

KOGANEI

CompoNet compatible

Serial transmission compatible manifold

User's Manual

Ver. 1.0

Supported solenoid valves

● F series

CompoNet 
CONFORMANCE TESTED

CompoNet compatible

Serial transmission compatible manifold

User's Manual

This user's manual describes the serial transmission block so that the serial transmission compatible manifold and solenoid valves can be used correctly. See the individual catalogs or the valves general catalog for information about the relevant manifolds and the valves.

To use these products correctly, you must first read the documentation.



CAUTION

This product does not have the appropriate functions to support applications, such as safety equipment or accident prevention systems, that require high levels of safety.

- Do not put the communication cables near or in bundles with power lines.
- This manual is for the F series solenoid valves. Contact us if you are using a different series of solenoid valves.

1. Specifications

General specifications

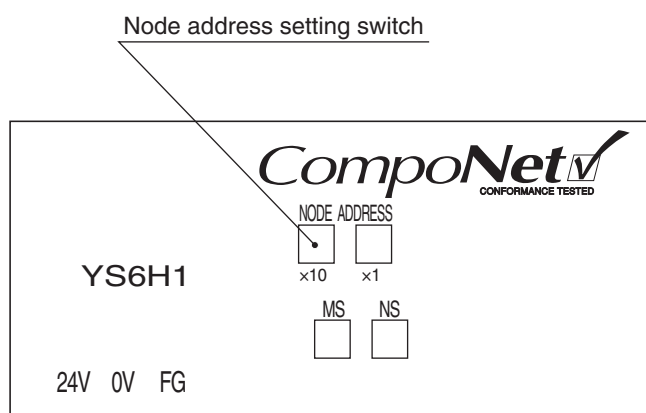
Item	Model	YS6H1 (for F10 and F15 series) and YS5H1U (for F18 series)
Power supply voltage (for driving the solenoid valve)		24 VDC \pm 10%
Power supply voltage (for communication)		14 to 26.4 VDC
Power consumption		1.5 W or less (excluding solenoid valve)
Operating temperature range		5 to 50°C [41 to 122°F]
Operating humidity range		35 to 85% RH (Non-condensation)
Operating atmosphere		No corrosive gases and no excessive dust
Vibration resistance		49.0 m/s ² [5 G]
Shock resistance		98.1 m/s ² [10 G]
Dielectric strength		1000 VAC for 1 minute (between all external terminals and the case)
Noise resistance		IEC61000-4-4 compliant 2 kV (power line)
Insulation resistance		10 MΩ or more (between all external terminals and the case, using a 500 VDC insulation tester)

★ The above specifications are for the serial transmission block itself. You must consider the specifications for the solenoid valves that are mounted regarding the installation and operation in your operating environment. See the catalogs for information about the specifications of the solenoid valves and other parts.

2. About serial transmission blocks YS6H1 and YS5H1U

2-1. Names of parts of the LED display panel

LED display panel



★ The illustration above shows the panel for the YS6H1, but it is the same for the YS5H1U.

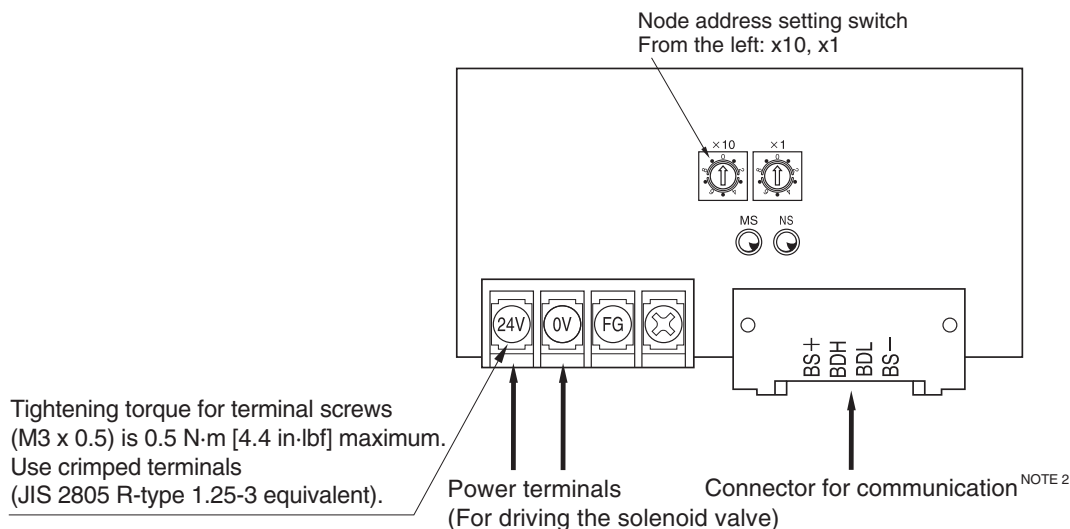
Description of LED display

Name	State	Color	Description
MS	Lit	Green	Normal state
	Lit	Red	Fatal abnormality
	Flashing	Red	Minor abnormality
	Off	—	Power off/stand-by
NS	Lit	Green	Online/accessing
	Flashing	Green	Online/not accessing
	Lit	Red	Fatal abnormality related to communication
	Flashing	Red	Minor abnormality related to communication
	Off	—	Power off/stand-by

2-2. Settings and wiring

Open the wiring cover and use a flat blade screwdriver to set the DIP switches.

Caution: Always turn off the power supply before doing settings.



Note 1: Setting the transmission baud rate (93.75 Kbit/s, 1.5 Mbit/s, 3 Mbit/s, 4 Mbit/s) is unnecessary because it is on the automatic following setting.

2: Contact Omron Corporation regarding the connectors as they are sold by them.

■ Power line connection

Connect the power line to the power terminals (24 V and 0 V) on the serial transmission block.
This is the power supply for driving the solenoid valve.



If you are supplying power from one source to multiple remote I/Os or to serial transmission compatible manifold solenoid valves; or if you are supplying power from far away, consider the voltage drop when selecting a power cable before you start wiring to assure you have a power supply voltage that is within the rated voltage (24 V ±10%).

If you cannot eliminate a voltage drop due to long wires, implement measures such as installing a separate power source close to the serial transmission compatible manifold solenoid valves.

3. Output relay and solenoid valve connections

The serial transmission block has 16 outputs, 0 to 15. The relationship between the output relay numbers in the program and the actual mounted solenoid valves is shown below.

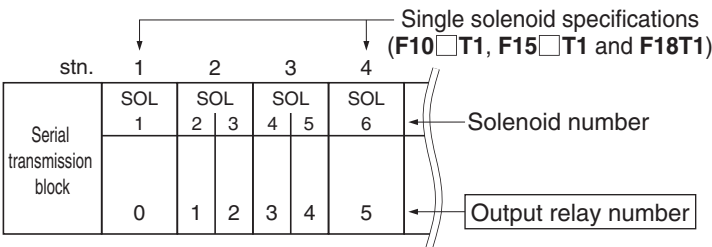
The relationship between all the solenoids on the manifold and output relay numbers is different depending on what is specified for "Wiring specifications" in the manifold ordering codes.

Wiring specifications **Blank** (packed wiring): Wired according to specifications of mounted valves.
 -W (double wiring): All wiring is for double solenoids, regardless of the specifications of the mounted valves.

① **If wiring specifications are "blank" (packed wiring)**

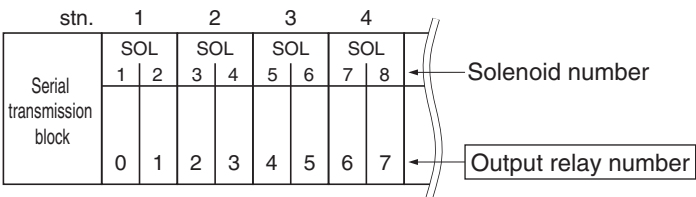
The valves specified in the single solenoid specifications (**F□T1**) when ordering are wired to solenoid A only and are not wired to solenoid B because wiring is done according to specifications for the mounted valves.

This means that it cannot function as a double solenoid valve after it is delivered because no current flows to solenoid B, even if it is switched from a single solenoid valve to a double solenoid valve.



② **When wiring specifications are "-W" (double wiring)**

All wiring is for double solenoids.



- For other information, detailed specifications, and precautions, see the product catalog.
- For inquiries about the product, contact our Overseas Department noted below.



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- The specifications or the appearance of this product are subject to change any time without prior notice.

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