

## Type SB5 Load Cell



Flintec load cells are designed to meet the most stringent accuracy requirements. Certifications have been obtained from Weights & Measures Authorities, worldwide.

SB5 load cells are available in the capacities 5 kN to 100 kN (510 kg to 10197 kg) and include Accuracy Classifications GP, C1 and C3 according to OIML R 60; NTEP  $n_{max}=5000$ .

They offer stainless steel construction and improved potting, making them suitable for use in tough industrial environments.

The unique “blind” loading hole combined with the available Flintec loading hardware provides an excellent price-performance ratio.

It allows very low profile platform design and offers advantages in all kinds of weighing applications.

The Flintec calibration technique (in mV/V/Ω) eliminates time consuming corner calibration in multiple load cell systems.

The SB5 is available for use in hazardous areas zone 1, 2 (gas) and 21, 22 (dust) according to EEx ia IIC T6...T4 T150°C ATEX.

### Important Features

- Capacities: 5 kN to 100 kN
- High accuracy.
- Stainless steel construction.
- Protection IP 67.
- Low profile.
- High input resistance: 1100 Ω.
- W&M certified for 3000 intervals.
- Unique “blind” loading hole.
- Calibration in mV/V/Ω.
- Easy cable replacement.
- Complete range of loading hardware available.
- Fully compatible with load cell type SB4.
- Factory mutual approved.

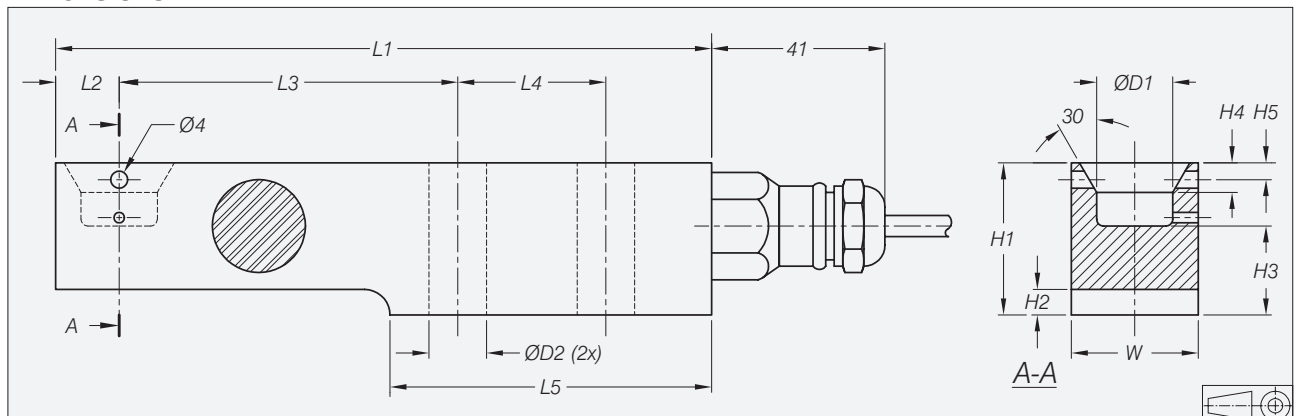
### Option

- Explosion protection zone 1, 2, 21 and 22 ATEX.

## SB5 Specifications

Maximum capacity (=E <sub>max</sub> )	kN	5 / 10 / 20 / 50 / 100	5 / 10 / 20 / 50	
Metric equivalents (1 N=0.10197 kg)	kg	510 / 1020 / 2039 / 5099 / 10197	510 / 1020 / 2039 / 5099	
Rated Output (=RO)	mV/V	2 ± 0.1%		
Calibration in mV/V/Ω (A...I classified)	%RO	≤ ± 0.05 (≤ ± 0.005)		
Accuracy class according to OIML R 60		(GP)	C1	C3
Maximum number of verification intervals (n)		n.a.	1000	3000
Minimum load cell verification interval (v <sub>min</sub> )		n.a.	E <sub>max</sub> /5100	E <sub>max</sub> /10200
Combined error	%RO	≤ ± 0.040	≤ ± 0.030	≤ ± 0.020
Creep error (30 minutes) / DR	%RO	≤ ± 0.060	≤ ± 0.049	≤ ± 0.016
Temperature effect on minimum dead load output	%RO/°C	≤ ± 0.0040	≤ ± 0.0028	≤ ± 0.0012
Temperature effect on sensitivity	%/°C	≤ ± 0.0020	≤ ± 0.0016	≤ ± 0.0011
Excitation voltage	V	5...15		
Zero balance	%RO	≤ ± 1.0		
Input resistance	Ω	1106 ± 5		
Output resistance	Ω	1000 ± 1		
Insulation resistance (100 V DC)	MΩ	≥ 5000		
Compensated temperature range	°C	-10... +40		
Operating temperature range	°C	-20... +65		
Safe load limit	%E <sub>max</sub>	200		
Ultimate load	%E <sub>max</sub>	300		
Safe side load	%E <sub>max</sub>	100		
Load cell material		stainless steel 17-4 PH (1.4548)		
Sealing		potted		
Protection according DIN 40.050		IP 67		

## Dimensions



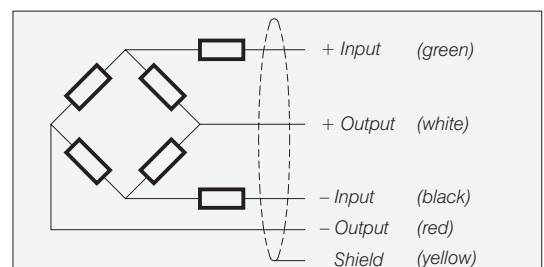
Type	L1	L2	L3	L4	L5	H1	H2	H3	H4	H5	W	D1	D2	Mounting bolts	Torque *
SB5-5 kN/10 kN/20 kN	155	15	80	35	76	36	6	21	7	4	30	18	13	M12 8.8	90 Nm
SB5-50 kN	190	21	105	40	93	49	8	28.5	6	8	43	25	21	M20 8.8	400 Nm
SB5-100 kN	245	30	135	50	120	73	12.5	42	10	n.a.	60	30	27	M24 8.8	700 Nm

All dimensions in mm. Dimensions and specifications are subject to change without notice.

\* Torque values assume oiled threads.

## Wiring

- The load cell is provided with a shielded, 4 conductor cable (AWG 24).
- Cable length: 3 m for SB5-5 kN/10 kN/20 kN, 4.5 m for SB5-50 kN/100 kN.
- Cable diameter: 5 mm.
- The shield is floating.



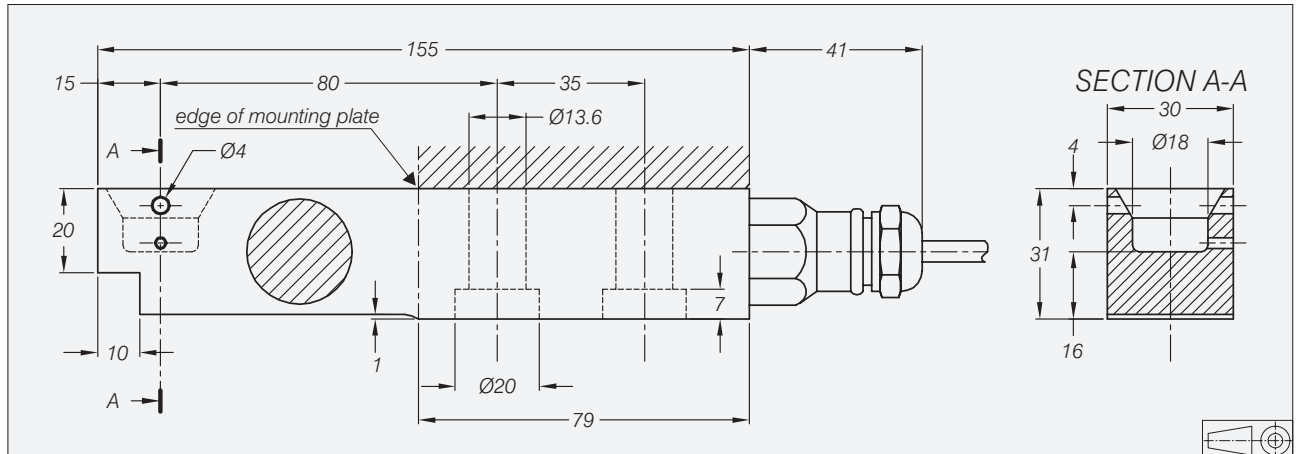
## Type SB5 Load Cell, L-Version

The SB5 Load Cell, L-Version is available in the capacities 5 kN, 10 kN and 20 kN (510 kg, 1020 kg and 2039 kg). Available in Accuracy Classifications GP, C1 and C3 according to OIML R 60.

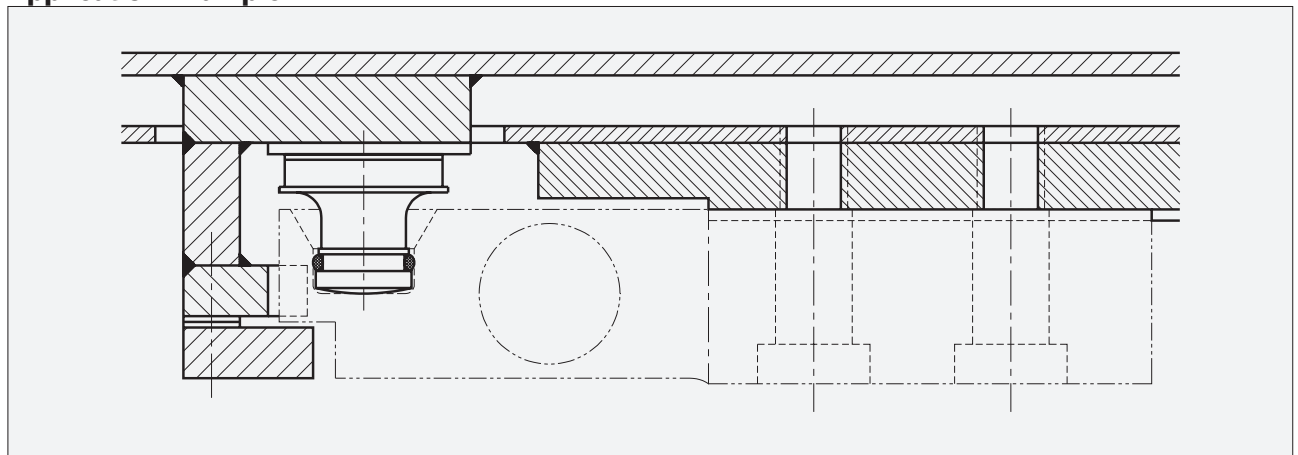
For technical specifications, see SB5 brochure.

Especially designed for mobile weighing applications and/or extreme low profile scales.

### Dimensions



### Application Example



Example for mobile weighing.

L-Version load cell combined with sliding system, including integrated bumper stops and lift off protection.

### Wiring

- The load cell is provided with a shielded, 4 conductor cable (AWG 24).
- Cable length: 1.9 m.
- Cable diameter: 5 mm.
- The shield is floating.

