TM400

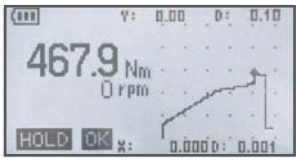
PORTABLE TORQUE MONITOR FOR UTM Ⅱ/UTMV



RoHS2

Suitable torque meter UTM Ⅱ UTMV

- Convenient portable monitor for easy use of UTMⅡ/UTMV.
- Ideal for on-site calibration of nut runners (use with UTMⅡ with the square drive option).
- With the built-in battery, it can be operated even without power source.
- Easy connection to UTMⅡ/UTMV with the supplied cable.
- Operation power can be supplied to the UTMⅡ/UTMV. (Also to an optional rotary encoder*)
- High-speed sampling at 20000 times/sec.
- Torque, rotation speed and torque-angle curve can be monitored.
- Data recording with memory function and USB.
- Various display modes: real-time, graph, recorded data, etc.
- Upper/lower limit & hold function.
- Change the display mode by pressing the ESC button.



Graph display



Value display

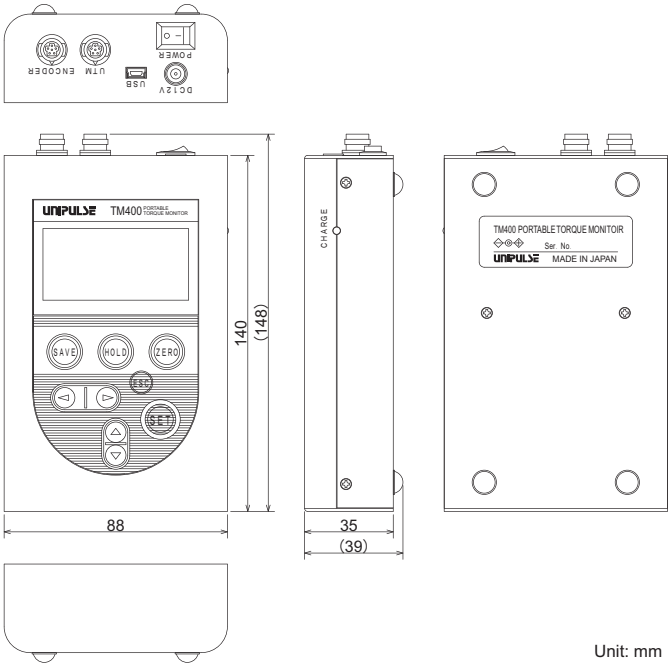
* Rotary encoder option is not available for UTMV.
It will be a waveform display of torque fluctuations in chronological order.

Specifications

Torque input	- Voltage input	
	Signal input range	-5 to +5 V Input impedance: 1 MΩ or more
	Accuracy	Non-linearity: Within 0.02% FS±1 digit
		Zero drift: Within 0.2 mV/℃ RTI
		Gain drift: Within 0.01%/℃
	Analog filter	Low pass filter (-6 dB/oct.)
		Selectable from 10 Hz, 30 Hz, 100 Hz, 300 Hz, 1 kHz, 3 kHz, 10 kHz, 30 kHz
	A/D converter	Speed: 20000 times/sec.
		Resolution: 24 bit (binary) Effective resolution: Approx. 1/30000 against 5 V
Rotation input	- Pulse input (open-collector)	
	Maximum input rotation speed: Conforming to the maximum rotation speed of UTMⅡ/UTMV	
	Minimum input rotation speed: 15 rpm	
	Minimum detection pulse width: 50 μs	
	Circuit configuration	No-voltage contact input (minus common)
		Open collector connectable (Ic = Approx. 10 mA)
Encoder input	- Pulse input (open-collector)	
	Maximum input frequency: 50 kHz	
Display	Display unit	128 × 64 dots monochromatic LCD (display area: 57 × 28 mm)
	Displayed data	Torque, rotation speed, angle (numeric), torque-time or torque-angle/displacement curve (graphic), and status display (HI, LO, OK, and HOLD)
Interface	USB	
General specifications	Power supply	Built-in secondary battery
		Continuous use time: Approx. 5 hours (at room temperature)
		AC adopter
	Operating conditions	Operation temperature: -10 to +40℃
		Storage temperature: -20 to +60℃
		Humidity: 85% RH or less (non-condensing)
	Dimension	88(W) × 140(H) × 35(D) mm (Not including projections)
	Weight	Approx. 500 g
Attachments	AC adopter	1
	Operation manual	1
	Cable for connecting UTM Ⅱ/UTMV 2 m	1
	Cable for connecting UTMⅡ rotary encoder 2 m	1
Optional accessories	CA81-USB:	USB cable (TypeA-Bmini) 1.8 m
	CATM21-M:	Cable for connecting UTM Ⅱ/UTMV 2 m (Same as the attachment)
	CATM51-M:	Cable for connecting UTM Ⅱ/UTMV 5 m
	CATM(R)21-M:	Cable for connecting UTM Ⅱ rotary encoder 2 m (Same as the attachment)
	CATM(R)51-M:	Cable for connecting UTM Ⅱ rotary encoder 5 m
	CN90:	Waterproof plastic connector for UTM Ⅱ/UTMV
	CN91:	Waterproof plastic connector for UTM Ⅱ rotary encoder
	TM400 AC CABLE EU:	AC cable (for EU)

* Please note that there are possibilities of individual differences in a color tone on display devices such as LEDs, fluorescent display tubes and LCDs due to manufacturing process or production lots.

External dimension



Unit: mm