

## Type SB2 Load Cell



Beam Type  
Load Cells

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

SB2 load cells are available in the capacities 45000 lb to 100000 lb (20412 kg to 45360 kg) and include Accuracy Classifications GP, C1 and C3 according to OIML R 60.

(The SB2 45000 lb is also available in a low profile version: Type SB2-45 klb-M)

SB2 load cells offer complete hermetic sealing, making them suitable for use in the toughest 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 SB2 is available for use in hazardous areas zone 0, 1, 2 (gas) and 20, 21, 22 (dust) according to EEx ia IIC T6...T4 T130°C ATEX.

### Important Features

- Capacities 45000 to 100000 lb.
- High accuracy.
- Complete hermetic sealing.
- Protection IP 68.
- W&M certified for 3000 intervals (PTB: D09-03.04).
- Unique “blind” loading hole.
- Calibration in mV/V/Ω.
- Easy cable replacement.
- Factory Mutual approved.

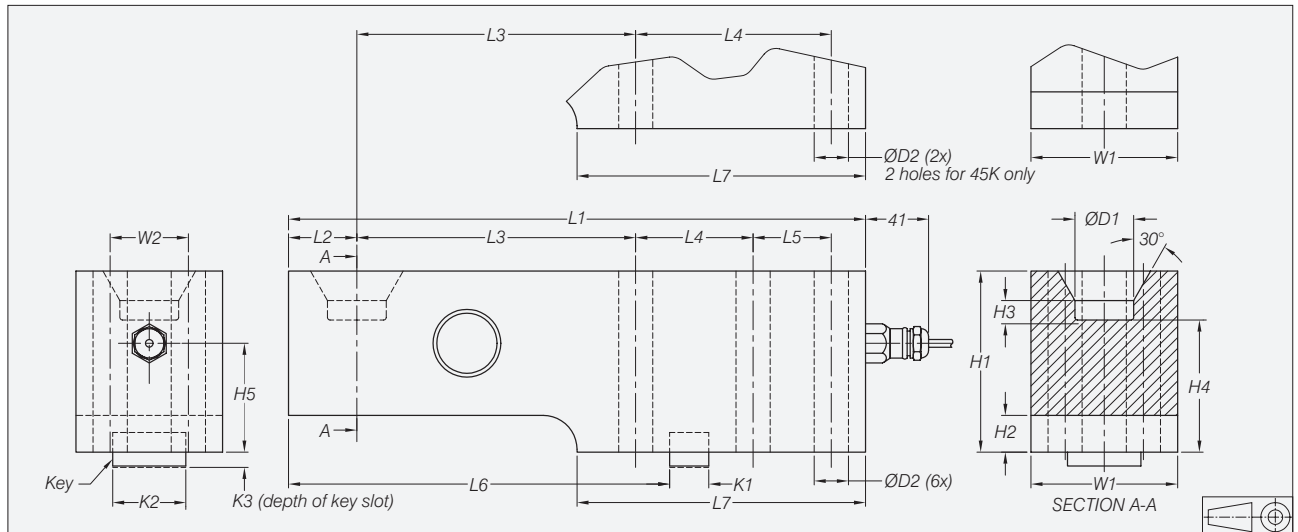
### Option

- Explosion protection zone 0, 1, 2 and 20, 21, 22 ATEX.

## SB2 Specifications

Maximum capacity	(E <sub>max</sub> )	lb	45 000 / 75 000 / 100 000		
Metric equivalents (approx.)		kg	20 412 / 34 020 / 45 360		
Rated Output	(Cn)	mV/V	2 ± 0.1%		
Calibration in mV/V/Ω (A...I classified)		%Cn	≤ ± 0.05 (≤ ± 0.005)		
Accuracy class according to OIML R 60			GP	C1	C3
Maximum number of verification intervals	(n <sub>max</sub> )		n.a.	1000	3000
Minimum load cell verification interval	(v <sub>min</sub> )		n.a.	E <sub>max</sub> /5100	E <sub>max</sub> /11200
Combined error	%Cn		≤ ± 0.040	≤ ± 0.030	≤ ± 0.020
Creep error (30 minutes) / DR	%Cn		≤ ± 0.060	≤ ± 0.049	≤ ± 0.016
Temperature effect on minimum dead load output	%Cn/°C		≤ ± 0.0040	≤ ± 0.0028	≤ ± 0.0011
Temperature effect on sensitivity	%/°C		≤ ± 0.0020	≤ ± 0.0015	≤ ± 0.0011
Excitation voltage	V		5...15		
Zero balance	%Cn		≤ ± 5		
Input resistance	Ω		385 ± 20		
Output resistance	Ω		351 ± 1		
Insulation resistance (100 V DC)	MΩ		≥ 5000		
Compensated temperature range	°C		-10...+40		
Operating temperature range	°C		-40...+80		
Safe load limit	(E <sub>lim</sub> )	%E <sub>max</sub>	200		
Ultimate load		%E <sub>max</sub>	300		
Safe side load		%E <sub>max</sub>	100		
Load cell material			tool steel; painted		
Sealing			complete hermetic sealing; cable entry sealed by glass to metal header		
Protection according DIN 40.050			IP68		

## Dimensions



Type	L1	L2	L3	L4	L5	L6	L7	H1	H2	H3	H4	H5	W1	W2	D1	D2	K1	K2	K3	Mounting bolts	Torque *
SB2-45 klb	318	38	159	89	n.a.	n.a.	159	95	27	12	73	61	70	n.a.	38.1	31	n.a.	n.a.	n.a.	M30 8.8	1500 Nm
SB2-45 klb-M	318	38	159	89	n.a.	n.a.	148	82	12	12	58	47	70	n.a.	38.1	31	n.a.	n.a.	n.a.	M30 8.8	1500 Nm
SB2-75 klb	375	44	181	76	51	248	187	118	24	13	86	71	95	51	38.1	22	25.4	47.6	10	M20 8.8	430 Nm
SB2-100 klb	416	48	197	92	54	276	210	143	41	14	111	92	95	54	50.8	27	25.4	47.6	10	M24 8.8	750 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 20). Cable jacket polyurethane.
- Cable length: 9.1 m for 45 klb, 10.7 m for 75 and 100 klb.
- Cable diameter: 7.6 mm.
- The shield is floating (On request the shield can be connected to the load cell body).

