

CT1 SERIES

Length Sensor

CT1 (Switch contact output)

CT1-A (Photoelectric sensor 1 output)

CT1-R (Photoelectric sensor 2 outputs bidirectional type)



CE RoHS

This device sends out a pulse signal every 1 meter, 0.1 meter (10 centimeter), 0.01 meter (1 centimeter), or 0.001 meter (1 millimeter) when its two measuring wheels are put on running materials such as cloth, paper, belt, metal sheet, plastic film, etc., or when the wheels are put on a roller rotating synchronously with a running material. The length measurement value can be displayed on an electronic or electromagnetic counter.

FEATURES :

This device can be installed at a most suitable place away from the registering counter. With a preset counter, this device can control accurate cut-to-length or repetitive operations. With quadrature output signal, the device can be used to get the relative length even with bidirectional movements.

MODEL

| Models | Sensor | Unit | Speed | Weight | Operation Torque | Proper Counter |
|-------------|---|---------------|------------------------|--------------|------------------|---|
| CT1-3:1 | Microswitch | 1m [yard] | 240meter [yard]/minute | 700g [25oz.] | 15mN·m | Electronic Counter Electromagnetic Counter |
| CT1-3:10 | | 0.1m [yard] | 24meter [yard]/minute | 710g [25oz.] | | |
| CT1-3:1A | Photoelectric Sensor, 1 Non-contact Output (Voltage Output) | 1m [yard] | 700meter [yard]/minute | 730g [26oz.] | | Electronic Counter |
| CT1-3:10A | | 0.1m [yard] | 500meter [yard]/minute | 730g [26oz.] | | |
| CT1-3:100A | | 0.01m [yard] | 250meter [yard]/minute | 740g [26oz.] | | |
| CT1-3:1000A | | 0.001m [yard] | 100meter [yard]/minute | 790g [28oz.] | | |
| CT1-3:1R | Photoelectric Sensor, 2 Non-contact Outputs (Voltage Output / 90°Quadrature Output) | 1m [yard] | 700meter [yard]/minute | 740g [26oz.] | | Bidirectional Electronic Counter |
| CT1-3:10R | | 0.1m [yard] | 500meter [yard]/minute | 740g [26oz.] | | |
| CT1-3:100R | | 0.01m [yard] | 250meter [yard]/minute | 750g [26oz.] | | |
| CT1-3:1000R | | 0.001m [yard] | 100meter [yard]/minute | 780g [28oz.] | | |

* Factory-installed option. : Open collector output is available in 1 and 2 non-contact outputs models.
"C" should be added to the model number. (Ex.) CT1-3:10AC

SPECIFICATIONS

| Models | Output | Power source | Current consumption | Output impedance | Maximum load current |
|-------------------------------|---|---|----------------------------|---------------------------|----------------------|
| CT1-3:1,CT1-3:10 | 1 Output | Microswitch Contact output, Capacity : AC250V · 5A , DC125V 0.5A (Load) | | | |
| CT1-3:1A,CT1-3:10A,CT1-3:100A | 1 Output | DC5 - 24V ± 10% | 35mA | 3.9KΩ | 100mA |
| CT1-3:1000A | 1 Output | DC5 - 12V ± 10% | 20mA | 2KΩ | 20mA |
| CT1-3:1R,CT1-3:10R,CT1-3:100R | 2 Outputs(90° Quadrature) | DC5 - 24V ± 10% | 70mA | 3.9KΩ | 100mA |
| CT1-3:1000R | 2 Outputs(90° Quadrature) | DC5 - 12V ± 10% | 40mA | 2KΩ | 20mA |
| Ambient temp. : Operating | -10 - +50°C [14 - 122°F] (Should be not Frozen) | | Ambient Humid. : Operating | 35 - 85% (Non-Condensing) | |
| Compliance | CE, RoHS | | | | |

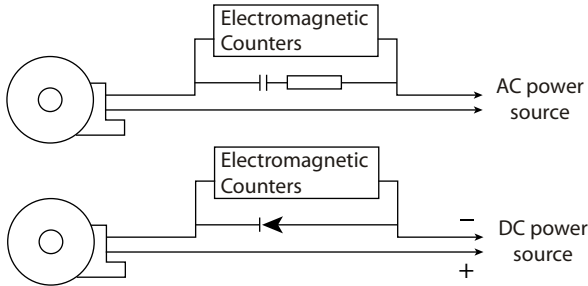
ACCESSORY

| | | |
|---------------|---|---|
| Model : CT1 | Measuring wheel for meter x 2 | 2 pieces of measuring wheel for meter are equipped as standard accessories. Instead of those, 2 pieces of measuring wheel for yard are available. Please order type of measuring wheel. |
| Model : CT1-A | Measuring wheel for meter x 2, 3P connector x 1 | |
| Model : CT1-R | Measuring wheel for meter x 2, 4P connector x 1 | |

Measuring wheel for meter :Diameter 106.1mm (Circumstance 1/3 meter),Surface material is Thermoplastic Rubber.
Measuring wheel for yard :Diameter 97.0mm (Circumstance 1/3 yard),Surface material is Thermoplastic Rubber.

CONNECTION

Model : CT1



It is recommendable to use such components as diode, CR etc., for the protection of contact in the case of connection with such inductive load as electromagnetic counter.

Model : CT1-A (3P connector)

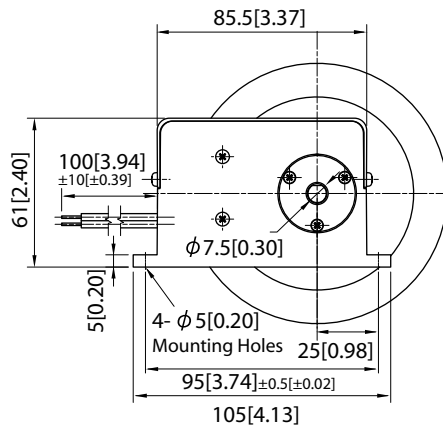
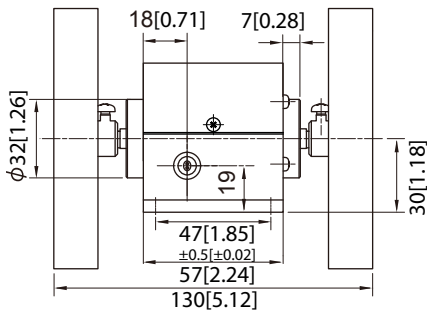
| Terminal numbers in generator's connector | | Terminal numbers in counter | | | |
|---|-----------------|-----------------------------|---------|-----|-----|
| | | MD-144 | G48 E48 | E60 | E10 |
| A | Output | 4 | 1 | 1 | 1 |
| B | GND | 3 | 4 | 4 | 4 |
| C | DC power source | 2 | 3 | 3 | 3 |

Model : CT1-R (4P connector)

| Terminal numbers in generator's connector | | Terminal numbers in counter | | | |
|---|-----------------|-----------------------------|---------|-----|-----|
| | | MDR-166 | G48 E48 | E60 | E10 |
| A | DC power source | 3 | 3 | 3 | 3 |
| B | Output A | 4 | 1 | 1 | 1 |
| C | GND | 6 | 4 | 4 | 4 |
| D | Output B | 5 | 2 | 2 | 2 |

DIMENSIONS : mm [inch]

Model : CT1

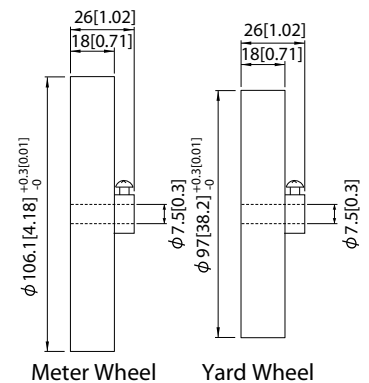
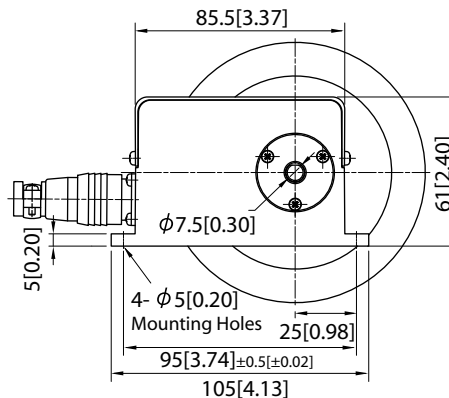
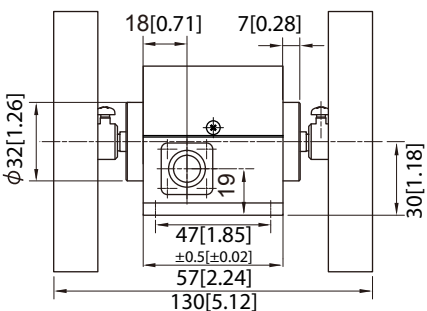


Wheel

Measuring wheels are subject to slip due to wear after prolonged usage. They may cause measurement errors if not replaced on time. Please periodically check the wheels for signs of deterioration.

| | Meter Wheel | Yard Wheel |
|---------------------|-------------------------|------------|
| UNIT OF MEASURE | Meters | Yard |
| MODEL | MRM096 | MRM097 |
| TYPE OF SURFACE | Plain | |
| MATERIAL OF SURFACE | Thermoplastic Elastomer | |

Model : CT1-A / CT1-R



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*Subject to change without prior notice.

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