



## TACHTROL® 10 & 30 Dual Input Digital Tachometer

Part Number Series  
T77610 & T77630

**CE**  
**RoHS**

### TACHTROL 30 Key Features (T77630):

- Wide range of **AC or DC** power (12-30 Vdc, 80-264Vac 50-60Hz)
- Greatly improved instrument accuracy, processing speed and response time.
- Frequency, period or counter modes.
- User-defined inputs for logic level, averaging, alarm set points and hysteresis,
- Signal normalization and math functions allow mathematical manipulation of input signals. Results can be displayed along with user-defined units.
- Accepts sinusoidal and square wave inputs as found in variable reluctance and digital output speed sensors.
- Accepts bi-directional sensor inputs and will decode quadrature or direction signal logic
- 2 solid state relays (fast response time) and 2 mechanical relays (high power)
- Analog output: 0-20mA, 4-20mA, -20-0-(+) 20mA (can be used with bi-directional sensor)
- Two programming methods: Front panel on display or USB2.0 connectivity to PC / Windows-based **TACHLINK**.
- Utility **RS485** communication allows full **TACHLINK** function over longer distances (up to 8000 ft)
- Drives up to 7 remote displays (**TACHTROL plus**). A single display can be up to 1000 ft away with a simple **RJ11** (phone jack) connection. Longer runs, cable type and number of displays will affect distance.
- Security mode protects unauthorized access for programming or alarm resets (through display or **TACHLINK**)
- Environmentally hardened for temperature, vibration and shock. **EMC / CE** compliant to current BS / EN directives.
- Has integrated display and will mount in same panel opening as **TACHTROL 3**
- Display capabilities include two independent output channels for speed, count period or equation results, Alarm status / security, Mode, User defined units for each channel, 128x64 LCD graphics display with backlight.
- Designed and manufactured compliant with RoHS.

### TACHTROL 10 Key Features (T77610):

- Same as **TACHTROL 30** but excludes solid state relays, analog output and utility **RS485**

*It is the customer's responsibility to determine whether the product is proper for customer's use and application.*

## Programming Features

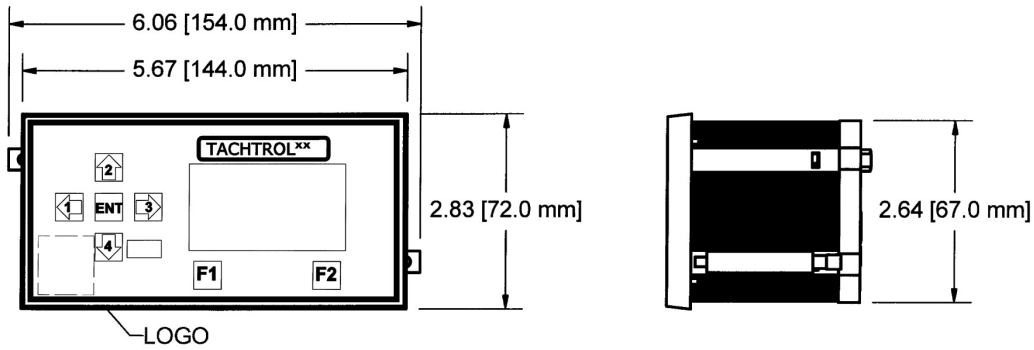
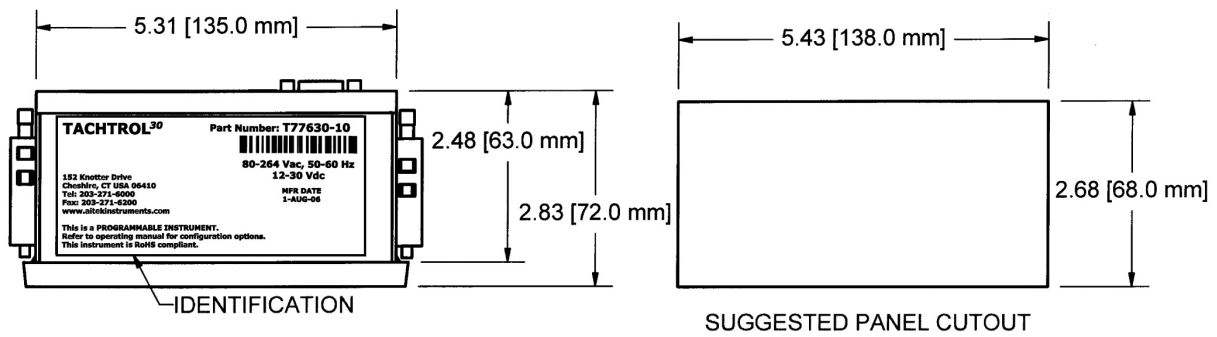
Programming has been greatly simplified and can be accomplished by 2 different methods. Many configurable attributes have been added to improve flexibility and function.

- Display front panel: **TACHTROL 10 and 30** can be programmed through the integrated display/membrane panel. Programming is accomplished by navigating through a series of nested menus. In the case of tachometer instruments embedded in explosion proof or NEMA 4X enclosures, remote access solves the problem of programming by making use of an IR link to allow full front panel control via a hand-held remote.
- PC / Windows-based **TACHLINK**: Custom software allows the user to program all configurable attributes of **TACHTROL by PC** via a **USB2.0** or **RS485** connection. In addition, the **PC** can be used to display data, perform security functions, diagnostics, analog output calibration and real-time data logging; all available through the **TACHLINK**.

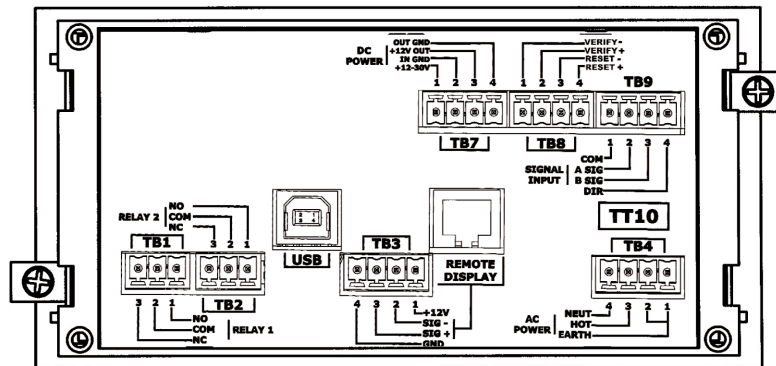
## Applications:

- Fast response overspeed shutdown
- 2 Channel Speed/Draw Monitor
- Bi-directional Tachometer
- Reverse Rotation Alarm
- Low Speed Tachometer
- Clutch Slip Alarm
- Winder Control
- Ahead/Astern Marine Tachometer
- Expanded analog Scale Speed Transmitter
- Flow Rate Monitor
- Process Time Monitor
- Time per Event Monitor
- Autoranging Tachometer
- Computer Signal Conditioner
- Averaging Tachometer
- Line Frequency Monitor 60.00 Hz/400.0 Hz
- RS485 Speed Transmitter

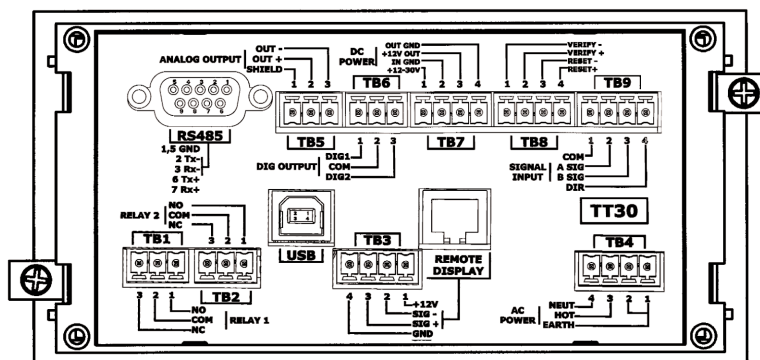
Ordering P/N	Input Power	Enclosure	Net Weight (lbs.)
T77610-10	80-264 Vac/12-30 Vdc	Std. Panel Mount	0.8
T77610-40	80-264 Vac/12-30 Vdc	NEMA 4X	3.9
T77610-70	80-264 Vac/12-30 Vdc	Explosion Proof	42.0
T77630-10	80-264 Vac/12-30 Vdc	Std. Panel Mount	0.9
T77630-40	80-264 Vac/12-30 Vdc	NEMA-4X	4.0
T77630-70	80-264 Vac/12-30 Vdc	Explosion Proof	42.0



PANEL MOUNT, STANDARD ENCLOSURE



REAR VIEW TACHTROL 10



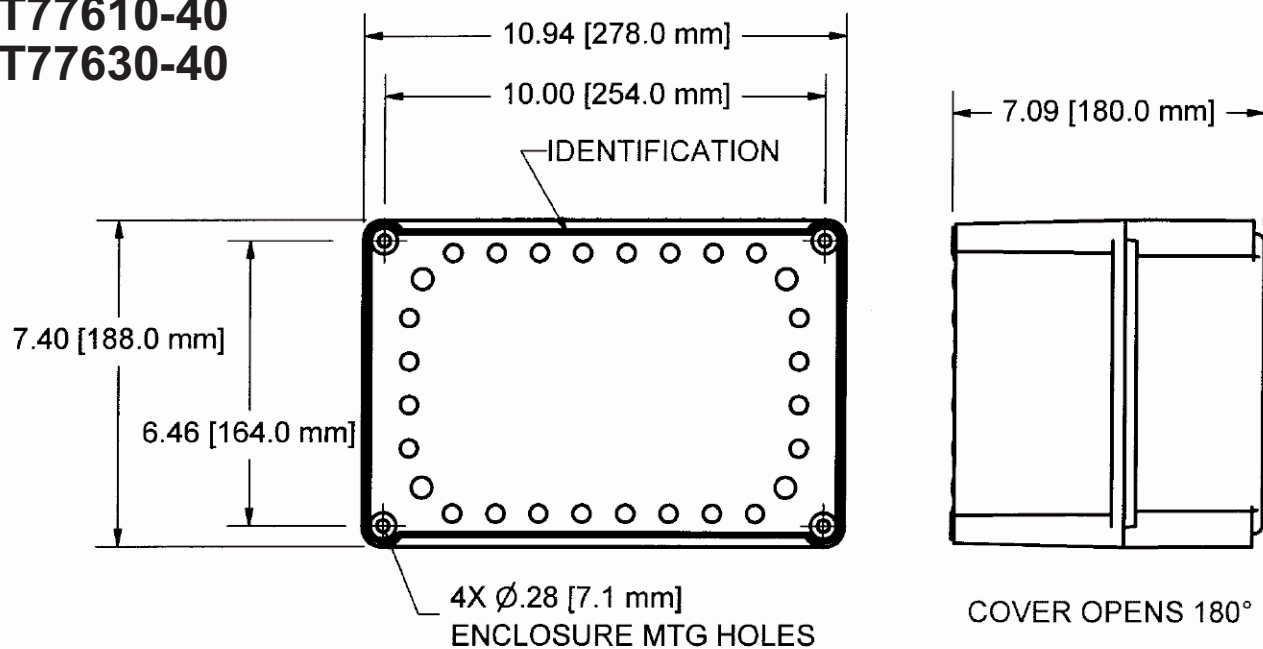
REAR VIEW TACHTROL 30

Table 2: Connection Information			
Terminal Block	Pin #	TACHTROL 30	TACHTROL 10
Remote Display	Use RJ11 type connector. See TB3 for individual breakout of pins.		
USB	Use USB "B" type connector. No individual breakout of pins.		
RS485 DB9	1,5	GND	Not Available
	2	Tx -	
	3	Rx -	
	6	Tx +	
	7	Rx +	
	4,8,9	Not Used	

Table 3: Connection Information			
Terminal Block	Pin #	TACHTROL 30	TACHTROL 10
TB1	1	Relay 1 N.O.	Relay 1 N.O.
	2	Relay 1 Com	Relay 1 Com
	3	Relay 1 N.C.	Relay 1 N.C.
TB2	1	Relay 2 N.O.	Relay 2 N.O.
	2	Relay 2 Com	Relay 2 Com
	3	Relay 2 N.C.	Relay 2 N.C.
TB3 Remote Display	1	+12vdc Out	+12vdc Out
	2	Sig -	Sig -
	3	Sig +	Sig +
	4	Gnd	Gnd
TB4	1	AC/Earth Gnd	AC/Earth Gnd
	2	AC/Earth Gnd	AC/Earth Gnd
	3	AC Hot	AC Hot
	4	AC Neutral	AC Neutral
TB5	1	Analog Shield	Not Available
	2	Analog Out +	
	3	Analog Out -	
TB6	1	Digital 1	Not Available
	2	Dig Com	
	3	Digital 2	
TB7	1	12-30 Volt In	12-30 Volt In
	2	In GND	In GND
	3	+12 Vdc Out	+12 Vdc Out
	4	Out GND	Out GND
TB8	1	Verify -	Verify -
	2	Verify +	Verify +
	3	Reset -	Reset -
	4	Reset +	Reset +
TB9	1	Input Com	Input Com
	2	A Sig	A Sig
	3	B Sig	B Sig
	4	Direction Input	Direction Input

## TACHTROL Enclosure Options

**T77610-40**  
**T77630-40**



NEMA 4X

