

TM700

HIGH-SPEED TORQUE WAVEFORM MONITOR FOR UTMII/UTMV

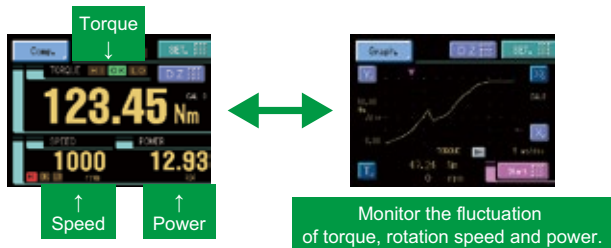


Suitable torque meter **UTMII** **UTMV**

- High-speed sampling at 20000 times/sec.
- A torque curve monitor supporting the high response time of UTMII/UTMV (1 kHz).
- Monitoring of torque, rotation speed and power*1 curves.
- Upper/lower limits & hold function.
- Easy connection to UTMII/UTMV with the supplied cable.
(Operation power can be supplied to the UTMII/UTMV and to an optional rotary encoder*2)
- Data recording with USB.

*1 Power (W) = $2\pi \times \text{Torque (N m)} \times \text{Rotation speed (rpm)} / 60$

*2 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/°C RTI Gain drift: Within 0.01%/°C 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 Voltage monitor output Linked to the output voltage of the torque meter
Rotation input	- Pulse input (open-collector) ■ High-speed (for standard UTMII/UTMV) Maximum input frequency Conforming to the maximum rotation speed of UTMII/UTMV Minimum input frequency Selectable from 15, 10, 5, 3, or 2 rpm (when pulse rate is 4 ppr) Selectable from 60, 40, 20, 12, or 8 rpm (when pulse rate is 1 ppr) Minimum detection pulse width 50 μs Circuit configuration No-voltage contact input (minus common) Open collector connectable (Ic = Approx. 10 mA) ■ Low-speed (for UTMII with rotary encoder option) Maximum input frequency Approx. 1000 rpm Minimum input frequency 0.1 rpm Minimum detection pulse width 5 μs Circuit configuration No-voltage contact input (minus common) Open collector connectable (Ic = Approx. 10 mA)
Display	Display unit 3.5 inch TFT color LCD
External I/O signal	External output (8) ex) high and low limit outputs External input (10) ex) hold control input, digital zero input (DZ)
Interface	SIF: 2-wire serial interface USB: USB interface D3V: D/A converter voltage output (3 ch) (Option)
Power supply	DC 24 V (±15%)
Power consumption	6 W typ.
Operating conditions	Operation temperature: -10 to +40°C Storage temperature: -40 to +80°C Humidity: 85% RH or less (non-condensing)
Dimension	96(W) × 96(H) × 138(D) mm (Not including projections)
Weight	Approx. 1.0 kg
Attachments	Operation manual····1, External input/output connector····1, Cable for connecting UTMII/UTMV 2 m····1, Operating tool (with D/A converter (3 ch) option)····1
Optional accessories	DTC2: Case for TM700 (with AC power supply) CA372-I/O: Cable with FCN connector at one-end 3 m CA81-USB: miniUSB-computer USB cable 1.8 m CATM21-M: Cable for connecting UTMII/UTMV 2 m (Same as the attachment) CATM51-M: Cable for connecting UTMII/UTMV 5 m CATM(R)21-M: Cable for connecting UTMII rotary encoder 2 m CATM(R)51-M: Cable for connecting UTMII rotary encoder 5 m CN50: FCN series I/O connector (with cover) (Same as the attachment) CN55: FCN series I/O connector (with diagonal cover) CN73: D/A converter (3 ch) connector CN90: Waterproof plastic connector for UTMII/UTMV CN91: Waterproof plastic connector for UTMII rotary encoder GMP96x96: Rubber seal 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

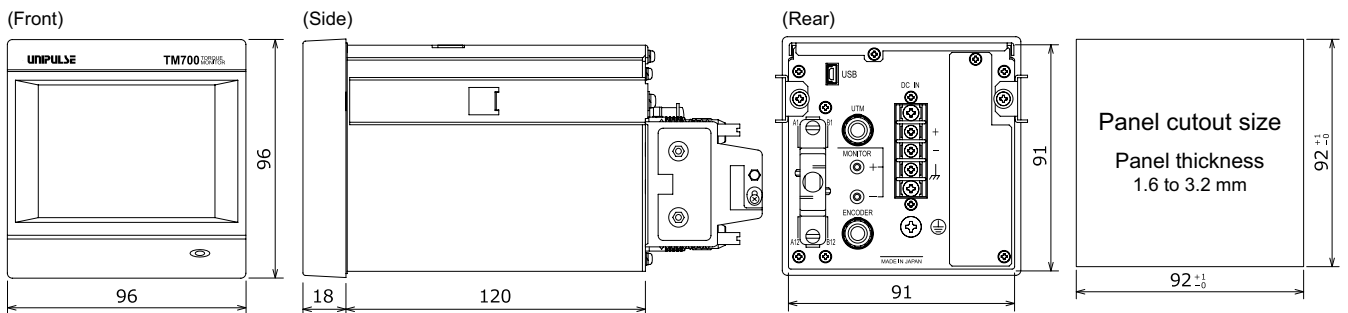
TM700 □
① ②

① Standard unit

② Interface

Sign	Interface
Standard	SI/F, USB
D3V	D/A converter (Voltage output) (3 ch)

External dimension



Unit: mm

DTC2: Case for TM700 (with AC power supply)

