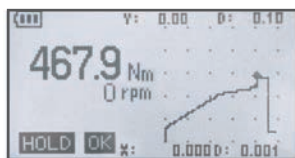


# TM400

## PORTABLE TORQUE MONITOR FOR 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 20kS/s
- Torque & rotation speed and torque-angle curve can be monitored.
- Data recording with memory function and USB.
- Various display mode: real-time, graph, recorded data, etc....
- Upper/lower limit & hold function.
- Change the display mode by pressing the ESC button.



Graph display

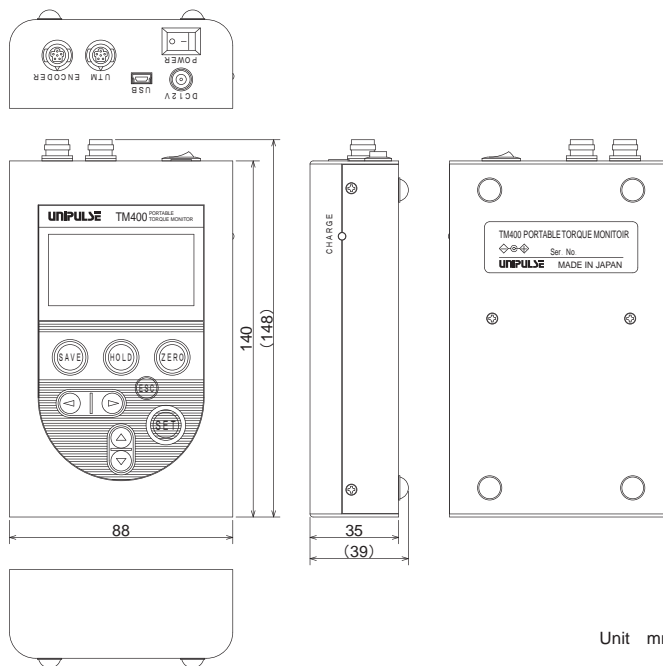


Indicated value display

### Specifications

Torque 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/°C RTI Gain drift : within 0.01%/°C
	Analog filter	Low pass filter ( - 6dB/oct.) Select from 10, 30, 100, 300, 1k, 3k, 10k, 30kHz
	A/D converter	Rate : 20000times/sec Resolution : 24bit (binary) Approx. 1/30000 against 5V
Rotation input	- Pulse input (open-collector)	
	Maximum input frequency: In accordance with the output frequency of the UTMII /UTMV series	
	Minimum input frequency: 15rpm	
	Minimum detection pulse width: 50µs	
	Circuit configuration No-voltage contact input (minus common) Open collector connectable (Ic = Approx. 10mA)	
Encoder input	- Pulse input (open-collector)	
	Maximum input frequency: 50kHz	
Display	Display unit	128x64 dots monochromatic LCD (display area: 28 x 57)
	Displayed data	Torque & rotation speed (numeric), torque-time or torque-angle/displacement curve (graphic), and status display (high, low, OK, and hold)
Interface	USB	
Power supply	Built-in secondary battery, maximum operating time: 5 hours, AC adaptor	
Operating conditions	Temperature	Operation temperature -10°C to +40°C Storage temperature -20°C to +60°C
	Humidity	85%RH or below (non-condensing)
Dimension	88(W)x 140(H)x 35(D)mm (excluding projections)	
Weight	Approx.500g	
Attachment	AC adaptor.....1	
	Operation manual.....1	
	Cable for connecting UTMII /UTMV (2m).....1	
	Cable for connecting UTMII rotary encoder (2m).....1	
Accessories	AP12375:	AC adaptor (100V)
	CA81-USB:	miniUSB-computer USB cable 1.8m
	CATM21-M:	Cable for connecting UTMII /UTMV 2m
	CATM51-M:	Cable for connecting UTMII /UTMV 5m
	CATM(R)21:	Cable for UTMII with rotary encoder connection (non-connector at one end) 2m
	CATM(R)21-M:	Cable for connecting UTMII rotary encoder 2m
	CATM(R)51-M:	Cable for connecting UTMII rotary encoder 5m
	CN90 :	Waterproof plastic connector for UTMII /UTMV
	CN91 :	Waterproof plastic connector for UTMII rotary encoder
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