

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

WIKA data sheet PM 07.03

### 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 <sup>1)</sup>
- 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 ... +25 bar |
| -1 ... 0 ... +12 bar      | -1 ... 0 ... +30 bar |
| -1 ... 0 ... +15 bar      | -1 ... 0 ... +35 bar |
| -1 ... 0 ... +16 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.  $\pm 0.4 \text{ } \%/10 \text{ K}$  of full scale value

<sup>1)</sup> Model 733.18

## 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  $\pm 50\%$  of main scale range as  
 $\oplus$  and  $\ominus$  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

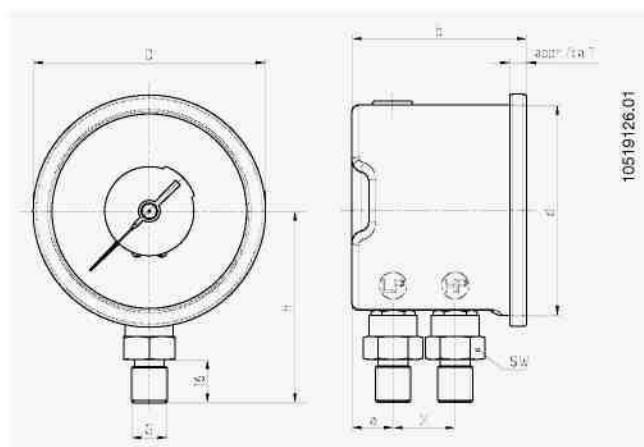
IP 65 per EN 60529 / IEC 529

## 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)

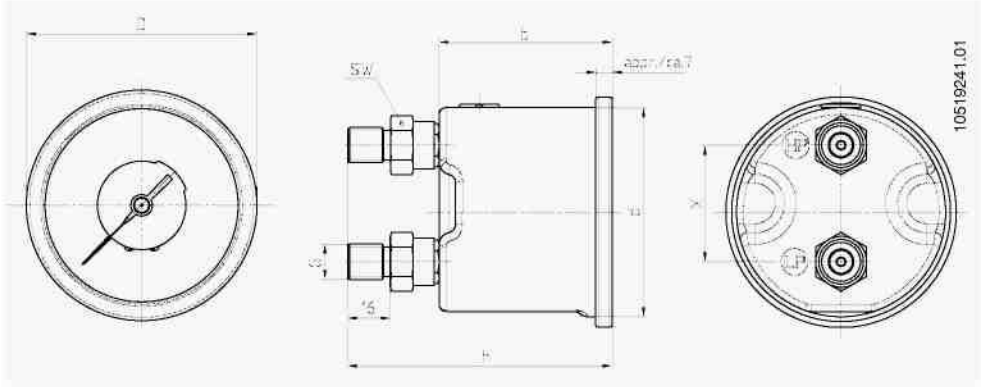
## Dimensions in mm

### Lower mount (LM) (NS 80 and 100)



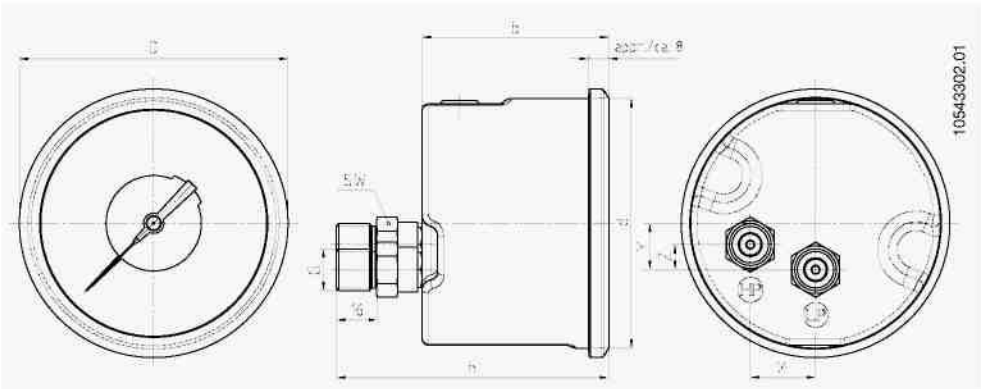
| NS  | Dimensions in mm |      |      |     | G       | h $\pm 1$ | X    | SW | Weight<br>in kg |
|-----|------------------|------|------|-----|---------|-----------|------|----|-----------------|
|     | a                | b    | d    | D   |         |           |      |    |                 |
| 80  | 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 |    | D  | G       | h ± 1 | X    | SW | Weight in kg |
|----|------------------|----|----|---------|-------|------|----|--------------|
|    | b                | d  |    |         |       |      |    |              |
| 80 | 64.5             | 78 | 86 | G 3/8 B | 99    | 43.5 | 19 | 0.53         |

Back mount (BM) (NS 100)



| NS  | Dimensions in mm |      | D   | G       | h ± 1 | X  | Y    | Z  | SW | Weight in kg |
|-----|------------------|------|-----|---------|-------|----|------|----|----|--------------|
|     | b                | d    |     |         |       |    |      |    |    |              |
| 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

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