

DIN-Rail Encoder Counter/RPM

Encoder Counter/RPM (ECT Series)

ECTM-E-01-003001

※ It is an encoder counter of reliable and excellent quality that is applicable to the automated control industry.

Ordering Information

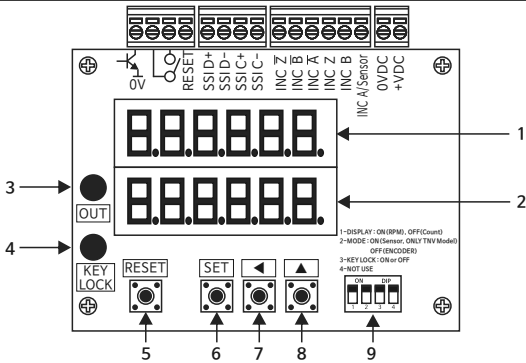
ECT	TNV	24
Series	Encoder input type	Power supply
ECT Series	TNV : Totem pole output encoder	5 : 5VDC 24 : 12~24VDC
	NPN Open collector output encoder	
	Voltage output encoder	
	S : SSI Line driver encoder	
	L : Line driver encoder	

※ Please use the same power voltage product for the encoder (sensor) you are using and the ECT series product.
: Using different supply voltages can damage the product.

※ The SSI Line driver encoder model is only available for INICS SSI communication encoders.

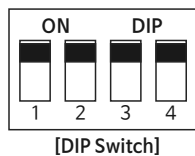
※ The above specifications are subject to change without notice.

Unit Descriptions



No.	Part Name	Name Plate	Function
1	Display part 1	-	Encoder count value
2	Display part 2	-	Output count reference value or RPM display
3	Output Indicator	[OUT]	Turns ON for the dedicated control output ON
4	Key Lock Indicator	[KEY LOCK]	Turns ON for Key Lock Setting
5	RESET Key	[RESET]	Reset count value
6	SET Key	[SET]	SET Key
7	SETTING Key	[◀]	digit move left
8		[▲]	digit number up
9	DIP Switch	-	Product operation mode settings

Operation mode setting



※ Display Part2 Set

- 1) OFF setting : Display the reference count value
- 2) ON setting : Encoder mode - Display RPM, Normal sensor mode - Display speed (count/min)

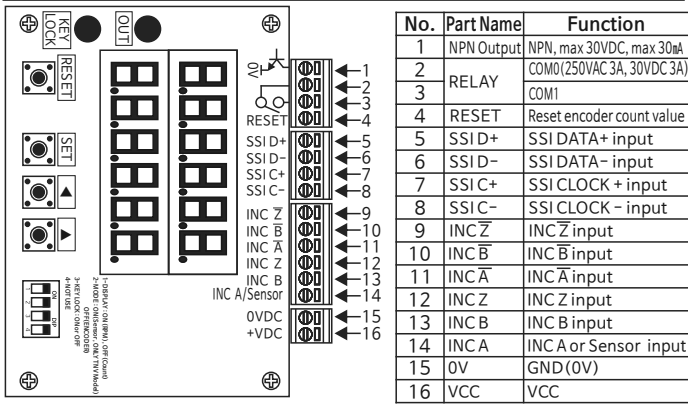
※ Operation Modes

- 1) OFF setting: Encoder input count mode.
- 2) ON setting: General sensor input count mode. (Incremental count at 1 pulse input)
- 3) The general sensor count mode is only supported for TNV models
- 4) The general sensor count mode does not support relay or contact inputs.

How to use

- 1) Set operation mode (DIP switch) → Connect signals and power lines → Power on the device.
- 2) Set output count reference value: Press SET key (More than 1 second) → Set the reference value → Press SET key : Use adjustment keys (◀, ▲) to set the reference value.
- 3) If the input count value matches the output count reference value, the input count value is initialized to 0, and simultaneously, the relay and NPN open collector output are turned ON for 200ms.
- 4) If you press the RESET key for more than 1 second or input a Low-level signal (0VDC) for more than 100ms to the RESET terminal, the encoder count value will be reset to 0.

Connections

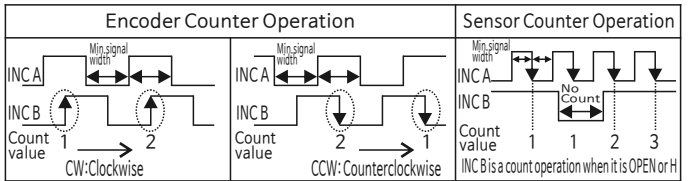


※ When using the NPN open collector output on the product (ECT series), please connect an external pull-up resistor.
※ Encoder INC Z input signal is used for RPM display

Specifications

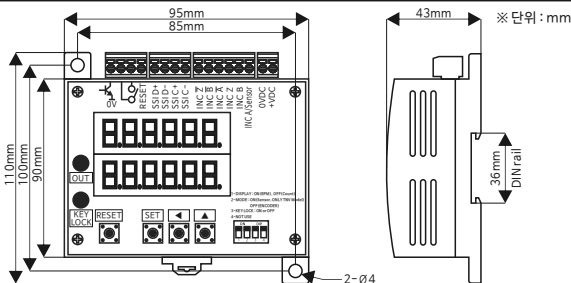
Model	DIN-Rail Encoder Counter / RPM
Power supply	5VDC, 12VDC~24VDC ± 5% (Ripple P-P : Max. 5%)
Current consumption	Max. 250mA (no load)
Display part 1	7-segment (red), Character size: 4.8 X 9.1 (W X H Unit: mm)
Display part 2	7-segment (green), Character size: 4.8 X 9.1 (W X H Unit: mm)
Counting range	-99999 ~ 999999
Out On time	200ms
Control output	Contact control output: Relay (Panasonic LD-P, Capacity : 250VAC 3A, 30VDC 3A)
	Solid-state control output: NPN open collector (max 30VDC, Load current: max30mA)
RPM	10 ~ 10,000RPM, ± 0.3% ± 1digit
Ambient temperature	-10 ~ 55℃ (no freezing or condensation)
Ambient humidity	35% ~ 85% RH (no freezing or condensation)
Accessory	Product, Instruction manual, Bolt

Counter Operation



※ Max. counting speed 10kHz, Min. signal width 0.05ms
※ Clockwise (CW): Right turn as from the shaft.

Dimensions



※ Mounting on panel : It can be installed using regular bolts in the two fixing holes.

Cautions during use

- Environment
 - 1) Please do not use this unit with below environment, or it may cause malfunction.
 - 1) Place where this unit or component may be damaged by strong vibration or impact.
 - 2) Place where there is a lot of flammable or corrosive gases.
 - 3) Place where strong magnet field or electric noise occurs.
 - 4) Place where strong acids or alkali near and direct ray of the sun.
- Do not connect, repair, or inspect the unit while connected to a power source.
- Keep away from high voltage lines or power lines to prevent inductive noise
- Fail-safe device must be installed when using the unit with machinery that may cause serious injury or substantial economic loss.
 - 1) Medical equipment, ship, vehicle, railways, aircraft, safety equipment, etc
 - 2) Failure to follow this instruction may result in personal injury, economic loss or fire