



CF.70

FLANGE LOAD CELLS



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

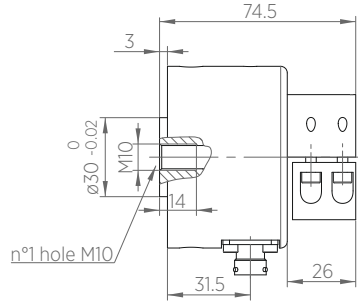
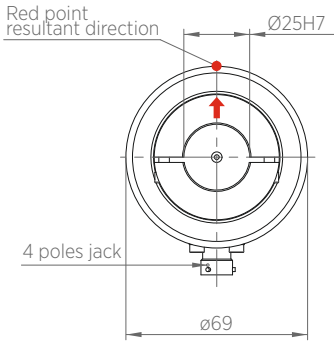
A reliable web tension control may reduce web tears in order to increase productivity. CF flange load cells, used in a precise tension control system, are designed to carry out these delicate tasks.

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.

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

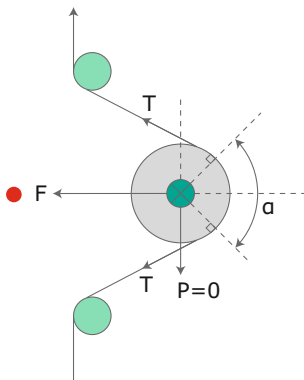
Code	Load N
CF.70.25.25	250
CF.70.50.25	500
CF.70.100.25	1000

CF.70.xx.xx
 ↳ Load N
 ↳ Ball bearing size
 ↳ Load cell model

* for other model contact our technical dpt.

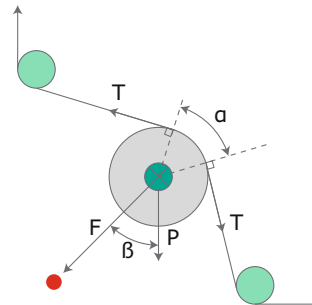
CALCULATION

HORIZONTAL RESULTANT



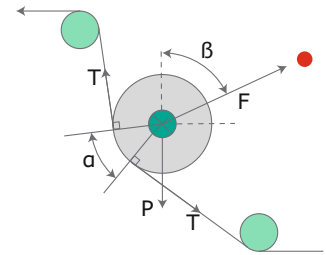
$$F = T \sin \alpha/2$$

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 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	

*Data are subject to technical change without notice



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