Pendeo® RC3D compression load cell

product description

The digital Pendeo® RC3D compression load cell features embedded electronics that improve system accuracy and load cell handling and allows the user to communicate with each load cell independently. It's designed so that multiple cells can be wired together in a daisy chain to the indicator, greatly simplifying installations by avoiding the need for a junction box.

The Pendeo® RC3D is compact and robust, built from high-grade stainless steel and fully hermetically sealed; its performance can be relied upon in even the harshest of conditions. A rocker column design helps ensure optimum weighing accuracy when subjected to off-centre forces from scale deck movements.

The Pendeo® RC3D can be provided with either the standard connectors or cabled connectors. The cabled variant is detailed at the end of this datasheet.

applications

Weighbridges, hoppers, tanks and silos.

approvals

OIML C3 and C4 approval (Y = 15,000)

NTEP class III approval to 5,000

accessories + options

Standard connectors or cabled connectors available

Range of hardware and electronics

key features

Stainless steel construction

Capacities of 30, 40 and 50t are available

Hermetically sealed to IP68/IP69K

Eliminates need for a junction box

Extensive diagnostic capabilities to monitor load cell condition

Easy communication (RS485) and fast system setup

Improved handling of corner adjustment and system calibration

Integrated surge protectors tested in accordance with EN 61000-4-5

Daisy-chain connection with proven M12 connector cable

RoHS compliant

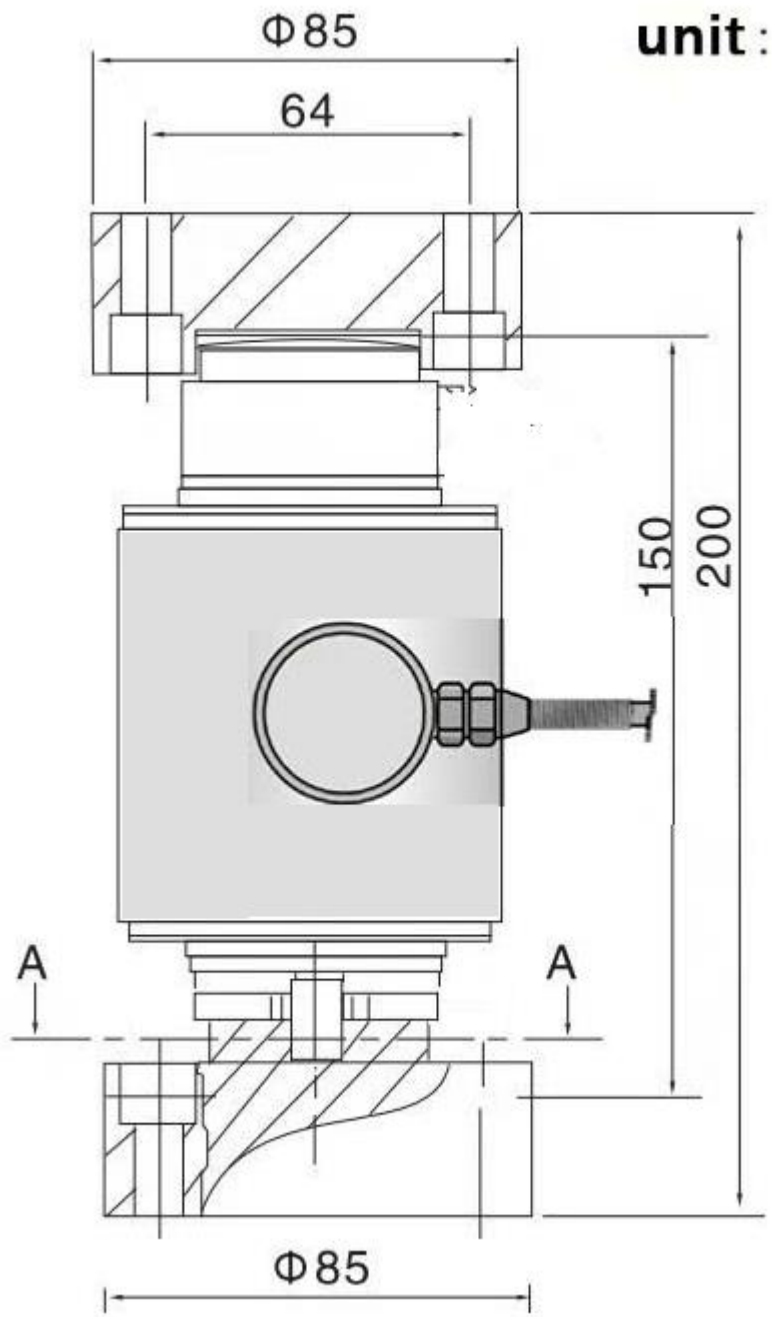
IP69K

AmCells™ AmCells Corp.

specifications

Maximum Capacity (E_{max})	t	30/40/50			
Accuracy class according to OIML R60		(GP)	C1	C3	C4
Maximum number of verification intervals (n_{LC})		n.a.	1,000	3,000	4,000
Minimum load cell verification interval (v_{min})		n.a.	E_{max} /5,000	E_{max} /15,000	
Temperature effect on minimum dead load output (TC_0)	%*RO/10°C	± 0.0400	± 0.0280	± 0.0093	
Temperature effect on sensitivity (TC_{RO})	%*RO/10°C	± 0.0200	± 0.0160	± 0.0100	± 0.0080
Combined error	%*RO	± 0.0500	± 0.0300	± 0.0200	± 0.0180
Non-linearity	%*RO	± 0.0400	± 0.0300	± 0.0166	± 0.0125
Hysteresis	%*RO	± 0.0400	± 0.0300	± 0.0166	± 0.0125
Creep error (30 minutes) / DR	%*RO	± 0.0600	± 0.0490	± 0.0166	± 0.0125
Rated Output (RO)	counts	200,000 ± 200 (± 0.1%*RO)			
Zero balance	counts	± 2,000 (± 1%*RO)			
Internal resolution	counts	500,000			
Excitation voltage	V	10...12			
Current consumption	mA	< 40			
Converter type		Sigma-Delta ratiometric			
Conversion rate		10 Hz (4.7 to 80 Hertz, factory configuration only)			
Digital filter		Rolling Average (4, 9, 16, 25 samples)			
Asynchronous interface		RS485A half duplex, multidrop with network address, 2,400...38,400 baud. Baudrate, data bits, parity and data output are programmable			
Number of bus addresses	n	52			
Safe load limit (E_{lim})	%*E_{max}	200			
Ultimate load	%*E_{max}	300			
Compensated temperature range	°C	–10...+40			
Operating temperature range	°C	–40...+60			
Load cell material		stainless steel 17-4 PH (1.4548)			
Sealing		complete hermetic sealing; cable entry sealed by glass to metal header			
Protection according EN 60 529		IP68 (up to 2m water depth) / IP69K			
Packet weight	kg	3.3 (30t), 3.6 (40t), 4.5 (50t)			
Load cell cable length	-	Standard: 10m - supplied with 2x M12 right-angle, female connectors Cabled var: 2x 1m with M12 female, attached via cable glands			
Load cell connectors		2x M12, 4-pin, male			

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}=0.8.


Φ85
64
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