



# CF.85 IP54

## FLANGE LOAD CELLS PROTECTION AGAINST WATER SPRAY



- ✓ IP54 protection for water spray
- ✓ Compact design
- ✓ Easy installation
- ✓ High reliability
- ✓ Strain gauge technology
- ✓ Measuring range from 50N to 2000N

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

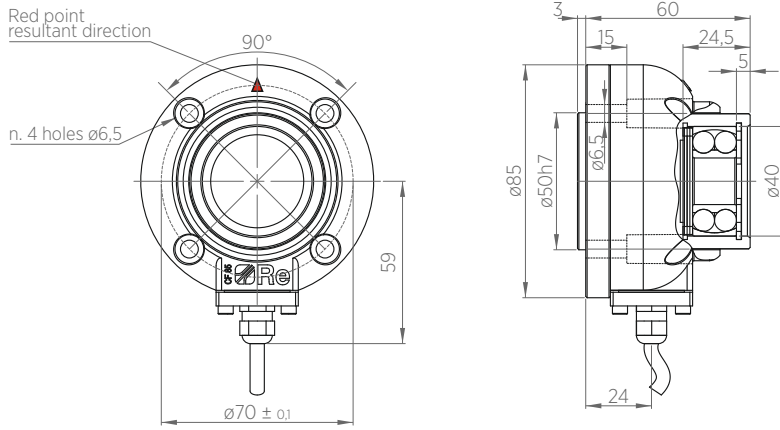
They are installed at the end of a measuring roller to precisely detect the resultant of the forces generated by pulling of the material depending on the wrapping angle.

CF 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.

**CF.85 IP54** is a special flange load cells for an high protection against water spray.

**Operating principle:** CF 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	bearing size
CF.85.5.40	50	ø40x17 h16 2rs
CF.85.15.40	150	ø40x17 h16 2rs
CF.85.25.40	250	ø40x17 h16 2rs
CF.85.50.40	500	ø40x17 h16 2rs
CF.85.100.40	1000	ø40x17 h16 2rs
CF.85.200.40	2000	ø40x17 h16 2rs

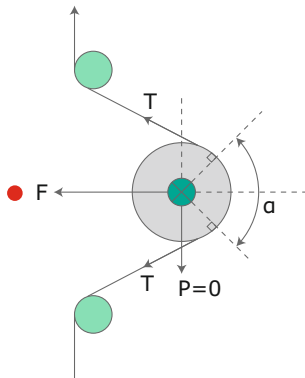
\* for other model contact our technical dpt.

CF.85.xx.xx IP54

└─ Ball bearing size  
└─ Load daN  
└─ Load cell model

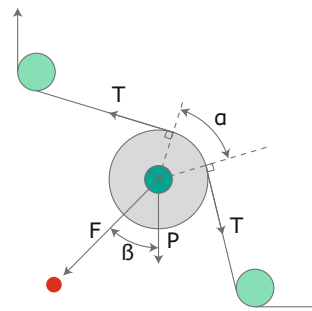
## CALCULATION

### HORIZONTAL RESULTANT



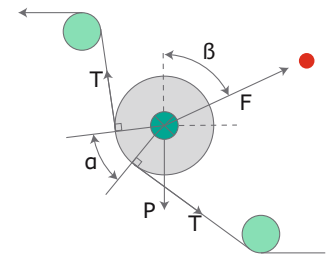
$$F = T \sin \alpha/2$$

### 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
IP protection class		IP54

\*Data are subject to technical change without notice



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