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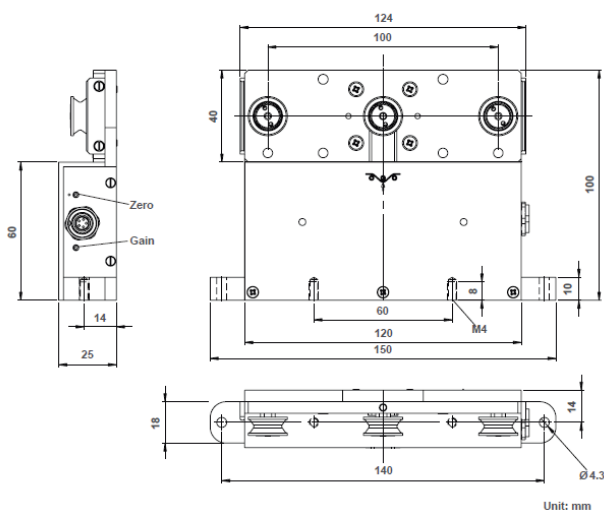
Tension Meter

4 Tension ranges available
from 0 - 100 cN up to 0 - 1000 cN

Tension Meter MZ1



Dimensions



Specifications

Calibration:	According to SCHMIDT factory procedure
Accuracy:	± 1.5 % full scale and ± 1 digit % full scale or better other calibration material ± 3 % full scale or better
Overload protection:	100 % of tension range
Measuring principle:	Strain gauge bridge
Measuring roller deflection:	Max. 0.5 mm
Natural frequency:	Approx. 500 Hz, depending on tension range
Signal processing:	Analog (Option: digital)
Temperature drift:	Less than ± 0.05 % full scale/ $^{\circ}\text{C}$
Output signal:	Standard: 0 – 1 V DC (analog) impedance: $\geq 5 \text{ k}\Omega$
Option:	0 – 10 V DC (analog), 4 – 20 mA DC (current)
Option digital:	USB, RS-232 or RS-422
Damping (fg):	Standard: 30 Hz (other values on request)
Temperature range:	10 – 45 $^{\circ}\text{C}$
Air humidity:	85 % RH, max.
Power supply:	+15...24 V DC, max. 21 mA (standard output)
Code A3:	50 mA, Code 422: 50 mA, Code 232: 40 mA
Housing material:	Aluminium
Dimensions:	See dimensions
Weight, net (gross):	Approx. 420 g (approx. 580 g)



Standard Features

- Small, compact housing
- Tension sensor MZ1 with integrated measuring amplifier and high accuracy of 1.5 % FS
- Typical material path – warping the 3 rollers
- According to the application, different guide rollers are available
- Various output signals are available:
 - analog: 0 – 1 V DC (standard), 0 – 10 V DC (optional)
 - digital (optional): USB, RS-232, RS-422 – see model MZ1-422
 - current: 4 – 20 mA (optional)
- Universal mounting possibility – easy to install, even afterwards, on existing machines:
- The sensor can be mounted using the two threads at the underside of the housing body. Alternative it can be fixed on two flanges on the side of the unit.
- Easy calibration to customized material by operator – zero and gain calibration is required
- Measuring principle – load cell with high quality strain gauge bridge

Special Features

- V-grooved guide rollers, ball-bearing mounted
- Tension sensor MZ1 with Aluminium housing
- Required power supply +15...24 V DC (regulated)
- Certificate of Compliance with the order 2.1 according EN 10204 is included
- Optionally available: Inspection Certificate 3.1 according EN 10204 with calibration report

Available Models

Model	Tension Range	Measuring Head Width*	SCHMIDT Calibration Material**
MZ1-1000	0 – 1000 cN	120 mm	PA: 0.30 mm Ø
MZ1-2000	0 – 2000 cN	120 mm	PA: 0.50 mm Ø
MZ1-5000	0 – 5000 cN	120 mm	PA: 0.80 mm Ø
MZ1-10K	0 – 10 daN	120 mm	PA: 1.00 mm Ø