Tensile Force Sensor Serie M 1120

Series M 1120 is a compact sensor for measuring tensile forces on running material.
Its special merits are high measuring accuracy and high long-time stability.

By means of the two guide-rollers, the material - which is measured -
is guided in a defined angle around the measuring-roller.
The, at the measuring-roller resulting radial-forces, are measured by the sensor.
The radial-force is proportional to the tensile force in the material which is measured.

Application	tensile force measurement on : fibres, threads, opt. fibres, wires, tapes etc. as well for on-line intallation as for labs
Characteristics	realisation the measured data is independent of the width of the used roller
Nominal loads	2 N, 5 N, 10 N, 20 N, 30 N
Measuring range	1 % up to 115% of the nominal load
Measuring principle	strain-gage, full-bridge the sensor transforms the - on the measuring-roller- active radial force into a proportional electric signal
Rollers	extreme smooth running, double-ball-bearing mounted rollers
Roller-material	Aluminium-alloy: AlMgCuPb Option: ceramic-coated roller-groove
Material-speed	up to 2400 m/min
Accessories availbale	connection-cable, amplifier with or without indication custom-made rollers

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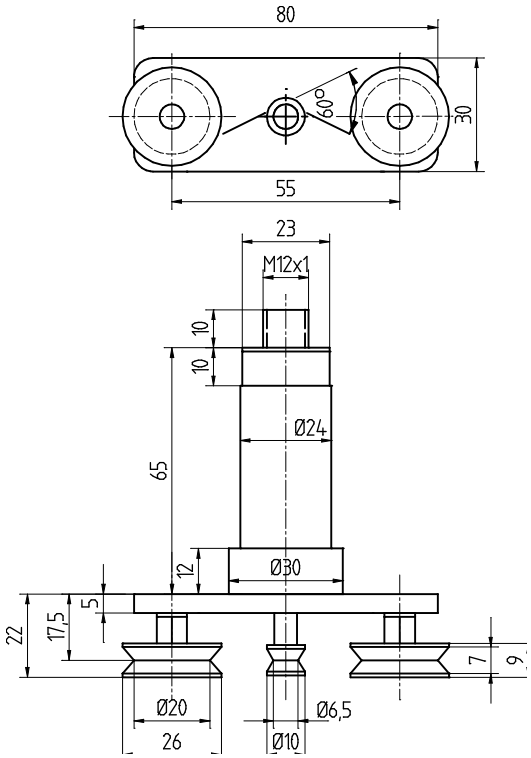
Technical Data:

Tensile Force Sensor Series M 1120

Dimensions :



Nominal loads	2 N, 5 N, 10 N, 20 N, 30 N
Measuring range	1 % up to approx. 115 % of the nominal load
Error in measurement	< 0,3 %
Measuring principle	strain-gage, full-bridge
Frequency	300 Hz up to 500 Hz depending on the nominal load
Overload-protection	4 - 10 times
Angle of contact around the measuring-roller	60 °
Charact. value	1,5 m V / V
Max. service voltage	10 V
Reference voltage	10 V
Resistance input	350 Ohm
Resistance output	350 Ohm
Charact. temp. range	+ 10°...+ 60°
Coef. of temperature	< +- 0,01 % / ℃
Protection	IP 50
Volume of delivery	Sensor incl. 5 pol. connector, Instruction-manual

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