 New model

CC-Link communication unit

UC1-CL11

Management and control of sensors over a network

- Mitsubishi Electric iQSS support
- Reduces wires and saves space
- Remote monitoring of sensors

FASTUS

FASTUS is a product brand of Optex FA.

Related products

Supported fiber sensors **D3RF** P.110

Supported amplifier units **CDA** P.450

Supported displacement sensors **CD22** P.464

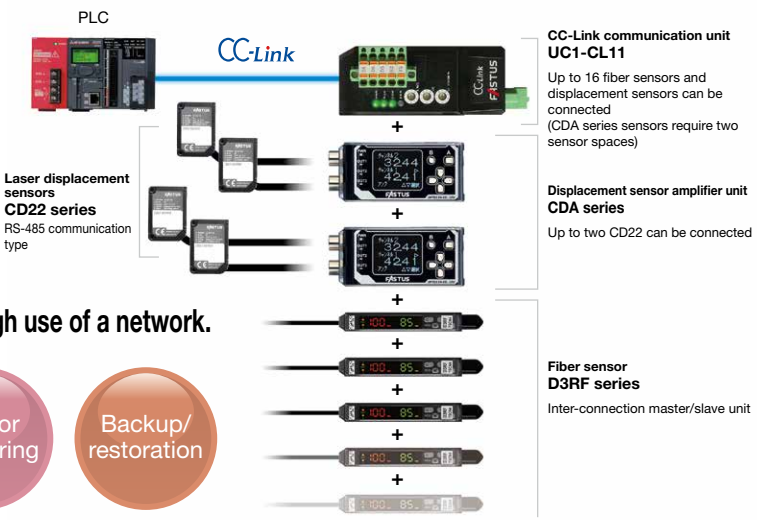
Selection table

Type	Connectable models	Model
CC-Link communication unit	○Fiber sensor D3RF series inter-connection master/slave unit P.110 ○Displacement sensor amplifier unit CDA series P.450	**UC1-CL11**

A communication unit that drastically improves workability!

Communication unit UC1-CL11 enables the D3RF series fiber sensors or the CD22 series laser displacement sensors* to be connected to CC-Link networks. Because sensors can be managed over a network, it is now possible to easily monitor receiving light quantity and measurement values, remotely operate sensors, and back up set values.

*A CDA series displacement sensor amplifier unit is necessary for the CD22 series.



Various production site problems can be solved through use of a network.

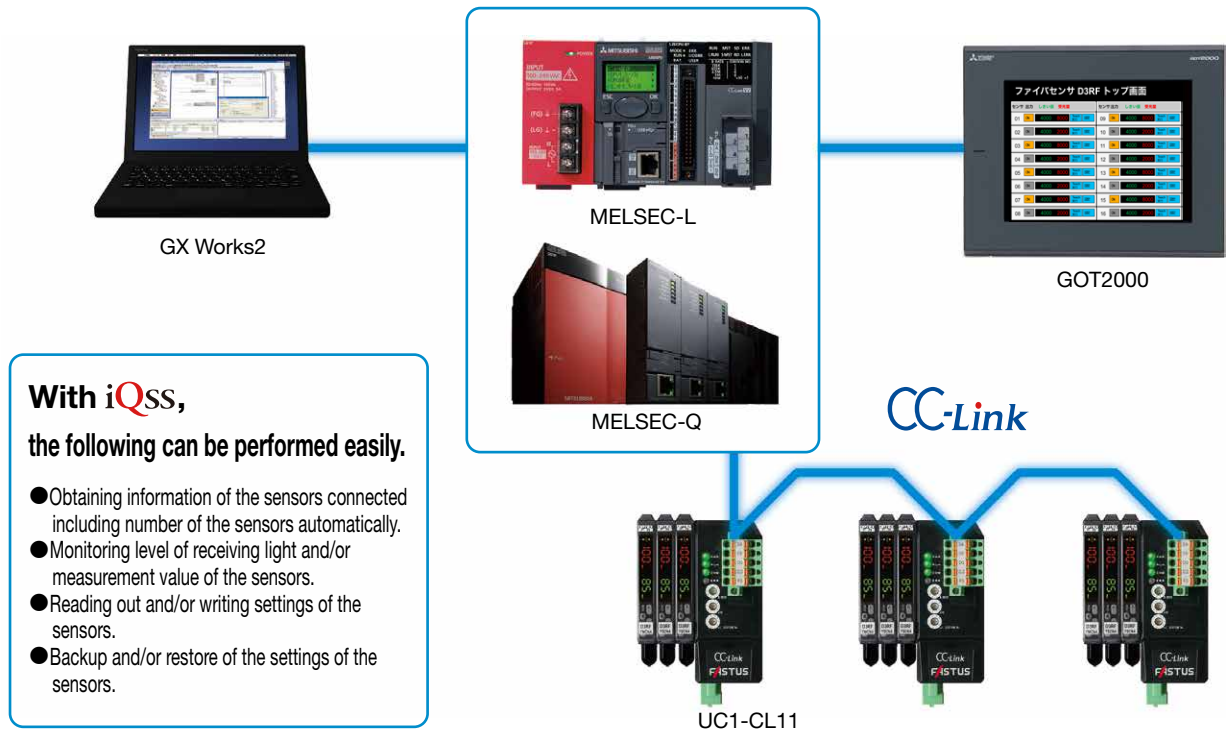
Simple programming | Simple tuning | Simple startup | Sensor monitoring | Backup/ restoration

Mitsubishi iQ Sensor Solution (iQss) support

Linkage of sensor, PLC, GOT and engineering platform.

Sensors can be operated over CC-Link networks using Mitsubishi Electric's GX Works2.
By connecting and linking devices, batch management is enabled and increased workability is possible.

[Connection example]



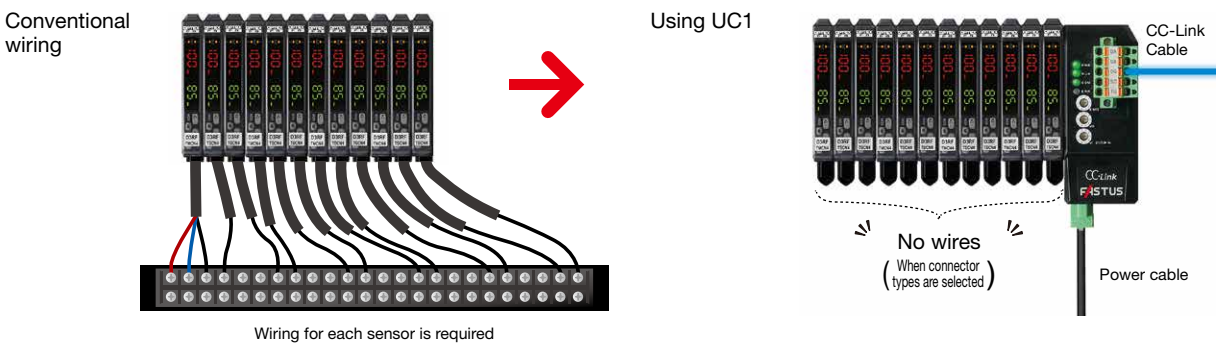
With iQss,
the following can be performed easily.

- Obtaining information of the sensors connected including number of the sensors automatically.
- Monitoring level of receiving light and/or measurement value of the sensors.
- Reading out and/or writing settings of the sensors.
- Backup and/or restore of the settings of the sensors.

Reduces wires and saves space

Reduces workload of wiring and setup drastically.

Only 2 cables, including a power supply cable and CC-Link cable, are needed, enabling time spent on wiring to be shortened. Space saving is made possible as the need for multiple sensor cables is eliminated.



CC-Link communication unit UC1-CL11

For improving traceability and maintainability

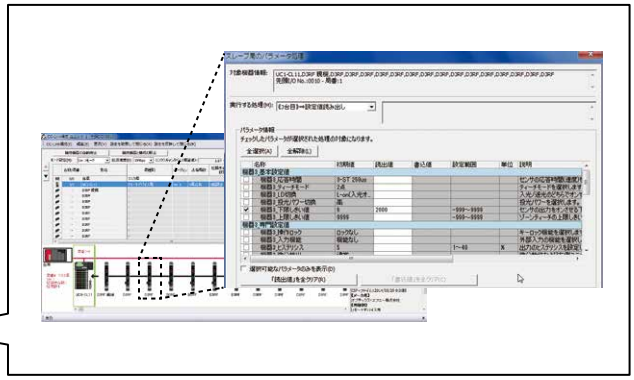
Determining which sensor is the cause of device malfunctions takes time, and determining the underlying cause consumes man-hours. By connecting all sensors used in the production line to CC-Link network, you will be able to improve traceability and maintainability drastically.

Reading out/writing settings of the sensors

By reading out and saving sensor settings in advance, past settings and current settings can be compared to easily identify the causes of malfunctions. By inputting the correct settings for the sensor that caused the malfunctions, it is possible to restore the system instantly.

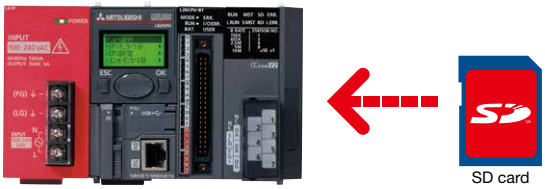
Conventionally
Necessary to examine settings manually one by one

Using UC1
Management of settings is possible by clicking the sensor icon.



Backup and restore settings into SD memory card

It is possible to backup setting parameters of sensors in the SD memory card and restore the data into sensors from the SD memory card on the PLC. A computer is not necessary when replacing sensors, enabling device operation to be restarted quickly.



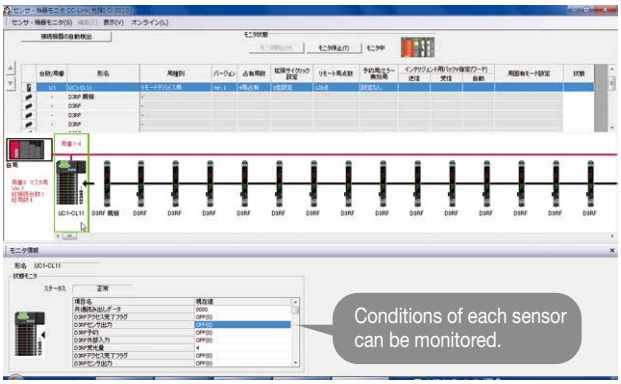
MELSEC-L

SD card

Remote monitoring of sensors

Monitoring level of receiving light and/or measurement value of the sensors

When a device operating abnormality is found, it is possible to remotely confirm the receiving light quantity and settings of the sensors over the network. This enables conditions to be confirmed quickly without entering the worksite.



Specifications

CC-Link specifications	CC-Link version	Ver. 1.10
	No. of occupied stations	2/3/4 stations (automatic switching type) [2 occupied stations] 8 or fewer supported sensors can be connected [3 occupied stations] 9 to 12 supported sensors can be connected [4 occupied stations] 13 to 16 supported sensors can be connected (One CDA unit requires two spaces)
	Station type	Remote device station
	Baud rate	156 kbps/625 kbps/2.5 Mbps/5 Mbps/10 Mbps
	Overall length	1,200 m / 600 m / 200 m / 150 m / 100 m
	Station number setting	1 to 63
Connected devices	Connectable models	D3RF series inter-connection master and slave unit CDA series master unit and slave unit
	No. of connectable units	Up to 16 units *(One CDA unit requires two spaces)
	Connection type	5-pin connector for linking (functions as a linking end unit)
Indicators		Power indicator: green LED / Operation indicator: green LED Communication indicator: green LED / Error indicator: red LED

*The maximum number of connectable D3RF units varies according to the ambient temperature.

Ambient temperature (°C)	-25 to +55°C	-25 to +50°C	-25 to +45°C
Maximum No. of connectable D3RF units	1 to 3 units	4 to 8 units	9 to 16 units

Settings	Station number setting	10-digit rotary switch × 2
	Communication speed	10-digit rotary switch × 1
Connection type		2-pole terminal block connector
Rating	Supply voltage	12 to 24 VDC, including ±10% ripple (p-p)
	Current consumption	160 mA or less (at 12 VDC)
Warm-up time		1.5 s or less
Protection circuit		Reverse connection protection
Environmental resistance	Ambient temperature/humidity	-25 to +55°C / 35 to 85% RH (no freezing or condensation)
	Storage temperature/humidity	-40 to +70°C / 35 to 85% RH
	Vibration resistance	10 to 55 Hz; double amplitude 1.5 mm; 2 hours in each of the X, Y, and Z directions
	Shock resistance	500 m/s² (approx. 50 G), 3 times in each of the X, Y, and Z directions
	Degree of protection	IP50
Applicable regulations		EMC directive (2004/108/EC)
Applicable standards		EN 61000-6-2, EN 55011
Company standards		Noise resistance: Feilen Level 3 cleared
Mounting		35 mm DIN rail
Material		PC
Included accessories		Connector for CC-Link communication, terminating resistor, power connector, end plates (2 pieces), instruction manual

Dimensions

(Unit: mm)