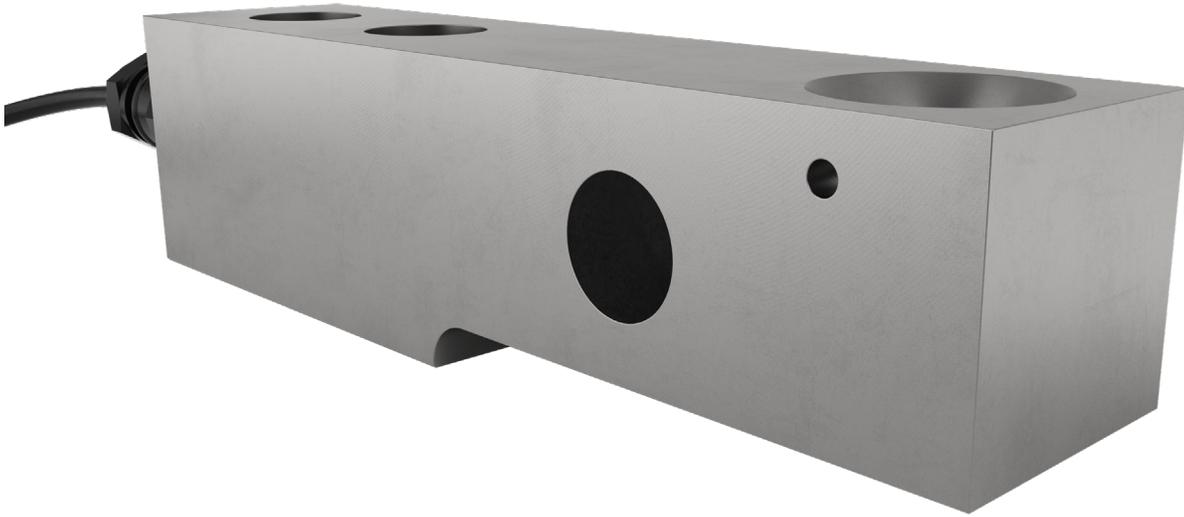


SB5 CAN beam load cell



product description

The SB5 CAN is a high-accuracy, low-profile bending beam load cell, featuring a unique blind-hole load introduction that ensures optimal force transmission and improved stability in weighing applications. It is particularly suited for industrial platform scales, pallet truck scales, and vessel and tank weighing systems. Its stainless steel construction and environmental sealing to IP67 make it a robust choice for industrial applications where a full hermetic seal is not required.

An embedded CAN board transforms the SB5 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 SB5 CAN is fully interchangeable with the SB4 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.

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



RoHS
compliant



key features

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

Stainless steel construction

Environmentally sealed to IP67

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

load cell specifications

Maximum capacity (E_{max})	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		GP	G1	G3
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
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)		
Operating temperature range	°C	-20 to +70 (Limit is the load cell)		
Sealing		potted		
Protection according to EN 60 529		IP67		
Packet weight	kg	1.4 (5-20kN), 2.9 (50kN), 7.0 (100kN)		

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

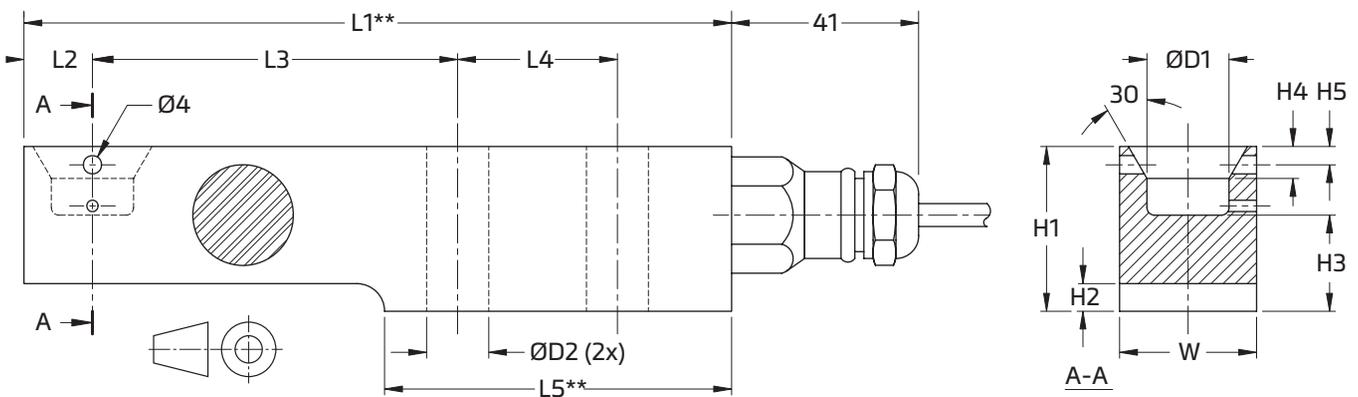
embedded CAN board specifications

Board model	-	CED-20
Supply voltage	VDC	9-32
Supply reversal protection	-	Yes
Oversvoltage protection	-	Yes
Software enabled CAN termination resistor	-	Yes

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, 500k , 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	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

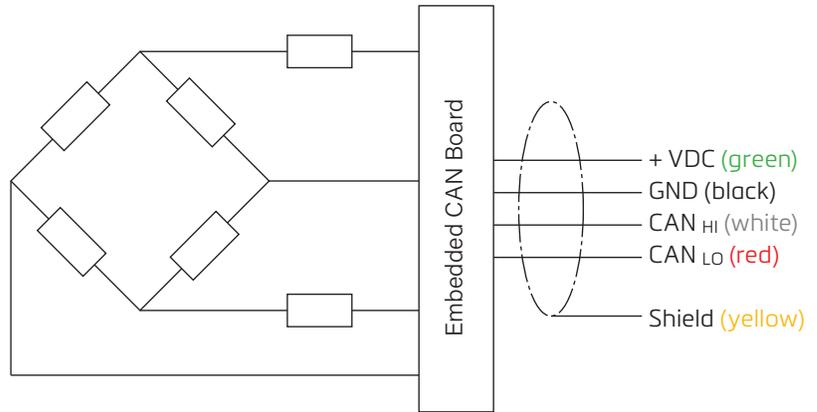
Cable length:

3m for SB5-5 kN/10 kN/20 kN

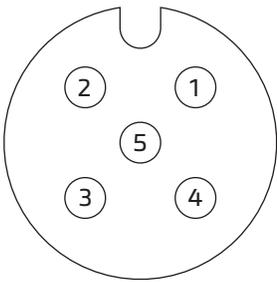
4.5m for SB5-50 kN/100 kN

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 _{HI}	White
5	CAN _{LO}	Red

* Pin 1 shield connection is optional.

** Shield connected at sensor is optional.

Specifications and dimensions are subject to change without notice.