## CMA-6101 Series

CONTROLLER


The products and their specifications are subject to change without notice
TOKYO KO-ON DENPA CO., LTD. www.tkd-corp.com EDC-201610-1

Model number
CMA-6101
Product type
CMA-6101: 60 mm

- M8V

DC-motor
M8V: 8 V DC motor (MABUCHI)

## Structure



Electrical specifications

|  | CMA-6101 |
| :--- | :---: |
| Sensor system | Electrostatic capacitance type sensor |
| Output value | Incremental type |
| Communication system | $1^{2} \mathrm{C}$ Slave |
| Operating voltage | $5 \mathrm{~V}: \pm 0.25 \mathrm{~V}$ |
| Max. operating current | 4mA Max. (Motor drive electricity is excluded.) |
| Resolution | 8bit (0~255) |
| Output Law | 1bit $=60 \mathrm{~mm} / 256$ (Linear) |
| Bit error | $\pm 2 \mathrm{bit}$ |
| Voltage proof | 1 Min. at AC100V |
| Insulation resistance | 50 Mohm or more at DC100V |

## Mechanical specifications

|  | CMA-6101 |
| :--- | :---: |
| Stroke length | $60 \mathrm{~mm} \pm 0.5 \mathrm{~mm}$ |
| Operating force | $0.1 \sim 0.3 \mathrm{~N}$ |
| Strength of Nut-Attached | 100 Ncm |
| Attached Parts | M3 screw (Length: Panel thickness + 3~4mm) |
| Stopper strength | 30 N |
| Push-pull strength | 30 N |

General specifications

|  | CMA-6101 |
| :--- | :---: |
| Temp.range | -10 to +70 deg C (Operating), -15 to +75 deg C (Storage) |
| Relative humidity | $90 \%$ RH (No condensation) |

Note

* Non-waterproof.
* Solder heat resistance: 350 deg C max, 5 sec max, 2 times. (Manual soldering only)
* Do not give severe shocks.
* Move to one end in Control-bar on the occasion of knob wearing, and can break into it slowly


## CMA-6101 Series



## How to use

1. Power ON

Output data 0
Touch Stop

Operation start
Output data 0~255
Touch On or Off


1. At the time of power on, output data are 0 , regardless of the position of the control bar In addition, please keep a finger off the knob.
2. Resets works when the control bar is moved to the edge of the direction of the figure. A touch signal becomes effective at the same time.
3. After reset, position data in proportion to the movement of the control bar are output. A touch signal is output by touching the knob with a finger.

* In power-off, the most recent position data are not retained


## Circuit example

$I^{2} \mathrm{C}$ Slave address 50 [decimal]


Connect the frameGND with the frame, otherwise with the F.G. through-hole.
Pin Assign

| Pin No. | Description |
| :---: | :--- |
| 1 | Operating voltage DC +5 V |
| 2 | Ground connection |
| 3 | Active high external reset with internal pull down |
| 4 | I2C SCL |
| 5 | I2C SDA |
| 6 | Touch (On: High Off: Low) |
| 7 | I2C Slave address bit0 |
| 8 | I2C Slave address bit1 |
| 9 | I2C Slave address bit2 |
| 10 | I2C Slave address bit3 |
| 11 | I2C Slave address bit4 |
| 12 | I2C Slave address bit5 |

