

# Web Tension Load Cell



## SPECIAL FEATURES

- Good Linearity
- Good Repeatability
- Easy to Install
- Temp Compensated
- Wide Range
- Good Reliability

## SPECIFICATION

Model	WTL
Capacities	10, 25, 30, 50, 100 kg
Full Scale Put (F.S.)	2mV/V
Output Tolerance	$\leq \pm 1\%$ F.S.
Combined Error	$\leq \pm 0.5\%$ F.S.
Creep After 30 minutes	$\leq \pm 0.06\%$ F.S.
Zero Load Output	$\leq \pm 1\%$ F.S.
Thermal Drift	$\leq \pm 0.01\%$ F.S.
Input/Output Impedance	$350 \pm 10 \Omega$
Isolation Resistance	$\geq 10 G \Omega$
Nominal Supply Voltage	10V DC
Maximum Supply voltage	15V DC
Compensated Temp range	Up to 50°C
Safe Over Load	300% F.S.
Ultimate Load	300% F.S.



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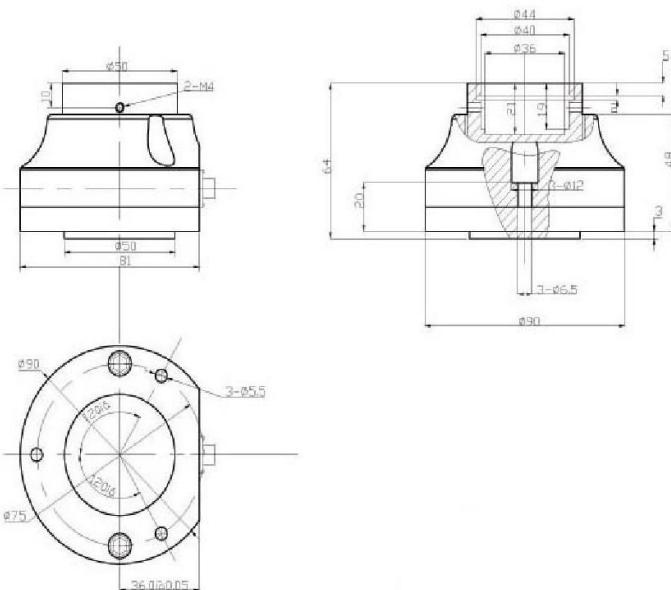


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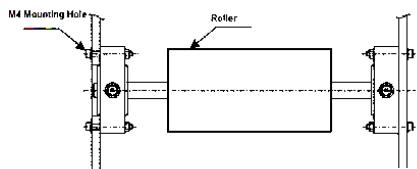
## Description

Web tension Load Cells are ideally suited for the tensions control of the web in the textile, paper printing and plastic printing industry. Load cells are available in capacity range from 10kg to 100kg.

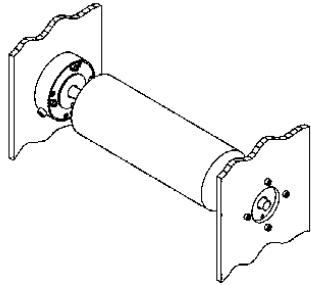
This load cell can be mounted to fixed or Rotating shaft of roller on which tensions is to be measured and controlled in the web in the process industry.



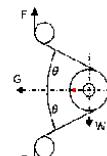
## Typical Mounting Diagram



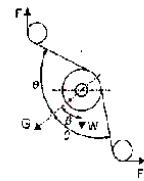
\*Specification subject to change without notice



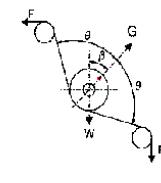
## Force Analysis



$$G = F \cos \theta$$



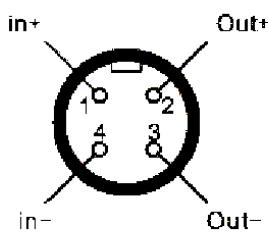
$$G = F \cos \theta + \frac{W}{2} \cos \beta$$



$$G = F \cos \theta - \frac{W}{2} \cos \beta$$

The red point notes the direction of resultant of forces  
 $\theta$  = Angle between resultant and web  
 $\beta$  = Angle between resultant and vertical  
 $G$  = Resultant of forces  
 $F$  = Web Tension  
 $W$  = Weight of roller

## Connector Details



- 1: + Power
- 2: + Signal
- 3: - Signal
- 4: - Power

\*Specification subject to change without notice

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