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Type SB14 load cell



- **High Accuracy**
- **Stainless Steel Construction**
- **Resistant to off axis loads**
- **Allows vessel expansion**

Description

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

SB4 loadcells are available in the capacities 5 kN to 100 kN (510kg to 10197kg) and include Accuracy Classifications GP, C1, C3, C3 MI 7.5, C4 and C4 MI 7.5 according to OIML R 60; NTEP n max=5000.

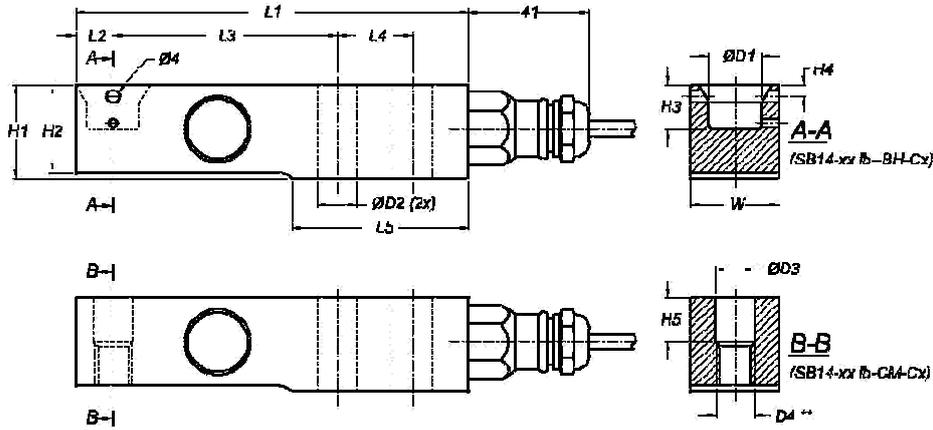
They offer total stainless steel construction and complete hermetic sealing, making them suitable for use in the toughest industrial environments.

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 (inmV/V) eliminates time consuming corner calibration in multiple load cell systems.

The SB14 is available for use in hazardous areas zone 1, 2 (gas) and 21, 22 (dust) according to EExia IIC T6...T4 T130°CATEX.

Dimensions



Type	L1	L2	L3	L4	L5	H1	H2	H3	H4	H5	W	D1	D2	D3	D4	Mounting bolts	Torque *
SB14-500lb/1000lb	133.4	12.7	76.2	25.4	59.9	31	28.8	15	4	15	30	19	13	13.5	M12	M12 8.8	90 Nm
SB14-2500lb	133.4	12.7	76.2	25.4	59.9	31	30.5	15	4	15	30	19	13	13.5	M12	M12 8.8	90 Nm
SB14-5000lb	133.4	12.7	76.2	25.4	59.9	31	30.5	15	4	15	30	19	13	13.5	M12	M12 10.9	120 Nm
SB14-10000lb	177.8	19.1	85.3	38.1	82.7	43.6	38.1	20.5	8	19	43	25	21	21.5	M20	M20 8.8	400 Nm

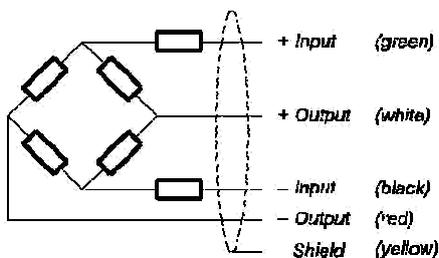
All dimensions in mm. Dimensions and specifications are subject to change without notice.

* Torque values assume oiled threads.

** Unified thread 1/2-20 UNF (500...5000lb) and 3/4-16 UNF (10000lb) is available. Type designation SB14-xxCU.

SB14 Specifications

Maximum capacity (=E _{max})	lb	500 / 1000 / 2500 / 5000 / 10000	1000 / 2500 / 5000 / 10000
Metric equivalents (1 lb=0.45359 kg)	kg	227 / 454 / 1134 / 2268 / 4536	454 / 1134 / 2268 / 4536
Rated Output (=RO)	mV/V	2 ± 0.1%	
Calibration in mV/V/ (A...I classified)	%RO	+ 0.05 (+ 0.005)	
Accuracy class according to OIML R 60		(GP)	C3
Maximum number of verification intervals (n)		n.a.	3000
Minimum load cell verification interval (V _{min})		n.a.	E _{max} / 11 500
Combined error	%RO	± 0.040	± 0.020
Creep error (30 minutes)	%RO	± 0.060	± 0.024
Temperature effect on minimum dead load output	%RO/°C	± 0.0040	± 0.0011
Temperature effect on sensitivity	%/°C	± 0.0020	± 0.0011
Excitation voltage	V	5...15	
Zero balance	%RO	± 1.0	
Input resistance		1106 ± 5	
Output resistance		1000 ± 1	
Insulation resistance	M	5000	
Compensated temperature range	°C	-10...+40	
Operating temperature range	°C	-40...+80	
Safe load limit	%E _{max}	200	
Ultimate load	%E _{max}	300	
Safe side load	%E _{max}	100	
Load cell material		stainless steel 17-4 PH (1.4548)	
Sealing		complete hermetic sealing; cable entry sealac by glass to metal header	
Protection according DIN 40.050		IP 68	



Wiring

- The load cell is provided with a shielded, 4 conductor cable.
- Cable length: 3 m
- Cable diameter: 5 mm
- The shield is connected to the load cell body.

Note:

Maximum errors (+/-) are expressed as a percentage of rated load (when measured at 10Vdc excitation). The linearity and hysteresis is the maximum deviation from a straight line drawn between the no load and the rated load outputs for both increasing and decreasing loads. Accuracy classes apply when active range (live weight) is within 20 to 90% of rated load.