

§Small-sized plug-in transducer§

2-output type

Revolution-speed transducer

FWGT

Application

Takes input from a tacho-generator installed on a dynamo or suchlike; insulates input and output and converts it into a DC signal proportional to number of revolutions (frequency). Because this transducer can extract two insulated outputs, control and monitor can be done by a single unit. In addition, pulse input corresponding to the various sensors also can be manufactured.

Up to 16 units can be housed in an installation base.



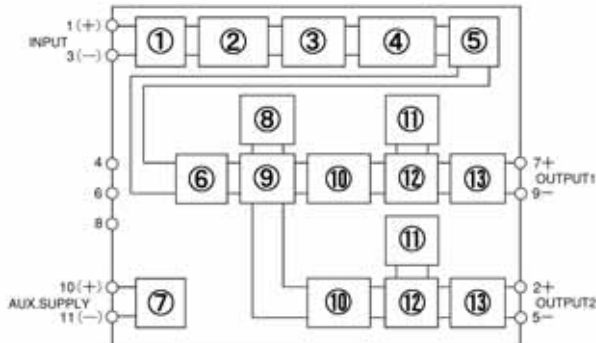
29.5 × 76 × 125mm/180g

Feature

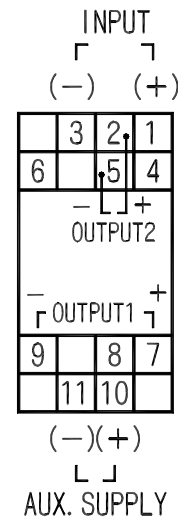
1. Compact and high withstand voltage.
2. Withstand voltage between input/output/auxiliary supply/outer case is AC2,000V (50/60Hz) for 1 min..
3. Withstand voltage between outputs is AC500V (50/60Hz) for 1 min..
4. Constant voltage/current output type. No need to adjust the product if it operates within load resistance range.
5. A LED can confirm status of electric power applied.
6. Zero/span of 1st and 2nd output can be adjusted individually. ($\pm 2\%$ adjustable)

Block Diagram

Connection diagram (socket)



- Input circuit
- Zero-cross converter
- Frequency-phase-locked loop circuit
- One-shot multi-vibrator
- Smoothing circuit
- Constant voltage circuit
- Insulated power source circuit
- Oscillating circuit
- Pulse width modulation circuit
- Photo coupler insulation
- Reference voltage
- Pulse width demodulation circuit
- Output circuit



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Specification

How to specify

Type name

FWGT

Specification code

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Kind of input	Input frequency	Normal operating voltage range (input resistance)	1st Output (load resistance)	2nd Output (load resistance)	Auxiliary supply	Power fuse	Common specification			
1 : Sine wave input	A :0-33.3Hz	Sine wave input 1 :1-25V (approx.25k) 2 :2-50V (approx.50k) 3 :5-110V (approx.110k) 4 :10-220V (approx.220k)	3 :DC0-5V (600)	3 :DC0-5V (1k)	F : AC/DC80-264V Rated Voltage AC100/110V 50/60Hz AC200/220V 50/60Hz DC100/110V 5 :DC24V (DC19-30V)	1 : without fuse 2 : with fuse	Conversion accuracy: ± 0.4% (within 10-100% of output) Temperature characteristics: 0.4%/10 Response time: 0.5s/90% (input 200Hz) 1.0s/90% (input<200Hz) Output ripple: 1%p-p (when input 10%) Consumption VA: At AC110V: 4.0VA At AC220V: 5.0VA At DC110V: 2.5W At DC24V: 2.5W Weight: Without socket: approx.130g With socket: approx.180g			
	B :0-40Hz		4 :DC0-10V (2k)	5 :DC1-5V (1k)						
	C :0-50Hz		A :DC0-1mA (10k)	A :DC0-1mA (7k)						
	D :0-55Hz		B :DC0-5mA (2k)	B :DC0-5mA (1.4k)						
	E :0-60Hz		C :DC0-10mA (1k)	C :DC0-10mA (700)						
	F :0-65Hz		D :DC0-16mA (600)	D :DC0-16mA (430)						
	G :0-66.6Hz		E :DC1-5mA (3k)	E :DC1-5mA (1.4k)						
	H :0-100Hz		F :DC4-20mA (750)	F :DC4-20mA (350)						
	I :0-120Hz		Z : other than those above *1 (See product range)	Z : other than those above *1 (See product range)				Z : other than those above *1 (See product range)	Z : other than those above *1 (See product range)	Z : other than those above *1 (See product range)
	J :0-166.6Hz		Z : other than those above *1 (See product range)	Z : other than those above *1 (See product range)				Z : other than those above *1 (See product range)	Z : other than those above *1 (See product range)	Z : other than those above *1 (See product range)
A : Pulse input	K :0-200Hz	Pulse input A :5Vp-p (approx.5k) B :10Vp-p (approx.10k) C :12Vp-p (approx.12k) D :15Vp-p (approx.15k) E :24Vp-p (approx.24k)	C :DC0-10mA (1k)	D :DC0-10mA (700)	5 :DC24V (DC19-30V)	1 : without fuse 2 : with fuse	Conversion accuracy: ± 0.4% (within 10-100% of output) Temperature characteristics: 0.4%/10 Response time: 0.5s/90% (input 200Hz) 1.0s/90% (input<200Hz) Output ripple: 1%p-p (when input 10%) Consumption VA: At AC110V: 4.0VA At AC220V: 5.0VA At DC110V: 2.5W At DC24V: 2.5W Weight: Without socket: approx.130g With socket: approx.180g			
	L :0-333.3Hz		D :DC0-16mA (600)	E :DC1-5mA (3k)						
	M :0-500Hz		E :DC4-20mA (750)	F :DC4-20mA (350)						
	N :0-1kHz		Z : other than those above *1 (See product range)	Z : other than those above *1 (See product range)				Z : other than those above *1 (See product range)	Z : other than those above *1 (See product range)	
Z : other than those above *1 (See product range)	Z : other than those above *1 (See product range)	Z : other than those above *1 (See product range)	Z : other than those above *1 (See product range)	Z : other than those above *1 (See product range)	Z : other than those above *1 (See product range)	Z : other than those above *1 (See product range)				

*1 Consult with us for specification other than those indicated in the table above.

Product Range (including special handling)

Input	1st Output	2nd Output
Kind of input: Consult with us for input other than those above. Input frequency: 30Hz-10kHz *2 Normal operating voltage range: AC10V-250V 5Vp-p-35Vp-p	Current output: 1mA-20mA Voltage output: 4V-10V	Current output: 1mA-20mA Voltage output: 4V-10V *3

*2 Input frequency: over 1.1 kHz, but not more than 10 kHz is subject to special handling.

*3 2nd output: output more than 5.1V but less than 10V is subject to special handling. (Load current 2mA)