PC7H CAN single point load cell

product description

The PC7H CAN is a 1,000kg capacity single-point load cell, designed for rear-end bin lifting systems on waste collection vehicles. Its stainless steel construction and hermetic sealing to IP69K make it highly durable in harsh environments, providing a reliable alternative to aluminium-based load cell solutions.

An embedded CAN board transforms the PC7H 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.

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

applications

Rear end (REL) bin lifting systems for waste collection vehicles (RCVs).

accessories + options

Variable cable lengths available

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

key features

Capacity of 1,000kg

Stainless steel construction with a bead-blasted surface

Hermetically sealed to IP68/IP69K

Rugged construction

Off-centre load adjusted

High accuracy

Embedded CAN output (user-selectable CANopen or J1939)

Software-configurable parameters

Works with Flintec FDC application for analysis & configuration

CE RoHS compliant IP69K CiA

flintec

load cell specifications

Maximum capacity (E_{max})	kg	1,000	
Minimum dead load	kg	0	
Accuracy class	-	GP	G2
Temperature effect on minimum dead load output (TC_0)	%*RO/10 °C	±0.04	±0.0140
Temperature effect on sensitivity (TC_{RO})	%*RO/10 °C	±0.02	±0.0120
Combined error	%*RO"	±0.04	±0.025
Non-Linearity	%*RO	±0.04	±0.025
Hysteresis	%*RO	±0.05	±0.030
Creep error (30 minutes)/DR	%*RO	±0.06	±0.025
Zero balance	%*RO	≤ ±5	
Safe load limit (E_{lim})	%* E_{max}	200	
Ultimate load	%* E_{max}	400	
Safe side load	%* E_{max}	100	
Maximum off centre loading effect	%*RO/mm	±0.0005	
Maximum off centre distance at maximum capacity	mm	600	
Compensated temperature range	°C	-10...+40	
Load cell material	-	Stainless steel 17-4 PH (1.4548)	
Sealing	-	Complete hermetic sealing	
Protection according EN 60 529	-	IP68 (up to 2m water depth)/IP69K	
Weight	kg	3.61	

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

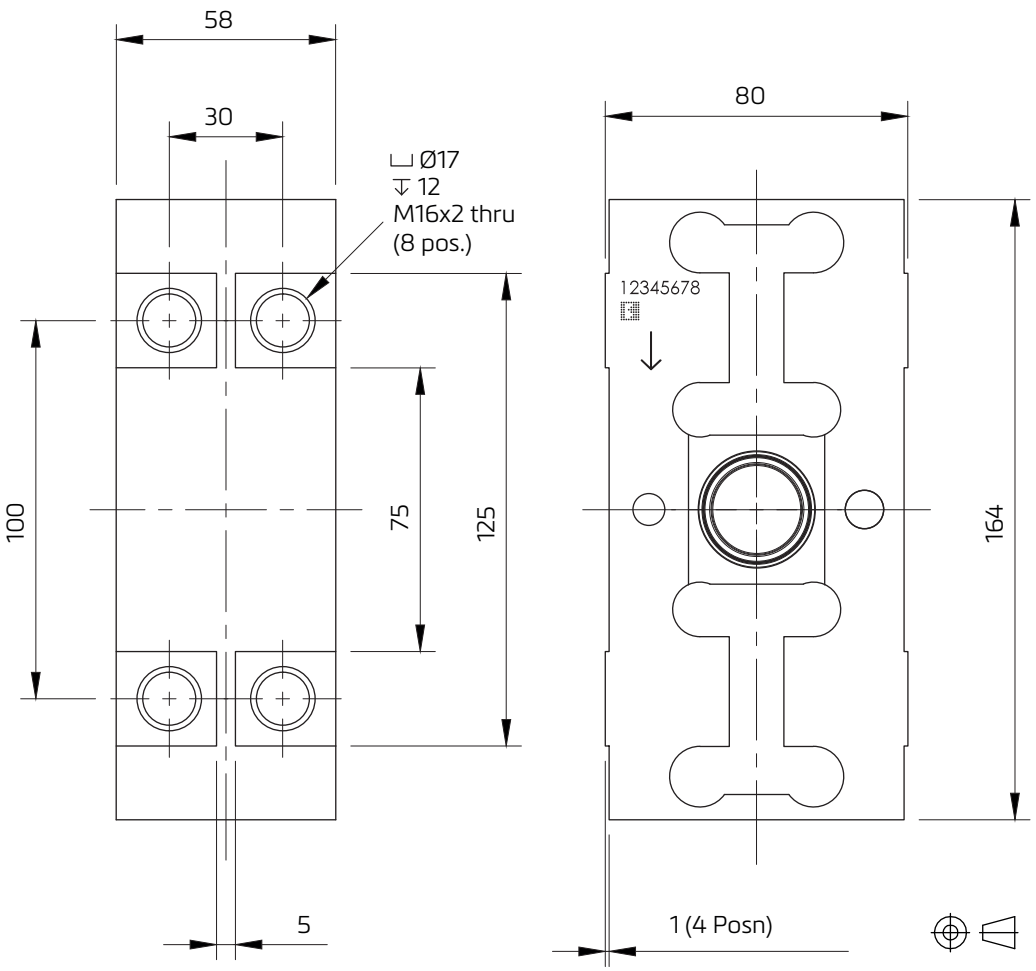
embedded CAN board specifications

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.

product dimensions (mm)



Mounting bolts M16 8.8; torque 200 Nm. Torque value assumes oiled threads.

wiring

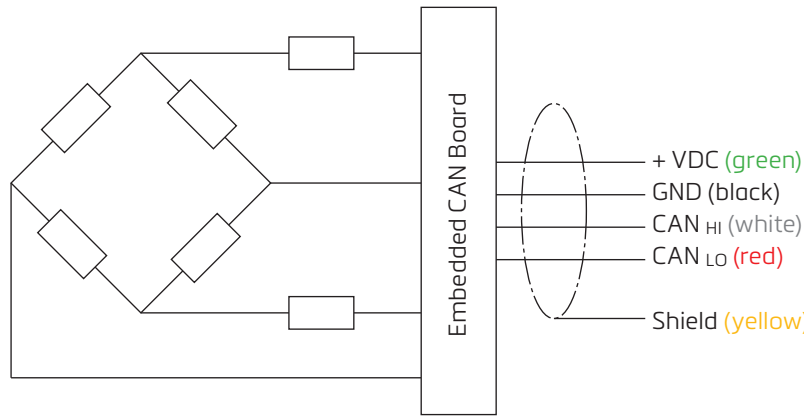
The load cell is provided with a shielded, 4 conductor cable (AWG 24).

Cable jacket: polyurethane

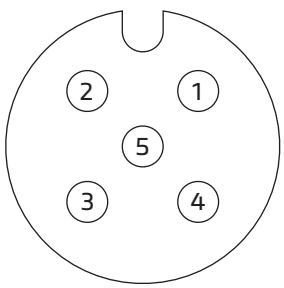
Cable length: 5m

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.