A-3

FLANGE MOUNTING LOAD CELL

- Precision class 0,5%
- Compact design
- Quick and easy installation
- High reliability
- Strain gauge technology
- Protection class IP42
- Measuring range from 50N to 1000N

A reliable web tension control may reduce web tears in order to increase productivity. A-3 flange load cells, used in a precise tension control system, are designed to carry out these delicate tasks.
Thanks to its compact design and easy fixing, A-3 load cell is quickly installed at the end of a measuring roller even in very narrow spaces.

The load cell detect, with very high accuracy, the force resulatnt generated by the web tension depending on the wrapping angle and send the signal to a Re load cell amplifier to process the values.

Operating principle: A-3 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.

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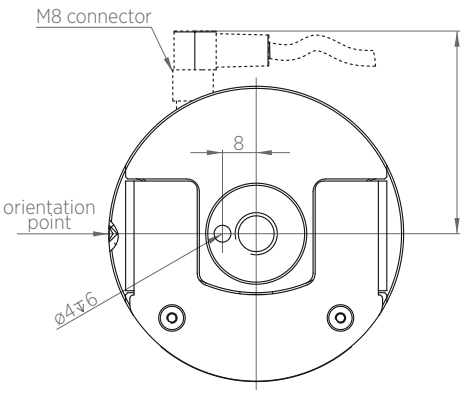
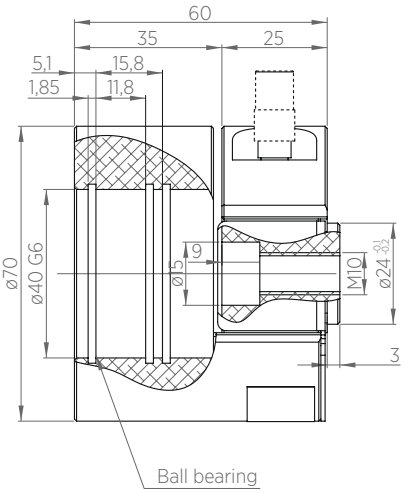
TECHNICAL DRAWING





Selection model table

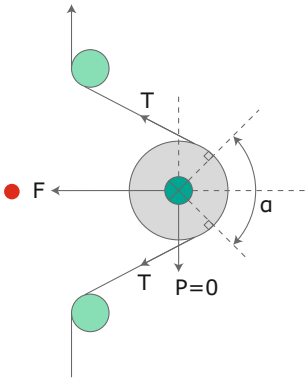
Model	Load N	bearing size
A-3.50.17	50	40x17
A-3.125.17	125	40x17
A-3.250.17	250	40x17
A-3.500.17	500	40x17
A-3.1000.17	1000	40x17

* for other model contact our technical dpt.

A-3.xx.xx
- Bearing size
- Load
- Model

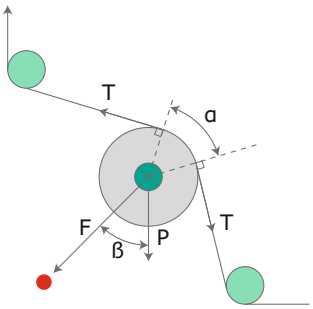
CALCULATION

HORIZONTAL RESULTANT



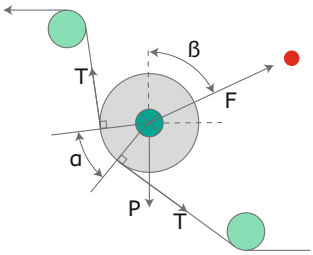
F = T sin α/2

DOWNWARD RESULTANT



F = T sin α/2 + P/2 cosß

UPWARD RESULTANT



F = T sin α/2 - P/2 cosß

TECHNICAL DATA

Precision class	± 0.5%
Sensitivity	1,6 mV/V
Total error-repeatability-histeresy-linearity	<0,05% full-scale value
Measuring principle	strain gauge full bridge
Strain gauge bridge resistance	350Ω Ohm
Max overload	10 times the nominal load
Temperature compensation	-10°C ÷ +60°C
Working temperature	+10°C ÷ +50°C
Connector	M8
IP protection class	IP42

*Data are subject to technical change without notice

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