

TC-2050/TC-2050P Generous Purpose Tension Controller

TC-2050/TC2050P is a generous purpose tension controller; it works with high accuracy LMS series tension detector to stabilize the tension, combining the computing function of two 16bits high-speed CPU chips, and attaining the performance of high speed and stability for web tension control. It can control tension for unwinding, central proportional linking and rewinding materials, simplifying the operation keypads of control panel, and is easy for operation.



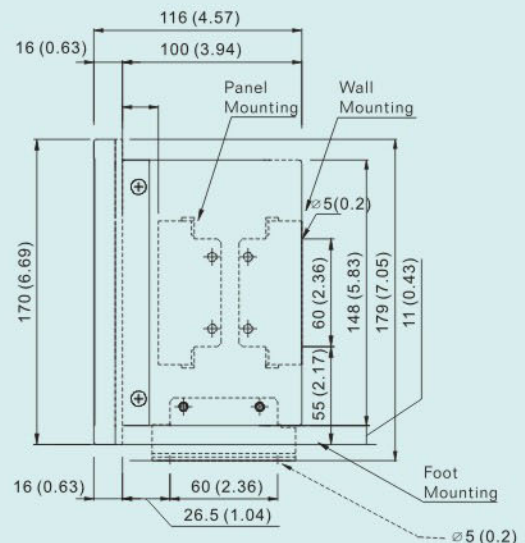
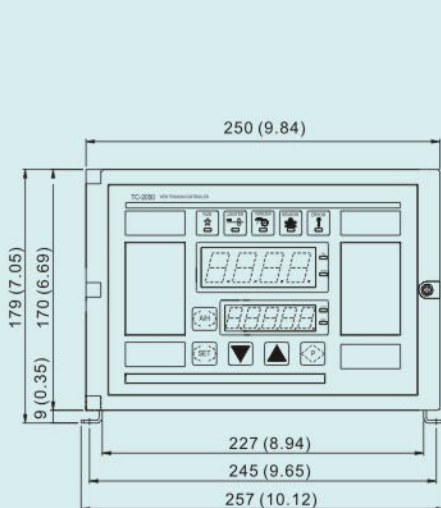
■ Characteristics:

1. The function of unwinding, central proportional link and rewinding can be set by an internal thumb switch.
2. It contains the function of digital type line speed proportional link control, which could hold the tension stable in the process of line speed from start, acceleration, deceleration, to stop.
3. Multi-level P.I.D control could make the speed stable fast in the variation of speed.
4. LED phonemics display with large screen and high brightness, could indicate "Kg.M/min...." by the selection of "SRC" parameter.
5. The function of parameter can be indicated by symbols, which are the abbreviation of English strings, it is easy to operate without reading the instruction manual again.
6. The LED display can indicate the state of running "RUN"; the function of central proportional link "CENTER"; the function of unwinding or rewinding "WINDER"; the detector is abnormal "SENSOR"; the error or alarm state "ERROR".
7. The terminal offers one set of pulse signal, which could be as the input calculation signal of diameter value.
8. The input signal of line speed accepts the analog signal of DC 0-10V.
9. There are two sets of digital multi-function contact, which can be programmed for the compensation of acceleration or deceleration.
10. The terminal offers Output signal of DC 0-10V as the display of real tension.
11. It contains communication function of RS-485, can connect to PLC, Human Interface, Industrial PC for control.
12. The output signal DC 0-10V of terminal could directly control Torque Controller, Current-Control Mode Vector Inverter, DC Motor Controller, Servo motor Drive.
13. It could work with Euntay LMS series tension detectors; detecting range is from 5kg to 400kg(50NM - 4000NM).

Specification

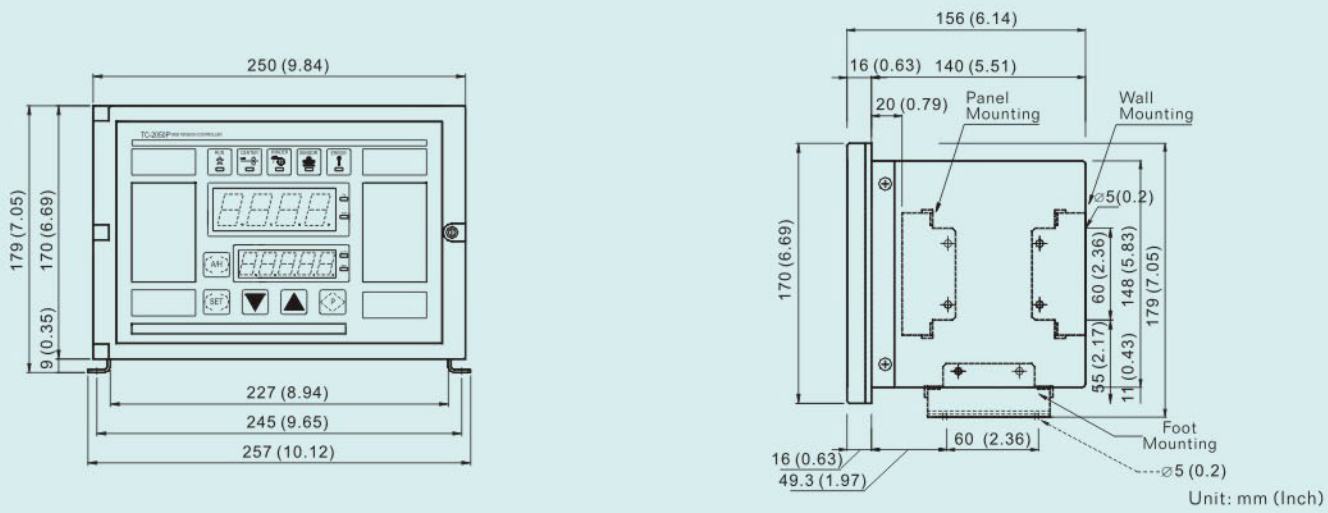
Model		TC-2050	TC-2050P
Rated Load		5 - 500kg	
Power Supply		AC220V 50/60HZ	
Surged Current		10A	28A
Power Consumption		30VA	300VA
Environment	Ambient Temperature	0°C~40°C	
	Ambient Humidity	Under 80%RH	
	Grounding	The third kind of grounding method (The Neutral Line of 3Φ4W Power is connected with the case of device to "Earth")	
Weight		About 2.0kg	About 2.7kg
Installation		<ul style="list-style-type: none"> • Wall Mounting • Flat Surface Mounting • Ground Mounting 	
Contact Output	Low Limit Point or ERROR	Two sets of Output	
	High Limit Point	DC30V 0.2A AC220V 0.2A	
Detector Input		LMS-005 / LMS-015 / LMS-030 / LMS-050 / LMS-100 / LMS-200	
External Signal Input	Line Speed Signal	DC0~10V	Input Impedance 20KΩ
	Winding Speed Signal		
Contact Input	Acceleration Compensation	Input Impedance 20KΩ	
	Deceleration Compensation		
	Error Reset		
	Start for Running		
Control Output	Magnetic Powder Clutch		DC0 - 24V/5A
	Speed Signal	DC0 - 10V	
	Current Signal	DC0 - 10V or 4~20mA	
Communication		RS485	

Dimension TC2050



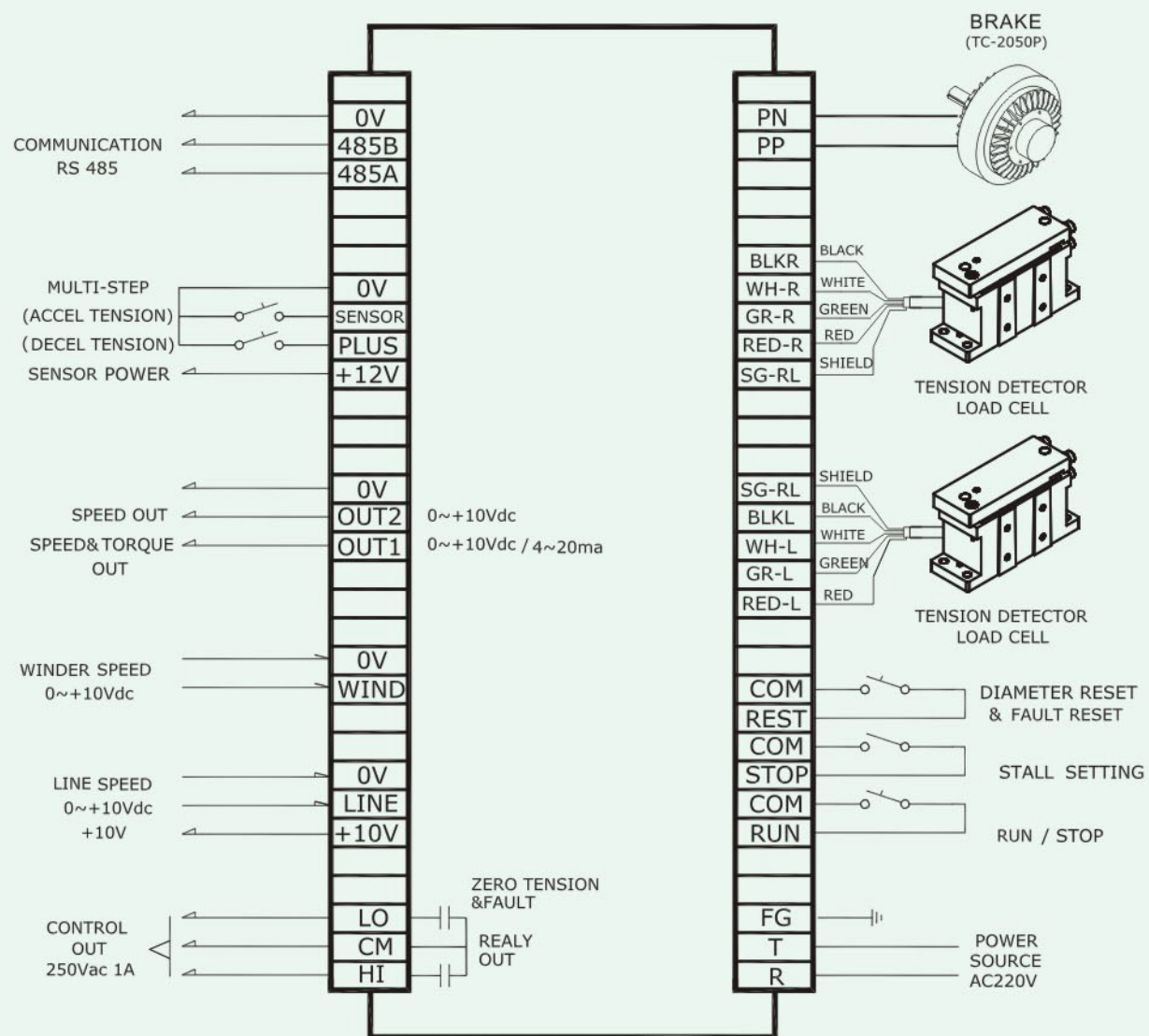
Unit: mm (Inch)

Dimension TC2050P



Wiring Diagram

TC-2050&P TENSION CONTROL WIRING DIAGRAM

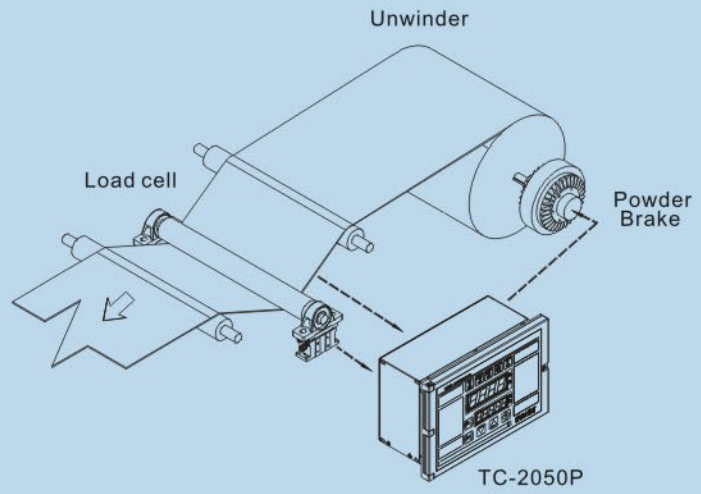


The above wiring method of load cell is for detecting "Compression";
 If the load cell is used for detecting "TENSION", the wiring method will be changed as follow

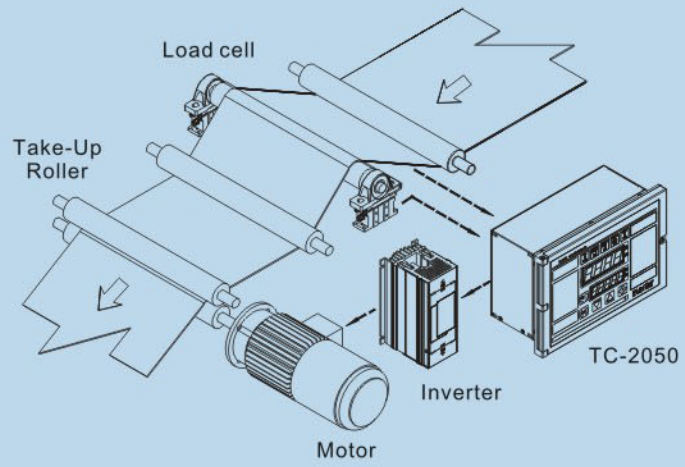
- GR-L → WHITE
- WH-L → GREEN
- GR-R → WHITE
- WH-R → GREEN

Application Example

Unwinding



Central Guiding



Winding

