

TC80-CCL TC80-D3V TC80-EIP

DIN RAIL MOUNT TORQUE CONVERTER FOR UTM III/UTM II/UTMV

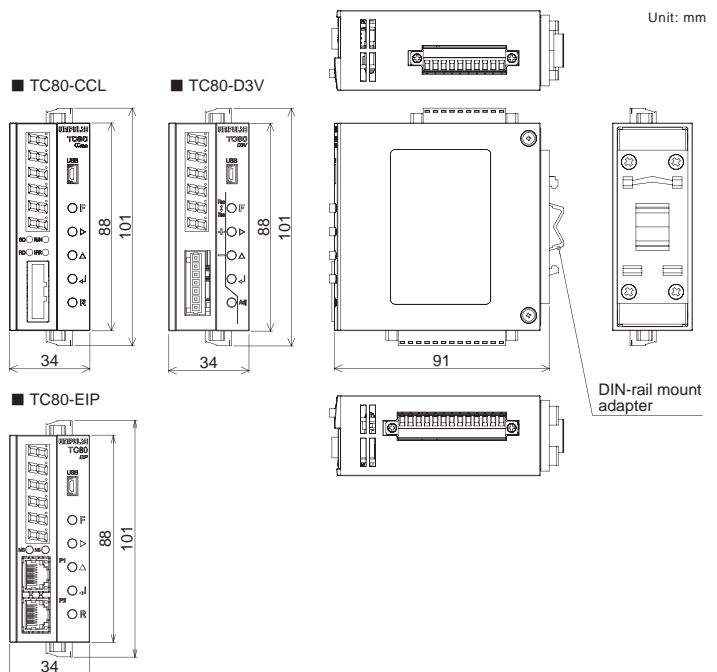


Specifications

Analog section	- Torque sensor input (voltage input)	
	Signal input range	-10 to +10 V (UTM III) Input resistance 1 M Ω or more -5 to +5 V (UTM II/UTMV) Input resistance 1 M Ω or more
	Accuracy	Non-linearity: Within 0.02% FS \pm 1 digit Zero drift: Within 0.2 mV/°C RT1 Gain drift: Within 0.01%/°C
	A/D converter	Speed: 16000 times/sec. Resolution: 24 bit (binary) 1/30000 with respect to 10 V
Display section	Digital low pass filter	PASS, 3 Hz to 1 kHz (TC80-CCL) / PASS, 1 Hz to 1 kHz (TC80-D3V, TC80-EIP)
	Digital high pass filter	PASS, 1 Hz to 1 kHz (TC80-D3V, TC80-EIP)
	- Rotation speed input for high speed (Pulse input, open collector) (UTM III/UTM II/UTMV)	
	Maximum input frequency	Based on UTM III/UTM II/UTMV
External I/O section	Minimum input frequency	Select from 15, 10, 5, 3, or 2 rpm (when pulse rate is 4 ppr)
	Minimum detection pulse width	Select from 60, 40, 20, 12, or 8 rpm (when pulse rate is 1 ppr)
	Circuit configuration	50 μ s No-voltage contact input (minus common) Open collector connectable (I _c = Approx. 10 mA)
	- Rotation speed input for low speed (Pulse input, open collector) * For using rotary encoder option	
Interface	Maximum input frequency	5000 rpm
	Minimum input frequency	0.1 rpm * The resolution depends on the settings of the rotation speed and the number of the output pulse.
	Minimum detection pulse width	5 μ s
	Circuit configuration	No-voltage contact input (minus common) Open collector connectable (I _c = Approx. 10 mA)
Display section	- Encoder input (Pulse input)	
	Compatible with encoder option of UTM III/UTM II	
	Display unit	Character height 8 mm Numerical display by 7-segment green LED
	Display content	Switchable numeric display: torque, rotation speed, angle (TC80-CCL) torque, rotation speed, power/angle (TC80-D3V, TC80-EIP)
External I/O section	Display frequency	Selectable from 1, 3, 6, 13, and 25 times/sec.
	Status display	RUN / SD / RD / ERR (TC80-CCL), MS / NS (TC80-EIP)
	Output signal	Selectable/configurable
	Input signal	Selectable/configurable
Interface	USB: USB interface	EIP: EtherNet/IP interface (TC80-EIP)
	CCL: CC-Link interface (TC80-CCL)	485: RS-485 interface
	D3V: D/A converter voltage output (3 ch) (TC80-D3V)	
General performance	Power supply voltage	DC 24 V \pm 15%
	Power consumption	6 W typ. (TC80-CCL, TC80-D3V), 7 W typ. (TC80-EIP)
	Operating conditions	Operation: -10 to +50°C Storage: -20 to +85°C Humidity: 85%RH or less (non-condensing)
	Dimensions	34(W) x 88(H) x 91(D) mm (Projections excluded)
Attachments	Weight	Approx. 230 g
	Quick manual	2
	Mini driver	1
	CC-Link connector (TC80-CCL)	1
Optional accessories	Operating tool (TC80-D3V)	1
	Various I/O connector	2(TC80-CCL, TC80-EIP), 3(TC80-D3V)
	CATM321: Cable for UTM III connection 2 m	CA81-USB: miniUSB-computer USB cable 1.8 m
	CATM351: Cable for UTM III connection 5 m	CN7A: Connector for D/A converter (3 ch) (Same as attachment)
CE marking certification	CATM312: Cable for UTM III connection 10 m	CN74: CC-Link connector (Same as attachment)
	CATM21: Cable for UTM II connection 2 m	CN75: CC-Link connector (Y type branch connector)
	CATM51: Cable for UTM II connection 5 m	CN76: CC-Link connector (Terminator connector)
	CATM12: Cable for UTM II connection 10 m	CN85: 13p connector for power source/sensor/RS-485 (Same as attachment)
	CATM(R)321: Cable for connection UTM III rotary encoder 2 m	CN87: 10p connector for external I/O (Same as attachment)
	CATM(R)351: Cable for connection UTM III rotary encoder 5 m	E04SR21132: Ferrite core
	CATM(R)121: Cable for connection UTM II rotary encoder 2 m	TSU03: Lightning surge protector (DC)
	CATM(R)51: Cable for connection UTM II rotary encoder 5 m	
	CATM(RC)321: Cable for UTM III (RC) connection 2 m	
	CATM(RC)351: Cable for UTM III (RC) connection 5 m	
	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.

External dimension



CE RoHS2 EtherNet/IP CC-Link

Suitable torque meter UTM III UTM II UTMV UTF II

- High-speed sampling at 16000 times/sec.!!
- Equipped with display connection data(*1) of UTM III/UTF II and comparison function.
- Display torque & rotation speed. Torque-angle curve also can be monitored.
- Equipped with hold data memory function (Torque, rotation speed & angle. Store 100 latest data)
- The unit supplies electric power to UTM III/UTM II/UTMV. (Also to an optional rotary encoder(*2))

*1 RS-485 interface (torque, rotation speed)

*2 Rotary encoder option is not available for UTMV.

Application software for USB interface

With communication through USB interface, logging, graph display, setting parameters, and calibration can be done.

Compact size

It can be fit into a limited space!
Light weight & compact body for 35 mm DIN rail mount.



Structure of product code

TC80-□	① Standard unit
①	Sign
	Interface
TC80-CCL	CC-Link
	RS-485, USB
TC80-D3V	D/A converter voltage output (3 ch)
	RS-485, USB
TC80-EIP	EtherNet/IP
	RS-485, USB