

Features

- ① Display 5 1/2 digits (199999)
- ② Display color Red or Green (user selectable)
- ③ Sampling speed 50 times per sec
- ④ Exc supply 10V, 12V, 24VDC available (for the DB range)
- ⑤ Bright LED 20mm
- ⑥ Available four set points (HH, HI, LO, LL)



·DV Range (Direct Voltage Input)

| Range | Measurement Range | Accuracy (23±3°C, 35 to 85%RH) | Input Impedance | Maximum Allowable Input |
|-------|-------------------|--------------------------------|-----------------|-------------------------|
| 11    | ±199.999mV        | ±(0.03% of rdg + 15digit)      | 10 MΩ or less   | ±50V                    |
| 12    | ±1999.99mV        | ±(0.02% of rdg + 10digit)      |                 |                         |
| 13    | ±19.999V          | ±(0.03% of rdg + 10digit)      | Approx. 1MΩ     | ±250V                   |
| 14    | ±199.999V         |                                |                 |                         |

·2I Range (Direct Current Input)

| Range | Measurement Range | Accuracy (23±3°C, 35 to 85%RH) | Input Impedance | Maximum Allowable Input |
|-------|-------------------|--------------------------------|-----------------|-------------------------|
| 21    | ±199.999μA        | ±(0.04% of rdg + 40digit)      | Approx. 1kΩ     | ±10mA                   |
| 22    | ±1999.99μA        |                                | Approx. 100Ω    | ±20mA                   |
| 23    | ±19.999mA         | ±(0.04% of rdg + 10digit)      | Approx. 10Ω     | ±50mA                   |
| 24    | ±199.999mA        | ±(0.06% of rdg + 10digit)      | Approx. 1Ω      | ±500mA                  |

·DB Range (Process Input)

| Range | Measurement Range | Accuracy (23±3°C, 35 to 85%RH) | Input Impedance | Maximum Allowable Input |
|-------|-------------------|--------------------------------|-----------------|-------------------------|
| 1V    | 1 to 5V (±5V)     | ±(0.04% of FS + 5digit)        | Approx. 1MΩ     | ±250V                   |
| 2A    | 4 to 20mA (±20mA) |                                | Approx. 10Ω     | ±50mA                   |
| 11    | ±199.999mV        | ±(0.03% of FS + 5digit)        | 10Ω or more     | ±50V                    |

\* The accuracy and resolution for Ranges 1V and 2A are the specifications at ±5V and ±20mA respectively.  
 Sensor power (Isolated input): DC12V±10% 50mA, or DC24V±10% 25mA, or DC10V±10% 60mA  
 \* Sensor source voltage switched using sockets.

·Display Specifications

Main display section: Red / green 7 segment LED, height approx. 20mm  
 Display range: -199999 to 199999

·Comparison Section Specifications

Comparison results: HH, HI, GO, LO, LL (5 points)  
 Setting conditions: HH judgment value > HI judgment value > LO judgment value > LL judgment value

Comparative output type: Normal output, Zone output  
 Pattern Selection: Switching between 8 comparative setting value patterns possible using key panel or control terminals

Hysteresis: 4 point independent  
 Relay output: Contact capacity 1a contact, AC 250V/DC30V 1A (resistance load), Electrical life 50,000 times (rated load)  
 Minimum application load (as reference): 10mA (DC 5V)

Photocoupler output: Output rating DC 30V 20mA (MAX), output saturation voltage Max. 1.2V

·General Specifications

Operating temperature/humidity ranges: 0 to 50°C, 35 to 85% RH (non-condensing)  
 Storage temperature/humidity ranges: -10 to 70°C, 60% RH or less (non-condensing)  
 Power: AC 100 to 240V±10%, DC 12 to 48V±10%  
 Power consumption: Approx. 12VA max. (AC power), 6W max. (DC power)  
 External dimensions: 96mm (W) × 48mm (H) × 97.5mm (D) (without optional unit installed)

Weight: Approx. 200 to 300g  
 Insulation withstands Voltage:  
 AC 500V per minute between input terminal and each of the output, control terminal and sensor power source  
 AC 1500V per minute between power terminal and each of the input, output, control terminal and sensor power source (AC Power Supply)  
 AC 500V per minute between power terminal and each of the input, output, control terminal and sensor power source (DC Power Supply)

Insulation Resistance: Min. 100MΩ between the abovementioned terminals when DC 500V is applied  
 Memory Backup: E<sup>2</sup>PROM, Writing frequency: 10,000 times

Accompanying Items: Instruction manual

·Option Specifications

·External Control (Isolated input)

Number of terminals: 7 inputs  
 Functions: Start/Hold, Peak Hold, Digital Zero, Relay Reset, Pattern Selection 0, 1, 2  
 Input: No-voltage contact, NPN Open Collector Input

·BCD Output + External Control

BCD Output (Isolated input)  
 Output format: BCD code  
 NPN open collector input: DC 30V 10mA (MAX), Output saturated voltage Max. 1.2V  
 TTL output: Positive logic TTL level (CMOS compatible), Fan-out 2  
 Output: BCD signal, print command (PC), pole (POL), over range (OVER)  
 Control Input: ENABLE

·External Control (Isolated input)

Number of Terminals: 7 inputs  
 Functions: Start/Hold, Peak Hold, Digital Zero, Relay Reset, Pattern Selection 0, 1, 2  
 Input: No-voltage contact, NPN open collector input

·Analog Output + External Control

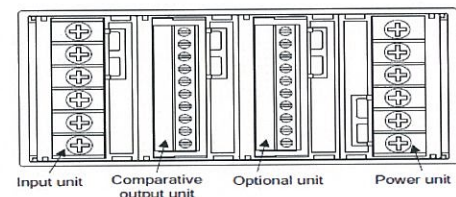
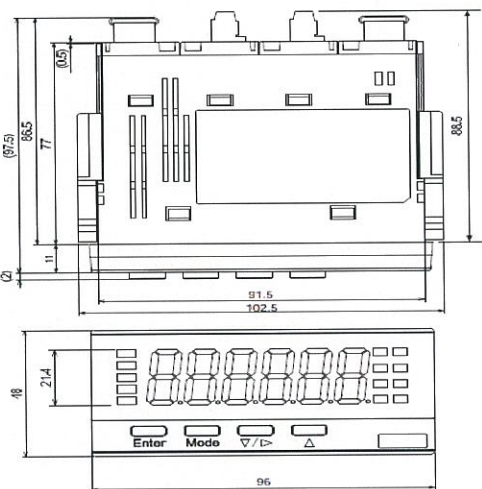
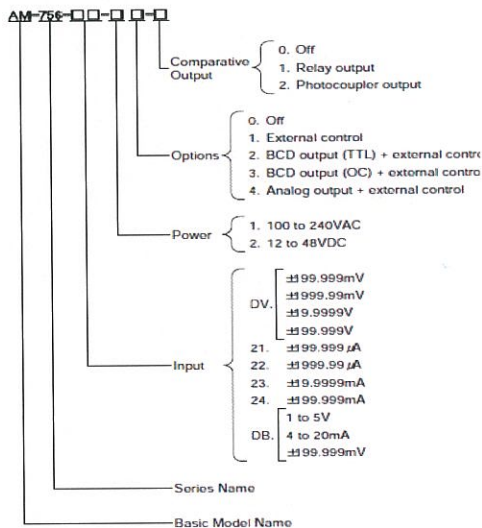
| Output Type | Load Resistance | Accuracy (23±5°C, 35 to 85%RH) | Ripple                          |
|-------------|-----------------|--------------------------------|---------------------------------|
| 0 to 10V    | 10kΩ or more    | ±0.1% of FS                    | 50mVp-p                         |
| 0 to 1V     |                 |                                |                                 |
| 1 to 5V     |                 |                                |                                 |
| 4 to 20mA   | 550Ω or less    |                                | 25mVp-p (at resistance of 250Ω) |

Conversion System: D/A Conversion System

Resolution: 15 bit equivalent  
 Response Time: Approx. 80msec (10 → 90%, sampling rate 50 times/min, no moving average)

·External Control (input and isolation)

Number of terminals: 6 inputs  
 Functions: Start/Hold, Peak Hold, Digital Zero, Relay Reset, Pattern Selection 0, 1  
 Input: No-voltage contact, NPN open collector input



**CAUTION**  
 (1) Units may not be changed by the customer.  
 (2) Do not use different models of these units.

