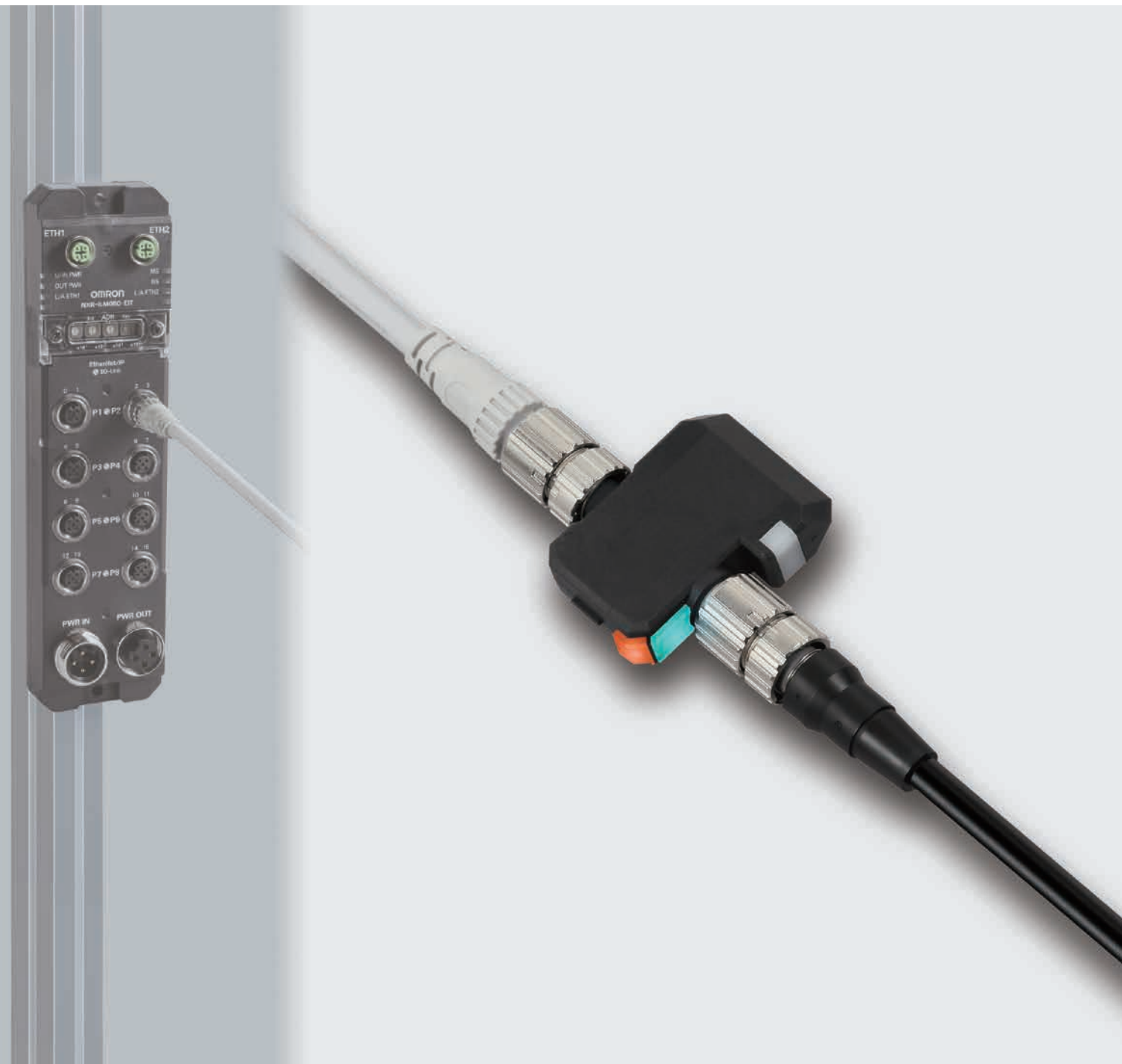


Converts analog signals to IO-Link  
Contributes to reducing wiring between  
control panels and equipment

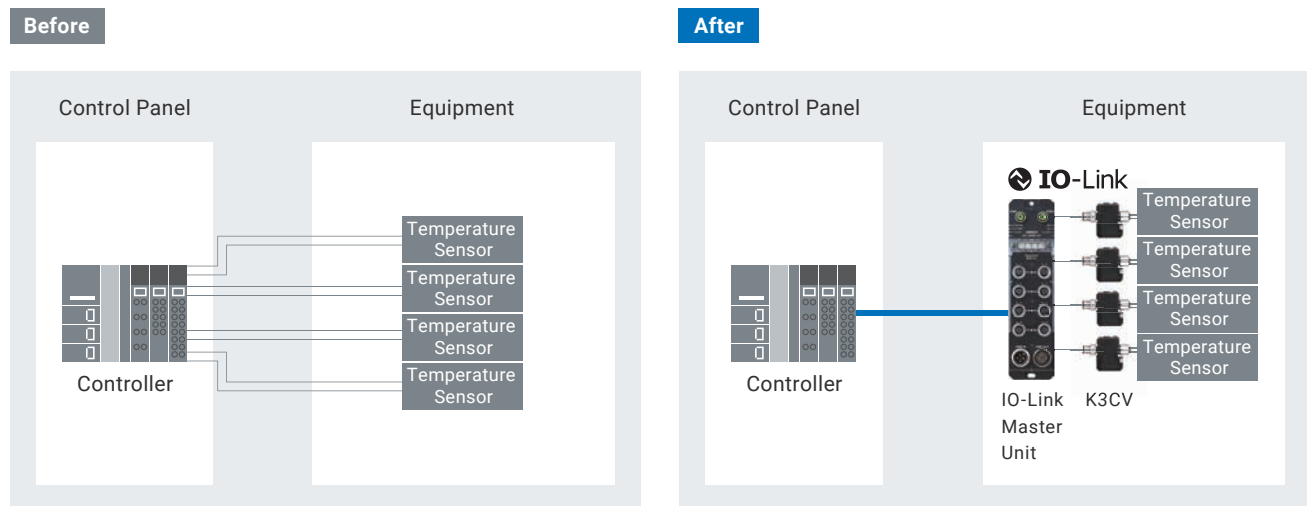


# IO-Link communication makes device design and facility layout easy

By converting analog sensor signals to IO-Link, process data can be transmitted as digital signals, reducing the cost required for wiring from the control panel to the equipment. Increases flexibility in equipment design and facility layout.


## Contributes to reduced wiring between control panels and equipment

Until now, when connecting a controller inside a control panel to an analog sensor on the equipment side, it was necessary to run more cables than the number of sensors. By connecting the K3CV to an IO-Link master unit, the amount of wiring between the control panel and the equipment can be reduced.




Reduces wiring between control panels and equipment

## Supports connectivity with a wide range of accessories



IO-Link Master Unit NXR-  
Ex. ILM08C-EIT




Protects the fixed  
part of the AD  
converter

### Wiring between IO-Link master unit and AD converter

Example 1: Wiring the NXR Series and AD converter


- Connectors with Cables, Socket and Plug on Both Cable Ends (M12 SmartClick)  
XS5W-D421-□81-F



Secure  
installation of  
the AD converter  
to the equipment

Example 2: Wiring of another manufacturer IO-Link terminal (M8 port) and AD converter

- Main Unit Fixture  
K3CV-F-2
- M12 SmartClick, straight (socket) / M8 Screw-on, straight (Plug)  
XS3W-M42D-4C2-A



- Mounting Bracket  
K3CV-F-1  
Available soon

# Consideration of usability in the field

## Easy to install and ready to use

1/8 turn SmartClick for easy connection without tools.

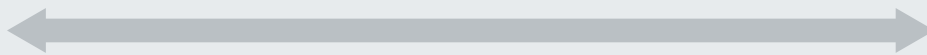


## Display at a glance

Highly visible LED display indicates operating status/errors. Nameplates simplify equipment management.



IO-Link AD Converter  
K3CV



Analog Devices



## Wiring between AD converter and analog devices

Example 1: Converting discrete wires from an analog device to an M12 connector

### ● Assembly Connector Plugs (M12 SmartClick)

- XS5G-D418 (insulation displacement type)
- XS5G-D4C□ (crimping type)
- XS5G-D42□ (soldering type)
- XS5G-D□S□ (screw-on type)



### ● Thermocouple compensation wire WCAG-N/40

If you are using a compensation lead wire, use the following connector.  
Model XS5G-D423 (Straight connectors)  
XS5G-D424 (Right-angle connectors)

Pattern 2: Converting an analog device with an M8 connector to an M12 connector

### ● M12 SmartClick, straight (Plug) / M8 Screw-Fixed Straight (Socket)

XS3W-M42C-4C2-A



### ● General thermometers, pressure gauges, flow meters, etc.

# Model

## IO-Link AD Converter main unit

Input Type	Input type details	model
Analog Input	Analog current 4 to 20mA	K3CV-1ADIA-IL3
	Analog current 0 to 20mA	K3CV-1ADIB-IL3
	Analog voltage 0 to 10V	K3CV-1ADVA-IL3
	Analog voltage -10 to 10V	K3CV-1ADVB-IL3
Thermocouples	K thermocouple -20.0 to 500.0°C	K3CV-1TCKA-IL3
Resistance temperature detector	Resistance temperature detector: -200.0 to 500.0°C	K3CV-1PTPA-IL3

## Dedicated options

name	Model
Mounting Bracket	K3CV-F-1
Main Unit Fixture*	K3CV-F-2

- K3CV-F-2 fixture can only be used with our IO-Link Master Units NXR-ILM08C-EIT/NXR-ILM08C-ECT.
- K3CV-F-1 mounting bracket is available soon

QR code is the registered trademark of DENSO WAVE.  
Smartclick is a trademark or registered trademark of OMRON Corporation in Japan and other countries.

**Note: Do not use this document to operate the Unit.**

**OMRON Corporation Industrial Automation Company**  
**Kyoto, JAPAN** **Contact : [www.ia.omron.com](http://www.ia.omron.com)**

**Regional Headquarters**

**OMRON EUROPE B.V.**  
Wegalaan 67-69, 2132 JD Hoofddorp  
The Netherlands  
Tel: (31) 2356-81-300 Fax: (31) 2356-81-388

**OMRON ASIA PACIFIC PTE. LTD.**  
438B Alexandra Road, #08-01/02 Alexandra  
Technopark, Singapore 119968  
Tel: (65) 6835-3011 Fax: (65) 6835-3011

**OMRON ELECTRONICS LLC**  
2895 Greenspoint Parkway, Suite 200  
Hoffman Estates, IL 60169 U.S.A.  
Tel: (1) 847-843-7900 Fax: (1) 847-843-7787

**OMRON (CHINA) CO., LTD.**  
Room 2211, Bank of China Tower,  
200 Yin Cheng Zhong Road,  
PuDong New Area, Shanghai, 200120, China  
Tel: (86) 21-6023-0333 Fax: (86) 21-5037-2388

**Authorized Distributor:**

©OMRON Corporation 2025 All Rights Reserved.  
In the interest of product improvement,  
specifications are subject to change without notice.  
**CSM\_1\_1**  
**Cat. No. H242-E1-01** 0625 (0625)