

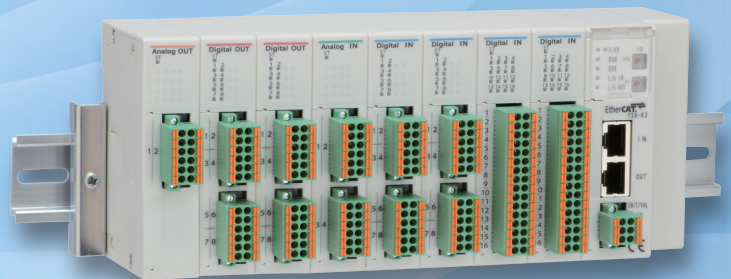
I/O Terminal

YS8・YS9

Consolidates valve output and end-point electrical signals to help reduce wiring

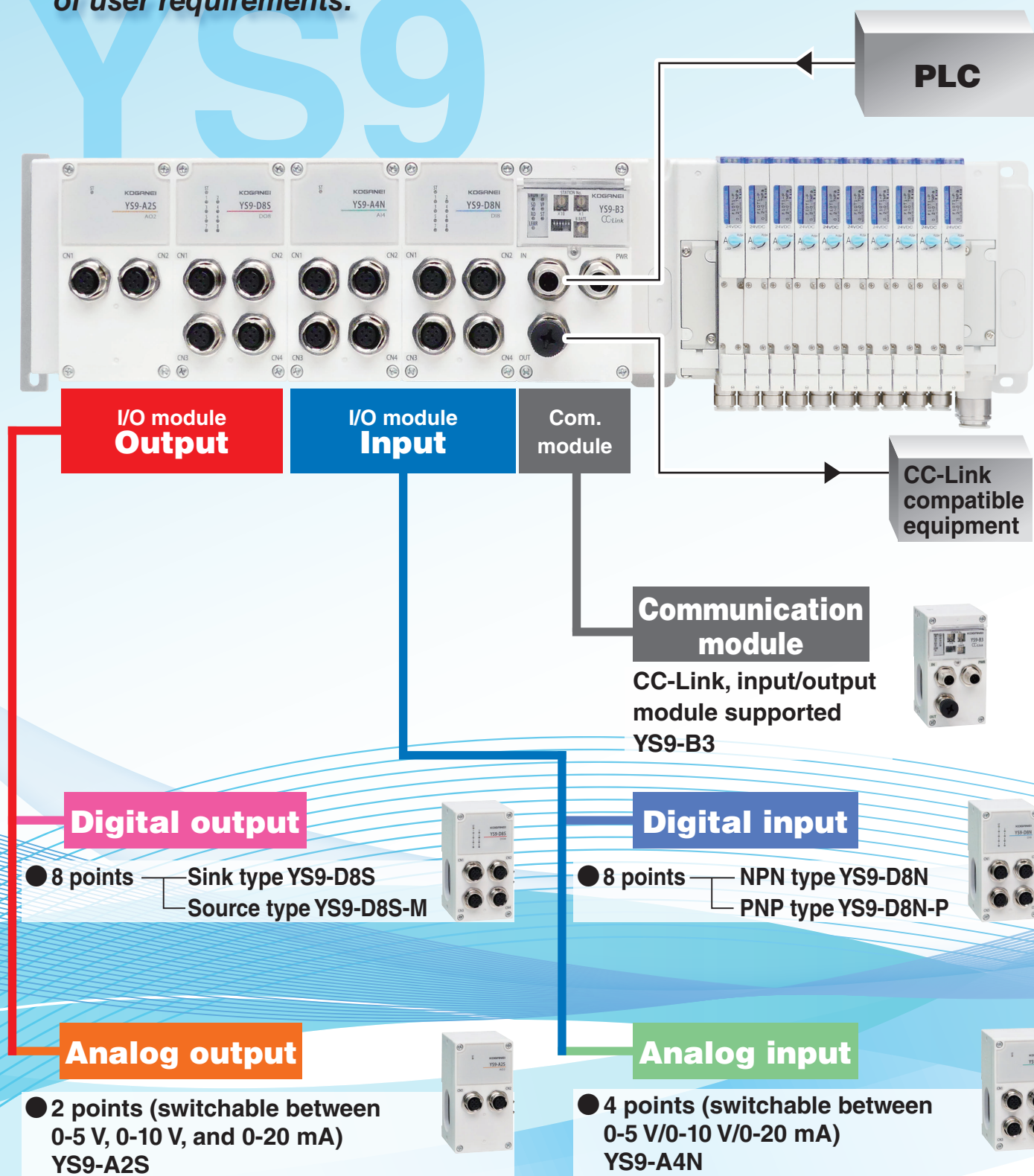
Now featuring our new YS9!

● Equipped with M12 connectors ● IP65/67 compliant



I/O Terminal YS9

- IP65/IP67 compliance allows installation outside the control panel.
- High durability achieved by adopting M12 connectors.
- Module configuration and expandability to accommodate a wide variety of user requirements.



Caution

Regarding the handling and precautions of the product, make sure to read the “Safety Precautions” and “Handling Instruction and General Precautions” in the I/O Terminal User’s Manual on Koganei’s website before using the product.

Two usage methods available

Choose either the valve-equipped I/O terminal or the standard I/O terminal.

I/O terminal with valves



Order Codes ... Pages ⑦ ⑪

I/O terminal



Order Codes ... Page ⑭

DIN rail mounting or direct mounting can be selected

Select from DIN rail mounting and Direct mounting (6 mounting holes on main body).



DIN rail mounting



Direct mounting

Complies with protection rating IP65/67

What is a protection rating
(from IEC60529)

This rating indicates how well electrical equipment is protected against the intrusion of solid foreign objects and water.

Protection rating code
(International Protection)
IP6

The “Second digit” is the protection rating against water ingress^{Note}

5: Not affected by direct water jets from any direction.

7: Not affected by immersion in water at specified pressures and for specified durations.

The “First digit” is the protection rating against solid foreign object ingress
Dust cannot enter the interior.

Note: Be aware that this product cannot be used underwater.

Configuration and diagnostics using dedicated support software

With dedicated support software, you can configure each module and read the error history

* For items that can be configured for each module, refer to the manual: HV053; for how to use the support software, refer to the manual: HV054.



IBM2A-H1-☐
USB-RS485 converter



PC

Specifications

General specifications

Item	Specifications
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	49.0 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, level 3
Insulation resistance	10 MΩ or more (between all external terminals and the case, using a 500 VDC insulation tester)
Standards	CE marking compliant
Protection rating	IP65/67
Tightening torque for M12 connectors	0.4 N·m [3.540 in·lbf]

Communication module specifications

General specifications	Model	YS9-B3						
	Internal current consumption	Input power supply: 100 mA or less Output power supply: 10 mA or less (Excluding input/output modules and solenoid valve supply current)						
	Input power supply	24 VDC±10%, 2 A						
	Output power supply	24 VDC±10%, 2 A						
	Mass	200 g [7.05 oz]						
CC-Link communication specifications	Version	Ver1.10`						
	Communication format	Broadcast polling format						
	Synchronization method	Frame synchronization						
	Transmission rate	Bus type (EIA RS485 compliant)						
	Transmission line system	156k/625k/2.5M/5M/10Mbps Switching via rotary switch						
	Station type	Remote device stations						
	Number of occupied stations	1/2/3/4 stations Switching via DIP switch						
	Station number configuration	When 1 station is occupied: 1 to 64 stations/When 2 stations are occupied: 1 to 63 stations When 3 stations are occupied: 1 to 62 stations / When 4 stations are occupied: 1 to 61 stations						
	Hold/Clear	Switching via DIP switch						
	Display	L RUN, SD, RD, L ERR						
	Transmission distance	Transmission rate	bps	156k	625k	2.5M	5M	10M
		Total cable length	m [ft]	1200 [3936]	1200 [3936]	400 [1312]	160 [524.8]	100 [328.0]
	Transmission cable	Ver. 1.10 compatible CC-Link dedicated cable						
	Termination resistance	110Ω (can be switched on or off via DIP switch) 130 Ω when using CC-Link dedicated high performance cable						

* Ver. 1.10 units can be connected to Ver. 2.0 compatible masters. The cable between stations should be at least 20 cm [7.874 in.].

Specifications

Digital input module specifications

Item	Specifications	
Model	YS9-D8N	YS9-D8N-P
Input specifications	NPN	PNP
Number of inputs	8 points	
Maximum sensor supply current	1 A/module	
Rated input current	7.5 mA or less (at 26.4 V) * Per input	
ON voltage/ON current	15 V or more/3.9 mA or more (During NPN input, between input terminal and +24 V) (During PNP input, between input terminal and 0 V)	
OFF voltage/OFF current	5 V or less/1 mA or less (During NPN input, between input terminal and +24 V) (During PNP input, between input terminal and 0 V)	
Input resistance	3.6 k Ω	
Sampling interval	100 μ s	
Protection function	Overcurrent detection	
Internal current consumption ^{Note}	Input power supply: 40 mA or less/output power supply: —	
Mass	180 g [6.35 oz]	

Note: Excluding load supply current



Digital Input × 8 points

Analog input module specifications

Item	Specifications	
Model	YS9-A4N	
Input specifications	Voltage	Current
Number of inputs	4 points	
Maximum sensor supply current	1 A/module	
Rated input voltage/rated input current	15V	40mA
Input impedance	1 M Ω	250 Ω
Input signal range	0-5V/0-10V	0-20mA
Resolution	12bit	
Conversion accuracy (25°C [77°F])	±0.5%F.S.	
Sampling interval	1ms	
Protection function	Overcurrent detection	
Internal current consumption ^{Note}	Input power supply: 60 mA or less/output power supply: —	
Mass	180 g [6.35 oz]	

Note: Excluding load supply current



Analog Input × 4

Digital output module specifications

Item	Specifications	
Model	YS9-D8S	YS9-D8S-M
Output specifications	Sink	Source
Number of outputs	8 points	
Maximum load current	0.5 A/channel, 1 A/module	
Protection function	Overcurrent detection, output short-circuit protection	
Internal current consumption ^{Note}	Input power supply: 40 mA or less/output power supply: 30 mA or less	
Mass	180 g [6.35 oz]	

Note: Excluding load supply current



Digital Output × 8

Analog output module specifications

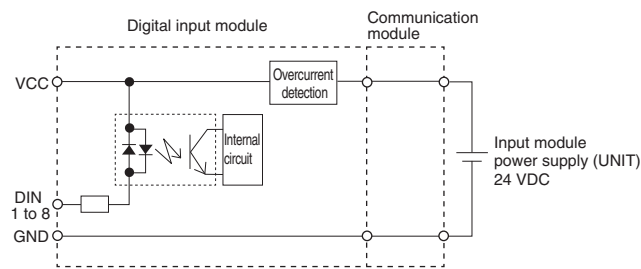
Item	Specifications	
Model	YS9-A2S	
Output specifications	Voltage	Current
Number of outputs	2 points	
Maximum load current	1 A/module	
Load impedance	1 k Ω or more	600 Ω or less
Output signal range	0-5V/0-10V	0-20mA
Resolution	12bit	
Conversion accuracy (25°C [77°F])	±0.5%F.S.	
Protection function	Overcurrent detection, output short-circuit protection	
Internal current consumption ^{Note}	Input power supply: 40 mA or less/output power supply: 30 mA or less	
Mass	160 g [5.64 oz]	

Note: Excluding load supply current

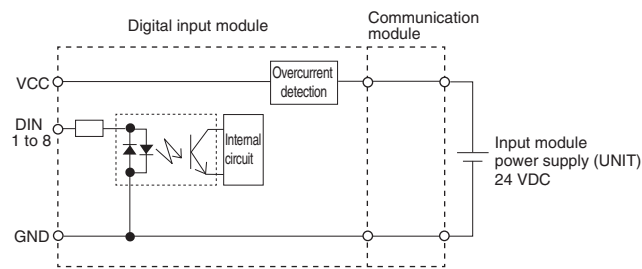


Analog Output × 2

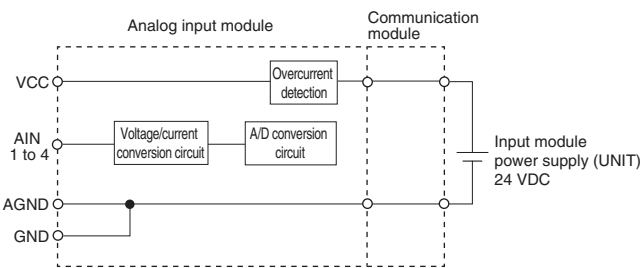
YS9-D8N



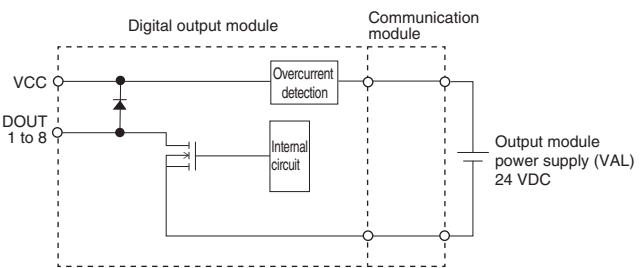
YS9-D8N-P



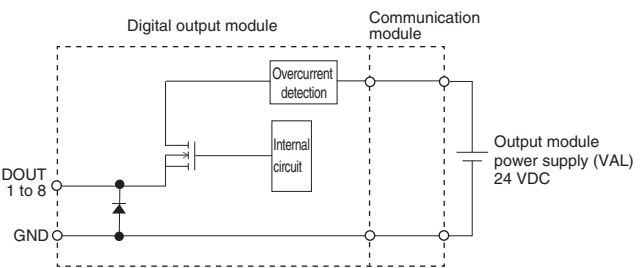
YS9-A4N



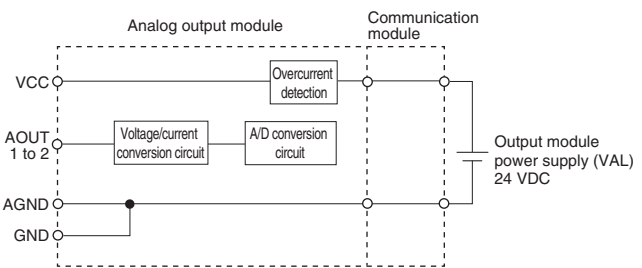
YS9-D8S



YS9-D8S-M



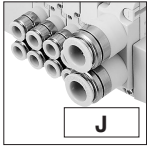
YS9-A2S



Order codes for F10 Series Easy Assembly Type Manifold with I/O Terminal (IP65/67 compliant)

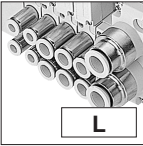
Manifold output specification

With dual use fitting blocks
(base piping type)



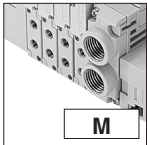
Outlet port fitting
F10: $\phi 4$, $\phi 6$

With selectable fittings
(base piping type)



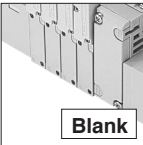
Outlet port should be selected in accordance with the manifold fitting specification.

With female thread blocks
(base piping type)



Outlet port female thread
F10: M5 x 0.8

With plates
(direct piping type)



Blank

Valve size

F10M 10 mm
[0.394 in.] width

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
-JL: Dual use fitting, left-side mounting
-JD: Dual use fitting, both-side mounting
Fitting size (1(P), 3, 5(R) ports), $\phi 6$, $\phi 8$

Female thread block

-MR: Female thread, right-side mounting
-ML: Female thread, left-side mounting
-MD: Female thread, both-side mounting
Female thread size (1(P), 3, 5(R) ports), Rc1/8

Female thread block

-MRH: Female thread, right-side mounting^{Note12}
-MLH: Female thread, left-side mounting^{Note12}
-MDH: Female thread, both-side mounting^{Note12}
Female thread size (1(P), 3, 5(R) ports), NPT1/8

Single use fitting block

-J5R: Single use fitting, right-side mounting
-J5L: Single use fitting, left-side mounting
-J5D: Single use fitting, both-side mounting
Fitting size (1(P), 3, 5(R) ports), $\phi 6$
-J6R: Single use fitting, right-side mounting
-J6L: Single use fitting, left-side mounting
-J6D: Single use fitting, both-side mounting
Fitting size (1(P), 3, 5(R) ports), $\phi 8$

Intermediate piping block

-JT: Dual use fitting, both-side mounting, intermediate piping block $\phi 6$, $\phi 8$
-J5T: Single use fitting, both-side mounting, intermediate piping block $\phi 6$
-J6T: Single use fitting, both-side mounting, intermediate piping block $\phi 8$
-MT: Female thread, both-side mounting, intermediate piping block Rc1/8
-MTH: Female thread, both-side mounting, intermediate piping block NPT1/8^{Note12}

Communication specification

-B3P: CC-Link (32 outputs)
Input/output module supported

Number of modules specifications

Blank: No I/O modules
(Only communication modules)
1 to 8: Number of I/O modules mounted
8 max.



When entering the order codes for I/O modules, indicate the I/O modules after indicating the mounted valves.
For details of how to indicate I/O modules, see Indicating I/O modules on page ⑨.

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.

Mounting specification

Blank

Direct mounting

-DN

With DIN brackets (without rails)

-DR

With DIN brackets, with rails
Note: For details of rails to be assembled and shipped, see page ⑩.

Valve size

F10 Standard type

F10L Low-current type

Valve size Number of units Manifold outlet specification Pilot specification Piping block specification Communication specification Number of modules specifications Wiring connection specification Mounting specification

Manifold model											
Base piping type	F10M	2 . . . □ Note 1	XU (※ Rc)	J M	Blank G	-JR -JL -JD -MR -ML -MD	-J5R -J5L -J5D -J6R -J6L -J6D	-JT -J5T -J6T -MT	-B3P	Blank -1~8	Blank -W Blank -DN -DR
Base piping type selectable fitting			XU (※ Rc) XUH (※ NPT) Only L or Blank is available in the inch female thread specification and the manifold outlet specification.	L	Blank G	-JR -JL -JD -MR -ML -MD -MRH ^{Note12}	-MLH ^{Note12} -MDH ^{Note12} -J5R -J5L -J5D -J6R -J6L	-J6D -JT -J5T -J6T -MT -MTH ^{Note12}	-B3P	Blank -1~8	Blank -W Blank -DN -DR
Direct piping type				Blank	Blank G	-JR -JL -JD -MR -ML -MD -MRH ^{Note12}	-MLH ^{Note12} -MDH ^{Note12} -J5R -J5L -J5D -J6R -J6L	-J6D -JT -J5T -J6T -MT -MTH ^{Note12}	-B3P	Blank -1~8	Blank -W Blank -DN -DR

- Notes: 1. To determine the maximum number of units, see "Maximum Number of Units for Communication Specification" on page ⑨.
2. Valve mounting location is from the left, with the solenoid on top, and the 4(A), 2(B) port side in front.
3. When selecting J, M, or L (base piping type) for the manifold outlet specifications, always enter -A1 (with plate) for the valve outlet type.
4. For the wiring connection specification for block off plate, you can select single and double with the block off plate wiring connection specification, apart from the manifold (valve) wiring connection specification.
5. When the valve specification is T1 or T2, the manual override lever is placed only on the A side.

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 NO)^{Note 9}
TB: Tandem 3-port (NO and NO)^{Note 9}
TC: Tandem 3-port (NC and NO)^{Note 9}

Operation type

Blank

Internal pilot type^{Note 7}

G

External pilot type^{Note 8}

(for positive pressure)

* No vacuum valve can be mounted.

Manual override

Manual override button



Manual override lever^{Note 5}

Valve outlet type

-A1 With plate^{Note 3}
(base piping type)

5-port specification

-FJ With dual use fitting block (direct piping type) **F10:** $\phi 4$, $\phi 6$

-FJ5 With single use fitting block (direct piping type) **F10:** $\phi 4$

-FJ6 With single use fitting block (direct piping type) **F10:** $\phi 6$

-FM With female thread blocks (direct piping type) **F10:** M5 x 0.8

-FMH With female thread block^{Note 12} (direct piping type) **F10:** 10-32UNF

3-port specification^{Note 10}

-FJ5A With single use fitting block, normally closed (NC) (direct piping type) **F10:** $\phi 4$

-FJ5B With single use fitting block, normally open (NO) (direct piping type) **F10:** $\phi 4$

-FJ6A With single use fitting block, normally closed (NC) (direct piping type) **F10:** $\phi 6$

-FJ6B With single use fitting block, normally open (NO) (direct piping type) **F10:** $\phi 6$

-FMA With female thread block, normally closed (NC) (direct piping type) **F10:** M5 x 0.8

-FMAH With female thread block, normally closed (NC)^{Note 12} (direct piping type) **F10:** 10-32UNF

-FMB With female thread block, normally open (NO) (direct piping type) **F10:** M5 x 0.8

-FMBH With female thread block, normally open (NO)^{Note 12} (direct piping type) **F10:** 10-32UNF

Manifold fitting specification

5-port specification

-J5 With single use fitting block (base piping type) **F10:** $\phi 4$

-J6 With single use fitting block (base piping type) **F10:** $\phi 6$

-M With female thread blocks (base piping type) **F10:** M5 x 0.8

-MH With female thread block^{Note 12} (base piping type) **F10:** 10-32UNF

3-port specification^{Note 10}

-J5A With single use fitting block, normally closed (NC) (base piping type) **F10:** $\phi 4$

-J5B With single use fitting block, normally open (NO) (base piping type) **F10:** $\phi 4$

-J6A With single use fitting block, normally closed (NC) (base piping type) **F10:** $\phi 6$

-J6B With single use fitting block, normally open (NO) (base piping type) **F10:** $\phi 6$

-MA With female thread block, normally closed (NC) (base piping type) **F10:** M5 x 0.8

-MAH With female thread block, normally closed (NC)^{Note 12} (base piping type) **F10:** 10-32UNF

-MB With female thread block, normally open (NO) (base piping type) **F10:** M5 x 0.8

-MBH With female thread block, normally open (NO)^{Note 12} (base piping type) **F10:** 10-32UNF

Back pressure prevention valve

Blank

No back pressure prevention valve

-E2

With back pressure prevention valve

Port isolator

Blank: No port isolator

-XSP: For 1(P) port^{Note 6}

-XSR: For 3(R2), 5(R1) ports^{Note 6}

-XSA: For 1(P), 3(R2), 5(R1) ports^{Note 6}

Block off plate wiring specification

Blank: Double wiring
-S: Single wiring

Station	Valve size	Valve specification	Operation type	IP specifications	Manual override	Valve outlet type	Manifold fitting specification	Back pressure prevention valve	Port isolator	Block off plate wiring specification
Mounting valve model										
stn. 1 : : stn. □ Note 2	F10 F10L	T0 T3 TA ^{Note 9} T1 T4 TB ^{Note 9} T2 T5 TC ^{Note 9}	Blank ^{Note 7} G ^{Note 8}	P ^{Note 11}	Blank -R ^{Note 5}	-A1 ^{Note 3}		Blank -E2	Blank -XSP ^{Note 6} -XSR ^{Note 6} -XSA ^{Note 6}	DC24V Blank -S
F10 XBPP-P (for block-off plate) ^{Note 4}										
If selecting an intermediate piping block, see page 9 to enter information.										
stn. 1 : : stn. □ Note 2	F10 F10L	T0 T3 TA ^{Note 9} T1 T4 TB ^{Note 9} T2 T5 TC ^{Note 9}	Blank ^{Note 7} G ^{Note 8}	P ^{Note 11}	Blank -R ^{Note 5}	-A1 ^{Note 3}	-J5 -J6 -M -MA -MH ^{Note 12} -MAH ^{Note 12} -J5A -J6A -J5B -J6B -FMA -FMAH ^{Note 12} -FMB -FMBH ^{Note 12}	Blank -E2	Blank -XSP ^{Note 6} -XSR ^{Note 6} -XSA ^{Note 6}	DC24V Blank -S
F10 XBPP-P (for block-off plate) ^{Note 4}										
If selecting an intermediate piping block, see page 9 to enter information.										
stn. 1 : : stn. □ Note 2	F10 F10L	T0 T3 TA ^{Note 9} T1 T4 TB ^{Note 9} T2 T5 TC ^{Note 9}	Blank ^{Note 7} G ^{Note 8}	P ^{Note 11}	Blank -R ^{Note 5}	-FJ -FJ5 -FJ6 -FJ6A -FM -FMAH ^{Note 12} -FMH ^{Note 12} -FMAH ^{Note 12} -FJ5A -FJ6A -FJ5B -FJ6B -FMA -FMAH ^{Note 12} -FMB -FMBH ^{Note 12}		Blank -E2	Blank -XSP ^{Note 6} -XSR ^{Note 6} -XSA ^{Note 6}	DC24V Blank -S
F10 XBPP-P (for block-off plate) ^{Note 4}										
If selecting an intermediate piping block, see page 9 to enter information.										

Notes: 6. 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 -XSA, or 1 each port isolator for -XSP and -XSR 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.).
 7. Cannot be mounted on the external pilot manifold.

8. Cannot be mounted on the internal pilot manifold.
 9. Not available in external pilot type.
 10. The 3-port specifications are only available in the valve specification T0, T1, and T2.
 11. Provides an IP65/67 protection structure around the electrical equipment, preventing the ingress of solid foreign objects and water from external sources.
 12. Can be selected only when the manifold type is XUH.

Order codes for F10 series Easy Assembly Type Manifold with I/O Terminal (IP65/67 compliant)

Intermediate piping block

(When mounting an intermediate piping block on a manifold, complete the model below and indicate it with the station specified on page ⑱.)

F 10 ZX - - **TK** -

Valve size
10: 10 mm
[0.394 in.]
width

Pilot specification
Blank : Internal pilot
G : External pilot

Manifold model
TK: I/O terminal IP65/67 compliant

Port isolator
Blank : No port isolator
XSP : Port isolator (1(P) port)
XSR : Port isolator (3(R2), 5(R1) ports)
XSA : Port isolator (1(P), 3(R2), 5(R1) ports)

Piping block specification^{Note}
PJ : With Dual use fitting $\phi 6$ [0.236]· $\phi 8$ [0.315]
PJ5 : With Single use fitting, $\phi 6$ [0.236]
PJ6 : With Single use fitting, $\phi 8$ [0.315]
PM : With female thread, Rc1/8
PMH : With female thread, NPT1/8

Note: Combinations of port specification of intermediate piping blocks and piping block specification of manifolds are as given in the table below.

Manifold piping specification	Intermediate piping block
JT	PJ
J5T	PJ5
J6T	PJ6
MT	PM
MTH	PMH

Indicating I/O modules

Input/output

-D8N : Digital Input × 8
-D8S : Digital Output × 8
-A4N : Analog Input × 4
(Switchable between 0-5 V/0-10 V/0-20 mA)
-A2S : Analog Output × 2
(Switchable between 0-5 V/0-10 V/0-20 mA)

* YS9-A4N only: Up to 4 units can be selected
All others: Up to 8 units can be selected

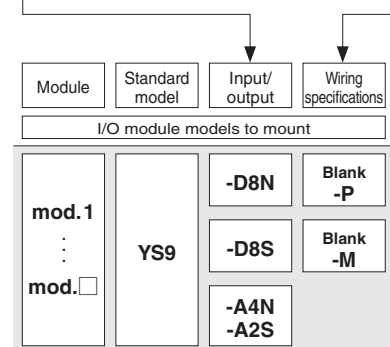
Wiring specifications

Input: -D8N

Blank : NPN type
-P : PNP type

Output: -D8S

Blank : Sink type (load side + common)
-M : Source type (load side - common)

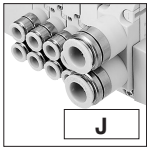


Maximum Number of Units for Communication Specification

		Maximum number of units	
		Wiring connection specification	
Communication specification	Maximum control points	Packed wiring (blank)	Double wiring (-W)
-B3P : CC-Link (32 outputs) supported	32 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. -B3P have a maximum of 20 connected units.	16 units

Manifold output specification

With dual use fitting blocks
(base piping type)



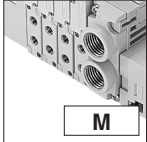
Outlet port fitting
F15: φ6, φ8

With selectable fittings
(base piping type)



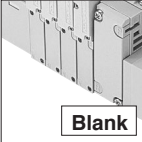
Outlet port should be
selected in accordance
with the manifold fitting
specification.

With female thread blocks
(base piping type)



Outlet port
female thread
F15: Rc1/8

With plates
(direct piping type)



Blank

Valve size

F15M 15 mm
[0.591 in.]
width

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

Female thread block

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

Female thread block

-MRH: Female thread, right-side mounting^{Note12}
-MLH: Female thread, left-side mounting^{Note12}
-MDH: Female thread, both-side mounting^{Note12}
Female thread size (1(P), 3, 5(R) ports), NPT1/4

Single use fitting block

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

Intermediate piping block

-JT: Dual use fitting, both-side mounting,
intermediate piping block φ8, φ10
-J5T: Single use fitting, both-side
mounting, intermediate piping block
φ8
-J6T: Single use fitting, both-side
mounting, intermediate piping block
φ10
-MT: Female thread, both-side mounting,
intermediate piping block Rc1/8
-MTH: Female thread, both-side
mounting, intermediate piping
block NPT1/4^{Note12}

Communication specification

-B3P: CC-Link (32 outputs)
Input/output module supported

Number of modules specifications

Blank: No I/O modules
(Only communication modules)
1 to 8: Number of I/O modules mounted
8 max.



When entering the order codes for I/O
modules, indicate the I/O modules after
indicating the mounted valves.
For details on how to indicate I/O modules,
see Indicating I/O modules on page 13.

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.

Mounting specification

Blank

Direct mounting

-DN

With DIN brackets (without rails)

-DR

With DIN brackets, with
rails

Note: For details of rails to
be assembled and
shipped, see page 23.

Valve size

F15 Standard type

F15L Low-current type

Manifold model										
Base piping type	Valve size	Number of units	Manifold outlet specification	Pilot specification	Piping block specification	Communication specification	Number of modules specifications	Wiring connection specification	Mounting specification	
Base piping type			XU (*Rc)	J M	Blank G -JR -J5R -JT -JL -J5L -J5T -JD -J5D -J6T -MR -J6R -MT -ML -J6L -MD -J6D	-B3P	Blank -1~8	Blank -W	Blank -DN -DR	
Base piping type selectable fitting	F15M	2 . . . Note 1	XU (*Rc) XUH (*NPT) Only L or Blank is available in the inch female thread specification and the manifold outlet specification.	L	Blank G -JR -MLH ^{Note12} -J6D -JL -MDH ^{Note12} -JT -JD -J5R -J5T -MR -J5L -J6T -ML -J5D -MT -MD -J6R -MTH ^{Note12} -MRH ^{Note12} -J6L	-B3P	Blank -1~8	Blank -W	Blank -DN -DR	
Direct piping type			Blank	Blank	Blank G -JR -MLH ^{Note12} -J6D -JL -MDH ^{Note12} -JT -JD -J5R -J5T -MR -J5L -J6T -ML -J5D -MT -MD -J6R -MTH ^{Note12} -MRH ^{Note12} -J6L	-B3P	Blank -1~8	Blank -W	Blank -DN -DR	

Notes: 1. To determine the maximum number of units, see "Maximum Number of Units for Communication Specification" on page 13.

2. Valve mounting location is from the left, with the solenoid on top, and the 4(A), 2(B) port side in front.

3. When selecting J, M, or L (base piping type) for the manifold outlet specifications, always enter -A1 (with plate) for the valve outlet type.

4. For the wiring connection specification for block off plate, you can select single and double with the block off plate wiring connection specification, apart from the manifold (valve) wiring connection specification.

5. When the valve specification is T1 or T2, the manual override lever is placed only on the A side.

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)^{Note 9}
TB: Tandem 3-port (NO and NO)^{Note 9}
TC: Tandem 3-port (NC and NO)^{Note 9}

Operation type

Blank

Internal pilot type^{Note 7}

G

External pilot type^{Note 8}

(for positive pressure)

* No vacuum valve can be mounted.

Manual override

Manual override button



Manual override lever^{Note 5}



Valve outlet type

-A1 With plate^{Note 3}
(base piping type)

5-port specification

-FJ With dual use fitting block (direct piping type) **F15:** φ6, φ8

-FJ5 With single use fitting block (direct piping type) **F15:** φ6

-FJ6 With single use fitting block (direct piping type) **F15:** φ8

-FM With female thread blocks (direct piping type) **F15:** Rc1/8

-FMH With female thread block^{Note 12} (direct piping type) **F15:** NPT1/8

3-port specification^{Note 10}

-FJ5A With single use fitting block, normally closed (NC) (direct piping type) **F15:** φ6

-FJ5B With single use fitting block, normally open (NO) (direct piping type) **F15:** φ6

-FJ6A With single use fitting block, normally closed (NC) (direct piping type) **F15:** φ8

-FJ6B With single use fitting block, normally open (NO) (direct piping type) **F15:** φ8

-FMA With female thread block, normally closed (NC) (direct piping type) **F15:** Rc1/8

-FMAH With female thread block, normally closed (NC)^{Note 12} (direct piping type) **F15:** NPT1/8

-FMB With female thread block, normally open (NO) (direct piping type) **F15:** Rc1/8

-FMBH With female thread block, normally open (NO)^{Note 12} (direct piping type) **F15:** NPT1/8

Manifold fitting specification

5-port specification

-J5 With single use fitting block (base piping type) **F15:** φ6

-J6 With single use fitting block (base piping type) **F15:** φ8

-M With female thread blocks (base piping type) **F15:** Rc1/8

-MH With female thread block^{Note 12} (base piping type) **F15:** NPT1/8

3-port specification^{Note 10}

-J5A With single use fitting block, normally closed (NC) (base piping type) **F15:** φ6

-J5B With single use fitting block, normally open (NO) (base piping type) **F15:** φ6

-J6A With single use fitting block, normally closed (NC) (base piping type) **F15:** φ8

-J6B With single use fitting block, normally open (NO) (base piping type) **F15:** φ8

-MA With female thread block, normally closed (NC) (base piping type) **F15:** Rc1/8

-MAH With female thread block, normally closed (NC)^{Note 12} (base piping type) **F15:** NPT1/8

-MB With female thread block, normally open (NO) (base piping type) **F15:** Rc1/8

-MBH With female thread block, normally open (NO)^{Note 12} (base piping type) **F15:** NPT1/8

Back pressure prevention valve

Blank

No back pressure prevention valve

-E2

With back pressure prevention valve

Port isolator

Blank: No port isolator

-XSP: For 1(P) port^{Note 6}

-XSR: For 3(R2), 5(R1) ports^{Note 6}

-XSA: For 1(P), 3(R2), 5(R1) ports^{Note 6}

Block off plate wiring specification

Blank: Double wiring

-S: Single wiring

Station	Valve size	Valve specification	Operation type	IP specifications	Manual override	Valve outlet type	Manifold fitting specification	Back pressure prevention valve	Port isolator	Block off plate wiring specification	Voltage
Mounting valve model											
stn. 1 : : stn. □ Note 2	F15 F15L	T0 T3 TA ^{Note 9} T1 T4 TB ^{Note 9} T2 T5 TC ^{Note 9}	Blank ^{Note 7} G ^{Note 8}	P ^{Note 11}	Blank -R ^{Note 5}	-A1 ^{Note 3}		Blank -E2	Blank -XSP ^{Note 6} -XSR ^{Note 6} -XSA ^{Note 6}	Blank -S	DC24V
F15 XBPP-P (for block-off plate) ^{Note 4}											
If selecting an intermediate piping block, see page 13 to enter information.											
stn. 1 : : stn. □ Note 2	F15 F15L	T0 T3 TA ^{Note 9} T1 T4 TB ^{Note 9} T2 T5 TC ^{Note 9}	Blank ^{Note 7} G ^{Note 8}	P ^{Note 11}	Blank -R ^{Note 5}	-A1 ^{Note 3}	-J5 -J6A -J6 -J6B -M -MA -MH ^{Note 12} -MAH ^{Note 12} -J5A -MB -J5B -MBH ^{Note 12}	Blank -E2	Blank -XSP ^{Note 6} -XSR ^{Note 6} -XSA ^{Note 6}	Blank -S	DC24V
F15 XBPP-P (for block-off plate) ^{Note 4}											
If selecting an intermediate piping block, see page 13 to enter information.											
stn. 1 : : stn. □ Note 2	F15 F15L	T0 T3 TA ^{Note 9} T1 T4 TB ^{Note 9} T2 T5 TC ^{Note 9}	Blank ^{Note 7} G ^{Note 8}	P ^{Note 11}	Blank -R ^{Note 5}	-FJ -FJ5A -FJ6 -FJ6A -FM -FMAH ^{Note 12} -FMH ^{Note 12} -FMBH ^{Note 12} -FJ5B -FJ6B		Blank -E2	Blank -XSP ^{Note 6} -XSR ^{Note 6} -XSA ^{Note 6}	Blank -S	DC24V
F15 XBPP-P (for block-off plate) ^{Note 4}											
If selecting an intermediate piping block, see page 13 to enter information.											

Notes: 6. 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 -XSA, or 1 each port isolator for -XSP and -XSR 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.).
 7. Cannot be mounted on the external pilot manifold.

8. Cannot be mounted on the internal pilot manifold.
 9. Not available in external pilot type.
 10. The 3-port specifications are only available in the valve specification T0, T1, and T2.
 11. Provides an IP65/67 protection structure around the electrical equipment, preventing the ingress of solid foreign objects and water from external sources.
 12. Can be selected only when the manifold type is XUH.

Order codes for F15 series Easy Assembly Type Manifold with I/O Terminal (IP65/67 compliant)

Intermediate piping block

(When mounting an intermediate piping block on a manifold, complete the model below and indicate it with the station specified on page 28.)

F 15 ZX - - **TK** -

Valve size

15: 15 mm
[0.591 in.]
width

Pilot specification

Blank : Internal pilot
specification
G : External pilot
specification

Manifold model

TK: I/O terminal IP65/67 compliant

Port isolator

Blank : No port isolator

XSP : Port isolator (1(P) port)

XSR : Port isolator (3(R2), 5(R1) ports)

XSA : Port isolator (1(P), 3(R2), 5(R1) ports)

Piping block specification^{Note}

PJ : With Dual use fitting $\phi 8$ [0.315]· $\phi 10$ [0.394]

PJ5 : With Single use fitting, $\phi 8$ [0.315]

PJ6 : With Single use fitting, $\phi 10$ [0.394]

PM : With female thread, Rc1/4

PMH : With female thread, NPT1/4

Note: Combinations of port specification of intermediate piping blocks and piping block specification of manifolds are as given in the table below.

Manifold piping specification	Intermediate piping block
JT	PJ
J5T	PJ5
J6T	PJ6
MT	PM
MTH	PMH

Indicating I/O modules

Input/output

-D8N : Digital Input × 8

-D8S : Digital Output × 8

-A4N : Analog Input × 4
(Switchable between 0-5 V/0-10 V/0-20 mA)

-A2S : Analog Output × 2
(Switchable between 0-5 V/0-10 V/0-20 mA)

* YS9-A4N only: Up to 4 units can be selected
All others: Up to 8 units can be selected

Wiring specifications

Input: -D8N

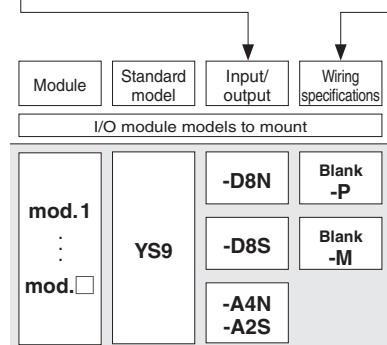
Blank : NPN type

-P : PNP type

Output: -D8S

Blank : Sink type (load side + common)

-M : Source type (load side - common)



Maximum Number of Units for Communication Specification

		Maximum number of units	
		Wiring connection specification	
Communication specification	Maximum control points	Packed wiring (blank)	Double wiring (-W)
-B3P : CC-Link (32 outputs) supported	32 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. -B3P have a maximum of 20 connected units.	16 units

● Main body model

YS9E

Standard model

Mounting specification

Blank : Direct mounting
DN : With DIN brackets (without rails)
DR : With DIN brackets (with rails)

Number of I/O modules

1 : Number of I/O modules mounted: 1
 ...
8 : Number of I/O modules mounted: 8 (8 max.)

Communication specifications

B3 : CC-Link, input/output module supported



YS9

● Indicating I/O modules to mount

Input/output

-D8N : Digital Input × 8
-D8S : Digital Output × 8
-A4N : Analog Input × 4
 (Switchable between 0-5 V/0-10 V/0-20 mA)
-A2S : Analog Output × 2
 (Switchable between 0-5 V/0-10 V/0-20 mA)

* YS9-A4N only: Up to 4 units can be selected
 All others: Up to 8 units can be selected

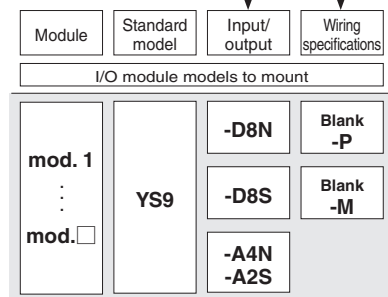
Wiring specifications

Input: -D8N

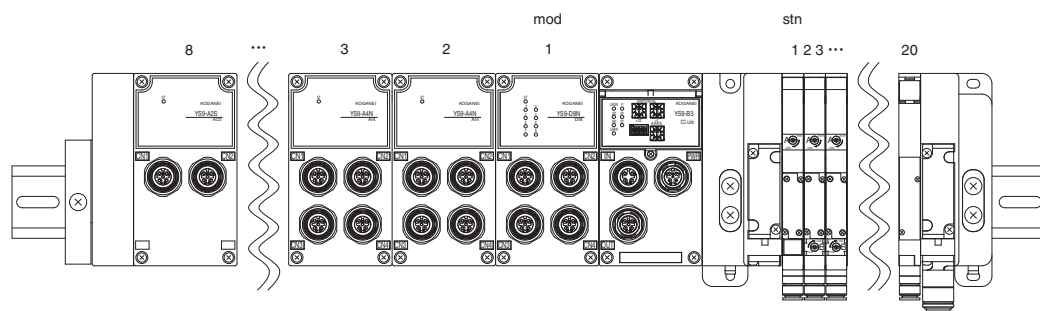
Blank : NPN type
-P : PNP type

Output: -D8S

Blank : Sink type (load side + common)
-M : Source type (load side - common)

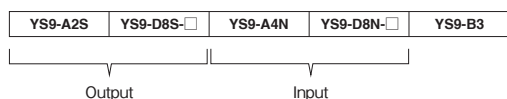


● Arrangement of stn and mod



Recommended arrangement:

- Put modules in the same classification together.
- Analog output at the end, followed by digital output → analog input → digital input in sequence.



● Communication module single unit

YS9 -



Mounting type

B3 : CC-Link, input/output module supported



● I/O module single unit

Digital input × 8

YS9 - D8N -



Digital input specifications

Blank : NPN type

P : PNP type



Digital Output × 8

YS9 - D8S -



Digital output specifications

Blank : Sink type (load side + common)

M : Source type (load side - common)



Analog Input × 4

(Switchable between 0-5 V/0-10 V/0-20 mA)

YS9 - A4N



Analog Output × 2

(Switchable between 0-5 V/0-10 V/0-20 mA)

YS9 - A2S



● Additional parts

• Connecting rods (2 pcs per set)

YS9Z -

Number of I/O modules

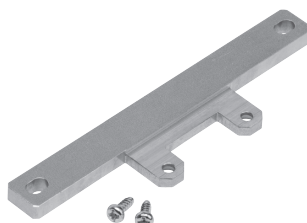
1 : 1
:
8 : 8



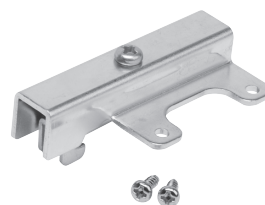
• Mounting bracket

YS9Z -

DM : Direct mounting (tapping screws included)
DN : DIN brackets (tapping screws included)



YS9Z-DM



YS9Z-DN

• Assembly-type connector

YS9Z - CN

Connector specifications

IO : M12 Male Assembly-type Connector for I/O Modules
CCF : M12 Female Assembly-type Connector for CC-Link In
CCM : M12 Male Assembly-type Connector for CC-Link Out
P : M12 Female Assembly-type Connector for Power Supply



• Cable

YS9Z - K -

Cable length

1L : 1 m [3.280 ft]
2L : 2 m [6.560 ft]
5L : 5 m [16.400 ft]

* Type and length combinations are based on the table below

Type \ Length	1L	2L	5L
CCF	-	○	○
CCM	-	○	○
CCW	○	○	○
P	○	○	○



Connector specifications

CCF : CC-Link communication cable M12 Female connector on one side - discrete wire on one side
CCM : CC-Link communication cable M12 Male connector on one side - discrete wire on one side
CCW : CC-Link communication cable M12 Female connector on one side - M12 male connector on one side
P : Power cable M12 Female connector on one - discrete wire on one side

• End block (with small screws)

YS9Z -

End block specifications
RE: Right side
LE: Left side

• M12 male waterproof caps (10 pcs)

YS9Z - SA12



• DIN rail (unit: 1 pc)

DIN -

Rail length
125 : 125 mm [4.921 in.]
: (25 mm [0.984 in.] pitch)
950 : 950 mm [37.402 in.]

• Connector converter

YS9Z - CV

Connector specifications

A: Integrated M12—M8 branching type
B: M12—M8 branching type, cable 130 mm [5.118 in.]



YS9Z-CVA



YS9Z-CVB

Mass

I/O terminal (not including valves)

Mounting option	Calculation of mass for each number of units
No symbol	$384 [13.54] + 12 [0.42]n + \text{I/O module weight}$
-DN	$340 [11.99] + 12 [0.42]n + \text{I/O module weight}$
-DR	$369 [13.02] + 20 [0.71]n + \text{I/O module weight}$

n: Number of modules

Calculation example: **YS9EB3-8-DR**

mod.1 YS9-D8N: 180g

mod.2 YS9-A4N: 180g

mod.3 YS9-D8S: 180g

mod.4 YS9-A2S: 160g

Total: 1,132g

$$= 384 + 12 \times 4 + 180 + 180 + 180 + 160$$

Mass to add for Easy Assembly Type Manifold / I/O terminal

To be added to the result of calculating the Easy Assembly Type Manifold.

Mounting option	Calculation of mass for each number of units
No symbol	$300 [10.58] + 12 [0.42]n + \text{I/O module weight}$
-DN	$278 [9.81] + 12 [0.42]n + \text{I/O module weight}$
-DR	$307 [10.83] + 20 [0.71]n + \text{I/O module weight}$

n: Number of modules

Calculation example: **F10M8XU-JR-B3P-4-W**

stn.1 to 8 F10T1-A1 24 VDC

mod.1 to 4 YS9-D8N: 180g × 4

Total: 2,194g

$(98 \times 8) + 310 + 32 \dots \dots \dots$ manifold part

$+ 300 + (12 \times 4) + (180 \times 4) \dots \dots$ I/O terminal part

F10 series

Easy Assembly Type Manifold and I/O terminal, IP65/67 compliant type, mass (including valve)

Mounting option	Calculation of mass for each number of units			
	Outlet port specifications			
	Female thread block	Dual use fitting block	φ4 [0.157] fitting block	φ6 [0.236] fitting block
No symbol	$(86 [3.03] \times n) + 227 [8.01]$	$(90 [3.17] \times n) + 227 [8.01]$	$(92 [3.25] \times n) + 227 [8.01]$	$(95 [3.35] \times n) + 227 [8.01]$
-DN	$(86 [3.03] \times n) + 288 [10.16]$	$(90 [3.17] \times n) + 288 [10.16]$	$(92 [3.25] \times n) + 288 [10.16]$	$(95 [3.35] \times n) + 288 [10.16]$
-DR	$(88 [3.10] \times n) + 310 [10.93]$	$(92 [3.25] \times n) + 310 [10.93]$	$(94 [3.32] \times n) + 310 [10.93]$	$(97 [3.42] \times n) + 310 [10.93]$

n: Valve units

Fitting specifications	Mass to add			
	Air supply and exhaust ports			
	Female thread block	Dual use fitting block	φ6 [0.236] fitting block	φ8 [0.315] fitting block
J□ M□	22 [0.78]	32 [1.13]	43 [1.52]	48 [1.69]
J□D MD	26 [0.92]	46 [1.62]	68 [2.40]	78 [2.75]
J□T MT	31 [1.09]	61 [2.15]	94 [3.32]	109 [3.84]

When mounting the block plate, subtract 50 g [1.76 oz] per series from the above calculation result.

When mounting **F10□T0** products, subtract 10 g [0.35 oz] per unit from the above calculation result.

F15 series

Easy Assembly Type Manifold and I/O terminal, IP65/67 compliant type, mass (including valve)

Mounting option	Calculation of mass for each number of units			
	Outlet port specifications			
	Female thread block	Dual use fitting block	φ4 [0.157] fitting block	φ6 [0.236] fitting block
No symbol	$(186 [6.56] \times n) + 306 [10.79]$	$(199 [7.02] \times n) + 306 [10.79]$	$(210 [7.41] \times n) + 306 [10.79]$	$(215 [7.58] \times n) + 306 [10.79]$
-DN	$(189 [6.67] \times n) + 369 [13.02]$	$(199 [7.02] \times n) + 369 [13.02]$	$(210 [7.41] \times n) + 369 [13.02]$	$(215 [7.58] \times n) + 369 [13.02]$
-DR	$(192 [6.77] \times n) + 391 [13.79]$	$(201 [7.09] \times n) + 391 [13.79]$	$(213 [7.51] \times n) + 391 [13.79]$	$(218 [7.69] \times n) + 391 [13.79]$

n: Valve units

Fitting specifications	Mass to add			
	Air supply and exhaust ports			
	Female thread block	Dual use fitting block	φ6 [0.236] fitting block	φ8 [0.315] fitting block
J□ M□	34 [1.20]	48 [1.69]	72 [2.54]	82 [2.89]
J□D MD	44 [1.55]	72 [2.54]	120 [4.23]	140 [4.94]
J□T MT	-27 [-0.95]	15 [0.53]	87 [3.07]	117 [4.13]

When mounting the block plate, subtract 100 g [3.53 oz] per series from the above calculation result.

When mounting **F10□T0** products, subtract 13 g [0.46 oz] per series from the above calculation result.

Current consumption calculation

Calculation example: F10M20XUJ-JR-B3P-8

stn.1 to 20: F10T1P-A1/DC24V

mod.1 to 4: YS9-D8N

mod.5 : YS9-A4N

mod.6 : YS9-D8S

mod.7, 8 : YS9-A2S

Number	Module	Model	Internal current consumption (mA)	
			Power for input	Power for output
0	F10 20 connected valves	F10T1P-A1DC24V×20	-	340 (= 17 mA×20)
0	Transmission	YS9-M3	100	10
1	Digital input	YS9-D8N	40	-
2	Digital input	YS9-D8N	40	-
3	Digital input	YS9-D8N	40	-
4	Digital input	YS9-D8N	40	-
5	Analog input	YS9-A4N	60	-
6	Digital output	YS9-D8S	40	30
7	Analog output	YS9-A2S	40	30
8	Analog output	YS9-A2S	40	30
Total internal current consumption (mA)			440	440
Usable current (mA)			1560	1560

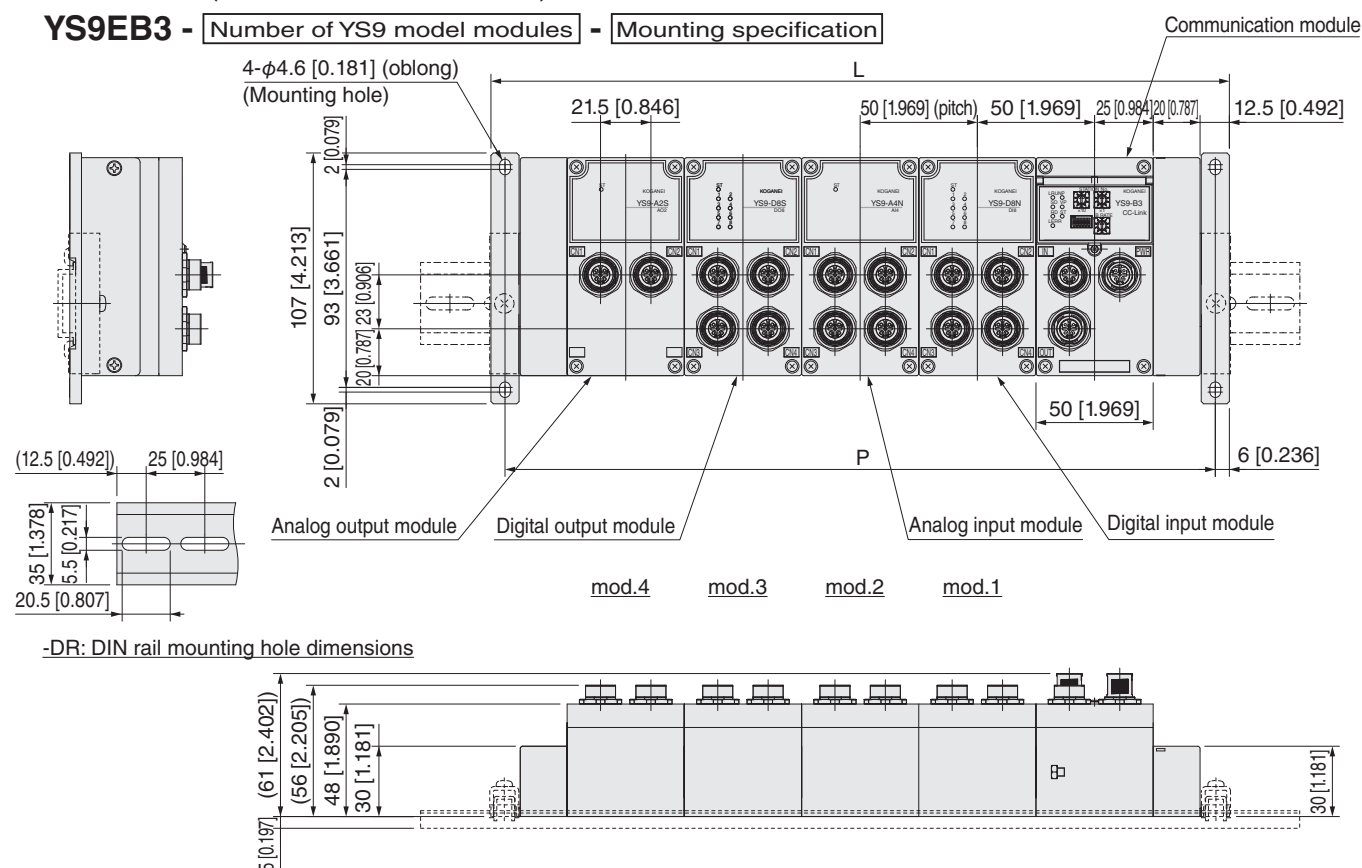
Ensure that the total of internal and external consumption currents for both the input power supply and output power supply does not exceed 2A.

Also, select connected devices so that the maximum load current for digital output modules is not exceeded.

Dimensions (mm [in.])

I/O terminal (CC-Link communication)

YS9EB3 - [Number of YS9 model modules] - [Mounting specification]



Dimensions for each number of I/O modules

Number of mods	L	P	DIN rail
1	165 [6.496]	153 [6.024]	225 [8.858]
2	215 [8.465]	203 [7.992]	275 [10.827]
3	265 [10.433]	253 [9.961]	325 [12.795]
4	315 [12.402]	303 [11.929]	375 [14.764]
5	365 [14.370]	353 [13.898]	425 [16.732]
6	415 [16.339]	403 [15.866]	475 [18.701]
7	465 [18.307]	453 [17.835]	525 [20.669]
8	515 [20.276]	503 [19.803]	575 [22.638]

Examples of models in illustration

YS8EB3-4

mod.1 YS9-D8N

mod.2 YS9-A4N

mod.3 YS9-D8S

mod.4 YS9-A2S

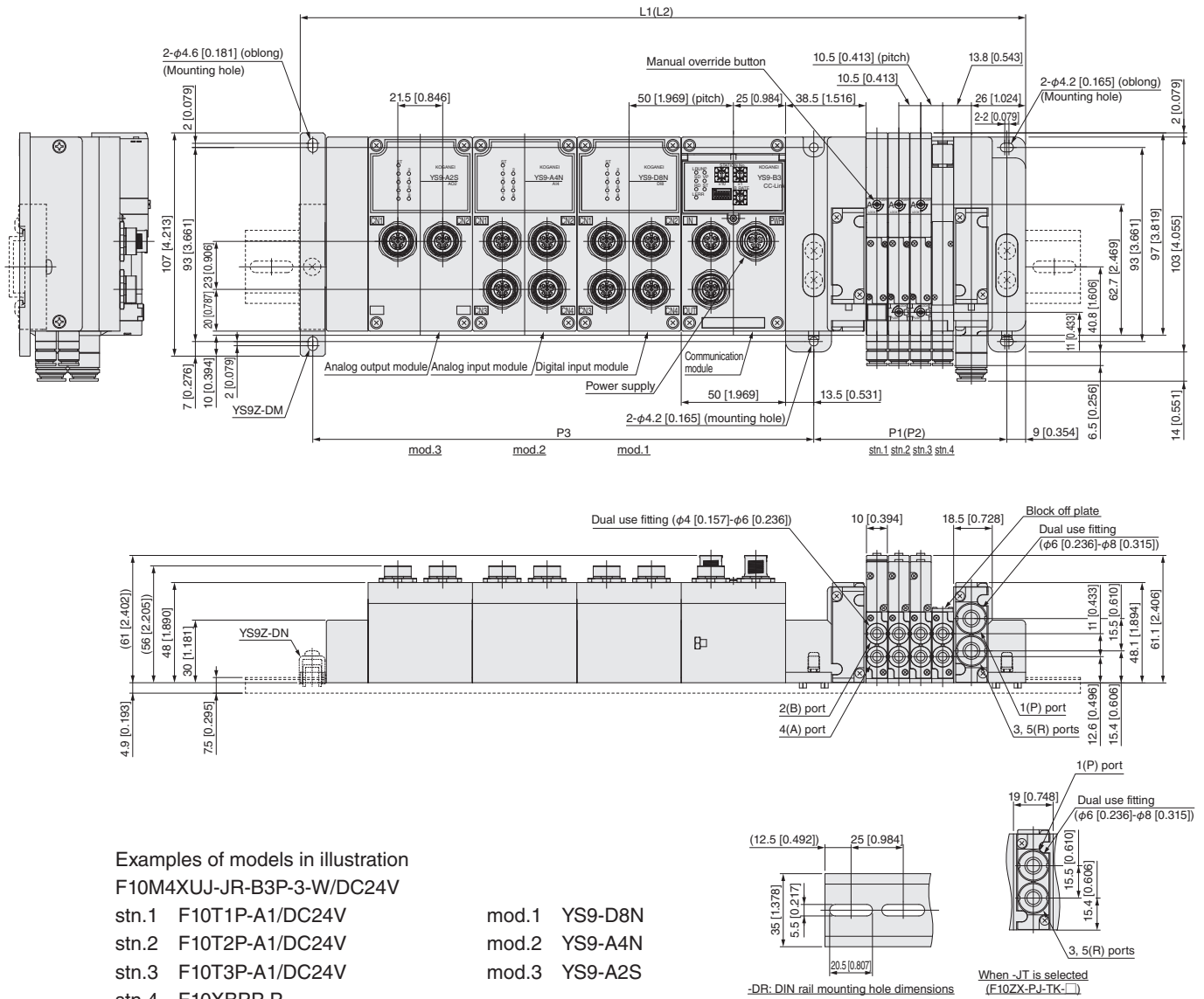
Note 1: Maximum connection is 8 units (however, the maximum for just analog input modules is 4.)

2: For DIN rail mounting, add 1.0 mm [0.039 in.] to L.

● F10 series Easy Assembly Type Manifold with I/O Terminal (IP65/67 compliant)

F10M Valve units **XU** **J** Pilot specification (base piping type)

Manifold outlet port with Dual use fitting block
(CC-Link)



Dimensions (mm)

		If without intermediate piping block																		
Number of mods		0		1		2		3		4		5		6		7		8		P1
Dimension location	P3	90		140		190		240		290		340		390		440		490		
	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN		
Number of units	2	176.5	225	226.5	275	276.5	325	326.5	375	376.5	425	426.5	475	476.5	525	526.5	575	576.5	625	71.5
	3	187	225	237	275	287	325	337	375	387	425	437	475	487	525	537	575	587	625	82
	4	197.5	250	247.5	300	297.5	350	347.5	400	397.5	450	447.5	500	497.5	550	547.5	600	597.5	650	92.5
	5	208	250	258	300	308	350	358	400	408	450	458	500	508	550	558	600	608	650	103
	6	218.5	275	268.5	325	318.5	375	368.5	425	418.5	475	468.5	525	518.5	575	568.5	625	618.5	675	113.5
	7	229	275	279	325	329	375	379	425	429	475	479	525	529	575	579	625	629	675	124
	8	239.5	300	289.5	350	339.5	400	389.5	450	439.5	500	489.5	550	539.5	600	589.5	650	639.5	700	134.5
	9	250	300	300	350	350	400	400	450	450	500	500	550	550	600	600	650	650	700	145
	10	260.5	325	310.5	375	360.5	425	410.5	475	460.5	525	510.5	575	560.5	625	610.5	675	660.5	725	155.5
	11	271	325	321	375	371	425	421	475	471	525	521	575	571	625	621	675	671	725	166
	12	281.5	325	331.5	375	381.5	425	431.5	475	481.5	525	531.5	575	581.5	625	631.5	675	681.5	725	176.5
	13	292	350	342	400	392	450	442	500	492	550	542	600	592	650	642	700	692	750	187
	14	302.5	350	352.5	400	402.5	450	452.5	500	502.5	550	552.5	600	602.5	650	652.5	700	702.5	750	197.5
	15	313	375	363	425	413	475	463	525	513	575	563	625	613	675	663	725	713	775	208
	16	323.5	375	373.5	425	423.5	475	473.5	525	523.5	575	573.5	625	623.5	675	673.5	725	723.5	775	218.5
	17	334	375	384	425	434	475	484	525	534	575	584	625	634	675	684	725	734	775	229
	18	344.5	400	394.5	450	444.5	500	494.5	550	544.5	600	594.5	650	644.5	700	694.5	750	744.5	800	239.5
	19	355	400	405	450	455	500	505	550	555	600	605	650	655	700	705	750	755	800	250
	20	365.5	425	415.5	475	465.5	525	515.5	575	565.5	625	615.5	675	665.5	725	715.5	775	765.5	825	260.5
	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

		If with intermediate piping block																		
Number of mods		0		1		2		3		4		5		6		7		8		P2
Dimension location	P3	90		140		190		240		290		340		390		440		490		
	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN		
Number of units	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	3	195.5	250	245.5	300	295.5	350	345.5	400	395.5	450	445.5	500	495.5	550	545.5	600	595.5	650	90.5
	4	206	250	256	300	306	350	356	400	406	450	456	500	506	550	556	600	606	650	101
	5	216.5	275	266.5	325	316.5	375	366.5	425	416.5	475	466.5	525	516.5	575	566.5	625	616.5	675	111.5
	6	227	275	277	325	327	375	377	425	427	475	477	525	527	575	577	625	627	675	122
	7	237.5	300	287.5	350	337.5	400	387.5	450	437.5	500	487.5	550	537.5	600	587.5	650	637.5	700	132.5
	8	248	300	298	350	348	400	398	450	448	500	498	550	548	600	598	650	648	700	143
	9	258.5	300	308.5	350	358.5	400	408.5	450	458.5	500	508.5	550	558.5	600	608.5	650	658.5	700	153.5
	10	269	325	319	375	369	425	419	475	469	525	519	575	569	625	619	675	669	725	164
	11	279.5	325	329.5	375	379.5	425	429.5	475	479.5	525	529.5	575	579.5	625	629.5	675	679.5	725	174.5
	12	290	350	340	400	390	450	440	500	490	550	540	600	590	650	640	700	690	750	185
	13	300.5	350	350.5	400	400.5	450	450.5	500	500.5	550	550.5	600	600.5	650	650.5	700	700.5	750	195.5
	14	311	350	361	400	411	450	461	500	511	550	561	600	611	650	661	700	711	750	206
	15	321.5	375	371.5	425	421.5	475	471.5	525	521.5	575	571.5	625	621.5	675	671.5	725	721.5	775	216.5
	16	332	375	382	425	432	475	482	525	532	575	582	625	632	675	682	725	732	775	227
	17	342.5	400	392.5	450	442.5	500	492.5	550	542.5	600	592.5	650	642.5	700	692.5	750	742.5	800	237.5
	18	353	400	403	450	453	500	503	550	553	600	603	650	653	700	703	750	753	800	248
	19	363.5	400	413.5	450	463.5	500	513.5	550	563.5	600	613.5	650	663.5	700	713.5	750	763.5	800	258.5
	20	374	425	424	475	474	525	524	575	574	625	624	675	674	725	724	775	774	825	269
	21	384.5	425	434.5	475	484.5	525	534.5	575	584.5	625	634.5	675	684.5	725	734.5	775	784.5	825	279.5

Note 1: L1 and L2 are dimensions for direct mounting installation. For DIN rail mounting, add 0.5 mm.

Except, however, when the mod number is 0.

2: L1 and L2 of mod 0 are the dimensions up to the left end of the communication module.

Dimensions (in.)

		If without intermediate piping block																		
Number of mods		0		1		2		3		4		5		6		7		8		P1
Dimension location	P3	90		140		190		240		290		340		390		440		490		
	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN		
Number of units	2	6.949	8.858	8.917	10.827	10.886	12.795	12.854	14.764	14.823	16.732	16.791	18.701	18.760	20.669	20.728	22.638	22.697	24.606	2.815
	3	7.362	8.858	9.331	10.827	11.299	12.795	13.268	14.764	15.236	16.732	17.205	18.701	19.173	20.669	21.142	22.638	23.110	24.606	3.228
	4	7.776	9.843	9.744	11.811	11.713	13.780	13.681	15.748	15.650	17.717	17.618	19.685	19.587	21.654	21.555	23.622	23.524	25.591	3.642
	5	8.189	9.843	10.157	11.811	12.126	13.780	14.094	15.748	16.063	17.717	18.031	19.685	20.000	21.654	21.969	23.622	23.937	25.591	4.055
	6	8.602	10.827	10.571	12.795	12.539	14.764	14.508	16.732	16.476	18.701	18.445	20.669	20.413	22.638	22.382	24.606	24.350	26.575	4.469
	7	9.016	10.827	10.984	12.795	12.953	14.764	14.921	16.732	16.890	18.701	18.858	20.669	20.827	22.638	22.795	24.606	24.764	26.575	4.882
	8	9.429	11.811	11.398	13.780	13.366	15.748	15.335	17.717	17.303	19.685	19.272	21.654	21.240	23.622	23.209	25.591	25.177	27.559	5.295
	9	9.843	11.811	11.811	13.780	13.780	15.748	15.748	17.717	17.717	19.685	19.685	21.654	21.654	23.622	23.622	25.591	25.591	27.559	5.709
	10	10.256	12.795	12.224	14.764	14.193	16.732	16.161	18.701	18.130	20.669	20.098	22.638	22.067	24.606	24.035	26.575	26.004	28.543	6.122
	11	10.669	12.795	12.638	14.764	14.606	16.732	16.575	18.701	18.543	20.669	20.512	22.638	22.480	24.606	24.449	26.575	26.417	28.543	6.535
	12	11.083	12.795	13.051	14.764	15.020	16.732	16.988	18.701	18.957	20.669	20.925	22.638	22.894	24.606	24.862	26.575	26.831	28.543	6.949
	13	11.496	13.780	13.465	15.748	15.433	17.717	17.402	19.685	19.370	21.654	21.339	23.622	23.307	25.591	25.276	27.559	27.244	29.528	7.362
	14	11.909	13.780	13.878	15.748	15.846	17.717	17.815	19.685	19.783	21.654	21.752	23.622	23.720	25.591	25.689	27.559	27.657	29.528	7.776
	15	12.323	14.764	14.291	16.732	16.260	18.701	18.228	20.669	20.197	22.638	22.165	24.606	24.134	26.575	26.102	28.543	28.071	30.512	8.189
	16	12.736	14.764	14.705	16.732	16.673	18.701	18.642	20.669	20.610	22.638	22.579	24.606	24.547	26.575	26.516	28.543	28.484	30.512	8.602
	17	13.150	14.764	15.118	16.732	17.087	18.701	19.055	20.669	21.024	22.638	22.992	24.606	24.961	26.575	26.929	28.543	28.898	30.512	9.016
	18	13.563	15.748	15.531	17.717	17.500	19.685	19.469	21.654	21.437	23.622	23.406	25.591	25.374	27.559	27.343	29.528	29.311	31.496	9.429
	19	13.976	15.748	15.945	17.717	17.913	19.685	19.882	21.654	21.850	23.622	23.819	25.591	25.787	27.559	27.756	29.528	29.724	31.496	9.843
	20	14.390	16.732	16.358	18.701	18.327	20.669	20.295	22.638	22.264	24.606	24.232	26.575	26.201	28.543	28.169	30.512	30.138	32.480	10.256
	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

		If with intermediate piping block																		
Number of mods		0		1		2		3		4		5		6		7		8		P2
	P3	90		140		190		240		290		340		390		440		490		
Dimension location		L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	
Number of units	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
	3	7.697	9.843	9.665	11.811	11.634	13.780	13.602	15.748	15.571	17.717	17.539	19.685	19.508	21.654	21.476	23.622	23.445	25.591	3.563
	4	8.110	9.843	10.079	11.811	12.047	13.780	14.016	15.748	15.984	17.717	17.953	19.685	19.921	21.654	21.890	23.622	23.858	25.591	3.976
	5	8.524	10.827	10.492	12.795	12.461	14.764	14.429	16.732	16.398	18.701	18.366	20.669	20.335	22.638	22.303	24.606	24.272	26.575	4.390
	6	8.937	10.827	10.906	12.795	12.874	14.764	14.843	16.732	16.811	18.701	18.780	20.669	20.748	22.638	22.717	24.606	24.685	26.575	4.803
	7	9.350	11.811	11.319	13.780	13.287	15.748	15.256	17.717	17.224	19.685	19.193	21.654	21.161	23.622	23.130	25.591	25.098	27.559	5.217
	8	9.764	11.811	11.732	13.780	13.701	15.748	15.669	17.717	17.638	19.685	19.606	21.654	21.575	23.622	23.543	25.591	25.512	27.559	5.630
	9	10.177	11.811	12.146	13.780	14.114	15.748	16.083	17.717	18.051	19.685	20.020	21.654	21.988	23.622	23.957	25.591	25.925	27.559	6.043
	10	10.591	12.795	12.559	14.764	14.528	16.732	16.496	18.701	18.465	20.669	20.433	22.638	22.402	24.606	24.370	26.575	26.339	28.543	6.457
	11	11.004	12.795	12.972	14.764	14.941	16.732	16.909	18.701	18.878	20.669	20.846	22.638	22.815	24.606	24.783	26.575	26.752	28.543	6.870
	12	11.417	13.780	13.386	15.748	15.354	17.717	17.323	19.685	19.291	21.654	21.260	23.622	23.228	25.591	25.197	27.559	27.165	29.528	7.283
	13	11.831	13.780	13.799	15.748	15.768	17.717	17.736	19.685	19.705	21.654	21.673	23.622	23.642	25.591	25.610	27.559	27.579	29.528	7.697
	14	12.244	13.780	14.213	15.748	16.181	17.717	18.150	19.685	20.118	21.654	22.087	23.622	24.055	25.591	26.024	27.559	27.992	29.528	8.110
	15	12.657	14.764	14.626	16.732	16.594	18.701	18.563	20.669	20.531	22.638	22.500	24.606	24.469	26.575	26.437	28.543	28.406	30.512	8.524
	16	13.071	14.764	15.039	16.732	17.008	18.701	18.976	20.669	20.945	22.638	22.913	24.606	24.882	26.575	26.850	28.543	28.819	30.512	8.937
	17	13.484	15.748	15.453	17.717	17.421	19.685	19.390	21.654	21.358	23.622	23.327	25.591	25.295	27.559	27.264	29.528	29.232	31.496	9.350
	18	13.898	15.748	15.866	17.717	17.835	19.685	19.803	21.654	21.772	23.622	23.740	25.591	25.709	27.559	27.677	29.528	29.646	31.496	9.764
	19	14.311	15.748	16.280	17.717	18.248	19.685	20.217	21.654	22.185	23.622	24.154	25.591	26.122	27.559	28.091	29.528	30.059	31.496	10.177
	20	14.724	16.732	16.693	18.701	18.661	20.669	20.630	22.638	22.598	24.606	24.567	26.575	26.535	28.543	28.504	30.512	30.472	32.480	10.591
	21	15.138	16.732	17.106	18.701	19.075	20.669	21.043	22.638	23.012	24.606	24.980	26.575	26.949	28.543	28.917	30.512	30.886	32.480	11.004

Note 1: L1 and L2 are dimensions for direct mounting installation. For DIN rail mounting, add 0.020 in.

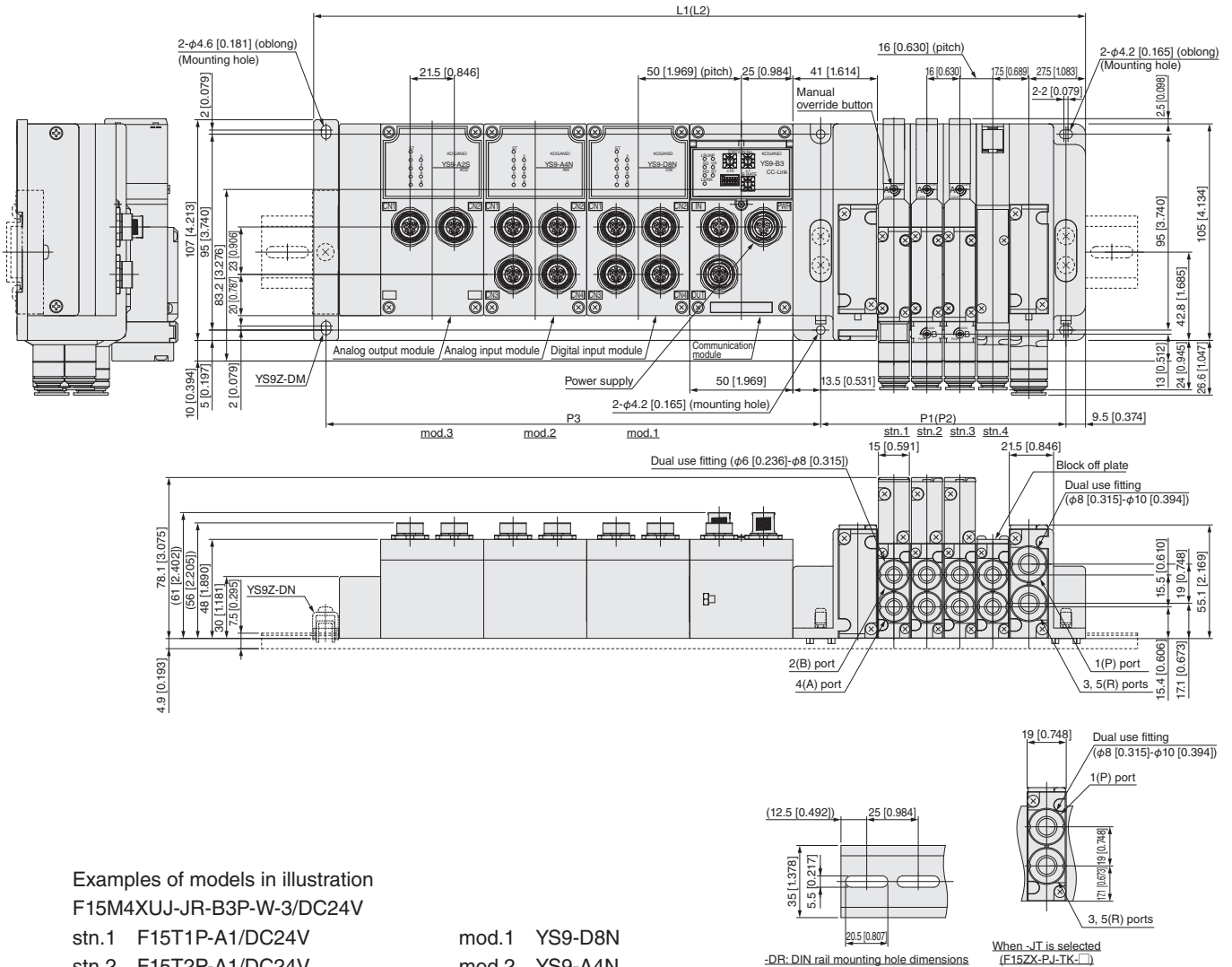
Except, however, when the mod number is 0.

2: L1 and L2 of mod 0 are the dimensions up to the left end of the communication module.

● F15 series Easy Assembly Type Manifold with I/O Terminal (IP65/67 compliant)

F15M Valve units **XU^JM** Pilot specification (base piping type)

Manifold outlet port with Dual use fitting block
(CC-Link)



Dimensions (mm)

		If without intermediate piping block																		
Number of mods		0		1		2		3		4		5		6		7		8		P1
Dimension location	P3	90		140		190		240		290		340		390		440		490		
	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN		
Number of units	2	192.5	250	242.5	300	292.5	350	342.5	400	392.5	450	442.5	500	492.5	550	542.5	600	592.5	650	87
	3	208.5	250	258.5	300	308.5	350	358.5	400	408.5	450	458.5	500	508.5	550	558.5	600	608.5	650	103
	4	224.5	275	274.5	325	324.5	375	374.5	425	424.5	475	474.5	525	524.5	575	574.5	625	624.5	675	119
	5	240.5	300	290.5	350	340.5	400	390.5	450	440.5	500	490.5	550	540.5	600	590.5	650	640.5	700	135
	6	256.5	300	306.5	350	356.5	400	406.5	450	456.5	500	506.5	550	556.5	600	606.5	650	656.5	700	151
	7	272.5	325	322.5	375	372.5	425	422.5	475	472.5	525	522.5	575	572.5	625	622.5	675	672.5	725	167
	8	288.5	350	338.5	400	388.5	450	438.5	500	488.5	550	538.5	600	588.5	650	638.5	700	688.5	750	183
	9	304.5	350	354.5	400	404.5	450	454.5	500	504.5	550	554.5	600	604.5	650	654.5	700	704.5	750	199
	10	320.5	375	370.5	425	420.5	475	470.5	525	520.5	575	570.5	625	620.5	675	670.5	725	720.5	775	215
	11	336.5	400	386.5	450	436.5	500	486.5	550	536.5	600	586.5	650	636.5	700	686.5	750	736.5	800	231
	12	352.5	400	402.5	450	452.5	500	502.5	550	552.5	600	602.5	650	652.5	700	702.5	750	752.5	800	247
	13	368.5	425	418.5	475	468.5	525	518.5	575	568.5	625	618.5	675	668.5	725	718.5	775	768.5	825	263
	14	384.5	450	434.5	500	484.5	550	534.5	600	584.5	650	634.5	700	684.5	750	734.5	800	784.5	850	279
	15	400.5	450	450.5	500	500.5	550	550.5	600	600.5	650	650.5	700	700.5	750	750.5	800	800.5	850	295
	16	416.5	475	466.5	525	516.5	575	566.5	625	616.5	675	666.5	725	716.5	775	766.5	825	816.5	875	311
	17	432.5	475	482.5	525	532.5	575	582.5	625	632.5	675	682.5	725	732.5	775	782.5	825	832.5	875	327
	18	448.5	500	498.5	550	548.5	600	598.5	650	648.5	700	698.5	750	748.5	800	798.5	850	848.5	900	343
	19	464.5	525	514.5	575	564.5	625	614.5	675	664.5	725	714.5	775	764.5	825	814.5	875	864.5	925	359
	20	480.5	525	530.5	575	580.5	625	630.5	675	680.5	725	730.5	775	780.5	825	830.5	875	880.5	925	375
	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

		If with intermediate piping block																		
Number of mods		0		1		2		3		4		5		6		7		8		P2
Dimension location	P3	90		140		190		240		290		340		390		440		490		
	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN		
Number of units	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3	211.5	275	261.5	325	311.5	375	361.5	425	411.5	475	461.5	525	511.5	575	561.5	625	611.5	675	122
	4	227.5	275	277.5	325	327.5	375	377.5	425	427.5	475	477.5	525	527.5	575	577.5	625	627.5	675	138
	5	243.5	300	293.5	350	343.5	400	393.5	450	443.5	500	493.5	550	543.5	600	593.5	650	643.5	700	154
	6	259.5	325	309.5	375	359.5	425	409.5	475	459.5	525	509.5	575	559.5	625	609.5	675	659.5	725	170
	7	275.5	325	325.5	375	375.5	425	425.5	475	475.5	525	525.5	575	575.5	625	625.5	675	675.5	725	186
	8	291.5	350	341.5	400	391.5	450	441.5	500	491.5	550	541.5	600	591.5	650	641.5	700	691.5	750	202
	9	307.5	350	357.5	400	407.5	450	457.5	500	507.5	550	557.5	600	607.5	650	657.5	700	707.5	750	218
	10	323.5	375	373.5	425	423.5	475	473.5	525	523.5	575	573.5	625	623.5	675	673.5	725	723.5	775	234
	11	339.5	400	389.5	450	439.5	500	489.5	550	539.5	600	589.5	650	639.5	700	689.5	750	739.5	800	250
	12	355.5	400	405.5	450	455.5	500	505.5	550	555.5	600	605.5	650	655.5	700	705.5	750	755.5	800	266
	13	371.5	425	421.5	475	471.5	525	521.5	575	571.5	625	621.5	675	671.5	725	721.5	775	771.5	825	282
	14	387.5	450	437.5	500	487.5	550	537.5	600	587.5	650	637.5	700	687.5	750	737.5	800	787.5	850	298
	15	403.5	450	453.5	500	503.5	550	553.5	600	603.5	650	653.5	700	703.5	750	753.5	800	803.5	850	314
	16	419.5	475	469.5	525	519.5	575	569.5	625	619.5	675	669.5	725	719.5	775	769.5	825	819.5	875	330
	17	435.5	500	485.5	550	535.5	600	585.5	650	635.5	700	685.5	750	735.5	800	785.5	850	835.5	900	346
	18	451.5	500	501.5	550	551.5	600	601.5	650	651.5	700	701.5	750	751.5	800	801.5	850	851.5	900	362
	19	467.5	525	517.5	575	567.5	625	617.5	675	667.5	725	717.5	775	767.5	825	817.5	875	867.5	925	378
	20	483.5	525	533.5	575	583.5	625	633.5	675	683.5	725	733.5	775	783.5	825	833.5	875	883.5	925	394
	21	499.5	550	549.5	600	599.5	650	649.5	700	699.5	750	749.5	800	799.5	850	849.5	900	899.5	950	410

Note 1: L1 and L2 are dimensions for direct mounting installation. For DIN rail mounting, add 0.5 mm.

Except, however, when the mod number is 0.

2: L1 and L2 of mod 0 are the dimensions up to the left end of the communication module.

Dimensions (in.)

		If without intermediate piping block																		
Number of mods		0		1		2		3		4		5		6		7		8		P1
Dimension location	P3	90		140		190		240		290		340		390		440		490		
	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN		
Number of units	2	7.579	9.843	9.547	11.811	11.516	13.780	13.484	15.748	15.453	17.717	17.421	19.685	19.390	21.654	21.358	23.622	23.327	25.591	3.425
	3	8.209	9.843	10.177	11.811	12.146	13.780	14.114	15.748	16.083	17.717	18.051	19.685	20.020	21.654	21.988	23.622	23.957	25.591	4.055
	4	8.839	10.827	10.807	12.795	12.776	14.764	14.744	16.732	16.713	18.701	18.681	20.669	20.650	22.638	22.618	24.606	24.587	26.575	4.685
	5	9.469	11.811	11.437	13.780	13.406	15.748	15.374	17.717	17.343	19.685	19.311	21.654	21.280	23.622	23.248	25.591	25.217	27.559	5.315
	6	10.098	11.811	12.067	13.780	14.035	15.748	16.004	17.717	17.972	19.685	19.941	21.654	21.909	23.622	23.878	25.591	25.846	27.559	5.945
	7	10.728	12.795	12.697	14.764	14.665	16.732	16.634	18.701	18.602	20.669	20.571	22.638	22.539	24.606	24.508	26.575	26.476	28.543	6.575
	8	11.358	13.780	13.327	15.748	15.295	17.717	17.264	19.685	19.232	21.654	21.201	23.622	23.169	25.591	25.138	27.559	27.106	29.528	7.205
	9	11.988	13.780	13.957	15.748	15.925	17.717	17.894	19.685	19.862	21.654	21.831	23.622	23.799	25.591	25.768	27.559	27.736	29.528	7.835
	10	12.618	14.764	14.587	16.732	16.555	18.701	18.524	20.669	20.492	22.638	22.461	24.606	24.429	26.575	26.398	28.543	28.366	30.512	8.465
	11	13.248	15.748	15.217	17.717	17.185	19.685	19.154	21.654	21.122	23.622	23.091	25.591	25.059	27.559	27.028	29.528	28.996	31.496	9.094
	12	13.878	15.748	15.846	17.717	17.815	19.685	19.783	21.654	21.752	23.622	23.720	25.591	25.689	27.559	27.657	29.528	29.626	31.496	9.724
	13	14.508	16.732	16.476	18.701	18.445	20.669	20.413	22.638	22.382	24.606	24.350	26.575	26.319	28.543	28.287	30.512	30.256	32.480	10.354
	14	15.138	17.717	17.106	19.685	19.075	21.654	21.043	23.622	23.012	25.591	24.980	27.559	26.949	29.528	28.917	31.496	30.886	33.465	10.984
	15	15.768	17.717	17.736	19.685	19.705	21.654	21.673	23.622	23.642	25.591	25.610	27.559	27.579	29.528	29.547	31.496	31.516	33.465	11.614
	16	16.398	18.701	18.366	20.669	20.335	22.638	22.303	24.606	24.272	26.575	26.240	28.543	28.209	30.512	30.177	32.480	32.146	34.449	12.244
	17	17.028	18.701	18.996	20.669	20.965	22.638	22.933	24.606	24.902	26.575	26.870	28.543	28.839	30.512	30.807	32.480	32.776	34.449	12.874
	18	17.657	19.685	19.626	21.654	21.594	23.622	23.563	25.591	25.531	27.559	27.500	29.528	29.469	31.496	31.437	33.465	33.406	35.433	13.504
	19	18.287	20.669	20.256	22.638	22.224	24.606	24.193	26.575	26.161	28.543	28.130	30.512	30.098	32.480	32.067	34.449	34.035	36.417	14.134
	20	18.917	20.669	20.886	22.638	22.854	24.606	24.823	26.575	26.791	28.543	28.760	30.512	30.728	32.480	32.697	34.449	34.665	36.417	14.764
	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

		If with intermediate piping block																		
Number of mods		0		1		2		3		4		5		6		7		8		P2
Dimension location	P3	90		140		190		240		290		340		390		440		490		
	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN		
Number of units	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3	8.327	10.827	10.295	12.795	12.264	14.764	14.232	16.732	16.201	18.701	18.169	20.669	20.138	22.638	22.106	24.606	24.075	26.575	4.803
	4	8.957	10.827	10.925	12.795	12.894	14.764	14.862	16.732	16.831	18.701	18.799	20.669	20.768	22.638	22.736	24.606	24.705	26.575	5.433
	5	9.587	11.811	11.555	13.780	13.524	15.748	15.492	17.717	17.461	19.685	19.429	21.654	21.398	23.622	23.366	25.591	25.335	27.559	6.063
	6	10.217	12.795	12.185	14.764	14.154	16.732	16.122	18.701	18.091	20.669	20.059	22.638	22.028	24.606	23.996	26.575	25.965	28.543	6.693
	7	10.846	12.795	12.815	14.764	14.783	16.732	16.752	18.701	18.720	20.669	20.689	22.638	22.657	24.606	24.626	26.575	26.594	28.543	7.323
	8	11.476	13.780	13.445	15.748	15.413	17.717	17.382	19.685	19.350	21.654	21.319	23.622	23.287	25.591	25.256	27.559	27.224	29.528	7.953
	9	12.106	13.780	14.075	15.748	16.043	17.717	18.012	19.685	19.980	21.654	21.949	23.622	23.917	25.591	25.886	27.559	27.854	29.528	8.583
	10	12.736	14.764	14.705	16.732	16.673	18.701	18.642	20.669	20.610	22.638	22.579	24.606	24.547	26.575	26.516	28.543	28.484	30.512	9.213
	11	13.366	15.748	15.335	17.717	17.303	19.685	19.272	21.654	21.240	23.622	23.209	25.591	25.177	27.559	27.146	29.528	29.114	31.496	9.843
	12	13.996	15.748	15.965	17.717	17.933	19.685	19.902	21.654	21.870	23.622	23.839	25.591	25.807	27.559	27.776	29.528	29.744	31.496	10.472
	13	14.626	16.732	16.594	18.701	18.563	20.669	20.531	22.638	22.500	24.606	24.469	26.575	26.437	28.543	28.406	30.512	30.374	32.480	11.102
	14	15.256	17.717	17.224	19.685	19.193	21.654	21.161	23.622	23.130	25.591	25.098	27.559	27.067	29.528	29.035	31.496	31.004	33.465	11.732
	15	15.886	17.717	17.854	19.685	19.823	21.654	21.791	23.622	23.760	25.591	25.728	27.559	27.697	29.528	29.665	31.496	31.634	33.465	12.362
	16	16.516	18.701	18.484	20.669	20.453	22.638	22.421	24.606	24.390	26.575	26.358	28.543	28.327	30.512	30.295	32.480	32.264	34.449	12.992
	17	17.146	19.685	19.114	21.654	21.083	23.622	23.051	25.591	25.020	27.559	26.988	29.528	28.957	31.496	30.925	33.465	32.894	35.433	13.622
	18	17.776	19.685	19.744	21.654	21.713	23.622	23.681	25.591	25.650	27.559	27.618	29.528	29.587	31.496	31.555	33.465	33.524	35.433	14.252
	19	18.406	20.669	20.374	22.638	22.343	24.606	24.311	26.575	26.280	28.543	28.248	30.512	30.217	32.480	32.185	34.449	34.154	36.417	14.882
	20	19.035	20.669	21.004	22.638	22.972	24.606	24.941	26.575	26.909	28.543	28.878	30.512	30.846	32.480	32.815	34.449	34.783	36.417	15.512
	21	19.665	21.654	21.634	23.622	23.602	25.591	25.571	27.559	27.539	29.528	29.508	31.496	31.476	33.465	33.445	35.433	35.413	37.402	16.142

Note 1: L1 and L2 are dimensions for direct mounting installation. For DIN rail mounting, add 0.020 in.

Except, however, when the mod number is 0.

2: L1 and L2 of mod 0 are the dimensions up to the left end of the communication module.

I/O Terminal YS8

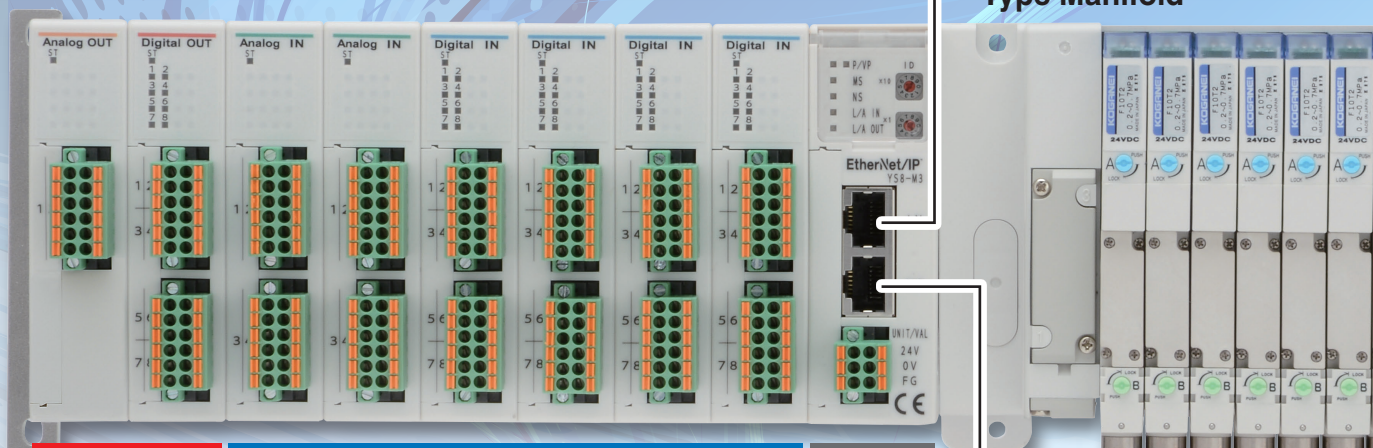
- The module configuration and expandability supports a wide variety of user requirements.
- The compact and slim shape reduces installation space.
- 2 mounting options available: DIN rail mounting and Direct mounting.
- Push-in connection allows easy wiring by simple wire insert.

Digital output

- 8 points — Sink type YS8-D8S
Source type YS8-D8S-M

Analog output

- 2 points (switchable between 0-5 V, 0-10 V, and 0-20 mA)
YS8-A2S



I/O module
Output

I/O module
Input

Com.
module

To I/O terminal
slave station

Digital input

- 8 points — NPN type YS8-D8N
PNP type YS8-D8N-P

- 16 points^{Note} — YS8-D16N
Note: 2-wire type only

Analog input

- 4 points (switchable between 0-5 V/0-10 V/0-20 mA)
YS8-A4N

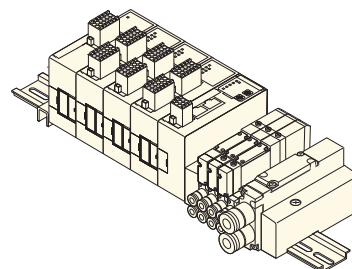
Communication module

EtherCAT
input/output
module supported
YS8-K3

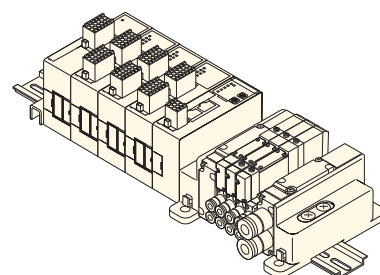
EtherNet/IP
input/output
module supported
YS8-M3

Supported solenoid valve manifolds

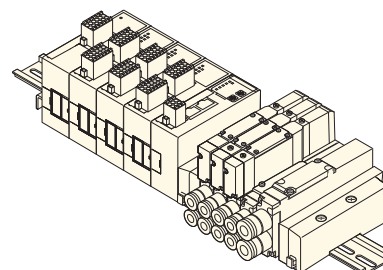
F10 Series Split Type Manifold



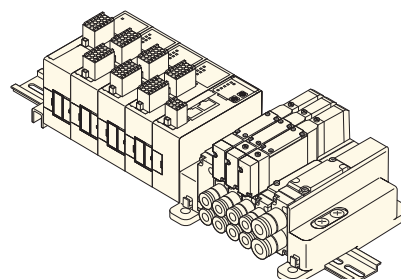
F10 Series Easy Assembly Type Manifold



F15 Series Split Type Manifold



F15 Series Easy Assembly Type Manifold



Output devices



Solenoid valve



Electro-pneumatic regulator

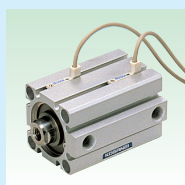
- Other
- Lamp
 - Relay
 - Buzzer



Input devices



Pressure switch



Cylinder sensor switch

- Other
- Proximity switch
 - Photoelectric switch
 - Limit switch

■ EtherNet/IP™ is a trademark of ODVA.

■ EtherCAT®, EtherCAT P®, and Safety over EtherCAT® are patented technologies and registered trademarks licensed by Beckhoff Automation GmbH (Germany).



Caution

Regarding the handling and precautions of the product, make sure to read the “Safety Precautions” and “Handling Instruction and General Precautions” in the I/O Terminal User’s Manual on Koganei’s website before using the product.

Two usage methods available

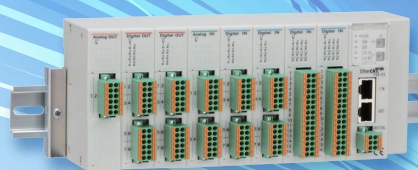
Choose either the I/O terminal with valves or the standard I/O terminal.

I/O terminal with valves



Order Codes ... Pages ③① ③⑤

I/O terminal



Order Codes ... Page ④⑥

DIN rail mounting or direct mounting can be selected

Select from DIN rail mounting and Direct mounting (6 mounting holes on main body).

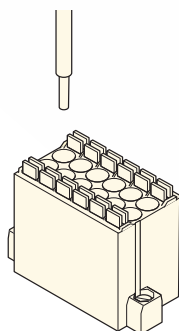


DIN rail mounting



Direct mounting

Push-in connection supports wiring without using special tools.



Wiring is possible by simply inserting* solid wires or twisted wires with lug terminals.

No torque management or tightening is required.

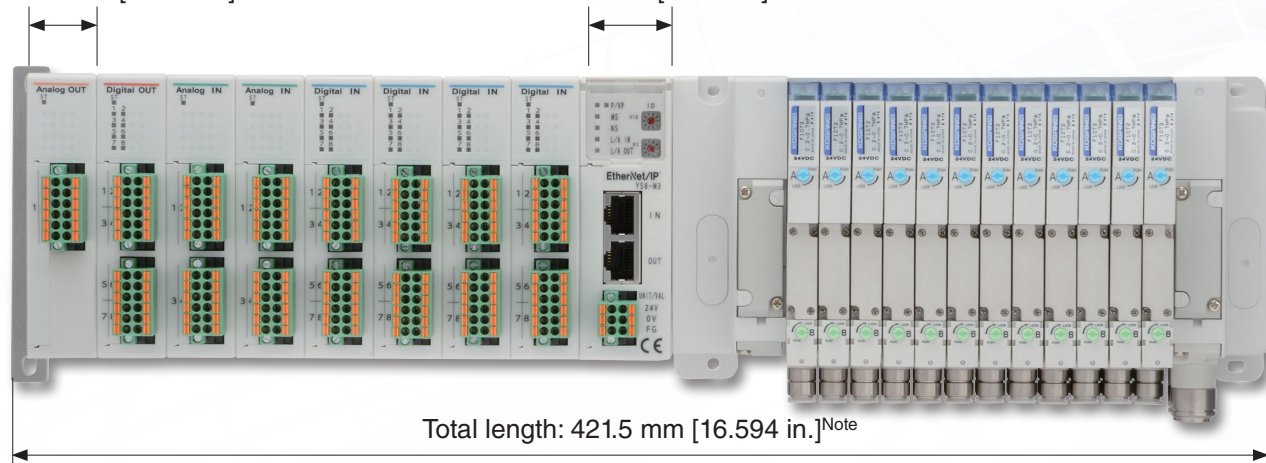
* Insert the wire while pressing the orange button.

Compatible wire size: AW24-16

The compact design reduces installation space

I/O module
22.5 mm [0.886 in.]

Communication module
30 mm [1.181 in.]



Total length: 421.5 mm [16.594 in.]^{Note}

Note: The above total length is for 8 units of the I/O module, and 12 solenoid valves of the F10 Series Easy Assembly Type Manifold (without intermediate piping blocks).

Specifications

General specifications

Item	Specifications
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	49.0 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, level 3
Insulation resistance	10 MΩ or more (between all external terminals and the case, using a 500 VDC insulation tester)
Standards	CE marking compliant

Communication module specifications

Item		Specifications	
Model		YS8-K3	YS8-M3
Number of connectable modules		8 or less	
Internal current consumption		Input power supply: 100 mA or less Output power supply: 10 mA or less Excluding input/output modules and solenoid valve supply current	
Input power supply		24 VDC ±10%, 2 A	
Output power supply		24 VDC ±10%, 2 A	
Transmission rate		100Mbps	10/100Mbps (Auto MDI/MDI-X supported)
Connection interface		RJ-45 8-pin modular connector × 2	
Topology		Line, star, and ring	
Transmission medium		Shielded twisted pair cables that are at least category 5 (100BASE-TX) are recommended	
Maximum cable length		100 m [328.0 ft]	
EtherCAT	Transmission/reception PDO size	Input: 40 bytes or less Output: 28 bytes or less	–
	Protocol	CoE	–
EtherNet/IP	I/O connection size	–	Input: 40 bytes Output: 28 bytes
	RPI	–	1 ms or more
	Conformance test	–	CT18 compliant
	Number of connections	–	8
	Functions	–	DLR, ACD, DHCP, BOOTP
Setting file		ESI file	EDS file
Mass		117 g [4.13 oz]	
Accessories		Power connector (YS8Z-CN6) × 1, I/O module connection cover (YS8Z-C) × 1	
Power connector Compatible wire size		AWG24-16	



K3: EtherCAT input/output module supported



M3: EtherNet/IP input/output module supported

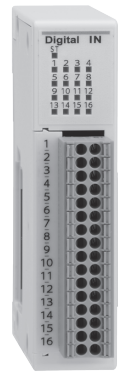
Specifications

Digital input module specifications

Item	Specifications		
Model	YS8-D16N	YS8-D8N	YS8-D8N-P
Input specifications	NPN		PNP
Number of inputs	16 points	8 points	
Maximum sensor supply current	–	1 A/module	
Rated input current	7.5 mA or less (at 26.4 V) * Per input		
ON voltage/ON current	15 V or more/3.9 mA or more (During NPN input, between input terminal and +24 V) (During PNP input, between input terminal and 0 V)		
OFF voltage/OFF current	5 V or less/1 mA or less (During NPN input, between input terminal and +24 V) (During PNP input, between input terminal and 0 V)		
Input resistance	3.6 kΩ		
Protection function	Overcurrent detection		
Internal current consumption ^{Note}	Input power supply: 10 mA or less/output power supply: -		
MASS	90 g [3.17 oz]		
Accessories	I/O connector (YS8Z-CN32) × 1 ¹ , I/O connector (YS8Z-CN12) × 2 ²		
Connector Compatible wire size	AWG24-16		



Digital input × 8²



Digital input × 16¹

Analog input module specifications

Item	Specifications	
Model	YS8-A4N	
Input specifications	Voltage	Current
Number of inputs	4 points	
Maximum sensor supply current	1 A/module	
Rated input voltage/rated input current	15V	40mA
Input impedance	1 MΩ	250 Ω
Input signal range	0-5V/0-10V	0-20mA
Resolution	12bit	
Conversion accuracy (25°C [77°F])	±0.5%F.S.	
Protection function	Overcurrent detection	
Internal current consumption ^{Note}	Input power supply: 30 mA or less/output power supply: —	
MASS	90 g [3.17 oz]	
Accessories	I/O connector (YS8Z-CN12) × 2	
Connector Compatible wire size	AWG24-16	



Analog Input × 4

Digital output module specifications

Item	Specifications	
Model	YS8-D8S	YS8-D8S-M
Output specifications	Sink	Source
Number of outputs	8 points	
Maximum load current	0.5 A/channel, 1 A/module	
Protection function	Overcurrent detection, output short-circuit protection	
Internal current consumption ^{Note}	Input power supply: 15 mA or less/output power supply: 30 mA or less	
MASS	90 g [3.17 oz]	
Accessories	I/O connector (YS8Z-CN12) × 2	
Connector Compatible wire size	AWG24-16	



Digital Output × 8

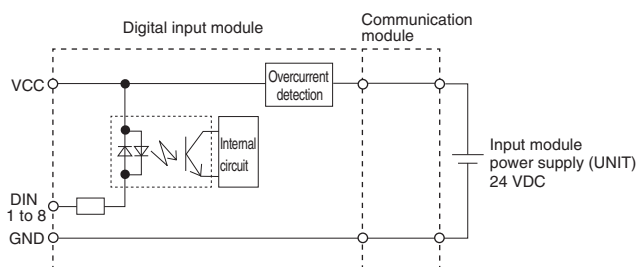
Analog output module specifications

Item	Specifications	
Model	YS8-A2S	
Output specifications	Voltage	Current
Number of outputs	2 points	
Maximum load current	1 A/module	
Load impedance	1 kΩ or more	600 Ω or less
Output signal range	0-5V/0-10V	0-20mA
Resolution	12bit	
Conversion accuracy (25°C [77°F])	±0.5%F.S.	
Protection function	Overcurrent detection, output short-circuit protection	
Internal current consumption ^{Note}	Input power supply: 5 mA or less/output power supply: 30 mA or less	
MASS	90 g [3.17 oz]	
Accessories	I/O connector (YS8Z-CN12) × 1	
Connector Compatible wire size	AWG24-16	

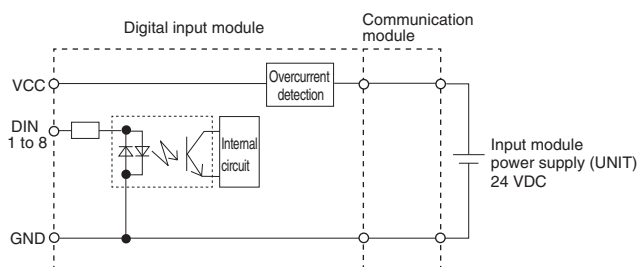


Analog Output × 2

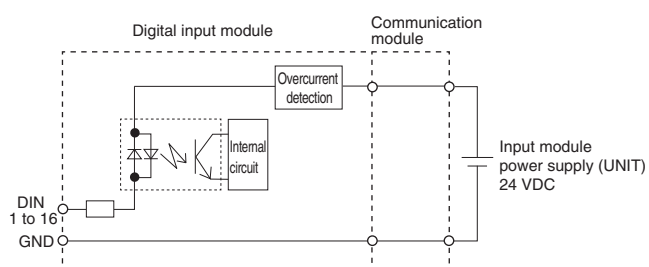
YS8-D8N



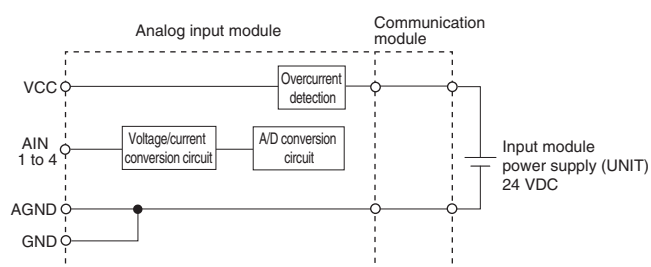
YS8-D8N-P



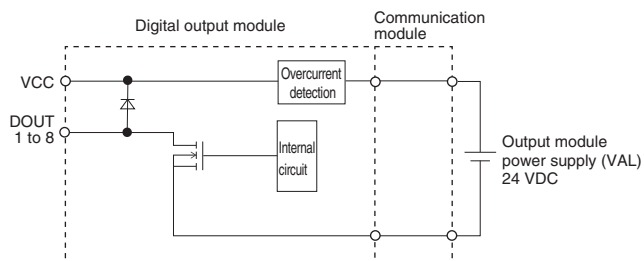
YS8-D16N



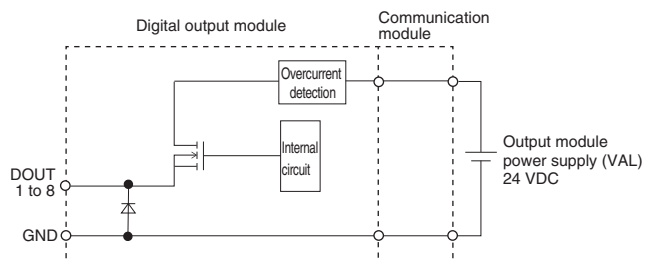
YS8-A4N



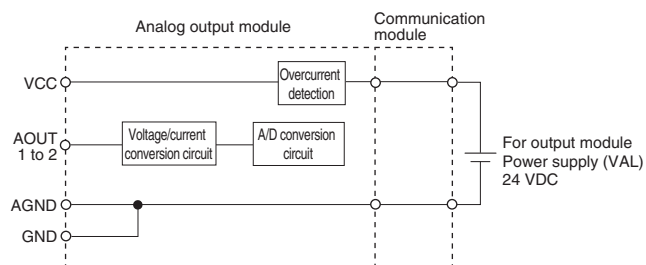
YS8-D8S



YS8-D8S-M



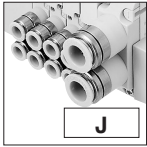
YS8-A2S



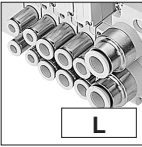
Order codes for F10 Series Split Type Manifold with I/O Terminal

Manifold output specification

With dual use fitting blocks
(base piping type)



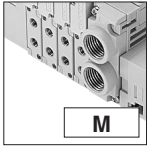
With selectable fittings
(base piping type)



Outlet port fitting
F10: $\phi 4$, $\phi 6$

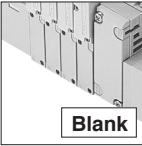
Outlet port should be selected in accordance with the manifold fitting specification.

With female thread blocks
(base piping type)



Outlet port female thread
F10: M5 x 0.8

With plates
(direct piping type)



Blank

Valve size

F10M 10 mm
[0.394 in.] width

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^{Note12}
-JL : Dual use fitting, left-side mounting^{Note12}
-JD : Dual use fitting, both-side mounting^{Note12}
Fitting size (1(P), 3, 5(R) ports), $\phi 8$, $\phi 10$

Female thread block

-MR : Female thread, right-side mounting^{Note12}
-ML : Female thread, left-side mounting^{Note12}
-MD : Female thread, both-side mounting^{Note12}
Female thread size (1(P), 3, 5(R) ports), Rc1/4

Female thread block

-MRH : Female thread, right-side mounting^{Note13}
-MLH : Female thread, left-side mounting^{Note13}
-MDH : Female thread, both-side mounting^{Note13}
Female thread size (1(P), 3, 5(R) ports), NPT1/4

Single use fitting block

-J5R : Single use fitting, right-side mounting^{Note12}
-J5L : Single use fitting, left-side mounting^{Note12}
-J5D : Single use fitting, both-side mounting^{Note12}
Fitting size (1(P), 3, 5(R) ports), $\phi 8$
-J6R : Single use fitting, right-side mounting^{Note12}
-J6L : Single use fitting, left-side mounting^{Note12}
-J6D : Single use fitting, both-side mounting^{Note12}
Fitting size (1(P), 3, 5(R) ports), $\phi 10$

Communication specifications

K3 : For EtherCAT (32 outputs)
Input/output module supported

M3 : EtherNet/IP (32 outputs)
Input/output module supported

Number of modules specifications

Blank : No I/O modules

(Only communication modules)
1 to 8 : Number of I/O modules mounted
8 max.



When entering the order codes for I/O modules, indicate the I/O modules after indicating the mounted valves.

For details on how to indicate I/O modules, see Indicating I/O modules on page 33.

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.

Valve size

F10 Standard type

F10L Low-current type

Manifold model									
Base piping type	Valve size	Number of units	Manifold outlet specification	Pilot specification	Piping block specification		Communication specifications	Number of modules specifications	Wiring connection specification
Base piping type	F10M	2 · · · □ ^{Note 1}	T (*Rc)	J M	Blank G	-JR -JL -JD -MR -ML -MD	-K3 -M3	Blank -1~8	Blank -W
Base piping type selectable fitting	F10M	2 · · · □ ^{Note 1}	T (*Rc)	L	Blank G	-JR ^{Note12} -JL ^{Note12} -JD ^{Note12} -MR ^{Note12} -ML ^{Note12} -MD ^{Note12} -MRH ^{Note13} -MLH ^{Note13}	-K3 -M3	Blank -1~8	Blank -W
Direct piping type			TH (*NPT)	Blank	Blank G	-JR ^{Note12} -JL ^{Note12} -JD ^{Note12} -MR ^{Note12} -ML ^{Note12} -MD ^{Note12} -MRH ^{Note13} -MLH ^{Note13}	-K3 -M3	Blank -1~8	Blank -W

Notes: 1. To determine the maximum number of units, see "Maximum Number of Units for Communication Specifications" on page 33.

2. Valve mounting location is from the left, with the solenoid on top, and the 4(A), 2(B) port side in front.

3. When selecting J, M, or L (base piping type) for the manifold outlet specifications, always enter -A1 (with plate) for the valve outlet type.

4. The block-off plate wiring is always double wiring (allocated 2 control pins at 1 str.), regardless of the wiring connection specification. The block-off plate wiring can be made as wiring for a single solenoid. Add -1W to the end of the block-off plate order code in the case. For details, contact a Koganei sales office.

5. When the valve specification is T1 or T2, the manual override lever is placed only on the A side.

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)^{Note 9}
TB: Tandem 3-port (NO and NO)^{Note 9}
TC: Tandem 3-port (NC and NO)^{Note 9}

Operation type

Blank

Internal pilot type^{Note 7}

G

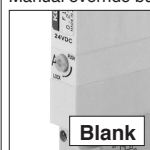
External pilot type^{Note 8}

(for positive pressure)

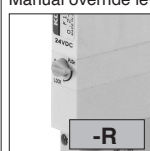
* No vacuum valve can be mounted.

Manual override

Manual override button



Manual override lever^{Note 5}



Valve outlet type

-A1 With plate^{Note 3}
(base piping type)

5-port specification

-FJ With dual use fitting block^{F10: φ4, φ6}
(direct piping type)

-FJ5 With single use fitting block^{F10: φ4}
(direct piping type)

-FJ6 With single use fitting block^{F10: φ6}
(direct piping type)

-FM With female thread block^{F10: M5 x 0.8}
(direct piping type)

-FMH With female thread block^{Note 13}
(direct piping type) **F10: 10-32UNF**

3-port specification

-FJ5A With single use fitting block,
normally closed (NC) **F10: φ4**

-FJ5B With single use fitting block,
normally open (NO) **F10: φ4**

-FJ6A With single use fitting block,
normally closed (NC) **F10: φ6**

-FJ6B With single use fitting block,
normally open (NO) **F10: φ6**

-FMA With female thread block,
normally closed (NC) **F10: M5 x 0.8**

-FMAH With female thread block,
normally closed (NC)^{Note 12}
(direct piping type) **F10: 10-32UNF**

-FMB With female thread block,
normally open (NO) **F10: M5 x 0.8**

-FMBH With female thread block,
normally open (NO)^{Note 13}
(direct piping type) **F10: 10-32UNF**

Manifold fitting specification

5-port specification

-J5 With single use fitting block^{F10: φ4}
(base piping type)

-J6 With single use fitting block^{F10: φ6}
(base piping type)

-M With female thread block^{F10: M5 x 0.8}
(base piping type)

-MH With female thread block^{Note 11}
(base piping type) **F10: 10-32UNF**

3-port specification

-J5A With single use fitting block,
normally closed (NC) **F10: φ4**

-J5B With single use fitting block,
normally open (NO) **F10: φ4**

-J6A With single use fitting block,
normally closed (NC) **F10: φ6**

-J6B With single use fitting block,
normally open (NO) **F10: φ6**

-MA With female thread block,
normally closed (NC) **F10: M5 x 0.8**

-MAH With female thread block,
normally closed (NC)^{Note 13}
(base piping type) **F10: 10-32UNF**

-MB With female thread block,
normally open (NO) **F10: M5 x 0.8**

-MBH With female thread block,
normally open (NO)^{Note 13}
(base piping type) **F10: 10-32UNF**

Back pressure prevention valve

Blank

No back pressure
prevention valve

-E2

With back pressure
prevention valve^{Note 10}

Individual air supply and exhaust spacer

Blank: No spacer

-PPM: Individual air supply spacer
(with M5 female thread for F10)

-PRM: Individual exhaust spacer
(with M5 female thread for F10)

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. □ Note 2	F10 F10L	T0 T3 TA ^{Note 9} T1 T4 TB ^{Note 9} T2 T5 TC ^{Note 9}	Blank ^{Note 7} G ^{Note 8}	Blank -R ^{Note 5}	-A1 ^{Note 3}		Blank -E2 ^{Note 10}	Blank -PPM -PRM	Blank -SP ^{Note 6} -SR ^{Note 6} -SA ^{Note 6}	DC24V
	F10	BPP (for block-off plate) ^{Note 4}								
stn. 1 : : stn. □ Note 2	F10 F10L	T0 T3 TA ^{Note 9} T1 T4 TB ^{Note 9} T2 T5 TC ^{Note 9}	Blank ^{Note 7} G ^{Note 8}	Blank -R ^{Note 5}	-A1 ^{Note 3}	-J5 ^{Note 12} -J6 ^{Note 12} -M ^{Note 12} -MH ^{Note 11} -J5A ^{Note 12} -J5B ^{Note 12}	-J6A ^{Note 12} -J6B ^{Note 12} -MA ^{Note 12} -MAH ^{Note 13} -MB ^{Note 12} -MBH ^{Note 13}	Blank -E2 ^{Note 10}	Blank -PPM -PRM	Blank -SP ^{Note 6} -SR ^{Note 6} -SA ^{Note 6}
	F10	BPP (for block-off plate) ^{Note 4}								
stn. 1 : : stn. □ Note 2	F10 F10L	T0 T3 TA ^{Note 9} T1 T4 TB ^{Note 9} T2 T5 TC ^{Note 9}	Blank ^{Note 7} G ^{Note 8}	Blank -R ^{Note 5}	-FJ ^{Note 12} -FJ5 ^{Note 12} -FJ6 ^{Note 12} -FM ^{Note 12} -FMH ^{Note 13} -FJ5A ^{Note 12} -FJ5B ^{Note 12}	-FJ6A ^{Note 12} -FJ6B ^{Note 12} -FMA ^{Note 12} -FMAH ^{Note 13} -FMB ^{Note 12} -FMBH ^{Note 11}	Blank -E2 ^{Note 10}	Blank -PPM -PRM	Blank -SP ^{Note 6} -SR ^{Note 6} -SA ^{Note 6}	DC24V
	F10	BPP (for block-off plate) ^{Note 4}								

Notes: 6. 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.).

7. Cannot be mounted on the external pilot manifold.

8. Cannot be mounted on the internal pilot manifold.

9. Not available in external pilot type.

10. Not available with the individual exhaust spacer.

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

12. Can be selected only when the manifold type is T.

13. Can be selected only when the manifold type is TH.

Order codes for F10 series Split Type Manifold with I/O Terminal

Indicating I/O modules

Input/output

- D8N : Digital Input × 8
- D16N : Digital Input × 16
- D8S : Digital Output × 8
- A4N : Analog Input × 4
(Switchable between 0-5 V/0-10 V/0-20 mA)
- A2S : Analog Output × 2
(Switchable between 0-5 V/0-10 V/0-20 mA)

Wiring specifications

Input: -D8N

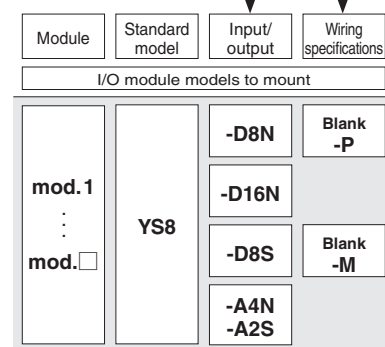
Blank : NPN type

-P : PNP type

Output: -D8S

Blank : Sink type (load side + common)

-M : Source type (load side - common)



For each classification in the table below, up to four of them can be selected. The maximum number of units is eight.

I/O module symbol	Classification	Specifications
YS8-D8N	Digital input	8 points, 3-wire type, NPN connection
YS8-D8N-P		8 points, 3-wire type, PNP connection
YS8-D16N		16 points, 2-wire type
YS8-D8S	Digital output	8 points, sink type (load side + common)
YS8-D8S-M		8 points, source type (load side - common)
YS8-A4N	Analog input	4 points (switchable between 0-5 V/0-10 V/0-20 mA)
YS8-A2S	Analog output	2 points (switchable between 0-5 V/0-10 V/0-20 mA)

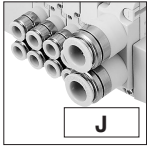
Maximum Number of Units for Communication Specifications

		Maximum number of units	
		Wiring connection specification	
Communication specifications	Maximum control points	Packed wiring (blank)	Double wiring (-W)
-K3: EtherCAT (32 outputs) supported	32 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. -K3 and -M3 have a maximum of 20 connected units.	16 units
-M3: EtherNet/IP (32 outputs) supported	32 points		16 units

Order codes for F10 Series Easy Assembly Type Manifold with I/O Terminal

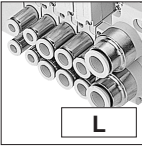
Manifold output specification

With dual use fitting blocks
(base piping type)



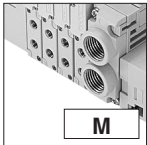
Outlet port fitting
F10: φ4, φ6

With selectable fittings
(base piping type)



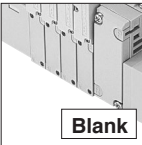
Outlet port should be selected in accordance with the manifold fitting specification.

With female thread blocks
(base piping type)



Outlet port female thread
F10: M5 x 0.8

With plates
(direct piping type)



Blank

Valve size

F10M 10 mm
[0.394 in.] width

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
-JL: Dual use fitting, left-side mounting
-JD: Dual use fitting, both-side mounting
Fitting size (1(P), 3, 5(R) ports), φ6, φ8

Female thread block

-MR: Female thread, right-side mounting
-ML: Female thread, left-side mounting
-MD: Female thread, both-side mounting
Female thread size (1(P), 3, 5(R) ports), Rc1/8

Female thread block

-MRH: Female thread, right-side mounting^{Note13}
-MLH: Female thread, left-side mounting^{Note13}
-MDH: Female thread, both-side mounting^{Note13}
Female thread size (1(P), 3, 5(R) ports), NPT1/8

Single use fitting block

-J5R: Single use fitting, right-side mounting
-J5L: Single use fitting, left-side mounting
-J5D: Single use fitting, both-side mounting
Fitting size (1(P), 3, 5(R) ports), φ6
-J6R: Single use fitting, right-side mounting
-J6L: Single use fitting, left-side mounting
-J6D: Single use fitting, both-side mounting
Fitting size (1(P), 3, 5(R) ports), φ8

Intermediate piping block

-JT: Dual use fitting, both-side mounting, intermediate piping block φ6, φ8
-J5T: Single use fitting, both-side mounting, intermediate piping block φ6
-J6T: Single use fitting, both-side mounting, intermediate piping block φ8
-MT: Female thread, both-side mounting, intermediate piping block Rc1/8
-MTH: Female thread, both-side mounting, intermediate piping block NPT1/8^{Note13}

Communication specifications

K3: For EtherCAT (32 outputs)
Input/output module supported

M3: EtherNet/IP (32 outputs)
Input/output module supported

Number of modules specifications

Blank: No I/O modules
(Only communication modules)

1 to 8: Number of I/O modules mounted
8 max.



When entering the order codes for I/O modules, indicate the I/O modules after indicating the mounted valves.
For details on how to indicate I/O modules, see Indicating I/O modules on page 37.

Mounting specification

Blank

Direct mounting

-DN

With DIN brackets (without rails)

-DR

With DIN brackets, with rails
Note: For details of rails to be assembled and shipped, see page 37.

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.

Valve size

F10 Standard type

F10L Low-current type

Valve size	Number of units	Manifold outlet specification	Pilot specification	Piping block specification	Communication specifications	Number of modules specifications	Wiring connection specification	Mounting specification
------------	-----------------	-------------------------------	---------------------	----------------------------	------------------------------	----------------------------------	---------------------------------	------------------------

Manifold model								
Base piping type		XT (*Rc)	J M	Blank G	-JR -JL -JD -MR -ML -MD -J5R -J5L -J5D -J6R -J6L -J6D -JT -J5T -J6T -MT	-K3 -M3	Blank -1~8	Blank -W -DN -DR
Base piping type selectable fitting	F10M	XT (*Rc) XTH (*NPT) Only L or Blank is available in the inch female thread specification and the manifold outlet specification.	L	Blank G	-JR -JL -JD -MR -ML -MD -MRH ^{Note12} -MLH ^{Note12} -MDH ^{Note12} -J5R -J5L -J5D -J6R -J6L -J6D -JT -J5T -J6T -MT -MTH ^{Note12}	-K3 -M3	Blank -1~8	Blank -W -DN -DR
Direct piping type			Blank	Blank G	-JR -JL -JD -MR -ML -MD -MRH ^{Note12} -MLH ^{Note12} -MDH ^{Note12} -J5R -J5L -J5D -J6R -J6L -J6D -JT -J5T -J6T -MT -MTH ^{Note12}	-K3 -M3	Blank -1~8	Blank -W -DN -DR

- Notes: 1. To determine the maximum number of units, see "Maximum Number of Units for Communication Specifications" on page 33.
2. Valve mounting location is from the left, with the solenoid on top, and the 4(A), 2(B) port side in front.
3. When selecting J, M, or L (base piping type) for the manifold outlet specifications, always enter -A1 (with plate) for the valve outlet type.
4. For the wiring connection specification for block off plate, you can select single and double with the block off plate wiring connection specification, apart from the manifold (valve) wiring connection specification.
5. When the valve specification is T1 or T2, the manual override lever is placed only on the A side.

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 NO)^{Note 9}
TB: Tandem 3-port (NO and NO)^{Note 9}
TC: Tandem 3-port (NC and NO)^{Note 9}

Operation type

Blank

Internal pilot type^{Note 7}

G

External pilot type^{Note 8}

(for positive pressure)

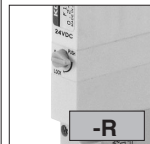
* No vacuum valve can be mounted.

Manual override

Manual override button



Manual override lever^{Note 5}



Valve outlet type

-A1 With plate^{Note 3}
(base piping type)

5-port specification

-FJ With dual use fitting block (direct piping type) **F10:** φ4, φ6

-FJ5 With single use fitting block (direct piping type) **F10:** φ4

-FJ6 With single use fitting block (direct piping type) **F10:** φ6

-FM With female thread blocks (direct piping type) **F10:** M5 x 0.8

-FMH With female thread block^{Note 13} (direct piping type) **F10:** 10-32UNF

3-port specification

-FJ5A With single use fitting block, normally closed (NC) (direct piping type) **F10:** φ4

-FJ5B With single use fitting block, normally open (NO) (direct piping type) **F10:** φ4

-FJ6A With single use fitting block, normally closed (NC) (direct piping type) **F10:** φ6

-FJ6B With single use fitting block, normally open (NO) (direct piping type) **F10:** φ6

-FMA With female thread block, normally closed (NC) (direct piping type) **F10:** M5 x 0.8

-FMAH With female thread block, normally closed (NC)^{Note 13} (direct piping type) **F10:** 10-32UNF

-FMB With female thread block, normally open (NO) (direct piping type) **F10:** M5 x 0.8

-FMBH With female thread block, normally open (NO)^{Note 13} (direct piping type) **F10:** 10-32UNF

Manifold fitting specification

5-port specification

-J5 With single use fitting block (base piping type) **F10:** φ4

-J6 With single use fitting block (base piping type) **F10:** φ6

-M With female thread blocks (base piping type) **F10:** M5 x 0.8

-MH With female thread block^{Note 13} (base piping type) **F10:** 10-32UNF

3-port specification

-J5A With single use fitting block, normally closed (NC) (base piping type) **F10:** φ4

-J5B With single use fitting block, normally open (NO) (base piping type) **F10:** φ4

-J6A With single use fitting block, normally closed (NC) (base piping type) **F10:** φ6

-J6B With single use fitting block, normally open (NO) (base piping type) **F10:** φ6

-MA With female thread block, normally closed (NC) (base piping type) **F10:** M5 x 0.8

-MAH With female thread block, normally closed (NC)^{Note 13} (base piping type) **F10:** 10-32UNF

-MB With female thread block, normally open (NO) (base piping type) **F10:** M5 x 0.8

-MBH With female thread block, normally open (NO)^{Note 13} (base piping type) **F10:** 10-32UNF

Back pressure prevention valve

Blank

No back pressure prevention valve

-E2

With back pressure prevention valve^{Note 10}

Individual air supply and exhaust spacer

Blank: No spacer

-XPPM: Individual air supply spacer (with M5 female thread for F10)

-XPRM: Individual exhaust spacer (with M5 female thread for F10)

Port isolator

Blank: No port isolator

-XSP: For 1(P) port^{Note 6}

-XSR: For 3(R2), 5(R1) ports^{Note 6}

-XSA: For 1(P), 3(R2), 5(R1) ports^{Note 6}

Block off plate wiring specification

Blank: Double wiring

-S: Single wiring

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	Block off plate wiring specification	Voltage
Mounting valve model											
stn. 1 : : stn. ☐ Note 2	F10 F10L	T0 T3 TA ^{Note 9} T1 T4 TB ^{Note 9} T2 T5 TC ^{Note 9}	Blank ^{Note 7} G ^{Note 8}	Blank -R ^{Note 5}	-A1 ^{Note 3}		Blank -E2 ^{Note 10}	Blank -XPPM -XPRM	Blank -XSP ^{Note 6} -XSR ^{Note 6} -XSA ^{Note 6}	DC24V	
										Blank -S	
If selecting an intermediate piping block, see page 37 to enter information.											
stn. 1 : : stn. ☐ Note 2	F10 F10L	T0 T3 TA ^{Note 9} T1 T4 TB ^{Note 9} T2 T5 TC ^{Note 9}	Blank ^{Note 7} G ^{Note 8}	Blank -R ^{Note 5}	-A1 ^{Note 3}	-J5 ^{Note 11} -J6 ^{Note 11} -M ^{Note 11} -MH ^{Note 12} -J5A ^{Note 11} -J5B ^{Note 11}	-J6A ^{Note 11} -J6B ^{Note 11} -MA ^{Note 11} -MAH ^{Note 12} -MB ^{Note 11} -MBH ^{Note 12}	Blank -E2 ^{Note 10}	Blank -XPPM -XPRM	Blank -XSP ^{Note 6} -XSR ^{Note 6} -XSA ^{Note 6}	DC24V
											Blank -S
If selecting an intermediate piping block, see page 37 to enter information.											
stn. 1 : : stn. ☐ Note 2	F10 F10L	T0 T3 TA ^{Note 9} T1 T4 TB ^{Note 9} T2 T5 TC ^{Note 9}	Blank ^{Note 7} G ^{Note 8}	Blank -R ^{Note 5}		-FJ ^{Note 11} -FJ5 ^{Note 11} -FJ6 ^{Note 11} -FM ^{Note 11} -FMH ^{Note 12} -FJ5A ^{Note 11} -FJ5B ^{Note 11}	-FJ6A ^{Note 11} -FJ6B ^{Note 11} -FMA ^{Note 11} -FMAH ^{Note 12} -FMB ^{Note 11} -FMBH ^{Note 12}	Blank -E2 ^{Note 10}	Blank -XPPM -XPRM	Blank -XSP ^{Note 6} -XSR ^{Note 6} -XSA ^{Note 6}	DC24V
											Blank -S
If selecting an intermediate piping block, see page 37 to enter information.											

Notes: 6. 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 -XSA, or 1 each port isolator for -XSP and -XSR 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.).
 7. Cannot be mounted on the external pilot manifold.

8. Cannot be mounted on the internal pilot manifold.
 9. Not available in external pilot type.
 10. Not available with the individual exhaust spacer.
 11. The 3-port specifications are only available in the valve specification T0, T1, and T2.
 12. Can be selected only when the manifold type is XTH.

Order codes for F10 series Easy Assembly Type Manifold with I/O Terminal

Intermediate piping block

(When mounting an intermediate piping block on a manifold, complete the model below and indicate it with the station specified on page 36.)

F 10 ZX - - **TK** -

Valve size
10: 10 mm
[0.394 in.]
width

Pilot specification
Blank : Internal pilot
G : External pilot

Manifold model
TK: For I/O terminal

Port isolator
Blank : No port isolator
XSP : Port isolator (1(P) port)
XSR : Port isolator (3(R2), 5(R1) ports)
XSA : Port isolator (1(P), 3(R2), 5(R1) ports)

Piping block specification^{Note}
PJ : With Dual use fitting $\phi 6$ [0.236]- $\phi 8$ [0.315]
PJ5 : With Single use fitting, $\phi 6$ [0.236]
PJ6 : With Single use fitting, $\phi 8$ [0.315]
PM : With female thread, Rc1/8
PMH : With female thread, NPT1/8

Note: Combinations of port specification of intermediate piping blocks and piping block specification of manifolds are as given in the table below.

Manifold piping specification	Intermediate piping block
JT	PJ
J5T	PJ5
J6T	PJ6
MT	PM

Indicating I/O modules

Input/output

-D8N : Digital Input × 8
-D16N : Digital Input × 16
-D8S : Digital Output × 8
-A4N : Analog Input × 4
(Switchable between 0-5 V/0-10 V/0-20 mA)
-A2S : Analog Output × 2
(Switchable between 0-5 V/0-10 V/0-20 mA)

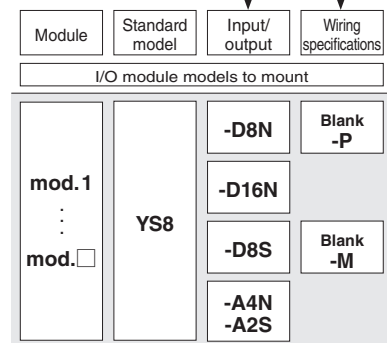
Wiring specifications

Input: -D8N

Blank : NPN type
-P : PNP type

Output: -D8S

Blank : Sink type (load side + common)
-M : Source type (load side - common)

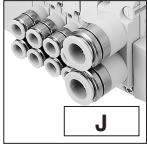


For each classification in the table below, up to four of them can be selected. The maximum number of units is eight.

I/O module symbol	Classification	Specifications
YS8-D8N	Digital input	8 points, 3-wire type, NPN connection
YS8-D8N-P		8 points, 3-wire type, PNP connection
YS8-D16N		16 points, 2-wire type
YS8-D8S	Digital output	8 points, sink type (load side + common)
YS8-D8S-M		8 points, source type (load side - common)
YS8-A4N	Analog input	4 points (switchable between 0-5 V/0-10 V/0-20 mA)
YS8-A2S	Analog output	2 points (switchable between 0-5 V/0-10 V/0-20 mA)

Manifold output specification

With dual use fitting blocks
(base piping type)



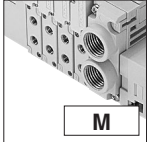
With selectable fittings
(base piping type)



Outlet port fitting
F15: φ6, φ8

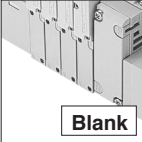
Outlet port should be
selected in accordance
with the manifold fitting
specification.

With female thread blocks
(base piping type)



Outlet port
female thread
F15: Rc1/8

With plates
(direct piping type)



Blank

Valve size

F15M 15 mm
[0.591 in.]
width

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^{Note12}
-JL : Dual use fitting,
left-side mounting^{Note12}
-JD : Dual use fitting,
both-side mounting^{Note12}
Fitting size (1(P), 3, 5(R) ports), φ 8, φ 10

Female thread block

-MR : Female thread,
right-side mounting^{Note12}
-ML : Female thread,
left-side mounting^{Note12}
-MD : Female thread,
both-side mounting^{Note12}
Female thread size (1(P), 3, 5(R) ports),
Rc1/4

Female thread block

-MRH : Female thread,
right-side mounting^{Note13}
-MLH : Female thread,
left-side mounting^{Note13}
-MDH : Female thread,
both-side mounting^{Note13}
Female thread size (1(P), 3, 5(R) ports),
NPT1/4

Single use fitting block

-J5R : Single use fitting,
right-side mounting^{Note12}
-J5L : Single use fitting,
left-side mounting^{Note12}
-J5D : Single use fitting,
both-side mounting^{Note12}
Fitting size (1(P), 3, 5(R) ports), φ 8
-J6R : Single use fitting,
right-side mounting^{Note12}
-J6L : Single use fitting,
left-side mounting^{Note12}
-J6D : Single use fitting,
both-side mounting^{Note12}
Fitting size (1(P), 3, 5(R) ports), φ 10

Communication specifications

K3 : For EtherCAT (32 outputs)
Input/output module supported

M3 : EtherNet/IP (32 outputs)
Input/output module supported

Number of modules specifications

Blank : No I/O modules
(Only communication modules)

1 to 8 : Number of I/O modules mounted
8 max.



When entering the order codes for I/O
modules, indicate the I/O modules after
indicating the mounted valves.

For details on how to indicate I/O modules,
see Indicating I/O modules on page 41.

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.

Valve size

F15 Standard type

F15L Low-current type

Valve size	Number of units	Manifold outlet specification	Pilot specification	Piping block specification	Communication specifications	Number of modules specifications	Wiring connection Specifications
------------	-----------------	-------------------------------	---------------------	----------------------------	------------------------------	----------------------------------	----------------------------------

Base piping type	F15M	2 . . . Note 1	T (※Rc)	J M	Blank G	-JR -JL -JD -MR -ML -MD	-J5R -J6R -J5L -J6L -J5D -J6D	-K3 -M3	Blank -1~8	Blank -W
Base piping type selectable fitting			T (※Rc)	L	Blank G	-JR ^{Note12} -JL ^{Note12} -JD ^{Note12} -MR ^{Note12} -ML ^{Note12} -MD ^{Note12} -MRH ^{Note13} -MLH ^{Note13}	-MDH ^{Note13} -J5R ^{Note12} -J6R ^{Note12} -J5L ^{Note12} -J6L ^{Note12} -J5D ^{Note12} -J6D ^{Note12}	-K3 -M3	Blank -1~8	Blank -W
Direct piping type			TH (※NPT)	Blank	Blank G	-JR ^{Note12} -JL ^{Note12} -JD ^{Note12} -MR ^{Note12} -ML ^{Note12} -MD ^{Note12} -MRH ^{Note13} -MLH ^{Note13}	-MDH ^{Note13} -J5R ^{Note12} -J6R ^{Note12} -J5L ^{Note12} -J6L ^{Note12} -J5D ^{Note12} -J6D ^{Note12}	-K3 -M3	Blank -1~8	Blank -W

- Notes: 1. To determine the maximum number of units, see "Maximum Number of Units for Communication Specifications" on page 41.
2. Valve mounting location is from the left, with the solenoid on top, and the 4(A), 2(B) port side in front.
3. When selecting J, M, or L (base piping type) for the manifold outlet specifications, always enter -A1 (with plate) for the valve outlet type.
4. The block-off plate wiring is always double wiring (allocated 2 control pins at 1 stn.), regardless of the wiring connection specification. The block-off plate wiring can be made as wiring for a single solenoid. Add -1W to the end of the block-off plate order code in the case. For details, contact a Koganei sales office.
5. When the valve specification is T1 or T2, the manual override lever is placed only on the A side.

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)^{Note 9}
TB: Tandem 3-port (NO and NO)^{Note 9}
TC: Tandem 3-port (NC and NO)^{Note 9}

Operation type

Blank

Internal pilot type^{Note 7}

G

External pilot type^{Note 8}
 (for positive pressure)

* No vacuum valve can be mounted.

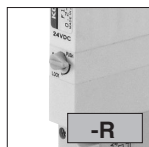
Manual override

Manual override button



Blank

Manual override lever^{Note 5}



-R

Valve outlet type

-A1 With plate^{Note 3}
 (base piping type)

5-port specification

-FJ With dual use fitting block (direct piping type) **F15:** $\phi 6$, $\phi 8$

-FJ5 With single use fitting block (direct piping type) **F15:** $\phi 6$

-FJ6 With single use fitting block (direct piping type) **F15:** $\phi 8$

-FM With female thread block (direct piping type) **F15:** Rc1/8

-FMH With female thread block^{Note 13} (direct piping type) **F10:** NPT1/8

3-port specification

-FJ5A With single use fitting block, normally closed (NC) (direct piping type) **F15:** $\phi 6$

-FJ5B With single use fitting block, normally open (NO) (direct piping type) **F15:** $\phi 6$

-FJ6A With single use fitting block, normally closed (NC) (direct piping type) **F15:** $\phi 8$

-FJ6B With single use fitting block, normally open (NO) (direct piping type) **F15:** $\phi 8$

-FMA With female thread block, normally closed (NC) (direct piping type) **F15:** Rc1/8

-FMAH With female thread block, normally closed (NC)^{Note 12} (direct piping type) **F15:** NPT1/8

-FMB With female thread block, normally open (NO) (direct piping type) **F15:** Rc1/8

-FMBH With female thread block, normally open (NO)^{Note 13} (direct piping type) **F15:** NPT1/8

Manifold fitting specification

5-port specification

-J5 With single use fitting block (base piping type) **F15:** $\phi 6$

-J6 With single use fitting block (base piping type) **F15:** $\phi 8$

-M With female thread block (base piping type) **F15:** Rc1/8

-MH With female thread block^{Note 11} (base piping type) **F15:** NPT1/8

3-port specification

-J5A With single use fitting block, normally closed (NC) (base piping type) **F15:** $\phi 6$

-J5B With single use fitting block, normally open (NO) (base piping type) **F15:** $\phi 6$

-J6A With single use fitting block, normally closed (NC) (base piping type) **F15:** $\phi 8$

-J6B With single use fitting block, normally open (NO) (base piping type) **F15:** $\phi 8$

-MA With female thread block, normally closed (NC) (base piping type) **F15:** Rc1/8

-MAH With female thread block, normally closed (NC)^{Note 13} (base piping type) **F15:** NPT1/8

-MB With female thread block, normally open (NO) (base piping type) **F15:** Rc1/8

-MBH With female thread block, normally open (NO)^{Note 13} (base piping type) **F15:** NPT1/8

Back pressure prevention valve

Blank

No back pressure prevention valve

-E2

With back pressure prevention valve^{Note 10}

Individual air supply and exhaust spacer

Blank: No spacer

-PP6: Individual air supply spacer (with $\phi 6$ fitting for F15)

-PP8: Individual air supply spacer (with $\phi 8$ fitting for F15)

-PR6: Individual exhaust spacer (with $\phi 6$ fitting for F15)

-PR8: Individual exhaust spacer (with $\phi 8$ fitting for F15)

Port isolator

Blank: No port isolator

-SP: For 1(P) port^{Note 6}

-SR: For 3(R2), 5(R1) ports^{Note 6}

-SA: For 1(P), 3(R2), 5(R1) ports^{Note 6}

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
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Mounting valve model

stn. 1 : : stn. ☐ Note 2	F15 F15L	T0 T1 T2	T3 T4 T5	TA ^{Note 9} TB ^{Note 9} TC ^{Note 9}	Blank ^{Note 7} G ^{Note 8}	Blank -R ^{Note 5}	-A1 ^{Note 3}		Blank -E2 ^{Note 10}	Blank -PP6 -PP8 -PR6 -PR8	Blank -SP ^{Note 6} -SR ^{Note 6} -SA ^{Note 6}	DC24V
	F15	BPP (for block-off plate) ^{Note 4}										

stn. 1 : : stn. ☐ Note 2	F15 F15L	T0 T1 T2	T3 T4 T5	TA ^{Note 9} TB ^{Note 9} TC ^{Note 9}	Blank ^{Note 7} G ^{Note 8}	Blank -R ^{Note 5}	-A1 ^{Note 3}	-J5 ^{Note 12} -J6 ^{Note 12} -M ^{Note 12} -MH ^{Note 11} -J5A ^{Note 12} -J5B ^{Note 12}	-J6A ^{Note 12} -J6B ^{Note 12} -MA ^{Note 12} -MAH ^{Note 13} -MB ^{Note 12} -MBH ^{Note 13}	Blank -E2 ^{Note 10}	Blank -PP6 -PP8 -PR6 -PR8	Blank -SP ^{Note 6} -SR ^{Note 6} -SA ^{Note 6}	DC24V
	F15	BPP (for block-off plate) ^{Note 4}											

stn. 1 : : stn. ☐ Note 2	F15 F15L	T0 T1 T2	T3 T4 T5	TA ^{Note 9} TB ^{Note 9} TC ^{Note 9}	Blank ^{Note 7} G ^{Note 8}	Blank -R ^{Note 5}	-FJ ^{Note 12} -FJ5 ^{Note 12} -FJ6 ^{Note 12} -FM ^{Note 12} -FMH ^{Note 13} -FJ5A ^{Note 12} -FJ5B ^{Note 12}	-FJ6A ^{Note 12} -FJ6B ^{Note 12} -FMA ^{Note 12} -FMAH ^{Note 13} -FMB ^{Note 12} -FMBH ^{Note 11}		Blank -E2 ^{Note 10}	Blank -PP6 -PP8 -PR6 -PR8	Blank -SP ^{Note 6} -SR ^{Note 6} -SA ^{Note 6}	DC24V
	F15	BPP (for block-off plate) ^{Note 4}											

Notes: 6. 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.).

7. Cannot be mounted on the external pilot manifold.

8. Cannot be mounted on the internal pilot manifold.

9. Not available in external pilot type.

10. Not available with the individual exhaust spacer.

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

12. Can be selected only when the manifold type is T.

13. Can be selected only when the manifold type is TH.

Order codes for F15 series Split Type Manifold with I/O Terminal

Indicating I/O modules

Input/output

- D8N : Digital Input × 8
- D16N : Digital Input × 16
- D8S : Digital Output × 8
- A4N : Analog Input × 4
(Switchable between 0-5 V/0-10 V/0-20 mA)
- A2S : Analog Output × 2
(Switchable between 0-5 V/0-10 V/0-20 mA)

Wiring specifications

Input: -D8N

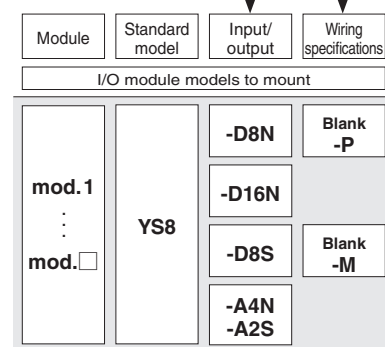
Blank : NPN type

-P : PNP type

Output: -D8S

Blank : Sink type (load side + common)

-M : Source type (load side - common)



For each classification in the table below, up to four of them can be selected. The maximum number of units is eight.

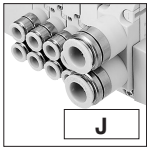
I/O module symbol	Classification	Specifications
YS8-D8N	Digital input	8 points, 3-wire type, NPN connection
YS8-D8N-P		8 points, 3-wire type, PNP connection
YS8-D16N		16 points, 2-wire type
YS8-D8S	Digital output	8 points, sink type (load side + common)
YS8-D8S-M		8 points, source type (load side - common)
YS8-A4N	Analog input	4 points (switchable between 0-5 V/0-10 V/0-20 mA)
YS8-A2S	Analog output	2 points (switchable between 0-5 V/0-10 V/0-20 mA)

Maximum Number of Units for Communication Specifications

		Maximum number of units	
		Wiring connection specification	
Communication specifications	Maximum control points	Packed wiring (blank)	Double wiring (-W)
-K3 : EtherCAT (32 outputs) supported	32 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. -K3 and -M3 have a maximum of 20 connected units.	16 units
-M3 : EtherNet/IP (32 outputs) supported	32 points		16 units

Manifold output specification

With dual use fitting blocks
(base piping type)



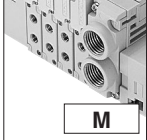
Outlet port fitting
F15: φ6, φ8

With selectable fittings
(base piping type)



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

With female thread blocks
(base piping type)



Outlet port
female thread
F15: Rc1/8

With plates
(direct piping type)



Blank

Valve size

F15M 15 mm
[0.591 in.]
width

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

Female thread block

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

Female thread block

-MRH: Female thread, right-side mounting^{Note13}
-MLH: Female thread, left-side mounting^{Note13}
-MDH: Female thread, both-side mounting^{Note13}
Female thread size (1(P), 3, 5(R) ports), NPT1/4

Single use fitting block

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

Intermediate piping block

-JT: Dual use fitting, both-side mounting,
intermediate piping block φ8, φ10
-J5T: Single use fitting, both-side
mounting, intermediate piping block
φ8
-J6T: Single use fitting, both-side
mounting, intermediate piping block
φ10
-MT: Female thread, both-side mounting,
intermediate piping block Rc1/4
-MTH: Female thread, both-side
mounting, intermediate piping
block NPT1/4^{Note13}

Communication specifications

K3: For EtherCAT (32 outputs)
Input/output module supported

M3: EtherNet/IP (32 outputs)
Input/output module supported

Number of modules specifications

Blank: No I/O modules
(Only communication modules)

1 to 8: Number of I/O modules mounted
8 max.



When entering the order codes for I/O
modules, indicate the I/O modules after
indicating the mounted valves.

For details on how to indicate I/O modules,
see Indicating I/O modules on page 45.

Mounting specification

Blank

Direct mounting

-DN

With DIN brackets (without rails)

-DR

With DIN brackets, with
rails

Note: For details of rails to
be assembled and
shipped, see page 49.

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.

Valve size

F15 Standard type

F15L Low-current type

Valve size Number of units Manifold outlet specification Pilot specification Piping block specification Communication specifications Number of modules specifications Wiring connection specification Mounting specification

Manifold model												
Base piping type	F15M	2 . . . □ Note 1	XT (※Rc)	J M	Blank G	-JR -JL -JD -MR -ML -MD	-J5R -J5L -J5D -J6R -J6L -J6D	-JT -J5T -J6T -MT	-K3 -M3	Blank -1~8	Blank -W	Blank -DN -DR
Base piping type selectable fitting			XT (※Rc) XTH (※NPT) Only L or Blank is available in the inch female thread specification and the manifold outlet specification.	L	Blank G	-JR -JL -JD -MR -ML -MD -MRH ^{Note12}	-MLH ^{Note12} -MDH ^{Note12} -J5R -J5L -J5D -J6R -J6L	-J6D -JT -J5T -J6T -MT -MTH ^{Note12}	-K3 -M3	Blank -1~8	Blank -W	Blank -DN -DR
Direct piping type				Blank	Blank G	-JR -JL -JD -MR -ML -MD -MRH ^{Note12}	-MLH ^{Note12} -MDH ^{Note12} -J5R -J5L -J5D -J6R -J6L	-J6D -JT -J5T -J6T -MT -MTH ^{Note12}	-K3 -M3	Blank -1~8	Blank -W	Blank -DN -DR

Notes: 1. To determine the maximum number of units, see "Maximum Number of Units for Communication Specifications" on page 41.

2. Valve mounting location is from the left, with the solenoid on top, and the 4(A), 2(B) port side in front.

3. When selecting J, M, or L (base piping type) for the manifold outlet specifications, always enter -A1 (with plate) for the valve outlet type.

4. For the wiring connection specification for block off plate, you can select single and double with the block off plate wiring connection specification, apart from the manifold (valve) wiring connection specification.

5. When the valve specification is T1 or T2, the manual override lever is placed only on the A side.

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 NO)^{Note 9}
TB: Tandem 3-port (NO and NO)^{Note 9}
TC: Tandem 3-port (NC and NO)^{Note 9}

Operation type

Blank

Internal pilot type^{Note 7}

G

External pilot type^{Note 8}

(for positive pressure)

* No vacuum valve can be mounted.

Manual override

Manual override button



Manual override lever^{Note 5}

Valve outlet type

-A1 With plate^{Note 3}
(base piping type)

5-port specification

-FJ With dual use fitting block (direct piping type) **F15:** φ6, φ8

-FJ5 With single use fitting block (direct piping type) **F15:** φ6

-FJ6 With single use fitting block (direct piping type) **F15:** φ8

-FM With female thread blocks (direct piping type) **F15:** Rc1/8

-FMH With female thread block^{Note 13} (direct piping type) **F15:** NPT1/8

3-port specification

-FJ5A With single use fitting block, normally closed (NC) (direct piping type) **F15:** φ6

-FJ5B With single use fitting block, normally open (NO) (direct piping type) **F15:** φ6

-FJ6A With single use fitting block, normally closed (NC) (direct piping type) **F15:** φ8

-FJ6B With single use fitting block, normally open (NO) (direct piping type) **F15:** φ8

-FMA With female thread block, normally closed (NC) (direct piping type) **F15:** Rc1/8

-FMAH With female thread block, normally closed (NC)^{Note 13} (direct piping type) **F15:** NPT1/8

-FMB With female thread block, normally open (NO) (direct piping type) **F15:** Rc1/8

-FMBH With female thread block, normally open (NO)^{Note 13} (direct piping type) **F15:** NPT1/8

Manifold fitting specification

5-port specification

-J5 With single use fitting block (base piping type) **F15:** φ6

-J6 With single use fitting block (base piping type) **F15:** φ8

-M With female thread blocks (base piping type) **F15:** Rc1/8

-MH With female thread block^{Note 13} (base piping type) **F15:** NPT1/8

3-port specification

-J5A With single use fitting block, normally closed (NC) (base piping type) **F15:** φ6

-J5B With single use fitting block, normally open (NO) (base piping type) **F15:** φ6

-J6A With single use fitting block, normally closed (NC) (base piping type) **F15:** φ8

-J6B With single use fitting block, normally open (NO) (base piping type) **F15:** φ8

-MA With female thread block, normally closed (NC) (base piping type) **F15:** Rc1/8

-MAH With female thread block, normally closed (NC)^{Note 13} (base piping type) **F15:** NPT1/8

-MB With female thread block, normally open (NO) (base piping type) **F15:** Rc1/8

-MBH With female thread block, normally open (NO)^{Note 13} (base piping type) **F15:** NPT1/8

Back pressure prevention valve

Blank

No back pressure prevention valve

-E2

With back pressure prevention valve^{Note 10}

Individual air supply and exhaust spacer

Blank: No spacer

-PP6: Individual air supply spacer (with φ 6 fitting for F15)

-PP8: Individual air supply spacer (with φ 8 fitting for F15)

-PR6: Individual exhaust spacer (with φ 6 fitting for F15)

-PR8: Individual exhaust spacer (with φ 8 fitting for F15)

Port isolator

Blank: No port isolator

-XSP: For 1(P) port^{Note 6}

-XSR: For 3(R2), 5(R1) ports^{Note 6}

-XSA: For 1(P), 3(R2), 5(R1) ports^{Note 6}

Block off plate wiring specification

Blank: Double wiring

-S: Single wiring

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	Block off plate wiring specification	Voltage
Mounting valve model											
stn. 1 : : stn. □ Note 2	F15 F15L	T0 T3 TA ^{Note 9} T1 T4 TB ^{Note 9} T2 T5 TC ^{Note 9}	Blank ^{Note 7} G ^{Note 8}	Blank -R ^{Note 5}	-A1 ^{Note 3}		Blank -E2 ^{Note 10}	Blank -XPP6 -XPP8 -XPR6 -XPR8	Blank -XSP ^{Note 6} -XSR ^{Note 6} -XSA ^{Note 6}	Blank -S	DC24V
If selecting an intermediate piping block, see page 45 to enter information.											
stn. 1 : : stn. □ Note 2	F15 F15L	T0 T3 TA ^{Note 9} T1 T4 TB ^{Note 9} T2 T5 TC ^{Note 9}	Blank ^{Note 7} G ^{Note 8}	Blank -R ^{Note 5}	-A1 ^{Note 3}	-J5 ^{Note 11} -J6 ^{Note 11} -M ^{Note 11} -MH ^{Note 12} -J5A ^{Note 11} -J5B ^{Note 11} -J6A ^{Note 11} -J6B ^{Note 11} -MA ^{Note 12} -MAH ^{Note 12} -MB ^{Note 11} -MBH ^{Note 12}	Blank -E2 ^{Note 10}	Blank -XPP6 -XPP8 -XPR6 -XPR8	Blank -XSP ^{Note 6} -XSR ^{Note 6} -XSA ^{Note 6}	Blank -S	DC24V
If selecting an intermediate piping block, see page 45 to enter information.											
stn. 1 : : stn. □ Note 2	F15 F15L	T0 T3 TA ^{Note 9} T1 T4 TB ^{Note 9} T2 T5 TC ^{Note 9}	Blank ^{Note 7} G ^{Note 8}	Blank -R ^{Note 5}	-FJ ^{Note 11} -FJ5 ^{Note 11} -FJ6 ^{Note 11} -FM ^{Note 11} -FMH ^{Note 12} -FJ5A ^{Note 11} -FJ5B ^{Note 11} -FJ6A ^{Note 11} -FJ6B ^{Note 11} -FMA ^{Note 12} -FMAH ^{Note 12} -FMB ^{Note 11} -FMBH ^{Note 12}		Blank -E2 ^{Note 10}	Blank -XPP6 -XPP8 -XPR6 -XPR8	Blank -XSP ^{Note 6} -XSR ^{Note 6} -XSA ^{Note 6}	Blank -S	DC24V
If selecting an intermediate piping block, see page 45 to enter information.											

Notes: 6. 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 **-XSA**, or 1 each port isolator for **-XSP** and **-XSR** 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.).
 7. Cannot be mounted on the external pilot manifold.

8. Cannot be mounted on the internal pilot manifold.
 9. Not available in external pilot type.
 10. Not available with the individual exhaust spacer.
 11. The 3-port specifications are only available in the valve specification **T0**, **T1**, and **T2**.
 12. Can be selected only when the manifold type is **XTH**.

Order codes for F15 series Easy Assembly Type Manifold with I/O Terminal

Intermediate piping block

(When mounting an intermediate piping block on a manifold, complete the model below and indicate it with the station specified on page 44.)

F 15 ZX - - **TK** -

Valve size
15: 15 mm
[0.591 in.]
width

Pilot specification
Blank: Internal pilot
specification
G : External pilot
specification

Manifold model
TK: For I/O terminal

Port isolator
Blank : No port isolator
XSP : Port isolator (1(P) port)
XSR : Port isolator (3(R2), 5(R1) ports)
XSA : Port isolator (1(P), 3(R2), 5(R1) ports)

Piping block specification^{Note}
PJ : With Dual use fitting $\phi 8$ [0.315]· $\phi 10$ [0.394]
PJ5 : With Single use fitting, $\phi 8$ [0.315]
PJ6 : With Single use fitting, $\phi 10$ [0.394]
PM : With female thread, Rc1/4
PMH : With female thread, NPT1/4

Note: Combinations of port specification of intermediate piping blocks and piping block specification of manifolds are as given in the table below.

Manifold piping specification	Intermediate piping block
JT	PJ
J5T	PJ5
J6T	PJ6
MT	PM

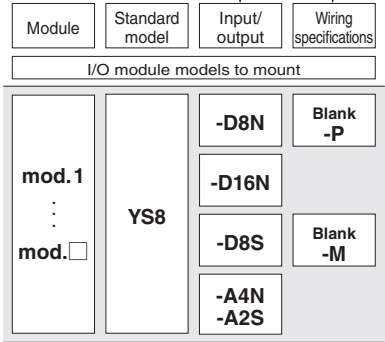
Indicating I/O modules

Input/output

- D8N** : Digital Input × 8
- D16N** : Digital Input × 16
- D8S** : Digital Output × 8
- A4N** : Analog Input × 4
(Switchable between 0-5 V/0-10 V/0-20 mA)
- A2S** : Analog Output × 2
(Switchable between 0-5 V/0-10 V/0-20 mA)

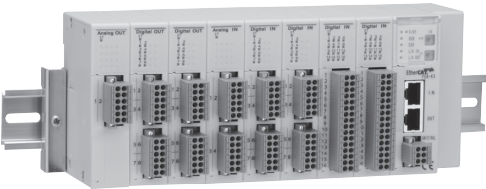
Wiring specifications

- Input: -D8N**
- Blank** : NPN type
-P : PNP type
- Output: -D8S**
- Blank** : Sink type (load side + common)
-M : Source type (load side - common)



For each classification in the table below, up to four of them can be selected. The maximum number of units is eight.

I/O module symbol	Classification	Specifications
YS8-D8N	Digital input	8 points, 3-wire type, NPN connection
YS8-D8N-P		8 points, 3-wire type, PNP connection
YS8-D16N		16 points, 2-wire type
YS8-D8S	Digital output	8 points, sink type (load side + common)
YS8-D8S-M		8 points, source type (load side - common)
YS8-A4N	Analog input	4 points (switchable between 0-5 V/0-10 V/0-20 mA)
YS8-A2S	Analog output	2 points (switchable between 0-5 V/0-10 V/0-20 mA)



YS8E - -

Standard model

Mounting specification

Blank : Direct mounting
DN : With DIN brackets (without rails)
DR : With DIN brackets (with rails)

Number of I/O modules

1 : Number of I/O modules mounted: 1
:
8 : Number of I/O modules mounted: 8 (8 max.)

Communication specifications

K3 : EtherCAT input/output module supported
M3 : EtherNet/IP input/output module supported



Module^{Note}
mod.1 : First module
:
mod.8 : Eighth module

Note: The arrangement of valve stations differs from that of modules.
For details, see "Arrangement of stns and mods" below.

YS8

I/O module^{Note}

Digital input × 8 (3-wire type) : YS8 - D8N -

Digital input specifications

Blank : NPN type
P : PNP type

Digital input × 16 (2-wire type) : YS8 - D16N

Digital Output × 8 : YS8 - D8S -

Digital output specifications

Blank : Sink type (load side + common)
M : Source type (load side - common)

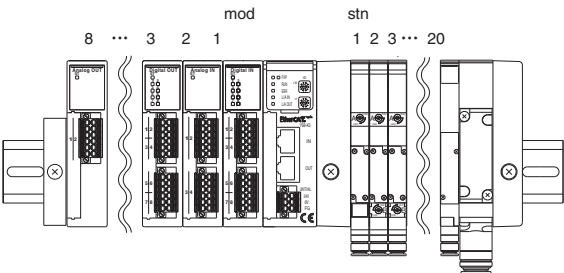
Analog Input × 4 : YS8 - A4N
(Switchable between 0-5 V/0-10 V/0-20 mA)

Analog Output × 2 : YS8 - A2S
(Switchable between 0-5 V/0-10 V/0-20 mA)

Note: For each classification in the table below, up to four of them can be selected. The maximum number of units is eight.

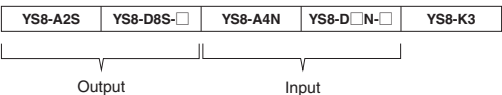
I/O module symbol	Classification	Specifications
YS8-D8N	Digital input	8 points, 3-wire type, NPN connection
YS8-D8N-P		8 points, 3-wire type, PNP connection
YS8-D16N		16 points, 2-wire type
YS8-D8S	Digital output	8 points, sink type (load side + common)
YS8-D8S-M		8 points, source type (load side - common)
YS8-A4N	Analog input	4 points (switchable between 0-5 V/0-10 V/0-20 mA)
YS8-A2S	Analog output	2 points (switchable between 0-5 V/0-10 V/0-20 mA)

● Arrangement of stns and mods

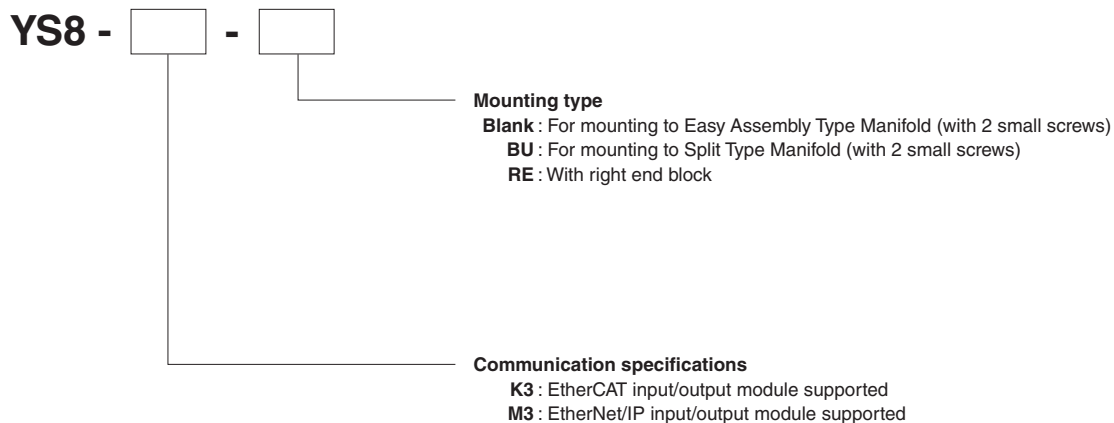


Recommended arrangement:

- Put modules in the same classification together.
- Analog output at the end, followed by digital output → analog input → digital input in sequence.

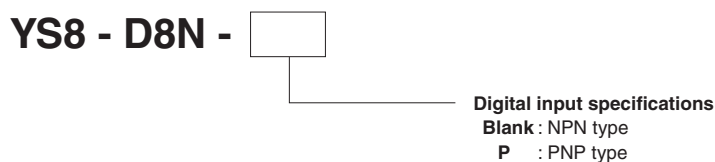


● Communication module single unit



● I/O module single unit

Digital input × 8 (3-wire type)



Digital input × 16 (2-wire type)

YS8 - D16N

Digital Output × 8



Analog Input × 4
(Switchable between 0-5 V/0-10 V/0-20 mA)

YS8 - A4N

Analog Output × 2
(Switchable between 0-5 V/0-10 V/0-20 mA)

YS8 - A2S

● Additional parts

- **Connecting rods (2 pcs per set, small screws and washers included)**

Note: Once you select a number of connecting rods, you cannot change it later. Be sure to select the number of connecting rods to suit the number of I/O modules to use.

YS8Z -

Number of I/O modules

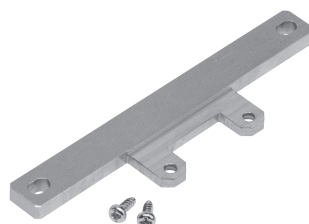
1 : 1
⋮
8 : 8



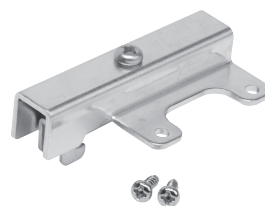
- **Mounting bracket**

YS8Z -

DM : Direct mounting (tapping screws included)
DN : DIN brackets (tapping screws included)



YS8Z-DM



YS8Z-DN

- **Connector**

YS8Z - CN

Number of pins

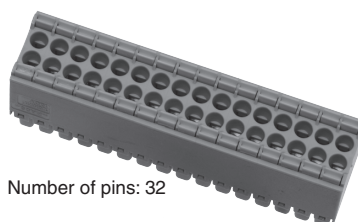
6 : YS8-K3/YS8-M3 power supply connector
12 : YS8-D8N-□/YS8-D8S-□/YS8-A4N connector
32 : YS8-D16N connector



Number of pins: 6



Number of pins: 12



Number of pins: 32

- **I/O module connection cover**

YS8Z - C



- **DIN rail (unit: 1 pc)**

DIN -

Rail length

125 : 125 mm [4.921 in.]
⋮ (25 mm [0.984 in.] pitch)
700 : 700 mm [27.559 in.]

Mass

I/O terminal (not including valves)

g [oz]

Mounting option	Calculation of mass for each number of units
No symbol	$258 [9.10] + (93 [3.28] \times n)$
-DN	$214 [7.55] + (93 [3.28] \times n)$
-DR	$235 [8.29] + (97 [3.42] \times n)$

n: Number of modules

Calculation example: **YS8EK3-4-DR**

mod.1 YS8-D8N

mod.2 YS8-A4N

mod.3 YS8-D8S

mod.4 YS8-A2S

$235 [8.29] + 97 [3.42] \times 4 = 623 \text{ g } [21.98 \text{ oz}]$

Mass to add for split and Easy Assembly Type Manifold / I/O terminal

To be added to the result of calculating the Split Type Manifold and the Easy Assembly Type Manifold.

g [oz]

Mounting option	Calculation of mass for each number of units
No symbol	$176 [6.21] + (93 [3.28] \times n)$
-DN	$154 [5.43] + (93 [3.28] \times n)$
-DR	$175 [6.17] + (97 [3.42] \times n)$

n: Number of modules

Calculation example: **F10M8XTJ-JR-K3-4-W-DR**

stn.1 to 8 F10T1-A1 24 VDC

mod.1 to 4 YS8-D8N

$(92 [3.25] \times 8) + 310 [10.93] + 32 [1.13] + 175 [6.17] +$

$(97 [3.42] \times 4) = 1641 \text{ g } [57.88 \text{ oz}]$

F10 series

Split Type Manifold and plugin type/serial transmission type mass (including valve single unit)

g [oz]

Plugin type Serial transmission supported type	Calculation of mass for each number of units			
	4 (A) and 2 (B) port output specifications			
	Female thread block	Dual use fitting block	φ4 [0.157] fitting block	φ6 [0.236] fitting block
	$(79 [2.79] \times n) + 120 [4.23]$	$(83 [2.93] \times n) + 120 [4.23]$	$(85 [3.00] \times n) + 120 [4.23]$	$(88 [3.10] \times n) + 120 [4.23]$

n: Valve units

g [oz]

Mass to add			
Piping block specification			
Female thread block	Dual use fitting block	φ8 [0.315] fitting block	φ10 [0.394] fitting block
111 [3.92]	125 [4.41]	149 [5.26]	159 [5.61]

F10 series

Easy Assembly Type Manifold and plugin type/serial transmission type mass (including valve single unit)

g [oz]

Mounting option	Calculation of mass for each number of units			
	Outlet port specifications			
	Female thread block	Dual use fitting block	φ4 [0.157] fitting block	φ6 [0.236] fitting block
No symbol	$(86 [3.03] \times n) + 227 [8.01]$	$(90 [3.17] \times n) + 227 [8.01]$	$(92 [3.25] \times n) + 227 [8.01]$	$(95 [3.35] \times n) + 227 [8.01]$
-DN	$(86 [3.03] \times n) + 288 [10.16]$	$(90 [3.17] \times n) + 288 [10.16]$	$(92 [3.25] \times n) + 288 [10.16]$	$(95 [3.35] \times n) + 288 [10.16]$
-DR	$(88 [3.10] \times n) + 310 [10.93]$	$(92 [3.25] \times n) + 310 [10.93]$	$(94 [3.32] \times n) + 310 [10.93]$	$(97 [3.42] \times n) + 310 [10.93]$

n: Valve units

g [oz]

Fitting specifications	Mass to add			
	Air supply and exhaust ports			
	Female thread block	Dual use fitting block	φ6 [0.236] fitting block	φ8 [0.315] fitting block
J ☐ M ☐	22 [0.78]	32 [1.13]	43 [1.52]	48 [1.69]
J ☐ D MD	26 [0.92]	46 [1.62]	68 [2.40]	78 [2.75]
J ☐ T MT	31 [1.09]	61 [2.15]	94 [3.32]	109 [3.84]

When mounting the block plate, subtract 50 g [1.76 oz] per series from the above calculation result.

When mounting **F10** ☐ **T0** products, subtract 10 g [0.35 oz] per unit from the above calculation result.

Mass

F15 series

Split Type Manifold and plugin type/serial transmission type mass (including valve single unit)

g [oz]

Plugin type Serial transmission type	Calculation of mass for each number of units			
	4 (A) and 2 (B) port output specifications			
	Female thread block	Dual use fitting block	φ6 [0.236] fitting block	φ8 [0.315] fitting block
	$(177 [6.24] \times n) + 249 [8.78]$	$(187 [6.60] \times n) + 249 [8.78]$	$(198 [6.98] \times n) + 249 [8.78]$	$(203 [7.16] \times n) + 249 [8.78]$
g [oz]				
Mass to add				
Piping block specification				
Female thread block	Dual use fitting block	φ8 [0.315] fitting block	φ10 [0.394] fitting block	
153 [5.40]	167 [5.89]	191 [6.74]	201 [7.09]	

F15 series

Easy Assembly Type Manifold and plugin type/serial transmission supported type mass (including valve single unit) g [oz]

Mounting option	Calculation of mass for each number of units			
	Outlet port specifications			
	Female thread block	Dual use fitting block	φ6 [0.236] fitting block	φ8 [0.315] fitting block
No symbol	$(189 [6.67] \times n) + 306 [10.79]$	$(199 [7.02] \times n) + 306 [10.79]$	$(210 [7.41] \times n) + 306 [10.79]$	$(215 [7.58] \times n) + 306 [10.79]$
-DN	$(189 [6.67] \times n) + 369 [13.02]$	$(199 [7.02] \times n) + 369 [13.02]$	$(210 [7.41] \times n) + 369 [13.02]$	$(215 [7.58] \times n) + 369 [13.02]$
-DR	$(192 [6.77] \times n) + 391 [13.79]$	$(201 [7.09] \times n) + 391 [13.79]$	$(213 [7.51] \times n) + 391 [13.79]$	$(218 [7.69] \times n) + 391 [13.79]$
g [oz]				
Fitting specifications	Mass to add			
	Mass to add for air supply and exhaust ports			
	Female thread block	Dual use fitting block	φ8 [0.315] fitting block	φ10 [0.394] fitting block
J□ M□	34 [1.20]	48 [1.69]	72 [2.54]	82 [2.89]
J□D MD	44 [1.55]	72 [2.54]	120 [4.23]	140 [4.94]
J□T MT	-27 [-0.95]	15 [0.53]	87 [3.07]	117 [4.13]

When mounting the block plate, subtract 100 g [3.53 oz] per series from the above calculation result.

When mounting F15□T0 products, subtract 13 g [0.46 oz] per series from the above calculation result.

Current consumption calculation

Calculation example: F10M20TJ-JR-M3-8

stn.1 to 20: F10T1-A1/24 VDC

mod.1 to 4 : YS8-D8N

mod.5 : YS8-A4N

mod.6 : YS8-D8S

mod.7, 8 : YS8-A2S

Number	Module	Model	Internal current consumption (mA)	
			Power for input	Power for output
0	F10 20 connected valves	F10T1-A1DC24V × 20	–	340 (= 17 mA × 20 connected)
0	Transmission	YS8-M3	100	–
1	Digital input	YS8-D8N	10	–
2	Digital input	YS8-D8N	10	–
3	Digital input	YS8-D8N	10	–
4	Digital input	YS8-D8N	10	–
5	Analog input	YS8-A4N	30	–
6	Digital output	YS8-D8S	15	30
7	Analog output	YS8-A2S	5	30
8	Analog output	YS8-A2S	5	30
Total internal current consumption (mA)			195	440
Usable current (mA)			1805	1560

Ensure that the total of internal and external consumption currents for both the input power supply and output power supply does not exceed 2A.

Also, select connected devices so that the maximum load current for digital output modules is not exceeded.

YS8EK3 - Number of I/O modules - Mounting specification



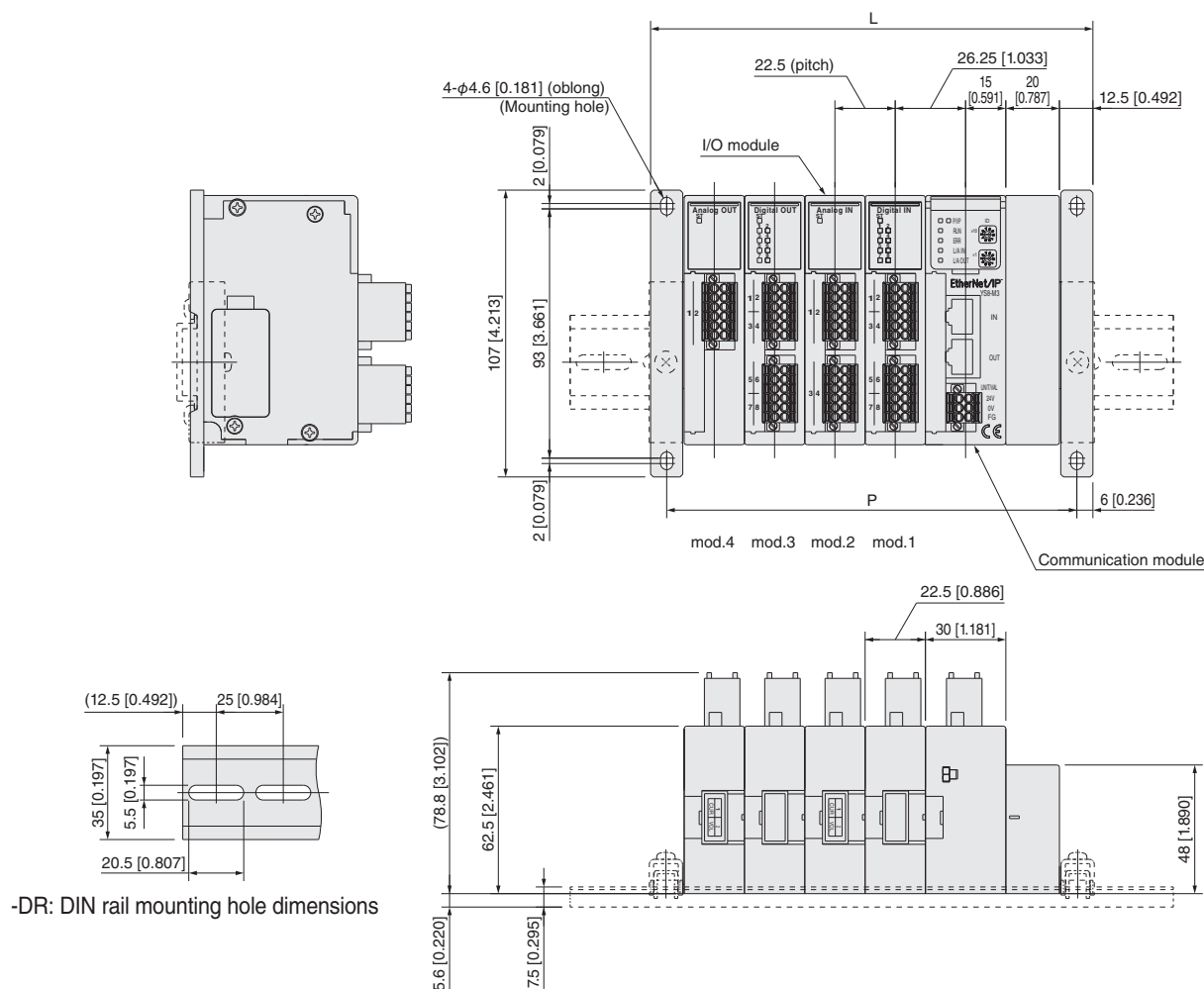
Number of mods	L	P	DIN rail
1	97.5 [3.839]	85.5 [3.366]	150 [5.906]
2	120.0 [4.724]	108.0 [4.252]	175 [6.890]
3	142.5 [5.610]	130.5 [5.138]	200 [7.874]
4	165.0 [6.496]	153.0 [6.024]	225 [8.858]
5	187.5 [7.382]	175.5 [6.909]	225 [8.858]
6	210.0 [8.268]	198.0 [7.795]	250 [9.843]
7	232.5 [9.154]	220.5 [8.681]	275 [10.827]
8	255.0 [10.039]	243.0 [9.567]	300 [11.811]

mod.4 YS8-A2S

2: For DIN rail mounting, add 1.0 mm [0.039 in.] to L.

● I/O terminal (EtherNet/IP communication)

YS8EM3 - Number of I/O modules - Mounting specification



-DR: DIN rail mounting hole dimensions

Dimensions for each number of I/O modules

Number of mods	L	P	DIN rail
1	97.5 [3.839]	85.5 [3.366]	150 [5.906]
2	120.0 [4.724]	108.0 [4.252]	175 [6.890]
3	142.5 [5.610]	130.5 [5.138]	200 [7.874]
4	165.0 [6.496]	153.0 [6.024]	225 [8.858]
5	187.5 [7.382]	175.5 [6.909]	225 [8.858]
6	210.0 [8.268]	198.0 [7.795]	250 [9.843]
7	232.5 [9.154]	220.5 [8.681]	275 [10.827]
8	255.0 [10.039]	243.0 [9.567]	300 [11.811]

Note 1: The maximum number of units that can be connected is 8.
 2: For DIN rail mounting, add 1.0 mm [0.039 in.] to L.

Examples of models in illustration

YS8EM3-4

mod.1 YS8-D8N

mod.2 YS8-A4N

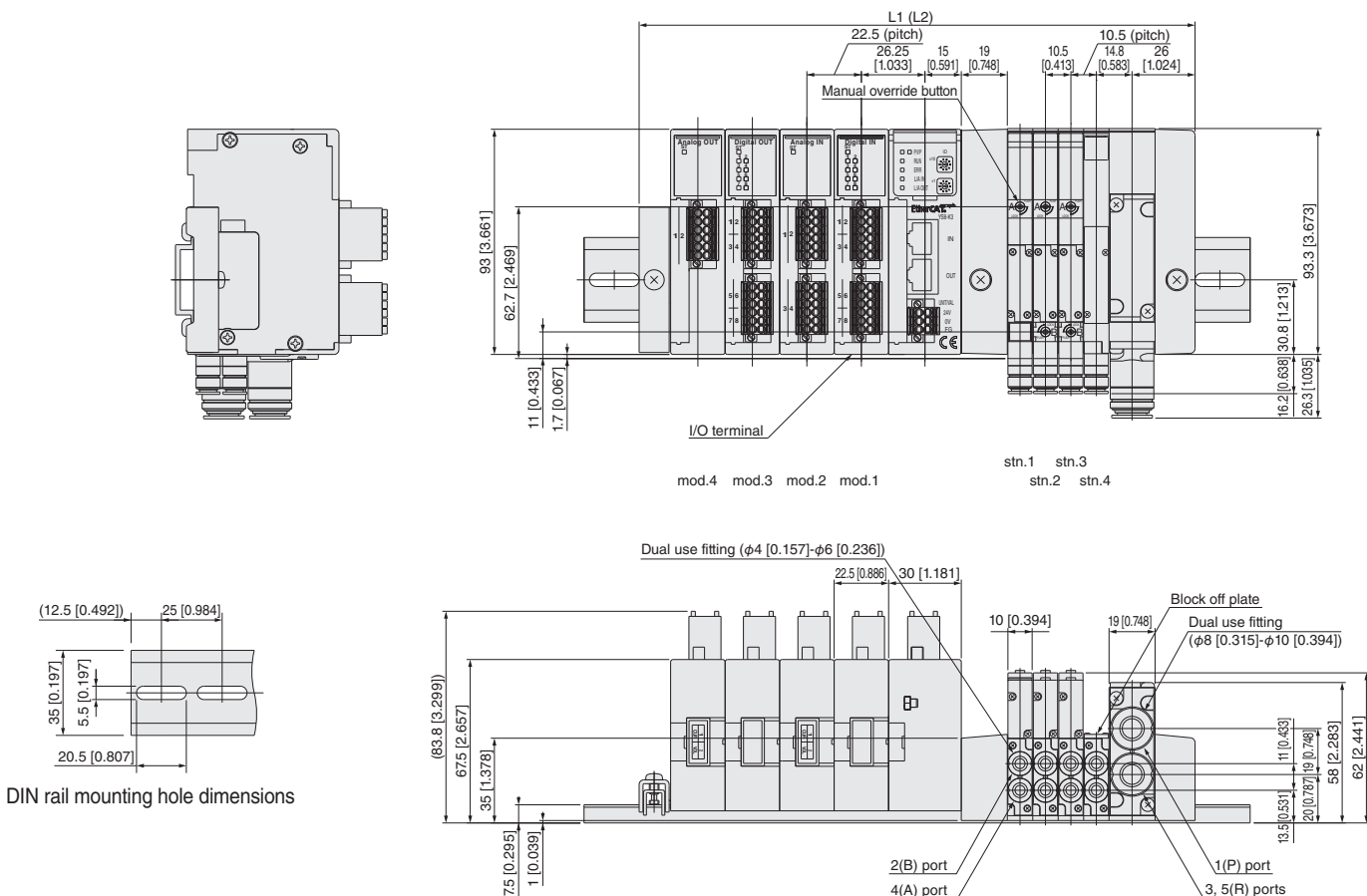
mod.3 YS8-D8S

mod.4 YS8-A2S

● F10 series Split Type Manifold with I/O Terminal

F10M Valve units **T** **J** **M** Pilot specification (base piping type)

Manifold outlet port with Dual use fitting block
(EtherCAT, EtherNet/IP) * The illustrations show EtherCAT



Examples of models in illustration

F10M4TJ-JR-K3-4-W

stn.1 F10T1-A1/DC24V

stn.2 F10T2-A1/DC24V

stn.3 F10T3-A1/DC24V

stn.4 F10XBPP

mod.1 YS8-D8N

mod.2 YS8-A4N

mod.3 YS8-D8S

mod.4 YS8-A2S

Dimensions (mm)

		L1 For one piping block																	
Number of mods		0		1		2		3		4		5		6		7		8	
Dimension location		L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN
Number of units	2	105.5	175	141	200	163.5	200	186	225	208.5	250	231	275	253.5	300	276	325	298.5	350
	3	116	175	151.5	200	174	225	196.5	250	219	275	241.5	300	264	300	286.5	325	309	350
	4	126.5	175	162	200	184.5	225	207	250	229.5	275	252	300	274.5	325	297	350	319.5	375
	5	137	200	172.5	225	195	250	217.5	275	240	300	262.5	300	285	325	307.5	350	330	375
	6	147.5	200	183	225	205.5	250	228	275	250.5	300	273	325	295.5	350	318	375	340.5	400
	7	158	225	193.5	250	216	275	238.5	275	261	300	283.5	325	306	350	328.5	375	351	400
	8	168.5	225	204	250	226.5	275	249	300	271.5	325	294	350	316.5	375	339	375	361.5	400
	9	179	250	214.5	250	237	275	259.5	300	282	325	304.5	350	327	375	349.5	400	372	425
	10	189.5	250	225	275	247.5	300	270	325	292.5	350	315	375	337.5	375	360	400	382.5	425
	11	200	250	235.5	275	258	300	280.5	325	303	350	325.5	375	348	400	370.5	425	393	450
	12	210.5	275	246	300	268.5	325	291	350	313.5	350	336	375	358.5	400	381	425	403.5	450
	13	221	275	256.5	300	279	325	301.5	350	324	375	346.5	400	369	425	391.5	450	414	450
	14	231.5	300	267	325	289.5	325	312	350	334.5	375	357	400	379.5	425	402	450	424.5	475
	15	242	300	277.5	325	300	350	322.5	375	345	400	367.5	425	390	450	412.5	450	435	475
	16	252.5	325	288	325	310.5	350	333	375	355.5	400	378	425	400.5	450	423	475	445.5	500
	17	263	325	298.5	350	321	375	343.5	400	366	425	388.5	425	411	450	433.5	475	456	500
	18	273.5	325	309	350	331.5	375	354	400	376.5	425	399	450	421.5	475	444	500	466.5	525
	19	284	350	319.5	375	342	400	364.5	400	387	425	409.5	450	432	475	454.5	500	477	525
	20	294.5	350	330	375	352.5	400	375	425	397.5	450	420	475	442.5	500	465	525	487.5	525

		L2 For two piping blocks																	
Number of mods		0		1		2		3		4		5		6		7		8	
Dimension location		L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN
Number of units	2	124.5	175	160	200	182.5	225	205	250	227.5	275	250	300	272.5	325	295	350	317.5	375
	3	135	200	170.5	225	193	250	215.5	275	238	275	260.5	300	283	325	305.5	350	328	375
	4	145.5	200	181	225	203.5	250	226	275	248.5	300	271	325	293.5	350	316	375	338.5	375
	5	156	225	191.5	250	214	250	236.5	275	259	300	281.5	325	304	350	326.5	375	349	400
	6	166.5	225	202	250	224.5	275	247	300	269.5	325	292	350	314.5	350	337	375	359.5	400
	7	177	250	212.5	250	235	275	257.5	300	280	325	302.5	350	325	375	347.5	400	370	425
	8	187.5	250	223	275	245.5	300	268	325	290.5	350	313	350	335.5	375	358	400	380.5	425
	9	198	250	233.5	275	256	300	278.5	325	301	350	323.5	375	346	400	368.5	425	391	450
	10	208.5	275	244	300	266.5	325	289	325	311.5	350	334	375	356.5	400	379	425	401.5	450
	11	219	275	254.5	300	277	325	299.5	350	322	375	344.5	400	367	425	389.5	425	412	450
	12	229.5	300	265	325	287.5	325	310	350	332.5	375	355	400	377.5	425	400	450	422.5	475
	13	240	300	275.5	325	298	350	320.5	375	343	400	365.5	425	388	425	410.5	450	433	475
	14	250.5	300	286	325	308.5	350	331	375	353.5	400	376	425	398.5	450	421	475	443.5	500
	15	261	325	296.5	350	319	375	341.5	400	364	400	386.5	425	409	450	431.5	475	454	500
	16	271.5	325	307	350	329.5	375	352	400	374.5	425	397	450	419.5	475	442	500	464.5	500
	17	282	350	317.5	375	340	400	362.5	400	385	425	407.5	450	430	475	452.5	500	475	525
	18	292.5	350	328	375	350.5	400	373	425	395.5	450	418	475	440.5	500	463	500	485.5	525
	19	303	375	338.5	375	361	400	383.5	425	406	450	428.5	475	451	500	473.5	525	496	550
	20	313.5	375	349	400	371.5	425	394	450	416.5	475	439	475	461.5	500	484	525	506.5	550

Note 1: L1 and L2 of mod 0 are the dimensions up to the left end of the communication module.

Dimensions (in.)

		L1 For one piping block																	
Number of mods		0		1		2		3		4		5		6		7		8	
Dimension location		L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN
Number of units	2	4.154	6.890	5.551	7.874	6.437	7.874	7.323	8.858	8.209	9.843	9.094	10.827	9.980	11.811	10.866	12.795	11.752	13.780
	3	4.567	6.890	5.965	7.874	6.850	8.858	7.736	9.843	8.622	10.827	9.508	11.811	10.394	11.811	11.280	12.795	12.165	13.780
	4	4.980	6.890	6.378	7.874	7.264	8.858	8.150	9.843	9.035	10.827	9.921	11.811	10.807	12.795	11.693	13.780	12.579	14.764
	5	5.394	7.874	6.791	8.858	7.677	9.843	8.563	10.827	9.449	11.811	10.335	11.811	11.220	12.795	12.106	13.780	12.992	14.764
	6	5.807	7.874	7.205	8.858	8.091	9.843	8.976	10.827	9.862	11.811	10.748	12.795	11.634	13.780	12.520	14.764	13.406	15.748
	7	6.220	8.858	7.618	9.843	8.504	10.827	9.390	10.827	10.276	11.811	11.161	12.795	12.047	13.780	12.933	14.764	13.819	15.748
	8	6.634	8.858	8.031	9.843	8.917	10.827	9.803	11.811	10.689	12.795	11.575	13.780	12.461	14.764	13.346	14.764	14.232	15.748
	9	7.047	9.843	8.445	9.843	9.331	10.827	10.217	11.811	11.102	12.795	11.988	13.780	12.874	14.764	13.760	15.748	14.646	16.732
	10	7.461	9.843	8.858	10.827	9.744	11.811	10.630	12.795	11.516	13.780	12.402	14.764	13.287	14.764	14.173	15.748	15.059	16.732
	11	7.874	9.843	9.272	10.827	10.157	11.811	11.043	12.795	11.929	13.780	12.815	14.764	13.701	15.748	14.587	16.732	15.472	17.717
	12	8.287	10.827	9.685	11.811	10.571	12.795	11.457	13.780	12.343	13.780	13.228	14.764	14.114	15.748	15.000	16.732	15.886	17.717
	13	8.701	10.827	10.098	11.811	10.984	12.795	11.870	13.780	12.756	14.764	13.642	15.748	14.528	16.732	15.413	17.717	16.299	17.717
	14	9.114	11.811	10.512	12.795	11.398	12.795	12.283	13.780	13.169	14.764	14.055	15.748	14.941	16.732	15.827	17.717	16.713	18.701
	15	9.528	11.811	10.925	12.795	11.811	13.780	12.697	14.764	13.583	15.748	14.469	16.732	15.354	17.717	16.240	17.717	17.126	18.701
	16	9.941	12.795	11.339	12.795	12.224	13.780	13.110	14.764	13.996	15.748	14.882	16.732	15.768	17.717	16.654	18.701	17.539	19.685
	17	10.354	12.795	11.752	13.780	12.638	14.764	13.524	15.748	14.409	16.732	15.295	16.732	16.181	17.717	17.067	18.701	17.953	19.685
	18	10.768	12.795	12.165	13.780	13.051	14.764	13.937	15.748	14.823	16.732	15.709	17.717	16.594	18.701	17.480	19.685	18.366	20.669
	19	11.181	13.780	12.579	14.764	13.465	15.748	14.350	15.748	15.236	16.732	16.122	17.717	17.008	18.701	17.894	19.685	18.780	20.669
	20	11.594	13.780	12.992	14.764	13.878	15.748	14.764	16.732	15.650	17.717	16.535	18.701	17.421	19.685	18.307	20.669	19.193	20.669

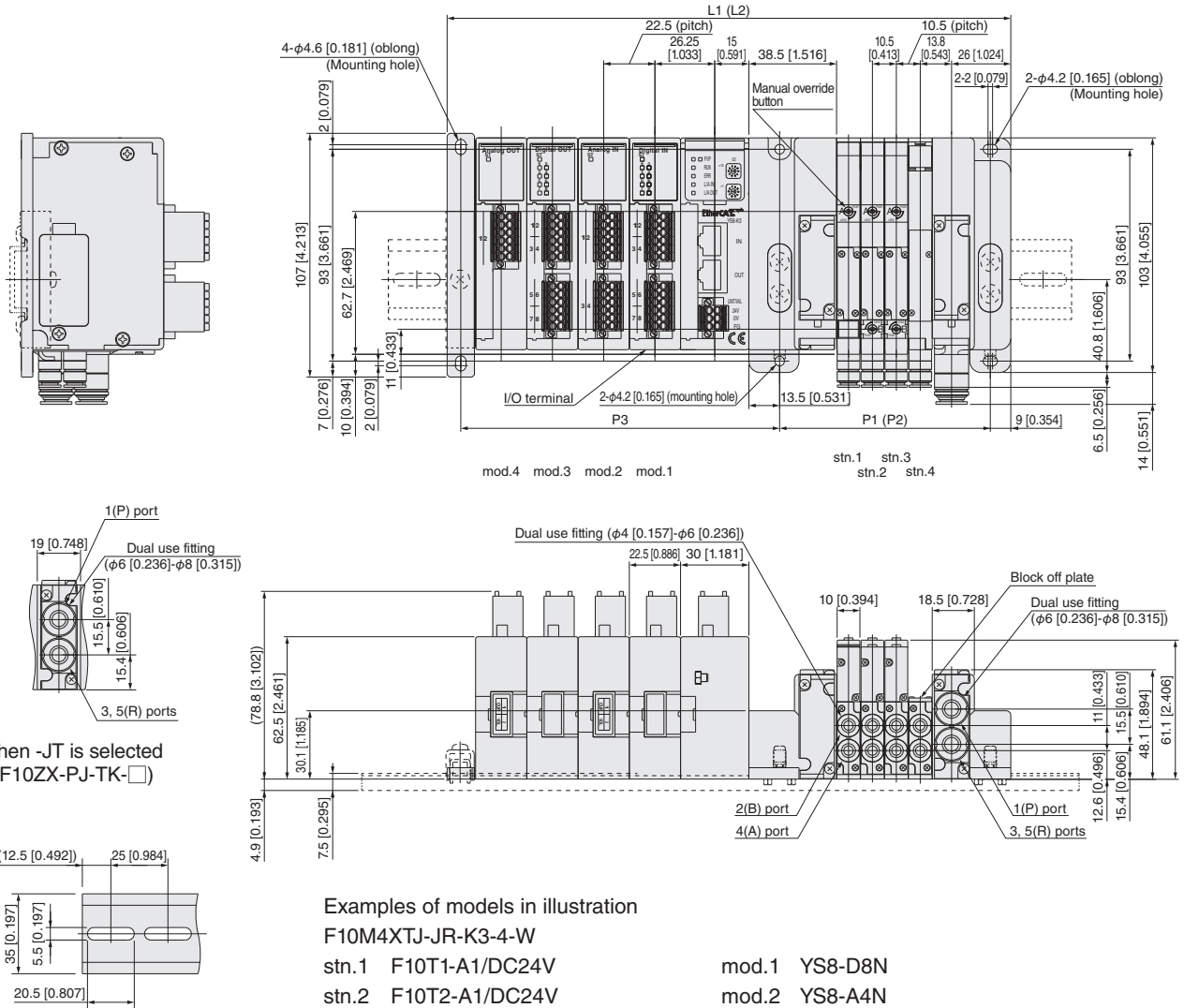
		L2 For two piping blocks																	
Number of mods		0		1		2		3		4		5		6		7		8	
Dimension location		L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN
Number of units	2	4.902	6.890	6.299	7.874	7.185	8.858	8.071	9.843	8.957	10.827	9.843	11.811	10.728	12.795	11.614	13.780	12.500	14.764
	3	5.315	7.874	6.713	8.858	7.598	9.843	8.484	10.827	9.370	10.827	10.256	11.811	11.142	12.795	12.028	13.780	12.913	14.764
	4	5.728	7.874	7.126	8.858	8.012	9.843	8.898	10.827	9.783	11.811	10.669	12.795	11.555	13.780	12.441	14.764	13.327	14.764
	5	6.142	8.858	7.539	9.843	8.425	9.843	9.311	10.827	10.197	11.811	11.083	12.795	11.969	13.780	12.854	14.764	13.740	15.748
	6	6.555	8.858	7.953	9.843	8.839	10.827	9.724	11.811	10.610	12.795	11.496	13.780	12.382	13.780	13.268	14.764	14.154	15.748
	7	6.969	9.843	8.366	9.843	9.252	10.827	10.138	11.811	11.024	12.795	11.909	13.780	12.795	14.764	13.681	15.748	14.567	16.732
	8	7.382	9.843	8.780	10.827	9.665	11.811	10.551	12.795	11.437	13.780	12.323	13.780	13.209	14.764	14.094	15.748	14.980	16.732
	9	7.795	9.843	9.193	10.827	10.079	11.811	10.965	12.795	11.850	13.780	12.736	14.764	13.622	15.748	14.508	16.732	15.394	17.717
	10	8.209	10.827	9.606	11.811	10.492	12.795	11.378	12.795	12.264	13.780	13.150	14.764	14.035	15.748	14.921	16.732	15.807	17.717
	11	8.622	10.827	10.020	11.811	10.906	12.795	11.791	13.780	12.677	14.764	13.563	15.748	14.449	16.732	15.335	16.732	16.220	17.717
	12	9.035	11.811	10.433	12.795	11.319	12.795	12.205	13.780	13.091	14.764	13.976	15.748	14.862	16.732	15.748	17.717	16.634	18.701
	13	9.449	11.811	10.846	12.795	11.732	13.780	12.618	14.764	13.504	15.748	14.390	16.732	15.276	16.732	16.161	17.717	17.047	18.701
	14	9.862	11.811	11.260	12.795	12.146	13.780	13.031	14.764	13.917	15.748	14.803	16.732	15.689	17.717	16.575	18.701	17.461	19.685
	15	10.276	12.795	11.673	13.780	12.559	14.764	13.445	15.748	14.331	15.748	15.217	16.732	16.102	17.717	16.988	18.701	17.874	19.685
	16	10.689	12.795	12.087	13.780	12.972	14.764	13.858	15.748	14.744	16.732	15.630	17.717	16.516	18.701	17.402	19.685	18.287	19.685
	17	11.102	13.780	12.500	14.764	13.386	15.748	14.272	15.748	15.157	16.732	16.043	17.717	16.929	18.701	17.815	19.685	18.701	20.669
	18	11.516	13.780	12.913	14.764	13.799	15.748	14.685	16.732	15.571	17.717	16.457	18.701	17.343	19.685	18.228	19.685	19.114	20.669
	19	11.929	14.764	13.327	14.764	14.213	15.748	15.098	16.732	15.984	17.717	16.870	18.701	17.756	19.685	18.642	20.669	19.528	21.654
	20	12.343	14.764	13.740	15.748	14.626	16.732	15.512	17.717	16.398	18.701	17.283	18.701	18.169	19.685	19.055	20.669	19.941	21.654

Note 1: L1 and L2 of mod 0 are the dimensions up to the left end of the communication module.

● F10 series Easy Assembly Type Manifold with I/O Terminal

F10M Valve units **XT** **J** Pilot specification (base piping type)

Manifold outlet port with Dual use fitting block
(EtherCAT, EtherNet/IP) * The illustrations show EtherCAT



Examples of models in illustration

F10M4XTJ-JR-K3-4-W

stn.1 F10T1-A1/DC24V

stn.2 F10T2-A1/DC24V

stn.3 F10T3-A1/DC24V

stn.4 F10XBPP

mod.1 YS8-D8N

mod.2 YS8-A4N

mod.3 YS8-D8S

mod.4 YS8-A2S

-DR: DIN rail mounting hole dimensions

Dimensions (mm)

		If without intermediate piping block																		
Number of mods		0		1		2		3		4		5		6		7		8		P1
Dimension location	P3	-		72.5		95		117.5		140		162.5		185		207.5		230		
	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN		
Number of units	2	124	175	159	200	181.5	225	204	250	226.5	275	249	300	271.5	325	294	350	316.5	375	71.5
	3	134.5	200	169.5	225	192	250	214.5	275	237	275	259.5	300	282	325	304.5	350	327	375	82
	4	145	200	180	225	202.5	250	225	275	247.5	300	270	325	292.5	350	315	375	337.5	375	92.5
	5	155.5	225	190.5	250	213	250	235.5	275	258	300	280.5	325	303	350	325.5	375	348	400	103
	6	166	225	201	250	223.5	275	246	300	268.5	325	291	350	313.5	350	336	375	358.5	400	113.5
	7	176.5	225	211.5	250	234	275	256.5	300	279	325	301.5	350	324	375	346.5	400	369	425	124
	8	187	250	222	275	244.5	300	267	325	289.5	350	312	350	334.5	375	357	400	379.5	425	134.5
	9	197.5	250	232.5	275	255	300	277.5	325	300	350	322.5	375	345	400	367.5	425	390	450	145
	10	208	275	243	300	265.5	325	288	325	310.5	350	333	375	355.5	400	378	425	400.5	450	155.5
	11	218.5	275	253.5	300	276	325	298.5	350	321	375	343.5	400	366	425	388.5	425	411	450	166
	12	229	300	264	300	286.5	325	309	350	331.5	375	354	400	376.5	425	399	450	421.5	475	176.5
	13	239.5	300	274.5	325	297	350	319.5	375	342	400	364.5	425	387	425	409.5	450	432	475	187
	14	250	300	285	325	307.5	350	330	375	352.5	400	375	425	397.5	450	420	475	442.5	500	197.5
	15	260.5	325	295.5	350	318	375	340.5	400	363	400	385.5	425	408	450	430.5	475	453	500	208
	16	271	325	306	350	328.5	375	351	400	373.5	425	396	450	418.5	475	441	500	463.5	500	218.5
	17	281.5	350	316.5	375	339	375	361.5	400	384	425	406.5	450	429	475	451.5	500	474	525	229
	18	292	350	327	375	349.5	400	372	425	394.5	450	417	475	439.5	500	462	500	484.5	525	239.5
	19	302.5	375	337.5	375	360	400	382.5	425	405	450	427.5	475	450	500	472.5	525	495	550	250
	20	313	375	348	400	370.5	425	393	450	415.5	475	438	475	460.5	500	483	525	505.5	550	260.5
	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

		If with intermediate piping block																		
Number of mods		0		1		2		3		4		5		6		7		8		P2
Dimension location	P3	-		72.5		95		117.5		140		162.5		185		207.5		230		
	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN		
Number of units	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3	143	200	178	225	200.5	250	223	275	245.5	300	268	325	290.5	350	313	350	335.5	375	101.0
	4	153.5	225	188.5	225	211	250	233.5	275	256	300	278.5	325	301	350	323.5	375	346	400	111.5
	5	164	225	199	250	221.5	275	244	300	266.5	325	289	325	311.5	350	334	375	356.5	400	122.0
	6	174.5	225	209.5	250	232	275	254.5	300	277	325	299.5	350	322	375	344.5	400	367	425	132.5
	7	185	250	220	275	242.5	300	265	325	287.5	325	310	350	332.5	375	355	400	377.5	425	143.0
	8	195.5	250	230.5	275	253	300	275.5	325	298	350	320.5	375	343	400	365.5	425	388	425	153.5
	9	206	275	241	300	263.5	300	286	325	308.5	350	331	375	353.5	400	376	425	398.5	450	164.0
	10	216.5	275	251.5	300	274	325	296.5	350	319	375	341.5	400	364	400	386.5	425	409	450	174.5
	11	227	300	262	300	284.5	325	307	350	329.5	375	352	400	374.5	425	397	450	419.5	475	185.0
	12	237.5	300	272.5	325	295	350	317.5	375	340	400	362.5	400	385	425	407.5	450	430	475	195.5
	13	248	300	283	325	305.5	350	328	375	350.5	400	373	425	395.5	450	418	475	440.5	500	206.0
	14	258.5	325	293.5	350	316	375	338.5	375	361	400	383.5	425	406	450	428.5	475	451	500	216.5
	15	269	325	304	350	326.5	375	349	400	371.5	425	394	450	416.5	475	439	475	461.5	500	227.0
	16	279.5	350	314.5	375	337	375	359.5	400	382	425	404.5	450	427	475	449.5	500	472	525	237.5
	17	290	350	325	375	347.5	400	370	425	392.5	450	415	475	437.5	475	460	500	482.5	525	248.0
	18	300.5	350	335.5	375	358	400	380.5	425	403	450	425.5	475	448	500	470.5	525	493	550	258.5
	19	311	375	346	400	368.5	425	391	450	413.5	450	436	475	458.5	500	481	525	503.5	550	269.0
	20	321.5	375	356.5	400	379	425	401.5	450	424	475	446.5	500	469	525	491.5	550	514	550	279.5
	21	332	400	367	425	389.5	450	412	450	434.5	475	457	500	479.5	525	502	550	524.5	575	290.0

Note 1: L1 and L2 are dimensions for direct mounting installation. For DIN rail mounting, add 0.5 mm.

Except, however, when the mod number is 0.

2: L1 and L2 of mod 0 are the dimensions up to the left end of the communication module.

Dimensions (in.)

		If without intermediate piping block																		
Number of mods		0		1		2		3		4		5		6		7		8		P1
Dimension location	P3	-		72.5		95		117.5		140		162.5		185		207.5		230		
	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN		
Number of units	2	4.882	6.890	6.260	7.874	7.146	8.858	8.031	9.843	8.917	10.827	9.803	11.811	10.689	12.795	11.575	13.780	12.461	14.764	2.815
	3	5.295	7.874	6.673	8.858	7.559	9.843	8.445	10.827	9.331	10.827	10.217	11.811	11.102	12.795	11.988	13.780	12.874	14.764	3.228
	4	5.709	7.874	7.087	8.858	7.972	9.843	8.858	10.827	9.744	11.811	10.630	12.795	11.516	13.780	12.402	14.764	13.287	14.764	3.642
	5	6.122	8.858	7.500	9.843	8.386	9.843	9.272	10.827	10.157	11.811	11.043	12.795	11.929	13.780	12.815	14.764	13.701	15.748	4.055
	6	6.535	8.858	7.913	9.843	8.799	10.827	9.685	11.811	10.571	12.795	11.457	13.780	12.343	13.780	13.228	14.764	14.114	15.748	4.469
	7	6.949	8.858	8.327	9.843	9.213	10.827	10.098	11.811	10.984	12.795	11.870	13.780	12.756	14.764	13.642	15.748	14.528	16.732	4.882
	8	7.362	9.843	8.740	10.827	9.626	11.811	10.512	12.795	11.398	13.780	12.283	13.780	13.169	14.764	14.055	15.748	14.941	16.732	5.295
	9	7.776	9.843	9.154	10.827	10.039	11.811	10.925	12.795	11.811	13.780	12.697	14.764	13.583	15.748	14.469	16.732	15.354	17.717	5.709
	10	8.189	10.827	9.567	11.811	10.453	12.795	11.339	12.795	12.224	13.780	13.110	14.764	13.996	15.748	14.882	16.732	15.768	17.717	6.122
	11	8.602	10.827	9.980	11.811	10.866	12.795	11.752	13.780	12.638	14.764	13.524	15.748	14.409	16.732	15.295	16.732	16.181	17.717	6.535
	12	9.016	11.811	10.394	11.811	11.280	12.795	12.165	13.780	13.051	14.764	13.937	15.748	14.823	16.732	15.709	17.717	16.594	18.701	6.949
	13	9.429	11.811	10.807	12.795	11.693	13.780	12.579	14.764	13.465	15.748	14.350	16.732	15.236	16.732	16.122	17.717	17.008	18.701	7.362
	14	9.843	11.811	11.220	12.795	12.106	13.780	12.992	14.764	13.878	15.748	14.764	16.732	15.650	17.717	16.535	18.701	17.421	19.685	7.776
	15	10.256	12.795	11.634	13.780	12.520	14.764	13.406	15.748	14.291	15.748	15.177	16.732	16.063	17.717	16.949	18.701	17.835	19.685	8.189
	16	10.669	12.795	12.047	13.780	12.933	14.764	13.819	15.748	14.705	16.732	15.591	17.717	16.476	18.701	17.362	19.685	18.248	19.685	8.602
	17	11.083	13.780	12.461	14.764	13.346	14.764	14.232	15.748	15.118	16.732	16.004	17.717	16.890	18.701	17.776	19.685	18.661	20.669	9.016
	18	11.496	13.780	12.874	14.764	13.760	15.748	14.646	16.732	15.531	17.717	16.417	18.701	17.303	19.685	18.189	19.685	19.075	20.669	9.429
	19	11.909	14.764	13.287	14.764	14.173	15.748	15.059	16.732	15.945	17.717	16.831	18.701	17.717	19.685	18.602	20.669	19.488	21.654	9.843
	20	12.323	14.764	13.701	15.748	14.587	16.732	15.472	17.717	16.358	18.701	17.244	18.701	18.130	19.685	19.016	20.669	19.902	21.654	10.256
	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

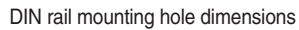
		If with intermediate piping block																		
Number of mods		0		1		2		3		4		5		6		7		8		P2
Dimension location	P3	-		72.5		95		117.5		140		162.5		185		207.5		230		
	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN		
Number of units	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3	5.630	7.874	7.008	8.858	7.894	9.843	8.780	10.827	9.665	11.811	10.551	12.795	11.437	13.780	12.323	13.780	13.209	14.764	3.976
	4	6.043	8.858	7.421	8.858	8.307	9.843	9.193	10.827	10.079	11.811	10.965	12.795	11.850	13.780	12.736	14.764	13.622	15.748	4.390
	5	6.457	8.858	7.835	9.843	8.720	10.827	9.606	11.811	10.492	12.795	11.378	12.795	12.264	13.780	13.150	14.764	14.035	15.748	4.803
	6	6.870	8.858	8.248	9.843	9.134	10.827	10.020	11.811	10.906	12.795	11.791	13.780	12.677	14.764	13.563	15.748	14.449	16.732	5.217
	7	7.283	9.843	8.661	10.827	9.547	11.811	10.433	12.795	11.319	12.795	12.205	13.780	13.091	14.764	13.976	15.748	14.862	16.732	5.630
	8	7.697	9.843	9.075	10.827	9.961	11.811	10.846	12.795	11.732	13.780	12.618	14.764	13.504	15.748	14.390	16.732	15.276	16.732	6.043
	9	8.110	10.827	9.488	11.811	10.374	11.811	11.260	12.795	12.146	13.780	13.031	14.764	13.917	15.748	14.803	16.732	15.689	17.717	6.457
	10	8.524	10.827	9.902	11.811	10.787	12.795	11.673	13.780	12.559	14.764	13.445	15.748	14.331	15.748	15.217	16.732	16.102	17.717	6.870
	11	8.937	11.811	10.315	11.811	11.201	12.795	12.087	13.780	12.972	14.764	13.858	15.748	14.744	16.732	15.630	17.717	16.516	18.701	7.283
	12	9.350	11.811	10.728	12.795	11.614	13.780	12.500	14.764	13.386	15.748	14.272	15.748	15.157	16.732	16.043	17.717	16.929	18.701	7.697
	13	9.764	11.811	11.142	12.795	12.028	13.780	12.913	14.764	13.799	15.748	14.685	16.732	15.571	17.717	16.457	18.701	17.343	19.685	8.110
	14	10.177	12.795	11.555	13.780	12.441	14.764	13.327	14.764	14.213	15.748	15.098	16.732	15.984	17.717	16.870	18.701	17.756	19.685	8.524
	15	10.591	12.795	11.969	13.780	12.854	14.764	13.740	15.748	14.626	16.732	15.512	17.717	16.398	18.701	17.283	18.701	18.169	19.685	8.937
	16	11.004	13.780	12.382	14.764	13.268	14.764	14.154	15.748	15.039	16.732	15.925	17.717	16.811	18.701	17.697	19.685	18.583	20.669	9.350
	17	11.417	13.780	12.795	14.764	13.681	15.748	14.567	16.732	15.453	17.717	16.339	18.701	17.224	18.701	18.110	19.685	18.996	20.669	9.764
	18	11.831	13.780	13.209	14.764	14.094	15.748	14.980	16.732	15.866	17.717	16.752	18.701	17.638	19.685	18.524	20.669	19.409	21.654	10.177
	19	12.244	14.764	13.622	15.748	14.508	16.732	15.394	17.717	16.280	17.717	17.165	18.701	18.051	19.685	18.937	20.669	19.823	21.654	10.591
	20	12.657	14.764	14.035	15.748	14.921	16.732	15.807	17.717	16.693	18.701	17.579	19.685	18.465	20.669	19.350	21.654	20.236	21.654	11.004
	21	13.071	15.748	14.449	16.732	15.335	17.717	16.220	17.717	17.106	18.701	17.992	19.685	18.878	20.669	19.764	21.654	20.650	22.638	11.417

Note 1: L1 and L2 are dimensions for direct mounting installation. For DIN rail mounting, add 0.020 in.

Except, however, when the mod number is 0.

2: L1 and L2 of mod 0 are the dimensions up to the left end of the communication module.

(EtherCAT, EtherNet/IP) * The illustrations show EtherCAT



F15M4TJ-JR-K3-4-W

mod.1 YS8-D8N

mod.2 YS8-A4N

mod.3 YS8-D8S

mod.4 YS8-A2S

Dimensions (mm)

		L1 For one piping block																	
Number of mods		0		1		2		3		4		5		6		7		8	
Dimension location		L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN
Number of units	2	129	200	164.5	225	187	250	209.5	275	232	275	254.5	300	277	325	299.5	350	322	375
	3	145	200	180.5	225	203	250	225.5	275	248	300	270.5	325	293	350	315.5	375	338	400
	4	161	225	196.5	250	219	275	241.5	300	264	325	286.5	350	309	375	331.5	375	354	400
	5	177	200	212.5	275	235	300	257.5	300	280	325	302.5	350	325	375	347.5	400	370	425
	6	193	250	228.5	275	251	300	273.5	325	296	350	318.5	375	341	400	363.5	425	386	450
	7	209	275	244.5	300	267	325	289.5	350	312	375	334.5	400	357	400	379.5	425	402	450
	8	225	300	260.5	325	283	325	305.5	350	328	375	350.5	400	373	425	395.5	450	418	475
	9	241	300	276.5	325	299	350	321.5	375	344	400	366.5	425	389	450	411.5	475	434	500
	10	257	325	292.5	350	315	375	337.5	400	360	425	382.5	425	405	450	427.5	475	450	500
	11	273	350	308.5	350	331	375	353.5	400	376	425	398.5	450	421	475	443.5	500	466	525
	12	289	350	324.5	375	347	400	369.5	425	392	450	414.5	475	437	500	459.5	525	482	525
	13	305	375	340.5	400	363	425	385.5	450	408	450	430.5	475	453	500	475.5	525	498	550
	14	321	400	356.5	400	379	425	401.5	450	424	475	446.5	500	469	525	491.5	550	514	575
	15	337	400	372.5	425	395	450	417.5	475	440	500	462.5	525	485	550	507.5	550	530	575
	16	353	425	388.5	450	411	475	433.5	475	456	500	478.5	525	501	550	523.5	575	546	600
	17	369	425	404.5	450	427	475	449.5	500	472	525	494.5	550	517	575	539.5	600	562	625
	18	385	450	420.5	475	443	500	465.5	525	488	550	510.5	575	533	575	555.5	600	578	625
	19	284	475	436.5	500	459	525	481.5	525	504	550	526.5	575	549	600	571.5	625	594	650
	20	294.5	475	452.5	500	475	525	497.5	550	520	575	542.5	600	565	625	587.5	650	610	675

		L2 For two piping blocks																	
Number of mods		0		1		2		3		4		5		6		7		8	
Dimension location		L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN
Number of units	2	148	225	183.5	225	206	250	228.5	275	251	300	273.5	325	296	350	318.5	375	341	400
	3	164	225	199.5	250	222	275	244.5	300	267	325	289.5	350	312	375	334.5	400	357	400
	4	180	250	215.5	275	238	300	260.5	325	283	325	305.5	350	328	375	350.5	400	373	425
	5	196	275	231.5	275	254	300	276.5	325	299	350	321.5	375	344	400	366.5	425	389	450
	6	212	275	247.5	300	270	325	292.5	350	315	375	337.5	400	360	425	382.5	425	405	450
	7	228	300	263.5	325	286	350	308.5	350	331	375	353.5	400	376	425	398.5	450	421	475
	8	244	300	279.5	325	302	350	324.5	375	347	400	369.5	425	392	450	414.5	475	437	500
	9	260	325	295.5	350	318	375	340.5	400	363	425	385.5	450	408	450	430.5	475	453	500
	10	276	350	311.5	375	334	400	356.5	400	379	425	401.5	450	424	475	446.5	500	469	525
	11	292	350	327.5	375	350	400	372.5	425	395	450	417.5	475	440	500	462.5	525	485	550
	12	308	375	343.5	400	366	425	388.5	450	411	475	433.5	475	456	500	478.5	525	501	550
	13	324	400	359.5	425	382	425	404.5	450	427	475	449.5	500	472	525	494.5	550	517	575
	14	340	400	375.5	425	398	450	420.5	475	443	500	465.5	525	488	550	510.5	575	533	575
	15	356	425	391.5	450	414	475	436.5	500	459	525	481.5	525	504	550	526.5	575	549	600
	16	372	450	407.5	450	430	475	452.5	500	475	525	497.5	550	520	575	542.5	600	565	625
	17	388	450	423.5	475	446	500	468.5	525	491	550	513.5	575	536	600	558.5	600	581	625
	18	404	475	439.5	500	462	525	484.5	550	507	550	529.5	575	552	600	574.5	625	597	650
	19	420	475	455.5	500	478	525	500.5	550	523	575	545.5	600	568	625	590.5	650	613	675
	20	436	500	471.5	525	494	550	516.5	575	539	600	561.5	625	584	650	606.5	650	629	675

Note 1: L1 and L2 of mod 0 are the dimensions up to the left end of the communication module.

Dimensions (in.)

		L1 For one piping block																	
Number of mods		0		1		2		3		4		5		6		7		8	
Dimension location		L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN
Number of units	2	5.079	7.874	6.476	8.858	7.362	9.843	8.248	10.827	9.134	10.827	10.020	11.811	10.906	12.795	11.791	13.780	12.677	14.764
	3	5.709	7.874	7.106	8.858	7.992	9.843	8.878	10.827	9.764	11.811	10.650	12.795	11.535	13.780	12.421	14.764	13.307	15.748
	4	6.339	8.858	7.736	9.843	8.622	10.827	9.508	11.811	10.394	12.795	11.280	13.780	12.165	14.764	13.051	14.764	13.937	15.748
	5	6.969	7.874	8.366	10.827	9.252	11.811	10.138	11.811	11.024	12.795	11.909	13.780	12.795	14.764	13.681	15.748	14.567	16.732
	6	7.598	9.843	8.996	10.827	9.882	11.811	10.768	12.795	11.654	13.780	12.539	14.764	13.425	15.748	14.311	16.732	15.197	17.717
	7	8.228	10.827	9.626	11.811	10.512	12.795	11.398	13.780	12.283	14.764	13.169	15.748	14.055	15.748	14.941	16.732	15.827	17.717
	8	8.858	11.811	10.256	12.795	11.142	12.795	12.028	13.780	12.913	14.764	13.799	15.748	14.685	16.732	15.571	17.717	16.457	18.701
	9	9.488	11.811	10.886	12.795	11.772	13.780	12.657	14.764	13.543	15.748	14.429	16.732	15.315	17.717	16.201	18.701	17.087	19.685
	10	10.118	12.795	11.516	13.780	12.402	14.764	13.287	15.748	14.173	16.732	15.059	16.732	15.945	17.717	16.831	18.701	17.717	19.685
	11	10.748	13.780	12.146	13.780	13.031	14.764	13.917	15.748	14.803	16.732	15.689	17.717	16.575	18.701	17.461	19.685	18.346	20.669
	12	11.378	13.780	12.776	14.764	13.661	15.748	14.547	16.732	15.433	17.717	16.319	18.701	17.205	19.685	18.091	20.669	18.976	20.669
	13	12.008	14.764	13.406	15.748	14.291	16.732	15.177	17.717	16.063	17.717	16.949	18.701	17.835	19.685	18.720	20.669	19.606	21.654
	14	12.638	15.748	14.035	15.748	14.921	16.732	15.807	17.717	16.693	18.701	17.579	19.685	18.465	20.669	19.350	21.654	20.236	22.638
	15	13.268	15.748	14.665	16.732	15.551	17.717	16.437	18.701	17.323	19.685	18.209	20.669	19.094	21.654	19.980	21.654	20.866	22.638
	16	13.898	16.732	15.295	17.717	16.181	18.701	17.067	18.701	17.953	19.685	18.839	20.669	19.724	21.654	20.610	22.638	21.496	23.622
	17	14.528	16.732	15.925	17.717	16.811	18.701	17.697	19.685	18.583	20.669	19.469	21.654	20.354	22.638	21.240	23.622	22.126	24.606
	18	15.157	17.717	16.555	18.701	17.441	19.685	18.327	20.669	19.213	21.654	20.098	22.638	20.984	22.638	21.870	23.622	22.756	24.606
	19	11.181	18.701	17.185	19.685	18.071	20.669	18.957	20.669	19.843	21.654	20.728	22.638	21.614	23.622	22.500	24.606	23.386	25.591
	20	11.594	18.701	17.815	19.685	18.701	20.669	19.587	21.654	20.472	22.638	21.358	23.622	22.244	24.606	23.130	25.591	24.016	26.575

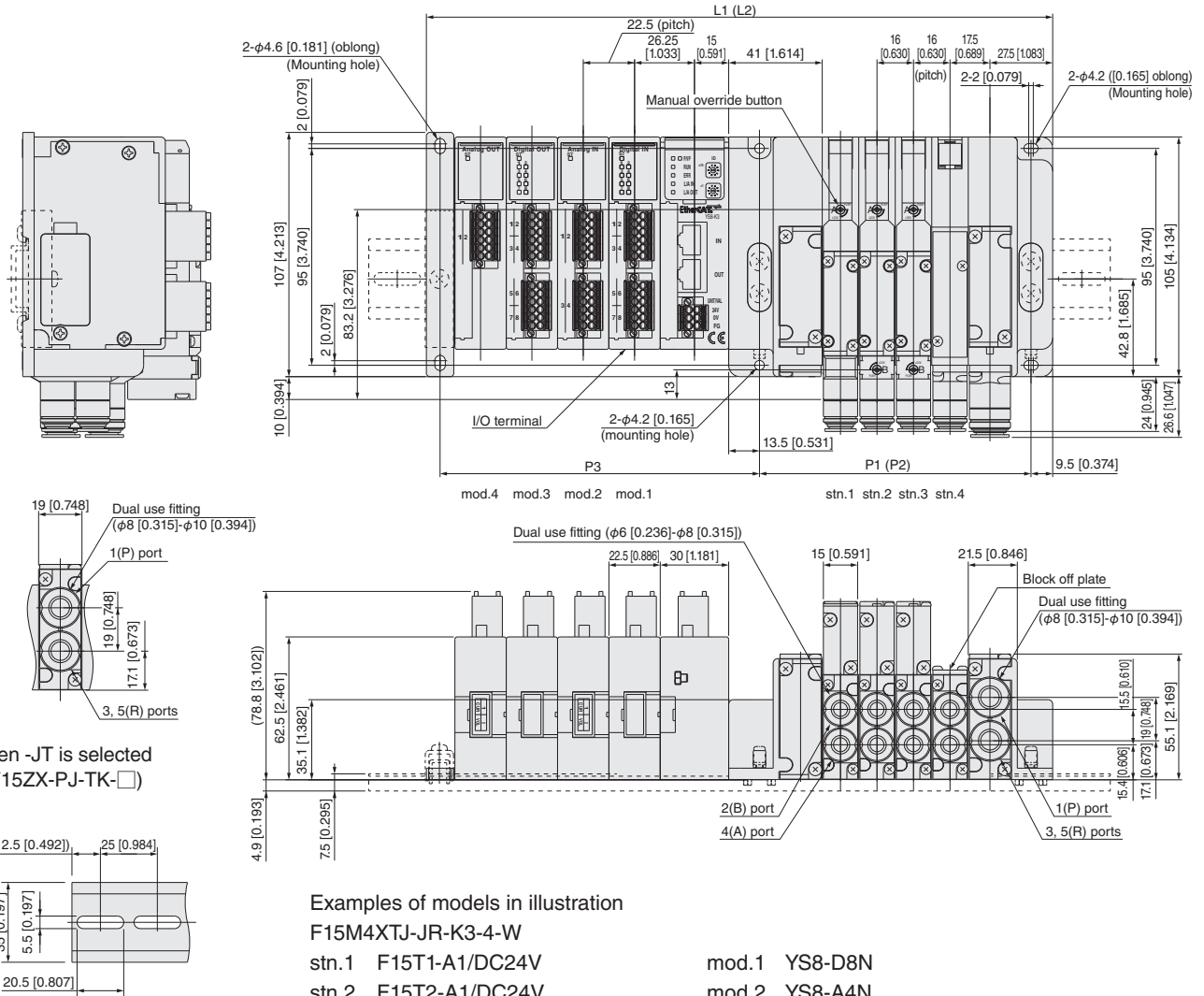
		L2 For two piping blocks																	
Number of mods		0		1		2		3		4		5		6		7		8	
Dimension location		L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN
Number of units	2	5.827	8.858	7.224	8.858	8.110	9.843	8.996	10.827	9.882	11.811	10.768	12.795	11.654	13.780	12.539	14.764	13.425	15.748
	3	6.457	8.858	7.854	9.843	8.740	10.827	9.626	11.811	10.512	12.795	11.398	13.780	12.283	14.764	13.169	15.748	14.055	15.748
	4	7.087	9.843	8.484	10.827	9.370	11.811	10.256	12.795	11.142	12.795	12.028	13.780	12.913	14.764	13.799	15.748	14.685	16.732
	5	7.717	10.827	9.114	10.827	10.000	11.811	10.886	12.795	11.772	13.780	12.657	14.764	13.543	15.748	14.429	16.732	15.315	17.717
	6	8.346	10.827	9.744	11.811	10.630	12.795	11.516	13.780	12.402	14.764	13.287	15.748	14.173	16.732	15.059	16.732	15.945	17.717
	7	8.976	11.811	10.374	12.795	11.260	13.780	12.146	13.780	13.031	14.764	13.917	15.748	14.803	16.732	15.689	17.717	16.575	18.701
	8	9.606	11.811	11.004	12.795	11.890	13.780	12.776	14.764	13.661	15.748	14.547	16.732	15.433	17.717	16.319	18.701	17.205	19.685
	9	10.236	12.795	11.634	13.780	12.520	14.764	13.406	15.748	14.291	16.732	15.177	17.717	16.063	17.717	16.949	18.701	17.835	19.685
	10	10.866	13.780	12.264	14.764	13.150	15.748	14.035	15.748	14.921	16.732	15.807	17.717	16.693	18.701	17.579	19.685	18.465	20.669
	11	11.496	13.780	12.894	14.764	13.780	15.748	14.665	16.732	15.551	17.717	16.437	18.701	17.323	19.685	18.209	20.669	19.094	21.654
	12	12.126	14.764	13.524	15.748	14.409	16.732	15.295	17.717	16.181	18.701	17.067	18.701	17.953	19.685	18.839	20.669	19.724	21.654
	13	12.756	15.748	14.154	16.732	15.039	16.732	15.925	17.717	16.811	18.701	17.697	19.685	18.583	20.669	19.469	21.654	20.354	22.638
	14	13.386	15.748	14.783	16.732	15.669	17.717	16.555	18.701	17.441	19.685	18.327	20.669	19.213	21.654	20.098	22.638	20.984	22.638
	15	14.016	16.732	15.413	17.717	16.299	18.701	17.185	19.685	18.071	20.669	18.957	20.669	19.843	21.654	20.728	22.638	21.614	23.622
	16	14.646	17.717	16.043	17.717	16.929	18.701	17.815	19.685	18.701	20.669	19.587	21.654	20.472	22.638	21.358	23.622	22.244	24.606
	17	15.276	17.717	16.673	18.701	17.559	19.685	18.445	20.669	19.331	21.654	20.217	22.638	21.102	23.622	21.988	23.622	22.874	24.606
	18	15.906	18.701	17.303	19.685	18.189	20.669	19.075	21.654	19.961	21.654	20.846	22.638	21.732	23.622	22.618	24.606	23.504	25.591
	19	16.535	18.701	17.933	19.685	18.819	20.669	19.705	21.654	20.591	22.638	21.476	23.622	22.362	24.606	23.248	25.591	24.134	26.575
	20	17.165	19.685	18.563	20.669	19.449	21.654	20.335	22.638	21.220	23.622	22.106	24.606	22.992	25.591	23.878	25.591	24.764	26.575

Note 1: L1 and L2 of mod 0 are the dimensions up to the left end of the communication module.

● F15 series Easy Assembly Type Manifold with I/O Terminal

F15M [Valve units] **XT** **J** [Pilot specification] (base piping type)

Manifold outlet port with Dual use fitting block
(EtherCAT, EtherNet/IP) * The illustrations show EtherCAT



-DR: DIN rail mounting hole dimensions

Dimensions (mm)

		If without intermediate piping block																		
Number of mods		0		1		2		3		4		5		6		7		8		P1
Dimension location	P3	-		72.5		95		117.5		140		162.5		185		207.5		230		
	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN		
Number of units	2	140	200	175	225	197.5	250	220	275	242.5	300	265	325	287.5	350	310	375	332.5	375	87
	3	156	225	191	250	213.5	275	236	300	258.5	300	281	325	303.5	350	326	375	348.5	400	103
	4	172	250	207	250	229.5	275	252	300	274.5	325	297	350	319.5	375	342	400	364.5	425	119
	5	188	250	223	275	245.5	300	268	325	290.5	350	313	375	335.5	400	358	400	380.5	425	135
	6	204	275	239	300	261.5	325	284	350	306.5	350	329	375	351.5	400	374	425	396.5	450	151
	7	220	275	255	300	277.5	325	300	350	322.5	375	345	400	367.5	425	390	450	412.5	475	167
	8	236	300	271	325	293.5	350	316	375	338.5	400	361	425	383.5	425	406	450	428.5	475	183
	9	252	325	287	350	309.5	375	332	375	354.5	400	377	425	399.5	450	422	475	444.5	500	199
	10	268	325	303	350	325.5	375	348	400	370.5	425	393	450	415.5	475	438	500	460.5	525	215
	11	284	350	319	375	341.5	400	364	425	386.5	450	409	475	431.5	475	454	500	476.5	525	231
	12	300	375	335	400	357.5	400	380	425	402.5	450	425	475	447.5	500	470	525	492.5	550	247
	13	316	375	351	400	373.5	425	396	450	418.5	475	441	500	463.5	525	486	550	508.5	550	263
	14	332	400	367	425	389.5	450	412	475	434.5	500	457	500	479.5	525	502	550	524.5	575	279
	15	348	425	383	425	405.5	450	428	475	450.5	500	473	525	495.5	550	518	575	540.5	600	295
	16	364	425	399	450	421.5	475	444	500	466.5	525	489	550	511.5	575	534	600	556.5	600	311
	17	380	450	415	475	437.5	500	460	525	482.5	525	505	550	527.5	575	550	600	572.5	625	327
	18	396	450	431	475	453.5	500	476	525	498.5	550	521	575	543.5	600	566	625	588.5	650	343
	19	412	475	447	500	469.5	525	492	550	514.5	575	537	600	559.5	625	582	625	604.5	650	359
	20	428	500	463	525	485.5	550	508	550	530.5	575	553	600	575.5	625	598	650	620.5	675	375
	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

		If with intermediate piping block																		
Number of mods		0		1		2		3		4		5		6		7		8		P2
Dimension location	P3	-		72.5		95		117.5		140		162.5		185		207.5		230		
	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN		
Number of units	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3	159	225	194	250	216.5	275	239	300	261.5	325	284	350	306.5	350	329	375	351.5	400	122
	4	175	250	210	275	232.5	275	255	300	277.5	325	300	350	322.5	375	345	400	367.5	425	138
	5	191	250	226	275	248.5	300	271	325	293.5	350	316	375	338.5	400	361	425	383.5	425	154
	6	207	275	242	300	264.5	325	287	350	309.5	375	332	375	354.5	400	377	425	399.5	450	170
	7	223	300	258	300	280.5	325	303	350	325.5	375	348	400	370.5	425	393	450	415.5	475	186
	8	239	300	274	325	296.5	350	319	375	341.5	400	364	425	386.5	450	409	475	431.5	475	202
	9	255	325	290	350	312.5	375	335	400	357.5	400	380	425	402.5	450	425	475	447.5	500	218
	10	271	325	306	350	328.5	375	351	400	373.5	425	396	450	418.5	475	441	500	463.5	525	234
	11	287	350	322	375	344.5	400	367	425	389.5	450	412	475	434.5	500	457	500	479.5	525	250
	12	303	375	338	400	360.5	425	383	425	405.5	450	428	475	450.5	500	473	525	495.5	550	266
	13	319	375	354	400	376.5	425	399	450	421.5	475	444	500	466.5	525	489	550	511.5	575	282
	14	335	400	370	425	392.5	450	415	475	437.5	500	460	525	482.5	525	505	550	527.5	575	298
	15	351	425	386	450	408.5	450	431	475	453.5	500	476	525	498.5	550	521	575	543.5	600	314
	16	367	425	402	450	424.5	475	447	500	469.5	525	492	550	514.5	575	537	600	559.5	625	330
	17	383	450	418	475	440.5	500	463	525	485.5	550	508	550	530.5	575	553	600	575.5	625	346
	18	399	475	434	500	456.5	500	479	525	501.5	550	524	575	546.5	600	569	625	591.5	650	362
	19	415	475	450	500	472.5	525	495	550	517.5	575	540	600	562.5	625	585	650	607.5	650	378
	20	431	500	466	525	488.5	550	511	575	533.5	575	556	600	578.5	625	601	650	623.5	675	394
	21	447	525	482	525	504.5	550	527	575	549.5	600	572	625	594.5	650	617	675	639.5	700	410

Note 1: L1 and L2 are dimensions for direct mounting installation. For DIN rail mounting, add 0.5 mm.

Except, however, when the mod number is 0.

2: L1 and L2 of mod 0 are the dimensions up to the left end of the communication module.

Dimensions (in.)

		If without intermediate piping block																			
Number of mods		0		1		2		3		4		5		6		7		8		P1	
Dimension location	P3	-		72.5		95		117.5		140		162.5		185		207.5		230			
	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN			
Number of units	2	5.512	7.874	6.890	8.858	7.776	9.843	8.661	10.827	9.547	11.811	10.433	12.795	11.319	13.780	12.205	14.764	13.091	14.764	3.425	
	3	6.142	8.858	7.520	9.843	8.406	10.827	9.291	11.811	10.177	11.811	11.063	12.795	11.949	13.780	12.835	14.764	13.720	15.748	4.055	
	4	6.772	9.843	8.150	9.843	9.035	10.827	9.921	11.811	10.807	12.795	11.693	13.780	12.579	14.764	13.465	15.748	14.350	16.732	4.685	
	5	7.402	9.843	8.780	10.827	9.665	11.811	10.551	12.795	11.437	13.780	12.323	14.764	13.209	15.748	14.094	15.748	14.980	16.732	5.315	
	6	8.031	10.827	9.409	11.811	10.295	12.795	11.181	13.780	12.067	13.780	12.953	14.764	13.839	15.748	14.724	16.732	15.610	17.717	5.945	
	7	8.661	10.827	10.039	11.811	10.925	12.795	11.811	13.780	12.697	14.764	13.583	15.748	14.469	16.732	15.354	17.717	16.240	18.701	6.575	
	8	9.291	11.811	10.669	12.795	11.555	13.780	12.441	14.764	13.327	15.748	14.213	16.732	15.098	16.732	15.984	17.717	16.870	18.701	7.205	
	9	9.921	12.795	11.299	13.780	12.185	14.764	13.071	14.764	13.957	15.748	14.843	16.732	15.728	17.717	16.614	18.701	17.500	19.685	7.835	
	10	10.551	12.795	11.929	13.780	12.815	14.764	13.701	15.748	14.587	16.732	15.472	17.717	16.358	18.701	17.244	19.685	18.130	20.669	8.465	
	11	11.181	13.780	12.559	14.764	13.445	15.748	14.331	16.732	15.217	17.717	16.102	18.701	16.988	18.701	17.874	19.685	18.760	20.669	9.094	
	12	11.811	14.764	13.189	15.748	14.075	15.748	14.961	16.732	15.846	17.717	16.732	18.701	17.618	19.685	18.504	20.669	19.390	21.654	9.724	
	13	12.441	14.764	13.819	15.748	14.705	16.732	15.591	17.717	16.476	18.701	17.362	19.685	18.248	20.669	19.134	21.654	20.020	21.654	10.354	
	14	13.071	15.748	14.449	16.732	15.335	17.717	16.220	18.701	17.106	19.685	17.992	19.685	18.878	20.669	19.764	21.654	20.650	22.638	10.984	
	15	13.701	16.732	15.079	16.732	15.965	17.717	16.850	18.701	17.736	19.685	18.622	20.669	19.508	21.654	20.394	22.638	21.280	23.622	11.614	
	16	14.331	16.732	15.709	17.717	16.594	18.701	17.480	19.685	18.366	20.669	19.252	21.654	20.138	22.638	21.024	23.622	21.909	23.622	12.244	
	17	14.961	17.717	16.339	18.701	17.224	19.685	18.110	20.669	18.996	20.669	19.882	21.654	20.768	22.638	21.654	23.622	22.539	24.606	12.874	
	18	15.591	17.717	16.969	18.701	17.854	19.685	18.740	20.669	19.626	21.654	20.512	22.638	21.398	23.622	22.283	24.606	23.169	25.591	13.504	
	19	16.220	18.701	17.598	19.685	18.484	20.669	19.370	21.654	20.256	22.638	21.142	23.622	22.028	24.606	22.913	24.606	23.799	25.591	14.134	
	20	16.850	19.685	18.228	20.669	19.114	21.654	20.000	21.654	20.886	22.638	21.772	23.622	22.657	24.606	23.543	25.591	24.429	26.575	14.764	
	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

		If with intermediate piping block																		
Number of mods		0		1		2		3		4		5		6		7		8		P2
Dimension location	P3	-		72.5		95		117.5		140		162.5		185		207.5		230		
	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN		
Number of units	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3	6.260	8.858	7.638	9.843	8.524	10.827	9.409	11.811	10.295	12.795	11.181	13.780	12.067	13.780	12.953	14.764	13.839	15.748	4.803
	4	6.890	9.843	8.268	10.827	9.154	10.827	10.039	11.811	10.925	12.795	11.811	13.780	12.697	14.764	13.583	15.748	14.469	16.732	5.433
	5	7.520	9.843	8.898	10.827	9.783	11.811	10.669	12.795	11.555	13.780	12.441	14.764	13.327	15.748	14.213	16.732	15.098	16.732	6.063
	6	8.150	10.827	9.528	11.811	10.413	12.795	11.299	13.780	12.185	14.764	13.071	14.764	13.957	15.748	14.843	16.732	15.728	17.717	6.693
	7	8.780	11.811	10.157	11.811	11.043	12.795	11.929	13.780	12.815	14.764	13.701	15.748	14.587	16.732	15.472	17.717	16.358	18.701	7.323
	8	9.409	11.811	10.787	12.795	11.673	13.780	12.559	14.764	13.445	15.748	14.331	16.732	15.217	17.717	16.102	18.701	16.988	18.701	7.953
	9	10.039	12.795	11.417	13.780	12.303	14.764	13.189	15.748	14.075	15.748	14.961	16.732	15.846	17.717	16.732	18.701	17.618	19.685	8.583
	10	10.669	12.795	12.047	13.780	12.933	14.764	13.819	15.748	14.705	16.732	15.591	17.717	16.476	18.701	17.362	19.685	18.248	20.669	9.213
	11	11.299	13.780	12.677	14.764	13.563	15.748	14.449	16.732	15.335	17.717	16.220	18.701	17.106	19.685	17.992	19.685	18.878	20.669	9.843
	12	11.929	14.764	13.307	15.748	14.193	16.732	15.079	16.732	15.965	17.717	16.850	18.701	17.736	19.685	18.622	20.669	19.508	21.654	10.472
	13	12.559	14.764	13.937	15.748	14.823	16.732	15.709	17.717	16.594	18.701	17.480	19.685	18.366	20.669	19.252	21.654	20.138	22.638	11.102
	14	13.189	15.748	14.567	16.732	15.453	17.717	16.339	18.701	17.224	19.685	18.110	20.669	18.996	20.669	19.882	21.654	20.768	22.638	11.732
	15	13.819	16.732	15.197	17.717	16.083	17.717	16.969	18.701	17.854	19.685	18.740	20.669	19.626	21.654	20.512	22.638	21.398	23.622	12.362
	16	14.449	16.732	15.827	17.717	16.713	18.701	17.598	19.685	18.484	20.669	19.370	21.654	20.256	22.638	21.142	23.622	22.028	24.606	12.992
	17	15.079	17.717	16.457	18.701	17.343	19.685	18.228	20.669	19.114	21.654	20.000	21.654	20.886	22.638	21.772	23.622	22.657	24.606	13.622
	18	15.709	18.701	17.087	19.685	17.972	19.685	18.858	20.669	19.744	21.654	20.630	22.638	21.516	23.622	22.402	24.606	23.287	25.591	14.252
	19	16.339	18.701	17.717	19.685	18.602	20.669	19.488	21.654	20.374	22.638	21.260	23.622	22.146	24.606	23.031	25.591	23.917	25.591	14.882
	20	16.969	19.685	18.346	20.669	19.232	21.654	20.118	22.638	21.004	22.638	21.890	23.622	22.776	24.606	23.661	25.591	24.547	26.575	15.512
	21	17.598	20.669	18.976	20.669	19.862	21.654	20.748	22.638	21.634	23.622	22.520	24.606	23.406	25.591	24.291	26.575	25.177	27.559	16.142

Note 1: L1 and L2 are dimensions for direct mounting installation. For DIN rail mounting, add 0.020 in.

Except, however, when the mod number is 0.

2: L1 and L2 of mod 0 are the dimensions up to the left end of the communication module.

MEMO

[illegible]

[illegible]

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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