 4 bar	°C	0 - 50	0 - 40
> 29 psi - < 59 psi	°F	32 - 120	32 - 105
≥ 4 bar	°C	0 - 60	0 - 50
≥ 59 psi	°F	32 - 140	32 - 120

Dimensions	
A	∅108 (1.25")
B1	45 (1.77")
C	83 (3.27")
D	33 (1.30")
E	72 (2.83")
F1	16 (0.63")
I	∅ 99 (3.90")



Ordering key for A1203

When ordering, pls. state:	Example	See table
Type number	A120301	Type number
Measuring range	0-10 bar	Range
Connector	G½B	Connector
Design marked by " * " are TEMPRESS standard, which will be delivered if nothing else is stated in the order.		
Design:	filled / dry scale marking movement glass damping pointer 0-adjust. certificates logo markings	Liquid filled * Single scale * Brass * Acrylic * No damping <60 bar * Incl. damping ≥60 bar * Standard pointer * No 0-adjustment * No * TEMPRESS DENMARK * No *

Type Number

Type number	Type No.
Connection Bottom (6 o'clock)	A120301
- Top (12 -)	A120311
- Right (3 -)	A120312
- Left (9 -)	A120313
Connection Rear (6 o'clock)	A120302
- (12 -)	A120321

Measuring range

bar, kp/cm², kg/cm²	kPa	MPa	psi	lb/in²
-1 - 0	-100 - 0	-0,1 - 0 - 0,3	-30"Hg - 0	-30"Hg - 0
-1 - 0 - 0,6	-100 - 0 - 60	0 - 0,4	-30"Hg - 0 - 15	-30"Hg - 0 - 15
-1 - 0 - 1	-100 - 0 - 150	0 - 0,6	-30"Hg - 0 - 30	-30"Hg - 0 - 30
-1 - 0 - 1,5	-100 - 0 - 300	0 - 1	-30"Hg - 0 - 60	-30"Hg - 0 - 60
-1 - 0 - 3	-100 - 0 - 500	0 - 1,6	-30"Hg - 0 - 100	-30"Hg - 0 - 100
-1 - 0 - 5	-100 - 0 - 900	0 - 2,5	-30"Hg - 0 - 150	-30"Hg - 0 - 160
-1 - 0 - 9	-100 - 0 - 1500	0 - 4	0 - 15	0 - 15
-1 - 0 - 10	0 - 100	0 - 6	0 - 30	0 - 30
-1 - 0 - 12	0 - 160	0 - 10	0 - 60	0 - 60
-1 - 0 - 15	0 - 250	0 - 16	0 - 100	0 - 100
-1 - 0 - 25	0 - 400	0 - 25	0 - 150	0 - 150
0 - 1	0 - 600	0 - 40	0 - 160	0 - 160
0 - 1,6	0 - 800	0 - 60	0 - 200	0 - 200
0 - 2,5	0 - 1000	0 - 100	0 - 250	0 - 250
0 - 4	0 - 1600	0 - 300	0 - 300	0 - 300
0 - 6	0 - 2000	0 - 400	0 - 400	0 - 400
0 - 7	0 - 2500	0 - 600	0 - 600	0 - 600
0 - 10	0 - 4000	0 - 1000	0 - 1000	0 - 1000
0 - 14	0 - 6000	0 - 1500	0 - 1600	0 - 1600
0 - 16	0 - 10000	0 - 2000	0 - 2000	0 - 2000
0 - 20	0 - 16000	0 - 3000	0 - 3000	0 - 3000
0 - 25	0 - 25000	0 - 4000	0 - 4000	0 - 4000
0 - 40	0 - 40000	0 - 6000	0 - 6000	0 - 6000
0 - 60	0 - 60000	0 - 10000	0 - 10000	0 - 10000
0 - 100	0 - 100000	0 - 15000	0 - 16000	0 - 16000
0 - 160				
0 - 250				
0 - 400				
0 - 600				
0 - 1000				

The table cannot be used as a conversion table

Connector

Connector
G½B
¼ NPT
¼ flare
G¾B
¾ NPT
G½B
½ NPT
G½B DIN
G¾B
M12 / ∅ 6
M14 / ∅ 8
M16 / ∅ 10

Options

Filled / dry	Liquid filled * Liquid filled – Silicone >2 bar Dry gauge	Scale marking	Single scale* Dual scale
Movement	Brass * AlSi 316	Glass	Acrylic * Toughened glass
Damping	No damping * Damping screw, AlSi 316	Pointer	Standard Pointer * Memory pointer Maximum pointer
0-adjustment	No 0-adjustment * 0-adjustment	Certifikates	No * Calibration certificate Mat. cert. EN 10204-2.2
Logo	TEMPRESS DENMARK * Customer logo No logo	Markings	No * 1 colour (excl. black) 2 colours (-) SS sign with TAG No.
* = Standard design			

PRESSURE GAUGE, TYPE A12: DN 100

Direct mounting. Outside/wetted parts in St.Steel

TEMPRESS A/S

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Equipment for Marine

Edition: 000212-8800-001/2/3 + rev.

Company name:

Order no.:

Quantity:

Date:

Price:

Initials:

Requested delivery time:

Signature:

Comments:



Choice number:	1	2	3	4	/	A	B	C	D	E	F	G	H	I	J	K	L
Ordering example:	A12	03	01	03	/		1	0	16	07	00	0	00	00	0	00	00
Your ordering:	A12				/			0					00	00	0	00	00

2: Size	
DN 100	03

3: Direction:	
Down	01
Rear	02

4: Range	
bar	03
psi	06
Bar/PSI*KPa/MPa	09

A: Case, steel	
Glass	
Acrylic	41
Toughened glass	42
Memory pointer	43*4
Maximum pointer	44*4

B: Liquid /Dry	
Glycerine filled (>2bar / 29lb/in ²)	1
Silicone oil filled	2
Dry	3
Dry/Liquid filling	5

D: Connector/gasket	AISI316
G1/8B / PTFE	61 (1000)
G1/4B / PTFE	66 (800)
1/4NPT / PTFE	67 (800)
G3/8B / PTFE	71 (1250)
3/8NPT / PTFE	72 (1250)*4
G1/2B / PTFE	76 (1600)
1/2NPT / PTFE	77 (1600)
G1/2B DIN / PTFE	78 (1600)*4
G3/4B / PTFE	81 (1600)*4
M20x1.5 / PTFE	85 (1600)*4
M12 / Ø6 / PTFE	88 (315)
M14 / Ø8 / PTFE	89 (315)*4
Others types on request	

*2: () = max. pressure in bar
*4: Not DN 63

E: Range in bar	AISI 316
-1-0	90
-1-0+0,6	91
-1-0+1	59
-1-0+1,5	92
-1-0+3	93
-1-0+5	94
-1-0+9	95
-1-0+10	60
0-1	72
0-1,6	73
0-2,5	74
0-4	75
0-6	76
0-7	69
0-10	77
0-14	58
0-16	78
0-20	68
0-25	79
0-40	80
0-60	81
0-100	82
0-160	83
0-250	84
0-400	85
0-600	86
0-1000	87
0-1600	48(steel)*4

E: Range in psi	AISI 316
-30"Hg-0	90
-30"Hg-0+15	91
-30"Hg-0+30	92
-30"Hg-0+60	93
-30"Hg-0+100	94
-30"Hg-0+150	95
0-15	72
0-30	73
0-60	74
0-100	75
0-150	76
0-160	96
0-200	77
0-250	88
0-300	78
0-400	79
0-600	80
0-1000	81
0-1500	82
0-2000	83
0-3000	84
0-4000	89
0-6000	85
0-10000	86
0-15000	87
0-20000	48 (steel)*4

F: Double scale	
bar/psi:	06

G: Damping	
Always \geq 60 bar, 900 lb/in ²	
Not damped	0
Throttle screw	2