
PC3H CAN welded single point load cell



product description

The PC3H CAN is designed for front-end bin lifting systems on waste collection vehicles. Its high capacity of 5t allows for a single load cell per lifting fork, reducing the need for dual-cell setups. Virtually shock-proof, the PC3H has proven to be one of the most rugged single-point load cells available to designers and manufacturers of on-board weighing systems. Fully hermetically sealed and constructed from stainless steel, it is built to withstand harsh environments.

An embedded CAN board transforms the PC3H into a fully digital load cell, eliminating the need for external signal converters while maintaining high accuracy and durability in demanding applications.

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

applications

Front end (FEL) bin lifting systems for waste collection vehicles (RCVs).

accessories + options

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

key features

Capacity of 5,000kg

Stainless steel construction with a bead-blasted surface

Hermetically sealed to IP68/IP69K

Very rugged construction

Embedded CAN output (user-selectable CANopen or J1939)

Software-configurable parameters

Works with Flintec FDC application for analysis & configuration



load cell specifications

Maximum capacity (E_{max})	kg	5,000		
Minimum dead load	kg	0		
Accuracy class	-	GP	G1	G2.5
Temperature effect on minimum dead load output (TC_0)	% RO/10°C	±0.040	±0.016	±0.012
Temperature effect on sensitivity (TC_{RO})	% RO/10°C	±0.0500	±0.030	±0.014
Combined error	% RO	±0.0500	±0.030	±0.024
Non- linearity	% RO	±0.0500	±0.030	±0.020
Hysteresis	% RO	±0.0500	±0.030	±0.020
Creep error (30minutes)/ DR	% RO	±0.0500	±0.049	±0.020
Zero Balance	% RO	< ± 5		
Safe load limit (E_{lim})	% E_{max}	200		
Ultimate load	% E_{max}	400		
Safe side load limit	% E_{max}	100		
Maximum off centre loading effect	% RO/mm	± 0.00006		
Maximum off centre distance at maximum capacity	mm	500		
Compensated temperature range	°C	-10 ... +40		
Load cell material	-	Stainless steel 17-4PH (1.4548)		
Sealing	-	Complete hermetic sealing; cable entry sealed by glass to metal header		
Humidity class	-	CH		
Protection According to EN60 529	-	IP68 (up to 2m water depth) / IP69K		
Weight	kg	13.5 (approx)		

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

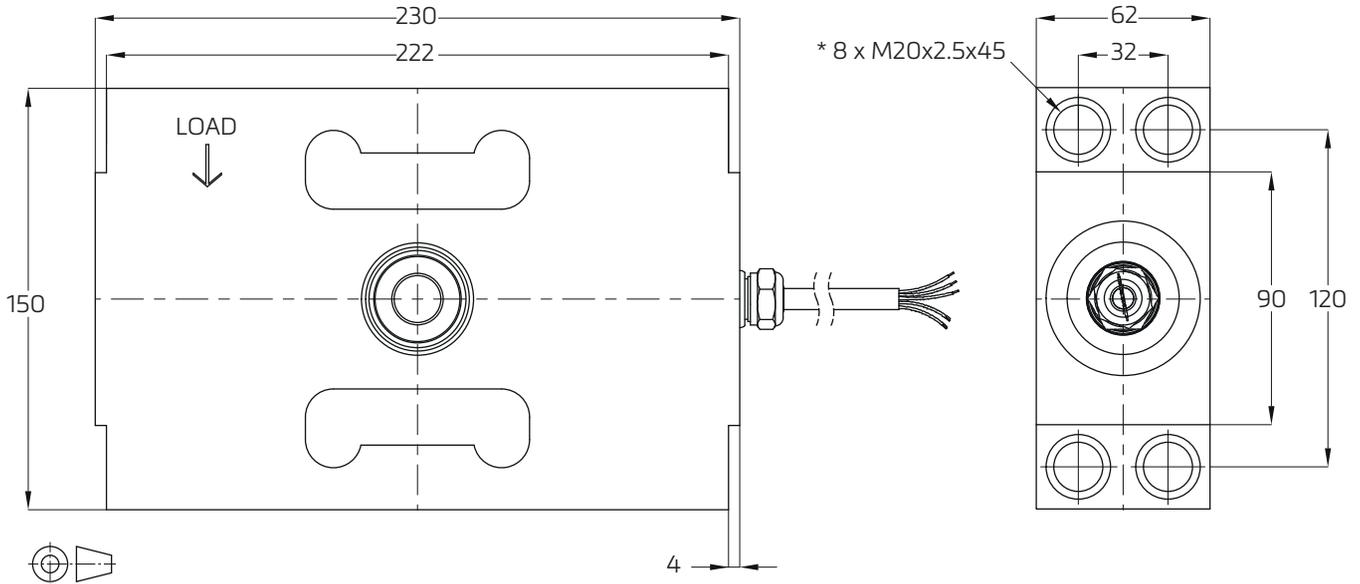
embedded CAN board specifications

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

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.

product dimensions (mm)



*Mounting bolts are M20 with 2.5mm pitch and 45mm deep. (x8)

We recommend a bolt class of 10.9 torqued to 570Nm.
 A bolt class of 12.9 torqued to 670Nm is recommended for high dynamic loads.
 (Values assumes oiled thread.)

wiring

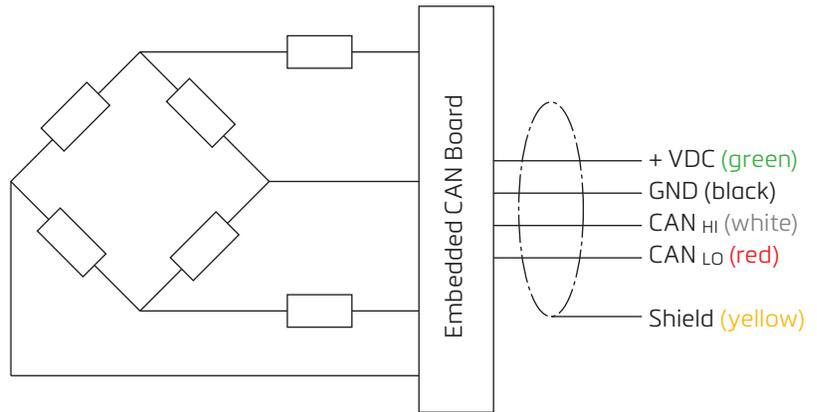
The load cell is provided with a shielded, 4 conductor cable (AWG 20).

Cable jacket: polyurethane

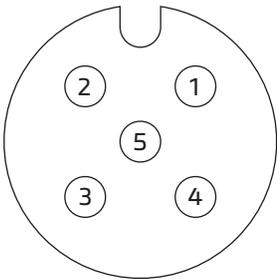
Cable length: 5m

Cable diameter: 7.6mm

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.