

# CT1 SERIES

# **Length Sensor**

**CT1** (Switch contact output)

**CT1-A** (Photoelectronic sensor 1 output)

**CT1-R** (Photoelectronic sensor 2 outputs bidirectional type)



C€ 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.]		Electronic Counter
CT1-3:10		0.1m [yard]	24meter [yard]/minute	710g [25oz.]		Electromagnetic Counter
CT1-3:1A	Photoelectronic Sensor,	1m [yard]	700meter [yard]/minute	730g [26oz.]		
CT1-3:10A	1 Non-contact Output	0.1m [yard]	500meter [yard]/minute	730g [26oz.]		Electronic Counter
CT1-3:100A	(Voltage Output)	0.01m [yard]	250meter [yard]/minute	740g [26oz.]	15mN⋅m	
CT1-3:1000A		0.001m [yard]	100meter [yard]/minute	790g [28oz.]		
CT1-3:1R	Photoelectronic Sensor,	1m [yard]	700meter [yard]/minute	740g [26oz.]		
CT1-3:10R	2 Non-contact Outputs	0.1m [yard]	500meter [yard]/minute	740g [26oz.]		Bidirectional
CT1-3:100R	(Voltage Output /	0.01m [yard]	250meter [yard]/minute	750g [26oz.]		Electronic Counter
CT1-3:1000R	90°Quadrature Output)	0.001m [yard]	100meter [yard]/minute	780g [28oz.]		

<sup>\*</sup> Factory-installed option. : Open collector output is available in 1 and 2 non-contact outputs models.

#### SPECIFICATIONS

			Current	Output	Maximum load
Models	Output	Power source	consumption	impedance	current
CT1-3:1,CT1-3:10	1 Output	Microswitch Contact output, Capacity: AC250V • 5A, DC125V 0.5A (Load)			25V 0.5A (Load)
CT1-3:1A,CT1-3:10A,CT1-3:100A	1 Output	DC5 - 24V ± 10%	35mA	3.9ΚΩ	100mA
CT1-3:1000A	1 Output	DC5 - 12V $\pm$ 10%	20mA	2ΚΩ	20mA
CT1-3:1R,CT1-3:10R,CT1-3:100R	2 Outputs (90° Quadrature)	DC5 - 24V ± 10%	70mA	3.9ΚΩ	100mA
CT1-3:1000R	2 Outputs( 90° Quadrature)	DC5 - 12V ± 10%	40mA	2ΚΩ	20mA

Ambient temp. : Operating	-10 - +50°C [14 - 122°F] (Should be not Frozen)	Ambient Humid. : Operating	35 - 85% (Non-Condensing)
Compliance	CE, RoHS		

<sup>&</sup>quot;C" should be added to the model number. (Ex.) CT1-3:10AC

#### ACCESSORY

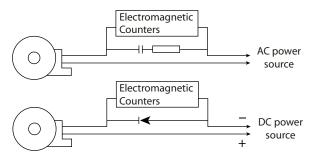
Model : CT1	Measuring wheel for meter x 2	2 pieces of measuring wheel for meter are equipped as standard
Model : CT1-A	Measuring wheel for meter x 2, 3P connector x 1	accessories. Instead of those, 2 pieces of measuring wheel for yard are available.
Model : CT1-R	Measuring wheel for meter x 2, 4P connector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

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)

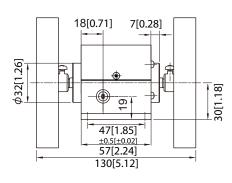
		Terminal numbers in counter			
Terminal numbers in					
generator's connector		MD-144	G48 E48	E60	E10
Α	Output	4	1	1	1
В	GND	3	4	4	4
C	DC power source	2	3	3	3

Model: CT1-R (4P connector)

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

# DIMENSIONS : mm [inch]

Model: CT1

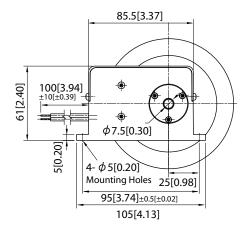


Model: CT1-A / CT1-R

 $\phi$ 32[1.26]

18[0.71]

7[0.28]

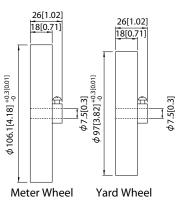


	85.5[3.37]
50	φ7.5[0.30]
5[0.20]	4- φ5[0.20] Mounting Holes 25[0.98]
	95[3.74]±0.5[±0.02]
	105[4.13]

#### 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 Thermoplastic Elastomer		
MATERIAL OF SURFACE			



This catalog was last revised Sep. 7, 2022. \*Subject to change without prior notice.

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47[1.85]

130[5.12]



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