



Product Description

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

Application

- Platform scales, hopper and tank scales

Key Features

- Wide range of capacities from 500 lb to 10 000 lb (227 kg to 4 536 kg)
- Stainless steel construction
- Environmental Protection IP68 with complete hermetic sealing
- Unique blind loading hole
- High input resistance
- Calibration in mV/V/Ω

Options

- Y = 23 000 for C3 and C3 MI6 (for 500 lb to 2 500 lb)
- Stainless steel cable gland

Approvals

- OIML approval to C3 and C3 MI6 (Y = 11 500)
- NTEP approval to 5 000 intervals, Class III (for 500 lb to 5 000 lb)
- ATEX hazardous area approval for Zone 0, 1, 2, 20, 21 and 22
- FM hazardous area approval

Packed Weight

■ Capacity (lb)	500–5 000	10 000
Weight (kg)	1.2	2.44

Available Accessories

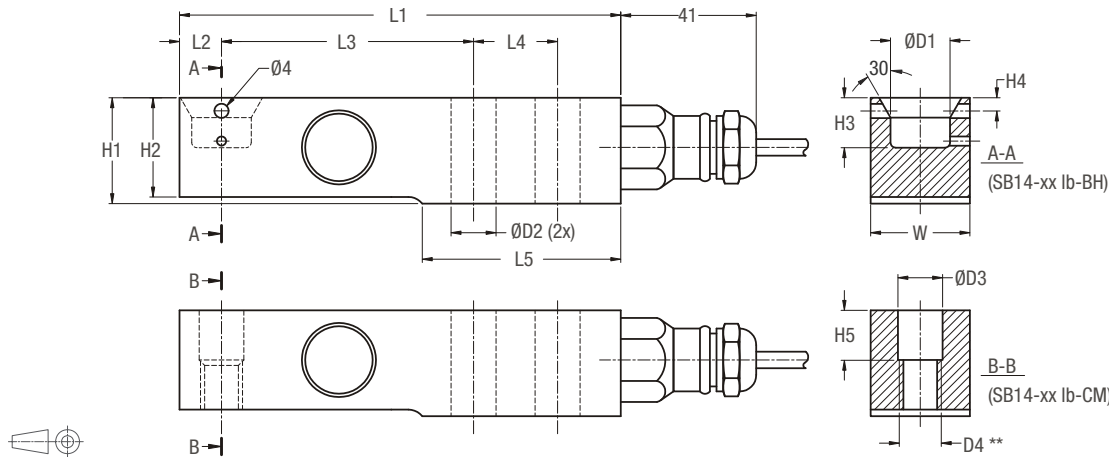
- Compatible range of application hardware
- Compatible range of electronics

Specifications

		(E _{max})	klb	0.5 / 1 / 2.5 / 5 / 10	0.5 / 1 / 2.5 / 5
Maximum capacity			kg	227 / 454 / 1134 / 2268 / 4536	227 / 454 / 1134 / 2268
Metric equivalents (1 lb=0.45359 kg)				(GP)	C3 MI 6
Accuracy class according to OIML R60				3000	3000
Maximum number of verification intervals (n _{max})				n.a.	E _{max} / 11 500
Minimum load cell verification interval (v _{min})				n.a.	E _{max} / 11 500
Temperature effect on minimum dead load output (TC ₀)		%*RO/10°C		≤ ± 0.0400	≤ ± 0.0122
Temperature effect on sensitivity (TC _{RO})		%*RO/10°C		≤ ± 0.0200	≤ ± 0.0100
Combined error		%*RO		≤ ± 0.0500	≤ ± 0.0200 / ≤ ± 0.0180
Non-linearity		%*RO		≤ ± 0.0400	≤ ± 0.0166 / ≤ ± 0.0166
Hysteresis		%*RO		≤ ± 0.0400	≤ ± 0.0166 / ≤ ± 0.0083
Creep error (30 minutes) / DR		%*RO		≤ ± 0.0600	≤ ± 0.0166 / ≤ ± 0.0083
Option	Min.load cell verification interval (v _{min opt})			n.a.	E _{max} / 23 000
	Temp. effect on min. dead load output (TC _{0 opt})	%*RO/10°C		n.a.	≤ ± 0.0061
Rated Output (RO)		mV/V		2 ± 0.1%	
Calibration in mV/V/Ω (A...I classified)		%		≤ ± 0.05 (≤ ± 0.005)	
Zero balance		%*RO		≤ ± 5	
Excitation voltage		V		5...15	
Input resistance (R _{LC})		Ω		1 100 ± 50	
Output resistance (R _{out})		Ω		1 000 ± 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		-40...+80 (ATEX -40...+60)	
Load cell material				stainless steel 17-4 PH (1.4548)	
Sealing				complete hermetic sealing; cable entry sealed by glass to metal header	
Protection according EN 60 529				IP68 (up to 2 m water depth) / IP69K	

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.

Dimensions (in mm)



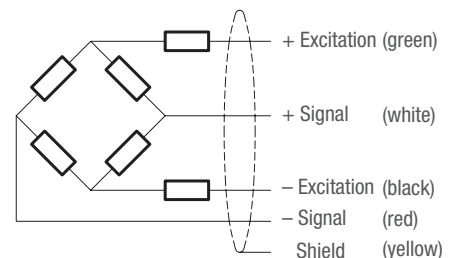
Type	L1	L2	L3	L4	L5	H1	H2	H3	H4	H5	W	D1	D2	D3	D4	Mounting bolts	Torque *
SB14-500 lb/1000 lb	133.4	12.7	76.2	25.4	59.9	31	28.8	15	4	15	30	18	13	13.5	M12	M12 8.8	90 Nm
SB14-2500 lb	133.4	12.7	76.2	25.4	59.9	31	30.5	15	4	15	30	18	13	13.5	M12	M12 8.8	90 Nm
SB14-5000 lb	133.4	12.7	76.2	25.4	59.9	31	30.5	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	21.5	M20	M20 8.8	400 Nm

* Torque values assume oiled threads.

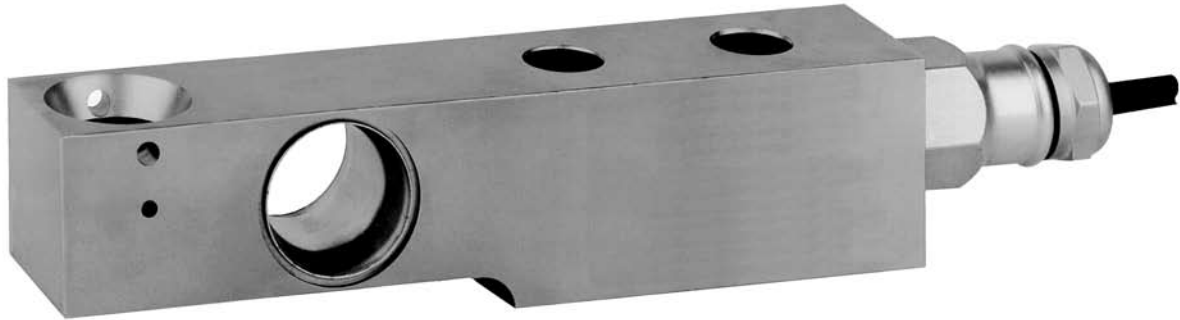
** Unified thread 1/2-20 UNF (500...5000 lb) and 3/4-16 UNF (10000 lb) is available. Type designation SB14-xx-CU.

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 5 000 lb
4.5 m for SB14-10 000 lb
- Cable diameter: 5 mm
- The shield is floating
(On request the shield can be connected to the load cell body)



Type SB4 Load Cell



Product Description

The type SB4 is a stainless steel beam type load cell with complete hermetic sealing. It is a perfect fit for use in harsh industrial environments.

Application

- Platform scales, hopper and tank scales

Key Features

- Wide range of capacities from 5 kN to 100 kN (510 kg to 10 197 kg)
- Stainless steel construction
- Environmental Protection IP68 with complete hermetic sealing
- Unique blind loading hole
- High input resistance
- Calibration in mV/V/Ω

Options

- OIML approval to C3 MI7.5
- OIML approval to C4 MI7.5 (for 5 ... 50 kN)

Approvals

- OIML approval to C1 (Y = 5 000), C3, C3 MI7.5, C4 and C4 MI7.5 (Y = 11 000)
- NTEP approval to 5 000 intervals, Class III (for 5 kN to 50 kN)
- ATEX hazardous area approval for Zone 0, 1, 2, 20, 21 and 22
- FM hazardous area approval

Packed Weight

■ Capacity (kN)	5–20	50	100
Weight (kg)	1.4	2.9	7.1

Available Accessories

- Compatible range of application hardware
- Compatible range of electronics

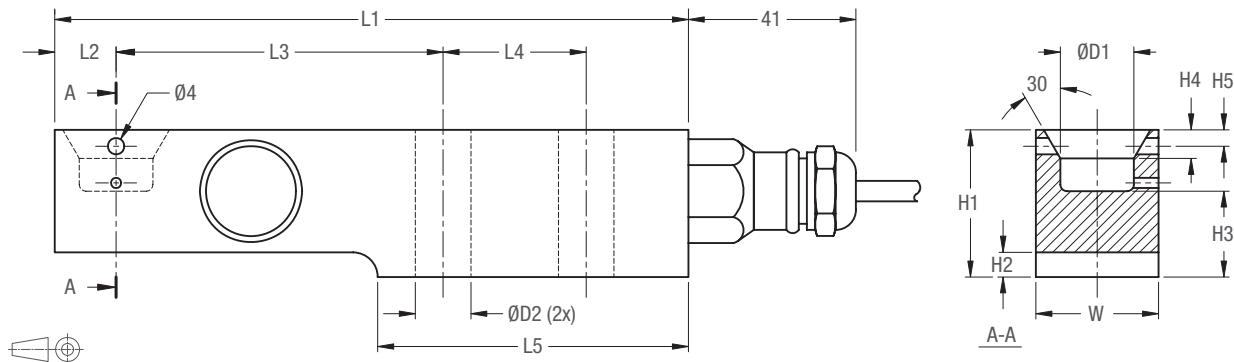
Specifications

	(E _{max})	kN	5 / 10 / 20 / 50 / 100				5 / 10 / 20 / 50	
Maximum capacity		kg	510 / 1020 / 2039 / 5099 / 10197				510 / 1020 / 2039 / 5099	
Metric equivalents (1 N=0.10197 kg)			(GP)	C1	C3	C3 MI 7.5	C4	C4 MI 7.5
Accuracy class according to OIML R60			n.a.	1 000	3 000		4 000	
Maximum number of verification intervals (n _{max})			n.a.	E _{max} / 5 000	E _{max} / 11 000			
Minimum load cell verification interval (v _{min})			n.a.	E _{max} / 5 000	E _{max} / 11 000			
Temperature effect on minimum dead load output (T _{CO})	%*R0/°10C		≤ ± 0.0400	≤ ± 0.0275	≤ ± 0.0127			
Temperature effect on sensitivity (T _{CR0})	%*R0/°10C		≤ ± 0.0200	≤ ± 0.0160	≤ ± 0.0100		≤ ± 0.0080	
Combined error	%*R0		≤ ± 0.0500	≤ ± 0.0300	≤ ± 0.0200	≤ ± 0.0180	≤ ± 0.0180	≤ ± 0.0150
Non-linearity	%*R0		≤ ± 0.0400	≤ ± 0.0300	≤ ± 0.0166	≤ ± 0.0166	≤ ± 0.0125	≤ ± 0.0125
Hysteresis	%*R0		≤ ± 0.0400	≤ ± 0.0300	≤ ± 0.0166	≤ ± 0.0066	≤ ± 0.0125	≤ ± 0.0066
Creep error (30 minutes) / DR	%*R0		≤ ± 0.0600	≤ ± 0.0490	≤ ± 0.0166	≤ ± 0.0066	≤ ± 0.0125	≤ ± 0.0066
Rated Output (R0)	mV/V		2 ± 0.1%					
Calibration in mV/V/Ω (A...I classified)	%		≤ ± 0.05 (≤ ± 0.005)					
Excitation voltage	V		5...15					
Zero balance	%*R0		≤ ± 5					
Input resistance (R _{LC})	Ω		1 100 ± 50					
Output resistance (R _{out})	Ω		1 000 ± 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		-40...+80 (ATEX -40...+60)					
Load cell material			stainless steel 17-4 PH (1.4548)					
Sealing			complete hermetic sealing; cable entry sealed by glass to metal header					
Protection according EN 60 529			IP68 (up to 2 m water depth) / IP69K					

The limits for Non-Linearity, Hysteresis, and T_{CR0} are typical values.

The sum of Non-linearity, Hysteresis and T_{CR0} meets the requirements according to OIML R60 with p_{LC}=0.7.

Dimensions (in mm)

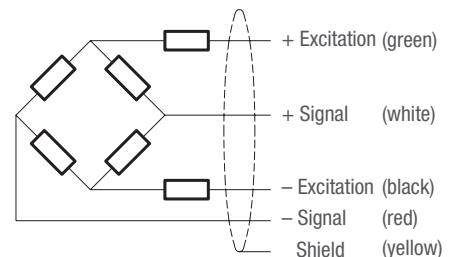


Type	L1	L2	L3	L4	L5	H1	H2	H3	H4	H5	W	D1	D2	Mounting bolts	Torque*
SB4-5/10/20 kN	155	15	80	35	76	36	6	21	7	4	30	18	13	M12 8.8	90 Nm
SB4-50 kN	190	21	105	40	93	49	8	28.5	6	8	43	25	21	M20 8.8	400 Nm
SB4-100 kN	245	30	135	50	120	73	12.5	42	10	n.a.	60	30	27	M24 8.8	700 Nm

* 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 for SB4-5 kN/10 kN/20 kN
4.5 m for SB4-50 kN/100 kN
- Cable diameter: 5 mm
- On customer enquiry the shield is either floating or connected to the load cell body




Product Description

The type SB5 is a stainless steel beam type load cell with an improved potting. It is suitable for use in industrial environments.

Application

- Platform scales, hopper and tank scales

Key Features

- Wide range of capacities from 5 kN to 100 kN (510 kg to 10 197 kg)
- Stainless steel construction
- Environmental Protection IP67
- Low profile design
- Unique blind loading hole
- High input resistance
- Calibration in mV/V/Ω

Approvals

- OIML approval to C1 (Y = 5 100) and C3 (Y = 11 000), for 5 ... 50 kN only
- NTEP approval to 5 000 intervals, Class III (for 5 kN to 50 kN)
- ATEX hazardous area approval for Zone 0, 1, 2, 20, 21 and 22
- FM hazardous area approval

Packed Weight

■ Capacity (kN)	5-20	50	100
Weight (kg)	1.4	2.9	7.0

Available Accessories

- Compatible range of application hardware
- Compatible range of electronics

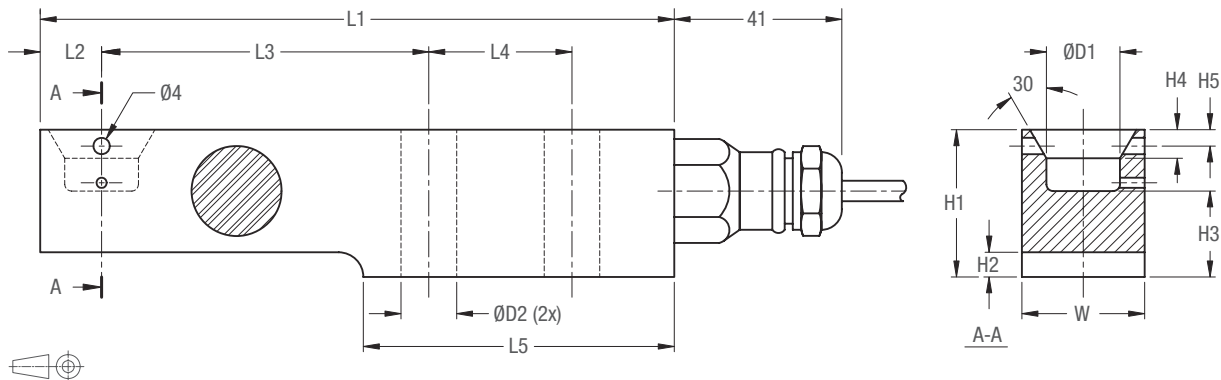
Specifications

	(E _{max})	kN	5 / 10 / 20 / 50 / 100	5 / 10 / 20 / 50
Maximum capacity		kN	5 / 10 / 20 / 50 / 100	5 / 10 / 20 / 50
Metric equivalents (1 N=0.10197 kg)		kg	510 / 1 020 / 2 039 / 5 099 / 10 197	510 / 1 020 / 2 039 / 5 099
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} /5 100 E _{max} /11 000
Temperature effect on minimum dead load output	(TC ₀)	%*RO/10°C	≤ ± 0.0400	≤ ± 0.0275 ≤ ± 0.0127
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 ± 0.1%
Calibration in mV/V/Ω (A...I classified)		%		≤ ± 0.05 (≤ ± 0.005)
Zero balance		%*RO		≤ ± 5
Excitation voltage		V		5...15
Input resistance	(R _{LC})	Ω		1 100 ± 50
Output resistance	(R _{out})	Ω		1 000 ± 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				stainless steel 17-4 PH (1.4548)
Sealing				potted
Protection according EN 60 529				IP67

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.

Dimensions (in mm)

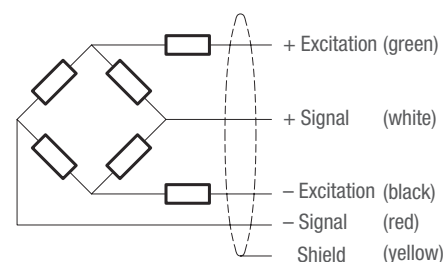


Type	L1	L2	L3	L4	L5	H1	H2	H3	H4	H5	W	D1	D2	Mounting bolts	Torque *
SB5-5 kN/10 kN/20 kN	155	15	80	35	76	36	6	21	7	4	30	18	13	M12 8.8	90 Nm
SB5-50 kN	190	21	105	40	93	49	8	28.5	6	8	43	25	21	M20 8.8	400 Nm
SB5-100 kN	245	30	135	50	120	73	12.5	42	10	n.a.	60	30	27	M24 8.8	700 Nm

* 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 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
(On request the shield can be connected to the load cell body)



Type SB8 Load Cell



Product Description

The type SB8 is a stainless steel beam type load cell with complete hermetic sealing. It is a perfect fit for use in industrial environments.

Application

- Platform scales, bench scales, conveyor scales, small hopper and tank weighing systems, bagging machines and other

Key Features

- Wide range of capacities from 10 kg to 500 kg
- Stainless steel construction
- Environmental Protection IP68 with complete hermetic sealing
- Calibration in mV/V/Ω

Approvals

- OIML approval to C3 (Y = 10 000)
- ATEX hazardous area approval for Zone 0, 1, 2, 20, 21 and 22
- FM hazardous area approval

Packed Weight

■ Capacity (kg)	10–20	50–250	500
Weight (kg)	0.62	0.64	0.8

Available Accessories

- Compatible range of application hardware
- Compatible range of electronics available

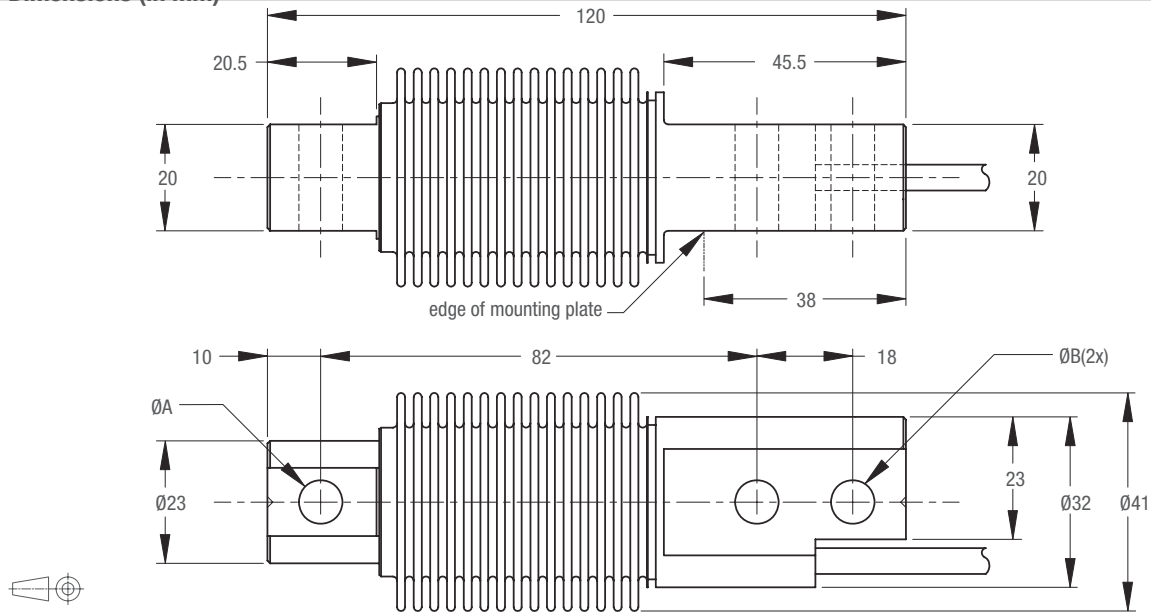
Specifications

	(E _{max})	kg	10 / 20 / 50 / 100 / 200 / 250 / 500	
Maximum capacity			(GP)	C3
Accuracy class according to OIML R60			n.a.	3000
Maximum number of verification intervals	(n _{max})		n.a.	E _{max} / 10000
Minimum load cell verification interval	(v _{min})		n.a.	
Temperature effect on minimum dead load output	(TC ₀)	%*RO/10°C	≤ ± 0.0400	≤ ± 0.0140
Temperature effect on sensitivity	(TC _{RO})	%*RO/10°C	≤ ± 0.0200	≤ ± 0.0100
Combined error		%*RO	≤ ± 0.0500	≤ ± 0.0200
Non-linearity		%*RO	≤ ± 0.0400	≤ ± 0.0166
Hysteresis		%*RO	≤ ± 0.0400	≤ ± 0.0166
Creep error (30 minutes) / DR		%*RO	≤ ± 0.0600	≤ ± 0.0166
Rated Output	(RO)	mV/V	2 ± 0.1%	
Calibration in mV/V/Ω (A...I classified)		%	≤ ± 0.05 (≤ ± 0.005)	
Zero balance		%*RO	± 5	
Excitation voltage		V	5...15	
Input resistance	(R _{LC})	Ω	380 ± 10	
Output resistance	(R _{out})	Ω	350 ± 3	
Insulation resistance (100 V DC)		MΩ	≥ 5000	
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	-40...+80 (ATEX -40...+60)	
Load cell material			stainless steel 17-4 PH (1.4548)	
Protection according EN 60 529			IP68 (up to 2 m water depth)	

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.

Dimensions (in mm)

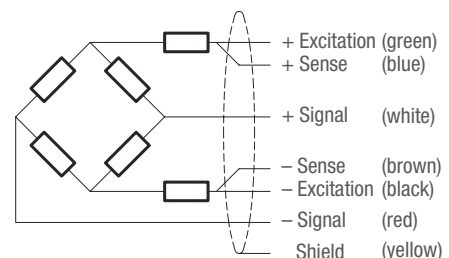


Type	A	B	Mounting bolts	Torque*
10...250 kg	8.2	8.2	M8 8.8	25 Nm
500 kg	10.5	8.2	M8 10.9	35 Nm

* Torque value assumes oiled thread.

Wiring

- The load cell is provided with a shielded, 6 conductor cable (AWG 26).
Cable jacket polyurethane
- Cable length: 3 m
- Cable diameter: 5.8 mm
- The shield is connected to the load cell body





Product Description

The type SLB is a stainless steel beam type load cell with an improved potting. It is suitable for use in industrial environments.

Application

- Platform scales, small hopper and tank scales

Key Features

- Wide range of capacities from 200 lb to 5 000 lb (91 kg to 2 268 kg)
- Stainless steel construction
- Environmental Protection IP67
- Unique blind loading hole
- High input resistance
- Calibration in mV/V/Ω

Approvals

- OIML approval to C3 (Y = 11 500)
- NTEP approval to 7 500 intervals, Class III
- ATEX hazardous area approval for Zone 0, 1, 2, 20, 21 and 22
- FM hazardous area approval

Packed Weight

■ Capacity	(lb)	200–2 500	5 000
■ Weight	(kg)	1.1	1.2

Available Accessories

- Compatible range of application hardware
- Compatible range of electronics

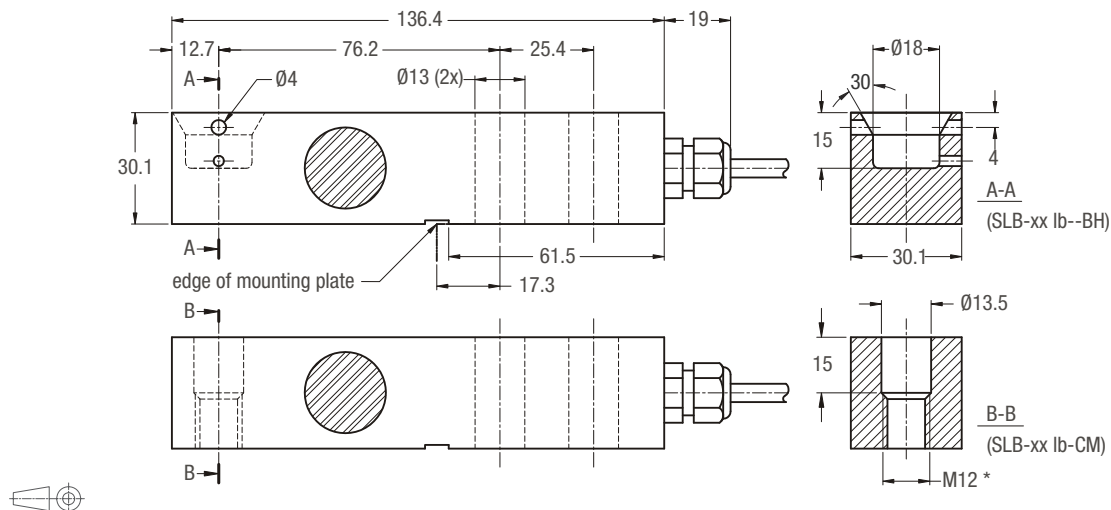
Specifications

Maximum capacity	(E _{max})	lb	200 / 500 / 1000 / 2500 / 5000	
Metric equivalents (1 lb=0.45359 kg)		kg	91 / 227 / 454 / 1134 / 2268	
Accuracy class according to OIML R60			(GP)	C3
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	(TC ₀)	%*RO/10°C	≤ ± 0.0400	≤ ± 0.0122
Temperature effect on sensitivity	(TC _{RO})	%*RO/10°C	≤ ± 0.0200	≤ ± 0.0100
Combined error		%*RO	≤ ± 0.0500	≤ ± 0.0200
Non-linearity		%*RO	≤ ± 0.0400	≤ ± 0.0166
Hysteresis		%*RO	≤ ± 0.0400	≤ ± 0.0166
Creep error (30 minutes) / DR		%*RO	≤ ± 0.0600	≤ ± 0.0166
Rated Output	(RO)	mV/V	2 ± 0.1%	
Calibration in mV/V/Ω (A...I classified)		%	≤ ± 0.05 (≤ ± 0.005)	
Zero balance		%*RO	≤ ± 5	
Excitation voltage		V	5...15	
Input resistance	(R _{LC})	Ω	1 100 ± 50	
Output resistance	(R _{out})	Ω	1 000 ± 2	
Insulation resistance (100 V DC)		MΩ	≥ 5000	
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			stainless steel 17-4 PH (1.4548)	
Sealing			potted	
Protection according EN 60 529			IP67	

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.

Dimensions (in mm)



Mounting bolts for 200 lb to 2500 lb: M12 8.8 / torque 90 Nm; for 5000 lb: M12 10.9 / torque 120 Nm. Torque values assume oiled threads.

* Unified thread 1/2-20 UNF is available (type designation SLB-xx-CU).

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
(On request the shield can be connected to the load cell body)

