

# IO-Link Master Unit for CC-Link IE Field Newly Launched!

Receive sensor information on a gigabit network!

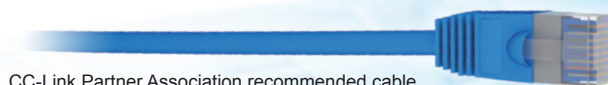
- **CC-Link IE Field compatible**  
Can be used as an intelligent device station.

- **Up to 8 IO-Link compatible devices and IO-Link non-compatible devices (PNP output) can be connected**  
As an IO-Link master, the unit supports up to 8 connection channels.

Simple wire-press connector (e-CON)  
enables easy connection



Available as an option (sold separately).



CC-Link Partner Association recommended cable  
(Please purchase separately.)

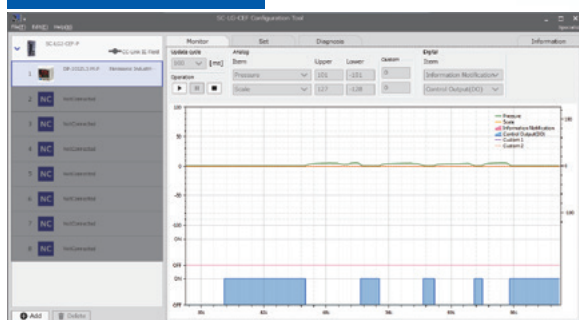


Indicators are lit in  
this image.

SC-LG2-CEF-P

- **IO-Link device settings can be set at once from the host tool**  
Settings can be configured at once from the host tool (SC-LG-CEF Configuration Tool\*) via a Mitsubishi Electric Corporation PLC.

#### Device monitor screen



- **Equipped with a device monitor screen for convenient confirmation and a language selection function**  
**SC-LG-CEF Configuration Tool\*** is a software application program for Windows® that can acquire measurement data from the IO-Link Master Unit for CC-Link IE Field **SC-LG2-CEF-P** and devices connected to it, as well as set and read various parameters.

\* **SC-LG-CEF Configuration Tool** can be downloaded from our website.

\* Windows is a registered trademark or trademark of Microsoft Corporation in the U.S. and/or other countries.

# Small Step IoT Starts with IO-Link

## Smart collection of on-site sensor information

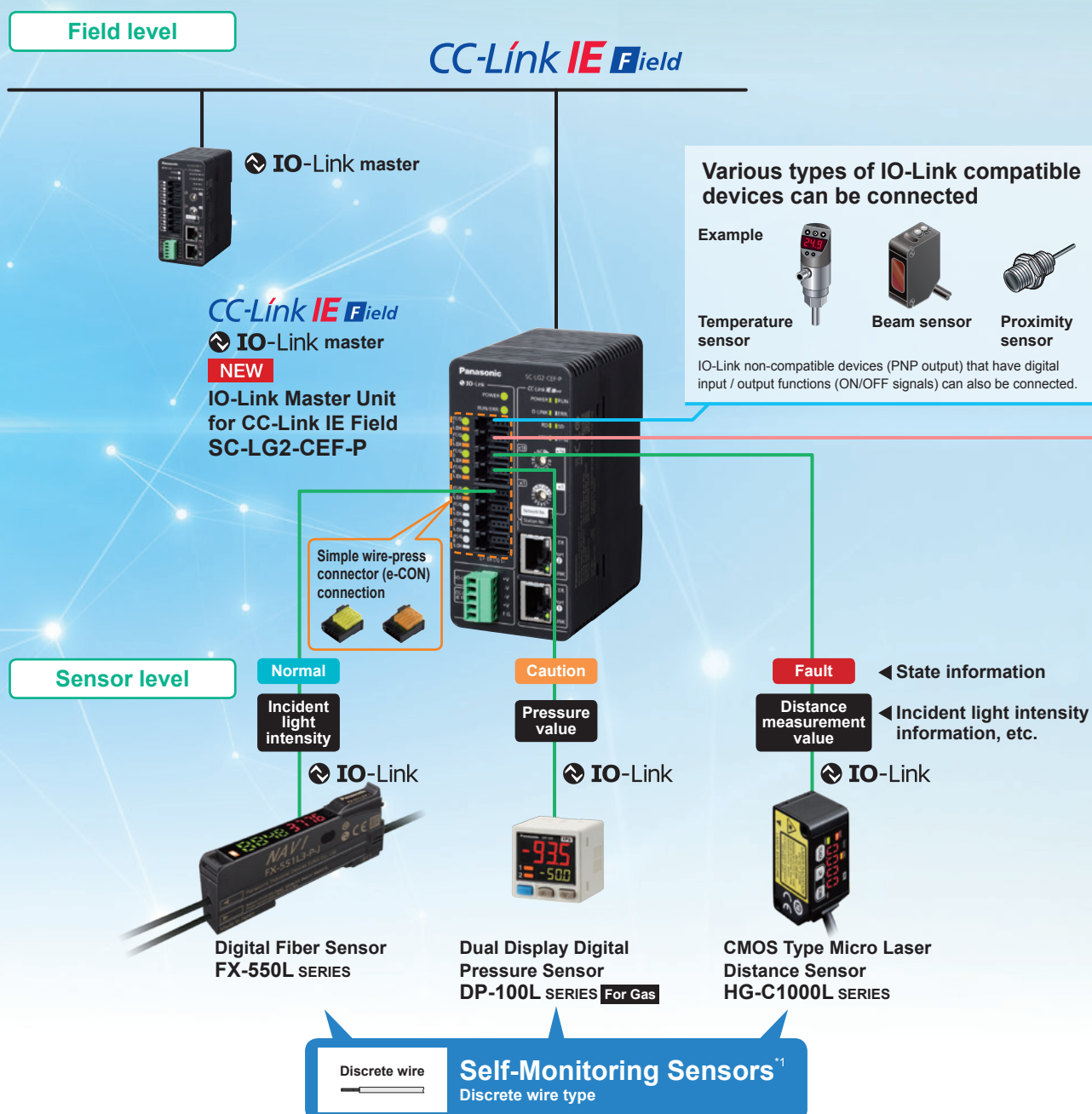
Collecting on-site sensor-level information is essential to making the manufacturing floor “visible” and IoT enabled.

Panasonic provides an information collection solution that is easy, low-cost, and maintains information quality. Using Panasonic’s self-monitoring sensors and IO-Link master, incident light intensity, pressure values, and distance measurement values can be sent as digital data with certitude to a host controller.

The sensors diagnose their own state and inform you of the result, making it easy to identify the cause of problems.

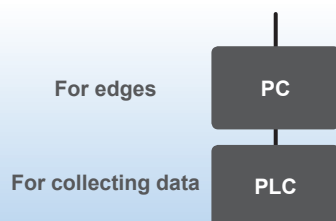
By reducing the amount of data collected, you can alleviate the labor spent organizing and analyzing data.

### Configuration examples of IO-Link compatible devices in *CC-Link IE Field*



<sup>\*1</sup> Can be connected to any manufacturer's IO-Link master that supports various field networks.

## Controller level

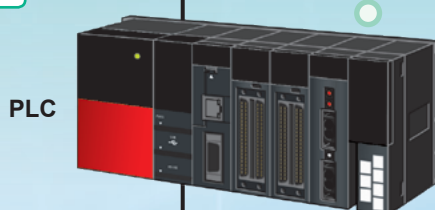


## Examples of use in on-site FA

Predictive maintenance  
Remote monitoring  
Zero downtime  
Traceability

Improved productivity  
Reduced cost  
Improved quality

## Field level



### Typical field network

CC-Link IE Field CC-Link  
EtherCAT® DeviceNet®  
EtherNet/IP® Modbus TCP

\* CC-Link IE Field and CC-Link are trademarks of Mitsubishi Electric Corporation, and are controlled by the CC-Link Partner Association.  
DeviceNet and EtherNet/IP are registered trademarks of ODVA (Open DeviceNet Vendor Association, Inc.).  
EtherCAT is a registered trademark of Beckhoff Automation GmbH.  
Modbus is a registered trademark of Schneider Automation, Inc.



## Sensor level

IO-Link

Compact & Robust  
Safety Light Curtain  
SF4D SERIES



**NEW**  
IO-Link  
Communication Unit  
for SF4D series<sup>\*1</sup>  
SFD-WL3



M12 connector



Smartclick compatible<sup>\*2</sup>

**Self-Monitoring Sensors<sup>\*1</sup>**  
M12 connector type

**Easy post-installation  
connection!**

Safety Light Curtain  
information can be  
collected by IO-Link with  
no changes to safety  
circuits!

Wire-saving  
Y-shaped Connector  
SFB-WY1<sup>\*3</sup>



Safety PLC  
Safety controllers

<sup>\*1</sup> Can be connected to any manufacturer's IO-Link master that supports various field networks.

<sup>\*2</sup> Smartclick is a registered trademark of Omron Corporation.

<sup>\*3</sup> Wire-saving Y-shaped connector SFB-WY1 is an option of the SF4D series.



## ORDER GUIDE

### IO-link master unit

Simple wire-press connector (e-CON) is not included with the IO-Link master unit. Please purchase separately.

Type	Model No.	Description
IO-Link master unit for CC-Link IE Field	<b>SC-LG2-CEF-P</b>	By connecting this to an IO-Link compatible device, you can acquire measurement data and set and acquire parameters from CC-Link IE Field communication. You can also connect this to an IO-Link non-compatible device (PNP output) that has digital input / output functions (ON/OFF signal). You can acquire the input state of the ON/OFF signal of the IO-Link non-compatible device from CC-Link IE Field communication, and output the ON/OFF signal to the IO-Link non-compatible device.



CC-Link IE Field  
IO-Link master

### IO-Link compatible devices (Self-monitoring sensors)

Type	Model No.	Control output
Digital fiber sensor <b>FX-550L series</b>		
Discrete wire type	<b>FX-551L3-P-C2</b>	
Dual display digital pressure sensor [For gas] <b>DP-100L series</b>		
Discrete wire type	<b>DP-101ZL3-M-P</b>	PNP open-collector transistor
	<b>DP-102ZL3-M-P</b>	
CMOS type micro laser distance sensor <b>HG-C1000L series</b>		
Discrete wire type	<b>HG-C1030L3-P</b>	
	<b>HG-C1050L3-P</b>	
	<b>HG-C1100L3-P</b>	
	<b>HG-C1200L3-P</b>	
	<b>HG-C1400L3-P</b>	

Note: For details on each sensor, refer to the self-monitoring sensor catalog or our website.

## OPTIONS

### Simple wire-press connector (e-CON)

- **CN-EP2** [5 pcs. per set]
  - Applicable wire: 0.1 to 0.5 mm<sup>2</sup> (AWG27 to 20)
  - Wire diameter without jacket: ø1.0 to ø1.15 mm ø0.039 to ø0.045 in
  - Plug housing color: Yellow
- **CN-EP3** [5 pcs. per set]
  - Applicable wire: 0.1 to 0.5 mm<sup>2</sup> (AWG27 to 20)
  - Wire diameter without jacket: ø0.6 to ø0.9 mm ø0.024 to ø0.035 in
  - Plug housing color: Orange



### IO-Link communication unit for SF4D series

- **SFD-WL3**



You can remotely acquire and manage light incidence margin data and individual beam axis data!  
\* For details, refer to our website.

### Recommended simple wire-press connector (e-CON)\*

Tyco Electronics Japan G.K.  
Model: 1473562-4

### Recommended power connector\*

PHOENIX CONTACT  
Product code: Equivalent to MC1.5/5-ST-3.5AU

\* Contact the manufacturer for details of the recommended products.

## PRECAUTIONS FOR PROPER USE



- Never use this product as a sensing device for personnel protection.
- In case of using sensing devices for personnel protection, use products which meet laws and standards, such as OSHA, ANSI or IEC etc., for personnel protection applicable in each region or country.

### User's Manuals

"SC-LG2-CEF-P User's Manual" and "SC-LG-CEF Configuration Tool User's Manual" are available. These can be downloaded from our website.

## SPECIFICATIONS

Model No.	<b>SC-LG2-CEF-P</b>	
Regulatory compliance	EMC Directive, RoHS Directive	
Supply voltage	24 V DC $\pm 10\%$ , Ripple P-P 10 % or less	
Current consumption	200 mA or less	
Communication method	CC-Link IE Field	
Remote station type	Intelligent device station	
Network number setting	1 to 239 (decimal) [1 to EF (hex)] (0 and 240 or more: Error)	
Cyclic transmission (Maximum number of link points per station)	RX/RX: Maximum 112 points (112 bits) / Maximum 112 points (112 bits) RW/RW: Maximum 132 points (132 words) / Maximum 132 points (132 words)	
Transient transmission	For server function only, message size: 2 kbytes (maximum)	
Number of ports	1000BASE-T Ethernet port (RJ45) × 2	
Station number setting	1 to 120 (decimal)(0 and 121 or more: Error)	
Communication speed	1 Gbps	
Communication cable	Category 5e or higher Ethernet cables that satisfy the 1000BASE-T standard (Double shielded twisted pair cable or straight cable)(Note 1)	
Transmission line type	Line type, star type (line/star mixed type also possible), ring type	
Maximum distance between stations	100 m <b>328.084 ft</b>	
Maximum number of stations that can be connected	121 (1 master station, 120 slave stations)	
Maximum number of stages of cascade connection	20	
Current consumption	150 mA or less (excluding the current consumption of connected IO-Link devices)	
Allowable passing current	3 A or less (Note 2)	
Communication method	IO-Link V1.0 / V1.1	
Number of ports	e-CON compliant connector port for IO-Link × 8	
Communication speed	COM1 (4.8 kbps), COM2 (38.4 kbps), COM3 (230.4 kbps) Automatically set by IO-Link device	
Current supplied to device (L+, L-)	Maximum 200 mA per port (Note 2)	
IO-Link mode	Compliance with the IO-Link standard	
Digital I/O (C/Q) (Note 2)(Note 3)	SIO mode	
	During input setting	PNP input (Sink current: Max. 15 mA)
	During output setting	Push-pull output (Drive capacity: Max.100 mA)
Digital input (DI) (Note 2)(Note 3)	PNP input (Sink current: Max. 15 mA)	
Communication cable	Unshielded	
Maximum cable length	20 m <b>65.617 ft</b>	
IO-Link connector	e-CON compliant connector (4-pin type)(Note 4)	
Ambient temperature	-10 to +55 °C <b>+14 to +131 °F</b> (No dew condensation or icing allowed), Storage: -20 to +70 °C <b>-4 to +158 °F</b>	
Ambient humidity	35 to 85 % RH, Storage: 35 to 85 % RH	
Voltage withstandability	1,000 V AC for one min. between all supply terminals connected together and enclosure	
Insulation resistance	20 MΩ or more with 250 V DC megger between all supply terminals connected together and enclosure	
Vibration resistance	10 to 150 Hz frequency, 0.75 mm <b>0.03 in</b> double amplitude (10 to 58 Hz), maximum acceleration 49 m/s <sup>2</sup> (58 to 150 Hz) in X, Y, and Z directions for two hours each	
Shock resistance	98 m/s <sup>2</sup> (10 G approx.) in X, Y, and Z directions three times each	
Grounding method	Power supply connector is equipped with a frame ground (F.G.) RJ45 connector shield: Directly connected to ground terminal Internal circuit: C coupling, Casing: Floating type	
Limit to the number of flash memory save operations	100,000 (Note 5)	
Material	Case: Polycarbonate	
Weight	Net weight: 210 g approx., Gross weight: 270 g approx.	
Accessory	Power supply connector: 1 pc.	

- Notes: 1) Use a cable recommended by CC-Link Partner Association.  
2) Take care that the total consumption current of connected devices and the unit on the IO-Link side does not exceed the allowable passing current.  
Power to devices (L+, L-), digital I/O (C/Q), and digital input (DI) are supplied from IO-Link (+V, -V) on the power supply connector.  
3) Operation settings for digital I/O (C/Q) and digital input (DI) must be configured with CC-Link IE Field.  
If operation settings are not configured, they will not operate.  
4) For the connectors for connecting devices to this product, purchase simple wire-press connector (e-CON) **CN-EP2** (5 pcs. set) or **CN-EP3** (5 pcs. set) or the recommended product.  
5) This product saves settings in internal flash memory.

## DIMENSIONS (Unit: mm in)

The CAD data can be downloaded from our website.

