

Displacement sensor amplifier unit

# CDA series



## Amplifier unit that can perform calculations and CC-Link communication

- | Up to two displacement sensors can be connected
- | Features a clear organic EL display
- | Can also display in Japanese



Related products	Ultra-high accuracy <b>CDX</b> ● P.438	Compact type <b>CD22</b> ● P.464	CC-Link communication <b>UC1</b> ● P.118

### Selection table

Type	Supported displacement sensor	Supported communication unit	Master/slave unit	Model
Displacement sensor amplifier unit	●CD22 series (RS-485 type) ●CDX series ● P.438, P.464	CC-Link communication unit UC1-CL11 (only for CD22 series) ● P.118	Master unit	<b>CDA-M</b>
			Slave unit	<b>CDA-S</b>

### Options/Accessories

#### Displacement sensor/amplifier connection cable



**DSL-1204-G02M**  
 Cable length: 2 m  
 Robot cable specification

#### Extension cable

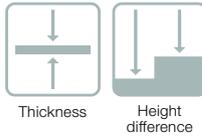
**DSL-0804-G02M**  
 Cable length: 2 m  
 Cable length between sensor and amplifier can be extended to 4 m by connecting to DSL-1204-G02M.  
 Robot cable specification

**DSL-0804-G05M**  
 Cable length: 5 m  
 Cable length between sensor and amplifier can be extended to 7 m by connecting to DSL-1204-G02M.  
 Robot cable specification

## Features

### Calculation function

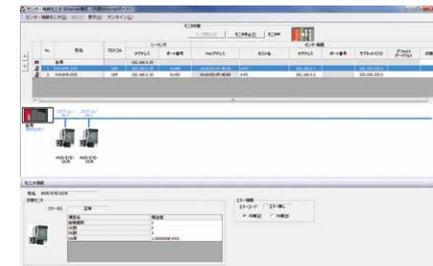
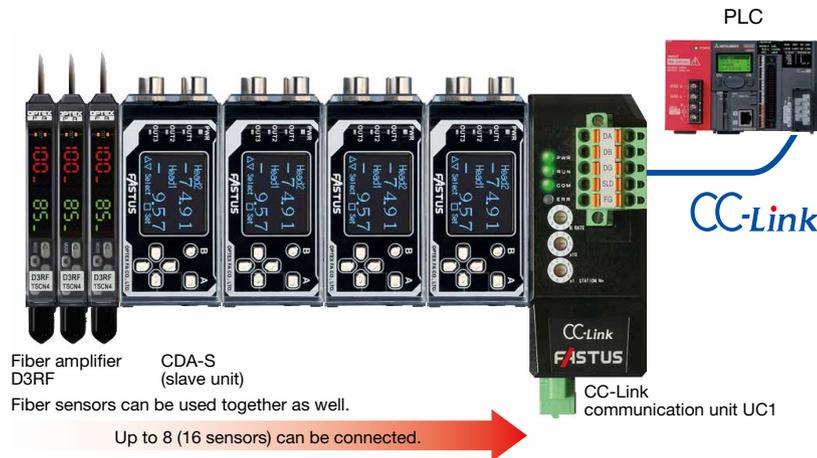
Up to two can be connected to the CDA series. High-speed calculation of thickness and height differences can be performed with one amplifier unit.



### CC-Link connection

By connecting to UC1 series communication unit, CD22 series can be connected to CC-Link. Monitoring of measurement values and remote monitoring of sensors can be performed easily.

Sensors can be operated through CC-Link communication using Mitsubishi Electric's GX Works2 which supports Mitsubishi iQ Sensor Solution (iQSS).



- Model information and no. of connected units are detected automatically
- Reading, writing, monitoring and backing up of set sensor values is possible

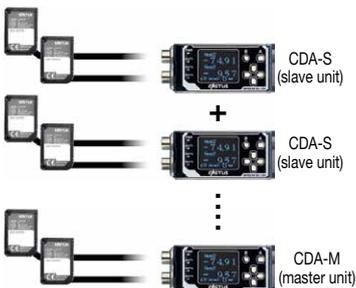
## System configuration

### CDA only

When using CDA as stand-alone



When CDA is linked

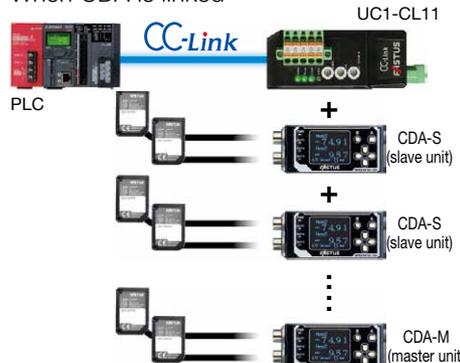


### CDA+UC1 (Not for CDX)

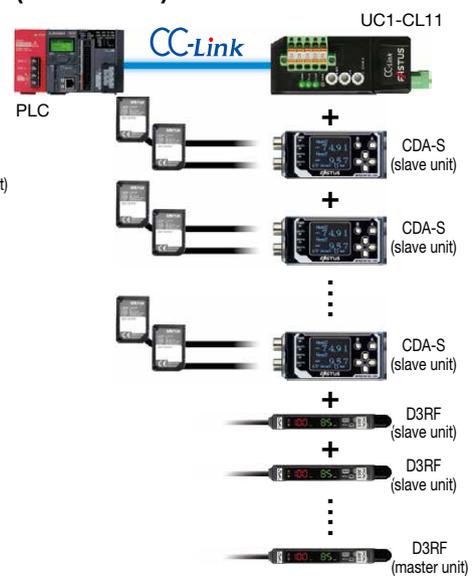
When using CDA as stand-alone



When CDA is linked



### CDA + UC1 + D3RF (Not for CDX)



Photoelectric Sensors

Specialized Photoelectric Sensors

Laser Displacement Sensors

Control Unit

CDX

CDA

LS

CD22

CD33

CD4

CD5

UQ1-01

UQ1-02

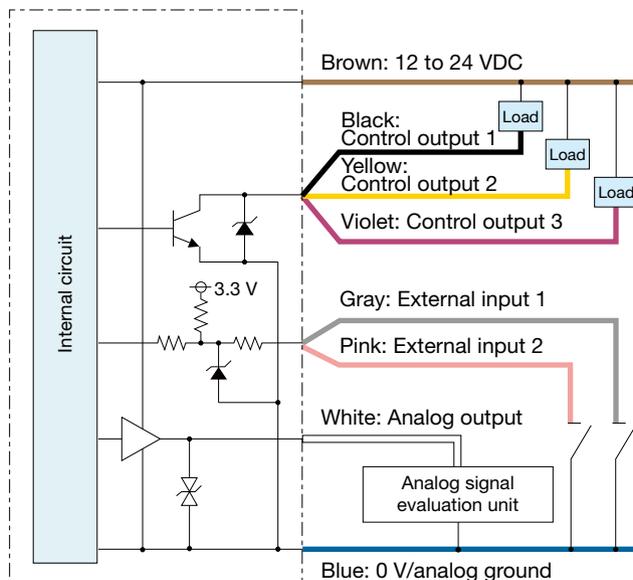
## Specifications

Model		Master unit	Slave unit
		CDA-M	CDA-S
Displacement sensor	No. of connectable units	Max. 2 units of CD22 or CDX series (Connectable model of CD22 series: CD22-□□-485M12)	
	Connection type	Amplifier side: M8, 4-pin connector / Sensor side: M12, 4-pin connector	
No. of connectable units (including master unit)		Max. 8 units	
Rating	Supply voltage	12 to 24 VDC $\pm 10\%$ , including 10% ripple (p-p)	Supplied from master unit or UC1 series*
	Current consumption	100 mA or less (at 12 VDC)	
Display	Dot matrix display	Organic EL panel 128 $\times$ 96 pixels	
	Indicators	Power indicator: Red/Green, Output indicator 1 to 3: Orange	
Analog current output		4 to 20 mA/F.S. Load impedance 300 $\Omega$ or less	
Control output		NPN/PNP open collector (selectable by setting) 3 output max. 100 mA / 30 VDC, Residual voltage: 1.8 V or less	
External input		2 inputs	
Connection type		Cable type: Cable: 2 m ( $\phi 5.8$ )	
Environmental resistance	Ambient temperature/humidity	-20 to +50°C / 35 to 85% RH (no freezing or condensation)	
	Storage temperature/humidity	-20 to +60°C / 35 to 85% RH (no freezing or condensation)	
	Vibration resistance	10 to 55 Hz; double amplitude 1.5 mm; 2 hours in each of the X, Y, and Z directions	
	Shock resistance	Approximately 50 G (500 m/s <sup>2</sup> ), 3 times in each of the X, Y, and Z directions	
	Protection circuit	Reverse connection protection	
	Degree of protection	IEC standard, IP50	
Material		Polycarbonate	
Weight		170 g	

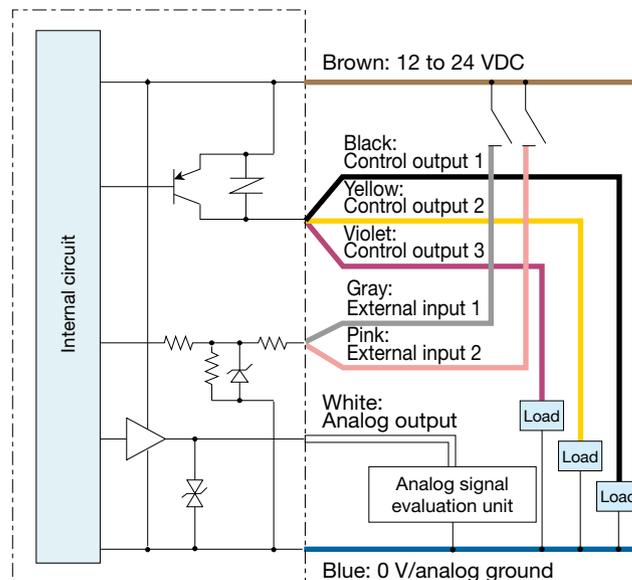
\*Supply 12 to 24 VDC to power wires (brown/blue) to be used for the supply voltage of the CD22 series.

## I/O circuit diagram

■ With the NPN setting



■ With the PNP setting

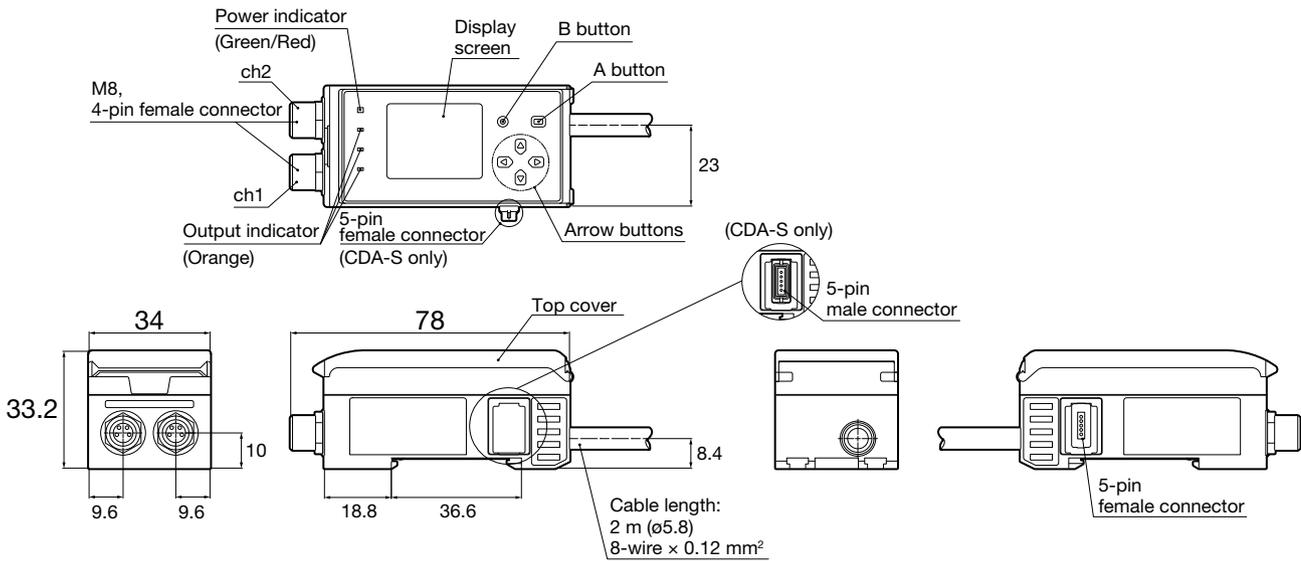


## Dimensions

### Amplifier unit

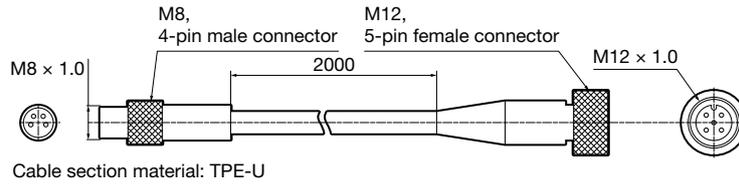
(Unit: mm)

#### ■ CDA-M / CDA-S



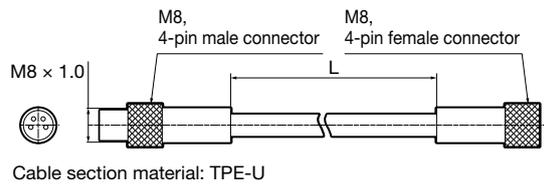
### Displacement sensor/amplifier connection cable

#### ■ DSL-1204-G02M



### Extension cable

#### ■ DSL-0804-G02M / DSL-0804-G05M



DSL-0804-G02M: L = 2000,  
 DSL-0804-G05M: L = 5000

Photoelectric Sensors

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Laser Displacement Sensors

Control Unit

CDX

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