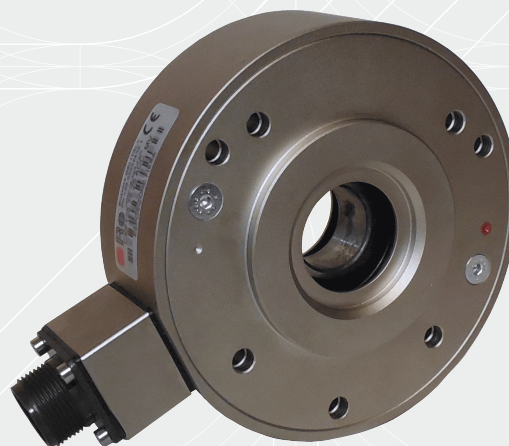




# CKF.125...

## 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.

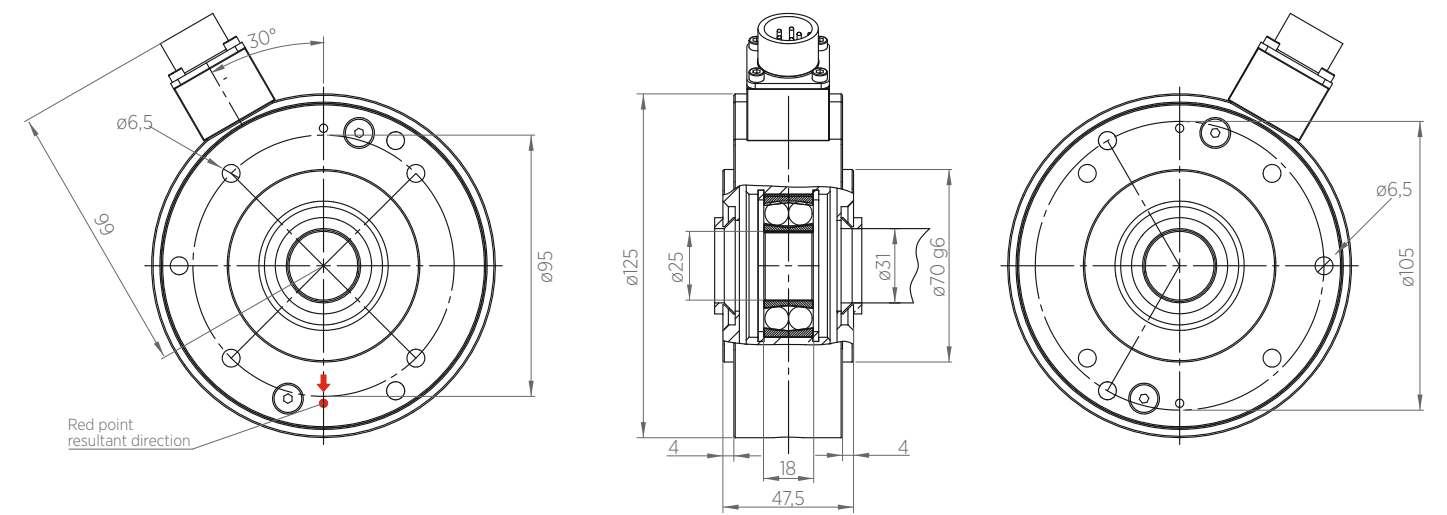
They are installed in shaft through applications at the end of a measuring roller to precisely detect the resultant of the forces generated by pulling of the material depending on the wrapping angle.

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

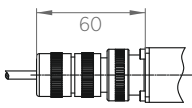
| Code           | Load N |
|----------------|--------|
| CKF.125.40.25  | 400    |
| CKF.125.75.25  | 750    |
| CKF.125.150.25 | 1500   |

\* for other model contact our technical dpt.

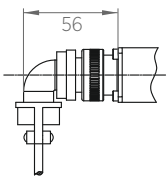
CKF.125.xx.xx ACC

Material  
Hole  
Load N  
Load cell model

standard connector

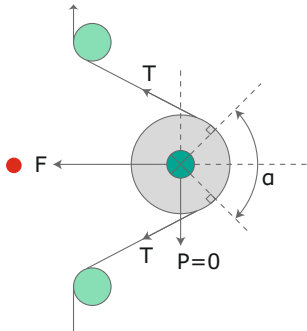


90° connector



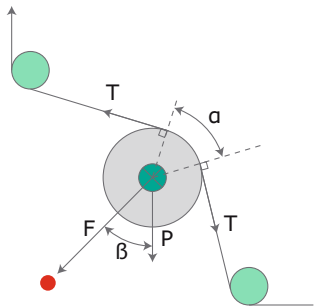
CALCULATION

HORIZONTAL RESULTANT



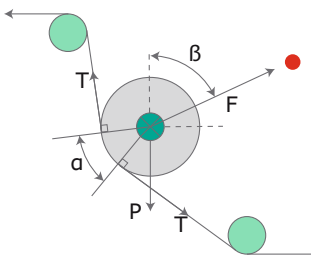
$F = T \sin \alpha/2$

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<br>from 1,5mV/V to 2,0mV/V<br>10V - max 15V |
| Total error-repeatability-hysteresis-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                                       | steel                                                     |

\*Data are subject to technical change without notice



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