



#### Main features:

- Small press-on sensor with one-hole mounting
- Direct measurement of surface strain
- Without amplifier (passiv)
- High accuracy and linearity in tension and pressure (like bonded strain gauges)
- For dynamic applications
- Used on presses, injection moulding and die-casting machines
- Quick and easy mounting
- Protected against overload
- Optional accessories:
  - Signal amplifier VDA
  - Monitor DU-1D

The strain gauge sensor SB46 measure the surface-strain directly at the mounting location in the same quality as bonded strain gages. The press-on technology, developed by Sensormate AG, presses the strain gauges under the stainless protective film so strongly against the surface to be measured that frictional contact occurs.

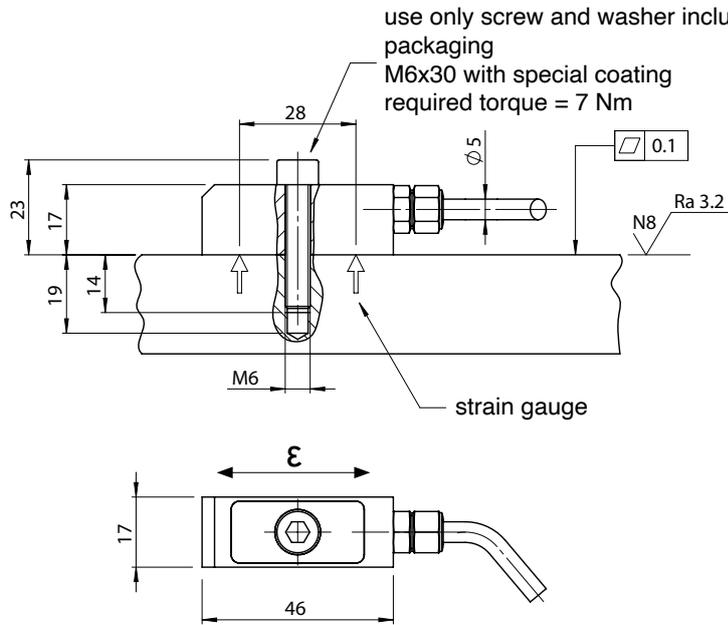
The sensor can not be overloaded. The mounting is easy and very fast. The sensor do not need a recalibration when it replaced or remounted. The sensor need a cyclical reset.

#### TECHNICAL DATA

|                            |                            |
|----------------------------|----------------------------|
| Strain gauge type          | Foil (GF = 2.0)            |
| Bridge resistance          | 350Ω                       |
| Measuring range            | ±100...±1000µε             |
| Sensitivity tolerance      | ± 0.2%                     |
| Accuracy                   | <± 0,5% FS                 |
| Linearity                  | <± 0,5% FS                 |
| Hysteresis                 | <± 0,2% FS                 |
| Repeatability              | < 0,2% FS                  |
| Supply voltage             | 5VDC (max 8VDC)            |
| Supply current             | < 15mA                     |
| Operating temperatur range | 0...55°C                   |
| Storage temperatur range   | 0...55°C                   |
| Overload capability        | indefinite (offset occurs) |
| Protection class           | IP54                       |
| Case material              | Aluminum                   |
| Weight, including cable    | 80g                        |

## DIMENSIONS

SB46



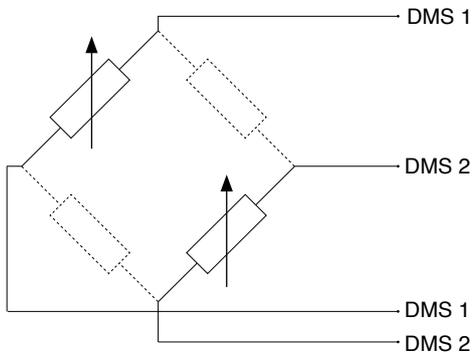
**Accessories include:**

M6x30 with special coating, washer

Dimensions in mm

## ELECTRICAL CONNECTIONS

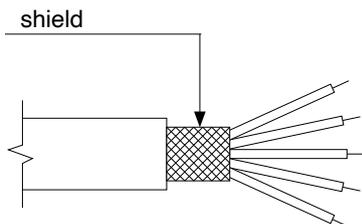
Half-bridge configuration



| Option O:<br>Open leads | Option C<br>Connection pin | Function |
|-------------------------|----------------------------|----------|
| white                   | 1                          | DMS 1    |
| brown                   | 2                          | DMS 1    |
| grey                    | 3                          | n.a.     |
| green                   | 4                          | DMS 2    |
| yellow                  | 5                          | DMS 2    |
| -                       | 6                          | n.c.     |

**Option O:**

PUR screened cable (standard);  
5 x 0,14mm $\phi$ ; Ø 5mm; bending 10x Ø



**Option C:**

M16, 6 pol, male connector



## ORDER CODE

Press-on-strain sensor  
without amplifier

SB46 -  -  -  -

| Housing                        |           |
|--------------------------------|-----------|
| Aluminum housing with one hole | <b>A1</b> |

| Bridge     |          |
|------------|----------|
| 2/4 bridge | <b>2</b> |

| Cable lenght |            |
|--------------|------------|
| 0.5 m        | <b>005</b> |
| 3 m          | <b>030</b> |
| 5 m          | <b>050</b> |
| 10 m         | <b>100</b> |

| Connection           |          |
|----------------------|----------|
| Open leads           | <b>O</b> |
| Cable with connector | <b>C</b> |

Example: SB46 - A1 - 2 - 030 - O

Press-on-strain sensor SB46, aluminum housing, 2/4 bridge, cable lenght = 3m, open leads

## ACCESSORIES

### Description

Variable digital amplifier VDA (see amplifier's datasheet for ordering information)

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