



# CKF.105...

## SHAFT THROUGH LOAD CELLS



- ✓ Compact design
- ✓ Easy installation
- ✓ High reliability
- ✓ Strain gauge technology
- ✓ High versatility
- ✓ Measuring range from 250N to 1000N

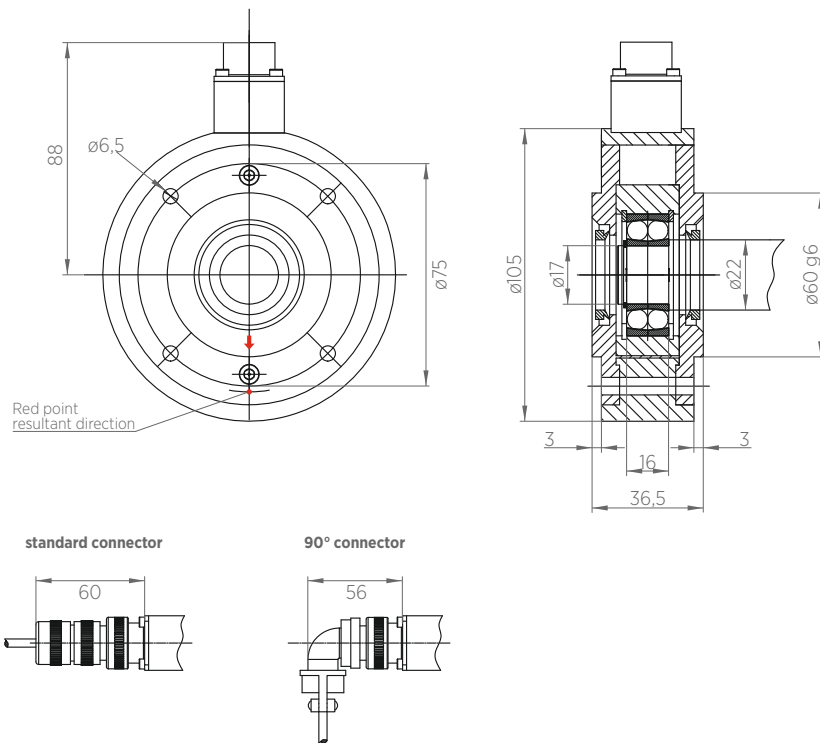
A reliable web tension control may reduce web tears in order to increase productivity. CK load cells, used in a precise tension control system, are designed to carry out these delicate tasks.

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.

## TECHNICAL DRAWING



### Selection model table

| Code           | Load N |
|----------------|--------|
| CKF.105.25.17  | 250    |
| CKF.105.50.17  | 500    |
| CKF.105.100.17 | 1000   |

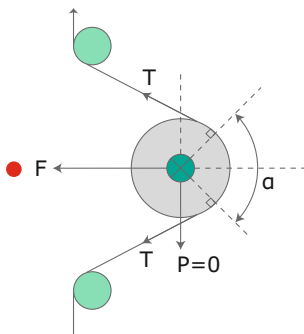
\* for other model contact our technical dpt.

CKF.105.xx.xx ACC/ALL

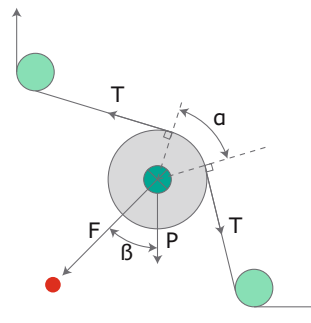
- Material
- Hole
- Load N
- Load cell model

## CALCULATION

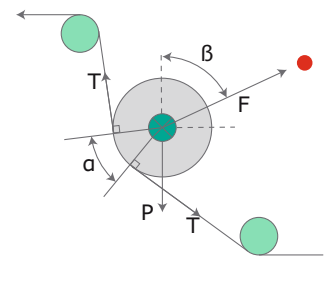
### HORIZONTAL RESULTANT



### DOWNWARD RESULTANT



### UPWARD RESULTANT



## TECHNICAL DATA

|   |                           |  |
|---|---------------------------|--|
| Precision class                               | 0.5                       |  |
| Sensitivity                                   | Normal Supply             | from 1,5mV/V to 2,0mV/V<br>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                                      | steel or aluminium        |  |

\*Data are subject to technical change without notice



Re S.p.A.  
via Firenze 3  
20060 Bussero (MI) Italy

T +39 02 9524301  
F +39 02 95038986  
E info@re-spa.com

Assistenza tecnica  
Technical support  
T +39 02 952430.300  
E support@re-spa.com

Assistenza commerciale  
Sales support  
T +39 02 952430.200  
E sales@re-spa.com