



FLINTEC - Type SB14 Load Cell



Product Description

The type SB14 is stainless steel beam type load cell with complete hermetic sealing. It is suitable for use in harsh industrial environments.

Application

- Platform scales
- Hopper
- Tank scales

Basic Features

- Wide range of capacities from 50 lb to 10 000 lb (227kg to 4536kg)
- Stainless steel construction
- Environmental Protection IP68
- Unique blind loading hole
- High output resistance
- Calibration in mV / V / Ω

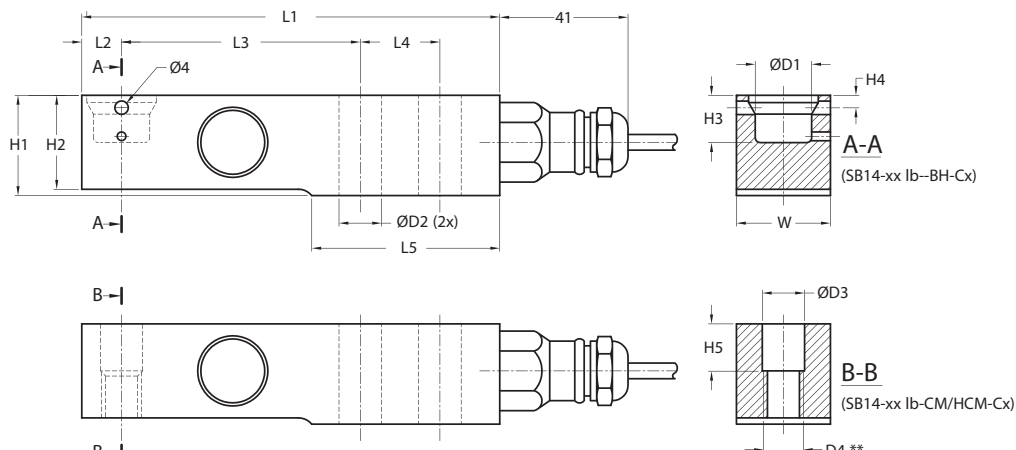
Approvals

- OIML approval to C3, C3 M16 (Y = 11 000)
- NTEP approval to 5000 intervals, Class III (for 500 lb to 5 000 lb)
- ATEX hazardous area approval for Zone 0, 1, 2, 20, 21 και 22
- FM hazardous area approval

Specifications

Maximum capacity	(E _{max})	lb	500 / 1000 / 2500 / 5000 / 10000	500 / 1000 / 2500
Metric equivalents (1 lb= 0.45359 kg)		kg	227 / 454 / 1134 / 2268 / 4536	227 / 454 / 1134
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)	C3 C3 MI 6
Maximum number of verification intervals	(n _{max})		n.a.	3000
Minimum load cell verification interval	(v _{min})		n.a.	E _{max} / 11 500
Temperature effect on minimum dead load output		%Cn/°C	≤ ± 0.0040	≤ ± 0.0011 ≤ ± 0.0011
Option (500/1000/2500 lb)	Min.load cell verification interval (v _{min})		n.a.	E _{max} / 23000
	Temp. effect on min. dead load output	%Cn/°C	n.a.	≤ ± 0.0006 ≤ ± 0.0006
Combined error		%Cn	≤ ± 0.040	≤ ± 0.020 ≤ ± 0.020
Creep error (30 minutes) / DR		%Cn	≤ ± 0.060	≤ ± 0.016 ≤ ± 0.008
Temperature effect on sensitivity		%/°C	≤ ± 0.0020	≤ ± 0.0011 ≤ ± 0.0011
Excitation voltage		V	5...15	
Zero balance		%Cn	≤ ± 5	
Input resistance		Ω	1100 ± 50	
Output resistance		Ω	1000 ± 2	
Insulation resistance (100 V DC)		MΩ	≥ 5000	
Compensated temperature range		°C	-10...+ 40	
Operating temperature range		°C	-40...+ 80	
Safe load limit	(E _{lim})	%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 sealed by glass to metal header	
Protection according DIN 40.050			IP 68	

Dimensions



Type	L1	L2	L3	L4	L5	H1	H2	H3	H4	H5	W	D1	D2	D3	D4	Mounting bolts	Torque *
SB14-500 lb/1000 lb	133.4	12.7	76.2	25.4	59.9	31	28.8	15	4	15	30	18	13	13.5	M12	M12 8.8	90 Nm
SB14-2500 lb	133.4	12.7	76.2	25.4	59.9	31	30.5	15	4	15	30	18	13	13.5	M12	M12 8.8	90 Nm
SB14-5000 lb	133.4	12.7	76.2	25.4	59.9	31	30.5	15	4	15	30	18	13	13.5	M12	M12 10.9	120 Nm
SB14-10000 lb	177.8	19.1	95.3	38.1	92.7	43.6	38.1	20.5	8	20.1	43	25	21	30.2	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... 5000 lb) and 3/4-16 UNF (10000 lb) is available. Type designation SB14-xx-CU.

Wiring

- The load cell is provided with a shielded, 4 conductor cable (AWG 24). Cable jacket polyurethane.
- Cable length: 3 m for SB14-500 lb to 5000 lb, 4.5 m for SB14-10000 lb.
- Cable diameter: 5 mm.
- The shield is floating (On request the shield can be connected to the load cell body).

