

Through-beam edge sensor

ETD Series

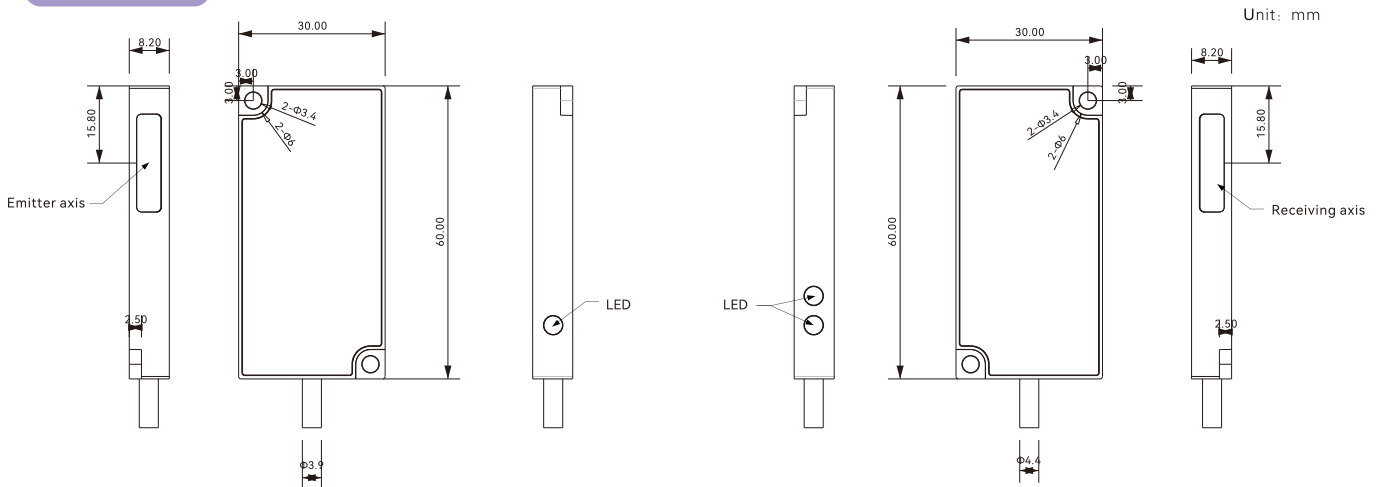
Displacement



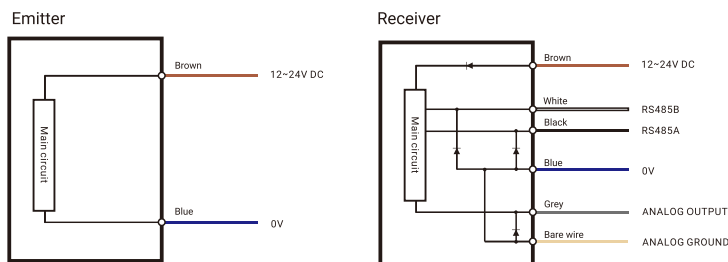
Appearance		
Detection method	Through-beam laser measuring (CMOS mode)	
Detection range	Edge detection mode ± 6 mm Diameter detection mode 12mm	
Setting distance	0 ~ 500mm	
Light source	Red semiconductor laser level 1	
Laser class	Class 1	
Minimum detectable object	0.5mm(When setting a distance of 500mm)	
Repeatability	1 μ m(When setting a distance of 20mm) 3 μ m(When setting a distance of 100mm) 5 μ m(When setting a distance of 500mm)	
Linear accuracy	$\pm 0.12\%$ F.S.(When setting a distance of 20mm) $\pm 0.4\%$ F.S.(When setting a distance of 100mm)	
Analog output	Voltage	Output range: 0V~5V, output impedance: 100 Ω
	Current	Output range: 4mA~20mA, load: less than 300 Ω
Communication	485 communication hexadecimal	
Measurement mode	Auto Edge Mode, Edge Mode, ID/Gap Mode, Width/Diameter Mode	
Ambient temperature	Operation temperature	-10 ~ +45 $^{\circ}$ C(No freezing, No condensation)
	Storage temperature	-20 ~ +60 $^{\circ}$ C
Ambient humidity	Operation humidity	35 ~ 85%RH
	Storage humidity	35 ~ 85%RH
Voltage	DC12~24V $\pm 10\%$	
Current consumption	Emitting: 10mA or less (DC24V) Receiving: 70mA or less (DC24V)	
Insulation	Insulation resistance >20M Ω at DC500V between all terminals and housing	
Pulse resistance	Durable 500m/s ² , 3 times each in X,Y,Z three directions.	
Anti-vibration	Durable 10 ~ 55Hz complex amplitude 1.5mm, 2 hours each in X,Y,Z three directions	
Ambient illumination	Incandescent lamp: the illuminance of the light-receiving surface is below 3,000lux	
Temperature drift	$\pm 0.03\%$ F.S./ $^{\circ}$ C	
Indicator light	Emitter (laser emission indicator green) Receiver (optical axis adjustment light green, judgment output light red)	
Protection degree	IP50	
Shell	Aluminum alloy metal shell	
Outgoing way	Receiver:5-core composite cable 2m Emitter: 2-core cable 2m	

Model ETD-0612

Dimensions



Circuit Diagram



- Fiber Optic
- Slot Sensors
- Photoelectric
- Laser
- Proximity
- Displacement**
- Magnetic
- Contact
- Area
- Ultrasonic
- Vision
- Code Readers
- Vibration
- Temperature
- Accessories

Guidance

Displacement

- Triangulation
- Linear measurement
- Magnetic displacement
- LIDAR Scanner
- Color confocal

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Displacement



NEW!

CE

Appearance	
Installation	DIN mounting guide
Operation voltage	+24VDC ± 10%
Power consumption per controller	Below 100mA (when connecting sensors)
Number of sensors connected	Two sets of sensors
Communication method with the sensor	RS485
Display screen	240*240TFT screen
Number of controllers connected in parallel	Up to 16 controllers can be connected
Indicator light	Output 1-3 and functional indicator lights in red
Analog output	Analog output current can be switched between 4-20mA and voltage between 0-5V
Digital output	3 channels of output, NO, NC, PO, PC can be switched
External input	3 channels of input, NPN and PNP selectable
Display resolution	1 μm
Display range	-99,999mm-99,999mm
Protection structure	IP40
Operating temperature	-10°C~+50°C
Operating humidity	35%RH-85%RH
Insulation resistance	All connection terminals and casing resistance are above 20MΩ
Voltage resistance	All connection terminals are voltage resistant up to AC 1000V
Vibration resistance	Frequency of 10-55Hz, double amplitude of 1.5m, in X, Y, and Z directions, for two hours each
Impact resistant	98m/s ² (APPROX. 10G) 5 times each in the x, y, and z directions
Model	CR-M02

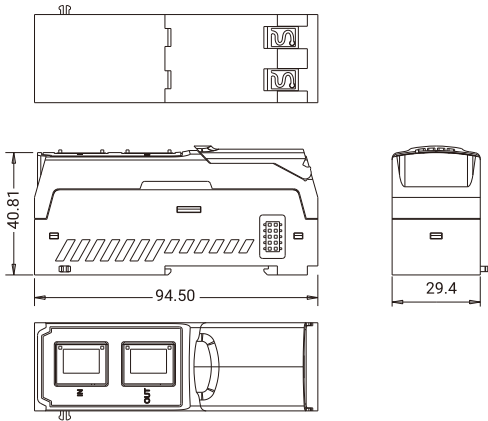


NEW!

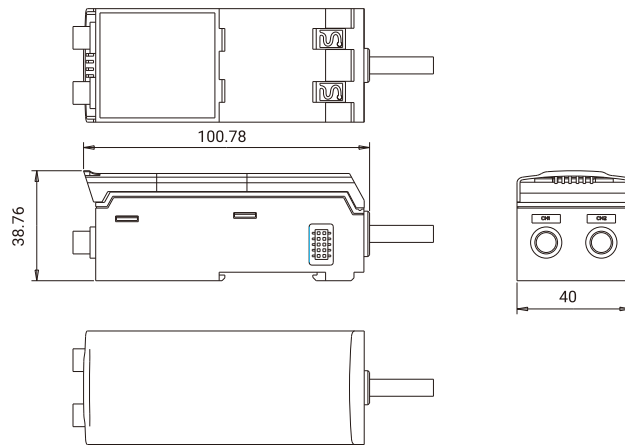
CE

Appearance	
Installation	DIN rail installation
Operation voltage	24V DC(10-30V DC)
Indicator light	<p>PWR: Power Indicator Light / Green RUN: Running Indicator Light / Green ERR: Error Indicator Light / Red Sensor Communication Indicator Light: Red Light (RTU Communication Exception) Ethernet Port: (Green) D-BUS: RTU Communication Normal / Green Light Part of RTU Communication Exception / Alternating Red and Green Lights No RTU Communication Activity / Off Ethernet Port (Green): Ethernet Port has Established Effective Network Connection / On Ethernet port is in network activity status/flashing Ethernet port has not established a network connection or port is abnormal/off.</p>
100 megabit Ethernet port	10/100Base-T(X), RJ45, automatic flow control, full/half duplex mode, MDI/MDI-X auto-detection
Programming port	Software programming port uses 8-bit wiring terminals with a spacing of 2.0mm, occupying 2-5 positions from the left
Console port	CLI command management port uses 8-bit wiring terminals with a spacing of 2.0mm, occupying 6 to 8 positions from the left
RS-485 Serial	Supports 2 RS-485 serial ports, with one reserved, using 10-bit wiring terminals with a 2.0mm spacing. The serial ports occupy 4 bits
Reset button	Reset button
Standby Power Consumption at Normal Temperature	The wiring terminal has 10 spots with a spacing of 2.0mm, and the power takes up 2 spots. 0.7w@10VDC 0.7w@20VDC 0.7w@30VDC
Full Load Power Consumption at Normal Temperature	0.7w@10VDC 0.7w@20VDC 0.7w@30VDC
Full Load Power Consumption at High Temperature	0.8w@10VDC 0.8w@20VDC 0.8w@30VDC
Operating temperature	-40°C~75°C
Storage temperature	-40°C~85°C
Operating humidity	5%~95% (No condensation)
Model	CTM01-EC

CTM01-EC



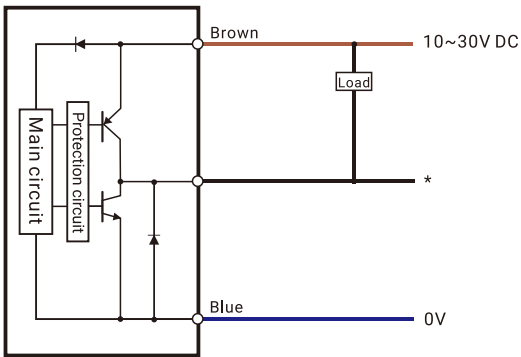
CR-M02



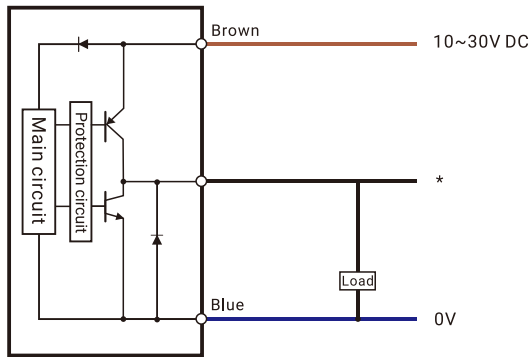
Circuit Diagram

INPUT CIRCUIT DIAGRAM

NPN Output



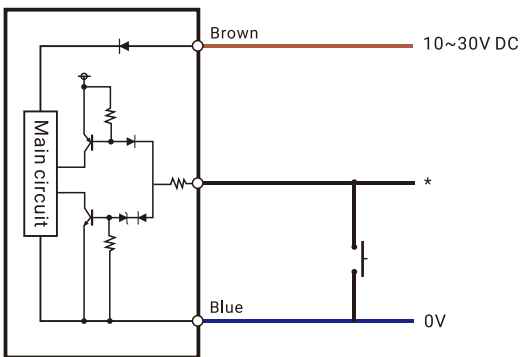
PNP Output



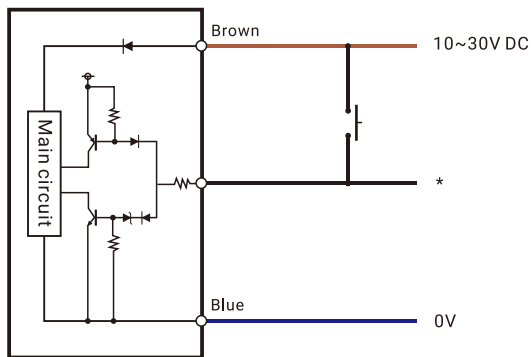
* Black (HIGH detection output) / White (LOW detection output) / Grey (GO detection output) / Green (Verification input)

OUTPUT CIRCUIT DIAGRAM

NPN Output



PNP Output



* Pink (External Input 1) / Yellow (External Input 2) / Pink Purple (External Input 3) / Purple (External Input 4)

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