

CC (B - C)

CYLINDRICAL FORCE TRANSDUCER FOR INDUSTRIAL APPLICATIONS



Main features

- Range of measurement: from 750 to 1.500 kN
- Accuracy class: 0,5%
- Internally generated calibration signal
- All stainless steel construction
- Corrosion resistant
- Grade of protection: IP65 (norme DIN 40050)

The CC force transducers have been designed for use in the plastics industry where it is required to measure the reaction force to the extrusion pressure that is present on the casing of the gearbox along the axis of the extruder screw.

These models, fitted in contact with the thrust bearings, measure a force whose value, after suitable correction, is equal to extrusion pressure multiplied by the screw area. The CC cylindrical force transducers are all stainless steel construction and configured in such a way that the body, airtight welded, acts also as the case, making a unit that is smaller than the CT series.

The connector in the shank is on the same axis as the transducer, which in some cases allows easier installation.

TECHNICAL DATA

Accuracy	0,5%
Nominal full scale load (Ln)	750...1500 kN
Nominal output at FSO	2mV/V
Output tolerance at Ln	$\pm 1\%$ FSO
Combined errors: Non linearity Hysteresis, Repeatability	$< \pm 0,5\%$ FSO
Creep (after 30 min. at Ln)	$< \pm 0,06\%$ FSO
Zero load out of balance signal	$< \pm 1\%$ FSO
Calibration signal *	80%FSO $\pm 1\%$
Thermal drift in compensated range	Sensitivity Zero Calibration
	$< \pm 0,02\%$ FSO°C $< \pm 0,02\%$ FSO°C $< \pm 0,02\%$ FSO°C
Nominal input resistance	700 Ohm
Isolation resistance	> 10 GOhm
Nominal supply voltage	10 V
Maximum supply voltage	15 V
Compensated temperature range	-20...+50°C
Maximum temperature range	-20...+60°C
Storage temperature range	-30...+80°C
Permitted static load	130% Ln
Maximum applicable load	150% Ln
Rupture load	$> 300\%$ Ln
Carico statico laterale max.	40% Ln
Maximum elastic deformation at Ln	$< 0,1$ mm
Grade of protection (DIN40050)	IP65
Electr. connections: Connector	VPT02A10-6PT2
Elastic element material	Stainless steel
Case material	Stainless steel

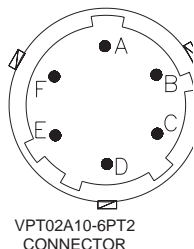
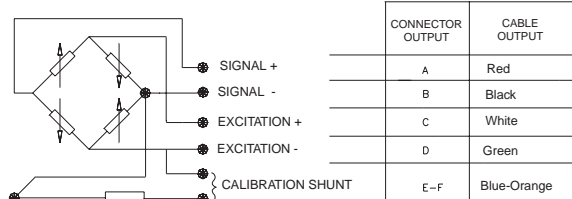
* The exact value is indicated on the instrument nameplate.

MECHANICAL DIMENSIONS

mod.	Ln (kN)	ØA	ØB	C	D
CCB	750	100	38	45	103
CCC	1500	120	38	45	103

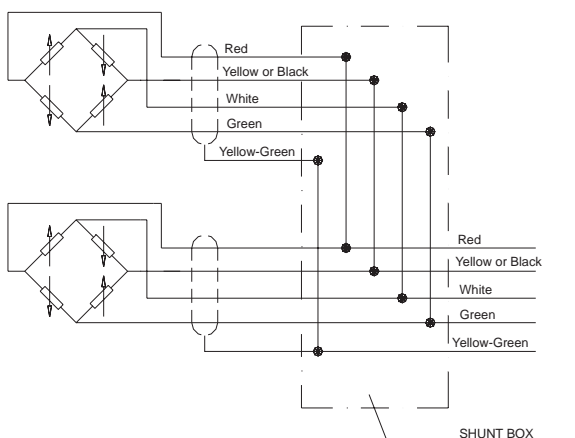
Dimensions mm. ($\pm 0,1$)

ELECTRICAL CONNECTIONS



If the transducer is supplied complete with prewired connection cable, the colour code is that indicated in the table.

Cells connected in parallel



In systems that use several cells, the parallel connection automatically sums the loads on each individual cell. Using this method of measurement, the maximum load will be the sum of the loads on the individual cells and the sensitivity will be the average value of these cells. It is important that the user ensures that no cell is stressed beyond its maximum rating under any load condition.

CONVERSION TABLE

Kg	N	Lb
1	9.807	2.205
0.102	1	0.225
0.454	4.448	1

OPTIONAL ACCESSORIES

Connectors

Female cable connector
Grade of protection IP65

CON 300

6-pin connector with 8m (25ft) cable

C08W

6-pin connector with 15m (50ft) cable

C15W

6-pin connector with 25m (75ft) cable

C25W

6-pin connector with 30m (100ft) cable

W30W

Other lengths

**consult
factory**

APPLICATION NOTES

For a correct use of the transducer, it is necessary to ensure that the load is evenly distributed over the application surfaces shown in the diagram.

It is essential to centre the transducer using the circular crown of diameter **A** and to apply the load installing the transducer between two grinded surfaces perpendicular to the direction of the applied load.

ORDER CODE

Force transducer

CC

MODEL

B

C

Mod.

MEASUR. RANGE (kN)

CCB

0-750

KN7.5C

CCC

0-1500

KN1.5M

If request, it is possible to supply models with non-standard mechanical and/or electrical features.

Ex.: CCB - KN7,5C

CC force transducer, model B, measurement range 0 - 750 kN.

GEFRAN spa reserves the right to make any kind of design or functional modification at any moment without prior notice.

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