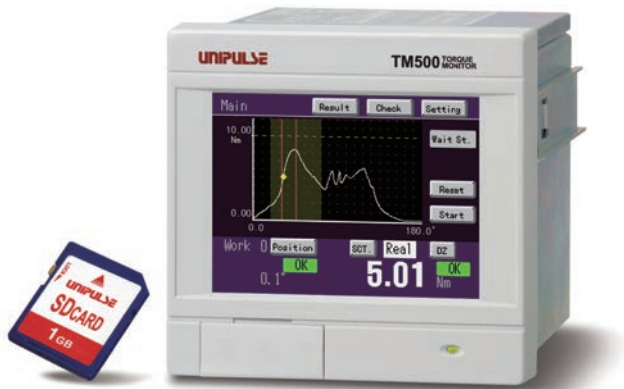


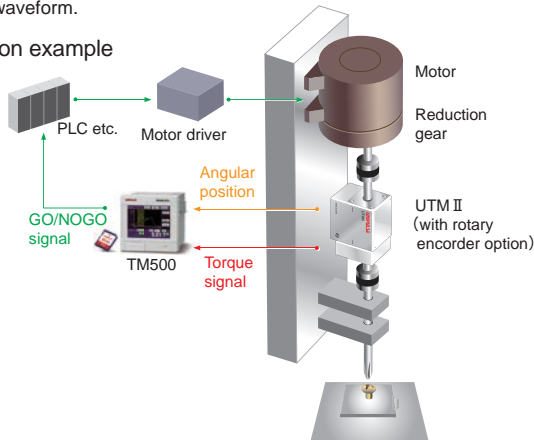
# TM500 TORQUE WAVEFORM MONITOR FOR UTM II /UTMV



- 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 UTM II /UTMV with the supplied cable.
- The unit supplies electric power to UTM II /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 : 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 30, 100, 300, 1kHz
	A/D converter	Rate : 4000times/sec Resolution: 24bit Effective Resolution: Approx. 1/30000 against 5V
	Monitor output	Input voltage return (for tester)
Pulse input	Maximum input frequency	50kHz
	(Open collector)	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	NOV RAM (nonvolatile RAM), 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 1MB. 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	DC24V (±15%)
	Power consumption	7W typ
	Operating conditions	Temperature : Operation -10°C to +40°C Storage -20°C to +60°C Humidity : 85%RH or less (non-condensing)
	Dimension	96(W)x96(H)x117.3(D)mm (Projections excluded)
Attachment	Weight	Approx. 1.0kg
	Operation manual	· · · 1, External input/output connector · · · 1, Cable for UTM II /UTMV connection 2m · · · 1, Cable for UTM II rotary encoder connection 2m · · · 1, SD card (1GB)(with SDC option) · · · 1
Optional accessories	DTC1 :	Case for TM500 (with AC power supply)
	SD1G :	1GByte card
	SD2G :	2GByte card
	CA81-232X :	miniDIN-D-Sub9p cross cable 1.5m
	CATM21-M :	Cable for UTM II /UTMV connection 2m
	CATM51-M :	Cable for UTM II /UTMV connection 5m
	CATM(R)21 :	Cable for UTM II rotary encoder connection (non-connector at one end) 2m
	CATM(R)21-M :	Cable for UTM II rotary encoder connection 2m
	CATM(R)51-M :	Cable for UTM II rotary encoder connection 5m
	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 UTM II /UTMV connection	
CN91 :	Waterproof plastic connector for UTM II rotary encoder connection	
GMP96x96 :	Rubber packing	
TSU03 :	DC lighting surge unit	
CE marking certification	EMC directives	EN61326-1

### Structure of product code

TM500

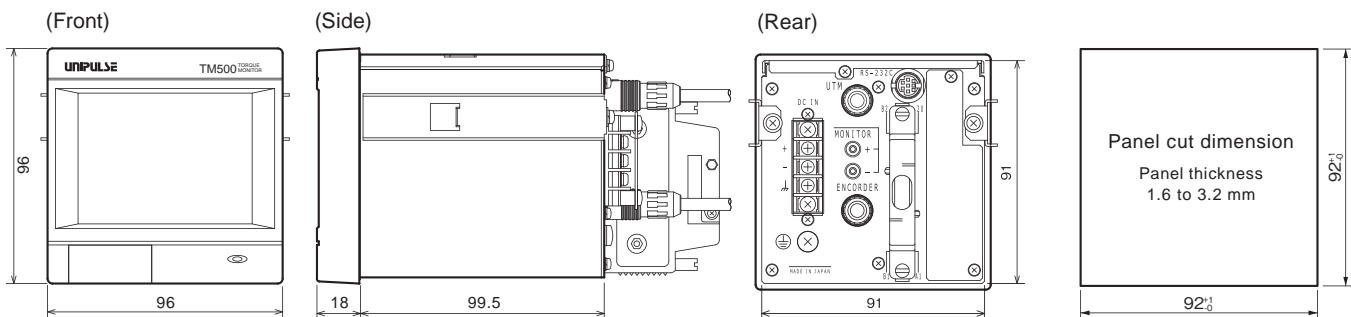
① ②

① Standard unit

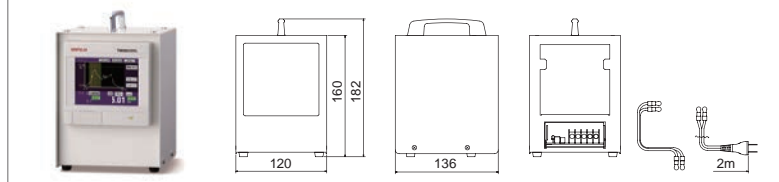
② SD card slot

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

### External dimension



DTC1 : Case for TM500 (with AC power supply)



Unit mm