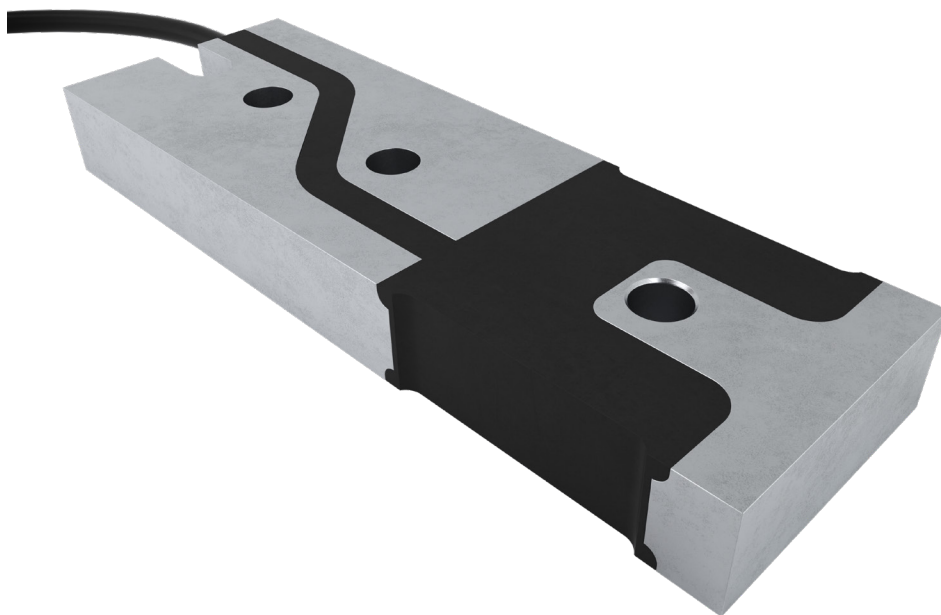


# ZLB planar beam load cell



## product description

The ZLB planar beam offers high accuracy in a low overall height. Bolt hole compatible with the SB8 and SB6 load cells from Flintec. All aluminium construction and environmentally protected using potting material. OIML certified to 3000d.

## applications

Low profile scales, Process Weighing systems.

## approvals

OIML approval to C3 (Y = 10,000)

ATEX hazardous area approval for zones 0, 1, 2, 20, 21 and 22

FM hazardous area approval

## accessories

Load mounts

Compatible range of electronics

## key features

Wide range of capacities from 20kg to 200kg

1000 $\Omega$  strain gauge bridge for battery powered devices

Aluminium construction

Environmentally sealed by potting to IP67

High accuracy

Bolt-hole compatible with SB6, SB8 and SB61C load cells

Very low profile design

High input resistance

Calibration in mV/V/ $\Omega$



RoHS  
compliant



 **flintec**  
quality + precision

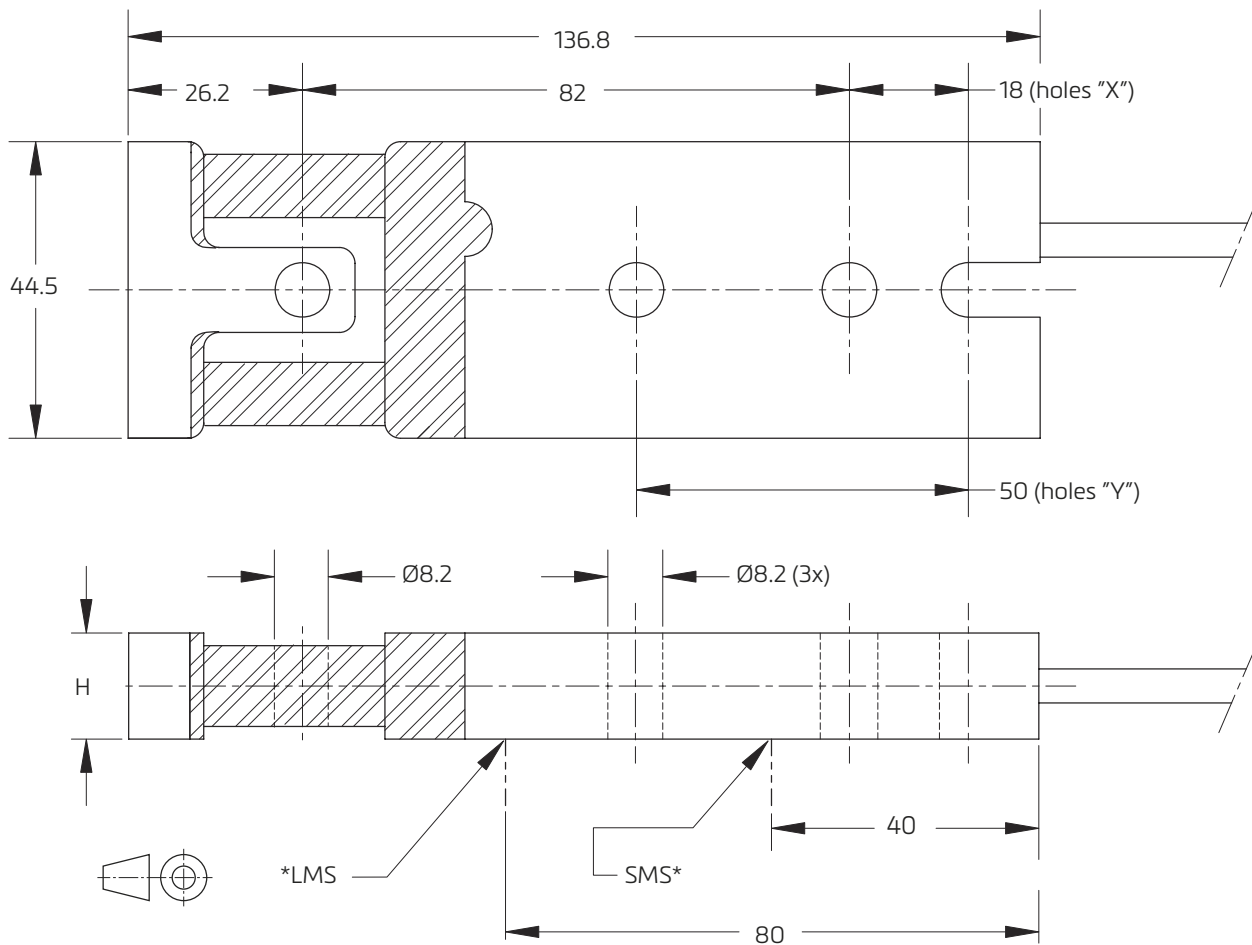
## specifications

|   |               |   |                    |                     |
|---|---------------|---|--------------------|---------------------|
| Maximum capacity ( $E_{\max}$ )                           | kg            | 20 / 50 / 100 / 200                           |                    |                     |
| Accuracy class according to OIML R60                      |               | (GP)  | C1                 | C3                  |
| Maximum number of verification intervals ( $n_{\max}$ )   |               | n.a.  | 1,000              | 3,000               |
| Minimum load cell verification interval ( $v_{\min}$ )    |               | n.a.  | $E_{\max} / 5,000$ | $E_{\max} / 10,000$ |
| Temperature effect on minimum dead load output ( $TC_0$ ) | %*RO/10°C     | ± 0.0400                                      | ± 0.0280           | ± 0.0140            |
| Temperature effect on sensitivity ( $TC_{RO}$ )           | %*RO/10°C     | ± 0.0200                                      | ± 0.0160           | ± 0.0100            |
| Combined error  | %*RO          | ± 0.0500                                      | ± 0.0300           | ± 0.0200            |
| Non linearity   | %*RO          | ± 0.0400                                      | ± 0.0300           | ± 0.0166            |
| Hysteresis  | %*RO          | ± 0.0400                                      | ± 0.0300           | ± 0.0166            |
| Creep error (30 minutes) / DR                             | %*RO          | ± 0.0600                                      | ± 0.0490           | ± 0.0166            |
| Rated Output (RO)   | mV/V          | $2 \pm 0.1\%$                                 |                    |                     |
| Calibration in mV/V/Ω                                     | %             | ± 0.05  |                    |                     |
| Zero balance  | %*RO          | ± 5   |                    |                     |
| Excitation voltage  | V             | 5...15  |                    |                     |
| Input resistance ( $R_{LC}$ )                             | Ω             | $1,180 \pm 50$                                |                    |                     |
| Output resistance ( $R_{out}$ )                           | Ω             | $1,000 \pm 2$                                 |                    |                     |
| Insulation resistance (100 V DC)                          | MΩ            | ≥ 5,000                                       |                    |                     |
| Safe load limit ( $E_{lim}$ )                             | %* $E_{\max}$ | 200   |                    |                     |
| Ultimate load   | %* $E_{\max}$ | 300   |                    |                     |
| Safe side load  | %* $E_{\max}$ | 100   |                    |                     |
| Compensated temperature range                             | °C            | -10...+40                                     |                    |                     |
| Operating temperature range                               | °C            | -20...+65 (ATEX -20...+60)                    |                    |                     |
| Load cell material  |               | aluminium                                     |                    |                     |
| Sealing   |               | potting                                       |                    |                     |
| Protection according EN 60 529                            |               | IP67  |                    |                     |
| Packet weight   | kg            | 0.46 (20kg), 0.49 (50kg, 100kg), 0.53 (200kg) |                    |                     |

The limits for Non-Linearity, Hysteresis, and  $TC_{RO}$  are typical values.

The sum of Non-linearity, Hysteresis and  $TC_{RO}$  meets the requirements according to OIML R60 with  $p_{LC}=0.7$ .

## product dimensions (mm)



LMS\* - Edge of long mounting surface  
SMS\* - Edge of short mounting surface

### Note:

It is recommended to use mounting holes "Y" on an 80 mm mounting surface. Mounting holes "X" can be used on a short (40 mm) mounting surface. If so, a steel spacer (80 mm long and 10 mm thick) is required for the 200 kg load cell.

| Type          | H    | Mounting bolts | Torque * |
|---------------|------|----------------|----------|
| ZLB-20 kg     | 9.5  | M8 8.8         | 25 Nm    |
| ZLB-50/100 kg | 12.7 | M8 8.8         | 25 Nm    |
| ZLB-200 kg    | 15.9 | M8 8.8         | 25 Nm    |

\* Torque values assume oiled threads.

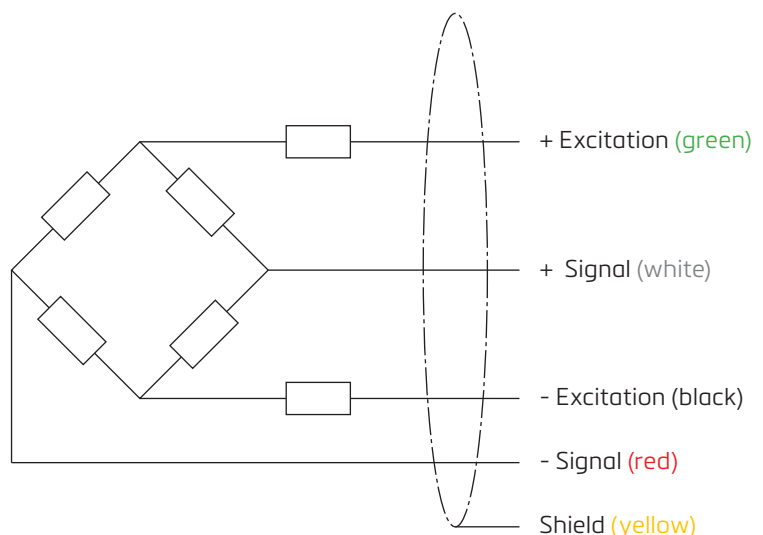
## wiring

The load cell is provided with a shielded, 4 conductor cable (AWG 24).

Cable jacket: polyurethane

Cable length: 3 m  
Cable diameter: 5 mm

The shield is floating  
(Shield can be connected to the load cell body on request)



Specifications and dimensions are subject to change without notice.