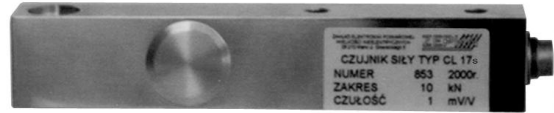


## Force sensor CL 17s

- High accuracy and reliability
- Compressive forces
- Insensitive against out of alignment forces
- Thin shape
- Three year warranty and after market service



Force sensor CL 17s has been designed for measuring static and slow-changing forces. Together with ZEPWN instrumentation can find both labor and industrial usage, especially for converting force into electrical signal in industrial automatics and supervising systems.

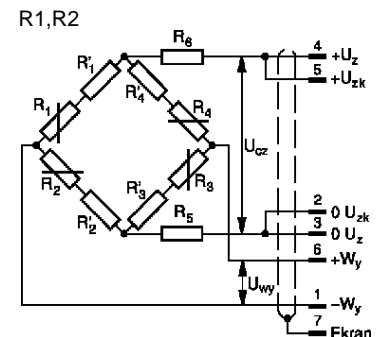
The sensor CL 17s is working on shearing. The conversion of measured load is realized due to steel spring element with strain gauge full bridge. The bridge is balanced and thermal compensated. For electrical protection IP66 the sensor is equipped with stuffing on connection cable.

### Specifications:

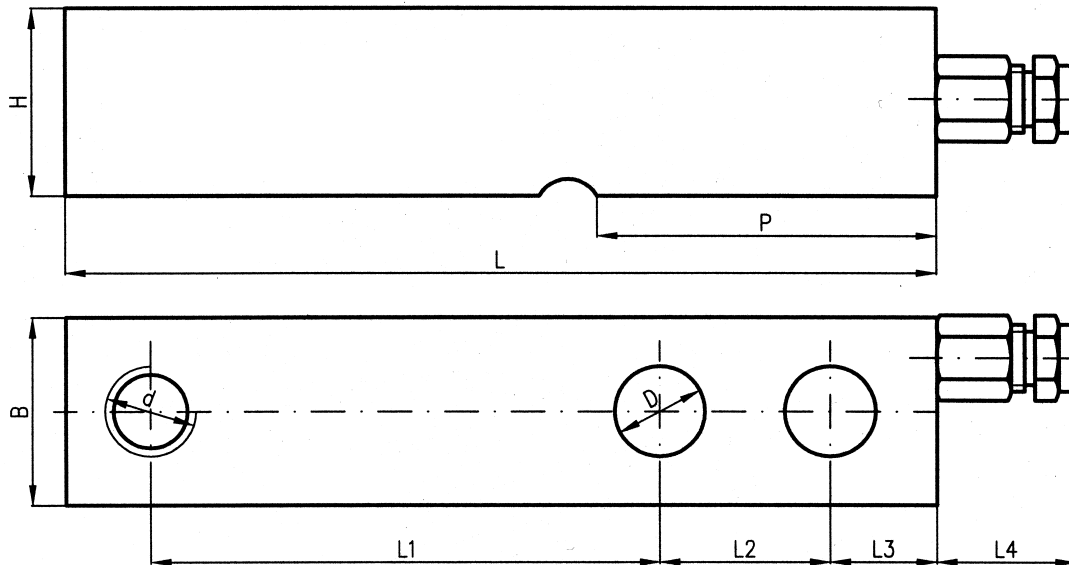
Range	[kN]	5, 10, 20, 50, 100
Accuracy		0,05 or 0,1
Signal of unbalance	[%]	±2
Signal of unbalance from zero after nominal load take away (30 min)	[%]	≤0,02
Drift of output signal by nominal load (30 min)	[%]	≤0,03
Temperature effect on the signal of unbalance	[%/10 K]	≤0,02
Temperature effect on the sensitivity	[%/10 K]	≤0,02
Nominal supply voltage	[V]	10
Nominal sensitivity	[mV/V]	1 or 2
Input resistance	[Ω]	350 ± 25
Output resistance	[Ω]	350 ± 5
Overload capacity	[%]	150
Operating temperature	[°C]	-20 ÷ 80
Compensation temperature	[°C]	0 ÷ 90
Maximal strain	[mm]	0,5
Connectors		O1 – O-Ring gland
Protection degree		IP66
Insulation resistance	[GΩ]	1
Material		steel
Cable length		0,5 m (standard) or other optional

### Designations and cable outlets

1 brown	-W <sub>y</sub>
2 pink	0 U <sub>zk</sub>
3 white	0 U <sub>z</sub>
4 yellow	+U <sub>z</sub>
5 grey	+U <sub>zk</sub>
6 green	+W <sub>y</sub>
7 black	shield



## Force sensor CL 17s



Range kN	B	H	L	L1	L2	L3	L4	P	D	d
	mm									
5	28	24	136	82,4	24,6	16,5	20	50	12,5	M12
10	28	24	136	82,4	24,6	16,5	20	60	12,5	M12
20	28	24	136	82,4	24,6	16,5	20	60	12,5	M12
50	38	38	171	95,3	38,1	19,0	20	60	18,5	18,5
100	48	48	171	95,3	38,1	19,0	20	70	20,5	20,5

### 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]: 5; 10; 20; 50; 100

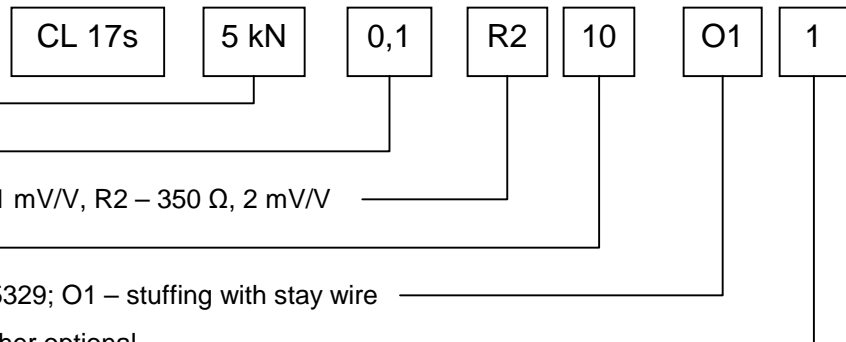
Accuracy class: 0,05; 0,1

Configuration: R1 – bridge 350Ω, 1 mV/V, R2 – 350 Ω, 2 mV/V

Supply voltage: 10 V

Connectors: Z1 – Lumberg DIN 45329; O1 – stuffing with stay wire

Cable length: standard 0,5 m or other optional



### Example of options for ordering

CL 17s – 5 kN – 0,1 – R2 – 1- O1 – 1: sensor with dimensions as in table, range 5 kN; accuracy 0,1; strain gauge bridge 350 Ω, 2 mV/V; connectors as stuffing on cable; cable length 1 m.

Manufacturer:

Zakład Elektroniki Pomiarowej Wielkości Nielektrycznych, 05-270 Marki, ul. Kołtątaja 8

## Force sensor CL 17s

tel./fax 004822. 781 21 69, 771 24 11, e-mail: [zepwn@zepwn.com.pl](mailto:zepwn@zepwn.com.pl), <http://www.zepwn.com.pl>