

DC to FREQUENCY TRANSMITTER & ISOLATOR

TX8-DF

FEATURES

- Measures DC mA and mV and converts to frequency
- 6 Input and 8 Output Ranges Programmable
- Dual output available (isolated)
- Plugs into 8 pin Din Rail mounted base
- Low cost & high stability
- CE Approved



SPECIFICATION

Input Range	Input Impedance	Output Range	Output Mode
0 ~ 10 mV	≥ 1M ohm	0 ~ 78.1 Hz	Open collect: 30Vdc; 40mA 0 ~ 50K Hz maximum Pulse width: 50% duty cycle
0 ~ 50 mV	≥ 1M ohm	0 ~ 156.3 Hz	
0 ~ 1 V	≥ 1M ohm	0 ~ 315.2 Hz	
0 ~ 5 V	≥ 1M ohm	0 ~ 625 Hz	
0 ~ 10 V	≥ 1M ohm	0 ~ 1.25K Hz	Voltage pulse: 5V, 12V, 24V(Specify); 10mA 0 ~ 50K Hz maximum Pulse width: 50% duty cycle
1 ~ 5 V	≥ 1M ohm	0 ~ 2.5K Hz	
2 ~ 10 V	≥ 1M ohm	0 ~ 5K Hz	
-10 ~ 0 ~ +10 V	≥ 1M ohm	0 ~ 10K Hz	
0 ~ 1 mA	≤ 100 ohm	0 ~ 20K Hz	Mech. Contact: 110Vac; 1A 0-130 pulse/minute maximum; On pulse width: 50% duty cycle
0 ~ 10 mA	≤ 20 ohm	0 ~ 50K Hz	
0 ~ 20 mA	≤ 10 ohm		
4 ~ 20 mA	≤ 10 ohm		

- Accuracy:** ±0.1% of F.S.
- Response time:** ≤ 250 msec. Plus one pulse cycle
- Coarse Span adjustment:** ≤ 50% of F.S.
- Fine Span adjustment:** ≤ 1% of F.S.
- Zero adjustment:** ≤ 5% of F.S.
- Low-end cutout adjustment:** 0 ~ 10%; a red LED assists in adjusting the Cutout point; turns on during the cutout
- Output range adjustment:** Changeable by rotary switch on top and fine Tune with dual span adjust pot
- Option range:** Ultra-low frequency: 0 ~ 0.1 Hz
Ultra-high frequency: 0 ~ 50K Hz
- Excitation supply:** DC 10V/24V, 40mA; Changeable by dip switch
- Dual output:** Available when excitation supply was removed
- Voltage Output level:** 5Vp, 12Vp, 24Vp specify
- Power Supply:** AC 115 or 230V ±10%, 50/60 Hz
Changeable by jumper inside
Option: DC 12V, 24V, 48V ±10%, (Isolated)
DC 5W, AC 6.5VA
- Power consumption:** DC 5W, AC 6.5VA
- Operating temperature:** 0-60 °C
- Operating relative humidity:** 20-95 %RH
- Temperature coefficient:** ≤ 100 PPM/°C
- Storage temperature:** -10-70 °C
- Isolation:** Between Power / Input / Output1 / Output2
≥ 100M ohm at 500Vdc
- Surge test:** 4 KV, 1.2 x 50 μsec.
Common mode & differential mode
- Dielectric Strength:** AC 2.0 KV for 1 min
Between Power / Input / Output / Case

Standard: Comply with EN50081-1, EN50082-2

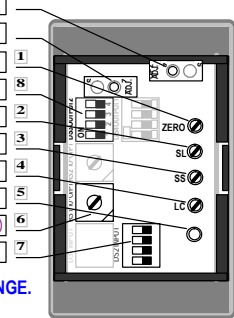
Dimensions: 50mm(W) x 87mm(H) x 123mm(D)-with socket

Mounting: Surface and DIN rail 35mm WIDE

Weight: 500g

ADJUSTMENT

- OP 2 Output Indication (LED)
- OP 1 Output Indication (LED)
- OP Zero Adjust Pot (Clockwise: o/p increase)
- Excitation Supply DC 10V or 24V (by dip-switch)
- OP Span Coarse Adjust Pot (Clockwise: o/p increase)
- OP Span Fine Adjust Pot (Clockwise: o/p increase)
- Low-end Cutout Adjust Pot (Clockwise: increase)
- LED Indication for Low-end Cutout
- RS1: Programming for O/P / 8 Ranges (by Rotary-Switch)
- DS2: Programming for I/P / 6 Ranges (by Dip-Switch)



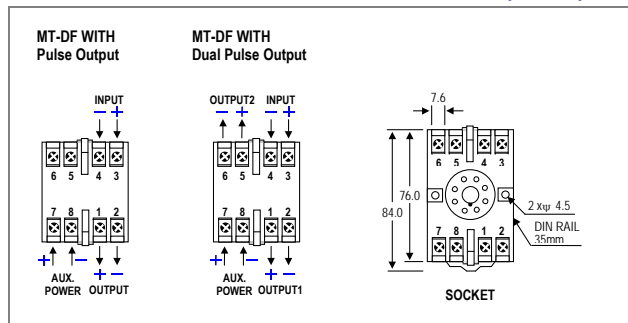
DUAL OUTPUT AVAILABLE WITH SAME RANGE.

PROGRAMMING FOR INPUT AND OUTPUT:

INPUT		OUTPUT SIGNAL	OUTPUT RS1(6)	EXCIT. SUPPLY	OUTPUT DS3(8)
RANGE	DS2(7)				
1 ~ 5 V		0 ~ 78.1 Hz	7	10 V	
		0 ~ 156.3 Hz	6		
0 ~ 10 V		0 ~ 315.2 Hz	5	24 V	
		0 ~ 625 Hz	4		
0 ~ 20 mA		0 ~ 1.25K Hz	3		
		0 ~ 2.5K Hz	2		
4 ~ 20 mA		0 ~ 5K Hz	1		
		0 ~ 10K Hz	0		

For 0-5V input range turn on DS2 switch 3 only. 1, 2, 4 off.
For 2-10V input range turn on DS2 switches 1 & 2 only. 3 and 4 are off.

CONNECTION DIAGRAM & SOCKET (8 PIN)



ORDER CODING

TX8-DF Output No. — Input Range — Output 1 — Output 2 — Output Mode — Aux. Power

CODE	OUTPUT LOOP	CODE	INPUT	CODE	INPUT	CODE	OUTPUT	CODE	O/P MODE	CODE	AUX. POWER	
1	Single Output	A1	0 ~ 100 μA	V1	0 ~ 10 mV	P	0 ~ 0.1Hz	OC	Open Collect	A1	AC 115 V	
2	Dual Output	A2	0 ~ 1 mA	V2	0 ~ 50 mV		0 ~ 1 Hz	MC	Mech. contact	A2	AC 230 V	
The excitation supply option is removed when you select dual o/p mode.												
		A3	0 ~ 10 mA	V3	0 ~ 1 V		0 ~ 10 Hz	V	Volt pulse	A3	AC 380 V	
		A4	0 ~ 20 mA	V4	0 ~ 5 V		0 ~ 50 Hz	05	5 Vp	A4	AC 415 V	
		A5	4 ~ 20 mA	V5	0 ~ 10 V		0 ~ 20K Hz	12	12 Vp	D12	DC 12 V	
		AO	Specify (mA /p)	V6	1 ~ 5 V		0 ~ 50K Hz	24	24 Vp	D24	DC 24 V	
Programmable Ranges												
		V7	2 ~ 10 V	V8	-10 ~ +10 V		E	Excitation	VO	Specify	D48	DC 48 V
			0-5V/-10V/1-5V/2-10V/0-20mA/4-20mA	VO	Specify (V)		N	None			AD1	20-90Vdc/ac
											AD2	90-265Vdc/ac