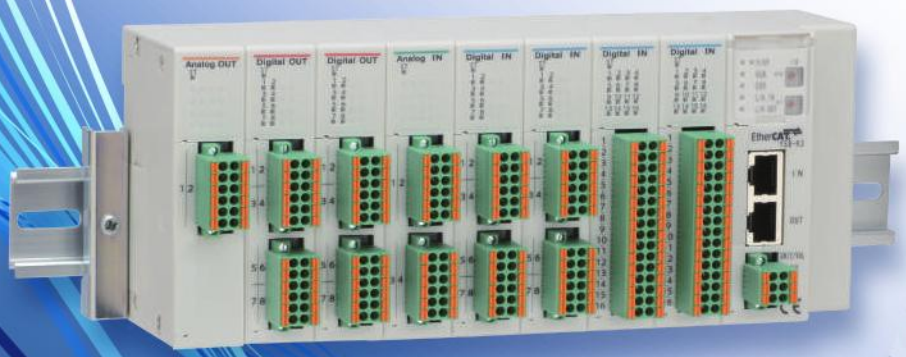
KOGANEI
http://www.koganei.co.jp

Catalog No.BK-P413

NEW Products

I/O Terminal

Consolidates electrical signals from the end of devices and enables communication with higher-level systems



Remote I/O function has been added to the Solenoid Valve F10 and F15 series

I/O Terminal CE

- *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

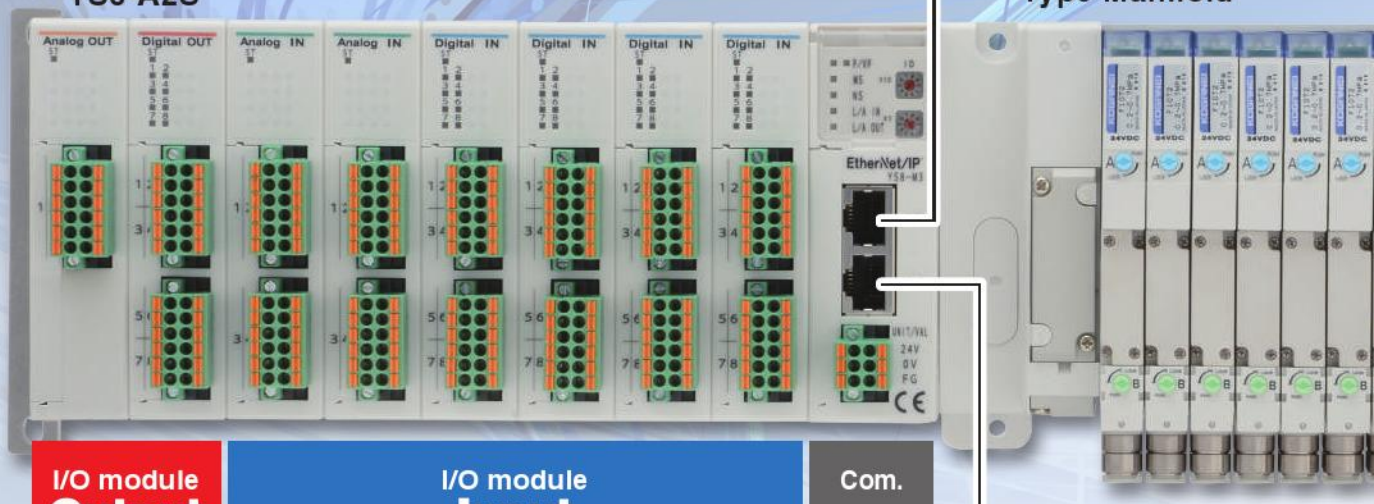
- 8 points — Sink type YS8-D8S
  Source type YS8-D8S-M

Analog output

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

PLC

Solenoid Valve F10
Easy Assembly
Type Manifold



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

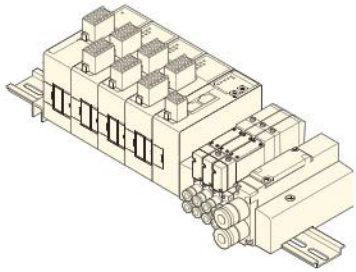
Communication module

EtherCAT input/ output module supported
YS8-K3

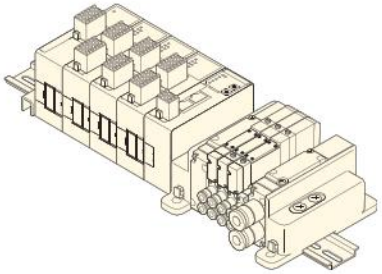
EtherNet/IP input/ output module supported
YS8-M3

Supported solenoid valve manifolds

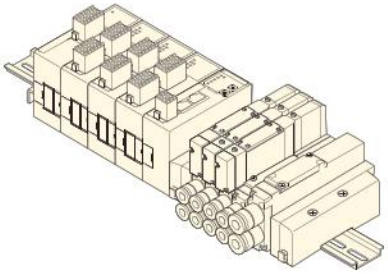
F10 Series Split Type Manifold



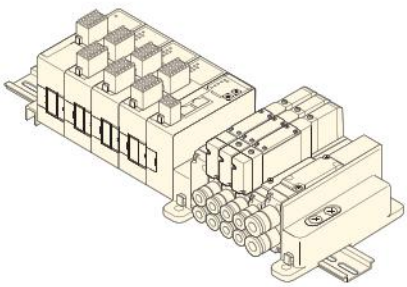
F10 Series Easy Assembly Type Manifold



F15 Series Split Type Manifold



F15 Series Easy Assembly Type Manifold



Output devices

Solenoid valve

Electro-pneumatic regulator

Others
- 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).

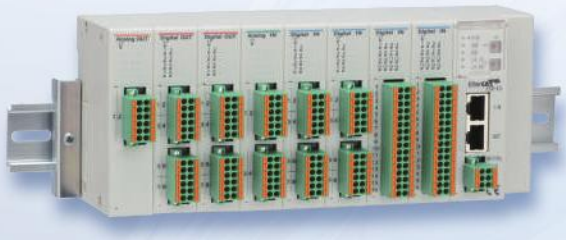
Caution

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.

2 mounting options available

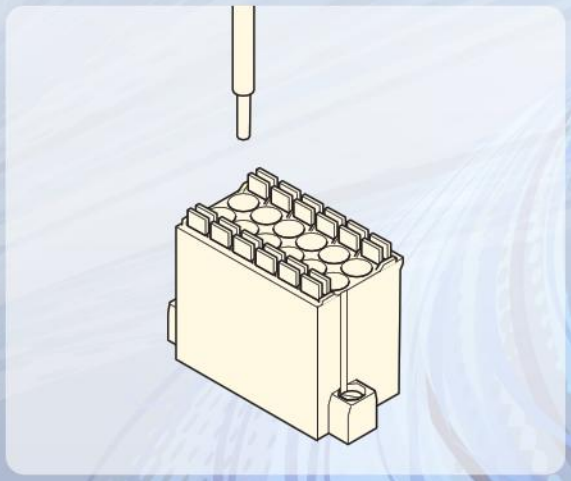
Select from DIN rail mounting and Direct mounting (6 mounting holes on main body).

DIN rail mounting



Direct mounting

Push-in connection supports wiring without using special tools.



Wiring is possible by simply inserting* solid wires, or stranded wires with rod terminals.

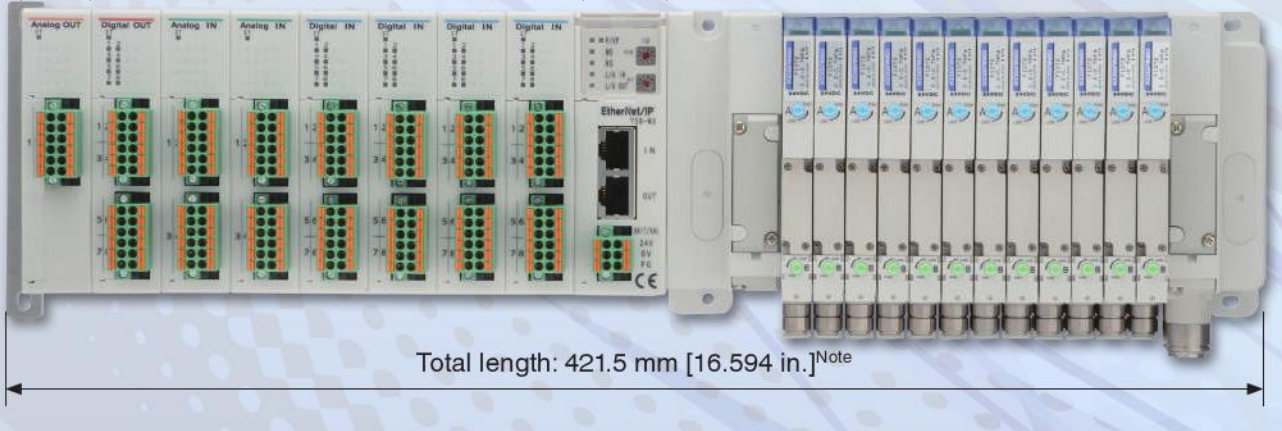
No torque management or tightening is required.

* Insert the wire while pressing the orange button.

The compact design reduces installation space

I/O module
22.5 mm [0.886 in.]

Communication module
30 mm [1.181 in.]



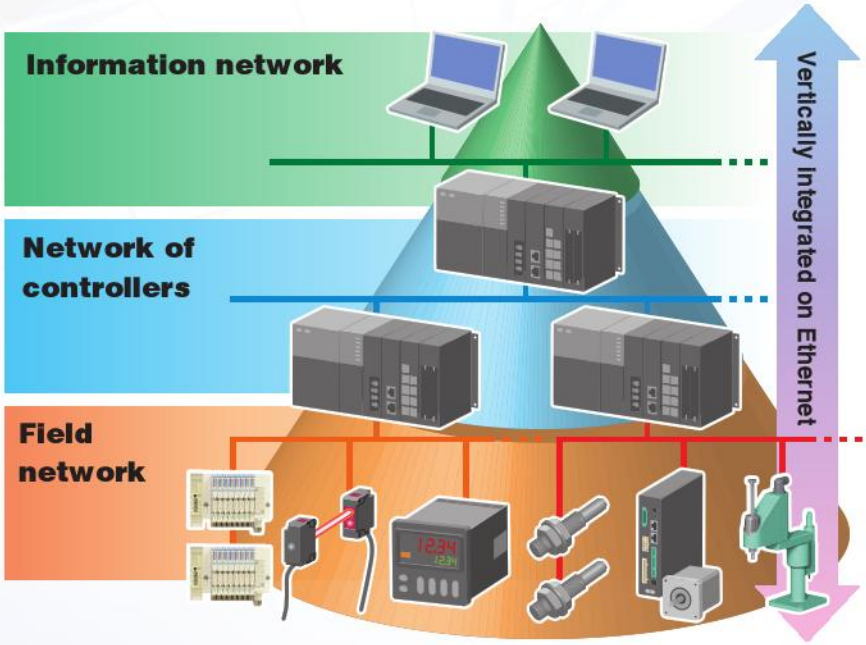
Total length: 421.5 mm [16.594 in.]Note

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).

I/O Terminal
EtherNet/IP™ compatible

Communications network is all on the Ethernet!

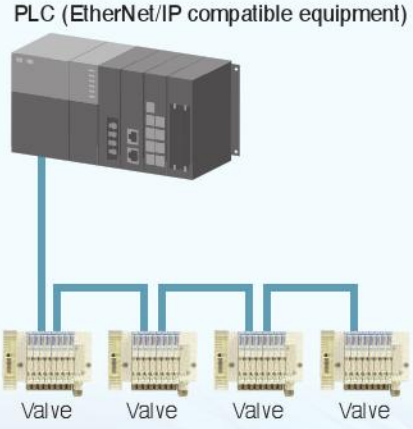
You can organize field networks that are connected using various different standards into one single network. You can also consolidate information networks to create a vertically integrated production management system.



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

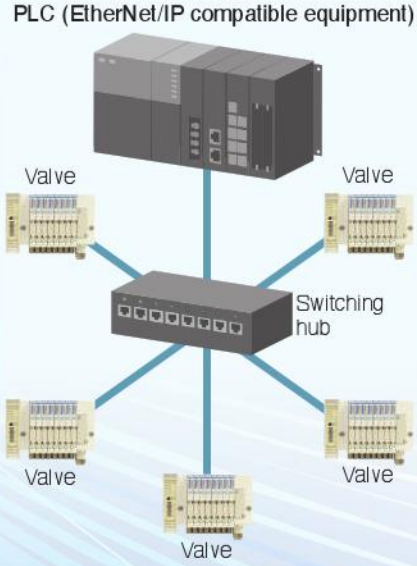
Line format

All devices can be connected in a daisy chain.
<Features>
Total length of wiring can be reduced.



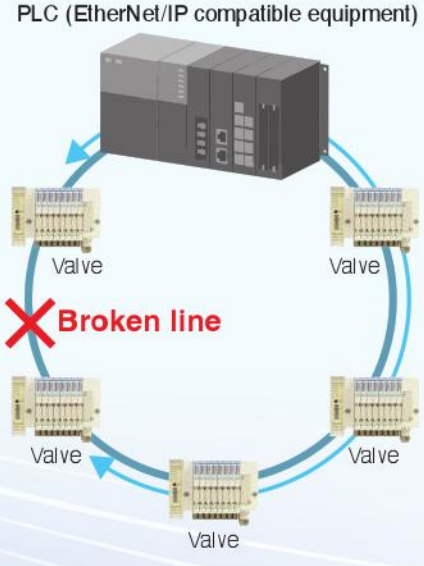
Star format

A radial network connection format can be done centered on a switching hub.
<Features>
Wiring formats are very flexible.



DLR (device level ring) format

All devices can be connected in a circular format.
<Features>
Highly reliable connection format. If one connection breaks, communications can be done around the circle in the opposite direction.



* Configure with devices that support DLR.

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/s² [5 G]
Shock resistance	98.1 m/s² [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		100 mA or less (excluding input/output modules and solenoid valves)	
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 x 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) x 1, I/O module connection lid (YS8Z-C) x 1	

K3: EtherCAT input/output module supported

M3: EtherNet/IP input/output module supported

■ Digital input module specifications

Item	Specifications		
Model	YS8-D16N	YS8-D8N	YS8-D8N-P
Input specifications	NPN		PNP
Number of inputs	16	8	
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	10 mA or less (excluding sensor supply current)		
Mass	90 g [3.17 oz]		
Accessories	I/O connector (YS8Z-CN32) x 1*1, I/O connector (YS8Z-CN12) x 2*2		

Digital input x 8*2

Digital input x 16*1

■ Analog input module specifications

Item	Specifications	
Model	YS8-A4N	
Input specifications	Voltage	Current
Number of inputs	4	
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	30 mA or less (excluding sensor supply current)	
Mass	90 g [3.17 oz]	
Accessories	I/O connector (YS8Z-CN12) x 2	

Analog Input x 4

■ Digital output module specifications

Item	Specifications	
Model	YS8-D8S	YS8-D8S-M
Output specifications	Sink	Source
Number of outputs	8	
Maximum load current	0.5 A/channel, 1 A/module	
Protection function	Overcurrent detection, output short-circuit protection	
Internal current consumption	30 mA or less (excluding sensor supply current)	
Mass	90 g [3.17 oz]	
Accessories	I/O connector (YS8Z-CN12) x 2	

Digital Output x 8

■ Analog output module specifications

Item	Specifications	
Model	YS8-A2S	
Output specifications	Voltage	Current
Number of outputs	2	
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	30 mA or less (excluding sensor supply current)	
Mass	90 g [3.17 oz]	
Accessories	I/O connector (YS8Z-CN12) x 1	

Analog output x 2

I/O Terminal Order Codes

YS8E □ - □ - □

Standard model

Communication specifications
K3 : EtherCAT. input/output module supported
M3 : EtherNet/IP. input/output module supported

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

Mounting specification
Blank : Direct mount
DN : With DIN brackets (without rails)
DR : With DIN brackets (with rails)

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.

I/O module Note

Digital input x 8 (3-wire type) : **YS8 - D8N -** □
Digital input x 16 (2-wire type) : **YS8 - D16N**

Digital input specifications
Blank : NPN type
P : PNP type

Digital output x 8 : **YS8 - D8S -** □

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

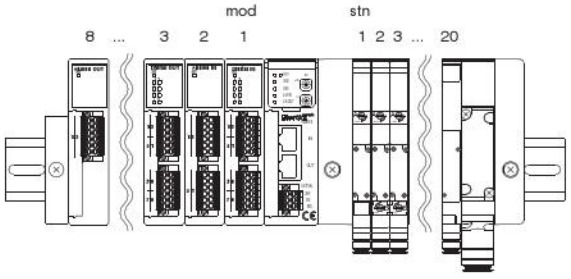
Analog Input x 4 : **YS8 - A4N**
(Switchable between 0-5 V/0-10 V/0-20 mA)

Analog output x 2 : **YS8 - A2S**
(Switchable between 0-5 V/0-10 V/0-20 mA)

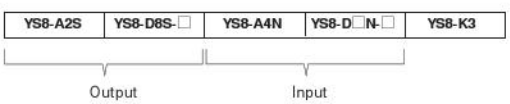
Note: For each classification in the table below, up to 4 of them can be selected. The maximum number of units is 8.

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:
- Arrange the modules together to be in the same classification groups.
- For arrangement sequence, Analog output should be at the end, then followed by Digital output → Analog input → Digital input.



Order codes for communication module single unit and I/O module single unit

● Communication module single unit

YS8 - □ - □

Mounting type
Blank : For mounting to Easy Assembly Type Manifold (with 2 small screws)
BU : For mounting to Split Type Manifold (with 2 small screws)
RE : end-block

Communication specifications
K3 : EtherCAT. input/output module supported
M3 : EtherNet/IP. input/output module supported

● I/O module single unit

Digital input x 8 (3-wire type)

YS8 - D8N - □

Digital input specifications
Blank : NPN type
P : PNP type

Digital input x 16 (2-wire type)

YS8 - D16N

Digital Output x 8

YS8 - D8S - □

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

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

YS8 - A4N

Analog Output x 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)

YS8Z - □

Number of I/O modules
1: 1
⋮
8: 8

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.

• Mounting bracket

YS8Z - □

DM: Direct mount (tapping screws included)
DN: DIN hardware (tapping screws included)

YS8Z-DM

YS8Z-DN

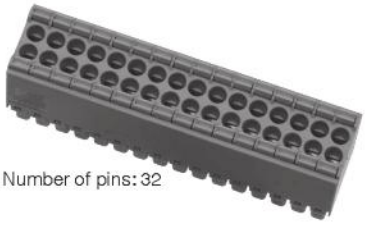
• Connector

YS8Z - CN □

Number of pins
6 : YS8-K3/YS8-M3 power supply connector
12 : YS8-D6N-□/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

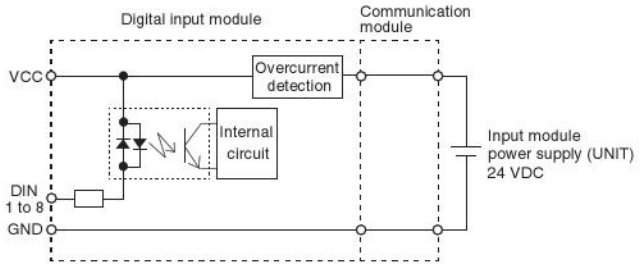
YS8Z - C

• DIN rail (unit: 1 pc)

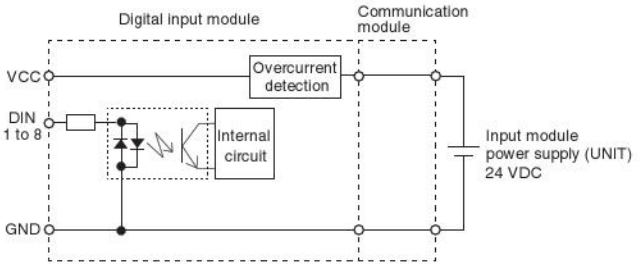
DIN - □

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

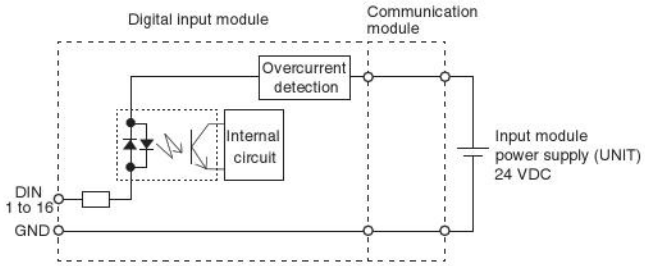
YS8-D8N



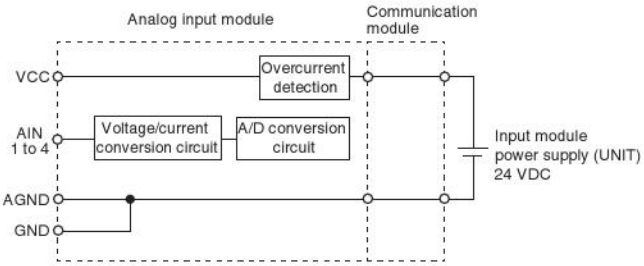
YS8-D8N-P



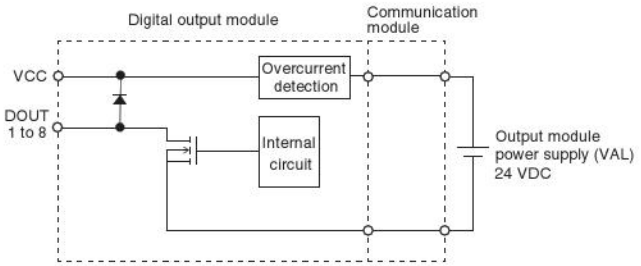
YS8-D16N



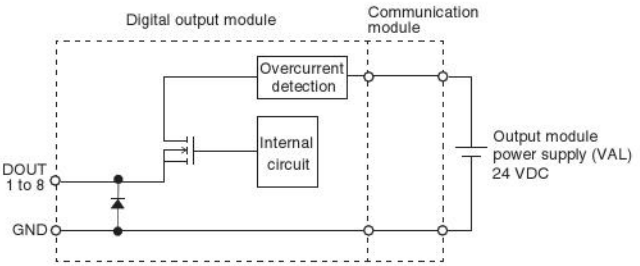
YS8-A4N



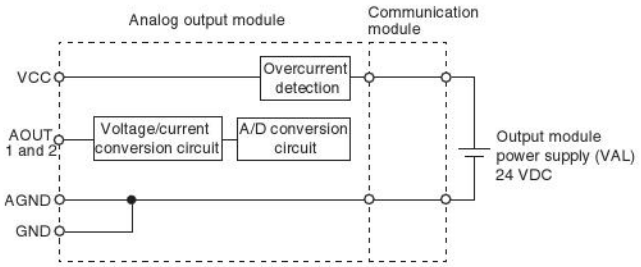
YS8-D8S



YS8-D8S-M



YS8-A2S



Mass

I/O terminal (not including valves)

g [oz]

Mounting option	Calculation of mass for each number of units
(Blank)	258 [9.10] + (93 [3.28] x n)
-DN	214 [7.55] + (93 [3.28] x n)
-DR	235 [8.29] + (97 [3.42] x n)

Calculation example:
YS8EK3-8-DR
mod.1 YS8-D8N
mod.2 YS8-A4N
mod.3 YS8-D8S
mod.4 YS8-A2S
258 [9.10] + 97 [3.42] x 4 = 646 g [22.79 oz]

Mass to add for Split Type and Easy Assembly Type Manifolds / I/O terminal

Add to the calculated results of Split Type Manifold and Easy Assembly Type Manifold.

g [oz]

Mounting option	Calculation of mass for each number of units
(Blank)	176 [6.21] + (93 [3.28] x n)
-DN	154 [5.43] + (93 [3.28] x n)
-DR	175 [6.17] + (97 [3.42] x n)

Calculation example:
F10M8XTJ-JR-K3-4-W-DR
stn.1 to 8 F10T1-A1 DC24V
mod.1 to 4 YS8-D8N
(92 [3.25] x 8) + 310 [10.93] + 32 [1.13] + 175 [6.17] + (97 [3.42] x 4) = 1641 g [57.88 oz]

F10 Series

Split Type Manifold and Plugin Type / Serial Transmission Type mass (including valve single unit)

g [oz]

Supporting Types: 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	φ4 fitting block	φ6 fitting block
	(79 [2.79] x n) + 120 [4.23]	(83 [2.93] x n) + 120 [4.23]	(85 [3.00] x n) + 120 [4.23]	(88 [3.10] x n) + 120 [4.23]

g [oz]

Mass to add			
Piping block specification			
Female thread block	Dual use fitting block	φ8 fitting block	φ10 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 fitting block	φ6 fitting block
No symbol	(86 [3.03] x n) + 227 [8.01]	(90 [3.17] x n) + 227 [8.01]	(92 [3.25] x n) + 227 [8.01]	(95 [3.35] x n) + 227 [8.01]
-DN	(86 [3.03] x n) + 288 [10.16]	(90 [3.17] x n) + 288 [10.16]	(92 [3.25] x n) + 288 [10.16]	(95 [3.35] x n) + 288 [10.16]
-DR	(88 [3.10] x n) + 310 [10.93]	(92 [3.25] x n) + 310 [10.93]	(94 [3.32] x n) + 310 [10.93]	(97 [3.42] x n) + 310 [10.93]

g [oz]

Fitting specifications	Mass to add			
	Air supply and exhaust ports			
	Female thread block	Dual use fitting block	φ6 fitting block	φ8 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

Split Type Manifold and Plugin Type / Serial Transmission Type mass (including valve single unit)

g [oz]

Supporting Types: 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 fitting block	ϕ8 fitting block
	(177 [6.24] x n) + 249 [8.78]	(187 [6.60] x n) + 249 [8.78]	(196 [6.96] x n) + 249 [8.78]	(203 [7.16] x n) + 249 [8.78]

g [oz]

Mass to add			
Piping block specification			
Female thread block	Dual use fitting block	ϕ8 fitting block	ϕ10 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 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 fitting block	ϕ8 fitting block
No symbol	(189 [6.67] x n) + 306 [10.79]	(199 [7.02] x n) + 306 [10.79]	(210 [7.41] x n) + 306 [10.79]	(215 [7.58] x n) + 306 [10.79]
-DN	(189 [6.67] x n) + 369 [13.02]	(199 [7.02] x n) + 369 [13.02]	(210 [7.41] x n) + 369 [13.02]	(215 [7.58] x n) + 369 [13.02]
-DR	(192 [6.77] x n) + 391 [13.79]	(201 [7.09] x n) + 391 [13.79]	(213 [7.51] x n) + 391 [13.79]	(218 [7.69] x 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 fitting block	ϕ10 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.

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

■ Manifold output specification

With dual use fitting blocks (base piping type)

J

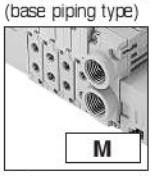
Outlet port fitting
F10: ϕ4, ϕ6

With selectable fittings (base piping type)

L

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

With female thread blocks (base piping type)



M

Outlet port female thread
F10: M5 x 0.8

With plates (direct piping type)

Blank

■ Pilot specification

Blank
Internal pilot manifold

G
External pilot manifold

■ Piping block specification (air supply and exhaust)

Dual size 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

■ Wiring and communication specifications

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

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

■ Module number specifications

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

Caution
When entering the order codes for input/output modules, indicate the input/output modules after indicating the mounted valves. For details of how to indicate input/output modules, see Module (mod.1, etc.) in I/O Terminal Order Codes on page ⑦.

■ Valve size

F10M 10 mm [0.394 in.] width

■ 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	Valve units	Manifold outlet specification	Pilot specification	Piping block specification	Wiring specifications	Module number specifications	Wiring connection specification
Manifold model							
Base piping type	F10M	T (※Rc) J M	Blank G	-JR -J5R -JL -J6R -JD -J5L -MR -J6L -ML -J5D -MD -J6D	-K3 -M3	Blank -1~8	Blank -W
Base piping type selectable fitting	F10M	2 ··□ Note 1	T (※Rc) L	Blank G	-JR[Note12] -MDH[Note13] -JL[Note12] -J5R[Note12] -JD[Note12] -J6R[Note12] -MR[Note12] -J5L[Note12] -ML[Note12] -J6L[Note12] -MD[Note12] -J5D[Note12] -MRH[Note13] -J6D[Note12] -MLH[Note13]	-K3 -M3	Blank -1~8	Blank -W
Direct piping type	F10M	TH (※NPT) Blank	Blank G	-JR[Note12] -MDH[Note13] -JL[Note12] -J5R[Note12] -JD[Note12] -J6R[Note12] -MR[Note12] -J5L[Note12] -ML[Note12] -J6L[Note12] -MD[Note12] -J5D[Note12] -MRH[Note13] -J6D[Note12] -MLH[Note13]	-K3 -M3	Blank -1~8	Blank -W

Notes: 1. For maximum number of units, see page ⑮ Quick Reference Chart of Maximum Number of Manifold Valves for Different Wiring Specifications.
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 typeNote 7

G
External pilot typeNote 8
(for positive pressure)
* No vacuum valve can be mounted.

Manual override

Manual override button

Manual override leverNote 5

Valve outlet type

-A1 With plateNote 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 blockNote 13 (direct piping type) **F10:** 10-32UNF

3-port specification

-FJ5A With single use fitting block, normally closed (NC) **F10**: ϕ4 (direct piping type)
-FJ5B With single use fitting block, normally open (NO) **F10**: ϕ4 (direct piping type)
-FJ6A With single use fitting block, normally closed (NC) **F10**: ϕ6 (direct piping type)
-FJ6B With single use fitting block, normally open (NO) **F10**: ϕ6 (direct piping type)
-FMA With female thread block, normally closed (NC) **F10**: M5 x 0.8 (direct piping type)
-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 (direct piping type)
-FMBH With female thread block, normally open (NO)Note 13 (direct piping type) **F10:** 10-32UNF

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

Manifold fitting specification

5-port specification

-J5 With single use fitting block **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 blockNote 11 (base piping type) **F10**: 10-32UNF

3-port specification

-J5A With single use fitting block, normally closed (NC) **F10**: ϕ4 (base piping type)
-J5B With single use fitting block, normally open (NO) **F10**: ϕ4 (base piping type)
-J6A With single use fitting block, normally closed (NC) **F10**: ϕ6 (base piping type)
-J6B With single use fitting block, normally open (NO) **F10**: ϕ6 (base piping type)
-MA With female thread block, normally closed (NC) **F10**: M5 x 0.8 (base piping type)
-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 (base piping type)
-MBH With female thread block, normally open (NO)Note 13 (base piping type) **F10:** 10-32UNF

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

Port isolator

Blank: No port isolator
-SP: For 1(P) portNote 6
-SR: For 3(R2), 5(R1) portsNote 6
-SA: For 1(P), 3(R2), 5(R1) portsNote 6

Back pressure prevention valve

Blank
No back pressure prevention valve

-E2
With back pressure prevention valveNote 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	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	-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 Manifold with I/O Terminal

■ Quick Reference Chart of Maximum Number of Manifold Valves for Different Wiring Specifications

		Maximum number of valves	
		Wiring connection specification	
Wiring 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

* To determine the maximum number of I/O modules, see page ⑦.

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

■ Manifold output specification

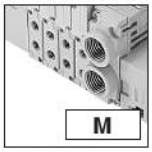
With dual use fitting blocks (base piping type)

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)

■ 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 Note 13
-MLH: Female thread, left-side mounting Note 13
-MDH: Female thread, both-side mounting Note 13
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 Note 13

■ Wiring and communication specifications

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

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

■ Module number specifications

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

Caution
When entering the order codes for input/output modules, indicate the input/output modules after indicating the mounted valves.
For details of how to indicate input/output modules, see Module (mod.1, etc.) in I/O Terminal Order Codes on page ⑦.

■ Mounting specification

Blank
Direct mount

-DN
With DIN brackets (without rails)

-DR
With DIN brackets, with rails
Note: For details of rails to be assembled and shipped, see page 29.

■ Valve size

F10M 10 mm [0.394 in.] width

■ 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

	Valve size	Number of units	Manifold outlet specification	Pilot specification	Piping block specification	Wiring specifications	Module number specifications	Wiring connection specification	Mounting specification
Base piping type	F10M	2 … □ Note 1	XT (※Rc) XTH (※NPT) Only L or Blank is available in the inch female thread specification and the manifold outlet specification.	J M	Blank G	-JR -J5R -JT -JL -J5L -J5T -JD -J5D -J6T -MR -J6R -MT -ML -J6L -MD -J6D	-K3 -M3	Blank -1~8	Blank -W	Blank -DN -DR
Base piping type selectable fitting				L	Blank G	-JR -MLH Note 12 -J6D -JL -MDH Note 12 -JT -JD -J5R -J5T -MR -J5L -J6T -ML -J5D -MT -MD -J6R -MTH Note 12 -MRH Note 12 -J6L	-K3 -M3	Blank -1~8	Blank -W	Blank -DN -DR
Direct piping type				Blank	Blank G	-JR -MLH Note 12 -J6D -JL -MDH Note 12 -JT -JD -J5R -J5T -MR -J5L -J6T -ML -J5D -MT -MD -J6R -MTH Note 12 -MRH Note 12 -J6L	-K3 -M3	Blank -1~8	Blank -W	Blank -DN -DR

Notes: 1. For maximum number of units, see page ⑮ Quick Reference Chart of Maximum Number of Manifold Valves for Different Wiring Specifications.
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 typeNote 7

G
External pilot typeNote 8
(for positive pressure)
* No vacuum valve can be mounted.

Manual override

Manual override button

Manual override leverNote 5

Valve outlet type

-A1	With plateNote 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 blockNote 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

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

Manifold fitting specification

5-port specification		
-J5	With single use fitting block (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 blockNote 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

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

Back pressure prevention valve

Blank
No back pressure prevention valve

-E2
With back pressure prevention valveNote 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) portNote 6
-XSR: For 3(R2), 5(R1) portsNote 6
-XSA: For 1(P), 3(R2), 5(R1) portsNote 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	Voltage / Block off plate wiring specification
Mounting valve model										
stn. 1 ⋮ stn.□ Note 2	F10 F10L	T0 T3 TANote 9 T1 T4 TBNote 9 T2 T5 TCNote 9	BlankNote 7 GNote 8	Blank -RNote 5	-A1Note 3		Blank -E2Note 10	Blank -XPPM -XPRM	Blank -XSPNote 6 -XSRNote 6 -XSANote 6	DC24V
	F10	XBPP (for block-off plate)Note 4								Blank -S
If selecting an intermediate piping block, see page ⑲ to enter information.										
stn. 1 ⋮ stn.□ Note 2	F10 F10L	T0 T3 TANote 9 T1 T4 TBNote 9 T2 T5 TCNote 9	BlankNote 7 GNote 8	Blank -RNote 5	-A1Note 3	-J5Note 11 -J6ANote 11 -J6Note 11 -J6BNote 11 -MNote 11 -MANote 11 -MHNote 12 -MAHNote 12 -J5ANote 11 -MBNote 11 -J5BNote 11 -MBHNote 12	Blank -E2Note 10	Blank -XPPM -XPRM	Blank -XSPNote 6 -XSRNote 6 -XSANote 6	DC24V
	F10	XBPP (for block-off plate)Note 4								Blank -S
If selecting an intermediate piping block, see page ⑲ to enter information.										
stn. 1 ⋮ stn.□ Note 2	F10 F10L	T0 T3 TANote 9 T1 T4 TBNote 9 T2 T5 TCNote 9	BlankNote 7 GNote 8	Blank -RNote 5	-FJ -FJ6A -FJ5 -FJ6B -FJ6 -FMA -FM -FMAH -FMH -FMB -FJ5A -FMBH -FJ5B		Blank -E2Note 10	Blank -XPPM -XPRM	Blank -XSPNote 6 -XSRNote 6 -XSANote 6	DC24V
	F10	XBPP (for block-off plate)Note 4								Blank -S
If selecting an intermediate piping block, see page ⑲ 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**.

Intermediate piping block

(When mounting an intermediate piping block to the manifold, complete the following type and specify 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

Piping block specification[Note]
PJ : Dual use fitting, ϕ6, ϕ8
PJ5 : With single use fitting, ϕ6
PJ6 : With single use fitting, ϕ8
PM : With female thread, Rc1/8
PMH : With female thread NPT 1/8

Manifold model
TK: Plug-in, for serial transmission

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)

Note: See the following table for combinations of intermediate piping block port specifications and manifold piping block specifications.

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

Order codes for F15 Series Split Manifold with I/O Terminal

* The photos show the F10 series.

Manifold output specification

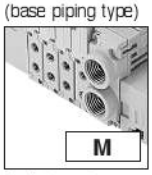
With dual use fitting blocks (base piping type)

Outlet port fitting
F15: φ6, φ8

With selectable fittings (base piping type)

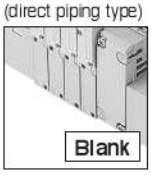
Outlet port should be selected in accordance with the manifold fitting specification.

With female thread blocks (base piping type)



Outlet port female thread
F15: Rc1/8

With plates (direct piping type)



Pilot specification

Blank
Internal pilot manifold

G
External pilot manifold

Piping block specification (air supply and exhaust)

Dual size 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), φ8, φ10

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), φ8
-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), φ10

Wiring and communication specifications

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

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

Module number specifications

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

Caution

When entering the order codes for input/output modules, indicate the input/output modules after indicating the mounted valves.
For details of how to indicate input/output modules, see Module (mod.1, etc.) in I/O Terminal Order Codes on page ⑦.

Valve size

F15M 15 mm [0.591 in.] width

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

Manifold model

Valve size	Valve units		Manifold outlet specification	Pilot specification	Piping block specification	Wiring specifications	Module number specifications	Wiring connection Specifications
Base piping type	F15M	T (※Rc)	J M	Blank G	-JR -J5R -JL -J6R -JD -J5L -MR -J6L -ML -J5D -MD -J6D	-K3 -M3	Blank -1~8	Blank -W
Base piping type selectable fitting	F15M	T (※Rc)	L	Blank G	-JR Note12 -MDH Note13 -JL Note12 -J5R Note12 -JD Note12 -J6R Note12 -MR Note12 -J5L Note12 -ML Note12 -J6L Note12 -MD Note12 -J5D Note12 -MRH Note13 -J6D Note12 -MLH Note13	-K3 -M3	Blank -1~8	Blank -W
Direct piping type	F15M	TH (※NPT)	Blank	Blank G	-JR Note12 -MDH Note13 -JL Note12 -J5R Note12 -JD Note12 -J6R Note12 -MR Note12 -J5L Note12 -ML Note12 -J6L Note12 -MD Note12 -J5D Note12 -MRH Note13 -J6D Note12 -MLH Note13	-K3 -M3	Blank -1~8	Blank -W

2 □ Note 1

Notes: 1. For maximum number of units, see page ⑮ Quick Reference Chart of Maximum Number of Manifold Valves for Different Wiring Specifications.
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

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 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**: 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 13 (direct piping type) **F15**: NPT1/8

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

Manifold fitting specification

5-port specification

-J5 With single use fitting block (base piping type) **F15**: φ6
-J6 With single use fitting block (base piping type) **F15**: φ8
-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**: 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

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

Port isolator

Blank: No port isolator
-SP: For 1(P) port Note 6
-SR: For 3(R2), 5(R1) ports Note 6
-SA: For 1(P), 3(R2), 5(R1) ports Note 6

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)

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	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	Blank / -E2 Note 10	Blank / -PP6 -PR6 / -PP8 -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 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 / -PP6 -PR6 / -PP8 -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 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	Blank / -E2 Note 10	Blank / -PP6 -PR6 / -PP8 -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 Manifold with I/O Terminal

■ Quick Reference Chart of Maximum Number of Manifold Valves for Different Wiring Specifications

		Maximum number of valves	
		Wiring connection specification	
Wiring 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

* To determine the maximum number of I/O modules, see page ⑦.

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

*The photos show the F10 series.

■ Manifold output specification

With dual use fitting blocks (base piping type)

J

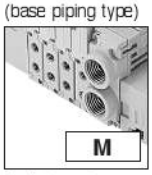
Outlet port fitting
F15: φ6, φ8

With selectable fittings (base piping type)

L

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

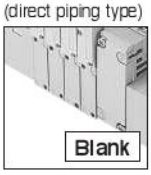
With female thread blocks (base piping type)



M

Outlet port female thread
F15: Rc1/8

With plates (direct piping type)



Blank

■ 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 Note 13
-MLH: Female thread, left-side mounting Note 13
-MDH: Female thread,both-side mounting Note 13
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 Note 13

■ Wiring and communication specifications

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

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

■ Module number specifications

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

Caution
When entering the order codes for input/output modules, indicate the input/output modules after indicating the mounted valves.
For details of how to indicate input/output modules, see Module (mod.1, etc.) in I/O Terminal Order Codes on page ⑦.

■ Mounting specification

Blank
Direct mount

-DN
With DIN brackets (without rails)

-DR
With DIN brackets, with rails
Note: For details of rails to be assembled and shipped, see page ㊶.

■ Valve size

F15M 15 mm [0.591 in.] width

■ 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	Wiring specifications	Module number specifications	Wiring connection specification	Mounting specification
Manifold model								
Base piping type	F15M	XT (※Rc) J M	Blank G	-JR -J5R -JT -JL -J5L -J5T -JD -J5D -J6T -MR -J6R -MT -ML -J6L -MD -J6D	-K3 -M3	Blank -1~8	Blank -W	Blank -DN -DR
Base piping type selectable fitting	F15M	2 : □ Note 1	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 -MLH Note 12 -J6D -JL -MDH Note 12 -JT -JD -J5R -J5T -MR -J5L -J6T -ML -J5D -MT -MD -J6R -MTH Note 12 -MRH Note 12 -J6L	-K3 -M3	Blank -1~8	Blank -W	Blank -DN -DR
Direct piping type	F15M	2 : □ Note 1	XT (※Rc) XTH (※NPT) Only L or Blank is available in the inch female thread specification and the manifold outlet specification.	Blank Blank G	-JR -MLH Note 12 -J6D -JL -MDH Note 12 -JT -JD -J5R -J5T -MR -J5L -J6T -ML -J5D -MT -MD -J6R -MTH Note 12 -MRH Note 12 -J6L	-K3 -M3	Blank -1~8	Blank -W	Blank -DN -DR

Notes: 1. For maximum number of units, see page ⑮ Quick Reference Chart of Maximum Number of Manifold Valves for Different Wiring Specifications.
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 typeNote 7

G
External pilot typeNote 8
(for positive pressure)
* No vacuum valve can be mounted.

Manual override

Manual override button

Manual override leverNote 5

Valve outlet type

-A1 With plateNote 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 blockNote 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

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

Manifold fitting specification

5-port specification

-J5	With single use fitting block (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 blockNote 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

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

Port isolator

Blank: No port isolator
-XSP: For 1(P) portNote 6
-XSR: For 3(R2), 5(R1) portsNote 6
-XSA: For 1(P), 3(R2), 5(R1) portsNote 6

Back pressure prevention valve

Blank
No back pressure prevention valve

-E2
With back pressure prevention valveNote 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)

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	Voltage / Block off plate wiring specification
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 -XPP6 -XPR6 -XPP8 -XPR8	Blank -XSP Note 6 -XSR Note 6 -XSA Note 6	DC24V / Blank -S
	F15	XBPP (for block-off plate) Note 4								
	If selecting an intermediate piping block, see page 27 to enter information.									
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 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 -XPP6 -XPR6 -XPP8 -XPR8	Blank -XSP Note 6 -XSR Note 6 -XSA Note 6	DC24V / Blank -S
	F15	XBPP (for block-off plate) Note 4								
	If selecting an intermediate piping block, see page 27 to enter information.									
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 -FJ5 -FJ6 -FM -FMH -FJ5A -FJ5B -FJ6A -FJ6B -FMA -FMAH -FMB -FMBH		Blank -E2 Note 10	Blank -XPP6 -XPR6 -XPP8 -XPR8	Blank -XSP Note 6 -XSR Note 6 -XSA Note 6	DC24V / Blank -S
	F15	XBPP (for block-off plate) Note 4								
	If selecting an intermediate piping block, see page 27 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**.

Intermediate piping block

(When mounting an intermediate piping block to the manifold, complete the following type and specify the station specified on page ㉖.)

F 15 ZX□ - □ - TK - □

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

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

Piping block specification[Note]
PJ : Dual use fitting, ϕ8, ϕ10
PJ5 : With single use fitting, ϕ8
PJ6 : With single use fitting, ϕ10
PM : With female thread, Rc1/4
PMH : With female thread NPT 1/8

Manifold model
TK: Plug-in, for serial transmission

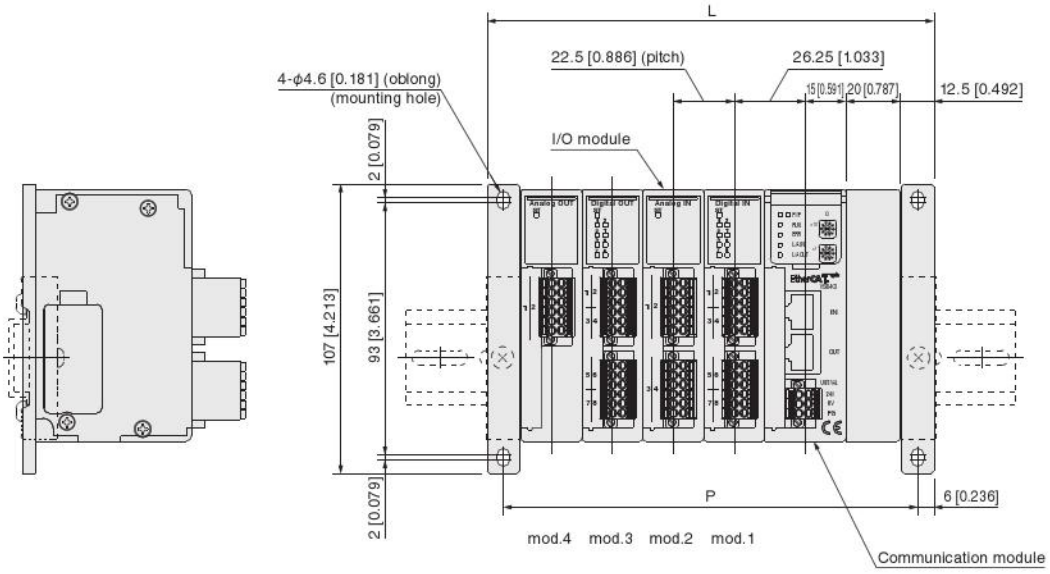
Port isolator
Blank : No port isolator
XSP : Port isolator (1(P) port)
XSR : Port isolator (3(R2), 5(R1) ports)
XSA : Port isolator (1(P), 3(R2), 5(R1) ports)

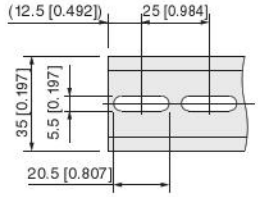
Note: See the following table for combinations of intermediate piping block port specifications and manifold piping block specifications.

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

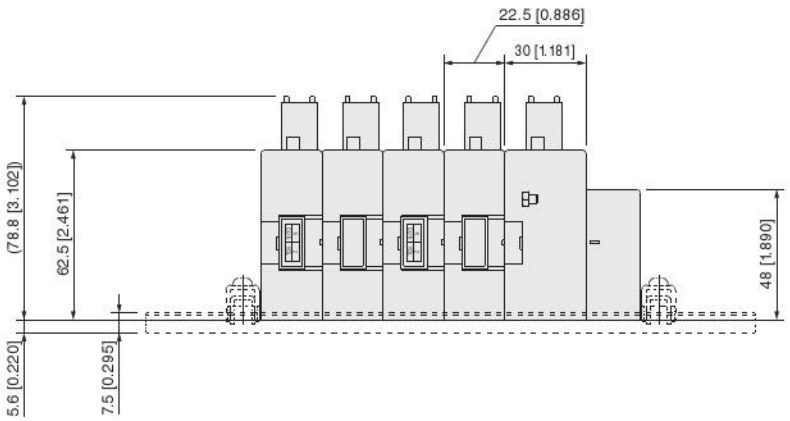
● I/O Terminal (EtherCAT communication)

YS8EK3 - 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]	196.0 [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.

Examples of models in illustration

YS8EK3-4

mod.1 YS8-D8N

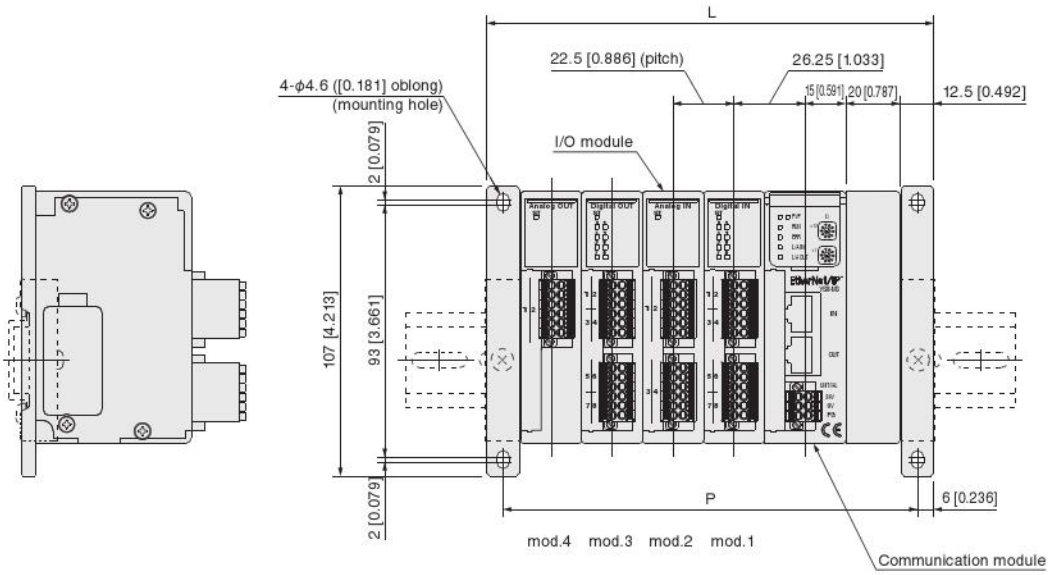
mod.2 YS8-A4N

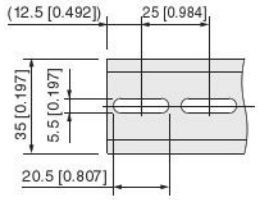
mod.3 YS8-D8S

mod.4 YS8-A2S

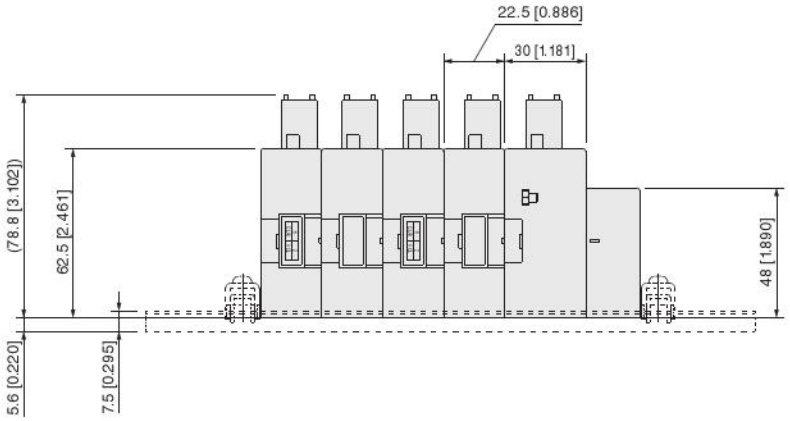
● I/O Terminal (EtherNet/IP communication)

YS8EM3 - Number of I/O modules - Mounting specification





-DR: DIN rail mounting hole dimensions



Dimensions for each number of I/O modules

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1	97.5 [3.839]	85.5 [3.366]	150 [5.906]
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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.

Examples of models in illustration

YS8EM3-4

mod.1 YS8-D8N

mod.2 YS8-A4N

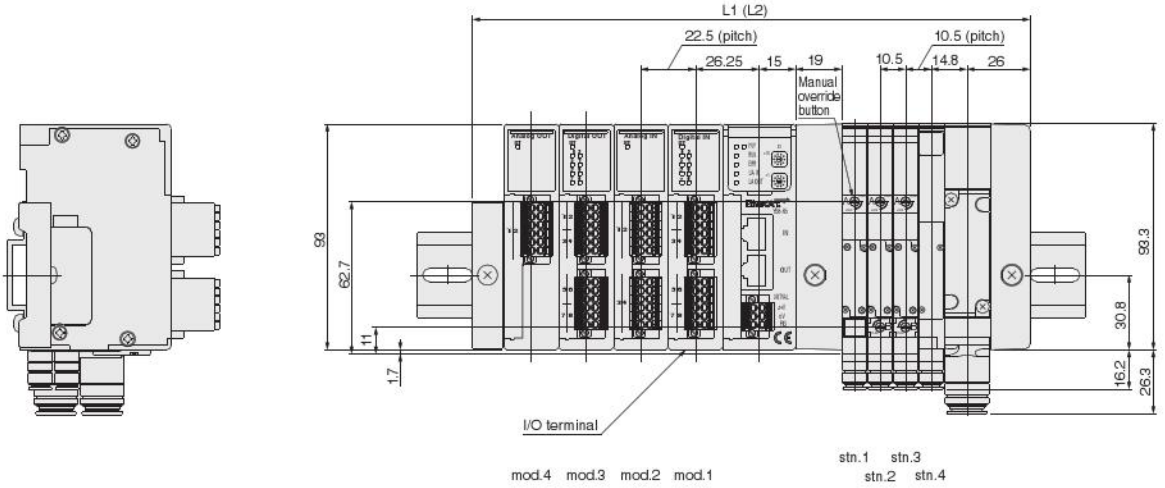
mod.3 YS8-D8S

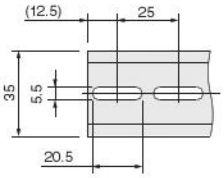
mod.4 YS8-A2S

● F10 Series Split Manifold with I/O Terminal

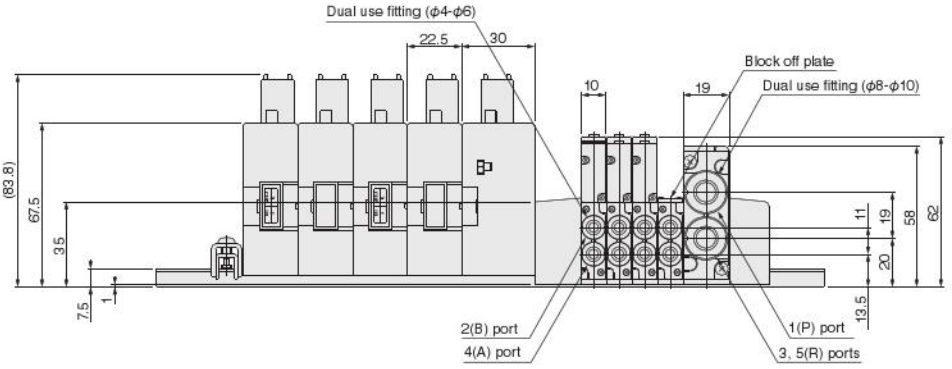
F10M [Valve units] T [J / M / L] [Pilot specification] (base piping type)

Manifold outlet port with dual use fitting block
(EtherCAT, EtherNet/IP) * The figures show EtherCAT.





DIN rail mounting hole dimensions



Examples of models in illustration

F10M4TJ-JR-K3-4-W

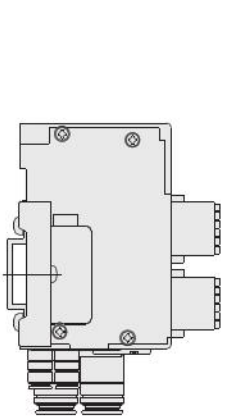
stn.1	F10T1-A1/DC24V	mod.1	YS8-D8N
stn.2	F10T2-A1/DC24V	mod.2	YS8-A4N
stn.3	F10T3-A1/DC24V	mod.3	YS8-D8S
stn.4	F10XBPP	mod.4	YS8-A2S

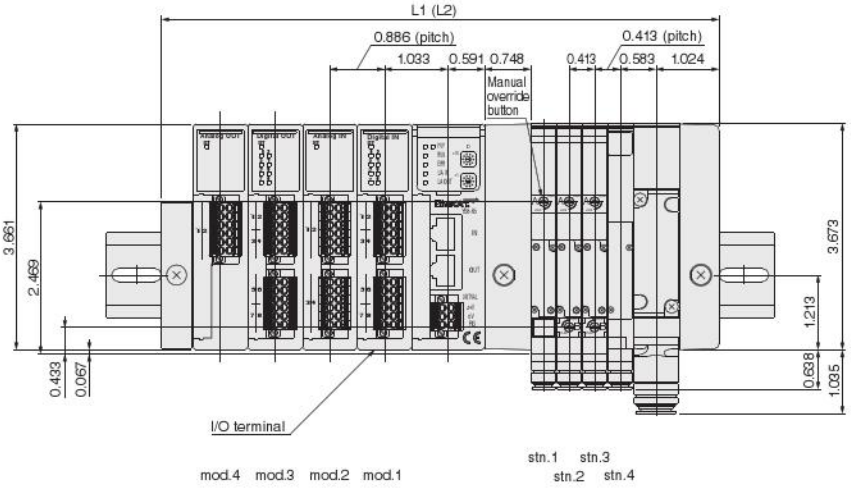
		L1 For one piping block																		L2 For two piping blocks															
Number of mods		0		1		2		3		4		5		6		7		8		0		1		2		3		4		5		6		7		8	
Dimension location		L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN
Number of units	2	105.5	175	141	200	163.5	200	186	225	208.5	250	231	275	253.5	300	276	325	298.5	350	124.5	175	160	200	182.5	225	205	250	227.5	275	250	300	272.5	325	295	350	317.5	375
	3	116	175	151.5	200	174	225	196.5	250	219	275	241.5	300	264	300	286.5	325	309	350	135	200	170.5	225	193	250	215.5	275	238	275	260.5	300	283	325	305.5	350	328	375
	4	126.5	175	162	200	184.5	225	207	250	229.5	275	252	300	274.5	325	297	350	319.5	375	145.5	200	181	225	203.5	250	226	275	248.5	300	271	325	293.5	350	316	375	338.5	375
	5	137	200	172.5	225	195	250	217.5	275	240	300	262.5	300	285	325	307.5	350	330	375	156	225	191.5	250	214	250	236.5	275	259	300	281.5	325	304	350	326.5	375	349	400
	6	147.5	200	183	225	205.5	250	228	275	250.5	300	273	325	295.5	350	318	375	340.5	400	166.5	225	202	250	224.5	275	247	300	269.5	325	292	350	314.5	350	337	375	359.5	400
	7	158	225	193.5	250	216	275	238.5	275	261	300	283.5	325	306	350	328.5	375	351	400	177	250	212.5	250	235	275	257.5	300	280	325	302.5	350	325	375	347.5	400	370	425
	8	168.5	225	204	250	226.5	275	249	300	271.5	325	294	350	316.5	375	339	375	361.5	400	187.5	250	223	275	245.5	300	268	325	290.5	350	313	350	335.5	375	358	400	380.5	425
	9	179	250	214.5	250	237	275	259.5	300	282	325	304.5	350	327	375	349.5	400	372	425	198	250	233.5	275	258	300	278.5	325	301	350	323.5	375	346	400	368.5	425	391	450
	10	189.5	250	225	275	247.5	300	270	325	292.5	350	315	375	337.5	375	360	400	382.5	425	208.5	275	244	300	266.5	325	289	325	311.5	350	334	375	356.5	400	379	425	401.5	450
	11	200	250	235.5	275	258	300	280.5	325	303	350	325.5	375	348	400	370.5	425	393	450	219	275	254.5	300	277	325	299.5	350	322	375	344.5	400	367	425	389.5	425	412	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	229.5	300	265	325	287.5	325	310	350	332.5	375	355	400	377.5	425	400	450	422.5	475
	13	221	275	256.5	300	279	325	301.5	350	324	375	346.5	400	369	425	391.5	450	414	450	240	300	275.5	325	298	350	320.5	375	343	400	365.5	425	388	425	410.5	450	433	475
	14	231.5	300	267	325	289.5	325	312	350	334.5	375	357	400	379.5	425	402	450	424.5	475	250.5	300	286	325	308.5	350	331	375	353.5	400	376	425	398.5	450	421	475	443.5	500
	15	242	300	277.5	325	300	350	322.5	375	345	400	367.5	425	390	450	412.5	450	435	475	261	325	296.5	350	319	375	341.5	400	364	400	386.5	425	409	450	431.5	475	454	500
	16	252.5	325	288	325	310.5	350	333	375	355.5	400	378	425	400.5	450	423	475	445.5	500	271.5	325	307	350	329.5	375	352	400	374.5	425	397	450	419.5	475	442	500	464.5	500
	17	263	325	298.5	350	321	375	343.5	400	368	425	388.5	425	411	450	433.5	475	456	500	282	350	317.5	375	340	400	362.5	400	385	425	407.5	450	430	475	452.5	500	475	525
	18	273.5	325	309	350	331.5	375	354	400	376.5	425	399	450	421.5	475	444	500	466.5	525	292.5	350	328	375	350.5	400	373	425	395.5	450	418	475	440.5	500	463	500	485.5	525
	19	284	350	319.5	375	342	400	364.5	400	387	425	409.5	450	432	475	454.5	500	477	525	303	375	338.5	375	361	400	383.5	425	406	450	428.5	475	451	500	473.5	525	496	550
	20	294.5	350	330	375	352.5	400	375	425	397.5	450	420	475	442.5	500	465	525	487.5	525	313.5	375	349	400	371.5	425	394	450	416.5	475	439	475	461.5	500	484	525	506.5	550

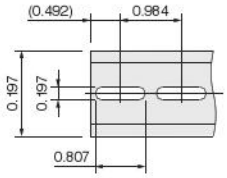
● F10 Series Split Manifold with I/O Terminal

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

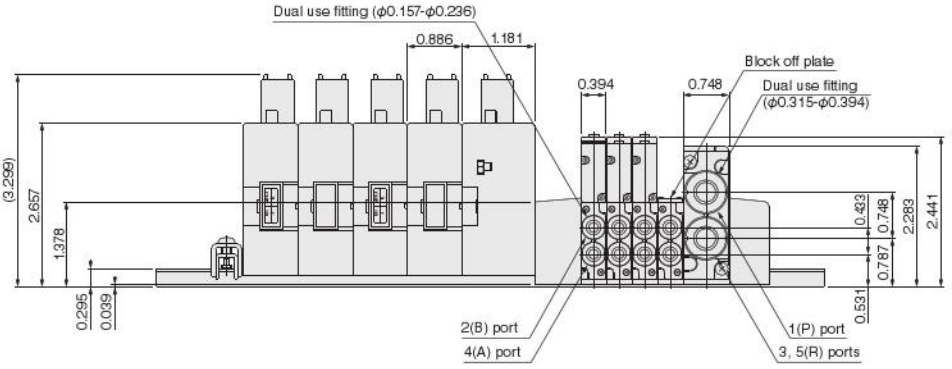
Manifold outlet port with dual use fitting block
(EtherCAT, EtherNet/IP) * The figures show EtherCAT.







DIN rail mounting hole dimensions



Examples of models in illustration

F10M4TJ-JR-K3-4-W

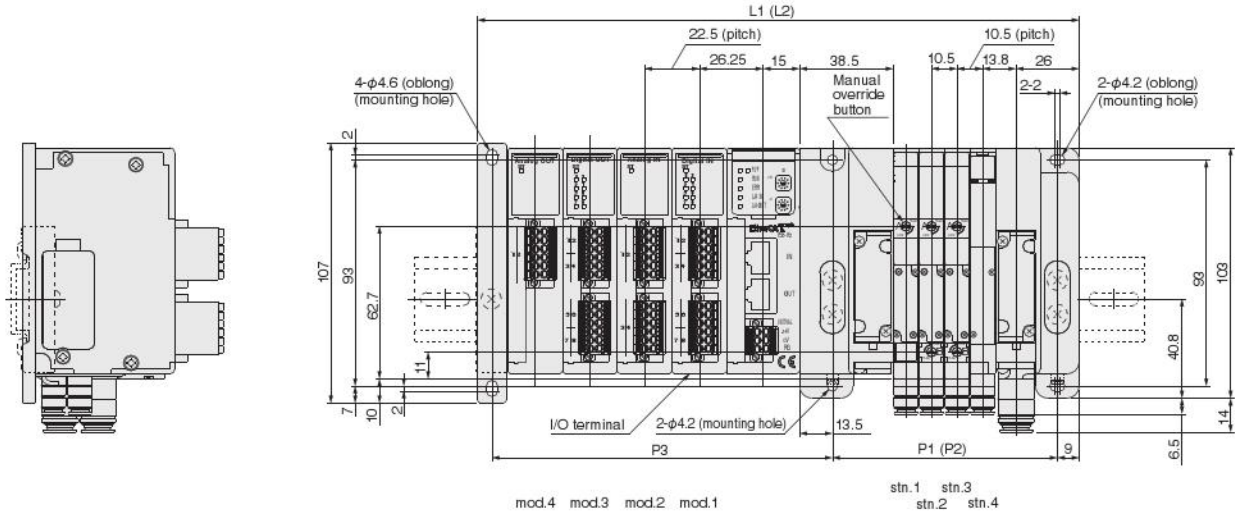
stn.1	F10T1-A1/DC24V	mod.1	YS8-D8N
stn.2	F10T2-A1/DC24V	mod.2	YS8-A4N
stn.3	F10T3-A1/DC24V	mod.3	YS8-D8S
stn.4	F10XBPP	mod.4	YS8-A2S

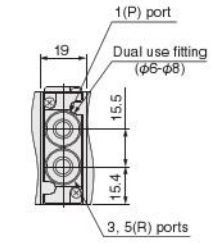
		L1 For one piping block																		L2 For two piping blocks															
Number of mods		0		1		2		3		4		5		6		7		8		0		1		2		3		4		5		6		7		8	
Dimension location		L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN
Number of units	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	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	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	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	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	5.728	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	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	6.142	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	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	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	6.220	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	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	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	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	7.047	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	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	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	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	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	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	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	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	8.701	10.827	10.098	11.811	10.984	12.795	11.870	13.780	12.758	14.764	13.642	15.748	14.528	16.732	15.413	17.717	16.299	17.717	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	9.114	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	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	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	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	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	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	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	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	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	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	11.181	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	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	11.594	13.780	12.992	14.764	13.878	15.748	14.764	16.732	15.850	17.717	16.535	18.701	17.421	19.685	18.307	20.669	19.193	20.669	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

● F10 Series Easy Assembly Manifold with I/O Terminal

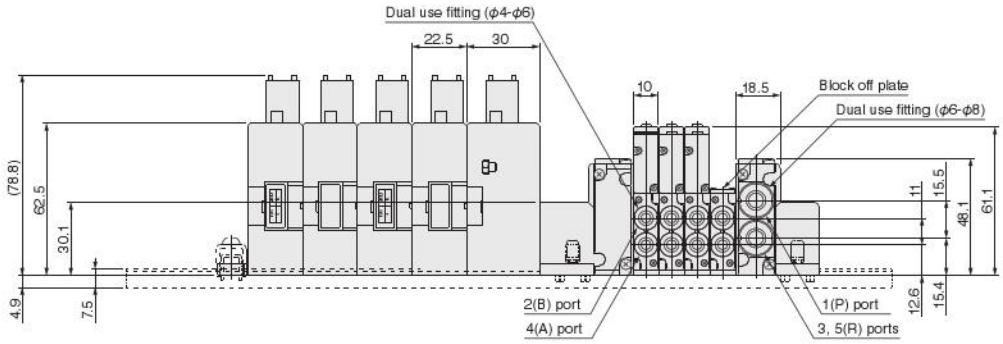
F10M Valve units XT J/M/L Pilot specification (base piping type)

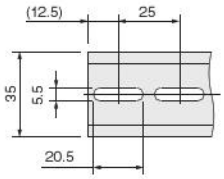
Manifold outlet port with dual use fitting block
(EtherCAT, EtherNet/IP) * The figures show EtherCAT.





When -JT is selected
(F10ZX-PJ-TK-□)





-DR: DIN rail mounting hole dimensions

Examples of models in illustration

F10M4XTJ-JR-K3-4-W

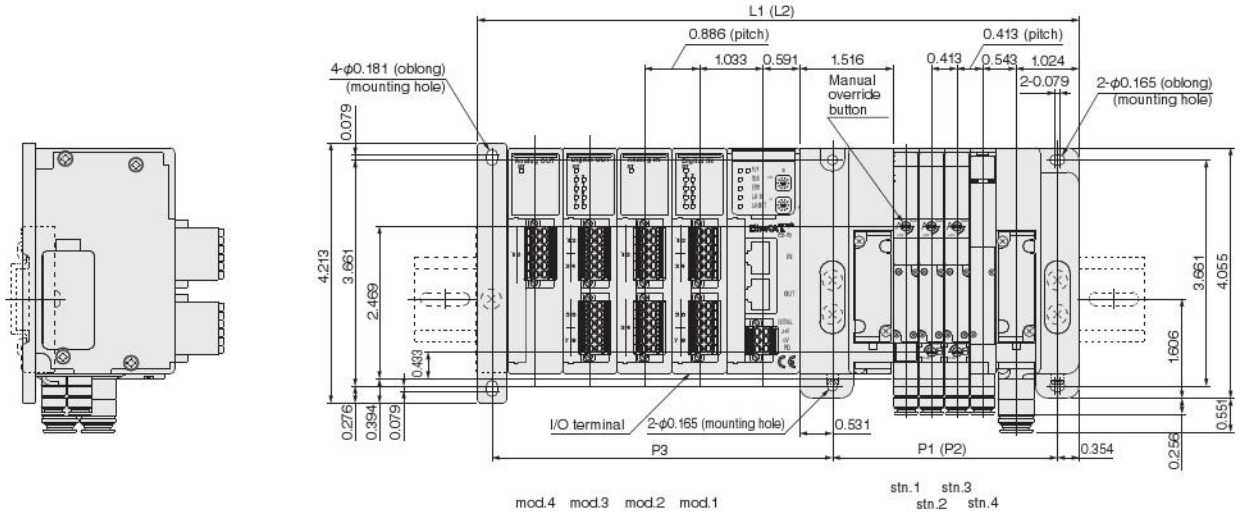
stn.1	F10T1-A1/DC24V	mod.1	YS8-D8N
stn.2	F10T2-A1/DC24V	mod.2	YS8-A4N
stn.3	F10T3-A1/DC24V	mod.3	YS8-D8S
stn.4	F10XBPP	mod.4	YS8-A2S

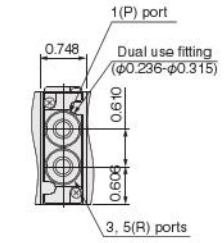
		if without intermediate piping block																				if with intermediate piping block																
Number of mods		0		1		2		3		4		5		6		7		8		P1		0		1		2		3		4		5		6		7		8		P2
	P3	-		72.5		95		117.5		140		162.5		185		207.5		230				-		72.5		95		117.5		140		162.5		185		207.5		230		
Dimension location		L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN			L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	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		143	200	178	225	200.5	250	223	275	245.5	300	268	325	290.5	350	313	350	335.5	375	90.5
	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		153.5	225	188.5	225	211	250	233.5	275	256	300	278.5	325	301	350	323.5	375	346	400	101
	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		164	225	199	250	221.5	275	244	300	266.5	325	289	325	311.5	350	334	375	356.5	400	111.5
	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		174.5	225	209.5	250	232	275	254.5	300	277	325	299.5	350	322	375	344.5	400	367	425	122
	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		185	250	220	275	242.5	300	265	325	287.5	325	310	350	332.5	375	355	400	377.5	425	132.5
	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		195.5	250	230.5	275	253	300	275.5	325	298	350	320.5	375	343	400	365.5	425	388	425	143
	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		206	275	241	300	263.5	300	286	325	308.5	350	331	375	353.5	400	376	425	398.5	450	153.5
	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		216.5	275	251.5	300	274	325	296.5	350	319	375	341.5	400	364	400	386.5	425	409	450	164
	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		227	300	262	300	284.5	325	307	350	329.5	375	352	400	374.5	425	397	450	419.5	475	174.5
	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		237.5	300	272.5	325	295	350	317.5	375	340	400	362.5	400	385	425	407.5	450	430	475	185
	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		248	300	283	325	305.5	350	328	375	350.5	400	373	425	395.5	450	418	475	440.5	500	195.5
	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		258.5	325	293.5	350	316	375	338.5	375	361	400	383.5	425	408	450	428.5	475	451	500	206
	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		269	325	304	350	326.5	375	349	400	371.5	425	394	450	416.5	475	439	475	461.5	500	216.5
	16	271	325	306	350	328.5	375	351	400	373.5	425	398	450	418.5	475	441	500	463.5	500	218.5		279.5	350	314.5	375	337	375	359.5	400	382	425	404.5	450	427	475	449.5	500	472	525	227
	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		290	350	325	375	347.5	400	370	425	392.5	450	415	475	437.5	475	460	500	482.5	525	237.5
	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		300.5	350	335.5	375	358	400	380.5	425	403	450	425.5	475	448	500	470.5	525	493	550	248
	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		311	375	346	400	368.5	425	391	450	413.5	450	436	475	458.5	500	481	525	503.5	550	258.5
	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		321.5	375	356.5	400	379	425	401.5	450	424	475	446.5	500	469	525	491.5	550	514	550	269
	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		332	400	367	425	389.5	450	412	450	434.5	475	457	500	479.5	525	502	550	524.5	575	279.5

● F10 Series Easy Assembly Manifold with I/O Terminal

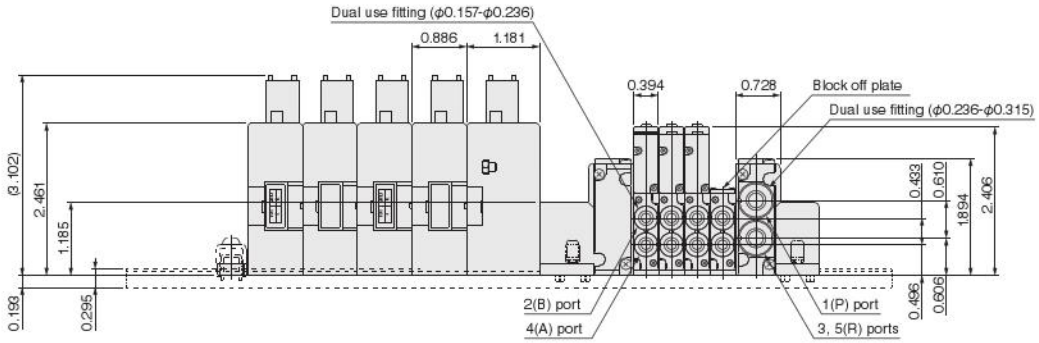
F10M Valve units XT J M L Pilot specification (base piping type)

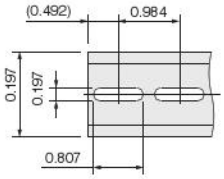
Manifold outlet port with dual use fitting block
(EtherCAT, EtherNet/IP) * The figures show EtherCAT.





When -JT is selected
(F10ZX-PJ-TK-□)





-DR: DIN rail mounting hole dimensions

Examples of models in illustration
F10M4XTJ-JR-K3-4-W

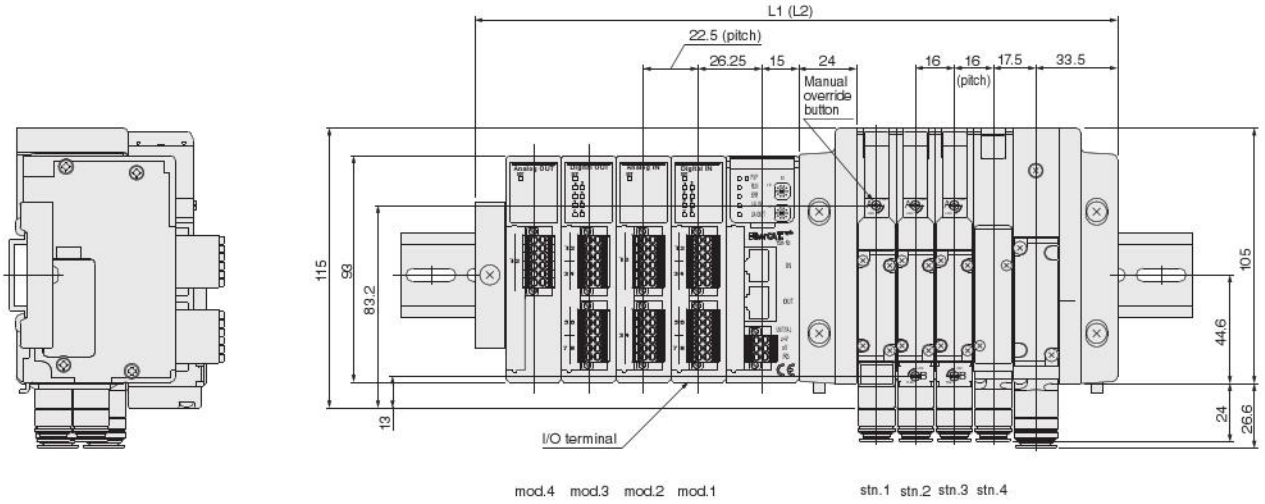
stn.1	F10T1-A1/DC24V	mod.1	YS8-D8N
stn.2	F10T2-A1/DC24V	mod.2	YS8-A4N
stn.3	F10T3-A1/DC24V	mod.3	YS8-D8S
stn.4	F10XBPP	mod.4	YS8-A2S

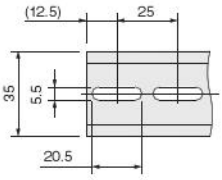
		if without intermediate piping block																			if with intermediate piping block																	
Number of mods		0		1		2		3		4		5		6		7		8		P1	0		1		2		3		4		5		6		7		8		P2
	P3	-		72.5		95		117.5		140		162.5		185		207.5		230			-		72.5		95		117.5		140		162.5		185		207.5		230		
Dimension location		L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN		L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	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	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	3.563
	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	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	3.976
	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	6.457	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	4.390
	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	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	4.803
	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	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	13.978	15.748	14.862	16.732	5.217
	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	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	5.630
	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	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	6.043
	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	9.524	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	6.457
	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	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	6.870
	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	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	7.283
	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	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	7.697
	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	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	8.110
	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	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	8.524
	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	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	8.937
	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	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	9.350
	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	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	9.764
	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	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	10.177
	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	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	10.591
	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	11.004

● F15 Series Split Manifold with I/O Terminal

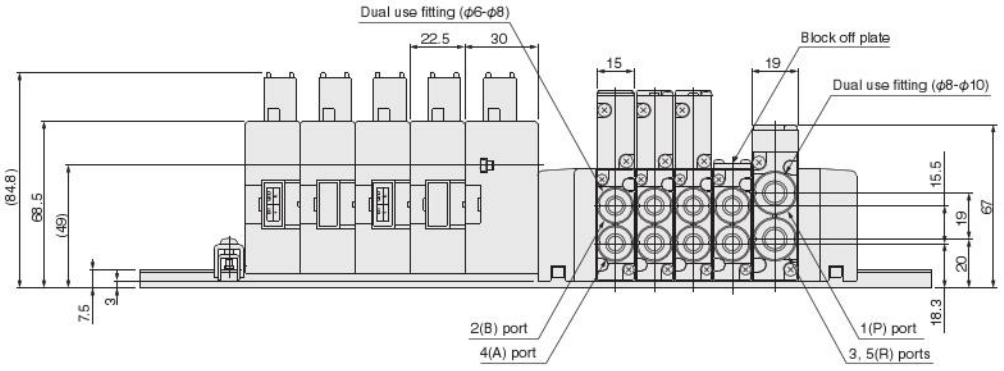
F15M [Valve units] T [J / M / L] [Pilot specification] (base piping type)

Manifold outlet port with dual use fitting block
(EtherCAT, EtherNet/IP) * The figures show EtherCAT.





DIN rail mounting hole dimensions



Examples of models in illustration

F15M4TJ-JR-K3-4-W

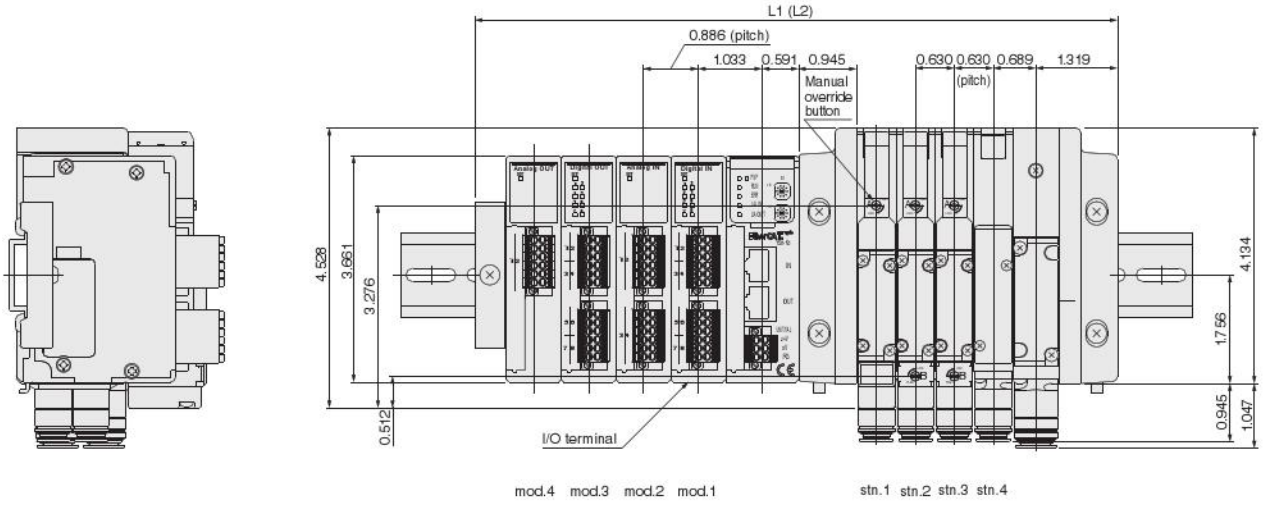
stn.1	F15T1-A1/DC24V	mod.1	YS8-D8N
stn.2	F15T2-A1/DC24V	mod.2	YS8-A4N
stn.3	F15T3-A1/DC24V	mod.3	YS8-D8S
stn.4	F15XBPP	mod.4	YS8-A2S

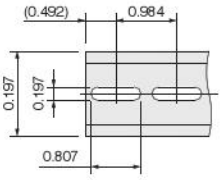
		L1 For one piping block																		L2 For two piping blocks															
Number of mods		0		1		2		3		4		5		6		7		8		0		1		2		3		4		5		6		7		8	
Dimension location		L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN
Number of units	2	129	200	164.5	225	187	250	209.5	275	232	275	254.5	300	277	325	299.5	350	322	375	148	225	183.5	225	208	250	228.5	275	251	300	273.5	325	296	350	318.5	375	341	400
	3	145	200	180.5	225	203	250	225.5	275	248	300	270.5	325	293	350	315.5	375	338	400	164	225	199.5	250	222	275	244.5	300	267	325	289.5	350	312	375	334.5	400	357	400
	4	161	225	196.5	250	219	275	241.5	300	264	325	286.5	350	309	375	331.5	375	354	400	180	250	215.5	275	238	300	260.5	325	283	325	305.5	350	328	375	350.5	400	373	425
	5	177	250	212.5	275	235	300	257.5	300	280	325	302.5	350	325	375	347.5	400	370	425	196	275	231.5	275	254	300	276.5	325	299	350	321.5	375	344	400	366.5	425	389	450
	6	193	250	228.5	275	251	300	273.5	325	296	350	318.5	375	341	400	363.5	425	386	450	212	275	247.5	300	270	325	292.5	350	315	375	337.5	400	360	425	382.5	425	405	450
	7	209	275	244.5	300	267	325	289.5	350	312	375	334.5	400	357	400	379.5	425	402	450	228	300	263.5	325	286	350	308.5	350	331	375	353.5	400	376	425	398.5	450	421	475
	8	225	300	260.5	325	283	325	305.5	350	328	375	350.5	400	373	425	395.5	450	418	475	244	300	279.5	325	302	350	324.5	375	347	400	369.5	425	392	450	414.5	475	437	500
	9	241	300	276.5	325	299	350	321.5	375	344	400	366.5	425	389	450	411.5	475	434	500	260	325	295.5	350	318	375	340.5	400	363	425	385.5	450	408	450	430.5	475	453	500
	10	257	325	292.5	350	315	375	337.5	400	360	425	382.5	425	405	450	427.5	475	450	500	276	350	311.5	375	334	400	356.5	400	379	425	401.5	450	424	475	446.5	500	469	525
	11	273	350	308.5	350	331	375	353.5	400	376	425	398.5	450	421	475	443.5	500	466	525	292	350	327.5	375	350	400	372.5	425	395	450	417.5	475	440	500	462.5	525	485	550
	12	289	350	324.5	375	347	400	369.5	425	392	450	414.5	475	437	500	459.5	525	482	525	308	375	343.5	400	366	425	388.5	450	411	475	433.5	475	456	500	478.5	525	501	550
	13	305	375	340.5	400	363	425	385.5	450	408	450	430.5	475	453	500	475.5	525	498	550	324	400	359.5	425	382	425	404.5	450	427	475	449.5	500	472	525	494.5	550	517	575
	14	321	400	356.5	400	379	425	401.5	450	424	475	446.5	500	469	525	491.5	550	514	575	340	400	375.5	425	398	450	420.5	475	443	500	465.5	525	488	550	510.5	575	533	575
	15	337	400	372.5	425	395	450	417.5	475	440	500	462.5	525	485	550	507.5	550	530	575	356	425	391.5	450	414	475	436.5	500	459	525	481.5	525	504	550	526.5	575	549	600
	16	353	425	388.5	450	411	475	433.5	475	456	500	478.5	525	501	550	523.5	575	546	600	372	450	407.5	450	430	475	452.5	500	475	525	497.5	550	520	575	542.5	600	565	625
	17	369	425	404.5	450	427	475	449.5	500	472	525	494.5	550	517	575	539.5	600	562	625	388	450	423.5	475	448	500	468.5	525	491	550	513.5	575	536	600	558.5	600	581	625
	18	385	450	420.5	475	443	500	465.5	525	488	550	510.5	575	533	575	555.5	600	578	625	404	475	439.5	500	462	525	484.5	550	507	550	529.5	575	552	600	574.5	625	597	650
	19	401	475	436.5	500	459	525	481.5	525	504	550	526.5	575	549	600	571.5	625	594	650	420	475	455.5	500	478	525	500.5	550	523	575	545.5	600	568	625	590.5	650	613	675
	20	417	475	452.5	500	475	525	497.5	550	520	575	542.5	600	565	625	587.5	650	610	675	436	500	471.5	525	494	550	516.5	575	539	600	561.5	625	584	650	606.5	650	629	675

● F15 Series Split Manifold with I/O Terminal

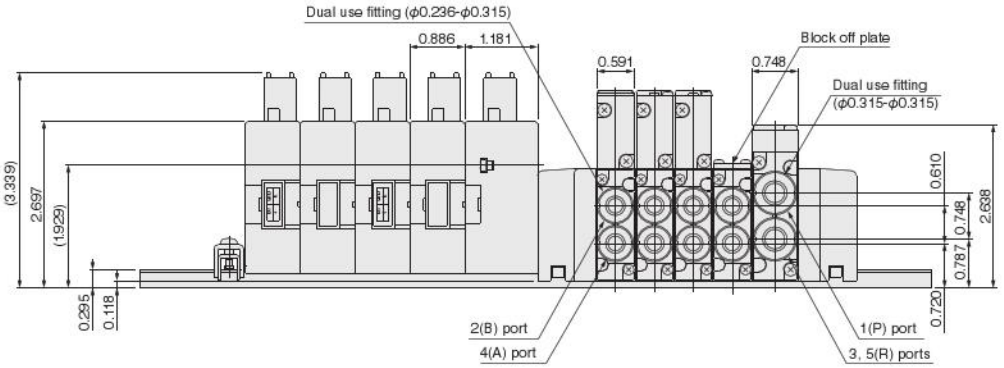
F15M [Valve units] T [J / M / L] [Pilot specification] (base piping type)

Manifold outlet port with dual use fitting block
(EtherCAT, EtherNet/IP) * The figures show EtherCAT.





DIN rail mounting hole dimensions



Examples of models in illustration

F15M4TJ-JR-K3-4-W

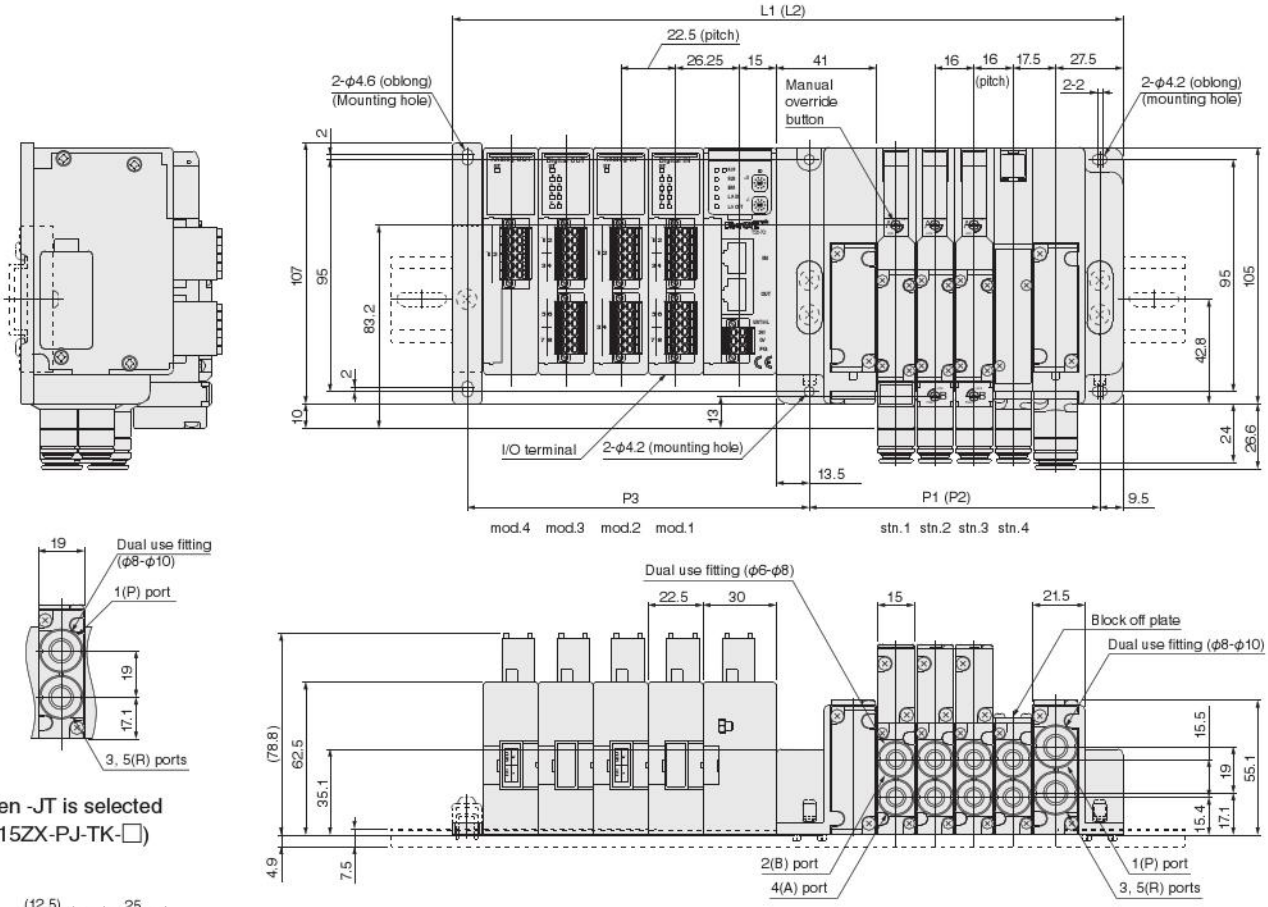
stn.1	F15T1-A1/DC24V	mod.1	YS8-D8N
stn.2	F15T2-A1/DC24V	mod.2	YS8-A4N
stn.3	F15T3-A1/DC24V	mod.3	YS8-D8S
stn.4	F15XBPP	mod.4	YS8-A2S

		L1 For one piping block																		L2 For two piping blocks															
Number of mods		0		1		2		3		4		5		6		7		8		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	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	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	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	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	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	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	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	6.969	9.843	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	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	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	8.346	10.827	9.744	11.811	10.630	12.795	11.518	13.780	12.402	14.764	13.287	15.748	14.173	16.732	15.059	16.732	15.945	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	8.976	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	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	9.606	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	9.488	11.811	10.888	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	10.236	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	10.118	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	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	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	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	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	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	12.008	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	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	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	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	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	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	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	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	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	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	15.157	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	15.906	18.701	17.303	19.685	18.189	20.669	19.075	21.654	19.961	21.654	20.848	22.638	21.732	23.622	22.618	24.606	23.504	25.591
	19	15.787	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	16.535	18.701	17.933	19.685	18.819	20.669	19.705	21.654	20.591	22.638	21.478	23.622	22.362	24.606	23.248	25.591	24.134	26.575
	20	16.417	18.701	17.815	19.685	18.701	20.669	19.587	21.654	20.472	22.638	21.359	23.622	22.244	24.606	23.130	25.591	24.016	26.575	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

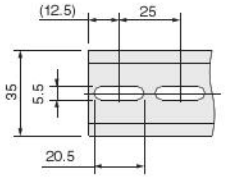
● F15 Series Easy Assembly Manifold with I/O Terminal

F15M [Valve units] XT [J / M / L] [Pilot specification] (base piping type)

Manifold outlet port with dual use fitting block
(EtherCAT, EtherNet/IP) * The figures show EtherCAT.



When -JT is selected
(F15ZX-PJ-TK-□)



-DR: DIN rail mounting hole dimensions

Examples of models in illustration
F15M4XTJ-JR-K3-4-W

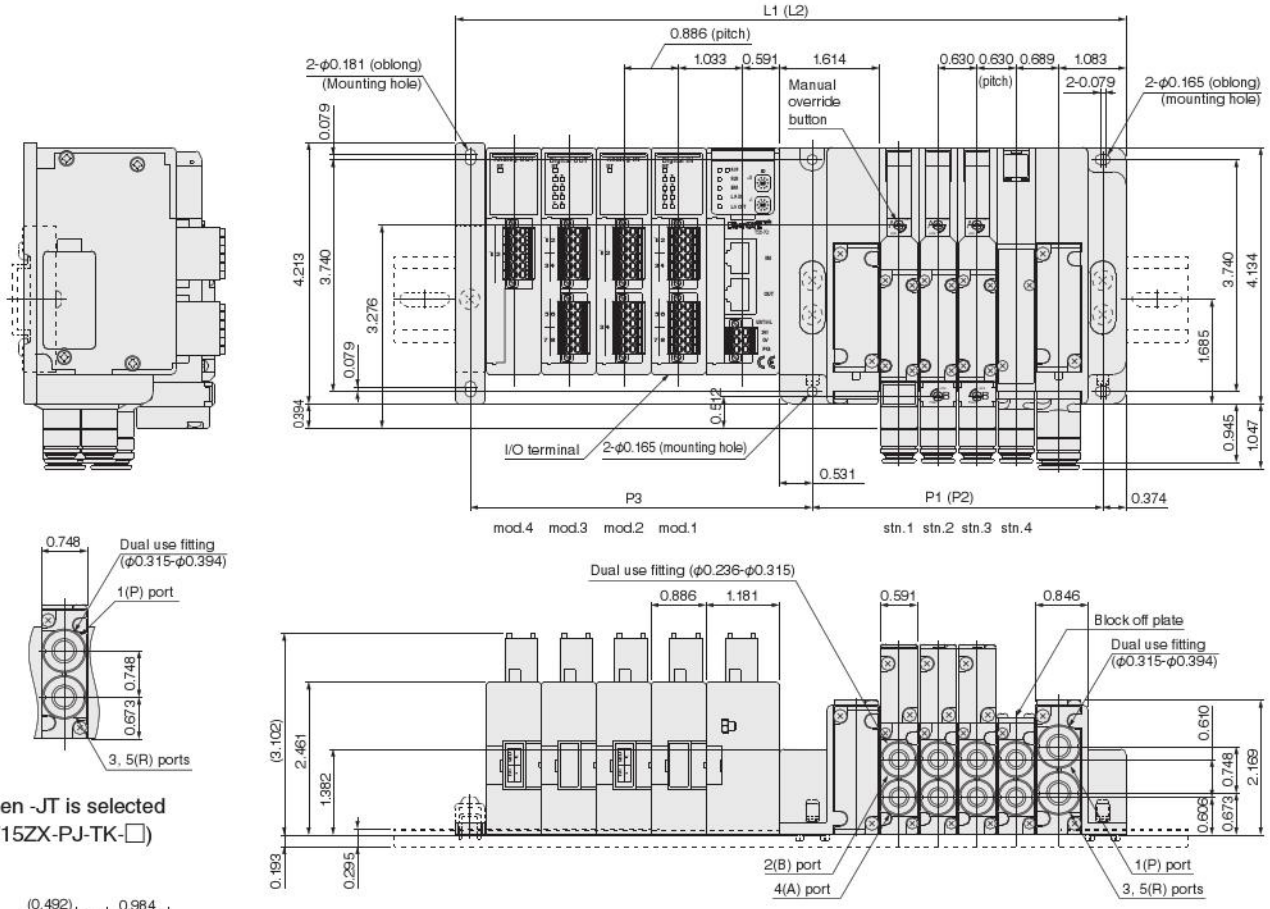
stn.1	F15T1-A1/DC24V	mod.1	YS8-D8N
stn.2	F15T2-A1/DC24V	mod.2	YS8-A4N
stn.3	F15T3-A1/DC24V	mod.3	YS8-D8S
stn.4	F15xBPP	mod.4	YS8-A2S

		if without intermediate piping block																				if with intermediate piping block																
Number of mods		0		1		2		3		4		5		6		7		8		P1	0		1		2		3		4		5		6		7		8		P2
	P3	-		72.5		95		117.5		140		162.5		185		207.5		230			-		72.5		95		117.5		140		162.5		185		207.5		230		
Dimension location		L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN		L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	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	158	225	191	250	213.5	275	236	300	258.5	300	281	325	303.5	350	326	375	348.5	400	103	159	225	194	250	216.5	275	239	300	261.5	325	284	350	306.5	350	329	375	351.5	400	108
	4	172	250	207	250	229.5	275	252	300	274.5	325	297	350	319.5	375	342	400	364.5	425	119	175	250	210	275	232.5	275	255	300	277.5	325	300	350	322.5	375	345	400	367.5	425	122
	5	188	250	223	275	245.5	300	268	325	290.5	350	313	375	335.5	400	358	400	380.5	425	135	191	250	226	275	248.5	300	271	325	293.5	350	316	375	338.5	400	361	425	383.5	425	138
	6	204	275	239	300	261.5	325	284	350	306.5	350	329	375	351.5	400	374	425	396.5	450	151	207	275	242	300	264.5	325	287	350	309.5	375	332	375	354.5	400	377	425	399.5	450	154
	7	220	275	255	300	277.5	325	300	350	322.5	375	345	400	367.5	425	390	450	412.5	475	167	223	300	258	300	280.5	325	303	350	325.5	375	348	400	370.5	425	393	450	415.5	475	170
	8	236	300	271	325	293.5	350	316	375	338.5	400	361	425	383.5	425	406	450	428.5	475	183	239	300	274	325	296.5	350	319	375	341.5	400	364	425	386.5	450	409	475	431.5	475	186
	9	252	325	287	350	309.5	375	332	375	354.5	400	377	425	399.5	450	422	475	444.5	500	199	255	325	290	350	312.5	375	335	400	357.5	400	380	425	402.5	450	425	475	447.5	500	202
	10	268	325	303	350	325.5	375	348	400	370.5	425	393	450	415.5	475	438	500	460.5	525	215	271	325	306	350	328.5	375	351	400	373.5	425	396	450	418.5	475	441	500	463.5	525	218
	11	284	350	319	375	341.5	400	364	425	386.5	450	409	475	431.5	475	454	500	476.5	525	231	287	350	322	375	344.5	400	367	425	389.5	450	412	475	434.5	500	457	500	479.5	525	234
	12	300	375	335	400	357.5	400	380	425	402.5	450	425	475	447.5	500	470	525	492.5	550	247	303	375	338	400	360.5	425	383	425	405.5	450	428	475	450.5	500	473	525	495.5	550	250
	13	316	375	351	400	373.5	425	396	450	418.5	475	441	500	463.5	525	486	550	508.5	550	263	319	375	354	400	376.5	425	399	450	421.5	475	444	500	466.5	525	489	550	511.5	575	266
	14	332	400	367	425	389.5	450	412	475	434.5	500	457	500	479.5	525	502	550	524.5	575	279	335	400	370	425	392.5	450	415	475	437.5	500	460	525	482.5	525	505	550	527.5	575	282
	15	348	425	383	425	405.5	450	428	475	450.5	500	473	525	495.5	550	518	575	540.5	600	295	351	425	386	450	408.5	450	431	475	453.5	500	476	525	498.5	550	521	575	543.5	600	298
	16	364	425	399	450	421.5	475	444	500	466.5	525	489	550	511.5	575	534	600	556.5	600	311	367	425	402	450	424.5	475	447	500	469.5	525	492	550	514.5	575	537	600	559.5	625	314
	17	380	450	415	475	437.5	500	460	525	482.5	525	505	550	527.5	575	550	600	572.5	625	327	383	450	418	475	440.5	500	463	525	485.5	550	508	550	530.5	575	553	600	575.5	625	330
	18	396	450	431	475	453.5	500	476	525	498.5	550	521	575	543.5	600	566	625	588.5	650	343	399	475	434	500	456.5	500	479	525	501.5	550	524	575	546.5	600	569	625	591.5	650	346
	19	412	475	447	500	469.5	525	492	550	514.5	575	537	600	559.5	625	582	625	604.5	650	359	415	475	450	500	472.5	525	495	550	517.5	575	540	600	562.5	625	585	650	607.5	650	362
	20	428	500	463	525	485.5	550	508	550	530.5	575	553	600	575.5	625	598	650	620.5	675	375	431	500	466	525	488.5	550	511	575	533.5	575	556	600	578.5	625	601	650	623.5	675	378
	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	447	525	482	525	504.5	550	527	575	549.5	600	572	625	594.5	650	617	675	639.5	700	394

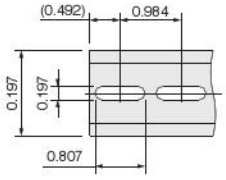
● F15 Series Easy Assembly Manifold with I/O Terminal

F15M Valve units XT J M L Pilot specification (base piping type)

Manifold outlet port with dual use fitting block
(EtherCAT, EtherNet/IP) * The figures show EtherCAT.



When -JT is selected
(F15ZX-PJ-TK-□)



-DR: DIN rail mounting hole dimensions

Examples of models in illustration
F15M4XTJ-JR-K3-4-W

stn.1	F15T1-A1/DC24V	mod.1	YS8-D8N
stn.2	F15T2-A1/DC24V	mod.2	YS8-A4N
stn.3	F15T3-A1/DC24V	mod.3	YS8-D8S
stn.4	F15xBPP	mod.4	YS8-A2S

		if without intermediate piping block																				if with intermediate piping block																	
Number of mods		0		1		2		3		4		5		6		7		8		P1	0		1		2		3		4		5		6		7		8		P2
	P3	-		72.5		95		117.5		140		162.5		185		207.5		230			-		72.5		95		117.5		140		162.5		185		207.5		230		
Dimension location		L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN	L1	DIN		L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	DIN	L2	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	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	4.173
	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	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	4.803
	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	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	5.433
	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	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	6.063
	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	8.780	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	6.693
	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	9.409	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	7.323
	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	10.039	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	7.953
	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	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	8.583
	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	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	9.213
	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	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	9.843
	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	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	10.472
	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	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	11.102
	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	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	11.732
	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	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	12.362
	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	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	12.992
	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	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	13.622
	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	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	14.252
	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	16.969	19.685	18.348	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	14.882
	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.598	20.669	18.978	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	15.512

MEMO

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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