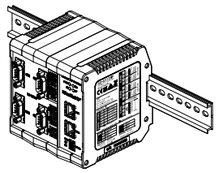
AD-8552EIP
EtherNet/IP Converter

★日本語の取扱説明書は反対面をご覧ください。

Simplified Instruction Manual



Refer to the instruction manual on the A&D home page.
URL:（https://link.aandd.jp/AD-8552EIP_EN）

Product Page

About this manual

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A&D Company, Ltd.

1WMPD4004701A

Safety Precautions

To prevent accidents due to inappropriate handling, this manual contains the following warning signs and marks. The meanings of these warning signs and marks are as follows.

⚠Caution	A potentially hazardous situation which, if not avoided, may result in personal injury or property damage.

Before use, confirm the following items for safe operation.

- This device is a precision instrument. Please handle with care.
- Avoid vibration, shock, extremely high temperature and humidity, direct sunlight, dust, splashing water, air containing salt or corrosive gases, and places where flammable gases are present.
- The operating temperature is 0°C to +50°C (32°F to 122°F).
- Please ground the module.
- The power supply is DC24V. If it contains a momentary power failure or noise components, that may cause a malfunction. Use a stable power supply. Please avoid sharing with the power line.
- Do not share the earth ground line and power line with other electrical power equipment.
- Do not turn on the converter until installation is complete. The convertor is not equipped with a switch to turn it off.

To prevent foreign matter from entering this device, do not remove the protective cover until the installation and wiring are completed. Also, to prevent overheating, be sure to remove the protective cover before turning on the power after installation and wiring.

1. Introduction

This manual is an outline of the AD-8552EIP and the instructions for setting up and installing the equipment. Refer to the A&D website for more information on the compatible weighing devices and communication protocols.（https://www.aandd.jp/）

2. Features

The AD-8552EIP converts RS-232C communications of the weighing device into EtherNet/IP communications (EtherNet/IP converter).

- By using EtherNet / IP, the balance can be controlled directly from the network.
- The weighing value can be reset to zero (re-zero) by operating from the PLC.
- The hook on the back of this device allows one-touch DIN rail mounting.

When connected to a AD-4212C, etc., response speed can be changed, Sensitivity adjustment can be done with an external weights, and power can be supplied to the weighing instrument. Please check A&D website for compatible weighing instruments.

3. Specification

3-1. Specification

Voltage requirement	DC 24 V +10%、-15%
Power requirement	9W Max. (When power is supplied to 4 units such as an AD-4212C)
Communication interface	EtherNet/IP ×2 (For connection to control equipment) RS-232C× 4 (For connection with a weighing instrument)
Operating conditions	0℃ to +50℃, Max 85 %RH (no condensation)
External dimensions	105 (W)×112 (H)×103 (D) mm
Accessory	Simplified instruction manual
Mass	Approximately 440 g

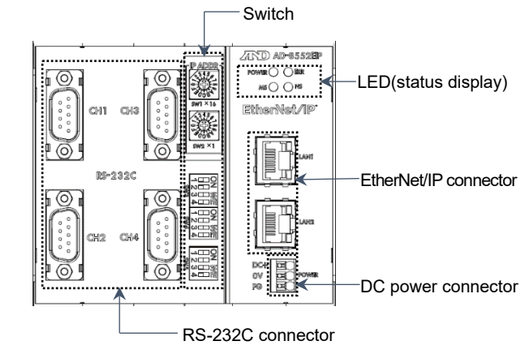
3-2. Communication specification (EtherNet/IP)

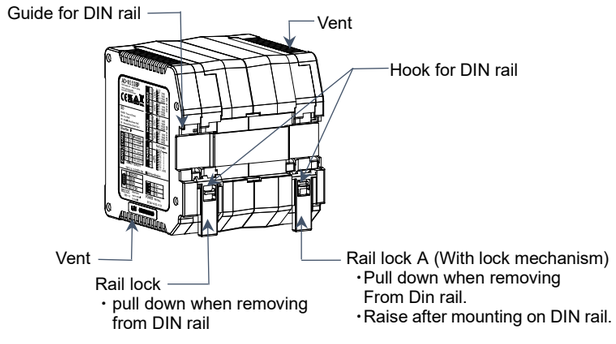
Communication standard	EtherNet/IP (CT18 compliant)
Vender ID	188
Device type	43(0x2B):Generic Device
Transmission speed	10/100Mbps (automatic negotiation)
Communication method	Full duplex / half duplex (automatic negotiation)

3-3. Communication specification (RS-232C)

Baud rate	2400, 9600, 19.2k, 38.4k (Set by SW-3, 4.)
Data bit length	7 bit fixed
Parity	EVEN fixed
Terminator	<CR><LF> fixed

4. Front and Rear Panel

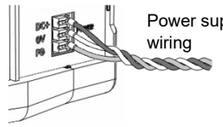




5. Connections

5-1. Power supply

- **Connections example**
  - ☐ When connecting and removing the cables, push the buttons with a driver etc.
  - ☐ We recommend use of rod type crimp terminals for the tips of cables.



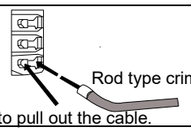
Power supply wiring

DC+・・・ Input terminal of power supply (24V)
0V・・・・ Input terminal of power supply (0V)
FG・・・・ Function ground terminal

※Shields of the RS-232C connector are connected internally to the FG of the power connector.

⚠ CAUTION.

- Do not use the product at a voltage exceeding the rated voltage (DC24V +10%-15%).
- Ground the FG terminal of the switching power supply used for the power supply.

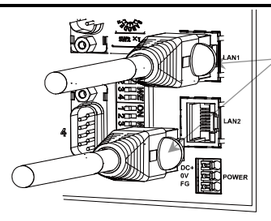


Rod type crimp terminal

Push button to pull out the cable.

Clamp range（rated）		0.2 mm² ~ 1.5mm²
Applicable wire	AWG	AWG24 ~AWG16
	Solder plated wire	0.2 mm² ~ 1.5mm²
	Strand	0.2 mm² ~ 1.5mm²
	Bar crimp terminal DIN46228 Part1	0.25 mm² ~ 1.5mm²
	Bar crimp terminal (With color) DIN46228 Part4	0.25 mm² ~ 0.75mm²
Length		8mm

5-2. Ethernet/IP



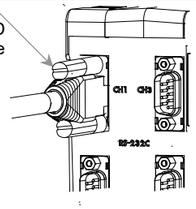
LAN Cable
（Shielded twisted pair cable, Straight / cross, CAT5e or more）

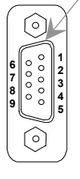
・Connection to PLC, HUB or PC, etc.

★ A LAN cable is not included. Please use a commercially available product.

5-3. RS-232C

RS-232C cable
(Please check information on the A&D website for cables compatible with the individual weighing instrument.)





Pin No.	Signal	Direction	Description
1	(Vs)	Output	Output of power supply 0V※
2	RXD	Input	Received data
3	TXD	Output	Transmission data
5	SG	-	Signal ground
9	(Va)	Output	Output of power supply 12V※
Shell	-	-	Shield

★ When using some weighing devices, such as AD-4212C, the power from this device can be used to operate the weighing device, and wiring of the power supply is not required. Please check the A&D website for the compatible models

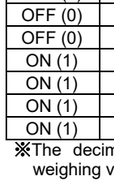
6. Switch

Change the switch settings according to your operating environment.
Be sure to turn off the AD-8552EIP after changing the setting.
When the power is turned on, the switch setting change is reflected.

6-1. Communication setting for EtherNet/IP

SW-1	SW-2	IP address
0	0	It will be the address set in the web interface.
0	1	[192.168.0.1]
n1	n2	[192.168.0. (n1×16 + n2×1)]
F	E	[192.168.0.254]
F	F	[192.168.1.10]

<Setting example>



When set as shown on the left
SW-1 : 2 → n1 = 2
SW-2 : 4 → n2 = 4

4th octet = n1×16 + n2 ×1
= 2 ×16 + 4 ×1
= 32 + 4
= 36

IP address = [192. 168. 0. 36]

★ Set the IP address so that it does not duplicate that of other devices.

6-2. Communication setting for RS-232C

SW-3	No.1	No.2	CH1:RS-232C baud rate
	OFF (0)	OFF (0)	2400
	OFF (0)	ON (1)	9600
	ON (1)	OFF (0)	19200
	ON (1)	ON (1)	38400
	No.3	No.4	CH2:RS-232C baud rate
	OFF (0)	OFF (0)	2400
	OFF (0)	ON (1)	9600
	ON (1)	OFF (0)	19200
	ON (1)	ON (1)	38400
SW-4	No.1	No.2	CH3:RS-232C baud rate
	OFF (0)	OFF (0)	2400
	OFF (0)	ON (1)	9600
	ON (1)	OFF (0)	19200
	ON (1)	ON (1)	38400
	No.3	No.4	CH4:RS-232C baud rate
	OFF (0)	OFF (0)	2400
	OFF (0)	ON (1)	9600
	ON (1)	OFF (0)	19200
	ON (1)	ON (1)	38400

6-3. Other settings

- Setting of decimal point position

SW-5			Value stored in AD-8552EIP (Eg. Weighing output is123.456 g)	
No.2	No.3	No.4	Decimal position	Weighing value
OFF (0)	OFF (0)	OFF (0)	0	123
OFF (0)	OFF (0)	ON (1)	1	1234
OFF (0)	ON (1)	OFF (0)	2	12345
OFF (0)	ON (1)	ON (1)	3	123456
ON (1)	OFF (0)	OFF (0)	4	1234560
ON (1)	OFF (0)	ON (1)	5	12345600
ON (1)	ON (1)	OFF (0)	6	123456000
ON (1)	ON (1)	ON (1)	3 (AUTO※)	123456

※The decimal point value is automatically set according to the weighing value input.

7. Confirmation

Supply power to the AD-8552EIP to start communication.
It is possible to confirm that the wiring of each cable is connected by the LEDs of the AD-8552EIP

POWER ○○ ERR
MS ○○ NS

Name	Condition
POWER	Lights up when power is supplied (Green)
ERR	Lights up when the unit is not operating normally (Red)
MS	Lights / blinks depending on the status of the unit (Green / Red)
NS	Lights / blinks depending on the EtherNet / IP communication status (Green / Red)

8. Communication protocol

Please check the A&D website for details on the communication protocol.