TM201

USB INTERFACE DEVICE FOR UTM II /UTMV
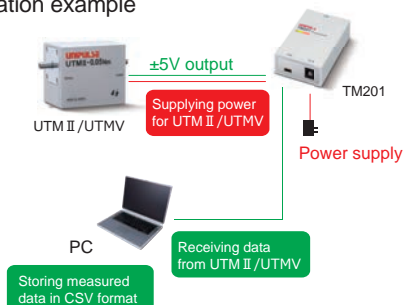

CE RoHS

Suitable torque meter UTM II   UTMV

- Variations of torque, rotation speed, and power* can be monitored and saved on PC. （Application software can be downloaded from our website for free）
- Maximum, minimum, and average value can be displayed.
- Measurement (numeric) data are automatically saved in CSV format.
- The unit supplies electric power to UTM II /UTMV.
- Two cables are attached: one for UTM II /UTMV and the other for PC.

  * Power（W）= 2π × Torque（Nm）× Rotation speed（rpm）/ 60

■ Application example

±5V output

Supplying power for UTM II /UTMV

UTM II /UTMV

TM201

Power supply

PC

Receiving data from UTM II /UTMV

Storing measured data in CSV format

Specifications

| UTM II Interface	· Torque sensor input (voltage input)	
	Signal input range	− 5 to ＋5V input impedance：1M or more
	Accuracy	Non-linearity：Within 0.02%FS±1digit
		Zero drift：Within 0.2mV/℃ RTI
		Gain drift ：Within 0.01%/℃
	Analog filter	Primary low-pass filter 1kHz (fixed)
	Digital filter	Secondary low-pass filter fc = 3, 30, 300, OFF（depending on settings）
	Data output rate	300 times/sec.
		Resolution：24bit Effective Resolution: Approx. 1/30000 against 5V
	· Pulse input for rpm (input for open collector type)	
	Maximum input frequency: Compatible with the pulse output frequency of UTM II /UTMV series	
	Minimum input frequency: Select from 15, 10, 5, 3, 2 rpm (when pulse rate is 4 ppr)	
		Select from 60, 40, 20, 12, 8 rpm (when pulse rate is 1 ppr)
	Minimum pulse width: 50μs	
	Circuit layout	No-voltage (dry) contact input (minus common): open collector outputs can be connected (Ic= approx. 10mA)
	· Power supply for UTM II	
	Power supply	DC24V（UTM II /UTMV 1 unit）
Display	LED status light	LED（Red）：power supply/alarm status
		LED（Green）：UTM II /UTMV is operating normally
Interface	USB	
General performance	Power supply	AC100 to 240V（＋10%−15%）（free power source 50/60Hz）*When supplied AC adapter is used
	Power consumption	4W typ.（AC adapter）
	Operating conditions	Temperature：Operation 0 to ＋40℃ Storage − 10 to ＋60℃ Humidity：80%RH or less (non-condensing)
	Dimension	50(W)× 80(H)× 23(D)mm（Projections excluded）
	Weight	Approx. 120g
Attachment	Setup guide······1 Cable for connecting UTM II /UTMV 2m·····1	
	AC adapter for TM201 1.8m······1 MiniUSB -USB cable 1.8m······1	
Accessories	CA81-USB:miniUSB-computer USB cable 1.8m (same as attachment)	
	CATM21-M:Cable for connecting UTM II /UTMV 2m (same as attachment)	
	CATM51-M:Cable for connecting UTM II /UTMV 5m CN90:Waterproof plastic connector for UTM II /UTMV	
	TM201 AC PIN EU:Switching AC PIN(EU)	
CE marking certification	EMC directives EN61326-1	
	Safety standard EN62311	
	Please specify requirement for CE marking certified product when making your order.	

External dimension

Unit   mm
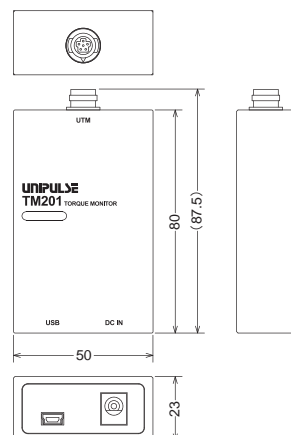
Application software for USB interfaces

- Supporting USB interface option for TM201, TM400, TM700, TM301, TM320, TM380, and TC80.
- Enabling real-time display of torque measured by UTM III /UTM II /UTMV, parameter settings, calibration, and data recording in CSV format. (UTM III can only use TM320, TM380 & TC80.)
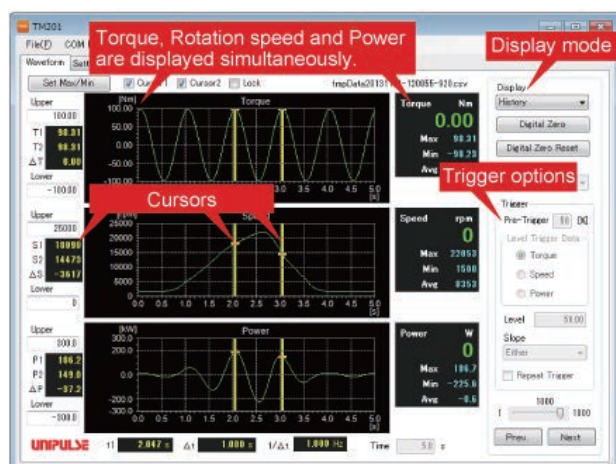
■ Waveform settings

Change settings of waveform display and/or data

① Display mode

Normal: Waveforms currently acquired are displayed

History: Waveforms previously saved are displayed

② Acquisition mode

Single: Once "Start" button is clicked, waveform data is acquired for pre-set time period.

Repeat: "Single" mode operation will repeat in cycle until "stop" button is clicked.

Hold trigger (Only with TM301, TM320 and TM700): Data is acquired when "Hold" button is clicked.

Level trigger*: Pre-trigger (0 to 99), trigger data (torque, rotation speed, power),

Level (±99999), Trigger slope (positive, negative, either),

Repeat trigger (Standby & wait for another trigger after waveform acquisition)

*Depending on the torque monitors, the function varies. See Help of each software.

■ Cursor

Move two cursors freely, display each data value and their difference

■ Zoom-in display (TM201, TM301, TM320, TM400 & TC80)

Zoom-in display at any area