

General Specifications

LN90 Interface Adapter

GS 01W03L01-01EN

■ GENERAL

This General Specification (GS) describes the specification for Interface Adapter. This product is a RS-485 signal relay and power supply for the "Field Wireless Communication Module FN110" or other equipment. This product enables to connect PLC/RTU and FN110 with inter module code -R1 via a RS-485 interface.

For more details, refer to General Specification of "Field Wireless Communication Module FN110".



■ STANDARD SPECIFICATION

□ POWER SUPPLY SPECIFICATIONS

Input voltage range: 10 to 30 V DC
Rated input: 12 V DC 40 mA or 24 V DC 20 mA
Rated Output: 3.5 V DC 60 mA

□ PERFORMANCE SPECIFICATIONS

Digital Communication:

Communication Mode: RS-485 Half-duplex (2-wire type)
Communication Speed: Max. 38400 bps
Communication Distance: Max. 20 m*1*2
Number of connectable RTU: 1 unit*3

*1: Total length of RTU to FN110.

*2: Dedicated remote antenna cable (3 m length) for connecting to FN110 [Inter module communication code: -R1] is bundled. Please contact us if you want to extend the cable length.

*3: Multidrop connection is not supported.

□ INSTALLATION ENVIRONMENT

Ambient Temperature Limits:

Operating: -40 to 70°C (altitude up to 3000 m)
Storage: -40 to 85°C

Ambient Humidity Limits:

Operating: 5 to 95%RH (non-condensation)
Storage: 5 to 95%RH (non-condensation)

Noise Resistance:

Electric Field : 3 V/m or less (80 to 1000 MHz)
Electrostatic Discharges: 4 kV or less (contact discharge), 8 kV or less (aerial discharge)

Installation location:

Indoors

Vibration Resistance:

0.15 mm P-P (5 to 58 Hz) , 1 G (58 to 150 Hz)

Shock Resistance:

15 G 11 ms

□ REGULATORY COMPLIANCE STATEMENTS

CE Conformity:

EMC Directive:

EN61326-1 Class A Table 2, EN55011 Class A*1

RoHS Directive:

EN IEC 63000

Other Normative Standards:

Safety: EN61010-1 (Indoor use)*2

*1: In order to comply with the EMC standard, mount bundled two ferrite cores "A1193MN" to external power line of this product side.

*2: The EN60950 certified external power source is necessary to comply with safety standards.

□ PHYSICAL SPECIFICATIONS

Housing Material:

Aluminum alloy plate

External Dimension:

95 x 83 x 25.4 mm (not include projection)

Weight:

Approx. 200 g

Mounting:

DIN RAIL Mounting

□ SOFTWARE SPECIFICATIONS

ISA100 Wireless Gateway Assistant:

The installer of ISA100 Wireless Gateway Assistant is included in the DVD-ROM which is bundled with this product. This software does not use for FN110 configuration normally. When detailed configuration is necessary, install this software.

Software License:

1 License

Language:

Software(GUI): English

Manual: English

■ Hardware Operating Environment:

Item	Recommended System Requirements
Processor	Intel Core i5-2520M or equivalent, or higher
Memory	2 GB or more
Hard Disk	8 GB or more
Display	1024×768 or better resolution Recommended OS compatible
Communication Device	USB to Isolated RS-485 adapter

■ Software Operating Environment:

Item	Version
OS*1*2*3	Windows 7 Home Premium
	SP1 or later
	Windows 7 Professional
	SP1 or later
Windows 10 Home	November Update version 1511 build or later
	November Update version 1511 build or later
Windows 10 Pro	November Update version 1511 build or later
FieldMate	R3.02 or later

*1: Both of 32 bit and 64 bit edition and Japanese and English language are supported

*2: For 64 bit OS, WOW64 (Windows 32-bit On Windows 64-bit) can be performed.

*3: Microsoft .NET Framework 4.6.1 is required.

■ MODEL AND SUFFIX CODES

Model	Suffix Codes	Description
LN90	Interface Adapter
General Specifications	--- -A.....	Always A
	Software Media 0	Provided with DVD-ROM
	1	None
Option codes		/□ Optional specifications

■ OPTIONAL SPECIFICATIONS (For Explosion Protected Types)

Please select appropriate equipment in accordance with the laws and regulations of the relevant country/region, when it is used in a location where explosive atmospheres may be present.

Item	Description	Code
IECEx	IECEx Type n Approval Applicable Standards: IEC 60079-0, IEC 60079-15 Certificate: IECEx PRE 17.0019X*1 Ex nA IIC T4 Gc Amb. Temp. (Tamb): -40 to 70°C (-40 to 158°F)	SN27

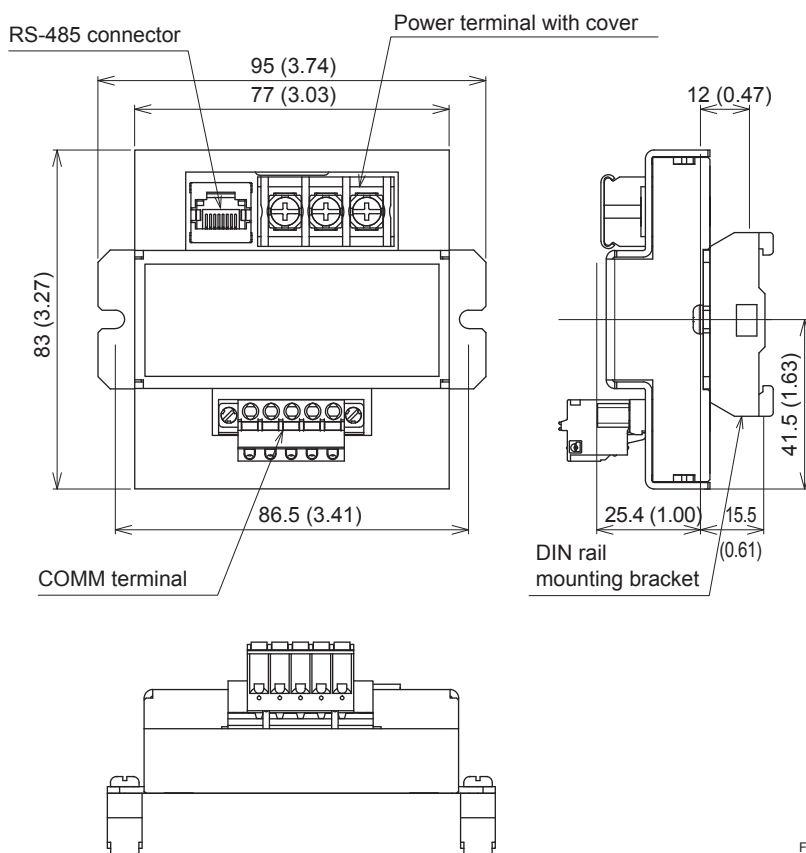
*1: Symbol 'X' denotes the following specific conditions of use:

- Equipment must be installed so that pollution degree 2 in accordance with IEC 60664-1 is maintained inside the enclosure
- Equipment shall be installed in an enclosure that complies with requirements of the standard IEC60079-15 such as metal cabinets with locks and keys and provide a degree of ingress protection not less than IP54. Alternatively it shall be installed in an Ex e enclosure.

■ EXTERNAL DIMENSIONS

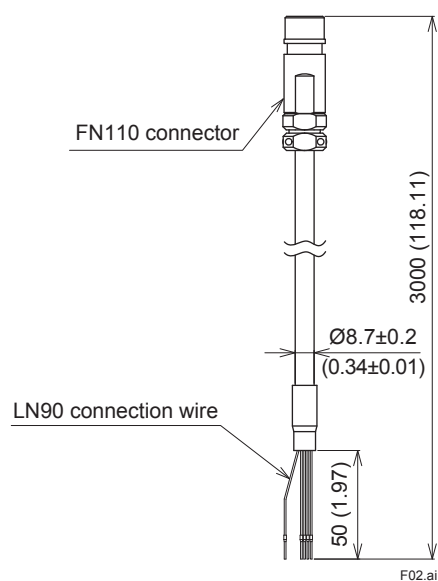
□ Body

Unit: mm (approx. inch)



□ Remote antenna cable

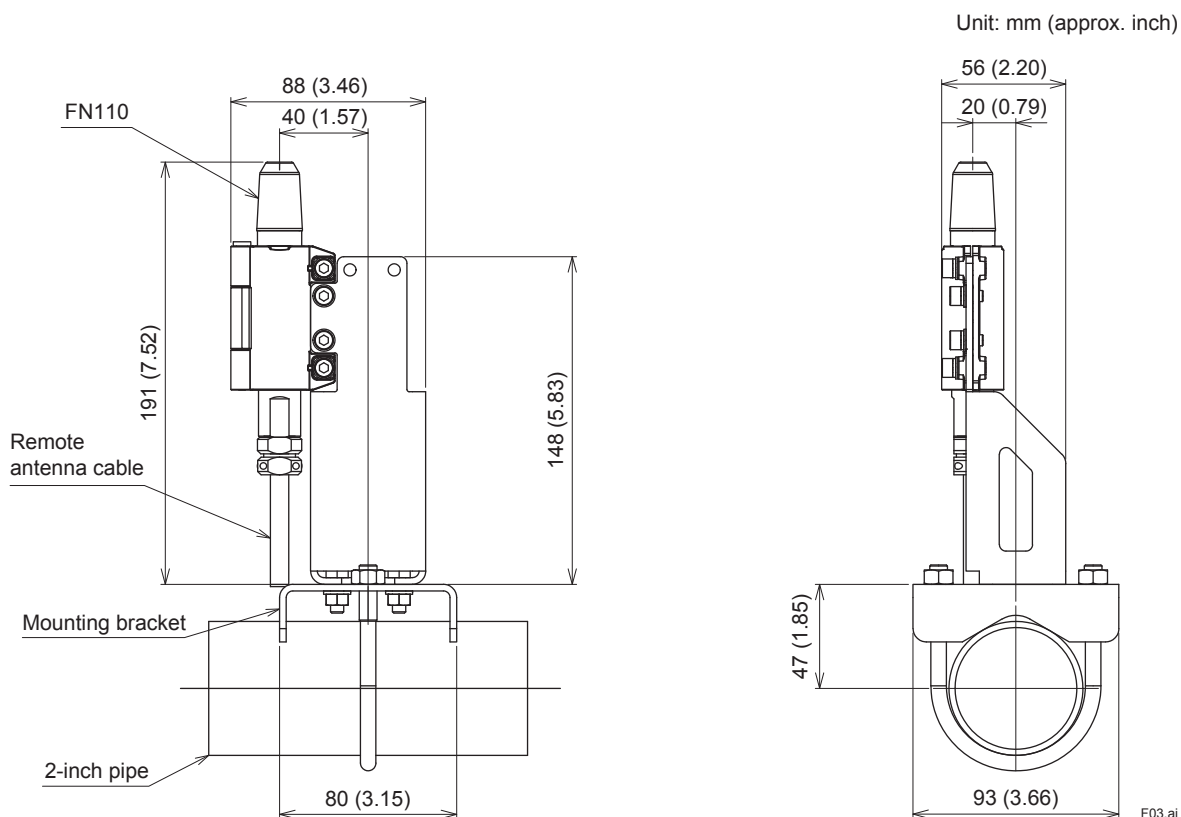
Unit: mm (approx. inch)



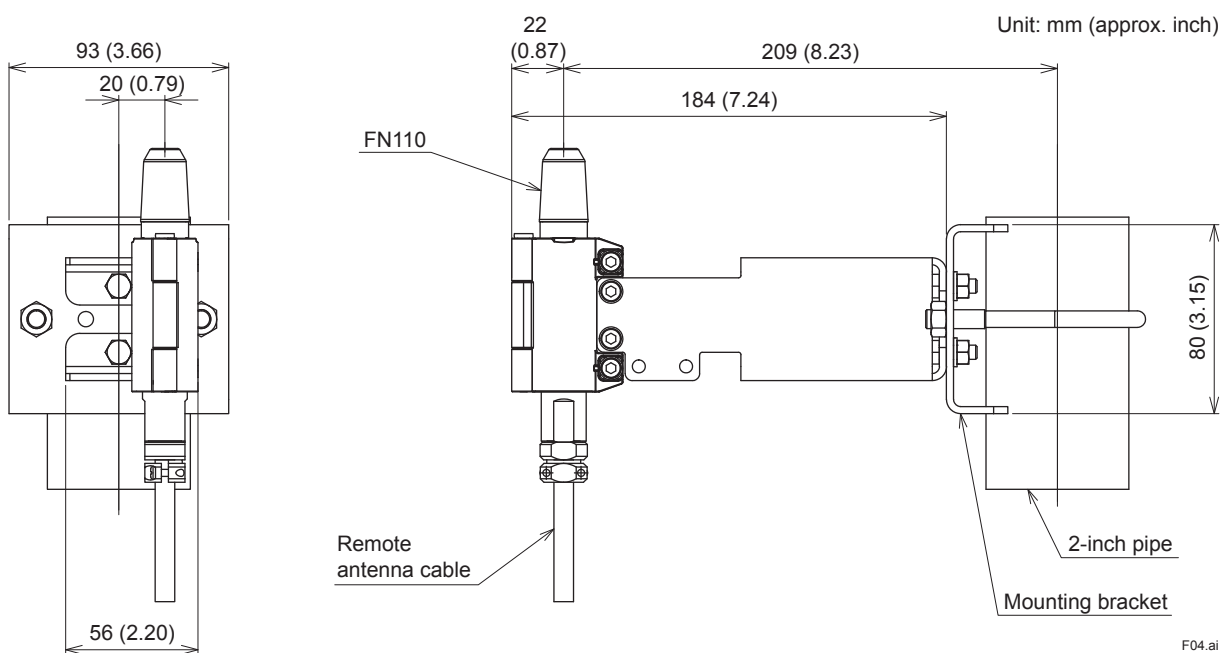
Wire Color	Signal
Uncolored	Frame ground
Black	Signal ground
Red	Power supply
Blue	Transmit/receive data positive
White	Transmit/receive data negative

□ FN110 Mounting Bracket

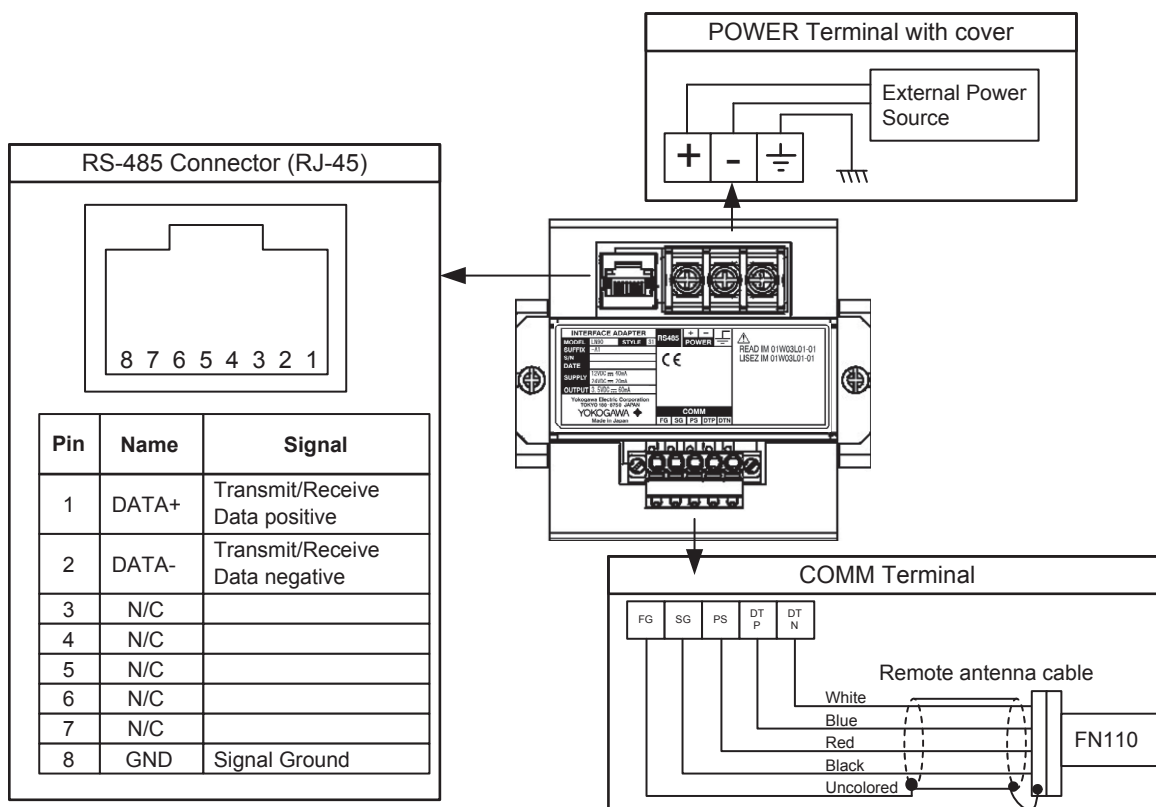
● 2-inch pipe mounting (for horizontal piping)



● 2-inch pipe mounting (for vertical piping)

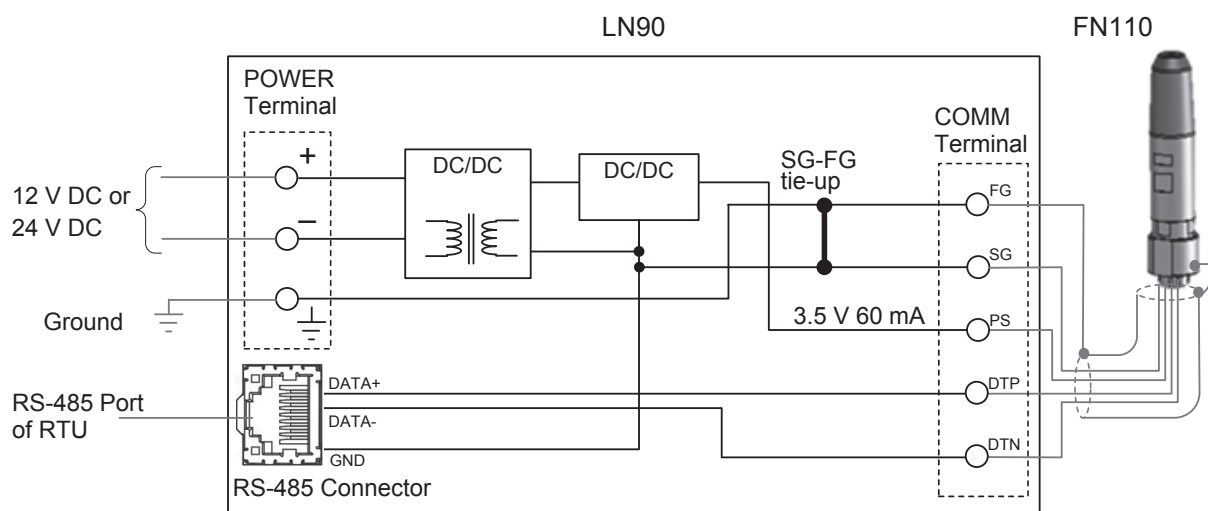


PIN ASSIGNMENT



F05.ai

BLOCK DIAGRAM



F06.ai

< Ordering Information >

Specify the following when ordering.

1. Model, suffix codes, and option codes.

< Related Products General Specifications >

Field Wireless System Overview:

Refer to GS 01W01A01-01EN

Field Wireless Communication Module:

Refer to GS 01W03B01-01EN

< Trademark >

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< Information on WEEE Directive >

EU WEEE (Waste Electrical and Electronic Equipment) Directive is only valid in the EU.

This instrument is intended to be sold and used only as a part of equipment which is excluded from WEEE Directive, such as large-scale stationary industrial tools, a large-scale fixed installation and so on, and, therefore, subjected to the exclusion from the scope of the WEEE Directive. The instrument should be disposed of in accordance with local and national legislation/regulations.