

DIN W72×H36mm, W96×H48mm, Digital Multi Panel Meter

■ Features

- Various input/output (default: indicator)
 - Input: DC voltage, DC current, AC voltage, AC current
 - Output: RS485 communication output, Low speed serial output, transmission (DC4-20mA) output, BCD dynamic output, NPN/PNP open collector output, relay output
- Maximum allowed input : 500VDC, 500VAC, DC5A, AC5A
- Display range: -1999 to 9999
- High/low-limit display scale function
- AC frequency measurement (range: 0.1 to 9999Hz)
- Various functions: Monitoring peak display value function, display cycle delay function, zero adjustment function, high display correction function, transmission (DC4-20mA) output scale function etc.
- Power supply: 12-24VDC, 100-240VAC 50/60Hz



⚠ Please read "Safety Considerations" in the instruction manual before using.



■ Ordering Information

MT 4 W - DV - 4 N

Item	Digit	Size	Measurement function (input)	Power supply	Output	MT4Y	
						100-240VAC	N Indicator 0 Relay output 1 NPN open collector output 2 PNP open collector output 3 ^{※1} Relay (low out)+transmission (DC4-20mA) output 4 ^{※1} Relay (low out)+RS485 communication output 5 BCD dynamic output 6 Low speed serial output
						MT4W	
						12-24VDC, 100-240VAC	N Indicator 0 Relay+transmission (DC4-20mA) output 1 Relay output 2 NPN open collector+BCD dynamic output 3 PNP open collector+BCD dynamic output 4 NPN open collector+transmission (DC4-20mA) output 5 PNP open collector+transmission (DC4-20mA) output 6 NPN open collector+low speed serial output 7 PNP open collector+low speed serial output 8 NPN open collector+RS485 communication output 9 PNP open collector+RS485 communication output
						1 ^{※2}	12-24VDC
						4	100-240VAC 50/60Hz
						DV	DC voltage
						DA	DC current
						AV	AC voltage
						AA	AC current
						Y	DIN W72×H36mm
						W	DIN W96×H48mm
						4	9999 (4-digit)
						MT	Multi meter

※1: Only L.5t (preset output mode) setting is available in MT4Y-□-43 (relay (low out)+transmission (DC4-20mA) output) and MT4Y-□-43 (relay (low out)+transmission (DC4-20mA) output) models.

※2: Only for MT4W.

※To measure the current over DC5A, please select DV type because the shunt should be used.


※In case of selecting frequency display, no output will be provided even if it is output support models.

(main output, sub output and RS485 communication output)

SENSORS
CONTROLLERS
MOTION DEVICES
SOFTWARE
(J) Temperature Controllers
(K) SSRs
(L) Power Controllers
(M) Counters
(N) Timers
(O) Digital Panel Meters
(P) Indicators
(Q) Converters
(R) Digital Display Units
(S) Sensor Controllers
(T) Switching Mode Power Supplies
(U) Recorders
(V) HMIs
(W) Panel PC
(X) Field Network Devices

MT4Y/MT4W Series

Specifications

Series	MT4Y-DV-4□ MT4Y-DA-4□	MT4Y-AV-4□ MT4Y-AA-4□	MT4W-DV-4□ MT4W-DA-4□	MT4W-AV-4□ MT4W-AA-4□	MT4W-DV-1□ MT4W-DA-1□	MT4W-AV-1□ MT4W-AA-1□
Measurement input	DC voltage, current	AC voltage, current, frequency	DC voltage, current	AC voltage, current, frequency	DC voltage, current	AC voltage, current, frequency
Power supply	100-240VAC~ 50/60Hz				12-24VDC=	
Allowable voltage range	90 to 110%				90 to 110%	
Power consumption	5VA				5W	
Display method	7-segment LED display (red) (character height: 14.2mm)					
Display accuracy	• 23°C±5°C - DC input: F.S. ±0.1% rdg±2-digit / AC input: F.S. ±0.3% rdg±3-digit (frequency: F.S.±0.1% rdg±2-digit) ※For 5A terminal of current Input, F.S. +0.3% rdg ±3-digit • -10°C to 50°C - DC/AC input: F.S.±0.5% rdg±3-digit					
Max. allowable input	110% F.S. for each measured input range					
A/D conversion method	ΣΔ (Sigma Delta) ADC					
Sampling cycle	DC input: 50ms, AC input: 16.6ms					
Max. display range	-1999 to 9999 (4-digit)					
Preset output	• Relay output - Contact capacity: 250VAC~ 3A, 30VDC= 3A / Contact composition: N.O (1a) • NPN/PNP open collector output - Max. 12-24VDC= ±2V 50mA (resistive load)					
Sub output (transmission output)	• RS485 comm output - Baud rate: 1,200/2,400/4,800/9,600, Communication method: 2-wire half duplex, Synchronous method: Asynchronous method, Protocol: Modbus type • Serial/BCD dynamic output - NPN open collector output: Max. 12-24VDC= 50mA (resistive load) • DC4-20mA output - Resolution: 12,000 division (load resistance max. 600Ω), Response time: max. 450ms					
AC measurement*1	Selectable RMS or AVG					
Frequency measurement*1	Measurement range: 0.100 to 9999Hz (variable by decimal point position)					
Hold function*2	Includes (external hold function)					
Insulation resistance	Over 100MΩ (at 500VDC megger, between external terminal and case)					
Dielectric strength	2000VAC 50/60Hz for 1 min (between external terminal and case)					
Noise immunity	±2kV the square wave noise (pulse width: 1μs) by the noise simulator					
Vibration	Mechanical	0.75mm amplitude at frequency of 10 to 55Hz (for 1 min) in each X, Y, Z direction for 2 hours				
	Malfunction	0.5mm amplitude at frequency of 10 to 55Hz (for 1 min) in each X, Y, Z direction for 10 min				
Shock	Mechanical	100m/s ² (approx. 10G) in each X, Y, Z direction for 3 times				
	Malfunction	300m/s ² (approx. 30G) in each X, Y, Z direction for 3 times				
Relay life cycle	Malfunction	Min. 20,000,000 operations				
	Mechanical	Min. 100,000 operations (250VAC 3A load current)				
Environment	Ambient temperature	-10 to 50°C, storage: -20 to 60°C				
	Ambient humidity	35 to 85%RH, storage: 35 to 85%RH				
Insulation type	Double insulation or reinforced insulation (mark: □, dielectric strength between the measurement input part and the power part: 1kV)					
Approval	CE  us				CE	
Weight*3	Approx. 213.5g (approx. 134g)			Approx. 326g (approx. 211g)		

※1: AC, frequency measurement functions are only for AC measurement input type.

※2: MT4Y□-4N model has no hold function.

※3: The weight includes packaging. The weight in parenthesis is for unit only.

※Environment resistance is rated at no freezing or condensation.

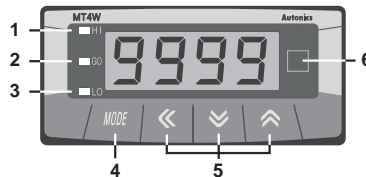
Unit Description

MT4Y Series



1. HI: High output indication of preset
2. GO: GO output indication of preset
3. LO: Low output indication of preset

MT4W Series



4. **MODE** key: mode key
5. **←** key: moves digit, enters parameter mode, **→** key: changes sv
6. **unit label part**

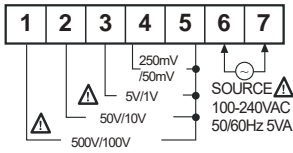
※ There is no 1, 2, 3 on a display panel of MT4Y□-4N, 45, 46 and MT4W□-4N.

※ In MT4Y□-□3, □4, OUT is used for Go output display and there is no 1, 3 in display panel.

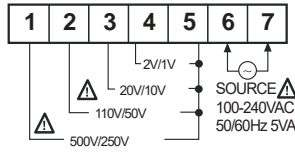
■ Connections

◎ Measurement input terminal connection of MT4Y Series

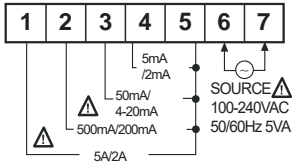
● MT4Y-DV-4 □



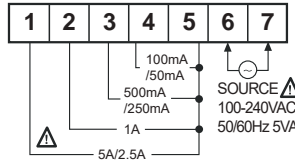
● MT4Y-AV-4 □



● MT4Y-DA-4 □

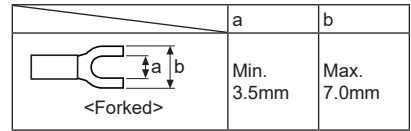


● MT4Y-AA-4 □



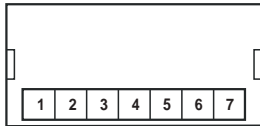
※ Use terminals of size specified below.

※ Use the Copper-conductor wire with the temperature class 60.

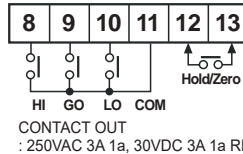


◎ Output terminal connection of MT4Y Series

● MT4Y-□-4N (indicator)

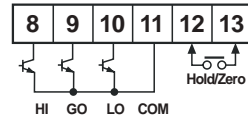


● MT4Y-□-40 (triple relay output)



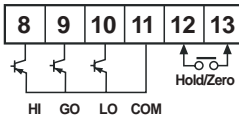
● MT4Y-□-41

(triple NPN open collector output)



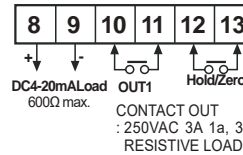
● MT4Y-□-42

(triple PNP open collector output)



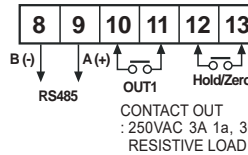
● MT4Y-□-43

(relay+transmission (DC4-20mA) output)



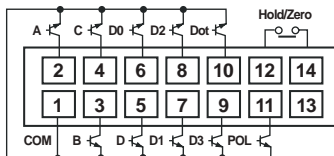
● MT4Y-□-44

(relay+RS485 communication output)

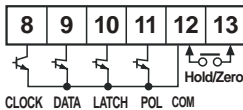


● MT4Y-□-45

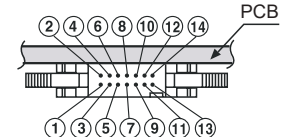
(BCD dynamic output)



● MT4Y-□-46 (low speed serial output)



※ POL: When a display value is "-", the signal of "-" will be outputted.

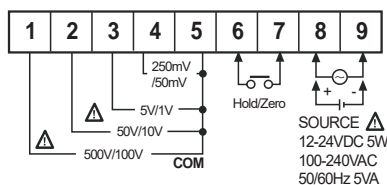


※ Hirose connector: HIF3BA-14PA-2.54DS
 ※ Connector socket specification: Contact the manufacture for the socket and cable.

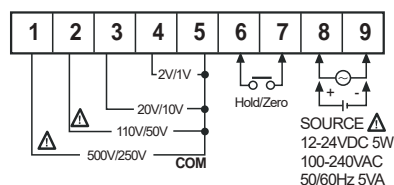
	Specifications	Manufacture
Connector socket	HIF3BA-14D-2.54R	Hirose Electric

◎ Measurement input terminal connection of MT4W Series

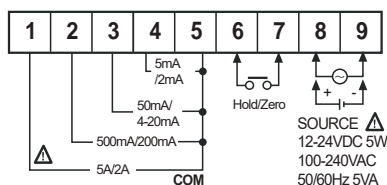
● MT4W-DV-□□



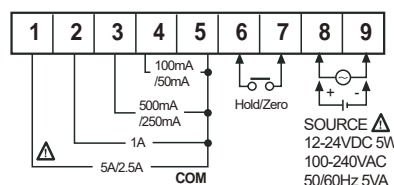
● MT4W-AV-□□



● MT4W-DA-□□



● MT4W-AA-□□



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