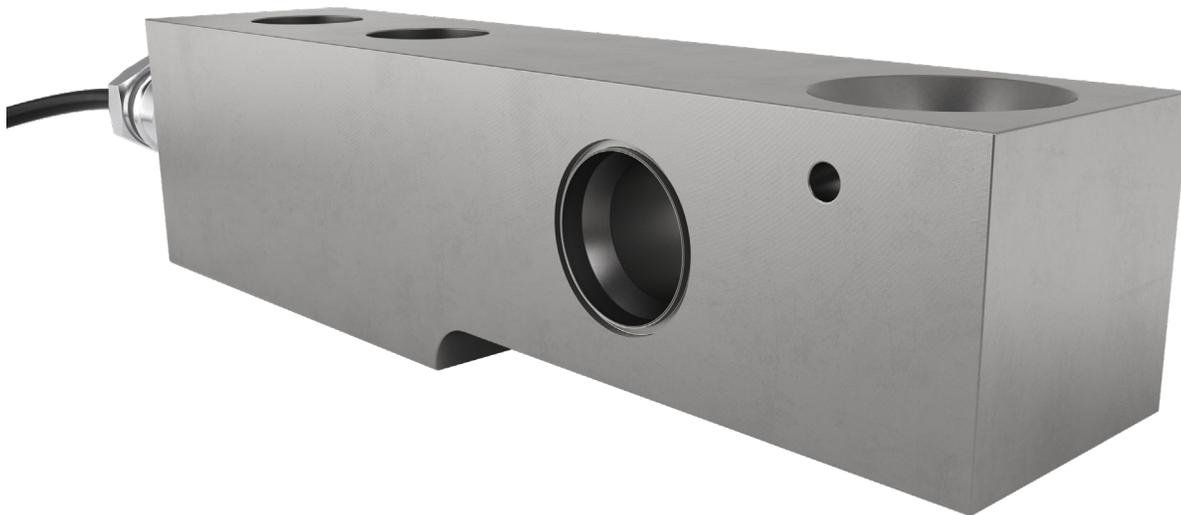


# SB4 CAN beam load cell



## product description

The SB4 CAN is a high-accuracy, low-profile bending beam load cell, designed for industrial platform scales, pallet truck scales, and vessel and tank weighing systems. Its stainless steel construction and hermetic sealing to IP69K make it highly durable in demanding industrial applications.

An embedded CAN board transforms the SB4 into a fully digital load cell, enabling direct CAN communication without requiring external signal converters. This ensures seamless integration into modern weighing and control systems.

The SB4 is fully interchangeable with the potted SB5 CAN and is available in a range of capacities.

Setup is straightforward and can be performed with a terminal emulation program or the Flintec FDC application, available from [flintec.com](http://flintec.com).

## applications

Industrial platform scales, pallet truck scales, vessel and tank weighing systems.

## accessories + options

Compatible range of hardware

Default: Free leads; Optional: M12, 5-pin male code-A connector

## key features

Capacities from 5kN to 100kN  
(510kg to 10,197kg)

Stainless steel construction

Hermetically sealed to IP68/IP69K  
for extreme durability

Low-profile design for easy  
integration

Unique blind-hole load introduction

Embedded CAN output  
(user-selectable CANopen or J1939)

Software-configurable parameters  
for flexible integration

Works with Flintec FDC application  
for analysis & configuration



RoHS  
compliant



## load cell specifications

Maximum capacity ( $E_{max}$ )	kN	5 / 10 / 20 / 50 / 100		
Metric equivalents (1lb=0.45359kg)	kg	510 / 1,020 / 2,039 / 5,099 / 10,197		
Accuracy class	-	GP	G1	G3
Temperature effect on minimum dead load output ( $TC_0$ )	%*RO/°10C	± 0.0400	± 0.0275	± 0.0127
Temperature effect on sensitivity ( $TC_{RO}$ )	%*RO/°10C	± 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
Zero balance	%*RO	± 5		
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		
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		
Packet weight	kg	1.4 (5-20kN), 2.9 (50kN), 7.1 (100kN)		

The limits for Non-Linearity, Hysteresis, and  $TC_{RO}$  are typical values.

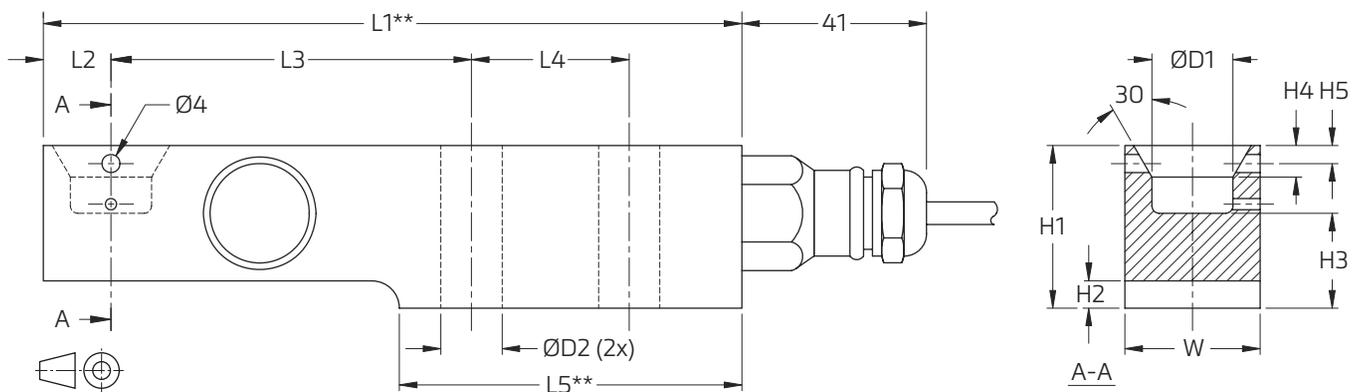
## embedded CAN board specifications

Board model	-	CED-20
Supply voltage	VDC	9-32
Supply reversal protection	-	Yes
Oversoltage protection	-	Yes
Software enabled CAN termination resistor	-	Yes
Operating temperature range	°C	-20 to +70

Storage temperature range	°C	-40 to +80
ADC type	-	24-bit Sigma-Delta
Digital filters	-	Rolling average, IIR
CAN output cable	-	Free leads or an M12, 5-pin male Code A connector
Protocols supported	-	CANopen (default), J1939 (selectable)
Baud rates (CANopen)	bits/s	10k, 20k, 50k, 125k, 250k, <b>500k</b> , 800k, 1,000k
Baud rates (J1939)	bits/s	250k
Update rates (CANopen)	Hz	5 to 2,500
Update rates (J1939)	Hz	5 to 1,600
Designed to meet	-	Regulation 10, ISO 13766:2018, ISO 14982:1998

The embedded CAN board includes components designed to meet standards such as Regulation 10, ISO 13766:2018, and ISO 14982:1998. However, it is not currently certified for these standards. Customers requiring compliance must confirm suitability with their regulatory requirements.

### product dimensions (mm)



\*\*As it has in no way influence on the functionality and accuracy of the load cell, this dimension might be in singular cases shorter.

Type	L1	L2	L3	L4	L5	H1	H2	H3	H4	H5	W	D1	D2	Mount 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

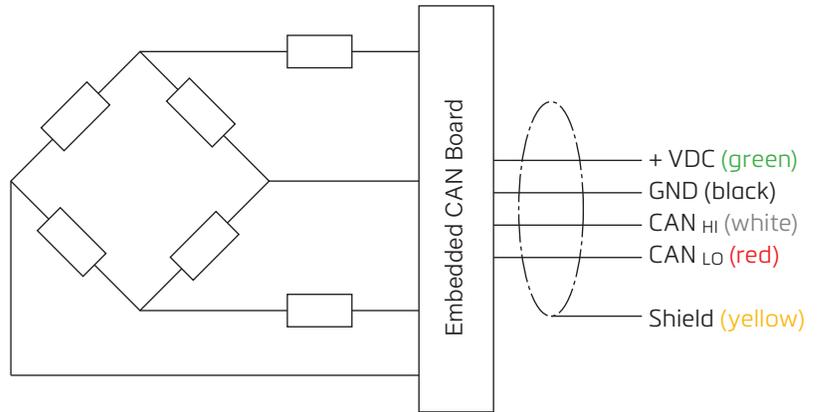
Cable length:

3m for SB4-5 kN/10 kN/20 kN

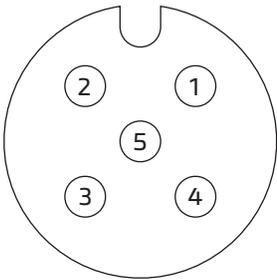
4.5m for SB4-50 kN/100 kN

Cable diameter: 5mm

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



## M12 5-PIN Male Code A



Pin	Function	Colour
1*	Shield**	Yellow
2	+ VDC	Green
3	GND	Black
4	CAN <sub>HI</sub>	White
5	CAN <sub>LO</sub>	Red

\* Pin 1 shield connection is optional.

\*\* Shield connected at sensor is optional.

Specifications and dimensions are subject to change without notice.