



CH

CHAMELEON LOAD CELLS



- ✓ Compact design
- ✓ Easy installation
- ✓ High reliability
- ✓ Versatility

A reliable web tension control may reduce web tears in order to increase productivity. CH chameleon load cells, used in a precise tension control system, are designed to carry out these delicate tasks.

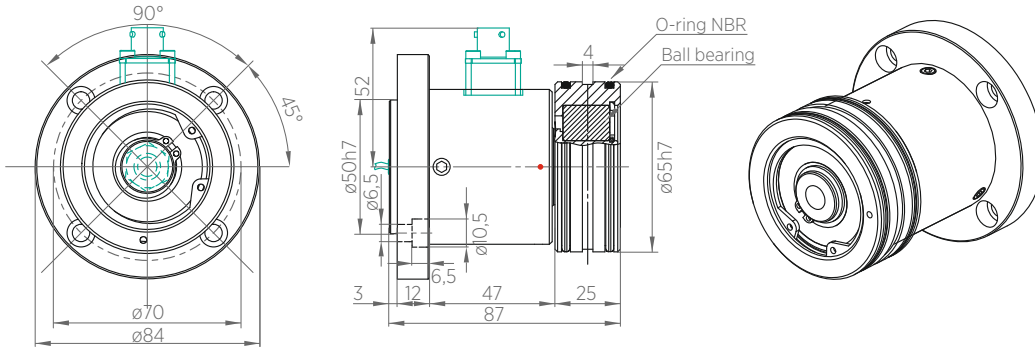
They are usually installed at the end of a cantilever measuring roller or pulley to precisely detect the resultant of the forces generated by pulling of the material depending on the wrapping angle.

The load cell is very versatile as, accordingly to the application, the roller can be fixed in different ways. CH load cells made with double foil for a very precise and linear detection of the web tension, moreover, thanks to this structure, they can support high load.

Operating principle: CH load cells use the strain gauge operating principle to guarantee a perfect detection of the web tension. Strain gauges resistors are mounted on an inner metal foil of a load cell and connected to each other in a “wheatstone bridge” able to convert a mechanical movement into an electrical signal, that must be amplified by suitable amplifiers.

TECHNICAL DRAWING

CH load cell with flange and roller holder kit



Selection model table

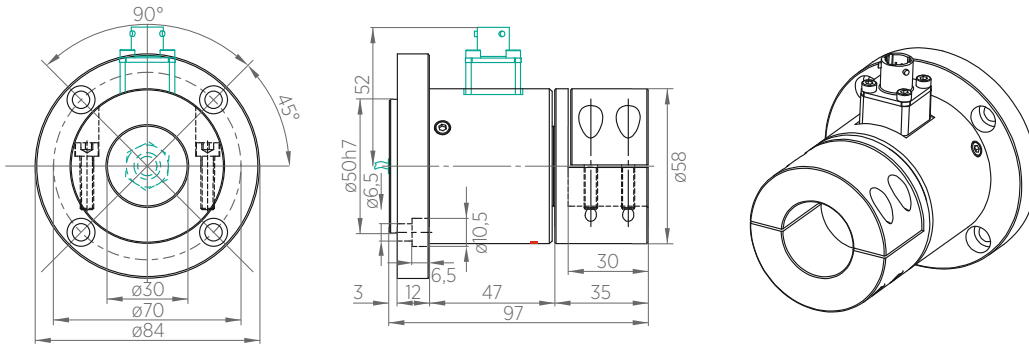
Code	Load N
CH.25	250
CH.50	500
CH.100	1000

* for other model contact our technical dpt.

Optional

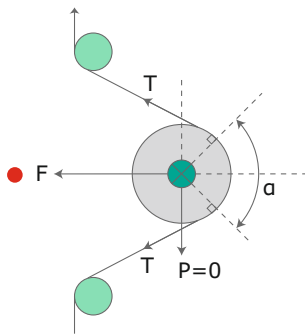
- Back side: Fixing flange
- Front side: Kit Roll Hold
Clamp for roller fixing
- Connector: Axial connector
Lateral connector

CH load cell with flange and clamp for roller fixing



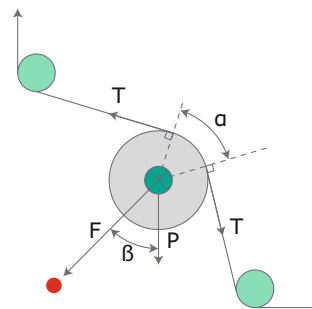
CALCULATION

HORIZONTAL RESULTANT



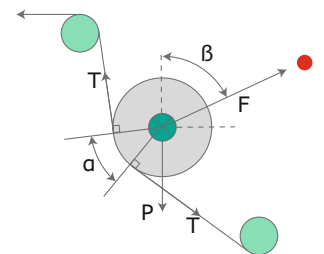
$$F = T \sin \alpha/2$$

DOWNWARD RESULTANT



$$F = T \sin \alpha/2 + P/2 \cos \beta$$

UPWARD RESULTANT



$$F = T \sin \alpha/2 - P/2 \cos \beta$$

TECHNICAL DATA

Precision class		0.5%
Sensitivity	Normal Supply	from 1,5mV/V to 2,0mV/V max 15V (max at full-scale value: 20 mV)
Total error-repeatability-hysteresis-linearity		<0,05% full-scale value
Measuring principle		strain gauge full bridge
Strain gauge bridge resistance		350Ω Ohm
Max overload		300% full-scale value
Temperature compensation		+10°C ÷ +50°C
Working temperature		+10°C ÷ +50°C
Option		4-20 mA output

*Data are subject to technical change without notice



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