Type PC6D Load Cell



IP68

Product Description

The type PC6D is the digital version of the type PC6 single point load cell with complete hermetic sealing and integrated female cable connector. It is a perfect fit for use in harsh industrial environments and wash down applications.
Type PC6D is specifically designed for dynamic weighing processes like filling and check weigher applications. The CANopen interface provides an easy connection to computer, PLC and other systems.

For Typ PC6D there are 2 firmware versions available.

Default firmware: "Automatic Weighing Controller" for dynamic weighing in check weighers or multi head scales.
Optional firmware: "Fluid Filling Controller" for dosing processes of fluids, pellets or powder.

Application

- Bench scales, conveyor scales, check weighers, packaging machines and industrial process control

Options

- 2 Firmware versions
- Base plate with overload stop

Key Features

- Capacity of 20 kg
- Stainless steel construction
- Environmental Protection IP68 with complete hermetic sealing
- Digital load cell with built-in microcontroller, A/D conversion and selectable digital filtering
- CANopen interface with switchable bus termination
- Max. conversion rate up to 1 200/s
- 1 software trigger and 4 software setpoints
- Firmware download
- Maximum platform size up to 450 x 450 mm
- Integral mounting spacer
- Integrated female cable connector

Packed Weight

- 1.4 kg

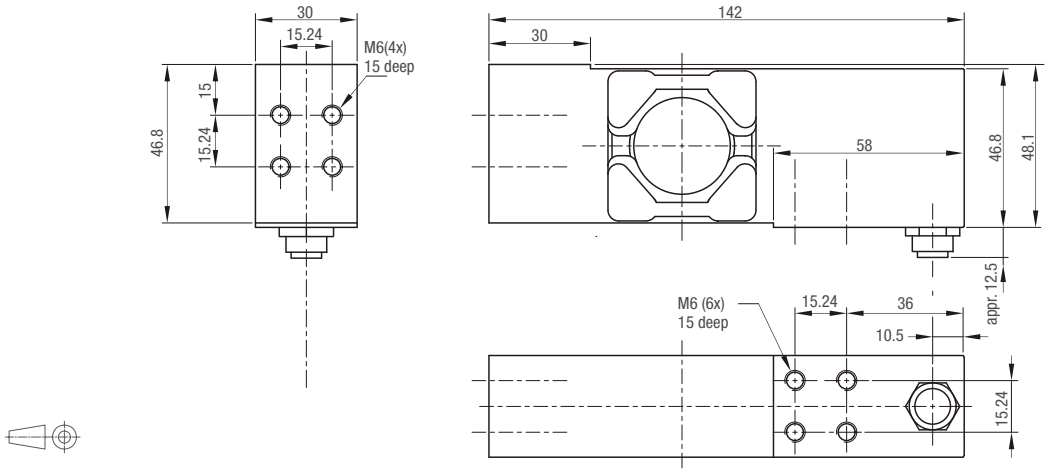
Specifications

Maximum capacity	(E_{max})	kg	20
Accuracy class according to OIML R60			G3*
Maximum number of verification intervals	(n_{LC})		3 000
Minimum load cell verification interval	(v_{min})		E_{max} /20 000
Temperature effect on minimum dead load output	(TC_0)	%*RO/10°C	± 0.0070
Temperature effect on sensitivity	(TC_{RO})	%*RO/10°C	± 0.0100
Combined error		%*RO	± 0.0200
Non-linearity		%*RO	± 0.0166
Hysteresis		%*RO	± 0.0166
Creep error (30 minutes) / DR		%*RO	± 0.0166
Rated Output	(RO)	counts	200 000 ± 200 (± 0.1%*RO)
Zero balance		counts	± 2000 (± 1%*RO)
Internal resolution		counts	520 000
Power supply		V DC	12...24 ± 10% / 32 mA
Switch on current		mA	< 100
Conversion rate internal / external (values per second)			2 400 / up to 1 200
Digital filter			FIR filter 2.5 to 19.7 Hz / IIR filter 0.25 to 18 Hz; programable in 8 steps
CANopen interface			Standard CiA DS301 / 10 k...1 Mbit/s (automatic)
Max. cable length		m	≤ 25 at 1 Mbit/s I ≤ 100 at 500 kbit/s
Bus termination resistor			switchable
EMC			CE 73/23/EEC, 93/98/EEC and 89/336/EEC
Safe load limit			200
Ultimate load		%*E_{max}	300
Safe side load		%*E_{max}	100
Maximum platform size; loading acc. to OIML R76		mm	450 x 450
Maximum off centre distance at maximum capacity		mm	150
Compensated temperature range		°C	–10...+50
Operating temperature range		°C	–10...+50
Storage temperature range		°C	–20...+60
Load cell material			stainless steel 17-4 PH (1.4548)
Sealing			complete hermetic sealing
Protection according EN 60 529			IP68 (up to 2 m water depth) / IP69K

* corresponds to C3 quality, test certificate not available

The limits for Non-Linearity, Hysteresis, and TC_{RO} are typical values.
The sum of Non-linearity, Hysteresis and TC_{RO} meets the requirements according to OIML R60 with p_{LC}=0.7.

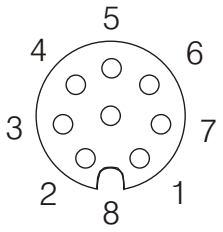
Dimensions (in mm)



Mounting bolts M6 8.8; torque 10 Nm. Torque value assumes oiled threads

Wiring

- The load cell is provided with a M12 female cable connector (type PRKFM, stainless steel)
- The connector housing is connected to the load cell body



Connector pin	Function
8	UB + 24 V DC
1	GND
7	CANH out
3	CANH in
6	CANL out
5	CANL in
2 and 4	not connected