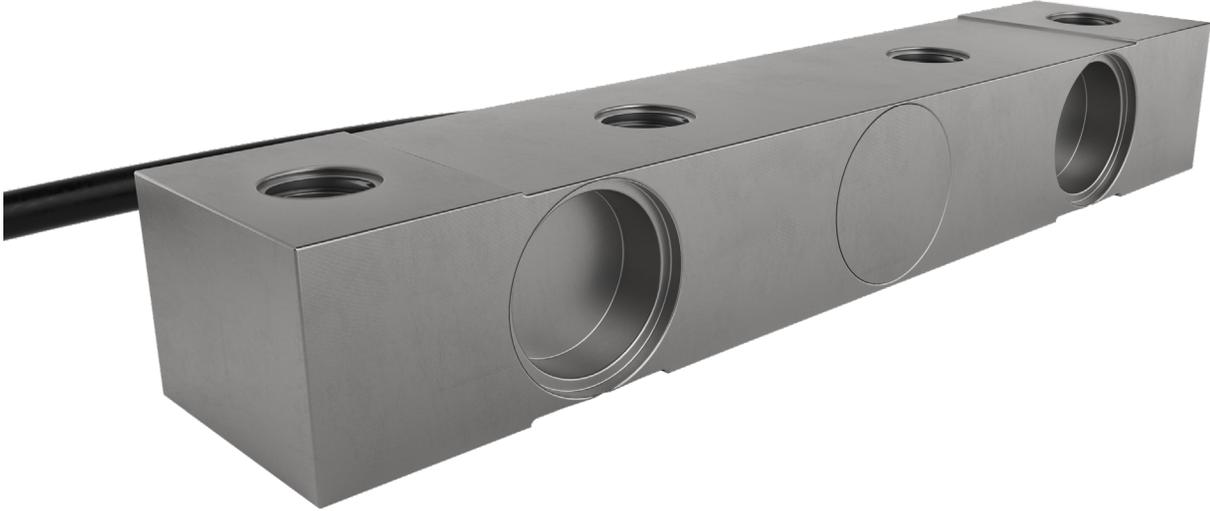


DSB7 CAN beam load cell (2t & 7.5t)



product description

The DSB7 CAN is a high-accuracy double-ended shear beam load cell designed for industrial vehicles and agricultural machinery that require precise payload control in demanding environments. The embedded CAN output functionality, supporting CANopen or J1939 protocols, enables seamless digital integration into modern weighing and control systems.

An embedded CAN board transforms the DSB7 (2t & 7.5t) into a fully digital load cell, eliminating the need for external signal converters while maintaining high accuracy and durability in rugged applications.

Setup is straightforward and can be performed with a terminal emulation program or the Flintec FDC application, available from flintec.com.

applications

Under body vehicle weighing systems such as RCVs, tipper trucks and agricultural machinery including muck spreaders, trailers and feed mixers.

accessories + options

Compatible range of hardware

Optional spacer

Default: Free leads | Optional: M12, 5-pin male Code-A connector

key features

Corrosion resistant stainless steel

Hermetically sealed to IP68

Low profile

Designed for onboard vehicle weighing

Capacities of 2t (4.4klb) and 7.5t (16.5klb)

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})	t	2	7.5
Accuracy class	-	GP	
Temperature effect on minimum dead load output (TC_0)	%*RO/10°C	± 0.0400	
Temperature effect on sensitivity (TC_{RO})	%*RO/10°C	± 0.0200	
Combined error	%*RO	± 0.15	
Creep error (30 minutes) / DR	%*RO	± 0.0600	
Zero balance	%*RO	± 1.5 (or better)	
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	
Sealing	-	complete hermetic sealing	
Protection according EN 60 529	-	IP68 (up to 2m water depth)	
Packet weight	kg	1.75 (7.5t)	

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
Overvoltage 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, 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.

wiring

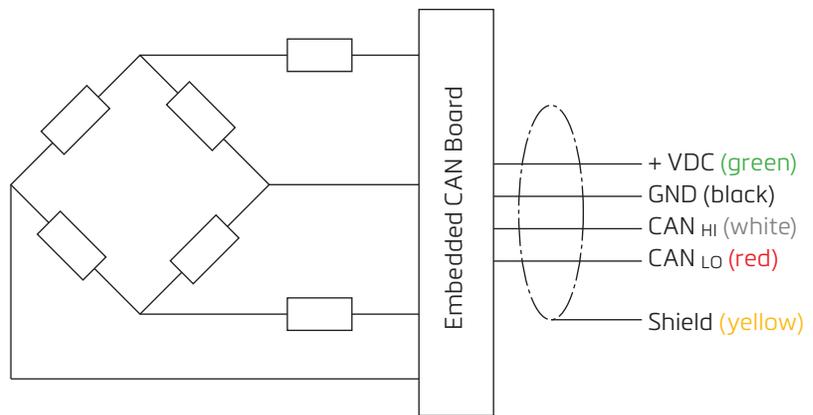
The load cell is provided with a shielded, 4 conductor cable (AWG 24).

Cable jacket: polyurethane

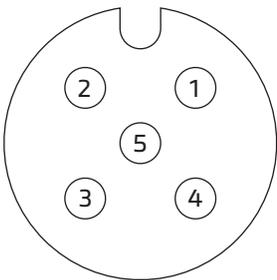
Cable length: 5m
(longer or shorter on request)

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

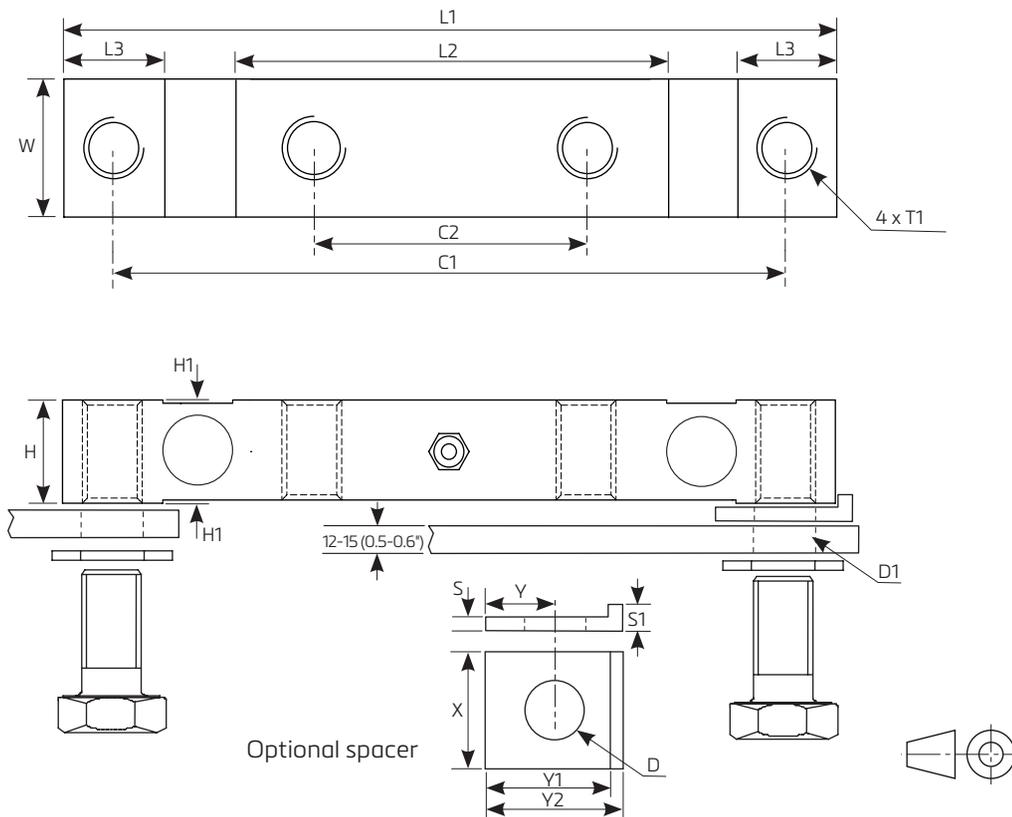


Pin	Function	Colour
1*	Shield**	Yellow
2	+ VDC	Green
3	GND	Black
4	CAN _{HI}	White
5	CAN _{LO}	Red

* Pin 1 shield connection is optional.

** Shield connected at sensor is optional.

product dimensions (mm)



L1	L2	L3	C1	C2	H	H1	W	T1	D1	X	Y	Y1	Y2	S	S1
200	96	29	171.5	67.5	30	0.5	40	M16x1.5	17-18	42	20	36	42	6	12

Specifications and dimensions are subject to change without notice