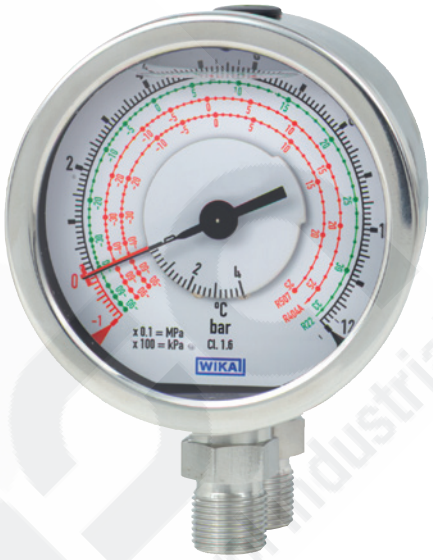
Differential pressure gauge with Bourdon tube, parallel entry
Measuring system stainless steel
Models 732.18, 733.18

Applications

- Measurement of differential pressures or of two different pressures applied in refrigeration plants or compressors
- Simultaneous measurement of the vapour pressure and the resulting vapour temperature
- For gaseous and liquid aggressive media that are not highly viscous or crystallising, also in aggressive ambience

Special features

- Differential pressure with moving dial
- Design optionally with duplex scale
- With liquid-filled case for damping in applications with high dynamic pressure loads or vibrations and for avoiding condensation water [1)]
- Combined pressure and temperature scales, as duplex, triplex or quadruple scales for all common refrigerants



Differential pressure gauge model 733.18 with temperature scales and oil pressure display for refrigeration technology

Description

Design
Two independent measuring systems, parallel entries in line

Nominal size in mm
80, 100

Accuracy class
1.6

Scale ranges
0 ... 2.5 to 0 ... 60 bar
-1 ... 0 ... +12 bar
-1 ... 0 ... +15 bar
-1 ... 0 ... +16 bar
-1 ... 0 ... +25 bar
-1 ... 0 ... +30 bar
-1 ... 0 ... +35 bar
-1 ... 0 ... +40 bar
Other scale ranges on request

In order to ensure a good readability, the differential pressure should be no less than 1/6 of the full scale value.

When ordering state both pressures:
a) maximum total pressure applied, b) differential pressure

Pressure limitation
Steady: Full scale value
Fluctuating: 0.9 x full scale value
Short time: 1.3 x full scale value

Permissible temperature
Ambient: 0 ... +60 °C
Medium: +100 °C maximum

Temperature effect
When the temperature of the measuring system deviates from the reference temperature (+20 °C):
max. ±0.4 %/10 K of full scale value

1) Model 733.18

Data sheets showing similar products:
Design with parallel entry; model 711.12; see data sheet PM 07.02

Standard version

Process connection
Stainless steel,
lower mount (LM) or back mount (BM),
2 x G 3/8 B (male), 19 mm flats,
plus connection (HP) and minus connection (LP) identified at the gauge

Pressure elements
Stainless steel, welded

Movement
Copper alloy, wear parts argentan

Dial
Aluminium, white, black lettering

Pointer
1 standard pointer: Aluminium, black
1 scale pointer: Aluminium, white
scaled ±50 % of main scale range as ⊕ and ⊖ differential pressure indication

Case
Stainless steel

Window
Polycarbonate

Bezel ring
Crimp ring, glossy finish stainless steel

Filling liquid (for model 733.18)
Glycerine 99.7 %

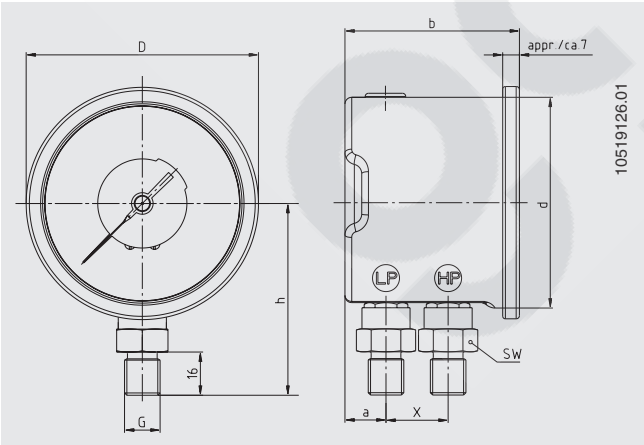
Ingress protection
IP 65 per EN 60529 / IEC 529

Options

- Other process connections: 2 X G 1/4 B, 7/16-20UNF (1/4 Flare), M12 X 1.5 for 6 mm, (others on request)
- Sealings (model 910.17, see data sheet AC 09.08)
- Design with duplex scale ("duplex pressure gauge")
- Panel (only for NS 100) or surface mounting flange
- Panel frame 88 x 88 mm
- Mounting clamp for panel mounting
- Ingress protection IP 66 (only for case filling)

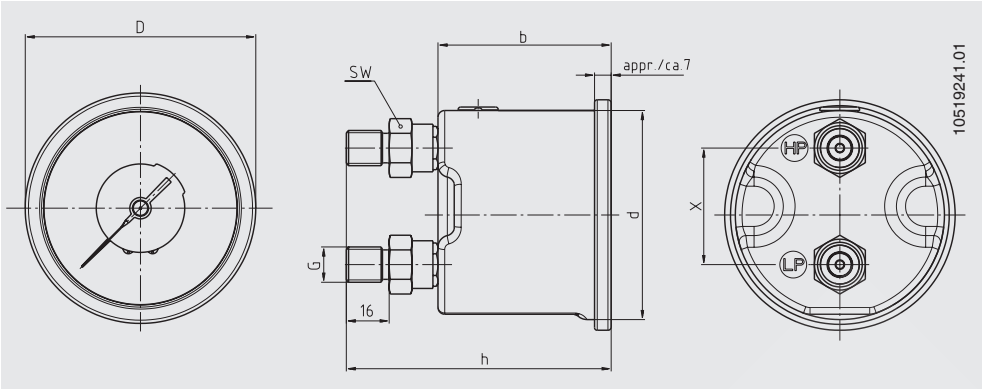
Dimensions in mm

Lower mount (LM) (NS 80 and 100)



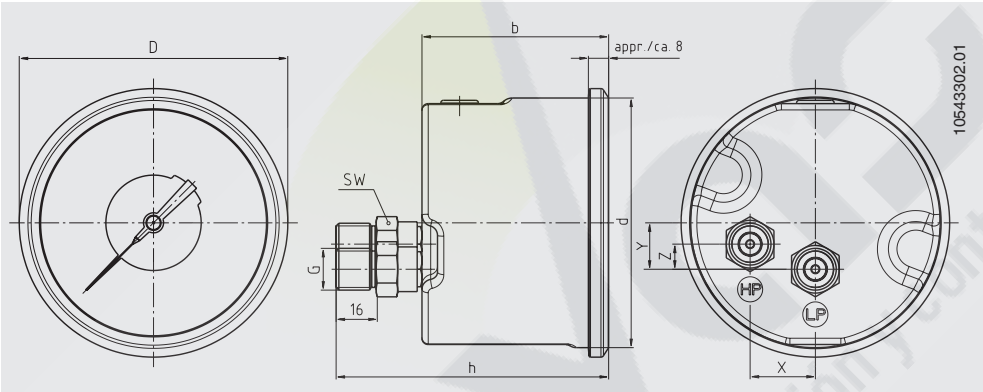
NS	Dimensions in mm								Weight
	a	b	d	D	G	h ±1	X	SW	in kg
80	15	64.5	78	86	G 3/8 B	71	23	19	0.49
100	16	74	99.5	107	G 3/8 B	83	26.5	19	0.65

Back mount (BM) (NS 80)



NS	Dimensions in mm							Weight
	b	d	D	G	h ± 1	X	SW	in kg
80	64.5	78	86	G 3/8 B	99	43.5	19	0.53

Back mount (BM) (NS 100)



NS	Dimensions in mm									Weight
	b	d	D	G	h ±1	X	Y	Z	SW	in kg
100	74	99.5	107	G 3/8 B	109	26	18.5	10	19	0.71

Ordering information

Model / Nominal size / Scale range / Lettering / Differential pressure or duplex scale / Connection size / Connection location / max. total pressure applied / Differential pressure span / Options