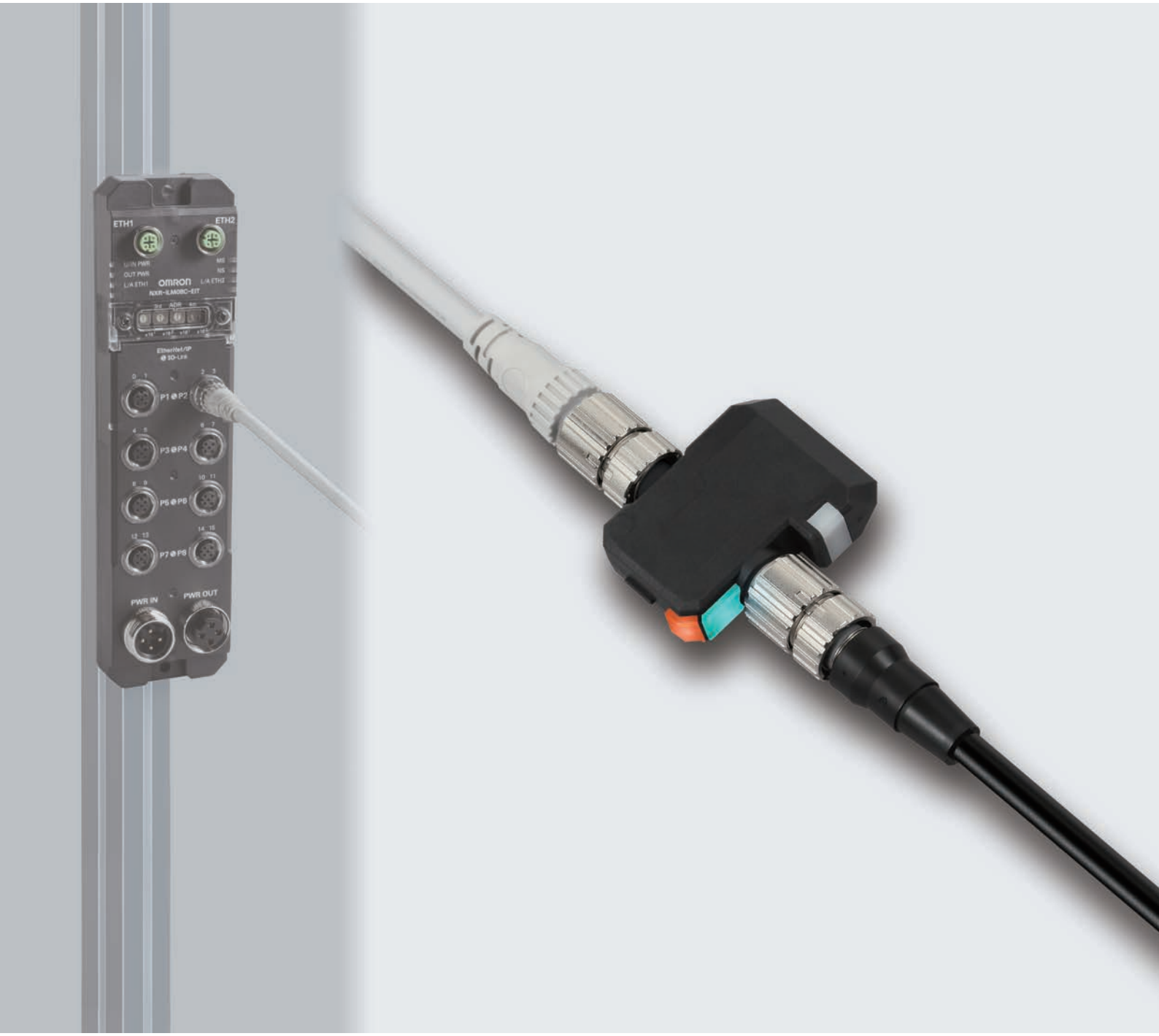
K3CV series
IO-Link AD Converter

OMRON

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



IO-Link

Smartclick

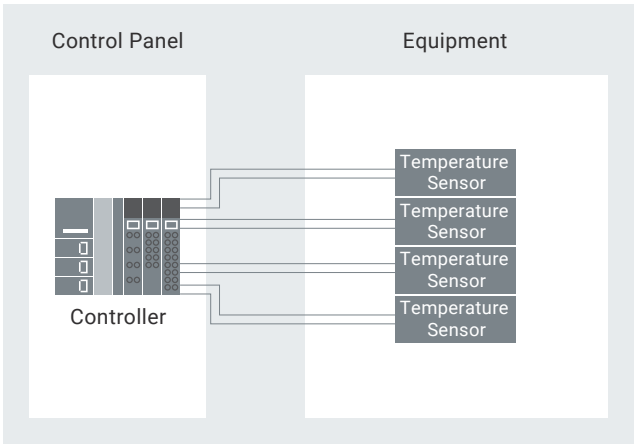
IO-Link communication makes device design and facility layout easy

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.

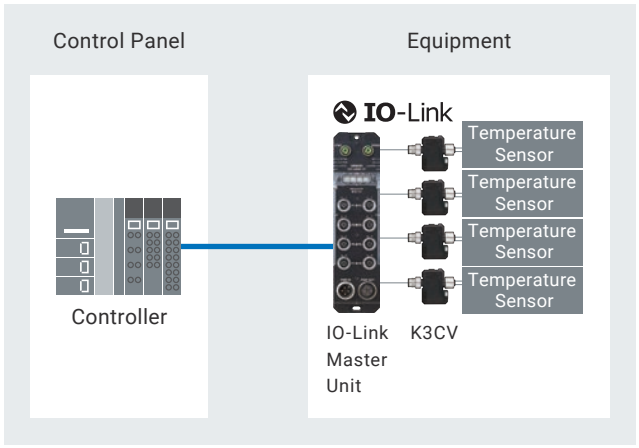
Contributes to reduced wiring between control panels and equipment

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.

Before



After



Reduces wiring between control panels and equipment

Supports connectivity with a wide range of accessories

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

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

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

●M12 SmartClick, straight (socket) / M8 Screw-on, straight (Plug)

XS3W-M42D-4C2-A

Protects the fixed part of the AD converter

●Main Unit Fixture

K3CV-F-2

Secure installation of the AD converter to the equipment

●Mounting Bracket

K3CV-F-1

●DIN Track Mounting Adapter

K3CV-F-3

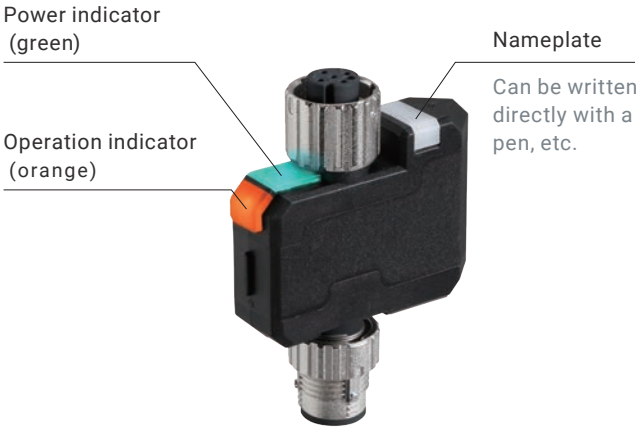
Consideration of usability in the field

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

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
DIN Track Mounting Adapter	K3CV-F-3

•K3CV-F-2 fixture can only be used with our IO-Link Master Units NXR-ILM08C-EIT/NXR-ILM08C-ECT.

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

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