

Autonics PANEL METER MT4W SERIES INSTRUCTION MANUAL



Thank you for choosing our Autonics products. Please read the following safety considerations before use.

Safety Considerations

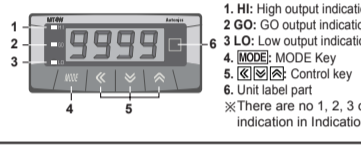
- Please observe all safety considerations for safe and proper product operation to avoid hazards. Safety considerations are categorized as follows. Warning: Failure to follow these instructions may result in serious injury or death. Caution: Failure to follow these instructions may result in personal injury or product damage.

- 1. Fail-safe device must be installed when using the unit with machinery that may cause serious injury or substantial economic loss. 2. Install on a device panel to use. 3. Do not connect, repair, or inspect the unit while connected to a power source. 4. Check 'Connections' before wiring. 5. Do not disassemble or modify the unit. 6. Failure to follow this instruction may result in electric shock or fire.

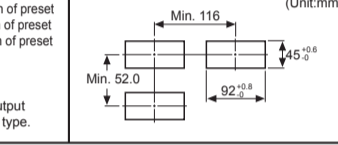
Caution

- 1. When connecting the power/measurement input and relay output, use AWG 24(0.20mm²) to AWG 15(1.65mm²) cable and tighten the terminal screw with a tightening torque of 0.98 to 1.18N·m. 2. Use the unit within the rated specifications. 3. Use dry cloth to clean the unit, and do not use water or organic solvent. 4. Do not use the unit in the place where flammable/explosive/corrosive gas, humidity, direct sunlight, radiant heat, vibration, impact, or salinity may be present. 5. Keep metal chip, dust, and wire residue from flowing into the unit.

Front Panel Identification



Panel Cut-Out

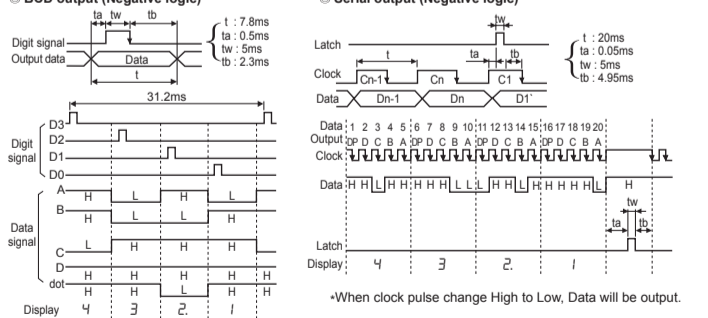


Connections

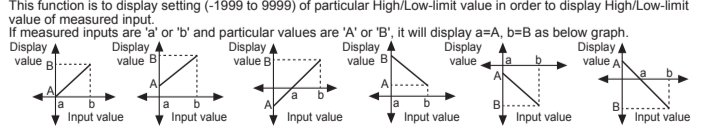


Wiring diagrams for various output functions: Relay output (MT4W-DV, MT4W-DA), NPN/PNP open collector outputs (MT4W-AV, MT4W-AA), and BCD outputs (MT4W-AB, MT4W-BA).

Time Chart Of Serial Output And BCD Output



Prescale Function (PA1: H-5CL-5C)



Error Display Function

Table listing error display codes (HHHH, LLLL, d-HH, d-L, F-HH, ouEr) and their corresponding conditions, such as exceeding maximum or minimum input limits.

Specifications

Table of specifications including Model (MT4W-DV, MT4W-DA), Power supply (100-240VAC), Display accuracy (23°C±5°C), and Environmental conditions.

Measurement Input (PA1: i-n-r)

Table mapping measured input ranges (e.g., 0-500V, 0-500mA) to input impedances and display ranges (5CL, 5CR).

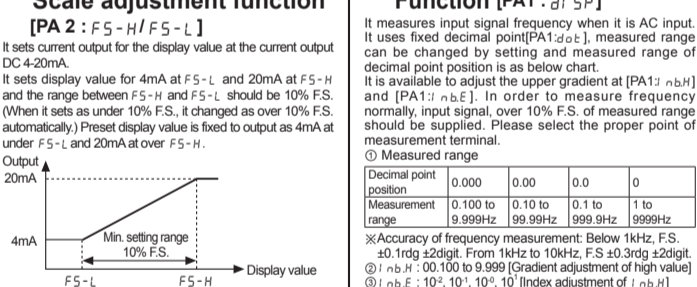
Display Cycle Delay Function (PA2: d1-5t)

In some applications the measured input may fluctuate which in turn causes the display to fluctuate. By adjusting the display cycle delay function...

Monitoring Max./Min. Display Value Function (PA0: HPEL, LPEL, PA2: PEEL)

It monitors Max./Min. display value based on the current displays value and then displays the data on HPEL, LPEL of parameter 0. Set the delay time (0 to 30 sec) at PEEL of parameter 2...

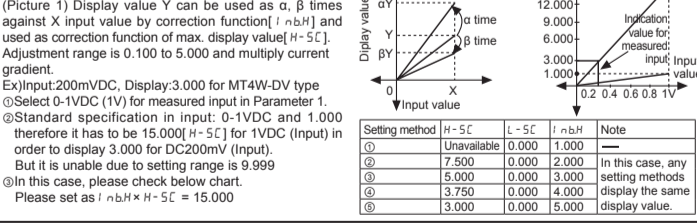
Current Output (DC4-20mA) Scale adjustment function (PA2: F5-HIF5-L)



Error Correction Function (PA1: i-nbH, i-nbL)

It corrects display value error of measured input. i-nbL: ±99 (Adjust deviation of low value) i-nbH: 5.000 to 0.100 (Correct gradient (%) of high value)

Gradient Correction Function (PA1: i-nbH)



Preset Output Mode (PA2: ouEt)

Table defining preset output modes (OFF, L5t, H5t, LH5t, HH5t, LL5t, Ld5t) and their corresponding operations based on input and output levels.

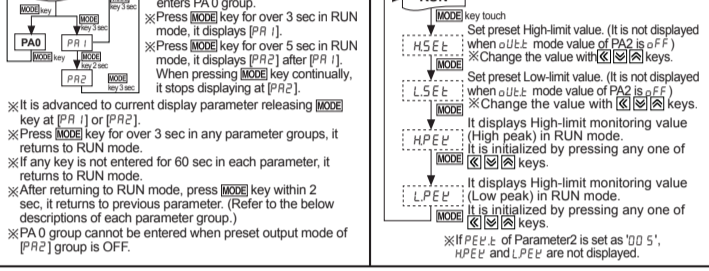
Startup Compensation Timer Function (PA2: 5tRt)

This time function limits the operation of an output until the measured input (overvoltage or inrush current) is stable at moment of power on. All outputs are off during startup compensation time setting after power is supplied.

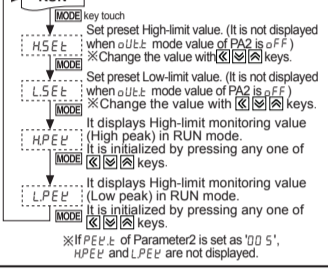
Parameter

Table listing parameters (PR1, PR2, PA0) and their functions, such as Input type, Input range, Display, and Event Input.

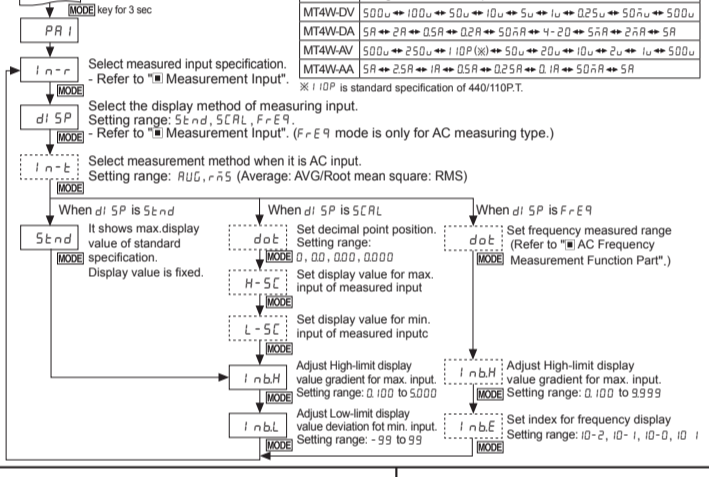
Parameter Setting



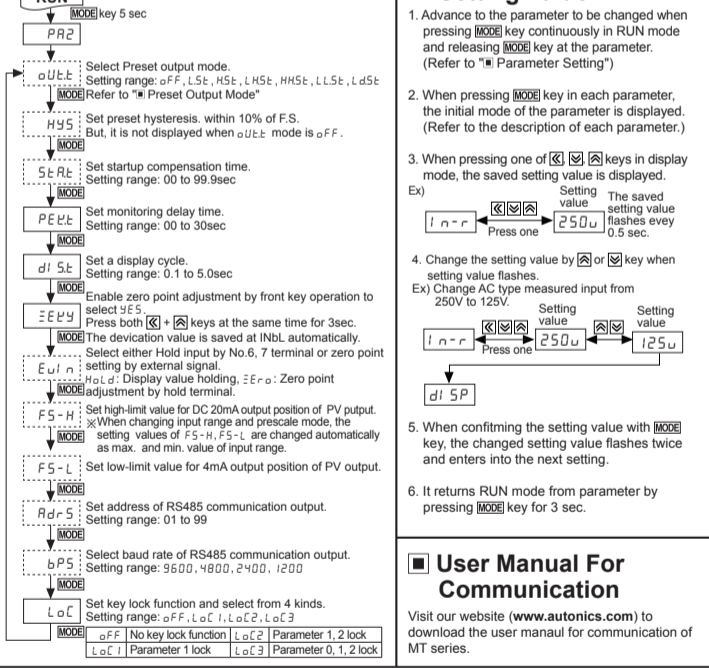
Parameter 0



Parameter 1



Parameter 2



Change The Parameter Setting Value

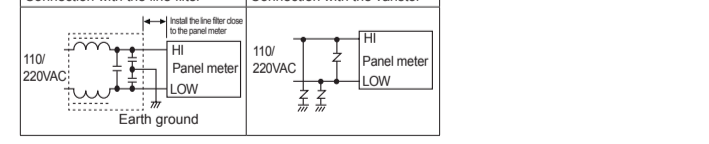
- 1. Advance to the parameter to be changed when pressing MODE key continuously in RUN mode and releasing MODE key at the parameter. 2. When pressing MODE key in each parameter, the initial mode of the parameter is displayed. 3. When pressing one of the arrow keys in display mode, the saved setting value is displayed. 4. Change the setting value with the arrow keys when setting value flashes. 5. When confirming the setting value with MODE key, the changed setting value flashes twice and enters into the next setting. 6. It returns RUN mode from parameter by pressing MODE key for 3 sec.

User Manual For Communication

Visit our website (www.autonics.com) to download the user manual for communication of MT series.

Cautions during Use

- 1. Follow instructions in 'Cautions during Use'. Otherwise, it may cause unexpected accidents. 2. 12-24VDC power supply should be insulated and limited voltage/current or Class 2, SELV power supply device. 3. Install a power switch or circuit breaker in the easily accessible place for supplying or disconnecting the power.



- 5. This unit may be used in the following environments. ①Indoors (in the environment condition rated in 'Specifications') ②Altitude max. 2,000m ③Pollution degree 2 ④Installation category II

Major Products

- Photoelectric Sensors, Temperature Controllers, Fiber Optic Sensors, Temperature/Humidity Transducers, Door Sensors, SSRs/Power Controllers, Counters, Area Sensors, Timers, Proximity Sensors, Panel Meters, Pressure Sensors, Tachometer/Pulse (Rate) Meters, Rotary Encoders, Display Units, Connector/Sockets, Sensor Controllers, Switching Mode Power Supplies, Control Switches/Lamps/Buzzers, I/O Terminal Blocks & Cables, Stepper Motors/Drivers/Motion Controllers, Graphic/Logic Panels, Field Network Devices, Laser Marking System (Fiber, Co., Nd: YAG), Laser Welding/Cutting System

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