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COMPRESSION LOAD CELLS SERIES CN

BCS compression load cells series CN are very compact, rugged transducers, without movable parts, suitable to convert supported forces or weights into proportional electric signal.
Load cells consist of an elastic mechanical element in high tensile steel whitstanding the load, activated by means of a full strain-gauges bridge.
Proper and accurate thermal compensation for zero coefficient and elastic module of the supporting element steel allows to measure strain and weights in a wide room temperature range, with reliability, high accuracy and repeteability over short and long term.
Each load cell is calibrated for an output signal of 2,000 mV/V at nominal rated load applied: this allows complete interchangeability among load cells, without any calibration adjustment for the connected measuring instrument.
Each cell is closed into a waterproof case and is provided with 5 m of six-wire shielded cable, directly fastened to the case (for some application, a special cable for high temperature environment is available).
On request,the cable can be replaced by a 6-pin connector.
Load cells series CN have been specifically designed to cope with side loads, and are provided with double spherical head, which allows moderate slope of load cell with inherent small side loads and assures the settlement in vertical position when the side load falls; the use of relevant mounting accessories (hardened steel pads and mounting plates) is recommended.
The following nominal capacities are available: 6 - 10 - 15 - 20 - 30 - 50 - 100 - 150 - 200 tons; on request, load cells with other capacity values can be manufactured.

TECHNICAL SPECIFICATIONS

PARAMETER		UNIT	CN	CNX
Precision class (at 21°C)		% R.L.	± 0.2	± 0.1
Deflexion at rated load (max.)		mm	0.3	0.3
Safe overload (also for shock loads)		% R.L.	130	130
Ultimate overload		% R.L.	250	250
Calibration accuracy (at 21°C)		% R.L.	± 0.10	± 0.05
Linearity error (at 21°C)		% R.L.	± 0.15	± 0.10
Hysteresis (at 21°C)		% R.L.	± 0.05	± 0.05
Repeteability resistance (50 V dc)		% R.L.	± 0.05	± 0.03
Insulation resistance (50 V dc)		MΩ	≥ 1000	≥ 1000
Bridge nominal resistance:	- input	Ω	380 ±15	380 ±15
	- output	Ω	350 ± 1	350 ± 1
Supply voltage:	- recommended	V (ac/dc)	10	10
	- max.	V (ac/dc)	15	15
Rated output (R.L.)		mV/V	2,000	2,000
Temperature range:	- compensated	°C	0 ÷ 60	0 ÷ 60
	- operating	°C	-20 ÷ 80	-20 ÷ 80
Temperature effect:	- on zero	%/°C	± 0.005	± 0.003
	- on span	%/°C	± 0.005	± 0.002

Note: 0.1% accuracy class available up to 100 tons.