

## Final Control Elements

### PARAMETER GENERATOR

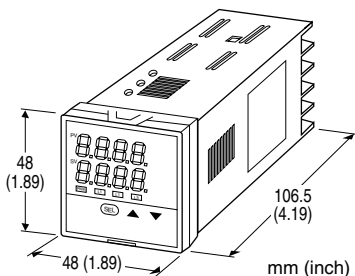
(with digital displays)

#### Functions & Features

- 1/16 DIN size
- Process input monitor display
- All parameters are programmable via the front control keys
- Field-selectable voltage or current input
- IP66 front panel

#### Typical Applications

- Various parameter settings for computers and DCS's



### MODEL: ABS2-MM-M2

#### ORDERING INFORMATION

- Code number: ABS2-MM-M2

#### INPUT

**M:** 4 - 20 mA DC (Input resistance 50 Ω)  
/ 1 - 5 V DC (Input resistance ≥ 100 kΩ)

#### OUTPUT

**M:** 4 - 20 mA DC (Load resistance ≤ 500 Ω)  
/ 1 - 5 V DC (Load resistance ≥ 250 kΩ)

#### POWER INPUT

##### AC Power

**M2:** 100 - 240 V AC (Operational voltage range 85 - 264 V,  
47 - 66 Hz)

#### PACKAGE INCLUDES...

- Input resistor (50 Ω, blue)
- Output resistor (250 Ω, red)
- Mounting brackets (1 pair)

- Terminal cover
- Instruction manual

#### GENERAL SPECIFICATIONS

**Construction:** Panel flush mounting

**Degree of protection:** IP66; applicable to the front panel for single unit mounted according to the specified panel cutout

**Connection:** M3 screw terminals

**Housing material:** Flame-resistant resin (black)

**Isolation:** Input to output to power

**Security:** Protecting settings

##### ■ DIGITAL DISPLAYS

- PV Display

**Display:** 7-segment, 4-digit, red LED

**Character size:** 10.2 by 4.9 mm

**Scaling range:** -1999 to 9999

**Decimal point position:** 10<sup>-1</sup>, 10<sup>-2</sup>, 10<sup>-3</sup> or none

**Read rate:** Max. 4/sec. (0.25 sec.)

**Over-range indication:** 'UUUU' when the input signal goes above +10 % of the scaled range or 9999; 'LLLL' when the input signal goes below -10 % of the scaled range or -1999

- SV Display

**Display:** 7-segment, 4-digit, green LED

**Character size:** 8.8 by 4.9 mm

**Selectable range:** -10 to +110 % in 1 % increments

- Status Indicators

**PWR indicator:** Green LED turns on while the power is supplied.

**L1 indicator:** Amber LED turns on when setting the parameter block 1.

**L2 indicator:** Amber LED turns on when setting the parameter block 2.

**L3 indicator:** Amber LED turns on when setting the parameter block 3.

**Programming:** Front membrane pad keys

#### INPUT SPECIFICATIONS

The input is factory set to 4 - 20 mA DC. Connect the input resistor (50 Ω, blue) included in the product package across the terminals 8 - 10.

For voltage input, change the setting using the front control keys. No need of using the input resistor.

#### OUTPUT SPECIFICATIONS

Connect the output resistor (250 Ω, red) across the terminals 6 - 7 for voltage output.

#### INSTALLATION

##### Power Consumption

- AC: Approx. 8 VA



**Operating temperature:** 0 to 55°C (32 to 131°F)  
**Operating humidity:** 35 to 85 %RH (non-condensing)  
**Mounting:** Panel flush mounting; can be clustered in the horizontal direction  
**Weight:** 200 g (0.44 lbs)

## PERFORMANCE in percentage of span

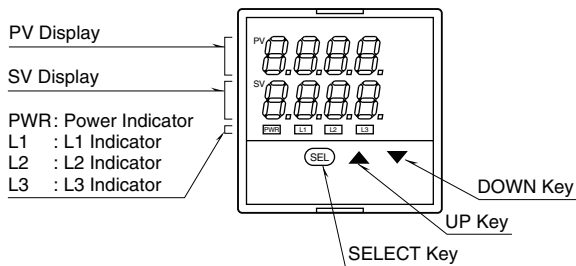
### ■ DISPLAY

**Reading accuracy:**  $\pm 0.5\%$   $\pm 1$  digit of the full-scale range  
**Temp. coefficient:**  $\pm 0.04\%$ /°C ( $\pm 0.02\%$ /°F)  
**Line voltage effect:** Included in the display accuracy

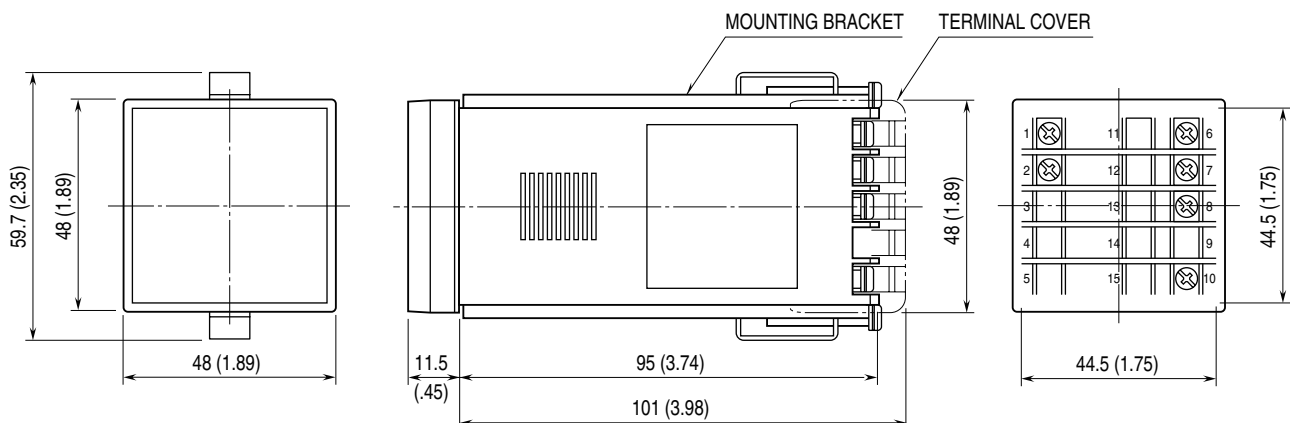
### ■ OUTPUT

**Setpoint accuracy:**  $\pm 1\%$  of the full-scale range  
**Temp. coefficient:**  $\pm 0.04\%$ /°C ( $\pm 0.02\%$ /°F)  
**Response time:** Approx. 0.5 sec. (0 - 90 %)  
**Line voltage effect:** Included in the setpoint accuracy  
**Insulation resistance:**  $\geq 10\text{ M}\Omega$  with 500 V DC (input to output to ground)  
**Dielectric strength:** 1500 V AC @ 1 minute  
 (input or output to power)  
 500 V AC @ 1 minute (input to output)

## EXTERNAL VIEW

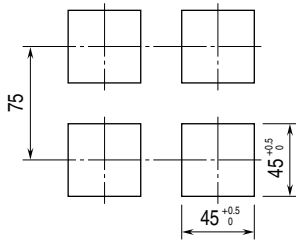


## EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)

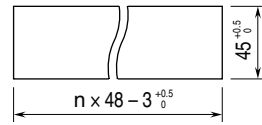


## PANEL CUTOUT unit: mm (inch)

- Single Mounting  
(ingress protection)

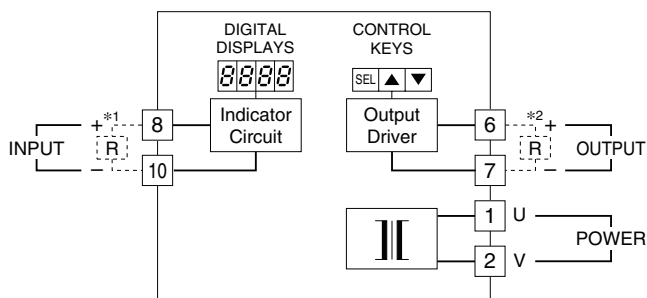


- Clustered Mounting  
(no ingress protection)



n : number of the units  
Panel thickness : 1 to 15 mm

## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



- \*1. Connect the input resistor (R, 50Ω, blue) for current input.
- \*2. Connect the output resistor (R, 250Ω, red) for voltage output.



Specifications are subject to change without notice.