

# High Speed YARN & FIBER TENSION SENSOR

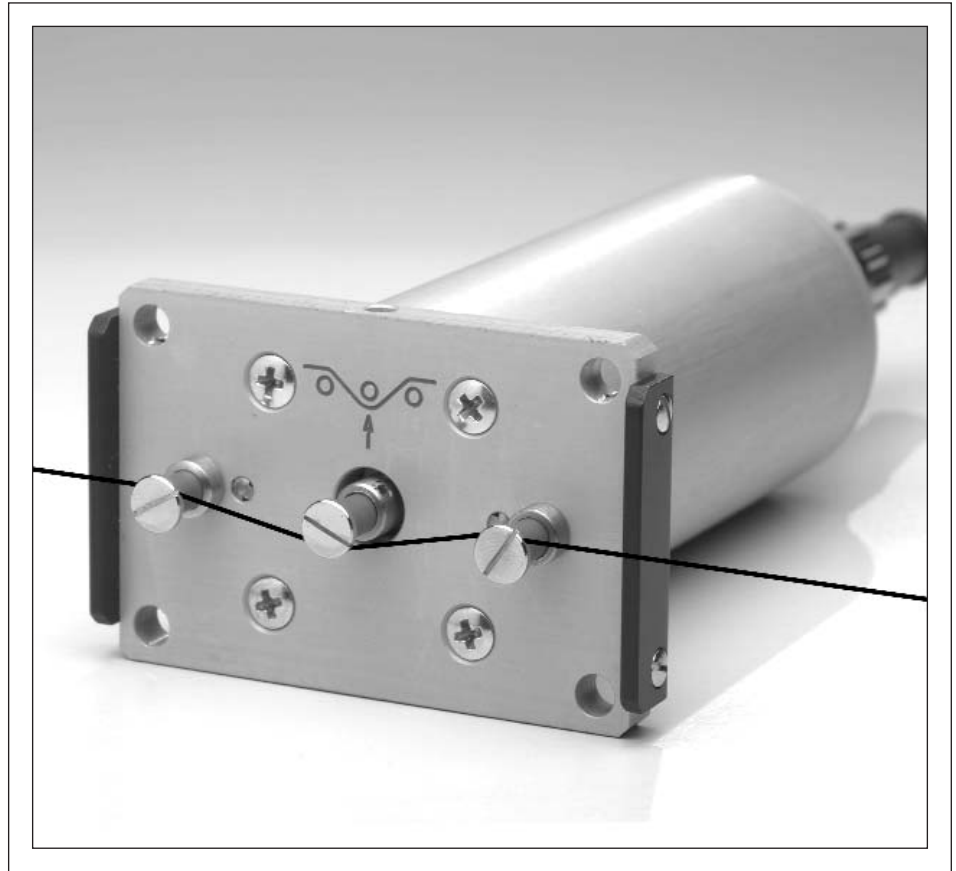
## Model TP

**4 Tension Ranges**  
 0–50 g up to 0–500 g

Non-rotating ceramic pins make the Model TP sensor ideal for yarns and fibers running at speeds up to 6,000 m/min.

### FEATURES

- Precision strain gauge sensing for highest accuracy and repeatability
- 0–1 V DC output, proportional to tension (0–10 V DC optional)
- Frequency response of 100 Hz
- Surface mount electronics provide long-term reliability
- 4mm diameter oxide ceramic pins are rated for filament speeds up to 6,000 m/min.
- Optional connecting cable



### TENSION RANGES

Part Number	Measuring Range (grams)
TP-50	0–50
TP-100	0–100
TP-200	0–200
TP-500	0–500

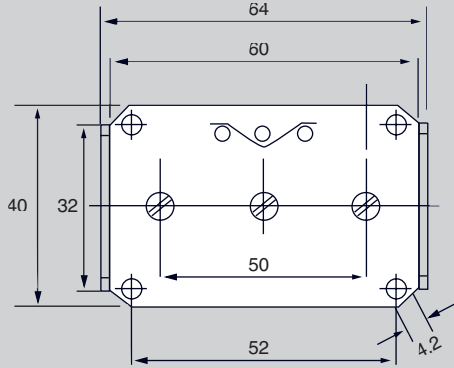
### Specifications

<b>Accuracy</b>	±1% FS (10–90% of range) ±3% FS (balance of range)
<b>Regulated Sensor Excitation</b>	12–15 VDC (–) @ 10 mA 12–15 VDC (+) @ 20 mA
<b>Sensor Output</b>	0–1 V DC (standard), 0–10 V DC (optional), proportional to tension

<b>Middle Roller Deflection</b>	0.5mm (maximum)
<b>Overload Rating</b>	150% FS
<b>Housing Material</b>	Aluminum
<b>Operating Temp.</b>	40 to 105 °F (5–40 °C)
<b>Spacing of Outer Pins</b>	40mm (c:c)
<b>Maximum Linear Speed</b>	6,000 m/min

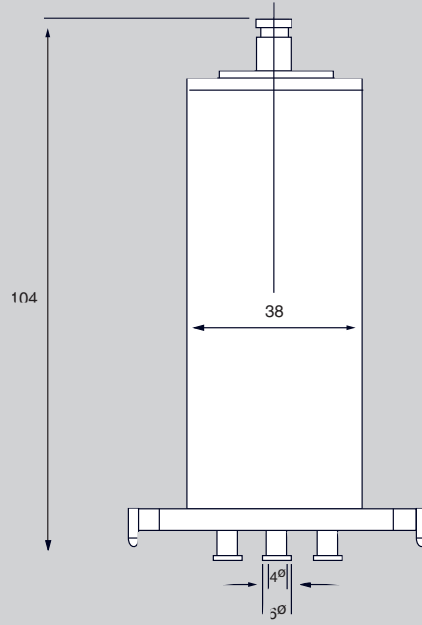
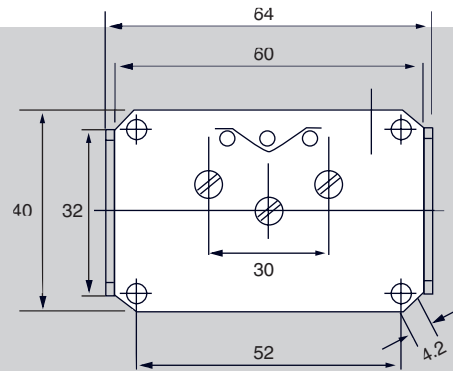
**Dimensions (50 g and 100 g)**

All dimensions in mm



**Dimensions (200 g and 500 g)**

All dimensions in mm



**Output Plug**

All dimensions in mm

