TM380 HIGH-SPEED TORQUE MO FOR UTMII/UTMI/UTMV

HIGH-SPEED TORQUE MONITOR





Suitable torque meter UTMII UTMI UTMV

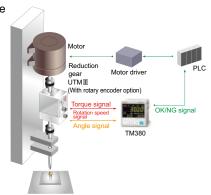


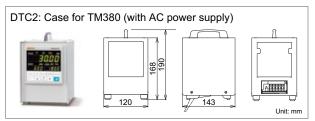




- High-speed sampling at 16000 times/sec.
- Compatible with rotary encoder option(R)(H) of UTM series.
- Equipped with display and comparison function for connection data*¹ of UTMⅢ
- Torque, rotation speed and angle are displayed simultaneously.
- Hold function
- Upper/lower comparators function
- Equipped with data memory function (Torque, rotation speed, angle, the latest 30 items are recorded)
- The unit supplies electric power to UTMIII/UTM II/UTMV.
- *1 RS-485 interface (torque, rotation speed)
- * Please consult us when connecting to UTF II

■ Usage example





Analog	- Torque sensor input (voltage input)	40. 40.44.TV		
section	Signal input range	-10 to +10 V (UTM III) Input resistance 1 MΩ or more		
	Accuracy	-5 to +5 V (UTM II /UTMV) Input resistance 1 MΩ or more Non-linearity: Within 0.02% FS±1 digit		
	A/D converter	Zero drift: Within 0.2 mV/℃ RTI		
		Gain drift: Within 0.01%/℃		
		Speed: 16000 times/sec.		
		Resolution: 24 bit (binary) 1/30000 with respect to 10 V		
	Digital low pass filter	PASS, 3 Hz to 1 kHz PASS, 3 Hz to 1 kHz		
	Digital high pass filter			
	- Voltage monitor output Linked to the output voltage of the torque meter			
	- Rotation speed input (Pulse input, open	collector) (UTM II/UTM II/UTMV) Conforming to the maximum rotation speed of UTM III/UTM II/UTMV		
	Maximum input frequency Minimum input frequency	Selectable from 15, 10, 5, 3, or 2 rpm (when pulse rate is 4 ppr)		
	l	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)		
	- Rotation speed input (Pulse input, open co			
	Maximum input frequency Minimum input frequency	Conforming to the maximum rotation speed of UTM III /UTM II 0.1 rpm * The resolution depends on the settings of the rotation speed		
	Minimum detection pulse width	5 μ s and the number of the output pulse.		
	Circuit configuration	No-voltage contact input (minus common)		
		Open collector connectable (Ic = Approx. 10 mA)		
	- Encoder input (Pulse input)	ITAAW UITAA W		
	Compatible with encoder option of U			
Display	Display Main display: Character heigh	ght 15 mm Numerical display by 7-segment green LED (5-digit+sign) ht 8 mm Numerical display by 7-segment green LED (5-digit)		
section		5-digit -99999 to +99999 Signs: Minus sign on most significant digit		
		totation speed): 5 digit 0 to +99999		
		ngle): -19999 to +19999 Signs: Minus sign on most significant digit		
	Decimal point 0, 0.0, 0.00, 0.0			
	0 (Rotation spe	eed,0.0 for Low-speed rotation mode)		
	Display frequency Selectable from	ngle Depending on unit and min. scale division setting) n 3, 6, 13, and 25 times/sec.		
	Status display HI / LO / HOLI			
		nding on angle unit setting)		
Hold	Sample, Peak, Bottom, P-P, Average, Peak (angle), Peak (angle+torque) Hold section setting (All section · External signal · External signal+Time · Level+Time)			
External	External input Hold control / Hold i	reset / Digital Zero / Angle zero clear/ Record data clear		
I/O section	(5) Dry contact input cir	rcuit (minus common type), lc = 10 mA or less		
		omparison (alarm HI · HI · OK · LO · alarm LO) / O limit comparison (alarm HI · HI · OK · LO · alarm LO) / Hold complete / RUN		
	Timing output/ Abso			
		ut circuit (sink type), Vceo = 30 V (max) Ic = 30 mA (max)		
Interface	SIF: 2-wire serial interface	232: RS-232C communication interface (Option)		
	BCO: BCD parallel data output interfa	to it is then then to the it is		
	D3V: D/A converter voltage output (3	ch) (Option)		
	D3V: D/A converter voltage output (3 DAV: D/A converter voltage output (C	ch) (Option) Option)		
	D3V: D/A converter voltage output (3 DAV: D/A converter voltage output (C DAI: D/A converter current output (O	ch) (Option) Option) * Only one option can be installed.		
General	D3V: D/A converter voltage output (3 DAV: D/A converter voltage output (C DAI: D/A converter current output (O Power supply voltage	ch) (Óption) pition) * Only one option can be installed. 3C 24 V±15%		
General performance	D3V: D/A converter voltage output (3 DAV: D/A converter voltage output (C DAI: D/A converter current output (C Power supply voltage Power consumption 8	ch) (Option) option) * Only one option can be installed. OC 24 V±15% W typ.		
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performance	D3V: D/A converter voltage output (3 DAV: D/A converter voltage output (C DAI: D/A converter current output (C Power supply voltage Power consumption 8 Operating conditions C Dimension 9 Weight A	ch) (Óption) phion) * Only one option can be installed. DC 24 V±15% W typ. Deparation temperature: -10 to +50°C Storage temperature: -40 to +80°C fulmidity: 85% RH or less (non-condensing) f(KW) × 96(H) × 138(D) mm (Not including projections) pprox. 1.2 kg		
	D3V: D/A converter voltage output (3 DAV: D/A converter voltage output (C DAI: D/A converter current output (C Power supply voltage Power consumption 8 Operating conditions C Dimension 9 Weight A Operation manual	ch) (Option) pition) * Only one option can be installed. OC 24 V±15% W typ. Operation temperature: -10 to +50°C Storage temperature: -40 to +80°C tumidity: 85% RH or less (non-condensing) 6(W) × 96(H) × 138(D) mm (Not including projections) **opprox. 1.2 kg Unit seal		
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performance	D3V: D/A converter voltage output (3 DAV: D/A converter voltage output (C DAI: D/A converter current output (C Power supply voltage Power consumption 8 Operating conditions C Pomerating conditions P Power onsumption 9 Weight A Operation manual External input/output connector F Connector for BCD output (with BCO C Connector for BCD output (with BCO C Connector for BCD output (with BCO C Connector for BCD output (with BCO C)	ch (Option)		
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Performance Attachments Optional	D3V: D/A converter voltage output (3 DAV: D/A converter voltage output (C DAI: D/A converter voltage output (C DAI: D/A converter current output (C DAI: D/A converter current output (O Power supply voltage C Power consumption 8 Operating conditions C C Power consumption 9 Operating conditions 9 Operating conditions 9 Operating conditions 9 Operation manual A C Connector for BCD output (with BCO of Winis cerewdriver (with D/A converter of CA372-UO: Cable with FCN connector at or CA372-UO: Cable with FCN connection 1 CATM321-M: Cable for UTM III connection 1 CATM321-M: Cable for UTM III UTMV con CATM221-MC: Cable for UTM III UTMV con UTMIII UTMV con UTM	ch) (Option))ption) * Only one option can be installed Diption) * Only one option can be installed C 24 ½15% W Typ. * Operation temperature: -10 to +50°C Storage temperature: -40 to +80°C turnidity: 85% RH or less (non-condensing) (6(W) × 96(H) × 138(D) mm (Not including projections) **sprox. 1.2 kg		
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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



1 Standard unit

② Interface		
Sign	Interface	
Standard	SI/F	
One entional interface can be added		

in addition to the standard interface

всо	BCD output (Sink type)	
D3V	D/A converter voltage output (3 ch)	
DAV	D/A converter voltage output	
DAI	D/A converter current output	
232	RS-232C	
USB	USB	

External dimension

