

Force sensor CL 21

- High accuracy
- High stability and repeatability
- Easy assambling
- Thin shape
- Insensitive against out of alignment of force load
- Three year warranty and after market service



The force sensor CL 21 has been designed for measuring compressive forces. It's a perfect combination of high accuracy of measurement and compact dimensions.

The conversion of measured load is realized due to a steel spring element with strain gauge full bridge. The bridge is balanced and thermal compensated.

The sensor CL 21 in configuration R1, R2 has the strain gauge bridge 700 Ω with sensitivity 1 mV/V or 2 mV/V.

For electrical protection IP40 the sensor has attached a connector.

For electrical protection IP67 the sensor is equipped with stuffing on connection cable.

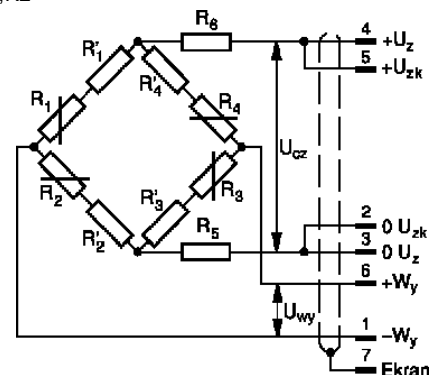
Specifications:

Range	[kN]	1; 2; 5; 10; 20
Output signal	[mV/V]	1 – R1, 2 – R2
Accuracy		0,05 or 0,1
Nominal supply voltage	[V]	10
Strain gauge resistance	[W]	350
Input resistance	[W]	730 ±25
Output resistance	[W]	700 ±5
Drift by nominal load	[%/30 min]	£0,03
Return of output signal to zero after nominal load take away	[%]	£0,03
Operating temperature	[°C]	-20 ... 100
Temperature effect on sensitivity	[%/10K]	£0,05
Temperature effect on signal of unbalance	[%/10K]	£0,05
Compensation temperature	[°C]	0 ÷ 90
Maximal strain	[mm]	0,1
Connector		O1 – O-ring gland
Protection degree		IP67
Dimensions		as in drawing
Material		steel
Cable lenght		0,5m (standard) or other optional

Designations and cable outlets

R1,R2

- | | |
|----------|-------------------|
| 1 brown | -W _y |
| 2 pink | 0 U _{zk} |
| 3 white | 0 U _z |
| 4 yellow | +U _z |
| 5 grey | +U _{zk} |
| 6 green | +W _y |
| 7 black | shield |

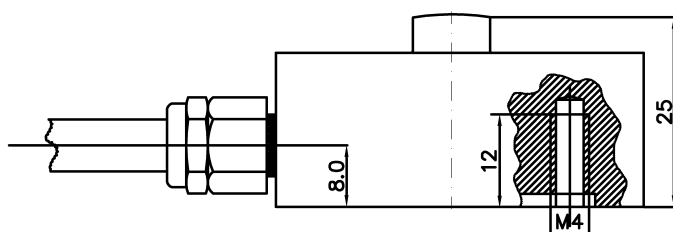
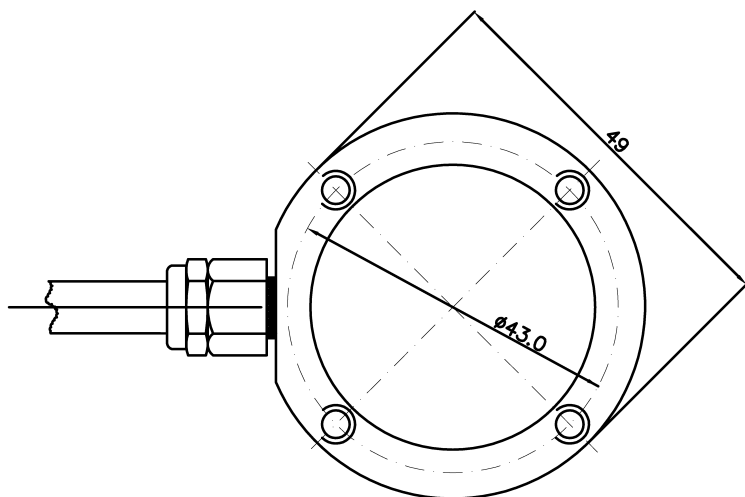


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Quality assurance

Each sensor is detailed examined after manufacturing process.

The manufacturer offers 36 month warranty for the sensor and after that time also repair and calibration services.



Options:

Range [kN]: 1; 2; 5; 10; 20

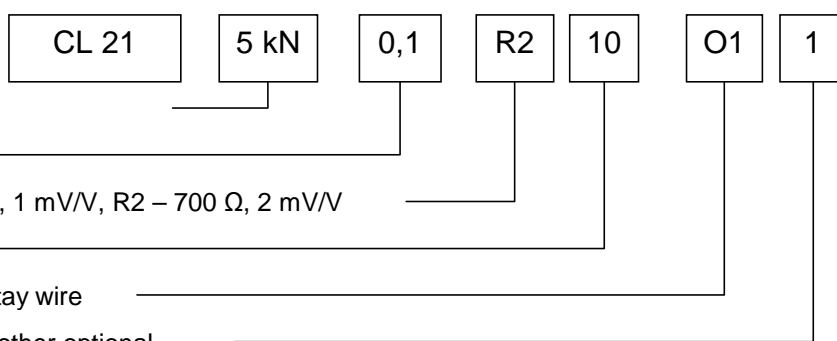
Accuracy class: 0,05; 0,1

Configuration: R1 – bridge 700 Ω , 1 mV/V, R2 – 700 Ω , 2 mV/V

Supply voltage: 10 V

Connectors: O1 – stuffing with stay wire

Cable length: standard 0,5 m or other optional



Example of options for ordering

CL 21 – 5 kN – 0,1 – R2 – 10- O1 – 1: sensor with dimensions as on drawing, range 5 kN; accuracy 0,1; strain gauge bridge 700 Ω , 2 mV/V; connector as stuffing on cable; cable length 1 m.

Manufacturer: _____

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