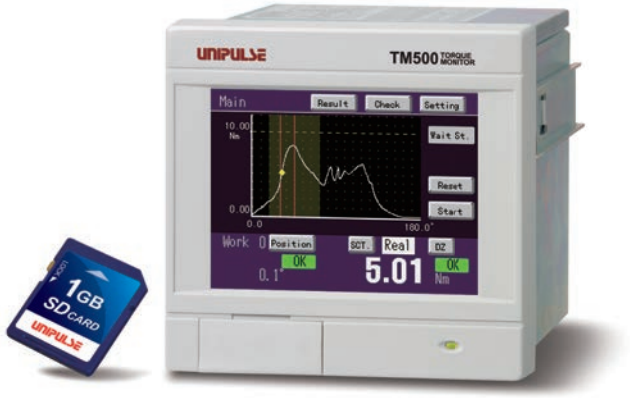
TM500 TORQUE WAVEFORM MONITOR FOR UTM Ⅱ/UTMV



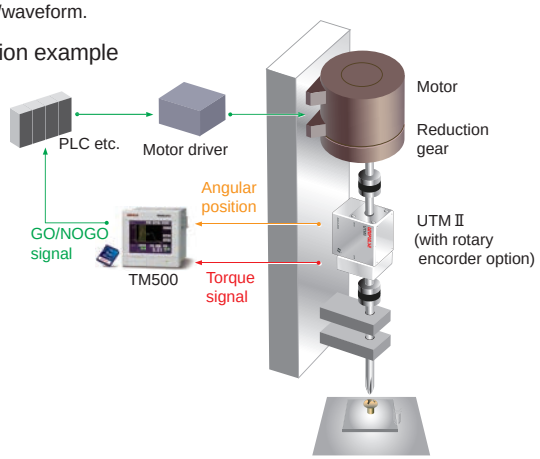
CE DIN 96 RoHS2

Suitable torque meter UTMⅡ UTMV

- Waveform display of torque variation against angles.*
- Suitable for low-speed rotation and linear motion applications.
- Saving measurement data and setting values in a SD card.
  Data can be converted to CSV format and edited in Excel format easily.
- Easy connection to UTMⅡ/UTMV with the supplied cable.
- The unit supplies electric power to UTMⅡ/UTMV.
  (also to an optional rotary encoder*)

* Rotary encoder option is not available for UTMV.
Torque fluctuation over a period of time will be displayed in a curve/waveform.

■ Application example



Specifications

Input signals	Torque input	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.) Select from 30, 100, 300, 1 kHz
	A/D converter	Rate: 4000 times/sec Resolution: 24 bit (binary) Effective Resolution: Approx. 1/30000 against 5 V
	Monitor output	Input voltage return (for tester)
	Pulse input (Open collector)	Maximum input frequency 50 kHz Internal counting range Approx. 1000000
Display	Display unit	3.5 inch TFT color LCD
Setting	Setting method	Setting by analog type touch panel operation
	Preservation of set values	Initial settings: NOV RAM (nonvolatile RAM), Other settings: Lithium-battery-backed-up C-MOS RAM
External I/O signal	External output signal (15)	Hold result(Load, DPM) / Overload / Wave result / Complete / RUN / Load OK / DPM OK / SD OK
	External input signal (12)	Load Digital Zero / DPM Positioning / Start / Stop / Hold / Reset / Backlight On / Prohibit Touch Panel / Work change
Interface	RS-232C interface	
Option	SDC: SD card slot (Approx. 80 waveforms can be preserved by 1 MByte, SDHC and SDXC are not supported.) All indicated values and all comparison waveforms can be saved and restored. Measured waveforms and judgment points can be saved automatically.	
General performance	Power supply	DC 24 V (±15%)
	Power consumption	7 W typ.
	Operating conditions	Temperature: Operation −10 to +40℃ Storage −20 to +60℃ Humidity: 85% RH or less (non-condensing)
	Dimension	96(W) × 96(H) × 117.3(D) mm (Projections excluded)
	Weight	Approx. 1.0 kg
Attachment	Operation manual···1, External input/output connector···1, Cable for UTMⅡ/UTMV connection 2 m···1, Cable for UTMⅡ rotary encoder connection 2 m···1, SD card 1 GByte (with SDC option)···1	
Optional accessories	DTC1:	Case for TM500 (with AC power supply)
	SD1G:	1 GByte card
	SD2G:	2 GByte card
	CA81-232X:	miniDIN-D-Sub9p cross cable 1.5 m
	CATM21-M:	Cable for UTMⅡ/UTMV connection 2 m
	CATM51-M:	Cable for UTMⅡ/UTMV connection 5 m
	CATM(R)21-M:	Cable for UTMⅡ rotary encoder connection 2 m
	CATM(R)51-M:	Cable for UTMⅡ rotary encoder connection 5 m
	CN52:	FCN series I/O connector (with cover)
	CN57:	FCN series I/O connector (with diagonal cover)
	CN60:	Circular DIN 8p connector for RS-232C
	CN90:	Waterproof plastic connector for UTMⅡ/UTMV connection
	CN91:	Waterproof plastic connector for UTMⅡ rotary encoder connection
	GMP96x96:	Rubber packing
	TSU03:	DC lighting surge unit
CE marking certification	EMC directives EN61326-1	

* 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.

Structure of product code

TM500 □
① ②

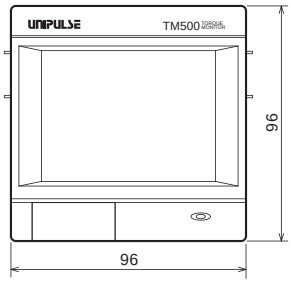
① Standard unit

② SD card slot

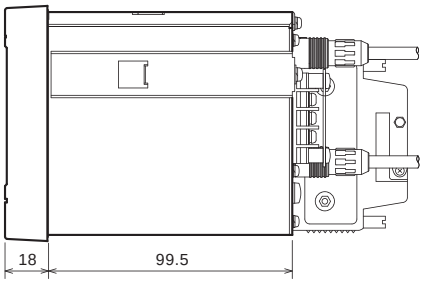
Sign	Card slot
Standard	W/O
SDC	SD card slot (1 GByte attached)

External dimension

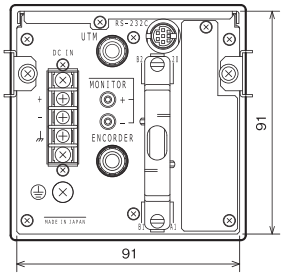
(Front)

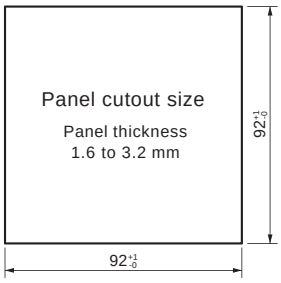


(Side)

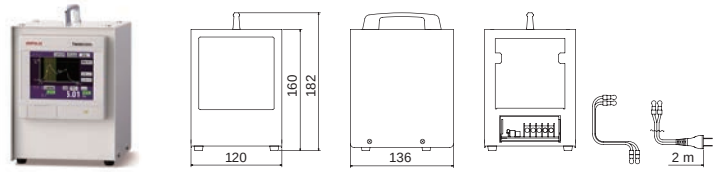


(Rear)





DTC1: Case for TM500 (with AC power supply)



Unit: mm