



CUnet TRANSMISSION TERMINAL BLOCK

THT TYPE/THTQ TYPE (CUN TYPE)

Next-generation terminal block with transmission capabilities.

- Significantly reduces on-site installation work and cabling.
- Noise countermeasures compliant with the B-402 current standard (2016).
- Adopts CUnet communication supporting masterless transmission.

THT-P16A-CUN
*16bit model



THTQ-P16A-CUN
*16bit model



FEATURES

CUnet communication protocol

By adopting CUnet communication, the master device (such as a PC or PLC) is no longer required, and communication functionality can be implemented simply by replacing the terminal block. It is also possible to connect to a master device if needed.

Noise resistance

It complies with the noise test requirements of the B-402 (2016) electric power standard, and offers excellent reliability in noise immunity, voltage fluctuation tolerance, and insulation performance.

Power Applications

The control input power supply is compatible with 100 V/110 V DC, eliminating the need for an additional power source or voltage conversion.

Screw Terminal Specifications

This input/output interface unit is based on a standard screw terminal block and incorporates diode elements and mechanical relays inside the terminal block, as well as a built-in transmission module.

Replacement and Fault Detection

The communication module is designed to be replaceable. In addition, a fault-detection function is provided, and status indications can be output via LEDs or dry contacts.

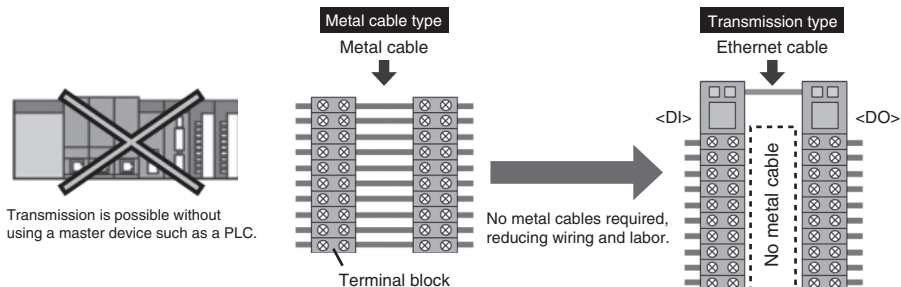
Use of wire dropping-off prevention function

Added a function to the conventional screw-up terminal block to prevent wire disconnection. This reduces the process required for post-wiring inspection.

Applicable product: THTQ type



CASE STUDIES



SPECIFICATIONS (RATING, PERFORMANCE)

Normal service condition

Item	Description
Ambient operating temperature	-20°C to +60°C
Storing temperature	-40°C to +80°C
Relative humidity	30 to 80% (no freeze, no dew condensation)

Communication specifications

Item	Description
Communication type	Cunet (multi-master broadcast method)
Connection Type	RS-485 multi-drop topology
Communication cable	Shielded cable of Category 5 or higher
Max connections	64 units
Data rate	3Mbps, 6Mbps, 12Mbps
Communication distance	12Mbps : 100m 6Mbps : 200m 3Mbps : 300m

Performance

Item	Description
Insulated resistance	Between all circuit and ground: 10MΩ or more/Between poles: 5MΩ or more
Applicable crimp terminal	Between all circuit and ground: 2000V AC/1min/Between poles: 2000V AC/1min
impulse withstand voltage (1.2x50μs)	Between all circuit and ground: 4.5kV/3times/Between poles: 3kV/3times
Vibration resistance	Frequency: 16.7Hz, Double amplitude: 0.4mm, Vibration time: 600s
Shock resistance	Shock value: 300m/s ² , Number of shocks: 3times each

HOW TO ORDER

THT - P16A - CUN

No.	Item	Code	Description	Remarks
①	Basic type	THT	THT type terminal block	—
		THTQ	THTQ type terminal block	With wire dropping-off prevention function
		P16A	16-point DI circuit	—
②	Circuit configuration	R16A	16-point DO circuit	—
③	Communication method	CUN	RS-485 (CUnet)	—

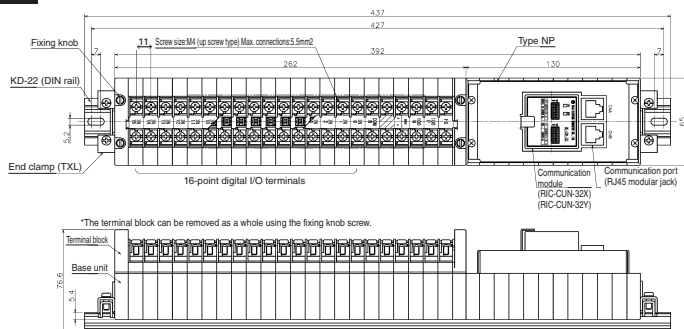
Rating

Item		Description
Rated voltage		100/110V DC
Voltage fluctuation range		80 to 143V DC
DI Input specifications	Input voltage range	80 to 143V DC
	Input current (Ta=25°C)	1.7mA±20% (100/110V DC) 1.75mA±20% (125V DC)
	Minimum operation voltage	60 to 80V DC (non-operation under 60V DC, complete operation over 80V DC)
	Relay	G6DN-1A
DI Output specifications	Rated load current	250V AC 5A,30V DC 5A (Resistive load) 250V AC 2A,30V DC 2A (inductive load : $\cos \phi =0.4, L/R=7\text{ms}$)
	Rated current-carrying capacity (Ith)	5A
	Set time	10ms or less *Relay specifications (excerpt)
	Reset time	5ms or less *Relay specifications (excerpt)
Fault output specifications	Relay	G6DN-1A
	Rated load current	250V AC 5A,30V DC 5A (resistive load) 250V AC 2A,30V DC 2A (Inductive load : $\cos \phi =0.4, L/R=7\text{ms}$)
	Rated current-carrying capacity (Ith)	5A
	Set time	10ms or less *Relay specifications (excerpt)
	Reset time	5ms or less *Relay specifications (excerpt)



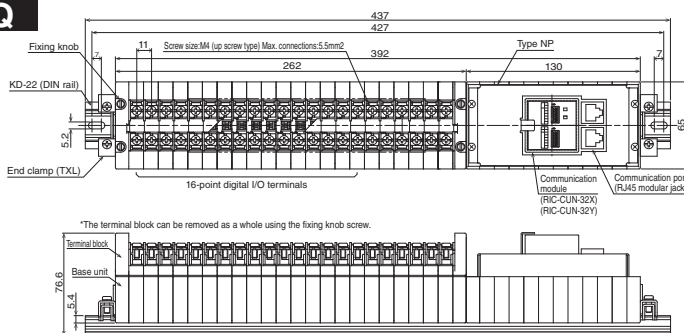
THT TYPE/THTQ TYPE (CUN TYPE)

THT



*The external dimensions of “DI: THT-P16A-CUN” and “DO: THT-R16A-CUN” are identical.

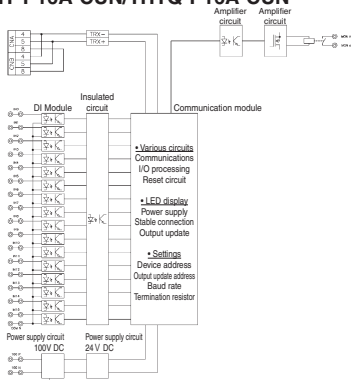
THTQ



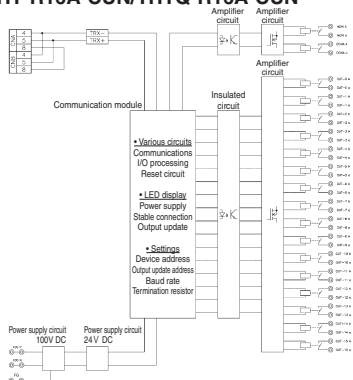
*The external dimensions of “DI: THTQ-P16A-CUN” and “DO: THTQ-R16A-CUN” are identical.

CIRCUIT CONFIGURATION

THT-P16A-CUN/THTQ-P16A-CUN



THT-R16A-CUN/THTQ-R16A-CUN



* Please implement surge protection measures appropriate for the operating environment, such as using an SPD in the transmission path.