

FREQUENCY SCALER

MT-FF

FEATURE

- 8 Outputs Range Programmable in One
- Modular Design, Easy Maintain and Save Stock;
- Dual pulse output available
- CE Approved

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SPECIFICATION

Input Range	Input Impedance	Output Range	Output Mode
0 ~ 0.1 Hz	≧ 1M ohm	0 ~ Inout / 1 Hz	Open collect: 30Vdc; 40mA 0~50K Hz maximum; Pulse width: 50% duty cycle
0 ~ 1 Hz	≧ 1M ohm	0 ~ Inout / 2 Hz	
0 ~ 10 Hz	≧ 1M ohm	0 ~ Inout / 4 Hz	
0 ~ 20 Hz	≧ 1M ohm	0 ~ Inout / 8 Hz	
0 ~ 50 Hz	≧ 1M ohm	0 ~ Inout / 16 Hz	Voltage pulse: 5V, 12V, 24V; 10mA 0~50K Hz maximum; Pulse width: 50% duty cycle
0 ~ 100 Hz	≧ 1M ohm	0 ~ Inout / 32 Hz	
0 ~ 200 Hz	≧ 1M ohm	0 ~ Inout / 64 Hz	
0 ~ 500 Hz	≧ 1M ohm	0 ~ Inout / 128 Hz	
0 ~ 1K Hz	≧ 1M ohm		Mech. Contact: 110Vac; 1A 0~130 pulse/minute maximum; On pulse width: 50% duty cycle
0 ~ 2K Hz	≧ 1M ohm		
0 ~ 5K Hz	≧ 1M ohm		
0 ~ 10K Hz	≧ 1M ohm		
0 ~ 20K Hz	≧ 1M ohm		
0 ~ 50K Hz	≧ 1M ohm		

- Accuracy: ±0.1% of R.O.
- Response time: ≤ 250 msec. Plus one pulse cycle
- Input mode: Voltage pulse, Open collector, Mechanical contact (30 Hz maximum)
- Pulse width: 10 msec. minimum at < 20 Hz
Duty ratio 20 ~ 80% at > 20 Hz
- Input level: 5Vp, 12Vp, 24Vp, 220Vac
selectable by dip- switch on top
- Excitation: DC 10V/24V, 40mA; Changeable by dip switch
- Output mode: Voltage pulse, Open collector, Mechanical contact (30 Hz maximum)
- Power Supply: AC 115 or 230V ±10%, 50/60 Hz
Changeable by jumper inside
Option: DC 12V, 24V, 48V ±10%, (Isolated)
- Power consumption: DC 5W, AC 6.5VA
- Option range: Ultra-low frequency: 0 ~ 0.1 Hz
Ultra-high frequency: 0 ~ 50K/100K Hz
- Dual output: Available when excitation supply was removed
0~60 °C
- Operating temperature: 20~95 %RH
- Operating relative humidity: ≤ 100 PPM/°C
- Temperature coefficient: -10~70 °C
- Isolation: Between Power / Input / Output1 / Output2
- Insulation resistance: ≥ 100M ohm at 500Vdc
- Surge test: 4 KV, 1.2 x 50 μ sec.
- Common mode & differential mode

Dielectric Strength:

AC 2.0 KV for 1 min
Between Power / Inout / Output / Case
Comply with EN50081-1, EN50082-2

Standard:

Dimensions:

50mm(W) x 87mm(H) x 123mm(D)-with socket

Mounting:

Surface and DIN rail 35mm WIDE

Weight:

500g

ADJUSTMENT

O/P 2 Indication (LED)

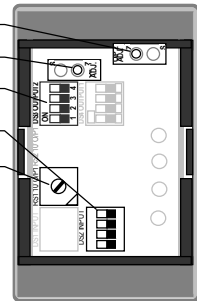
O/P 1 Indication (LED)

Excitation Supply DC 10V or 24V (by dip-switch)

DS2: Programming for I/P Level / 4 Ranges
(by Dip-Switch)

RS1: Programming for O/P / 8 Ranges (by Rotary-Switch)

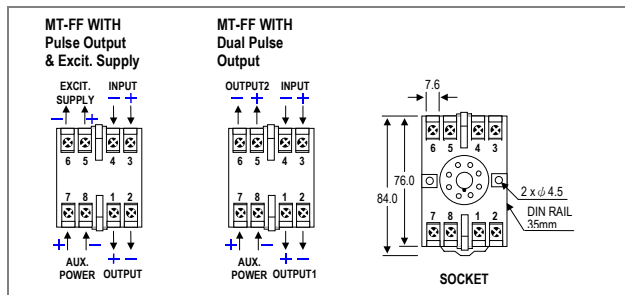
* MT-FF IS ONLY SINGLE OUTPUT WITH EXCITATION SUPPLY. IT COULD BE SPECIFIED IN DUAL OUTPUT IN SAME RANGE, WHEN EXCITATION SUPPLY WAS REMOVED.



PROGRAMMING FOR OUTPUT:

INPUT LEVEL	DS2 (1)	OUTPUT SIGNAL	OUTPUT RS1 (2)	EXCIT. SUPPLY	OUTPUT DS2 (3)
5 Vp		0 ~ Input / 1 Hz	0	10 V	
		0 ~ Input / 2 Hz	1		
12 Vp		0 ~ Input / 4 Hz	2	24 V	
		0 ~ Input / 8 Hz	3		
24 Vp		0 ~ Input / 16 Hz	4	220 Vac	
		0 ~ Input / 32 Hz	5		
220 Vac		0 ~ Input / 64 Hz	6		
		0 ~ Input / 128 Hz	7		

CONNECTION DIAGRAM & SOCKET



MT-FF Order Information

Output Loop		Input Range		Input Mode		Output Range		Output Mode		Aux. Power			
CODE	OUTPUT LOOP	CODE	INPUT	CODE	INPUT	CODE	INPUT MODE	CODE	OUTPUT	CODE	OUTPUT MODE	CODE	AUX. POWER
1	Single Output	H1	0 ~ 0.1 Hz	HA	0 ~ 10K Hz	OC	Open collect	P	Programmable 8 Ranges: 0~Input / 1 Hz to 0~Input / 128 Hz	OC	Open collect	A1	AC 115 V
2	Dual Output	H2	0 ~ 1 Hz	HB	0 ~ 20K Hz	MC	Mech. contact	E	Excitation	MC	Mech. contact	A2	AC 230 V
The excitation supply was removed when you select dual o/p mode.													
		H3	0 ~ 10 Hz	HC	0 ~ 50k Hz	V	Volt pulse	O	Specify	V	Volt pulse	D12	DC 12 V
		H4	0 ~ 20 Hz	HD	0 ~ 100K Hz	05	5 Vp			05	5 Vp	D24	DC 24 V
		H5	0 ~ 50 Hz	O	Specify	12	12 Vp			12	12 Vp	D48	DC 48 V
		H6	0 ~ 100 Hz			24	24 Vp			24	24 Vp	O	Specify
		H7	0 ~ 200 Hz			22	220 Vac			O	Specify		
		H8	0 ~ 500 Hz			O	Specify						
		H9	0 ~ 1K Hz										

Unit it's been calibrated in factory accord order. Unit opened by customer for re-program may loose guarantee.

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