

DIGITAL TIMER

KT-V Series



A large display that is easy to read has been provided in small DIN48 size.

The large red LED is bright with a character height for display of 12 mm, which allows it to be seen easily from a distance and at an angle. In addition, set values use a green LED to differentiate from timekeeping values.

Setting of set values with individual setting keys has the feel of digital switches.

Basic function settings are made with digital switches; detailed settings are selected with digit keys, so operation is easy.

Merits

Tamper proof

Key protection can be set for individual keys to prevent a malfunction or tampering.

Battery-less memory retention

EEPROM is used to retain values in memory, so there is no need for battery maintenance.

Removable terminals

Maintenance has been reduced via terminals that can be removed. After wiring, the terminal cover provides a safe surface for worry-free use.

Power source for a large-capacity sensor

You can source the power for sensor from the built-in P/S 24 VDC, 60mA.

Free power supply for the AC type

The operating A voltage is wide as 85VAC~264VAC.

Variable types of time ranges

The device covers 10 types of time ranges with times of 0.001s to 9999 hours.

Various uses with 5 types of operating modes

settings can be made for ondelay, offdelay, one-shot, integration, and flicker.

Display of Elapsed time / Remaining time

The time display can be selected to display elapsed time and remaining time.

IP65 protective structure

The front cover panel uses sheet keys, so operation with wet or dirty hands can be done worry-free. A front cover is also provided as an option to enhance the protective structure.

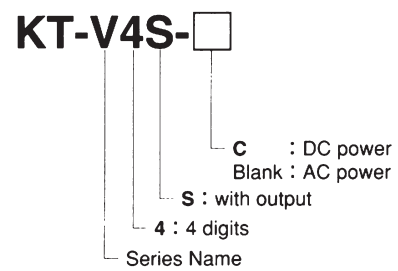
Designed in compliance with CE and UL

List of Models

Model Number	Number of Digits	Source Voltage	Sensor Source Voltage DC24V 60mA
KT-V4S	4	AC	●
KT-V4S-C		DC	

Accessories: Installation Frame

Model Number System



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General Specifications

Item	Specification	
	AC Power	DC Power
Source Voltage	AC100~240V	DC12~24V
Permitted Power Fluctuation	AC85~264V	DC10~26.4V
Power Consumption	Approx. 11 VA	Approx. 4W
Sensor Power	DC24 V (20-28V) 60mA (Less than 10%p-p ripple noise)	-
Memory Backup Upon Power Failure	EEPROM (Writing Up to 100,000 times) Memory Duration 10 years	
Ambient Temperature	-10~50°C	
Storage Temperature	-20~70°C (with no freezing)	
Ambient Humidity	35~85%RH (with no dewing)	
Withstand Voltage	AC 2kV 1 minute AC 2kV for one minute (for AC input, 0 V, and relay interconnection) (for DC input, 0 V, and relay interconnection only)	
Vibration Resistance	Durability	Displacement amplitude 0.5 mm 10~55 Hz along 3 axes
	No Malfunction	Displacement amplitude 0.35 mm 10~55 Hz along 3 axes
Impact Resistance	Durability	490 m/s ² along 3 axes
	No Malfunction	98 m/s ² along 3 axes
Noise Resistance	AC Power between terminals $\pm 1.5kV$ (pulse width 1 of μs and rise time 1 of ns)	DC Power between terminals $\pm 1.0kV$ (pulse width 1 of μs and rise time 1 of ns)
Protective Structure	IP65 (front panel only)	
Weight	Approx. 150 g	Approx. 110 g
Terminals	Conforming Wiring	0.25~1.65mm ²
	Conforming Crimped Contact	R1.25-3
	Permitted Torque	0.5Nm

Performance Specification

Item	Specification
Category	Timer
Operation Format	ondelay, offdelay, one-shot, accumulation, and flicker (with alarm output)
Number of Digits	4 digits
Display	Display of timekeeping values: red LED, Character height 12 mm, Set display: green LED, Character height: 7 mm
Time Range	0.001s~9.999s / 0.01s~99.99s / 0.1s~999.9s / 1s~9999s / 1s~99min59s / 1min~9999min / 1h~9999h / 1min~99h59min / 0.1min~999.9min / 0.1h~999.9h
Display	Elapsed time / Remaining time
Timer Precision	0.013% or ± 15 ms (using large values)
Input	Input logic: Negative logic (no-load input) / Positive logic (voltage input) Input resistance: Positive logic 15k Ω / Negative logic 3.3k Ω (AC Power) / 1.8k Ω (DC Power) Input voltage: "L" 0-3V "H" 7-30V
Start Input Response	Less than 15 ms / 5 ms / 1 ms
External Reset	Min. signal amplitude 5 ms
Output	Dc output: NPN open collector output / 24V 100 mA Withstand pressure 35V RESidual voltage less than 1.5V Relay output: 1 transformer relay AC220V 2A (resistance load)
Output Duration (Flicker)	10-9999 ms variable every 10 ms
Key Protection	Setting of arbitrary keys possible
Installation	Exclusively for embedding (terminal block connection)