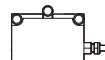




**D** Stationary, electronic  
MZ Series



## MZ SERIES

Online tension sensors for small tensions

### Special features:

- + Slim, compact housing, only 18 mm width
- + 2 different designs with different material path:  
MAZ series: gently material path above the 3 rollers  
MBZ series: material path warping all 3 rollers
- + Integrated amplifier with various output signals

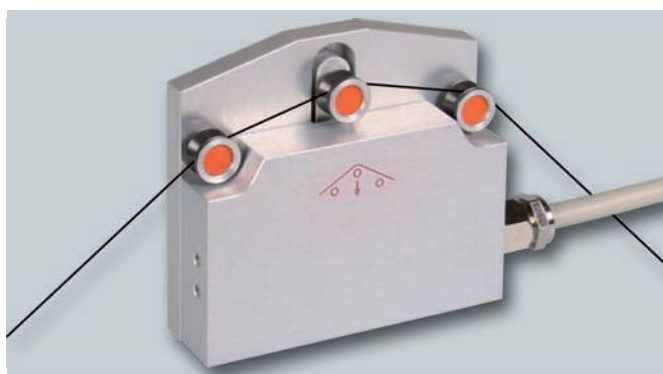
### Standard features:

- Aluminium housing
- Supplied with a 2 m shield cable

Compact sensor for  
continuous tension  
measurement

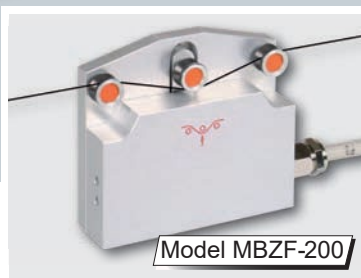
## Model MAZF, MBZF

3 Tension ranges from 0-100 cN to 0-500 cN



**Model MAZF-200**

with 7.4 mm Ø  
guide rollers



**Model MBZF-200**



Space saving mounting of MZ series by using an optional rail

Tension sensor for yarns, fibers, textile ribbons,  
very fine wires, films, foils etc.

## Model MAZD, MBZD

3 Tension ranges from 0-100 cN to 0-500 cN



**Model MAZD-200**

with 12 mm Ø  
guide rollers



**Model MBZD-200**

## Model MBZB

3 Tension ranges from 0-100 cN to 0-500 cN

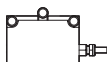


**Model MBZB-200**

with 10 mm tape rollers



## Stationary, electronic MZ Series



### Model MAZF, MBZF, MAZD, MBZD

#### Available Models

##### MODEL

| MODEL             | Tension Ranges<br>cN | Measuring<br>Head Width*<br>mm | SCHMIDT<br>Calibration Material** |
|-------------------|----------------------|--------------------------------|-----------------------------------|
| MAZF-100 MBZF-100 | 0-100                | 70                             | PA: 0.12 mm Ø                     |
| MAZF-200 MBZF-200 | 0-200                | 70                             | PA: 0.12 mm Ø                     |
| MAZF-500 MBZF-500 | 0-500                | 70                             | PA: 0.20 mm Ø                     |

| MODEL               | Tension Ranges<br>cN | Measuring<br>Head Width*<br>mm | SCHMIDT<br>Calibration Material** |
|---------------------|----------------------|--------------------------------|-----------------------------------|
| MAZD-100 MBZD-100   | 0-100                | 70                             | PA: 0.12 mm Ø                     |
| MAZD-200 MBZD-200   | 0-200                | 70                             | PA: 0.12 mm Ø                     |
| MAZD-500 MBZD-500   | 0-500                | 70                             | PA: 0.20 mm Ø                     |
| MAZD-1000 MBZD-1000 | 0-1000               | 70                             | PA: 0.30 mm Ø                     |

Other units of measure available – g.

\* Outside dimensions of the housing

\*\* Suitable for 95 % of applications (see also chart on page 11)

PA = Polyamide Monofilament

### Model MBZB

#### Available Models

##### MODEL

| MODEL     | Tension Ranges<br>cN | Measuring<br>Head Width**<br>mm | Roller Widths<br>mm |
|-----------|----------------------|---------------------------------|---------------------|
| MBZB-100  | 0-100                | 70                              | 7, 10               |
| MBZB-200  | 0-200                | 70                              | 7, 10               |
| MBZB-500  | 0-500                | 70                              | 7, 10               |
| MBZB-1000 | 0-1000               | 70                              | 7, 10               |

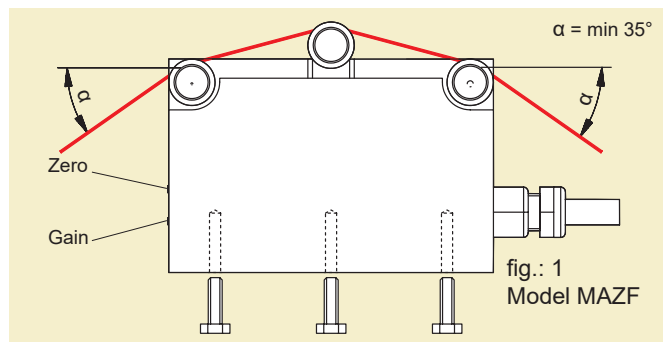
Other units of measure available – g.

\* SCHMIDT calibration material textile ribbon or film,  
depending on tension range and roller width

\*\* Outside dimensions of the housing

#### Output Signal

|          |   |
|----------|---|
| Standard | Analog output signal 0-1 V DC                   |
| Code A2  | Analog output signal 0-10 V DC                  |
| Code A10 | Analog DMS output signal mV/V without amplifier |



#### Guide Rollers

##### Model MAZF, MBZF

| V-grooved | Line Speed<br>v <sub>max</sub> ... m/min | Roller Material       |
|-----------|--|-----------------------|
| Standard  | 900                                      | Hard-coated aluminium |
| Code K    | 2000                                     | Hard-coated aluminium |

→ see page E →

##### Model MAZD, MBZD

| V-grooved | Line Speed<br>v <sub>max</sub> ... m/min | Roller Material         |
|-----------|--|-------------------------|
| Standard  | 2000                                     | Hard-coated aluminium   |
| Code K    | 3500                                     | Hard-coated aluminium   |
| Code H    | 5000                                     | Plasma-coated aluminium |

##### Model MBZB

|          |      |  |
|----------|------|--|
| Standard | 1000 | Hard-coated aluminium<br>(Exception: 7 mm rollers are made of nickel-plated steel) |
|----------|------|--|

Other roller materials (nickel-plated steel or plastic), as well as special coatings (anti-adhesive or carbon fibres - NAV optimized) are available on request.

**1<sup>st</sup> IN TENSION  
METERS  
WORLDWIDE®**

**Compact sensor for  
continuous tension  
measurement**

#### Specifications

|                              |   |
|------------------------------|---|
| Calibration:                 | SCHMIDT factory procedure   |
| Accuracy:                    | ± 2 % FS* and ± 1 Digit<br>Other calibration material:<br>± 3 % FS* or better |
| Overload protection:         | 100 % FS*   |
| Measuring principle:         | Strain gauge bridge   |
| Measuring roller deflection: | max. 0.5 mm   |
| Signal processing:           | analog  |
| Output signal:               | Standard: 0-1 V DC (analog)<br>Option: 0-10 V DC, mV/V                        |
| Output:                      | Shielded cable (2 m) with bare leads  |
| Damping (f <sub>g</sub> ):   | Standard (analog): 30 Hz  |
| Temperature drift:           | better ± 0.05 % FS*/°C  |
| Temperature range:           | 10 - 45 °C  |
| Air humidity:                | 85 % RH, max.   |
| Power supply:                | + 15 ... 24 V DC, 21 mA (regulated);<br>Code A10: max. + 5 V, max. 20 mA      |
| Housing material:            | Aluminium   |
| Housing dimensions           | 70 x 55 x 17 mm (L x W x H)   |
| Weight, net:                 | Approx. 100 g   |

\* FS = Full Scale