

## Bell's Economical Bourdon tube pressure gauge Model BEM22EPG, liquid filling, stainless steel case

Bell's data sheet BEM22EPG



### Applications

- Designed for measuring points subject to high dynamic pressure loads or intense vibrations
- Suitable for gaseous and liquid media that are non-viscous, non-crystallising, and non-aggressive to copper alloy parts
- Typical areas of use:
  - Hydraulic systems
  - Compressors
  - Shipbuilding

### Product Overview

- Vibration and shock resistant design
- Extra robust construction
- Available in 50, 63, and 100 mm models
- Available with scale ranges up to (-1 to 1000) bar



Bell's Economical Bourdon tube pressure gauge  
Model BEM22EPG, liquid filling, stainless steel case, bottom mounting

### Description

#### Design

EN 837-1

#### Nominal size in mm

50, 63, 100

#### Accuracy class

50,63: class 1.6

100: class 1.0

#### Scale ranges

50,63: 0 ... 1 to 0 ... 400 bar

100: 0 ... 0.6 to 0 ... 1,000 bar

or all other equivalent vacuum or combined pressure and vacuum ranges

#### Pressure limitation

50, 63: Steady: 3/4 x full scale value

Fluctuating: 2/3 x full scale value

Short time: Full scale value

100: Steady: Full scale value

Fluctuating: 0.9 x full scale value

Short time: 1.3 x full scale value

#### Permissible temperature

Ambient: -20 ... +60 °C

Medium: +60 °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 the span

#### Ingress protection

IP 68 per EN 60529 / IEC 60529

## Standard version

### Process connection

Copper alloy, Stainless Steel lower mount (LM) or back mount (BM),

50, 63: G ¼ B (male), 14 mm flats

100: G ½ B (male), 22 mm flats

### Pressure element

50: Copper alloy / Stainless steel 316L, C-type or helical type

63:

≤ 400 bar: Copper alloy / Stainless steel 316L, C-type or helical type

> 400 bar: Stainless steel 316L, helical type

100:

< 100 bar: Copper alloy / Stainless steel 316L, C-type

≥ 100 bar: Stainless steel 316L, helical type

### Movement

Copper alloy / Stainless steel

### Dial

50, 63: Aluminum, white, Red and black lettering

100: Aluminum, white, Red and black lettering

### Pointer

50, 63: Aluminium, black

100: Aluminium, black

### Window

Plastic, crystal-clear

### Case

Natural finish / Glossy stainless steel, with blow-out device with

50: in case back, 12 o'clock

63, 100: at case circumference, 12 o'clock

O-ring seal between case and connection.

### Bezel ring

Crimp ring, glossy finish stainless steel, triangular bezel

### Filling liquid

Glycerine

## Options

- Other process connection
- Measuring system and movement from stainless steel
- 100: Zero adjustment (in front)
- Increased medium temperature with special soft solder
  - 50, 63: 100 °C
  - 100: 150 °C
- Ambient temperature resistant -40 ... +60 °C with silicone oil filling
- 50: Higher scale ranges up to 0 ... 1,000 bar
- Panel mounting flange, stainless steel, for back connection
- Surface mounting flange, stainless steel (not NS 50)
- Mounting clamp (for back connection)

## CE conformity

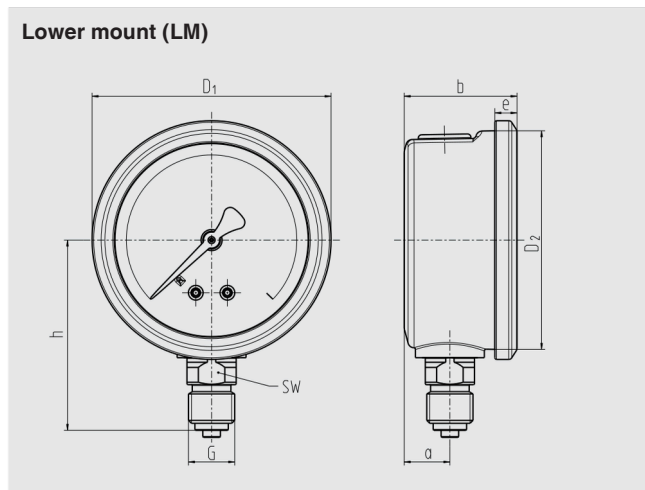
### Pressure equipment directive

QVA-MLHV-23-1019876

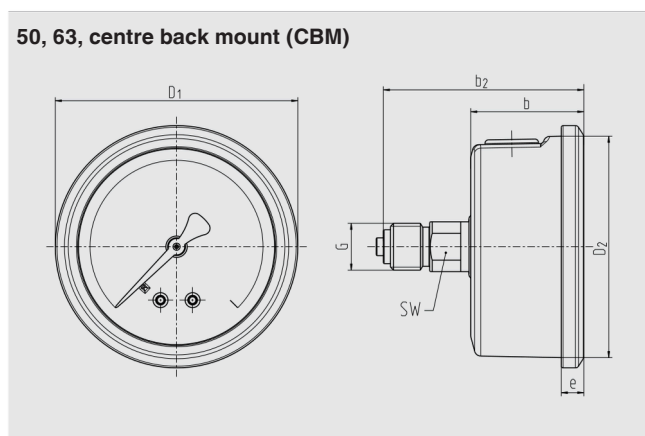
## Dimensions in mm

### Standard version

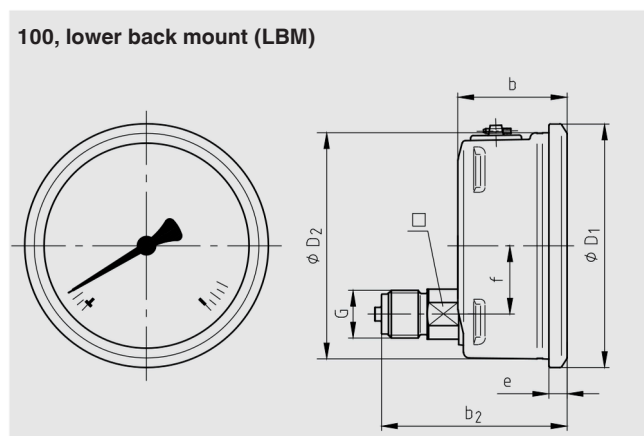
#### Lower mount (LM)



#### 50, 63, centre back mount (CBM)



#### 100, lower back mount (LBM)



| NS  | Dimensions in mm |        |        |     |     |     |    |       |      | Weight in kg |      |
|-----|------------------|--------|--------|-----|-----|-----|----|-------|------|--------------|------|
|     | a                | b ±0.5 | b2±0.5 | D1  | D2  | e   | f  | G     | h ±1 |              |      |
| 50  | 12               | 30     | 55     | 55  | 50  | 5.5 | -  | G ¼ B | 48   | 14           | 0.15 |
| 63  | 13               | 32     | 56     | 68  | 62  | 6.5 | -  | G ¼ B | 54   | 14           | 0.21 |
| 100 | 15.5             | 48     | 81.5   | 107 | 100 | 8   | 30 | G ½ B | 87   | 22           | 0.80 |

Process connection per EN 837-1 / 7.3

### Ordering information

Model / Nominal size / Scale range / Connection size / Connection location / Options

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