Pulse / Analog converter

TW-3K



Converter which outputs DC signal proportional to the Pulse / Frequency

Features

- ★ Conterts Pulse / Frequency to DC voltage or DC current
- ★ 3 port isolation between Input-Output-Power supply
- ★ DIN rail mount
- ★ Terminal block type

Ordering code



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Code	Input	Detect level
Α	TTL (5V)	Frequency range : 0~0.01Hz to 0~100kHz Detect level : 5VDC (DUTY : 20~80%)
В	Voltage pulse (Zero-crossing)	Frequency range : 0~0.01Hz to 0~100kHz Detect level : 4Vp-p~50Vp-p / Max.50VDC (DUTY : 20~80%)
С	Voltage pulse (Input Not Zero-crossing)	Frequency range : 0~1000Hz to 0~100kHz Detect level : 4Vp-p~50Vp-p / Max.50VDC (DUTY : 20~80%)
D	Open collector (Detected voltage : 5VDC/1mA)	Frequency range : 0~0.01Hz to 0~100kHz Detect level : 5V/1mA, ON resistance 700Ω or more, OFF resistance 3kΩ or more
E	Open collector (Detected voltage : 12VDC/1mA)	Frequency range : 0~0.01Hz to 0~100kHz Detect level : 12V/1mA, ON resistance 700Ω or more, OFF resistance 2.4kΩ or more
F	Contact switch (Detected voltage : 5VDC/1mA)	Frequency range : 0~0.01Hz to 0~10Hz Detect level : 5V/1mA, ON resistance 700Ω or more, OFF resistance 3kΩ or more
G	Contact switch (Detected voltage : 12VDC/1mA)	Frequency range : 0~0.01Hz to 0~10Hz Detect level : 12V/1mA, ON resistance 700Ω or more, OFF resistance 2.4kΩ or more

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Input signal	Pulse frequency

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Code	Output	Mininum span
1	0~0.1Hz	More than 0~0.01Hz
2	0~1Hz	More than 0~0.2Hz
3	0~10Hz	More than 0~2Hz
4	0~100Hz	More than 0~20Hz
5	0~1kHz	More than 0~100Hz
6	0~10kHz	More than 0~1kHz
7	0~100kHz	More than 0~10kHz
Y	Contact us for other than the above	

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Code	Output	Allowable Load Resistance
0	0 to 5VDC	2kO or more
1	1 to 5VDC	2832 01 11016
2	0 to 10VDC	4kΩ or more
Α	4 to 20mVDC	550 Ω or less
Y	Contact us for other than the above	

When the input frequency exceeds 100 percent of the full scale,

signals ranging from 105 to 110 percent of thefull scale are output.

*Possible to change input & output signal by customer using the communication function.



Output signal	DC current / voltage
Accuracy	±0.2% of full scale (at 25°C ±2°C)
Temperature coefficient	±0.02% of full scale per °C
Response time	1.5s + 1 cycle of input pulse (0 to 90%)
Insulation resistance	100M Ω or more with 500Vdc megger
	Between input, output, and power supply terminal
Dielectric strength	1500Vac for 1 minute
	Between input, output, power supply terminal
	Leak current 2mA
Power supply voltage	24VDC ±10%
Sensor power supply	12VDC ±1% 30mA
Power consumption (current)	110mA or less (When 30mA sensor power supply)
Operating temperature range	-5 to +50°C
Operating relative humidity	90% or less (Non-condensing)
Cut point	0.00~99.99% (Default 0%. Set by communicaion function)
Dimensions	98(H) X 48(W) X 41(D)mm
Weight	Approx. 150g
Accessory	Terminal cover. Removable type 6p connector





Dimensions

Front view



Side view



* Specification is subject to change without notice

Watanabe Electric Industry Co. Ltd.

https://www.watanabe-electric.co.jp/en/