

Classified force sensor CL 18

- high accuracy
- high stability and repeatability
- compressive forces
- two year warranty and after market service

The operational force sensor CL 18 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 18 can be load with compressive forces.

On demand the sensor can be calibrated by the accredited measuring lab in ZEPWN.



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

The sensor CL 18 in configurations R1, R2 has the strain gauge bridge 700 Ω with sensitivity 1 mV/V or 2 mV/V. For electrical protection IP40 the sensor is equipped with connectors. For electrical protection IP66 the sensor is equipped with stuffing on connection cable.

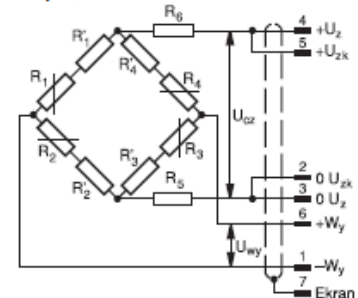
Specifications:

Range	[kN]:	10, 20, 50, 100, 200, 500, 1000, 2000, 3000*
Configuration		R1, R2
Nominal sensitivity	[mV/V]	1 - R1, 2 - R2
Output signal	[mV/V]	1 - R1, 2 - R2
Accuracy class		1 according EN ISO 376
Nominal supply voltage	[V]	10
Input resistance	[M]	730 ± 25
Output resistance	[M]	700 ± 5
Zero point deviation	[%/30 min]	≤ 0,03
Return of output signal to zero after nominal load take away	[%]	≤ 0,03
Operating temperature	[°K]	293 ± 5
Temperature effect on sensitivity	[%/10K]	≤ 0,05
Temperature effect on zero	[%/10K]	≤ 0,05
Temperature compensation	[°K]	293 ÷ 363
Maximum deflection	[mm]	0,15
Connectors		Z1 – LUMBERG or O1 – O-ring gland
Protection degree		IP40, IP66
Dimensions		as in table
Material		steel
Cable length		3 m (standard) or other optional

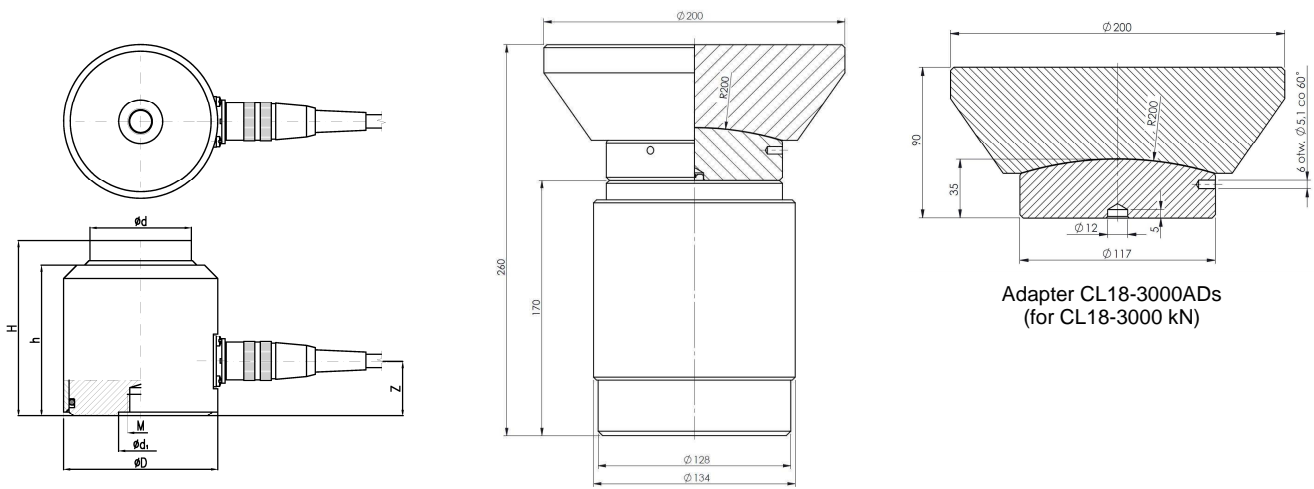
Designations and cable outlets

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

R1, R2



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Adapter CL18-3000ADs
(for CL18-3000 kN)

range kN	H	D	d	d1	h	M	Z	weight
	mm							
5	65	70	20	20	49,5	M12x1.5*	25	0,62
10	65	70	20	20	49,5	M12x1.5*	25	0,72
20	65	70	20	20	49,5	M12x1.5*	25	0,8
50	65	70	20	20	49,5	M12x1.5*	25	0,82
100	80	70	46	20	68,5	M12x1.5*	25	0,89
500/R2	80	70	46	20	68,5	M12x1.5*	25	0,91
500/R1	170	134	117	-	158,5	-	25	1,4
1000	170	134	117	-	158,5	-	25	1,4
2000	170	134	117	-	158,5	-	25	1,4
3000	170	134	117	-	158,5	-	25	1,4
> 3000*	* customized							

Options:

Range [kN]: 10; 20; 50; 100; 200; 500; 1000; 2000; 3000

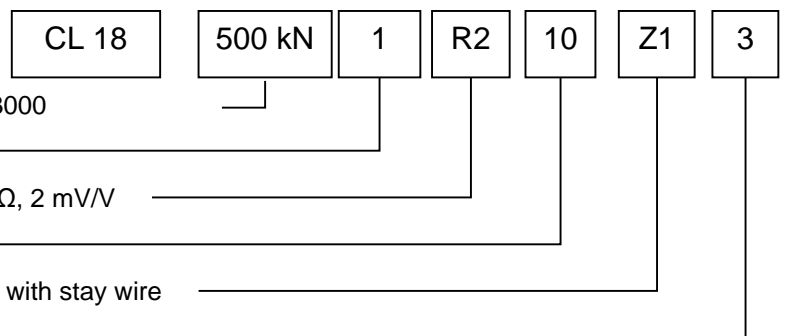
Accuracy class: 1

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

Supply voltage: 10 V

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

Cable length: standard 3 m or other optional



Example of options for ordering

CL 18 – 500 kN – 1 – R2 – 10- Z1 – 1: sensor with dimensions as in table, range 500 kN; accuracy class 1; strain gauge bridge 700 W, 2 mV/V; connector Lumberg; cable length 3 m

Manufacturer _____

ZEPWN sp. z o.o. sp.k., Poland, 05-270 Marki, Kollataja Street 8

tel.: 004822 7812169, 7712411, e-mail: zepwn@zepwn.com.pl, <http://www.zepwn.com.pl>