T-ONE FPM

TENSION CONTROLLER
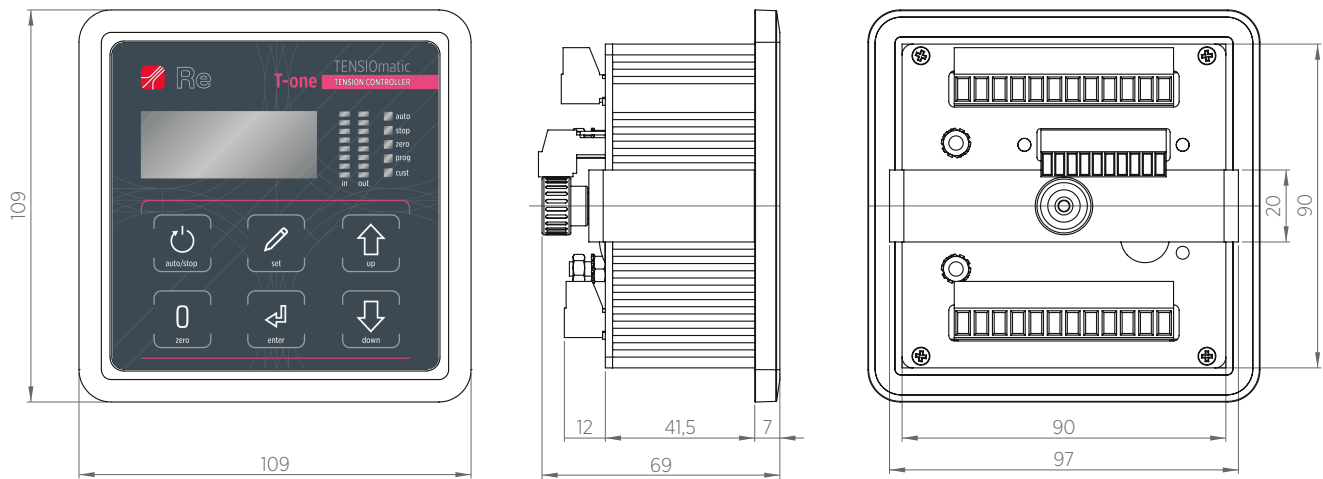
✔ Control of closed-loop and combined systems

✔ Regulation both in torque

✔ Tension control with load cells or dancer roller

✔ Can be used with electromagnetic brakes

✔ Use the signal coming from a diametral sensor

✔ Compact design

✔ Ease of use and calibration

T-one is a tension controller specifically designed for the web tension control in closed-loop and combined systems; extreme ease of use and compactness are the main features of the tension controller. The core of T-one is the P.I.D. algorithm, which has been improved in speed and accuracy.
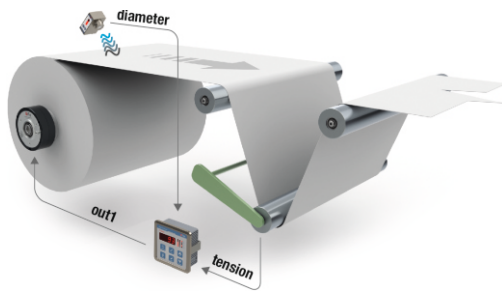
The interface with 6 buttons and 4 digit is easy to use and allows to smoothly control and set up the desired parameters to obtain the best results.

T-one FPM can accept the signal coming from a diametral sensor and can dinamically and automatically change some parameters as the setpoint (taper tension) and the P.I.D. Moreover it can calculate the right torque during the speed increase and decrease controlling the reel inertia. Other than an analogical output, it is equipped with a 1A PWM output for the control of electromagnetic brakes without using a dedicated brake supply board.

TECHNICAL DRAWING

APPLICATIONS

Regulation in torque with load cells
or dancer roller

TECHNICAL DATA

Power supply	24 Vdc
Power	8 W max (logic section); 29W max (power section)
Analog inputs 0÷10 V	1 dancer roller 1 diameter 1 setpoint or dancer roller pressure
Analog input 0÷20 mV / 4÷20 mA	1 max 2 load cells
Digital inpuits 24 V	4 remote controls
Analog output 0÷10 V / 4÷20 mA	1 PID torque control
Analog output 0÷10 V	1 diameter or tension proportional or dancer roller piston control
PWM output -1÷1 A	1 electromagnetic brake - PID torque control
Digital relay outputs 24 Vdc /24 Vac	2 for alarms
Weight	400 g
Working temperature	0÷50°C
IP protection class	IP 20 (case) IP 52 (frontal panel)
Dimensions	109 x 109 x 69 mm

*Data are subject to technical change without notice