



# CKF.125...

## SHAFT THROUGH LOAD CELLS



- ✓ Compact design
- ✓ Easy installation
- ✓ High reliability
- ✓ Strain gauge technology
- ✓ High versatility
- ✓ Double fixing possibility:  
3 or 4 holes
- ✓ Measuring range from  
400N to 1500N

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.

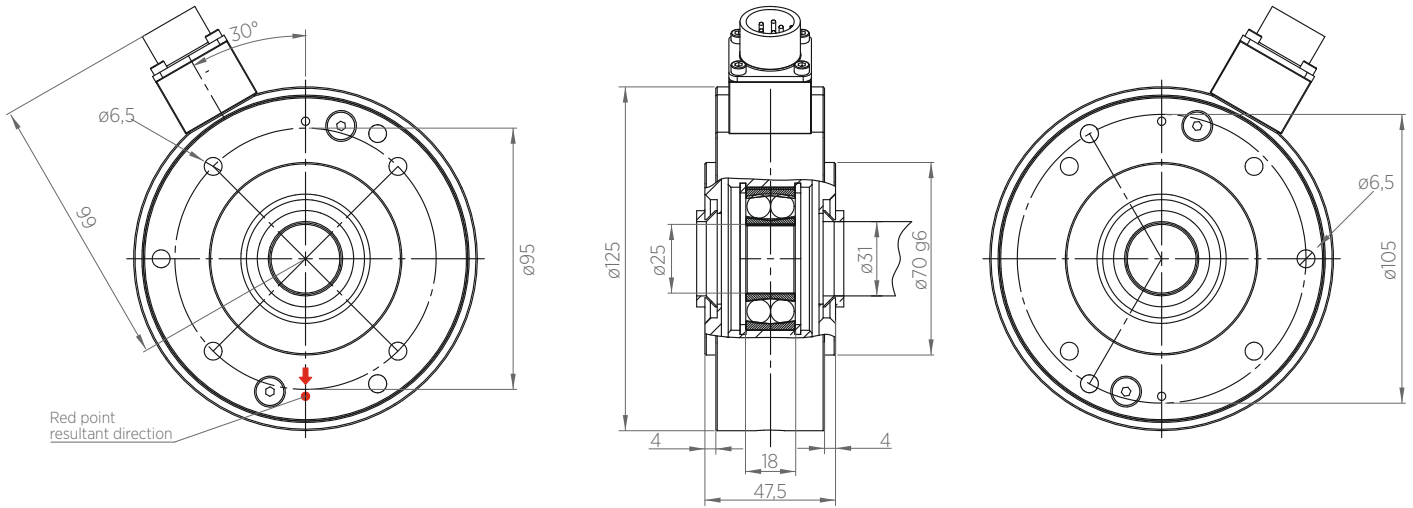
They are installed in shaft through applications at the end of a measuring roller to precisely detect the resultant of the forces generated by pulling of the material depending on the wrapping angle.

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.

CKF.125 load cells have a double fixing possibility with 3 or 4 fixing holes in order to be installed in all kind of applications.

**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 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



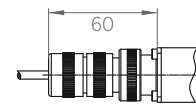
## Selection model table

Code	Load N
CKF.125.40.25	400
CKF.125.75.25	750
CKF.125.150.25	1500

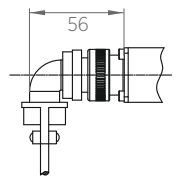
\* for other model contact our technical dpt.

CKF.125.xx.xx ACC  
 └── Material  
 └── Hole  
 └── Load N  
 └── Load cell model

standard connector

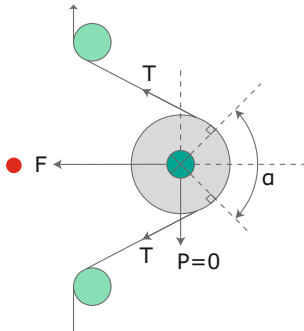


90° connector



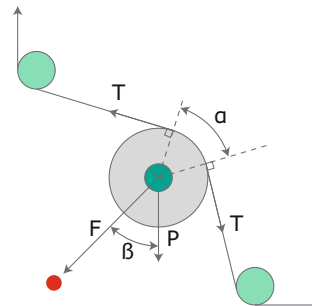
## CALCULATION

### HORIZONTAL RESULTANT



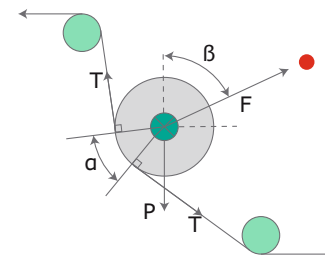
$$F = T \sin \alpha/2$$

### 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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