CK.175...

SHAFT THROUGH LOAD CELLS

- Compact design
- Easy installation
- High reliability
- Strain gauge technology
- High versatility
- Measuring range from 1000N to 3000N

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

They are installed in shaft through applications at the end of a measuring roller to precisely detect the resultant of the forces generated by pulling of the material depending on the wrapping angle.

CK shaft through load cells have been designed with a compact design, to easily fit them in narrow spaces, to be installed very easily and to reach a very high reliability. Depending on models CK load cells are made with single or double foil.

Operating principle: CK load cells use the strain gauge operating principle to guarantee a perfect detection of the web tension. Strain gauges resistors are mounted on a 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.

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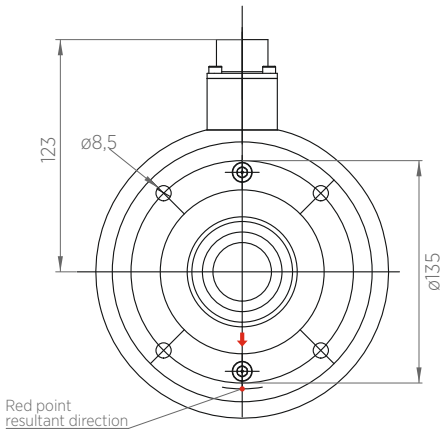
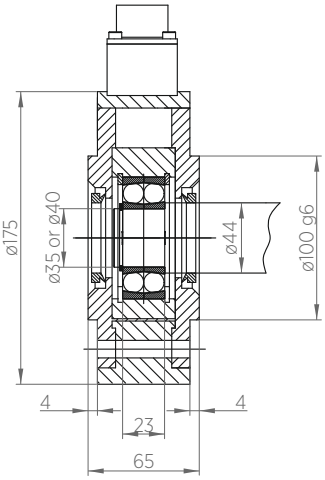
TECHNICAL DRAWING





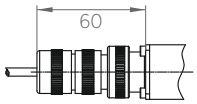
Selection model table

Code	Load N
CK.175.100.35	1000
CK.175.150.35	1500
CK.175.300.35	3000
CK.175.100.40	1000
CK.175.150.40	1500
CK.175.300.40	3000

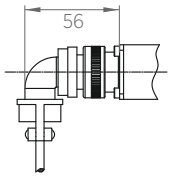
* for other model contact our technical dpt.

CK.175.xx.xx
- Hole
- Load N
- Load cell model

standard connector

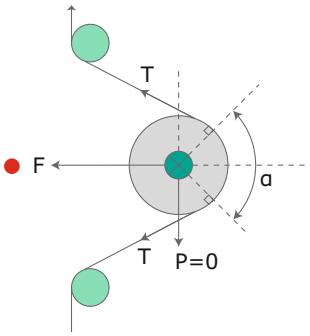


90° connector



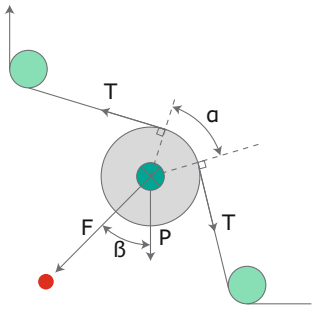
CALCULATION

HORIZONTAL RESULTANT



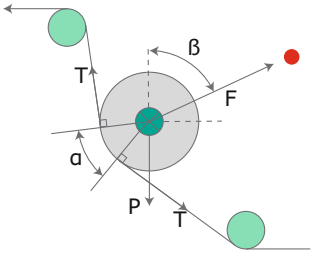
F = T sin α/2

DOWNWARD RESULTANT



F = T sin α/2 + P/2 cosß

UPWARD RESULTANT



F = T sin α/2 - P/2 cosß

TECHNICAL DATA

Precision class		0.5
Sensitivity	Normal Supply	from 1,5mV/V to 2,0mV/V 10V - max 15V
Total error-repeatability-histeresy-linearity		< ± 0,05% end scale value
Measuring principle		strain gauge full bridge
Strain gauge bridge resistance		350Ω Ohm
Max overload		300%
Temperature range		0°C/+60°C
Option		4-20 mA output
Material		aluminium

*Data are subject to technical change without notice

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