KOGANEI

No.BK-P046

NEW Products

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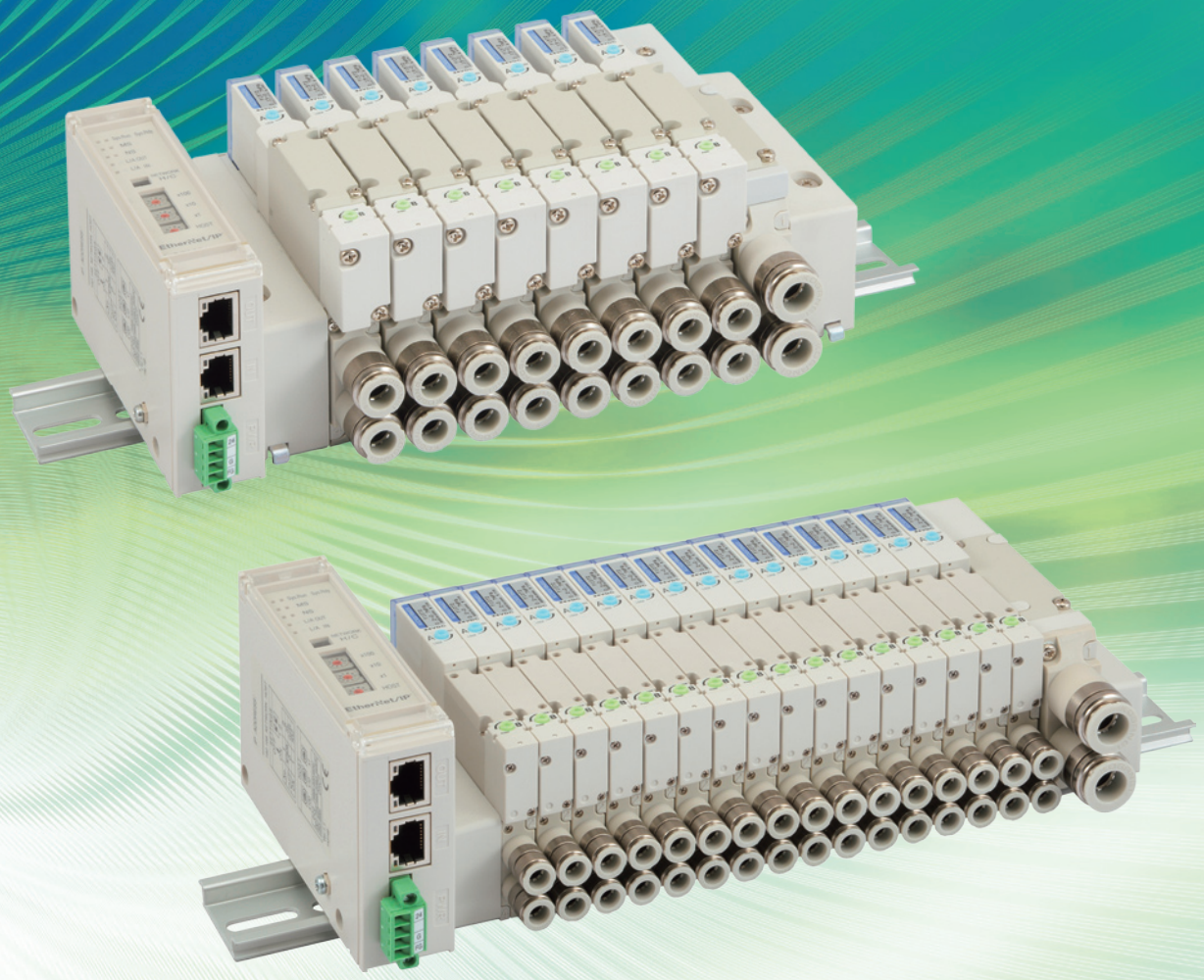
RoHS compliant product

Solenoid Valves F Series

EtherNet/IP™ Compatible

CE

Introducing the new EtherNet/IP™ compatible type serial transmission manifold to our F10 and F15 series

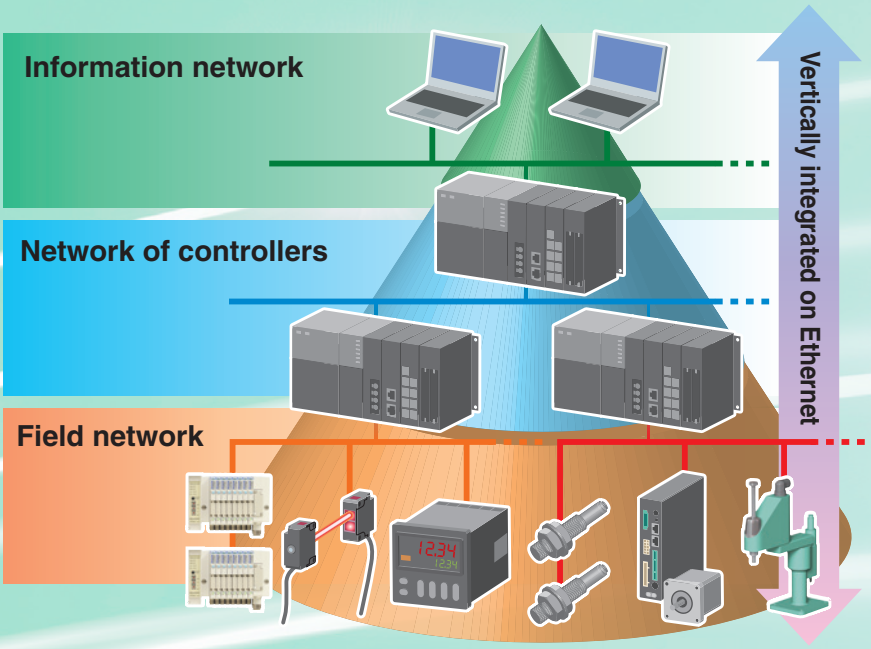


We have 16 output and 32 output types

Solenoid Valves F Series
EtherNet/IP™ Compatible

Communications network is all on the Ethernet!

You can organize field networks that are connected using various different standards into one single network. You can also consolidate information networks to create a vertically integrated production management system.



Various connection formats (example of connecting F10M8SJ-JR-M1 stn 1 to 8 F10T2-A1-DC24V)

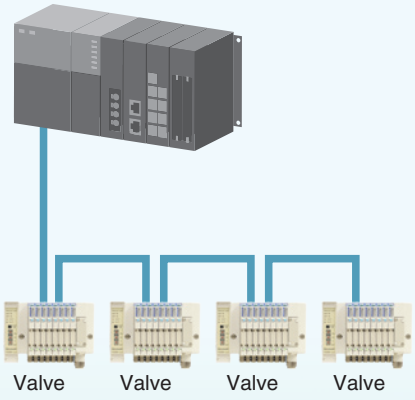
Line format

All devices can be connected in a daisy chain.

<Features>

Total length of wiring can be reduced.

PLC (EtherNet/IP compatible equipment)



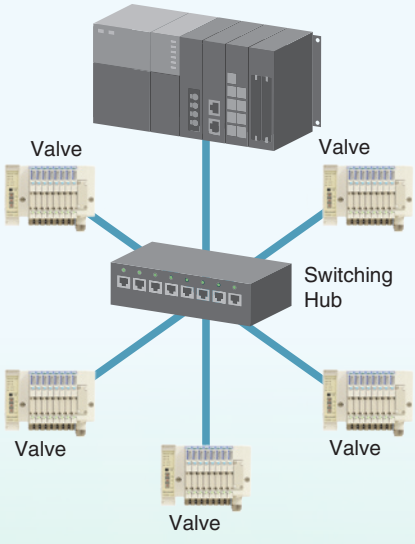
Star format

A radial network connection format can be done centered on a switching hub.

<Features>

Wiring formats are very flexible.

PLC (EtherNet/IP compatible equipment)



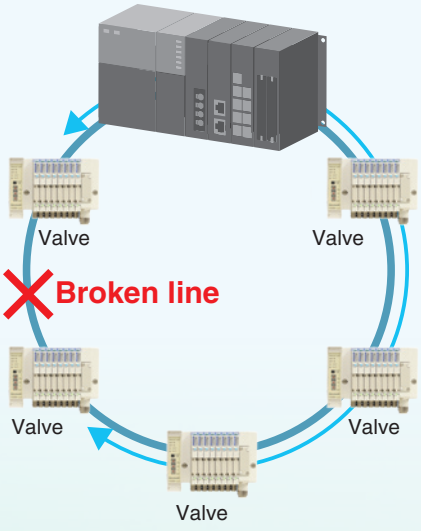
DLR (device level ring) format

All devices can be connected in a circular format.

<Features>

Highly reliable connection format. If one connection breaks, communications can be done around the circle in the opposite direction.

PLC (EtherNet/IP compatible equipment)

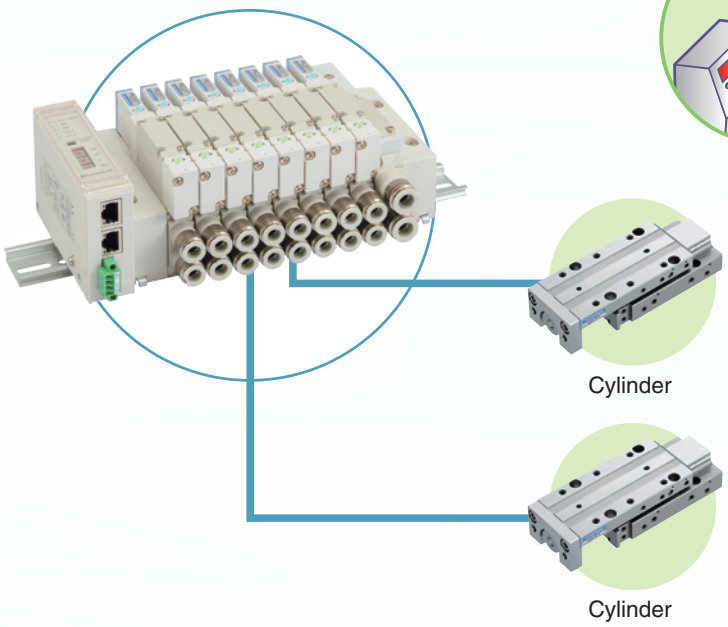


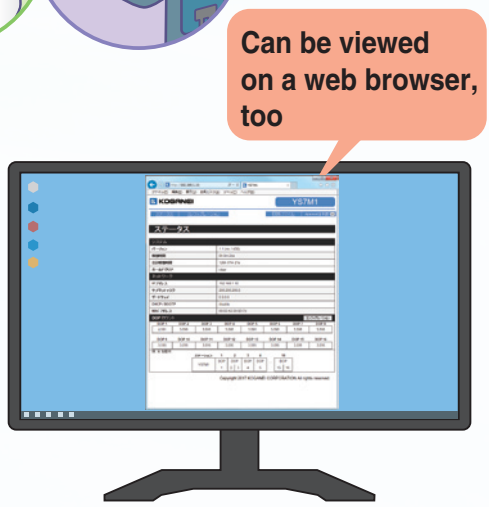
*Configure with devices that support DLR.

Counter function

Excellent for Predictive Maintenance

Counts the output commands sent to the valves and can be used to monitor the number of operations of the valves and devices connected to the exhaust air side. Predictive maintenance is possible by determining maintenance periods (lifetimes of devices) from the number of operations.





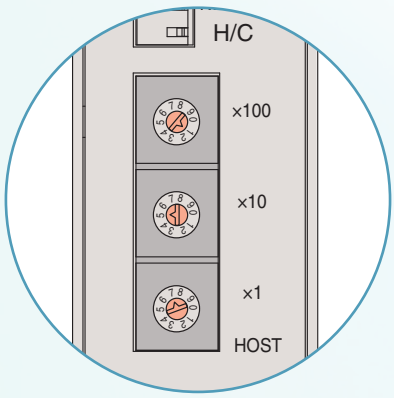
*Contact our nearest sales office for more details about forced output functions.

How to Set IP Addresses

There are three ways in which you can set addresses.

Set using rotary switches

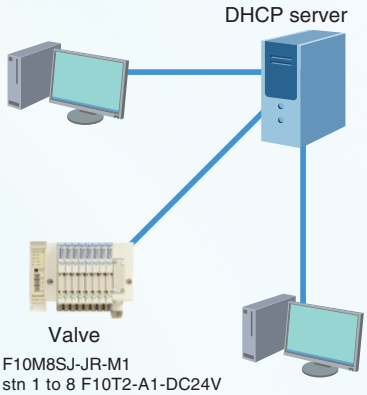
You set addresses directly with the switches.



For 192.168.0.157

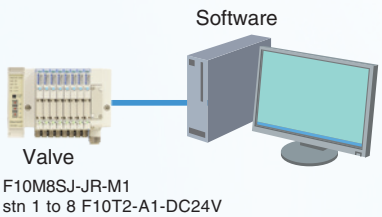
Allocated from BOOTP/DHCP server

Addresses can be acquired automatically by setting up a separate server.



Allocated from computer

You can use software from other companies to set addresses.

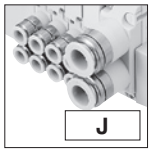


(Software for reference)
- Network Configurator (OMRON Corporation)
- BOOTP/DHCP Server (Rockwell Automation, Inc.) and others

F10, F15 Series Serial Transmission Compatible Manifold Order Codes

■ Manifold outlet specification

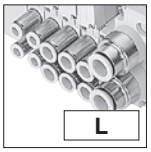
With dual use fitting blocks (base piping type)



J

Outlet port fitting
F10: ϕ4, ϕ6
F15: ϕ6, ϕ8

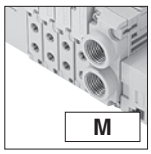
With selectable fittings (base piping type)



L

Outlet port should be selected in accordance with the manifold fitting specification.

With female thread blocks (base piping type)



M

With plates (direct piping type)

Blank

Outlet port female thread
F10: M5 × 0.8
F15: Rc1/8

■ Pilot specification

Blank

Internal pilot manifold

G

External pilot manifold

■ Piping block specification (air supply and exhaust)

Fitting block
-JR : Dual use fitting, right-side mounting Note13
-JL : Dual use fitting, left-side mounting Note13
-JD : Dual use fitting, both-side mounting Note13
Fitting size (1(P), 3, 5(R) ports), ϕ8, ϕ10

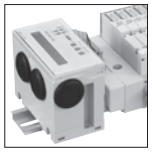
Female thread block
-MR : Female thread, right-side mounting Note13
-ML : Female thread, left-side mounting Note13
-MD : Female thread, both-side mounting Note13
Female thread size (1(P), 3, 5(R) ports), Rc1/4

Female thread block
-MRH : Female thread, right-side mounting Note14
-MLH : Female thread, left-side mounting Note14
-MDH : Female thread, both-side mounting Note14
Female thread size (1(P), 3, 5(R) ports), NPT1/4

Single use fitting block
-J5R : Single use fitting, right-side mounting Note13
-J5L : Single use fitting, left-side mounting Note13
-J5D : Single use fitting, both-side mounting Note13
Fitting size (1(P), 3, 5(R) ports), ϕ8
-J6R : Single use fitting, right-side mounting Note13
-J6L : Single use fitting, left-side mounting Note13
-J6D : Single use fitting, both-side mounting Note13
Fitting size (1(P), 3, 5(R) ports), ϕ10

■ Transmission block specification

※ These are the serial transmission block specifications compatible with each system.



● Block on the right photo is the case of B7A Link Terminal.
See the F series solenoid valve catalog, pages 37 to 39, for details.

Integrated type
-A1 : For OMRON CompoBus/S (16 outputs)
-B1 : For CC-Link (16 outputs)
-B3 : For CC-Link (32 outputs)
-D1 : For DeviceNet (16 outputs)
-D3 : For DeviceNet (32 outputs)
-H1 : For CompoNet (16 outputs)
-K1 : For EtherCAT (16 outputs)
-K3 : For EtherCAT (32 outputs)
-M1 : For EtherNet/IP (16 outputs) Note2
-M3 : For EtherNet/IP (32 outputs) Note2

Stand-alone type
-31 : For OMRON B7A Link Terminal (standard)
-32 : For OMRON B7A Link Terminal (high speed)

■ Wiring connection specification

Blank

Packed wiring: Wiring is made in accordance with the mounted valve specifications.

-W

Double wiring: Wiring is always for the double solenoid, regardless of the specifications of the mounted valve.

■ Wiring position (transmission block)

Blank : Left-side mounting
-R : Right-side mounting

■ Valve size

F10 Standard type
F10L Low-current type
F15 Standard type
F15L Low-current type

Note: Valves of **F10**□ and **F15**□ cannot be mounted together.

■ Valve size

F10M 10 mm [0.394 in.] width
F15M 15 mm [0.591 in.] width

Valve size	Valve units	Manifold type	Manifold outlet specification	Pilot specification	Piping block specification	Transmission block specification	Wiring connection specification	Wiring position
Manifold model								
Base piping type	F10M F15M Note3	2 : □ Note1	S	J M	Blank G	-JR -J5R -JL -J6R -JD -J5L -MR -J6L -ML -J5D -MD -J6D	-31 -D1 -M1 Note2 -32 -D3 -M3 Note2 -A1 -H1 -B1 Note2 -K1 -B3 Note2 -K3	Blank -W	Blank -R
Base piping type selectable fitting			S SH	L	Blank G	-JR Note13 -MDH Note14 -JL Note13 -J5R Note13 -JD Note13 -J6R Note13 -MR Note13 -J5L Note13 -ML Note13 -J6L Note13 -MD Note13 -J5D Note13 -MRH Note14 -J6D Note13 -MLH Note14	-31 -D1 -M1 Note2 -32 -D3 -M3 Note2 -A1 -H1 -B1 Note2 -K1 -B3 Note2 -K3	Blank -W	Blank -R
Direct piping type				Blank	Blank G	-JR Note13 -MDH Note14 -JL Note13 -J5R Note13 -JD Note13 -J6R Note13 -MR Note13 -J5L Note13 -ML Note13 -J6L Note13 -MD Note13 -J5D Note13 -MRH Note14 -J6D Note13 -MLH Note14	-31 -D1 -M1 Note2 -32 -D3 -M3 Note2 -A1 -H1 -B1 Note2 -K1 -B3 Note2 -K3	Blank -W	Blank -R

Notes: 1. To determine the maximum number of units, see the table for maximum number of valve units by transmission block specification, on p. 5.
Notes: 2. CE marking compliant.
Notes: 3. Contact our nearest sales office for information about the F18 series.

Valve specification

T0 : 2-position, for single solenoid only
T1 : 2-position, single solenoid specification
T2 : 2-position, double solenoid specification
T3 : 3-position, closed center
T4 : 3-position, exhaust center
T5 : 3-position, pressure center
TA : Tandem 3-port (NC and NC)[Note11]
TB : Tandem 3-port (NO and NO)[Note11]
TC : Tandem 3-port (NC and NO)[Note11]

Operation type

Blank
Internal pilot type[Note9]

G
External pilot type[Note10]
(for positive pressure)
※ No vacuum valve can be mounted.

Manual override

Manual override button

Manual override lever[Note7]

Valve outlet type

-A1 With plate[Note5] (base piping type)

5-port specification

-FJ	With dual use fitting block[Note13] (direct piping type)	**F10:** ϕ4, ϕ6 **F15:** ϕ6, ϕ8
-FJ5	With single use fitting block[Note13] (direct piping type)	**F10:** ϕ4 **F15:** ϕ6
-FJ6	With single use fitting block[Note13] (direct piping type)	**F10:** ϕ6 **F15:** ϕ8
-FM	With female thread block[Note13] (direct piping type)	**F10:** M5×0.8 **F15:** Rc1/8
-FMH	With female thread block[Note14] (direct piping type)	**F10:** 10-32UNF **F15:** NPT1/8

3-port specification

-FJ5A	With single use fitting block, normally closed (NC)[Note13] (direct piping type)	**F10:** ϕ4 **F15:** ϕ6
-FJ5B	With single use fitting block, normally open (NO)[Note13] (direct piping type)	**F10:** ϕ4 **F15:** ϕ6
-FJ6A	With single use fitting block, normally closed (NC)[Note13] (direct piping type)	**F10:** ϕ6 **F15:** ϕ8
-FJ6B	With single use fitting block, normally open (NO)[Note13] (direct piping type)	**F10:** ϕ6 **F15:** ϕ8
-FMA	With female thread block, normally closed (NC)[Note13] (direct piping type)	**F10:** M5×0.8 **F15:** Rc1/8
-FMAH	With female thread block, normally closed (NC)[Note14] (direct piping type)	**F10:** 10-32UNF **F15:** NPT1/8
-FMB	With female thread block, normally open (NO)[Note13] (direct piping type)	**F10:** M5×0.8 **F15:** Rc1/8
-FMBH	With female thread block, normally open (NO)[Note14] (direct piping type)	**F10:** 10-32UNF **F15:** NPT1/8

Caution: The 3-port specifications are only available in the valve specification **T0**, **T1**, and **T2**.

Manifold fitting specification

5-port specification

-J5	With single use fitting block[Note13] (base piping type)	**F10:** ϕ4 **F15:** ϕ6
-J6	With single use fitting block[Note13] (base piping type)	**F10:** ϕ6 **F15:** ϕ8
-M	With female thread block[Note13] (base piping type)	**F10:** M5×0.8 **F15:** Rc1/8
-MH	With female thread block[Note14] (base piping type)	**F10:** 10-32UNF **F15:** NPT1/8

3-port specification

-J5A	With single use fitting block, normally closed (NC)[Note13] (base piping type)	**F10:** ϕ4 **F15:** ϕ6
-J5B	With single use fitting block, normally open (NO)[Note13] (base piping type)	**F10:** ϕ4 **F15:** ϕ6
-J6A	With single use fitting block, normally closed (NC)[Note13] (base piping type)	**F10:** ϕ6 **F15:** ϕ8
-J6B	With single use fitting block, normally open (NO)[Note13] (base piping type)	**F10:** ϕ6 **F15:** ϕ8
-MA	With female thread block, normally closed (NC)[Note13] (base piping type)	**F10:** M5×0.8 **F15:** Rc1/8
-MAH	With female thread block, normally closed (NC)[Note14] (base piping type)	**F10:** 10-32UNF **F15:** NPT1/8
-MB	With female thread block, normally open (NO)[Note13] (base piping type)	**F10:** M5×0.8 **F15:** Rc1/8
-MBH	With female thread block, normally open (NO)[Note14] (base piping type)	**F10:** 10-32UNF **F15:** NPT1/8

Caution: The 3-port specifications are only available in the valve specification **T0**, **T1**, and **T2**.

Port isolator

Blank : No port isolator
-SP : For 1(P) port[Note8]
-SR : For 3(R2), 5(R1) ports[Note8]
-SA : For 1(P), 3(R2), and 5(R1) ports[Note8]

Back pressure prevention valve

Blank
No back pressure prevention valve

-E2
With back pressure prevention valve[Note12]

Individual air supply and exhaust spacer

Blank : No spacer
-PPM : Individual air supply spacer (with M5 female thread for F10)
-PP6 : Individual air supply spacer (with ϕ6 fitting for F15)
-PP8 : Individual air supply spacer (with ϕ8 fitting for F15)
-PRM : Individual exhaust spacer (with M5 female thread for F10)
-PR6 : Individual exhaust spacer (with ϕ6 fitting for F15)
-PR8 : Individual exhaust spacer (with ϕ8 fitting for F15)
See the F series solenoid valve catalog page 25 for details.

Station	Valve size	Valve specification	Operation type	Manual override	Valve outlet type	Manifold fitting specification	Back pressure prevention valve	Individual air supply and exhaust spacer	Port isolator	Voltage
Mounting valve model										
stn. 1 : : : stn.□ Note4	F10 F10L F15 F15L	T0 T3 TA[Note11] T1 T4 TB[Note11] T2 T5 TC[Note11]	Blank[Note9] G[Note10]	Blank -R[Note7]	-A1[Note5]		Blank -E2[Note12]	Blank -PPM -PRM -PP6 -PR6 -PP8 -PR8	Blank -SP[Note8] -SR[Note8] -SA[Note8]	DC24V
	F10 F15	BPP (for block-off plate)[Note6]								
stn. 1 : : : stn.□ Note4	F10 F10L F15 F15L	T0 T3 TA[Note11] T1 T4 TB[Note11] T2 T5 TC[Note11]	Blank[Note9] G[Note10]	Blank -R[Note7]	-A1[Note5]	-J5[Note13] -J6A[Note13] -J6[Note13] -J6B[Note13] -M[Note13] -MA[Note13] -MH[Note14] -MAH[Note14] -J5A[Note13] -MB[Note13] -J5B[Note13] -MBH[Note14]	Blank -E2[Note12]	Blank -PPM -PRM -PP6 -PR6 -PP8 -PR8	Blank -SP[Note8] -SR[Note8] -SA[Note8]	DC24V
	F10 F15	BPP (for block-off plate)[Note6]								
stn. 1 : : : stn.□ Note4	F10 F10L F15 F15L	T0 T3 TA[Note11] T1 T4 TB[Note11] T2 T5 TC[Note11]	Blank[Note9] G[Note10]	Blank -R[Note7]	-FJ[Note13] -FJ6A[Note13] -FJ5[Note13] -FJ6B[Note13] -FJ6[Note13] -FMA[Note13] -FM[Note13] -FMAH[Note14] -FMH[Note14] -FMB[Note13] -FJ5A[Note13] -FMBH[Note14] -FJ5B[Note13]		Blank -E2[Note12]	Blank -PPM -PRM -PP6 -PR6 -PP8 -PR8	Blank -SP[Note8] -SR[Note8] -SA[Note8]	DC24V
	F10 F15	BPP (for block-off plate)[Note6]								

Notes: 4. Valve mounting location is from the left, with the solenoid on top, and the 4(A), 2(B) ports side in front.
5. When selecting **J**, **M**, or **L** (base piping type) for the manifold outlet specifications, always enter **-A1** (with plate) for the valve outlet type.
6. The wiring on the block off plate uses double wiring (2 control points allocated) regardless of the wiring specifications. However, we can provide block off plates with a -1W suffix on the model number for the block off plate wired for connecting single solenoids.
7. When the valve specification is **T1** or **T2**, the manual override lever is placed only on the A side.
8. Port isolators can be installed only when piping blocks are mounted on both sides. In addition, only 1 port isolator can be mounted in 1 manifold for **-SA**, or 1 each port isolator for **-SP** and **-SR** for a total of 2 locations. When shipping, the designated port isolators are mounted between the designated station and the station to its immediate left (the next smaller stn. No.).
9. Cannot be mounted on the external pilot manifold.
10. Cannot be mounted on the internal pilot manifold.
11. Not available in external pilot type.
12. Not available with the individual exhaust spacer.
13. Can be selected only when the manifold type is **S**.
14. Can be selected only when the manifold type is **SH**.

Order codes for EtherNet/IP serial transmission block (standalone)

Serial transmission block (standalone)

YS7 □ □ (for installation of F10 and F15 series manifolds only)

Wiring position
L: Left-side mounting
R: Right-side mounting

Transmission block specifications
M1: EtherNet/IP (16 outputs) supported
M3: EtherNet/IP (32 outputs) supported

When selecting the transmission block specifications for the manifold order code, select them from the following EtherNet/IP order codes.

■ Transmission block specifications

M1: EtherNet/IP (16 outputs) supported
M3: EtherNet/IP (32 outputs) supported

■ Quick Reference Chart of Maximum Number of Manifolds for Different Transmission Block Specifications

Transmission block specifications	Maximum control points	Maximum number of units: Wiring specifications: Packed wiring (blank)	Maximum number of units: Wiring specifications: Double wiring (-W)
-31: OMRON B7A link terminal (standard) supported	16 points	Varies depending on the number of single solenoids, double solenoids, and block off plates that are mounted. Specify a number of units so that the number of solenoids being controlled does not exceed the maximum number of control units. **-B3**, **-D3**, **-K3**, and **-M3** have a maximum of 20 connected units.	8 pairs
-32: OMRON B7A link terminal (high speed) supported	16 points		8 pairs
-A1: Omron CompoBus/S (16 outputs) supported	16 points		8 pairs
-B1: CC-Link (16 outputs) supported	16 points		8 pairs
-B3: CC-Link (32 outputs) supported	32 points		16 pairs
-D1: DeviceNet (16 outputs) supported	16 points		8 pairs
-D3: DeviceNet (32 outputs) supported	32 points		16 pairs
-H1: CompoNet (16 outputs) supported	16 points		8 pairs
-K1: EtherCAT (16 outputs) supported	16 points		8 pairs
-K3: EtherCAT (32 outputs) supported	32 points		16 pairs
-M1: EtherNet/IP (16 outputs) supported	16 points		8 pairs
-M3: EtherNet/IP (32 outputs) supported	32 points		16 pairs

■ General specifications

Item \ Model	**YS7M1** □ (16 outputs) and **YS7M3** □ (32 outputs)
Voltage	24 VDC ± 10%
Power consumption	3 W or less (excluding solenoid valve)
Operating temperature range	5 to 50°C [41 to 122°F]
Operating humidity range	35 to 85%RH (no condensation)
Operating atmosphere	No corrosive gases and no excessive dust
Vibration resistance	49.0m/s^2 [160.72 ft/sec^2]
Shock resistance	98.1m/s^2 [321.768 ft/sec^2]
Dielectric strength	1000 VAC for 1 minute (between all external terminals and the case)
Noise resistance	IEC61000-4-4 compliant, level 3
Insulation resistance	10 M Ω or more (between all external terminals and the case, using a 500 VDC insulation tester)
Standard	CE marking compliant

* The □ indicates L (left mount) or R (right mount).
* The specifications on the left 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 catalog for the F Series solenoid valves regarding specifications for the solenoid valves and other parts.

Remark

* EtherNet/IP compatible.

● Number of outputs on each block
The number of solenoid valves is 16 for **-M1** and 32 for **-M3**

● F10 and F15 series supported

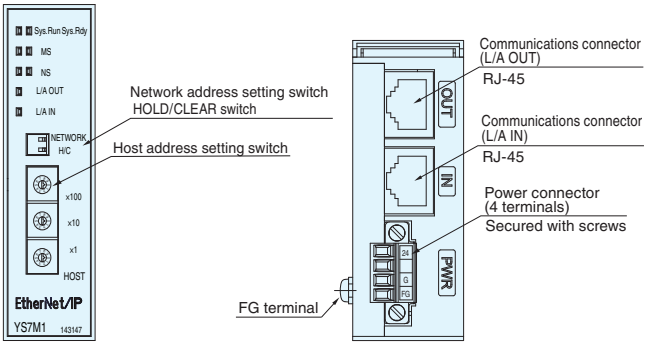
■ Communication specifications

Item \ Model	**YS7M1** □ (16 outputs) and **YS7M3** □ (32 outputs)
Communication speed	10 M/100 Mbps
Topology	Line, star, and DLR
IP address settings	Fixed, BOOTP, and DHCP
Functions	DLR supported, ACD supported
EtherNet/IP™ conformance test	CT13 compliant
MDI/MDI-X auto switching function	Supported

■ We recommend (CAT 5e STP) shielded twisted pair cables that are at least category 5 (100BASE-TX) for communication cables.
■ The EDS (electronic data sheets) files can be downloaded from our homepage.

Names of parts of F10 and F15 Series Ethernet/IP Serial Transmission Block

Serial transmission block specifications: **-M1** (16 outputs) and **-M3** (32 outputs)



Names of LEDs

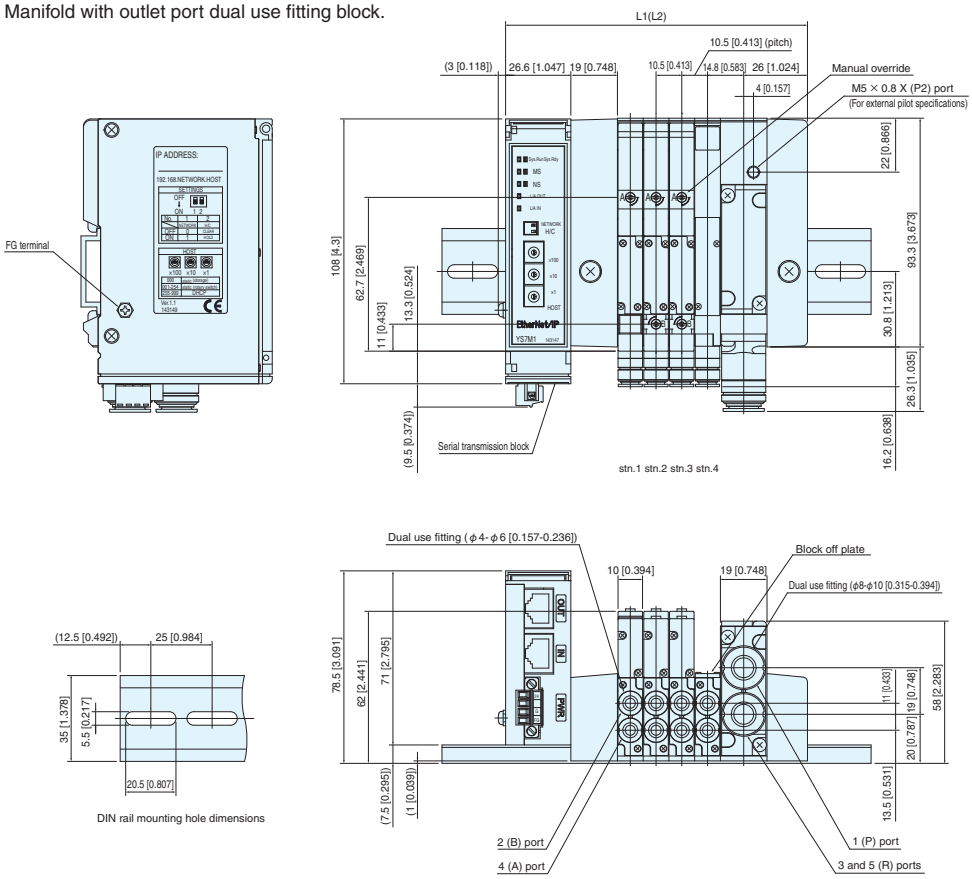
Display	LED states	Description
Sys.Run/Sys.Rdy	□ / □ Off/Off	Transmission block power is off
	■ / □ Green on/off	Transmission block operating normally
MS	□ Off	Transmission block power is off
	■ Flashing green	IP address being set
	■ Green on	Operating normally
	■ Flashing red	Recoverable error
	■ Red on	Unrecoverable error
NS	□ Off	Transmission block power is off
	■ Flashing green	Normal communications in progress, but connection is not stable
	■ Green on	Normal communications in progress and connection is stable
	■ Flashing red	Connection timed out
	■ Red on	Detected duplicate IP address
L/A	□ Off	No connection
	■ Green on	Communication is normal

■ EtherNet/IP™ is a trademark of ODVA.
■ See the separate user's manual and the document **No. HV045** for details about handling and specifications.

Dimensions of F10 series EtherNet/IP serial transmission compatible manifold (mm [in])

F10M [Number of valves] S [J / M / L] [Pilot specifications] (Base piping type)

Manifold with outlet port dual use fitting block.



Unit dimensions

Number of units	L1	Length of DIN rail	L2 Note	Length of DIN rail Note
2	102.1 [4.0]	150 [5.9]	121.1 [4.8]	175 [6.9]
3	112.6 [4.4]	175 [6.9]	131.6 [5.2]	175 [6.9]
4	123.1 [4.8]	175 [6.9]	142.1 [5.6]	200 [7.9]
5	133.6 [5.3]	175 [6.9]	152.6 [6.0]	200 [7.9]
6	144.1 [5.7]	200 [7.9]	163.1 [6.4]	225 [8.9]
7	154.6 [6.1]	200 [7.9]	173.6 [6.8]	225 [8.9]
8	165.1 [6.5]	225 [8.9]	184.1 [7.2]	225 [8.9]
9	175.6 [6.9]	225 [8.9]	194.6 [7.7]	250 [9.8]
10	186.1 [7.3]	225 [8.9]	205.1 [8.1]	250 [9.8]
11	196.6 [7.7]	250 [9.8]	215.6 [8.5]	275 [10.8]
12	207.1 [8.2]	250 [9.8]	226.1 [8.9]	275 [10.8]
13	217.6 [8.6]	275 [10.8]	236.6 [9.3]	275 [10.8]
14	228.1 [9.0]	275 [10.8]	247.1 [9.7]	300 [11.8]
15	238.6 [9.4]	300 [11.8]	257.6 [10.1]	300 [11.8]
16	249.1 [9.8]	300 [11.8]	268.1 [10.6]	325 [12.8]
17	259.6 [10.2]	325 [12.8]	278.6 [11.0]	350 [13.8]
18	270.1 [10.6]	325 [12.8]	289.1 [11.4]	350 [13.8]
19	280.6 [11]	325 [12.8]	299.6 [11.8]	350 [13.8]
20	291.1 [11.5]	350 [13.8]	310.1 [12.2]	375 [14.8]

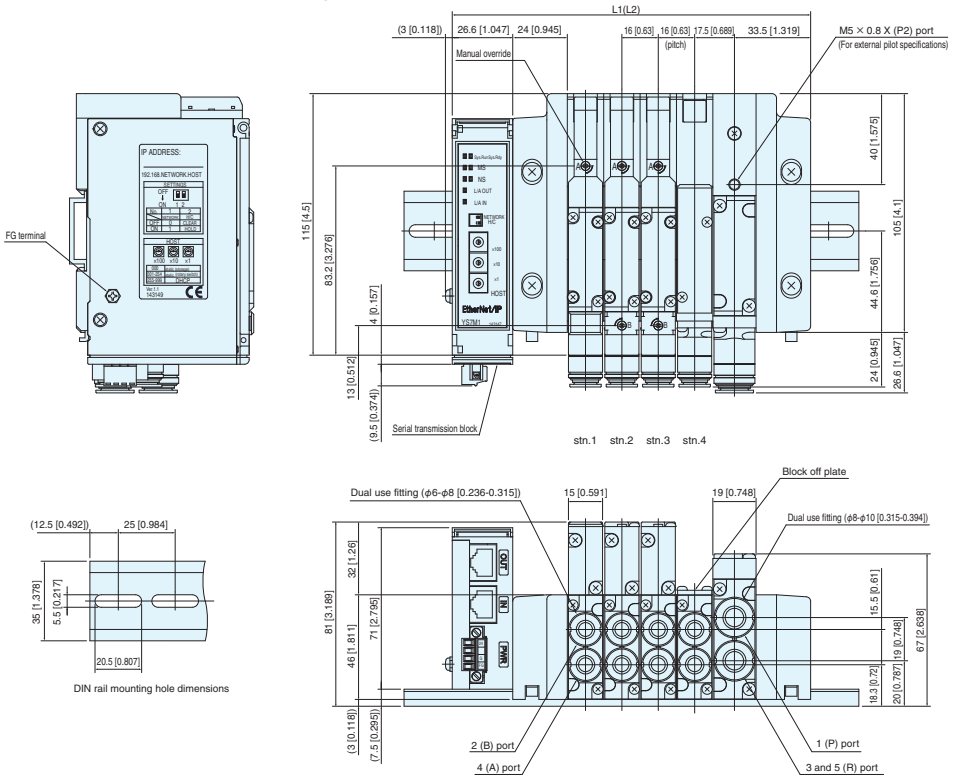
Note: When two piping blocks are used.

*For right-side positioned wiring (-R), add 5.5 mm [0.217 in.] to the L1 (L2) dimension.

Dimensions of F15 series EtherNet/IP serial transmission compatible manifold (mm [in])

F15M [Number of valves] S [J / M / L] [Pilot specifications] (Base piping type)

Manifold with outlet port dual use fitting block.



Unit dimensions

Number of units	L1	Length of DIN rail	L2 Note	Length of DIN rail Note
2	125.6 [4.9]	175 [6.9]	144.6 [5.7]	200 [7.9]
3	141.6 [5.6]	200 [7.9]	160.6 [6.3]	200 [7.9]
4	157.6 [6.2]	200 [7.9]	176.6 [7.0]	225 [8.9]
5	173.6 [6.8]	225 [8.9]	192.6 [7.6]	250 [9.8]
6	189.6 [7.5]	250 [9.8]	208.6 [8.2]	250 [9.8]
7	205.6 [8.1]	250 [9.8]	224.6 [8.8]	275 [10.8]
8	221.6 [8.7]	275 [10.8]	240.6 [9.5]	300 [11.8]
9	237.6 [9.4]	300 [11.8]	256.6 [10.1]	300 [11.8]
10	253.6 [10.0]	300 [11.8]	272.6 [10.7]	325 [12.8]
11	269.6 [10.6]	325 [12.8]	288.6 [11.4]	350 [13.8]
12	285.6 [11.2]	325 [12.8]	304.6 [12.0]	350 [13.8]
13	301.6 [11.9]	350 [13.8]	320.6 [12.6]	375 [14.8]
14	317.6 [12.5]	375 [14.8]	336.6 [13.3]	375 [14.8]
15	333.6 [13.1]	375 [14.8]	352.6 [13.9]	400 [15.7]
16	349.6 [13.8]	400 [15.7]	368.6 [14.5]	425 [16.7]
17	365.6 [14.4]	425 [16.7]	384.6 [15.1]	450 [17.7]
18	381.6 [15.0]	425 [16.7]	400.6 [15.8]	450 [17.7]
19	397.6 [15.7]	450 [17.7]	416.6 [16.4]	475 [18.7]
20	413.6 [16.3]	475 [18.7]	432.6 [17.0]	475 [18.7]

Note: When two piping blocks are used.

*For right-side positioned wiring (-R), add 3 mm [0.118 in] to the L1 (L2) dimension.

*Read the safety precautions and common precautions for the solenoid valve on our homepage before using this product.

Limited Warranty

KOGANEI CORP. warrants its products to be free from defects in material and workmanship subject to the following provisions.

Warranty Period The warranty period is 180 days from the date of delivery.

Koganei Responsibility If a defect in material or workmanship is found during the warranty period, KOGANEI CORP. will replace any part proved defective under normal use free of charge and will provide the service necessary to replace such a part.

Limitations

- This warranty is in lieu of all other warranties, expressed or implied, and is limited to the original cost of the product and shall not include any transportation fee, the cost of installation or any liability for direct, indirect or consequential damage or delay resulting from the defects.
- KOGANEI CORP. shall in no way be liable or responsible for injuries or damage to persons or property arising out of the use or operation of the manufacturer's product.
- This warranty shall be void if the engineered safety devices are removed, made inoperative or not periodically checked for proper functioning.
- Any operation beyond the rated capacity, any improper use or application, or any improper installation of the product, or any substitution upon it with parts not furnished or approved by KOGANEI CORP., shall void this warranty.
- This warranty covers only such items supplied by KOGANEI CORP. The products of other manufacturers are covered only by such warranties made by those original manufacturers, even though such items may have been included as the components.

The specifications are subject to change without notice.

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