

LOAD CELL CANOPEN



- CAPACITY 50 / 100 / 200 kN
- CANOPEN · CANOPEN SAFETY
- STAINLESS STEEL · IP67
- CONNECTOR M12 × 1, 5-PIN



NOMINAL LOAD (FS)

Capacity	CAN output value	Safe overload	Ultimate overload
50 kN	0 ... 50,000	150 %	200 %
100 kN	0 ... 100,000	150 %	200 %
200 kN ¹	0 ... 200,000	150 %	200 %

¹ 200 kN optional. Overload values in % of the capacity.



OVERVIEW

Load cell for 50, 100 or 200 kN with built-in CANopen electronics: the measured value is sent digitally over the bus, as a TPDO and as a safety-related SRDO to CiA 304.

The stainless steel body is protected to IP67. The load is applied through a load button Ø 32 mm with spherical radius SR 160; the cell is fixed with six M6 threads on the Ø 72.5 mm pitch circle. Supply and bus run through an M12 × 1, 5-pin device connector. The SRDO sends every measured value twice, the second frame bitwise inverted; node ID and baud rate are set via SDO.

50 ... 200 kN capacity	250 kbit/s factory baud rate	± 1 % non-linearity F.S.	IP67 protection class
--	--	--	---

MEASUREMENT	COMMUNICATION
■ capacity 50, 100 or 200 kN	■ CANopen to CiA 301
■ output value up to 50,000 / 100,000 / 200,000	■ CANopen Safety to CiA 304 (SRDO)
■ non-linearity, hysteresis, repeatability ± 1 % each	■ TPDO, SDO, NMT, SYNC, heartbeat, EMCY
■ safe overload 150 %, ultimate overload 200 %	■ node ID and baud rate via SDO



TECHNICAL DATA

MEASUREMENT

Capacity	50 kN · 100 kN · 200 kN (optional)
CAN output value	0 ... 50,000 / 100,000 / 200,000
Zero balance	± 2 % F.S.

PRECISION

Non-linearity	± 1 % F.S.
Hysteresis	± 1 % F.S.
Repeatability	± 1 % F.S.
Creep (30 min)	± 1 % F.S.
Temperature effect on output	± 0.25 % F.S. / 10 °C
Temperature effect on zero	± 0.25 % F.S. / 10 °C
Compensated temperature range	-10 ... +60 °C
Operating temperature range	-20 ... +80 °C

MECHANICAL PROPERTIES

Material	Stainless steel
Protection class	IP67
Mounting	6 × M6, 18 deep, pitch circle Ø 72.5 ± 0.1 mm

MECHANICAL LIMITS

Safe overload	150 % F.S.
Ultimate overload	200 % F.S.

CONNECTOR

On the sensor	M12 × 1, 5-pin
Pin assignment	Pin 1 shield, pin 2 UB+, pin 3 GND, pin 4 CAN_H, pin 5 CAN_L

ELECTRICAL PROPERTIES

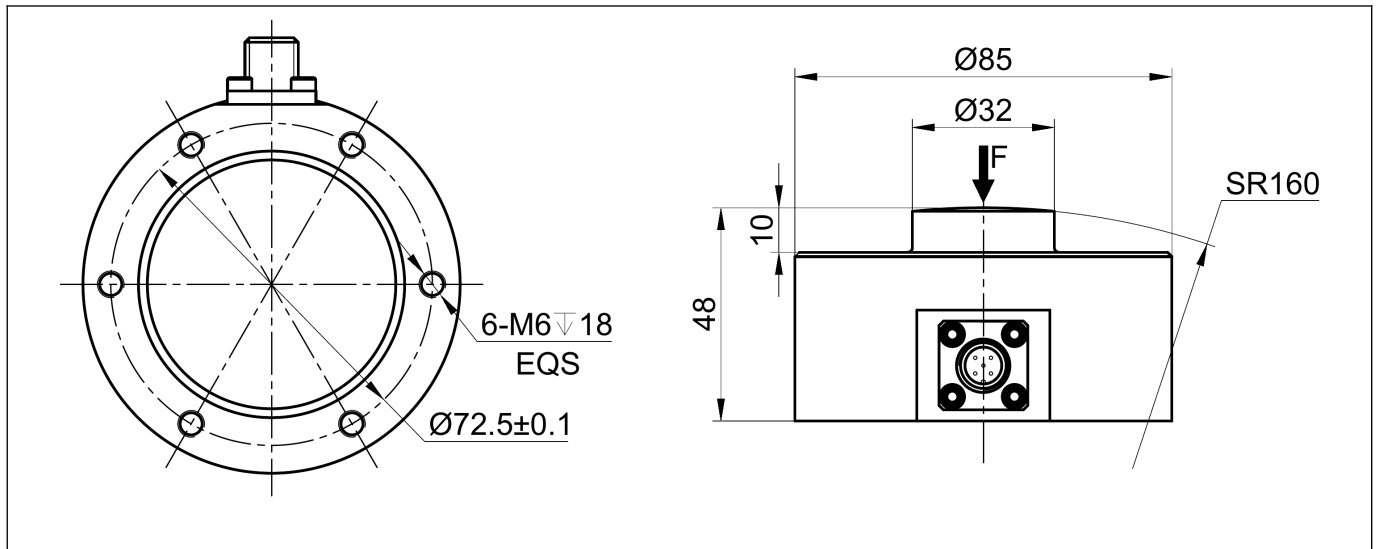
Recommended excitation	8 ... 32 V
Insulation resistance	≥ 5000 MΩ at 50 VDC

COMMUNICATION

Protocol	CANopen (CiA 301), CANopen Safety (CiA 304)
Baud rate	250 kbit/s factory setting; 10 ... 1000 kbit/s adjustable
Node ID	adjustable via SDO (object 0x2100)
COB-ID TPDO	0x180 + node ID (drawing: 185 / 186)
Measured value	object 0x6000, 4 bytes (8 bytes selectable)
SRDO	two frames, the second bitwise inverted



DIMENSIONS (mm)



Dimensions in mm; general tolerances ISO 2768-mK. EQS = equally spaced, F = force application, SR = spherical radius.

COMPLIANCE AND CERTIFICATION

Protection Rating IP67

