KOGANEI

https://www.koganeiusa.com

No.BK-P417BU

NEW Products

# I/O Terminal

## YS8・YS9

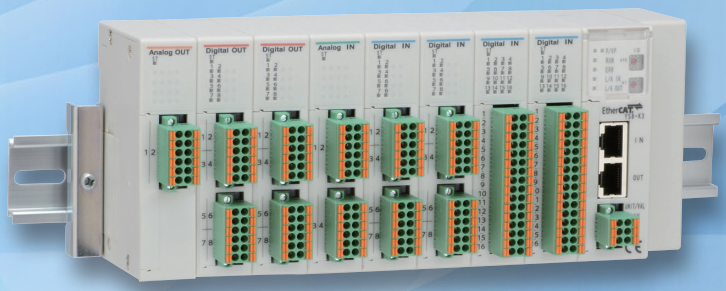
**Consolidates valve output and end-point electrical signals to help reduce wiring**

**Now featuring our new YS9!**

- **Equipped with M12 connectors**
- **IP65/67 compliant**

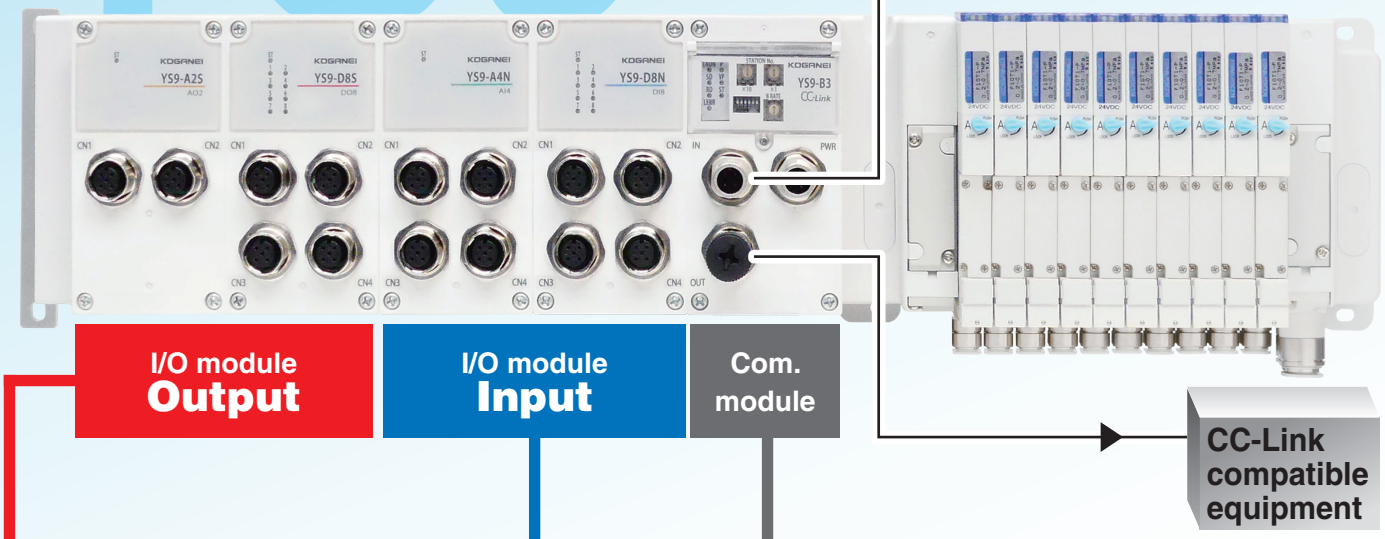
YS9

YS8



# I/O Terminal YS9

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




## Communication module

CC-Link, input/output module supported
YS9-B3

## Digital output

- 8 points
  - Sink type YS9-D8S
  - Source type YS9-D8S-M

## Digital input

- 8 points
  - NPN type YS9-D8N
  - PNP type YS9-D8N-P

## Analog output

- 2 points (switchable between 0-5 V, 0-10 V, and 0-20 mA)
  YS9-A2S

## Analog input

- 4 points (switchable between 0-5 V/0-10 V/0-20 mA)
  YS9-A4N

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

# Two usage methods available

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

**I/O terminal with valves**

**Order Codes ••• Pages ⑦ ⑪**

**I/O terminal**

**Order Codes ••• Page ⑭**

# DIN rail mounting or direct mounting can be selected

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

**DIN rail mounting**

**Direct mounting**

# Complies with protection rating IP65/67

**What is a protection rating (from IEC60529)**

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

Protection rating code
(International Protection)

**IP6** □

The "Second digit" is the protection rating against water ingress[Note]

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

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

The "First digit" is the protection rating against solid foreign object ingress

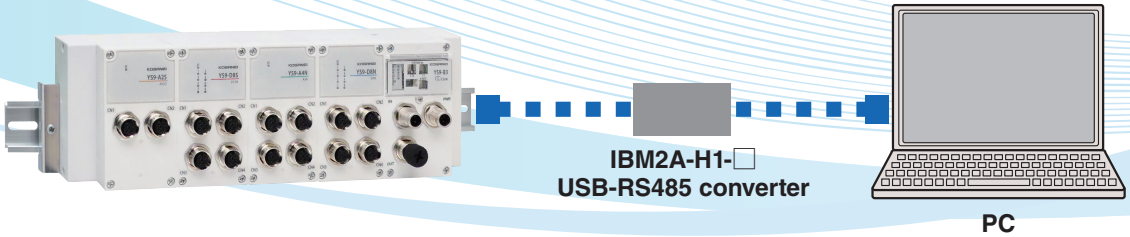
Dust cannot enter the interior.

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

# Configuration and diagnostics using dedicated support software

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

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



## ■ General specifications

| Item | Specifications |
|---|---|
| Operating temperature range | 5 to 50°C [41 to 122°F] |
| Operating humidity range | 35 to 85% RH (no condensation) |
| Operating atmosphere | No corrosive gases and no excessive dust |
| Vibration resistance | 49.0 m/s$^2$ [5 G] |
| Shock resistance | 98.1 m/s$^2$ [10 G] |
| Dielectric strength | 1000 VAC for 1 minute (between all external terminals and the case) |
| Noise resistance | IEC61000-4-4 compliant, level 3 |
| Insulation resistance | 10 MΩ or more (between all external terminals and the case, using a 500 VDC insulation tester) |
| Standards | CE marking compliant |
| Protection rating | IP65/67 |
| Tightening torque for M12 connectors | 0.4 N·m [3.540 in·lbf] |

## ■ Communication module specifications

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

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

## ■Digital input module specifications

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

Note: Excluding load supply current

Digital Input × 8 points

## ■Analog input module specifications

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

Note: Excluding load supply current

Analog Input × 4

## ■Digital output module specifications

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

Note: Excluding load supply current

Digital Output × 8

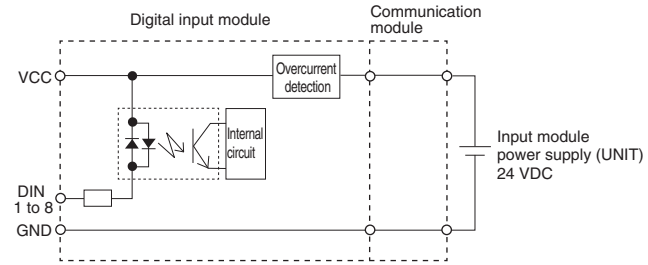
## ■Analog output module specifications

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

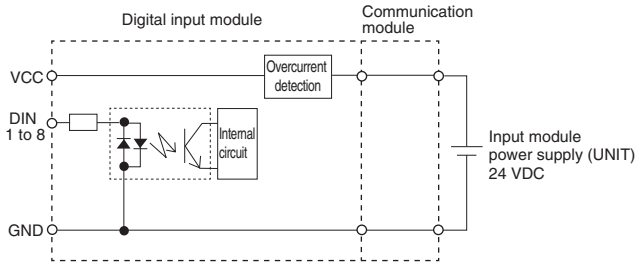
Note: Excluding load supply current

Analog Output × 2

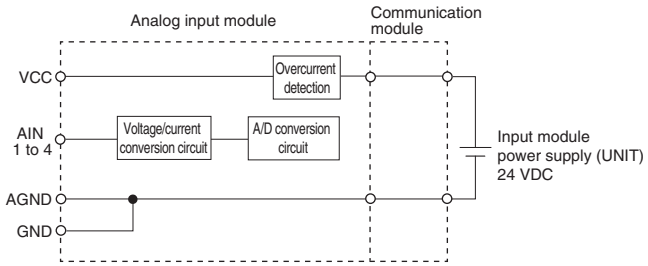
## YS9-D8N



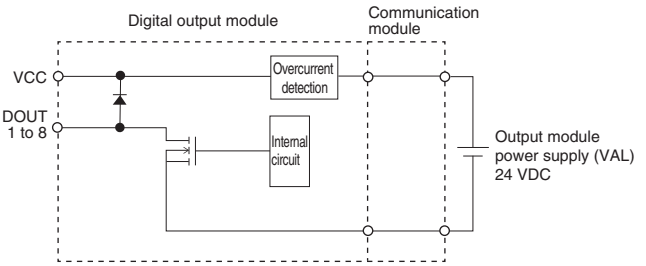

## YS9-D8N-P



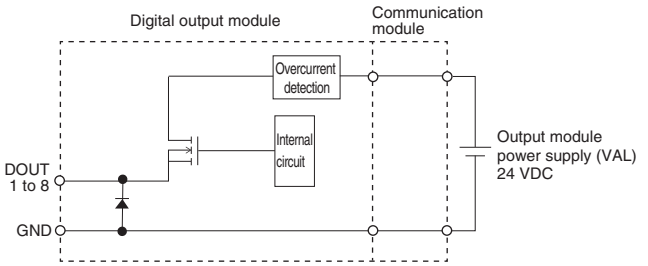

## YS9-A4N



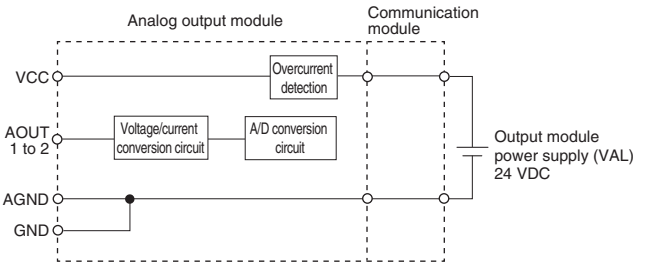

## YS9-D8S




## YS9-D8S-M



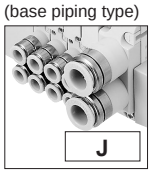

## YS9-A2S



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

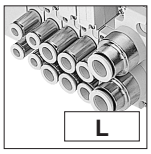
## ■ Manifold output specification

With dual use fitting blocks (base piping type)



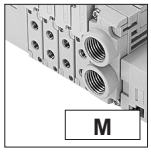

**Outlet port fitting**
**F10**: $\phi$4, $\phi$6

With selectable fittings (base piping type)




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

With female thread blocks (base piping type)




**Outlet port female thread**
**F10**: M5 x 0.8

With plates (direct piping type)


## ■ Pilot specification

**Blank**
Internal pilot manifold

**G**
External pilot manifold

### ■ Piping block specification (air supply and exhaust)

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

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

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

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

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

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

## ■ Communication specification

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

## ■ Number of modules specifications

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

NOTE

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

## ■ Mounting specification

**Blank**
Direct mounting

**-DN**
With DIN brackets (without rails)

**-DR**
With DIN brackets, with rails
Note: For details of rails to be assembled and shipped, see page ⑳.

## ■ 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 | Number of units | Manifold outlet specification | Pilot specification | Piping block specification | Communication specification | Number of modules specifications | Wiring connection specification | Mounting specification |
|---|---|---|---|---|---|---|---|---|
| Manifold model | | | | | | | | |
| Base piping type | F10M | XU (※Rc) | J<br>M | Blank<br>G | -JR -J5R -JT<br>-JL -J5L -J5T<br>-JD -J5D -J6T<br>-MR -J6R -MT<br>-ML -J6L<br>-MD -J6D | -B3P | Blank<br>-1~-8 | Blank<br>-W | Blank<br>-DN<br>-DR |
| Base piping type selectable fitting | F10M | XU (※Rc)<br>XUH (※NPT)<br>Only L or Blank is available in the inch female thread specification and the manifold outlet specification. | L | Blank<br>G | -JR -MLH Note12 -J6D<br>-JL -MDH Note12 -JT<br>-JD -J5R -J5T<br>-MR -J5L -J6T<br>-ML -J5D -MT<br>-MD -J6R -MTH Note12<br>-MRH Note12 -J6L | -B3P | Blank<br>-1~-8 | Blank<br>-W | Blank<br>-DN<br>-DR |
| Direct piping type | F10M | XU (※Rc)<br>XUH (※NPT)<br>Only L or Blank is available in the inch female thread specification and the manifold outlet specification. | Blank | Blank<br>G | -JR -MLH Note12 -J6D<br>-JL -MDH Note12 -JT<br>-JD -J5R -J5T<br>-MR -J5L -J6T<br>-ML -J5D -MT<br>-MD -J6R -MTH Note12<br>-MRH Note12 -J6L | -B3P | Blank<br>-1~-8 | Blank<br>-W | Blank<br>-DN<br>-DR |

For Number of units: 2 : : □ Note 1

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

## Valve specification

**T0**: 2-position, for single solenoid only
**T1**: 2-position, single solenoid specification
**T2**: 2-position, double solenoid specification
**T3**: 3-position, closed center
**T4**: 3-position, exhaust center
**T5**: 3-position, pressure center
**TA**: Tandem 3-port (NC and 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**: $\phi$4, $\phi$6 |
| **-FJ5** | With single use fitting block (direct piping type) | **F10**: $\phi$4 |
| **-FJ6** | With single use fitting block (direct piping type) | **F10**: $\phi$6 |
| **-FM** | With female thread blocks (direct piping type) | **F10**: M5 x 0.8 |
| **-FMH** | With female thread blockNote12 (direct piping type) | **F10**: 10-32UNF |

**3-port specification**Note 10

| | | |
|---|---|---|
| **-FJ5A** | With single use fitting block, normally closed (NC) (direct piping type) | **F10**: $\phi$4 |
| **-FJ5B** | With single use fitting block, normally open (NO) (direct piping type) | **F10**: $\phi$4 |
| **-FJ6A** | With single use fitting block, normally closed (NC) (direct piping type) | **F10**: $\phi$6 |
| **-FJ6B** | With single use fitting block, normally open (NO) (direct piping type) | **F10**: $\phi$6 |
| **-FMA** | With female thread block, normally closed (NC) (direct piping type) | **F10**: M5 x 0.8 |
| **-FMAH** | With female thread block, normally closed (NC)Note12 (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)Note12 (direct piping type) | **F10**: 10-32UNF |

## Manifold fitting specification

**5-port specification**

| | | |
|---|---|---|
| **-J5** | With single use fitting block (base piping type) | **F10**: $\phi$4 |
| **-J6** | With single use fitting block (base piping type) | **F10**: $\phi$6 |
| **-M** | With female thread blocks (base piping type) | **F10**: M5 x 0.8 |
| **-MH** | With female thread blockNote12 (base piping type) | **F10**: 10-32UNF |

**3-port specification**Note 10

| | | |
|---|---|---|
| **-J5A** | With single use fitting block, normally closed (NC) (base piping type) | **F10**: $\phi$4 |
| **-J5B** | With single use fitting block, normally open (NO) (base piping type) | **F10**: $\phi$4 |
| **-J6A** | With single use fitting block, normally closed (NC) (base piping type) | **F10**: $\phi$6 |
| **-J6B** | With single use fitting block, normally open (NO) (base piping type) | **F10**: $\phi$6 |
| **-MA** | With female thread block, normally closed (NC) (base piping type) | **F10**: M5 x 0.8 |
| **-MAH** | With female thread block, normally closed (NC)Note12 (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)Note12 (base piping type) | **F10**: 10-32UNF |

## 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 valve

## Block off plate wiring specification

**Blank**: Double wiring
**-S** : Single wiring

| Station | Valve size | Valve specification | Operation type | IP specifications | Manual override | Valve outlet type | Manifold fitting specification | Back pressure prevention valve | Port isolator | Block off plate wiring specification | Voltage |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mounting valve model | | | | | | | | | | | |
| stn. 1 ⋮ stn.□ Note 2 | F10 F10L | T0 T1 T2 T3 T4 T5 TA TB TC Note 9 | Blank Note 7 G Note 8 | P Note 11 | Blank -R Note 5 | -A1 Note 3 | Blank -E2 | | Blank -XSP Note 6 -XSR Note 6 -XSA Note 6 | DC24V | |
| | F10 | XBPP-P (for block-off plate)Note 4 | | | | | | | | Blank -S | |
| | If selecting an intermediate piping block, see page ⑨ to enter information. | | | | | | | | | | |
| stn. 1 ⋮ stn.□ Note 2 | F10 F10L | T0 T1 T2 T3 T4 T5 TA TB TC Note 9 | Blank Note 7 G Note 8 | P Note 11 | Blank -R Note 5 | -A1 Note 3 | -J5 -J6 -M -MH Note12 -J5A -J5B -J6A -J6B -MA -MAH Note12 -MB -MBH Note12 | Blank -E2 | Blank -XSP Note 6 -XSR Note 6 -XSA Note 6 | DC24V | |
| | F10 | XBPP-P (for block-off plate)Note 4 | | | | | | | | Blank -S | |
| | If selecting an intermediate piping block, see page ⑨ to enter information. | | | | | | | | | | |
| stn. 1 ⋮ stn.□ Note 2 | F10 F10L | T0 T1 T2 T3 T4 T5 TA TB TC Note 9 | Blank Note 7 G Note 8 | P Note 11 | Blank -R Note 5 | -FJ -FJ5 -FJ6 -FM -FMH Note12 -FJ5A -FJ5B -FJ6A -FJ6B -FMA -FMAH Note12 -FMB -FMBH Note12 | Blank -E2 | | Blank -XSP Note 6 -XSR Note 6 -XSA Note 6 | DC24V | |
| | F10 | XBPP-P (for block-off plate)Note 4 | | | | | | | | Blank -S | |
| | If selecting an intermediate piping block, see page ⑨ to enter information. | | | | | | | | | | |

Notes: 6. Port isolators can be installed only when piping blocks are mounted on both sides. In addition, only 1 port isolator can be mounted in 1 manifold for **-XSA**, or 1 each port isolator for **-XSP** and **-XSR** for a total of 2 locations. When shipping, the designated port isolators are mounted between the designated station and the station to its immediate left (the next smaller stn. No.).
7. Cannot be mounted on the external pilot manifold.
8. Cannot be mounted on the internal pilot manifold.
9. Not available in external pilot type.
10. The 3-port specifications are only available in the valve specification **T0**, **T1**, and **T2**.
11. Provides an IP65/67 protection structure around the electrical equipment, preventing the ingress of solid foreign objects and water from external sources.
12. Can be selected only when the manifold type is **XUH**.

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

## Intermediate piping block

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

**F 10 ZX □ - □ - TK - □**

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

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

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

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

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

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

## Indicating I/O modules

**■ Input/output**

**-D8N** : Digital Input × 8

**-D8S** : Digital Output × 8

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

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

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

**■ Wiring specifications**

**Input: -D8N**
**Blank** : NPN type
**-P** : PNP type

**Output: -D8S**
**Blank** : Sink type (load side + common)
**-M** : Source type (load side - common)

| Module | Standard model | Input/ output | Wiring specifications |
|---|---|---|---|
| I/O module models to mount | | | |
| mod.1 ⋮ mod.□ | YS9 | -D8N | Blank -P |
| | | -D8S | Blank -M |
| | | -A4N -A2S | |

## ■ Maximum Number of Units for Communication Specification

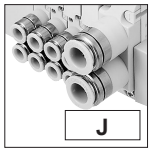
| Communication specification | Maximum control points | Maximum number of units: Wiring connection specification: Packed wiring (blank) | Maximum number of units: Wiring connection specification: Double wiring (-W) |
|---|---|---|---|
| **-B3P**: CC-Link (32 outputs) supported | 32 points | Varies depending on the number of single solenoids, double solenoids, and block off plates that are mounted.<br>Specify a number of units so that the number of solenoids being controlled does not exceed the maximum number of control units.<br>**-B3P** have a maximum of 20 connected units. | 16 units |

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

*The photos show the F10 series.

## Manifold output specification

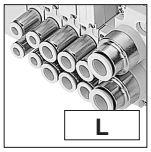
With dual use fitting blocks (base piping type)



**J**

**Outlet port fitting**
**F15**: $\phi$6, $\phi$8

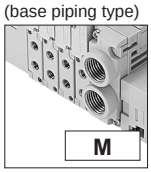
With selectable fittings (base piping type)



**L**

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

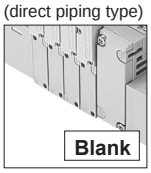
With female thread blocks (base piping type)



**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), $\phi$8, $\phi$10

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

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

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

**-J6R** : Single use fitting, right-side mounting
**-J6L** : Single use fitting, left-side mounting
**-J6D** : Single use fitting, both-side mounting
Fitting size (1(P), 3, 5(R) ports), $\phi$10

**Intermediate piping block**
**-JT** : Dual use fitting, both-side mounting, intermediate piping block $\phi$8, $\phi$10
**-J5T** : Single use fitting, both-side mounting, intermediate piping block $\phi$8
**-J6T** : Single use fitting, both-side mounting, intermediate piping block $\phi$10
**-MT** : Female thread, both-side mounting, intermediate piping block Rc1/8
**-MTH** : Female thread, both-side mounting, intermediate piping block NPT1/4 Note12

## Communication specification

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

## Number of modules specifications

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

NOTE

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

## Mounting specification

**Blank**
Direct mounting

**-DN**
With DIN brackets (without rails)

**-DR**
With DIN brackets, with rails
Note: For details of rails to be assembled and shipped, see page ㉓.

## Valve size

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

Notes: 1. To determine the maximum number of units, see “Maximum Number of Units for Communication Specification” on page ⑬.
2. Valve mounting location is from the left, with the solenoid on top, and the 4(A), 2(B) port side in front.
3. When selecting **J**, **M**, or **L** (base piping type) for the manifold outlet specifications, always enter **-A1** (with plate) for the valve outlet type.
4. For the wiring connection specification for block off plate, you can select single and double with the block off plate wiring connection specification, apart from the manifold (valve) wiring connection specification.
5. When the valve specification is **T1** or **T2**, the manual override lever is placed only on the A side.

## Valve specification

**T0**: 2-position, for single solenoid only
**T1**: 2-position, single solenoid specification
**T2**: 2-position, double solenoid specification
**T3**: 3-position, closed center
**T4**: 3-position, exhaust center
**T5**: 3-position, pressure center
**TA**: Tandem 3-port (NC and NC)Note 9
**TB**: Tandem 3-port (NO and NO)Note 9
**TC**: Tandem 3-port (NC and NO)Note 9

### Operation type

**Blank**
Internal pilot 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**: $\phi$6, $\phi$8 |
| **-FJ5** | With single use fitting block (direct piping type) **F15**: $\phi$6 |
| **-FJ6** | With single use fitting block (direct piping type) **F15**: $\phi$8 |
| **-FM** | With female thread blocks (direct piping type) **F15**: Rc1/8 |
| **-FMH** | With female thread blockNote12 (direct piping type) **F15**: NPT1/8 |
| **3-port specification**Note 10 | |
| **-FJ5A** | With single use fitting block, normally closed (NC) (direct piping type) **F15**: $\phi$6 |
| **-FJ5B** | With single use fitting block, normally open (NO) (direct piping type) **F15**: $\phi$6 |
| **-FJ6A** | With single use fitting block, normally closed (NC) (direct piping type) **F15**: $\phi$8 |
| **-FJ6B** | With single use fitting block, normally open (NO) (direct piping type) **F15**: $\phi$8 |
| **-FMA** | With female thread block, normally closed (NC) (direct piping type) **F15**: Rc1/8 |
| **-FMAH** | With female thread block, normally closed (NC)Note12 (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)Note12 (direct piping type) **F15**: NPT1/8 |

## Manifold fitting specification

| | |
|---|---|
| **5-port specification** | |
| **-J5** | With single use fitting block (base piping type) **F15**: $\phi$6 |
| **-J6** | With single use fitting block (base piping type) **F15**: $\phi$8 |
| **-M** | With female thread blocks (base piping type) **F15**: Rc1/8 |
| **-MH** | With female thread blockNote12 (base piping type) **F15**: NPT1/8 |
| **3-port specification**Note 10 | |
| **-J5A** | With single use fitting block, normally closed (NC) (base piping type) **F15**: $\phi$6 |
| **-J5B** | With single use fitting block, normally open (NO) (base piping type) **F15**: $\phi$6 |
| **-J6A** | With single use fitting block, normally closed (NC) (base piping type) **F15**: $\phi$8 |
| **-J6B** | With single use fitting block, normally open (NO) (base piping type) **F15**: $\phi$8 |
| **-MA** | With female thread block, normally closed (NC) (base piping type) **F15**: Rc1/8 |
| **-MAH** | With female thread block, normally closed (NC)Note12 (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)Note12 (base piping type) **F15**: NPT1/8 |

## 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 valve

## Block off plate wiring specification

**Blank**: Double wiring
**-S** : Single wiring

| Station | Valve size | Valve specification | Operation type | IP specifications | Manual override | Valve outlet type | Manifold fitting specification | Back pressure prevention valve | Port isolator | Block off plate wiring specification | Voltage |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mounting valve model | | | | | | | | | | | |
| stn. 1 ⋮ stn.□ Note 2 | F15 F15L | T0 T1 T2 T3 T4 T5 TA Note 9 TB Note 9 TC Note 9 | Blank Note 7 G Note 8 | P Note 11 | Blank -R Note 5 | -A1 Note 3 | Blank | Blank -E2 | Blank -XSP Note 6 -XSR Note 6 -XSA Note 6 | Blank -S | DC24V |
| | F15 | XBPP-P (for block-off plate)Note 4 | | | | | | | | | |
| | If selecting an intermediate piping block, see page ⑬ to enter information. | | | | | | | | | | |
| stn. 1 ⋮ stn.□ Note 2 | F15 F15L | T0 T1 T2 T3 T4 T5 TA Note 9 TB Note 9 TC Note 9 | Blank Note 7 G Note 8 | P Note 11 | Blank -R Note 5 | -A1 Note 3 | -J5 -J6 -M -MH Note12 -J5A -J5B -J6A -J6B -MA -MAH Note12 -MB -MBH Note12 | Blank -E2 | Blank -XSP Note 6 -XSR Note 6 -XSA Note 6 | Blank -S | DC24V |
| | F15 | XBPP-P (for block-off plate)Note 4 | | | | | | | | | |
| | If selecting an intermediate piping block, see page ⑬ to enter information. | | | | | | | | | | |
| stn. 1 ⋮ stn.□ Note 2 | F15 F15L | T0 T1 T2 T3 T4 T5 TA Note 9 TB Note 9 TC Note 9 | Blank Note 7 G Note 8 | P Note 11 | Blank -R Note 5 | -FJ -FJ5 -FJ6 -FM -FMH Note12 -FJ5A -FJ5B -FJ6A -FJ6B -FMA -FMAH Note12 -FMB -FMBH Note12 | | Blank -E2 | Blank -XSP Note 6 -XSR Note 6 -XSA Note 6 | Blank -S | DC24V |
| | F15 | XBPP-P (for block-off plate)Note 4 | | | | | | | | | |
| | If selecting an intermediate piping block, see page ⑬ to enter information. | | | | | | | | | | |

Notes: 6. Port isolators can be installed only when piping blocks are mounted on both sides. In addition, only 1 port isolator can be mounted in 1 manifold for **-XSA**, or 1 each port isolator for **-XSP** and **-XSR** for a total of 2 locations. When shipping, the designated port isolators are mounted between the designated station and the station to its immediate left (the next smaller stn. No.).
7. Cannot be mounted on the external pilot manifold.
8. Cannot be mounted on the internal pilot manifold.
9. Not available in external pilot type.
10. The 3-port specifications are only available in the valve specification **T0**, **T1**, and **T2**.
11. Provides an IP65/67 protection structure around the electrical equipment, preventing the ingress of solid foreign objects and water from external sources.
12. Can be selected only when the manifold type is **XUH**.

## Intermediate piping block

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

**F 15 ZX □ - □ - TK - □**

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

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

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

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

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

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

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

## Indicating I/O modules

**■ Input/output**

**-D8N** : Digital Input × 8

**-D8S** : Digital Output × 8

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

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

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

**■ Wiring specifications**

**Input: -D8N**
**Blank** : NPN type
**-P** : PNP type

**Output: -D8S**
**Blank** : Sink type (load side + common)
**-M** : Source type (load side - common)

| Module | Standard model | Input/ output | Wiring specifications |
|---|---|---|---|
| I/O module models to mount | | | |
| mod.1 : : mod.□ | YS9 | -D8N | Blank -P |
| | | -D8S | Blank -M |
| | | -A4N -A2S | |

## ■ Maximum Number of Units for Communication Specification

| Communication specification | Maximum control points | Maximum number of units: Wiring connection specification: Packed wiring (blank) | Maximum number of units: Wiring connection specification: Double wiring (-W) |
|---|---|---|---|
| **-B3P**: CC-Link (32 outputs) supported | 32 points | Varies depending on the number of single solenoids, double solenoids, and block off plates that are mounted.<br>Specify a number of units so that the number of solenoids being controlled does not exceed the maximum number of control units.<br>**-B3P** have a maximum of 20 connected units. | 16 units |

## ● Main body model

**YS9E** □ - □ - □

**Standard model**

**Communication specifications**
**B3** : CC-Link, 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 mounting
**DN** : With DIN brackets (without rails)
**DR** : With DIN brackets (with rails)

## ● Indicating I/O modules to mount

■ **Input/output**

**-D8N** : Digital Input × 8

**-D8S** : Digital Output × 8

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

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

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

■ **Wiring specifications**

**Input: -D8N**

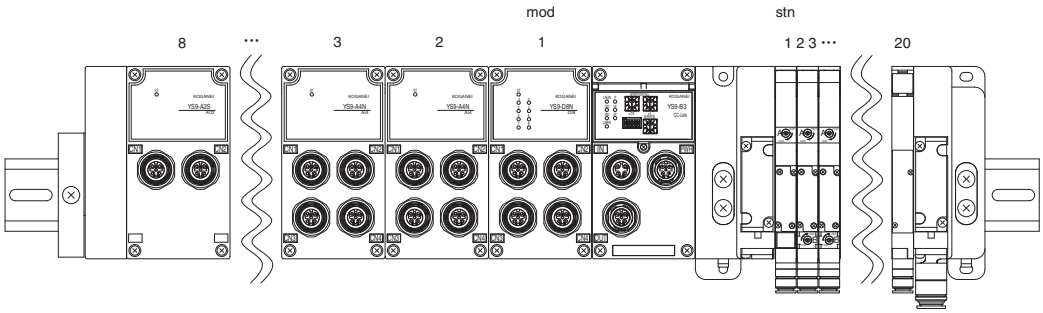
**Blank** : NPN type
**-P** : PNP type

**Output: -D8S**

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

| Module | Standard model | Input/ output | Wiring specifications |
|---|---|---|---|
| I/O module models to mount | | | |
| mod. 1 ⋮ mod.□ | YS9 | -D8N | Blank -P |
| | | -D8S | Blank -M |
| | | -A4N -A2S | |

## ● Arrangement of stn and mod




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

| YS9-A2S | YS9-D8S-□ | YS9-A4N | YS9-D8N-□ | YS9-B3 |
|---|---|---|---|---|
| Output | | Input | | |

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

## ● Communication module single unit

**YS9 - □**

**Mounting type**
**B3** : CC-Link, input/output module supported


## ● I/O module single unit

### Digital input × 8

**YS9 - D8N - □**

**Digital input specifications**
**Blank** : NPN type
**P** : PNP type


### Digital Output × 8

**YS9 - D8S - □**

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


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

**YS9 - A4N**


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

**YS9 - A2S**

## ●Additional parts

### ・Connecting rods (2 pcs per set)

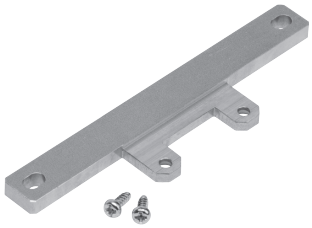
**YS9Z - □**

**Number of I/O modules**
**1** : 1
⋮
**8** : 8

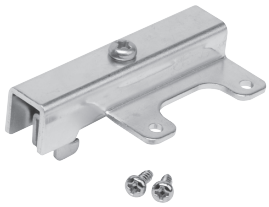
### ・Mounting bracket

**YS9Z - □**

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



YS9Z-DM



YS9Z-DN

### ・Assembly-type connector

**YS9Z - CN □**

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

### ・Cable

**YS9Z - K □ - □**

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

* Type and length combinations are based on the table below

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

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

### ・End block (with small screws)

**YS9Z - □**

**End block specifications**
**RE**: Right side
**LE**: Left side

### ・M12 male waterproof caps (10 pcs)

**YS9Z - SA12**

### ・DIN rail (unit: 1 pc)

**DIN - □**

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

### ・Connector converter

**YS9Z - CV □**

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

YS9Z-CVA

YS9Z-CVB

# Mass

## I/O terminal (not including valves)

g [oz]

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

n: Number of modules

Calculation example: **YS9EB3-8-DR**
**mod.1 YS9-D8N**: **180g**
**mod.2 YS9-A4N**: **180g**
**mod.3 YS9-D8S**: **180g**
**mod.4 YS9-A2S**: **160g**
Total: 1,132g
= 384 + 12 × 4 + 180 + 180 + 180 + 160

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

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

g [oz]

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

n: Number of modules

Calculation example: **F10M8XU-JR-B3P-4-W**
**stn.1** to **8** **F10T1-A1** **24 VDC**
**mod.1** to **4** **YS9-D8N**: **180g** × **4**
Total: 2,194g
(98 × 8) + 310 + 32 ・・・・・・・・・ manifold part
+ 300 + (12 × 4) + (180 × 4) ・・・ I/O terminal part

## F10 series

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

g [oz]

| Mounting option | Calculation of mass for each number of units | | | |
|---|---|---|---|---|
| | Outlet port specifications | | | |
| | Female thread block | Dual use fitting block | $\phi$4 [0.157] fitting block | $\phi$6 [0.236] fitting block |
| No symbol | (86 [3.03] × n) + 227 [8.01] | (90 [3.17] × n) + 227 [8.01] | (92 [3.25] × n) + 227 [8.01] | (95 [3.35] × n) + 227 [8.01] |
| **-DN** | (86 [3.03] × n) + 288 [10.16] | (90 [3.17] × n) + 288 [10.16] | (92 [3.25] × n) + 288 [10.16] | (95 [3.35] × n) + 288 [10.16] |
| **-DR** | (88 [3.10] × n) + 310 [10.93] | (92 [3.25] × n) + 310 [10.93] | (94 [3.32] × n) + 310 [10.93] | (97 [3.42] × n) + 310 [10.93] |

n: Valve units

g [oz]

| Fitting specifications | Mass to add | | | |
|---|---|---|---|---|
| | Air supply and exhaust ports | | | |
| | Female thread block | Dual use fitting block | $\phi$6 [0.236] fitting block | $\phi$8 [0.315] fitting block |
| **J□ M□** | 22 [0.78] | 32 [1.13] | 43 [1.52] | 48 [1.69] |
| **J□D MD** | 26 [0.92] | 46 [1.62] | 68 [2.40] | 78 [2.75] |
| **J□T MT** | 31 [1.09] | 61 [2.15] | 94 [3.32] | 109 [3.84] |

When mounting the block plate, subtract 50 g [1.76 oz] per series from the above calculation result.
When mounting **F10□T0** products, subtract 10 g [0.35 oz] per unit from the above calculation result.

## F15 series

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

| Mounting option | Calculation of mass for each number of units | | | |
|---|---|---|---|---|
| | Outlet port specifications | | | |
| | Female thread block | Dual use fitting block | $\phi$4 [0.157] fitting block | $\phi$6 [0.236] fitting block |
| No symbol | (186 [6.56] × n) + 306 [10.79] | (199 [7.02] × n) + 306 [10.79] | (210 [7.41] × n) + 306 [10.79] | (215 [7.58] × n) + 306 [10.79] |
| **-DN** | (189 [6.67] × n) + 369 [13.02] | (199 [7.02] × n) + 369 [13.02] | (210 [7.41] × n) + 369 [13.02] | (215 [7.58] × n) + 369 [13.02] |
| **-DR** | (192 [6.77] × n) + 391 [13.79] | (201 [7.09] × n) + 391 [13.79] | (213 [7.51] × n) + 391 [13.79] | (218 [7.69] × n) + 391 [13.79] |

n: Valve units

g [oz]

| Fitting specifications | Mass to add | | | |
|---|---|---|---|---|
| | Air supply and exhaust ports | | | |
| | Female thread block | Dual use fitting block | $\phi$6 [0.236] fitting block | $\phi$8 [0.315] fitting block |
| **J□ M□** | 34 [1.20] | 48 [1.69] | 72 [2.54] | 82 [2.89] |
| **J□D MD** | 44 [1.55] | 72 [2.54] | 120 [4.23] | 140 [4.94] |
| **J□T MT** | -27 [-0.95] | 15 [0.53] | 87 [3.07] | 117 [4.13] |

When mounting the block plate, subtract 100 g [3.53 oz] per series from the above calculation result.
When mounting **F10□T0** products, subtract 13 g [0.46 oz] per series from the above calculation result.

## Current consumption calculation

### Calculation example: F10M20XUJ-JR-B3P-8

stn.1 to 20: F10T1P-A1/DC24V

mod.1 to 4: YS9-D8N
mod.5 : YS9-A4N
mod.6 : YS9-D8S
mod.7, 8 : YS9-A2S

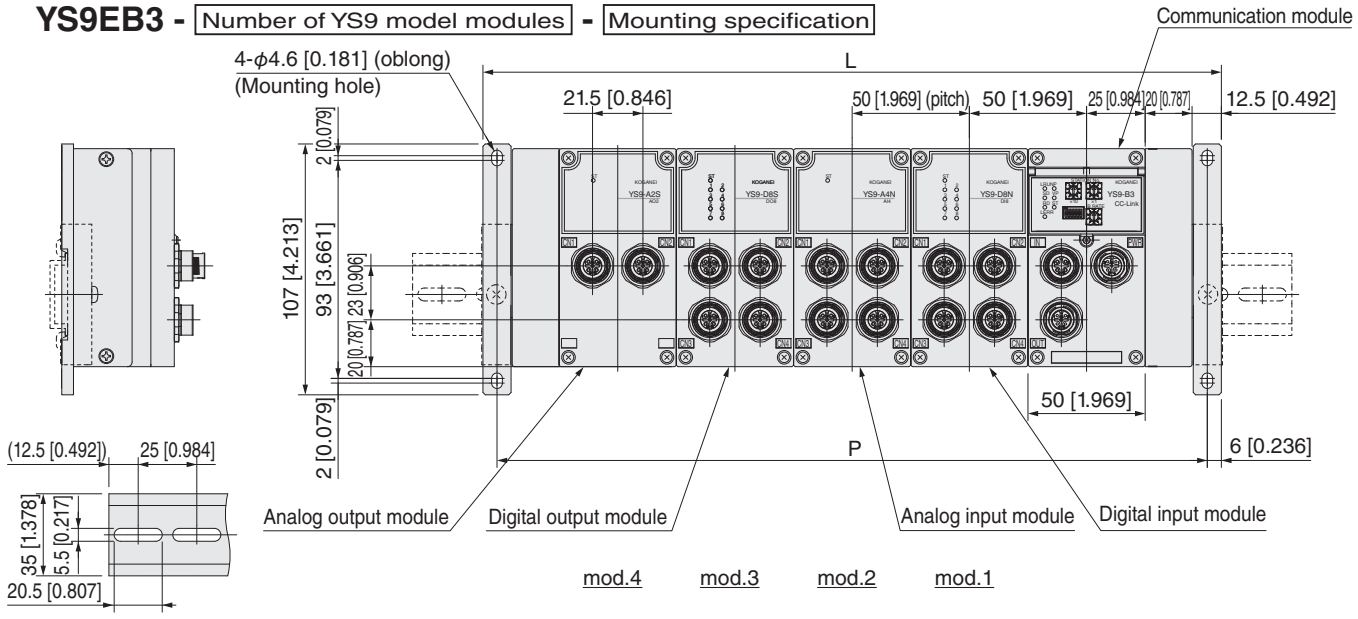
| Number | Module | Model | Internal current consumption (mA) | |
|---|---|---|---|---|
| | | | Power for input | Power for output |
| 0 | F10 20 connected valves | F10T1P-A1DC24V×20 | – | 340 (= 17 mA×20) |
| 0 | Transmission | YS9-M3 | 100 | 10 |
| 1 | Digital input | YS9-D8N | 40 | – |
| 2 | Digital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

Ensure that the total of internal and external consumption currents for both the input power supply and output power supply does not exceed 2A.
Also, select connected devices so that the maximum load current for digital output modules is not exceeded.

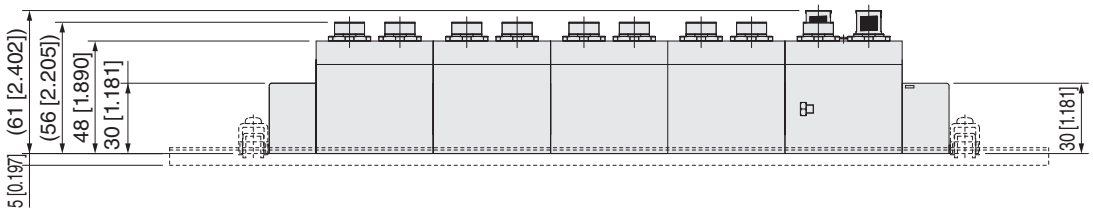
## Dimensions (mm [in.])

### ● I/O terminal (CC-Link communication)

**YS9EB3 -** Number of YS9 model modules **-** Mounting specification




-DR: DIN rail mounting hole dimensions




### Dimensions for each number of I/O modules

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

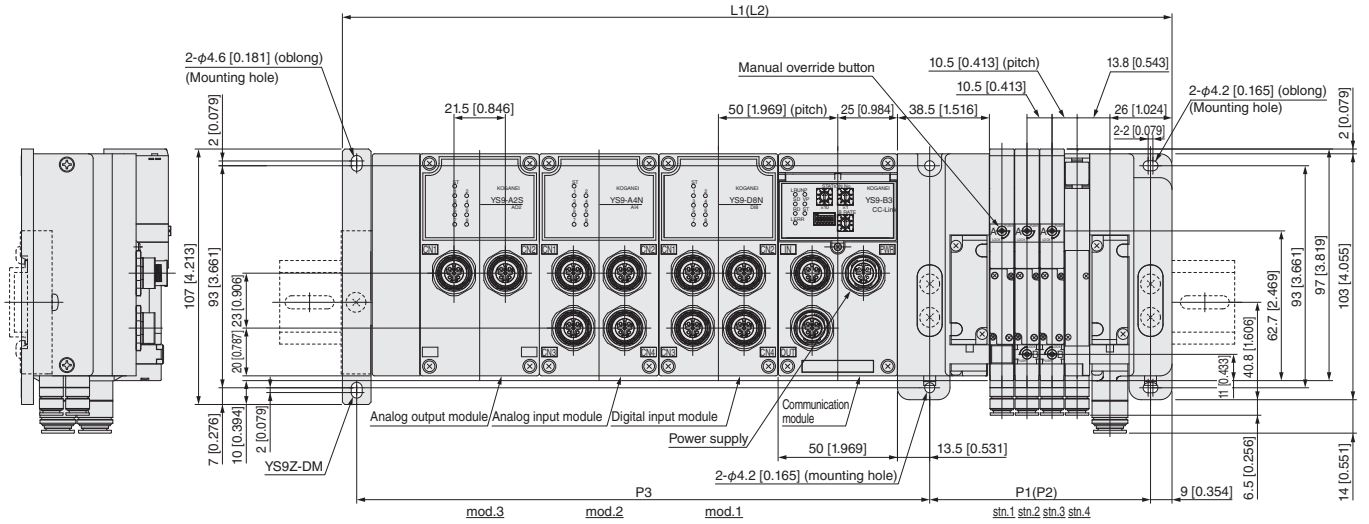
Examples of models in illustration
YS8EB3-4
mod.1 YS9-D8N
mod.2 YS9-A4N
mod.3 YS9-D8S
mod.4 YS9-A2S

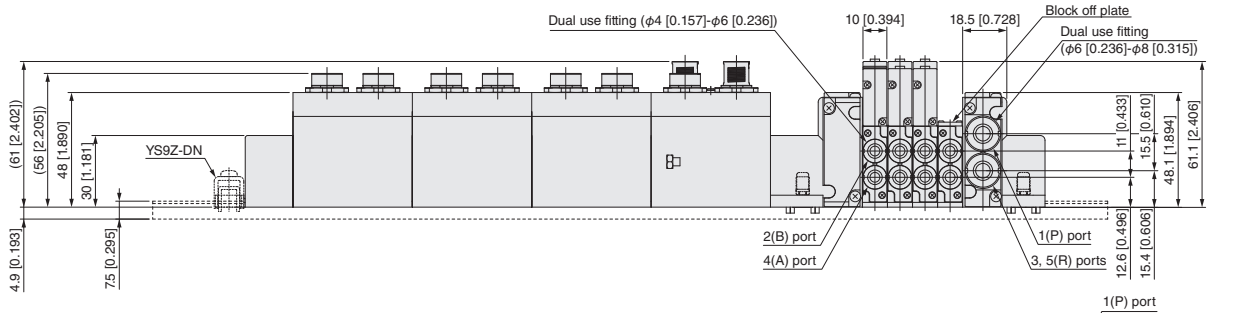
Note 1: Maximum connection is 8 units (however, the maximum for just analog input modules is 4.)
2: For DIN rail mounting, add 1.0 mm [0.039 in.] to L.

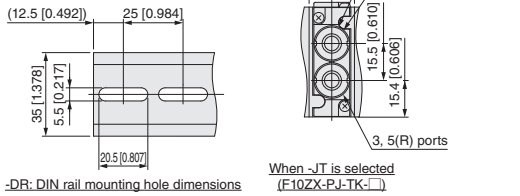
## ● F10 series Easy Assembly Type Manifold with I/O Terminal (IP65/67 compliant)

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

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




Examples of models in illustration
F10M4XUJ-JR-B3P-3-W/DC24V

| | | | |
|---|---|---|---|
| stn.1 | F10T1P-A1/DC24V | mod.1 | YS9-D8N |
| stn.2 | F10T2P-A1/DC24V | mod.2 | YS9-A4N |
| stn.3 | F10T3P-A1/DC24V | mod.3 | YS9-A2S |
| stn.4 | F10XBPP-P | | |

## Dimensions (mm)

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

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

Note 1: L1 and L2 are dimensions for direct mounting installation. For DIN rail mounting, add 0.5 mm.
Except, however, when the mod number is 0.
2: L1 and L2 of mod 0 are the dimensions up to the left end of the communication module.

## Dimensions (in.)

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

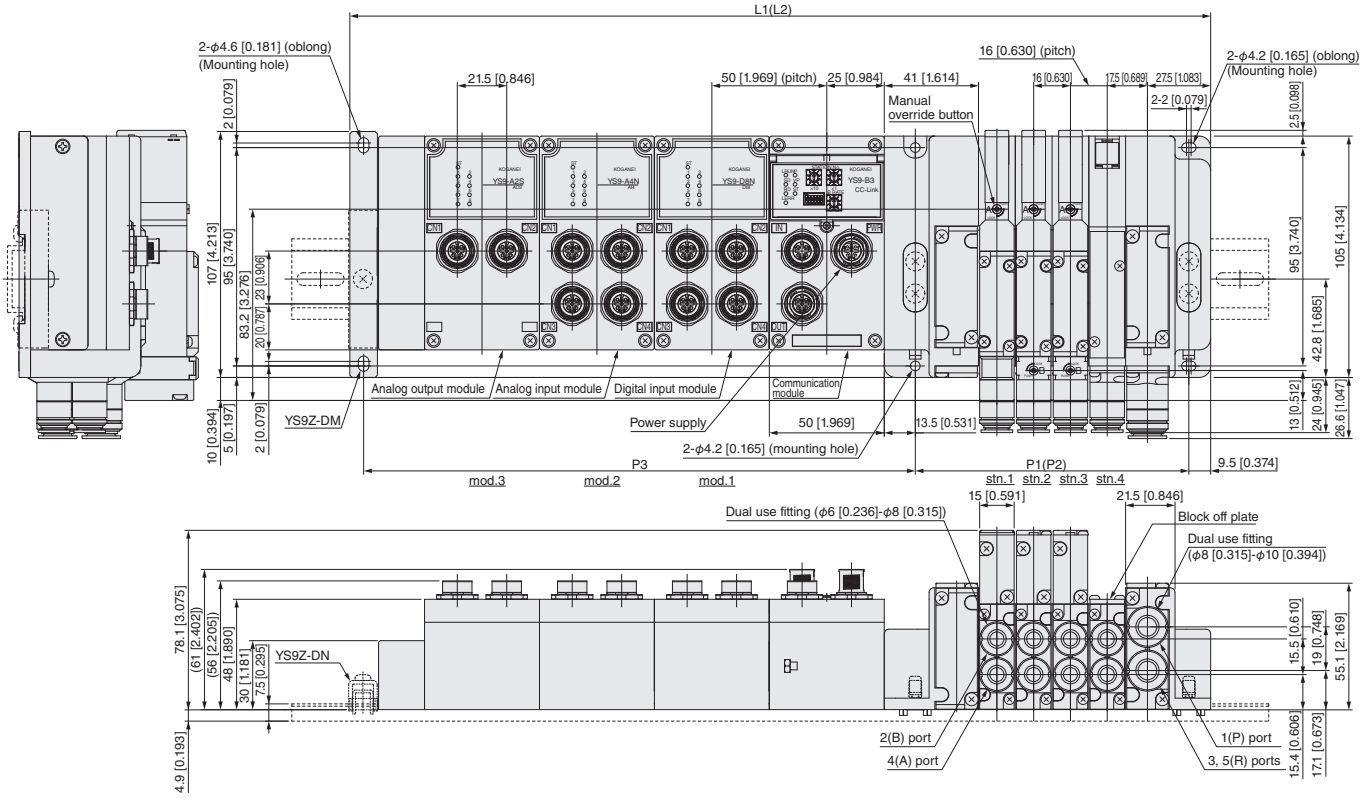
| | | If with intermediate piping block | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of mods | | 0 | | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | P2 |
| | P3 | 90 | | 140 | | 190 | | 240 | | 290 | | 340 | | 390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

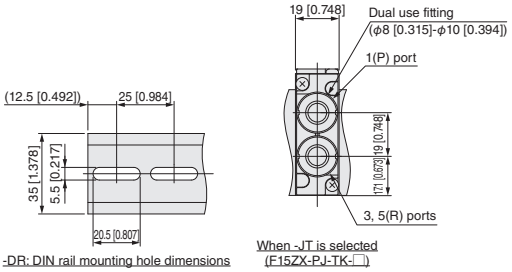
Note 1: L1 and L2 are dimensions for direct mounting installation. For DIN rail mounting, add 0.020 in.
Except, however, when the mod number is 0.
2: L1 and L2 of mod 0 are the dimensions up to the left end of the communication module.

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

**F15M** Valve units **XU** J / M / L Pilot specification (base piping type)

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




Examples of models in illustration
F15M4XUJ-JR-B3P-W-3/DC24V

| | | | |
|---|---|---|---|
| stn.1 | F15T1P-A1/DC24V | mod.1 | YS9-D8N |
| stn.2 | F15T2P-A1/DC24V | mod.2 | YS9-A4N |
| stn.3 | F15T3P-A1/DC24V | mod.3 | YS9-A2S |
| stn.4 | F15XBPP-P | | |

## Dimensions (mm)

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

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

Note 1: L1 and L2 are dimensions for direct mounting installation. For DIN rail mounting, add 0.5 mm.
Except, however, when the mod number is 0.
2: L1 and L2 of mod 0 are the dimensions up to the left end of the communication module.

## Dimensions (in.)

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

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

Note 1: L1 and L2 are dimensions for direct mounting installation. For DIN rail mounting, add 0.020 in.
Except, however, when the mod number is 0.
2: L1 and L2 of mod 0 are the dimensions up to the left end of the communication module.

# I/O Terminal YS8

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

## Digital output

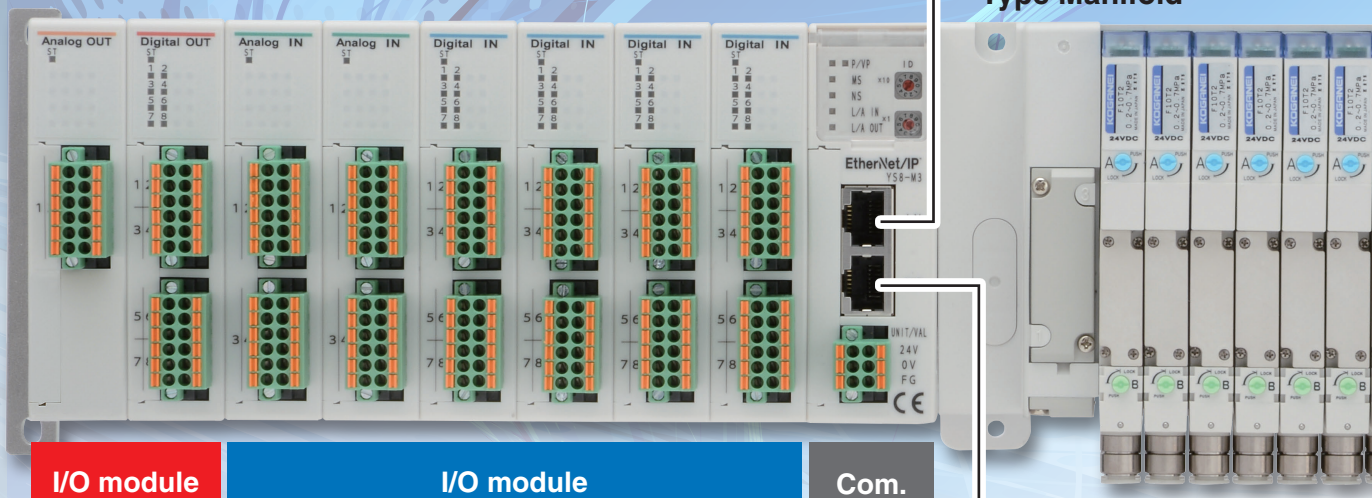
- 8 points — Sink type YS8-D8S
  Source type YS8-D8S-M

## Analog output

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

PLC

Solenoid Valve F10
Easy Assembly
Type Manifold




I/O module **Output**

I/O module **Input**

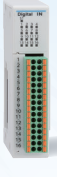
Com. module

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

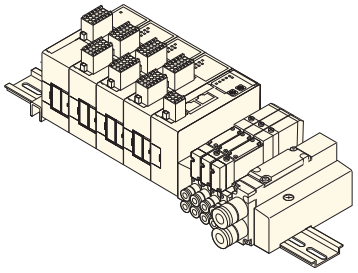
## Communication module

EtherCAT input/output module supported
YS8-K3

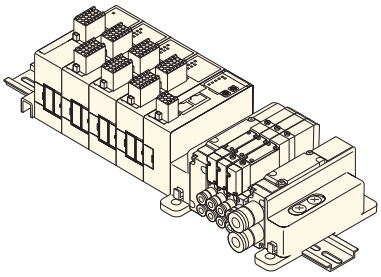
EtherNet/IP input/output module supported
YS8-M3

## Supported solenoid valve manifolds

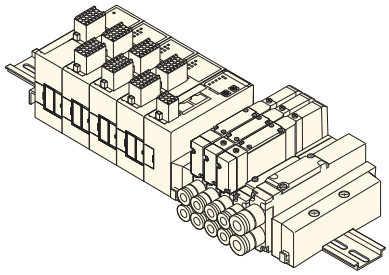
F10 Series Split Type Manifold



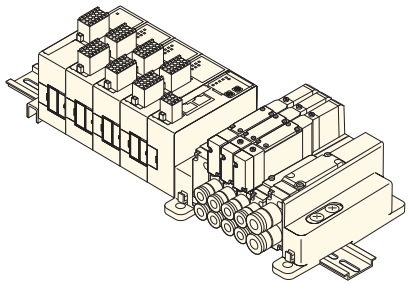
F10 Series Easy Assembly Type Manifold



F15 Series Split Type Manifold



F15 Series Easy Assembly Type Manifold



## Output devices

Solenoid valve

Electro-pneumatic regulator

Other
- Lamp
- Relay
- Buzzer

## Input devices

Pressure switch

Cylinder sensor switch

Other
- Proximity switch
- Photoelectric switch
- Limit switch

■ EtherNet/IP™ is a trademark of ODVA.

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

**Caution**

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

# Two usage methods available

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

**I/O terminal with valves**

**Order Codes ··· Pages ㉛ ㉟**

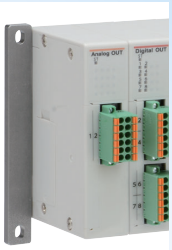
**I/O terminal**

**Order Codes ··· Page ㊻**

# DIN rail mounting or direct mounting can be selected

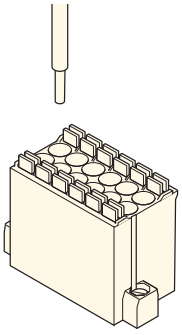
**Select from DIN rail mounting and Direct mounting (6 mounting holes on main body).**

**DIN rail mounting**



**Direct mounting**

# Push-in connection supports wiring without using special tools.



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

**No torque management or tightening is required.**

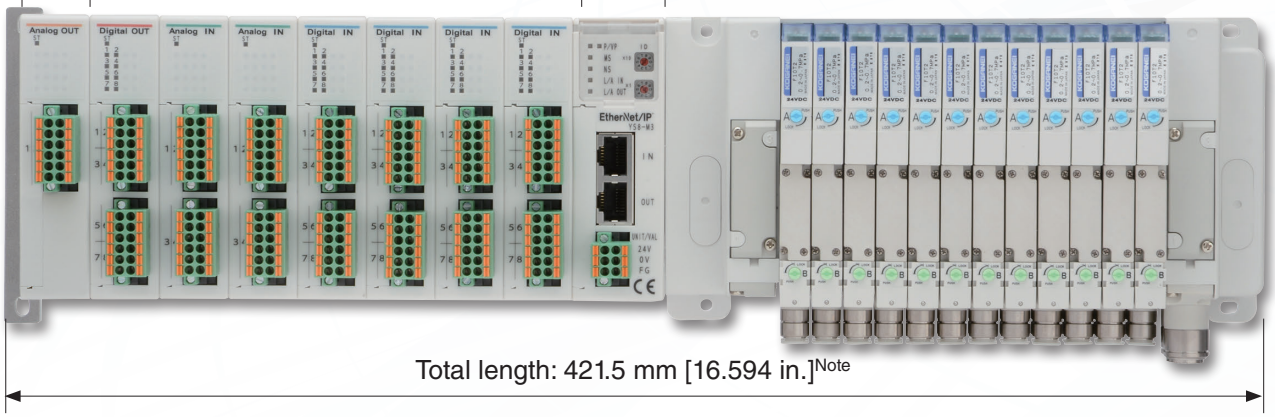
* Insert the wire while pressing the orange button.

Compatible wire size: AW24-16

# The compact design reduces installation space

I/O module
22.5 mm [0.886 in.]

Communication module
30 mm [1.181 in.]




Total length: 421.5 mm [16.594 in.]Note

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

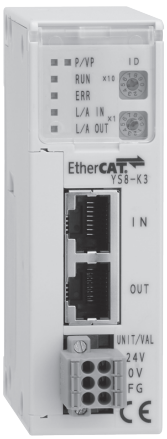
## ■ General specifications

| Item | Specifications |
|---|---|
| Operating temperature range | 5 to 50 °C [41 to 122 °F] |
| Operating humidity range | 35 to 85% RH (no condensation) |
| Operating atmosphere | No corrosive gases and no excessive dust |
| Vibration resistance | 49.0 m/s$^2$ [5 G] |
| Shock resistance | 98.1 m/s$^2$ [10 G] |
| Dielectric strength | 1000 VAC for 1 minute (between all external terminals and the case) |
| Noise resistance | IEC61000-4-4 compliant, level 3 |
| Insulation resistance | 10 MΩ or more (between all external terminals and the case, using a 500 VDC insulation tester) |
| Standards | CE marking compliant |

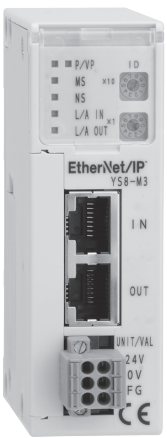


## ■ Communication module specifications

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




K3: EtherCAT input/output module supported




M3: EtherNet/IP input/output module supported

## ■ Digital input module specifications

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

Digital input × 8[*2]

Digital input × 16[*1]

## ■ Analog input module specifications

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

Analog Input × 4

## ■ Digital output module specifications

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

Digital Output × 8

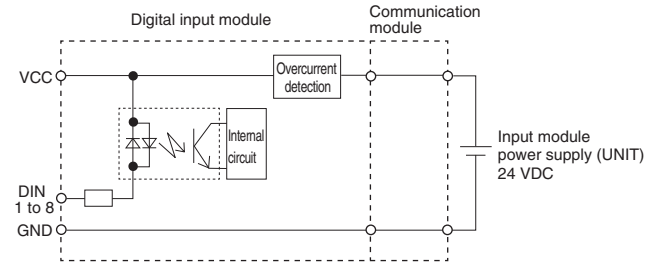
## ■ Analog output module specifications

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

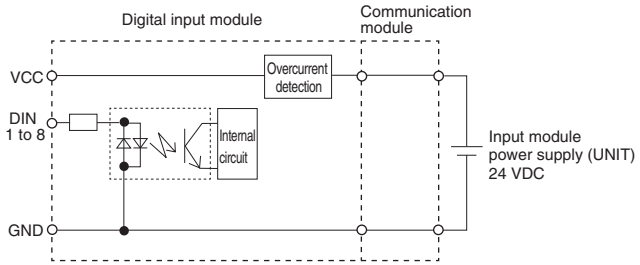
Analog Output × 2

Note: Excluding load supply current

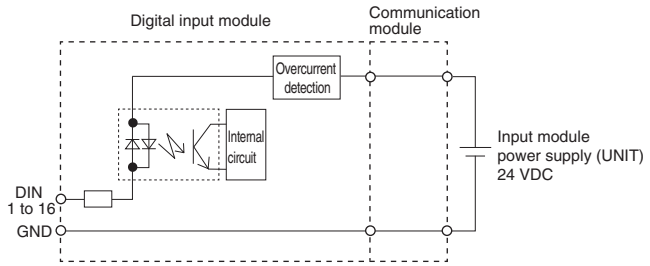
## YS8-D8N



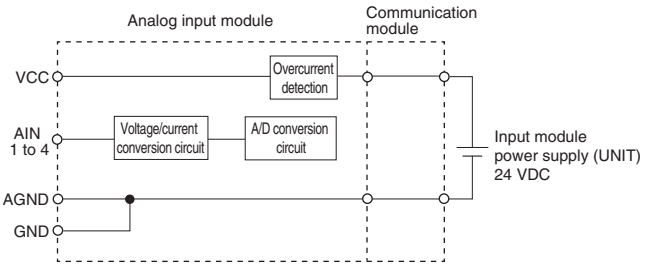

## YS8-D8N-P



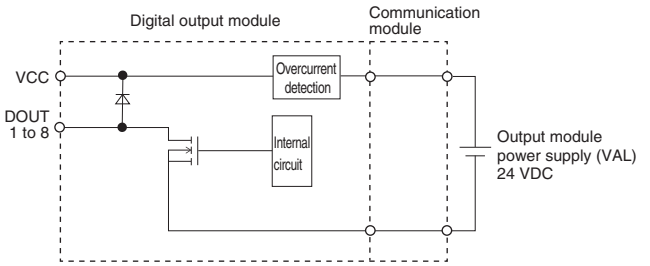

## YS8-D16N



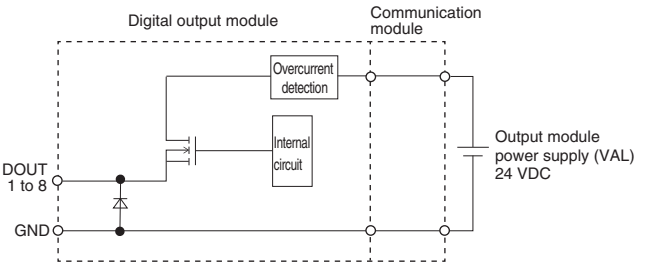

## YS8-A4N



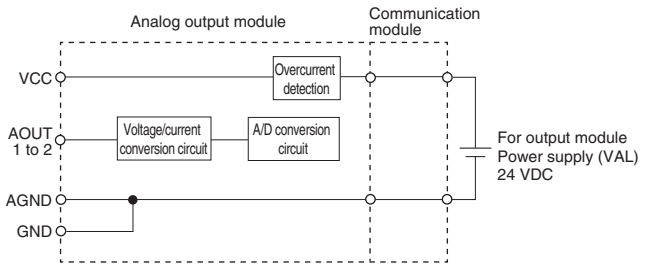

## YS8-D8S




## YS8-D8S-M



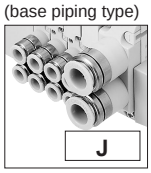

## YS8-A2S



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

## ■ Manifold output specification

With dual use fitting blocks (base piping type)

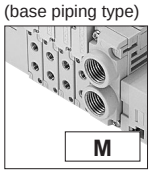



**Outlet port fitting**
**F10**: $\phi$4, $\phi$6

With selectable fittings (base piping type)

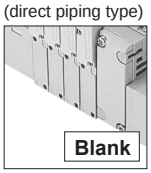

**Outlet port should be selected in accordance with the manifold fitting specification.**

With female thread blocks (base piping type)




**Outlet port female thread**
**F10**: M5 x 0.8

With plates (direct piping type)




## ■ Pilot specification

**Blank**
Internal pilot manifold

**G**
External pilot manifold

## ■ Communication specifications

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

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

## ■ Number of modules specifications

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

NOTE

When entering the order codes for I/O modules, indicate the I/O modules after indicating the mounted valves.
For details on how to indicate I/O modules, see Indicating I/O modules on page 33.

## ■ Piping block specification (air supply and exhaust)

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

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

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

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

## ■ 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 | Communication specifications | Number of modules specifications | Wiring connection specification |
|---|---|---|---|---|---|---|---|---|
| Base piping type | F10M | 2 ... □ Note 1 | T (※Rc)<br>J<br>M | Blank<br>G | -JR -J5R<br>-JL -J6R<br>-JD -J5L<br>-MR -J6L<br>-ML -J5D<br>-MD -J6D | -K3<br>-M3 | Blank<br>-1~-8 | Blank<br>-W |
| Base piping type selectable fitting | F10M | 2 ... □ Note 1 | T (※Rc)<br>L | Blank<br>G | -JR Note12 -MDH Note13<br>-JL Note12 -J5R Note12<br>-JD Note12 -J6R Note12<br>-MR Note12 -J5L Note12<br>-ML Note12 -J6L Note12<br>-MD Note12 -J5D Note12<br>-MRH Note13 -J6D Note12<br>-MLH Note13 | -K3<br>-M3 | Blank<br>-1~-8 | Blank<br>-W |
| Direct piping type | F10M | 2 ... □ Note 1 | TH (※NPT)<br>Blank | Blank<br>G | -JR Note12 -MDH Note13<br>-JL Note12 -J5R Note12<br>-JD Note12 -J6R Note12<br>-MR Note12 -J5L Note12<br>-ML Note12 -J6L Note12<br>-MD Note12 -J5D Note12<br>-MRH Note13 -J6D Note12<br>-MLH Note13 | -K3<br>-M3 | Blank<br>-1~-8 | Blank<br>-W |

Notes: 1. To determine the maximum number of units, see “Maximum Number of Units for Communication Specifications” on page 33.
2. Valve mounting location is from the left, with the solenoid on top, and the 4(A), 2(B) port side in front.
3. When selecting **J**, **M**, or **L** (base piping type) for the manifold outlet specifications, always enter **-A1** (with plate) for the valve outlet type.
4. The block-off plate wiring is always double wiring (allocated 2 control pins at 1 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 With block (direct piping type) **F10**: $\phi$4, $\phi$6
**-FJ5** With single use fitting block (direct piping type) **F10**: $\phi$4
**-FJ6** With single use fitting block (direct piping type) **F10**: $\phi$6
**-FM** With female thread block (direct piping type) **F10**: M5 x 0.8
**-FMH** With female thread blockNote13 (direct piping type) **F10:** 10-32UNF

**3**-port specification

**-FJ5A** With single use fitting block, normally closed (NC) (direct piping type) **F10**: $\phi$4
**-FJ5B** With single use fitting block, normally open (NO) (direct piping type) **F10**: $\phi$4
**-FJ6A** With single use fitting block, normally closed (NC) (direct piping type) **F10**: $\phi$6
**-FJ6B** With single use fitting block, normally open (NO) (direct piping type) **F10**: $\phi$6
**-FMA** With female thread block, normally closed (NC) (direct piping type) **F10**: M5 x 0.8
**-FMAH** With female thread block, normally closed (NC)Note12 (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)Note13 (direct piping type) **F10:** 10-32UNF

## ■ Manifold fitting specification

**5**-port specification

**-J5** With single use fitting block (base piping type) **F10**: $\phi$4
**-J6** With single use fitting block (base piping type) **F10**: $\phi$6
**-M** With female thread block (base piping type) **F10**: M5 x 0.8
**-MH** With female thread blockNote11 (base piping type) **F10**: 10-32UNF

**3**-port specification

**-J5A** With single use fitting block, normally closed (NC) (base piping type) **F10**: $\phi$4
**-J5B** With single use fitting block, normally open (NO) (base piping type) **F10**: $\phi$4
**-J6A** With single use fitting block, normally closed (NC) (base piping type) **F10**: $\phi$6
**-J6B** With single use fitting block, normally open (NO) (base piping type) **F10**: $\phi$6
**-MA** With female thread block, normally closed (NC) (base piping type) **F10**: M5 x 0.8
**-MAH** With female thread block, normally closed (NC)Note13 (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)Note13 (base piping type) **F10:** 10-32UNF

## ■ 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 T1 T2 T3 T4 T5 TANote 9 TBNote 9 TCNote 9 | BlankNote 7 GNote 8 | Blank -RNote 5 | -A1Note 3 | | Blank -E2Note 10 | Blank -PPM -PRM | Blank -SPNote 6 -SRNote 6 -SANote 6 | DC24V |
| | F10 | BPP (for block-off plate)Note 4 | | | | | | | | |
| stn. 1 ⋮ stn.□ Note 2 | F10 F10L | T0 T1 T2 T3 T4 T5 TANote 9 TBNote 9 TCNote 9 | BlankNote 7 GNote 8 | Blank -RNote 5 | -A1Note 3 | -J5Note12 -J6Note12 -MNote12 -MHNote11 -J5ANote12 -J5BNote12 -J6ANote12 -J6BNote12 -MANote12 -MAHNote13 -MBNote12 -MBHNote13 | Blank -E2Note 10 | Blank -PPM -PRM | Blank -SPNote 6 -SRNote 6 -SANote 6 | DC24V |
| | F10 | BPP (for block-off plate)Note 4 | | | | | | | | |
| stn. 1 ⋮ stn.□ Note 2 | F10 F10L | T0 T1 T2 T3 T4 T5 TANote 9 TBNote 9 TCNote 9 | BlankNote 7 GNote 8 | Blank -RNote 5 | -FJNote12 -FJ5Note12 -FJ6Note12 -FMNote12 -FMHNote13 -FJ5ANote12 -FJ5BNote12 -FJ6ANote12 -FJ6BNote12 -FMANote12 -FMAHNote13 -FMBNote12 -FMBHNote11 | | Blank -E2Note 10 | Blank -PPM -PRM | Blank -SPNote 6 -SRNote 6 -SANote 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.

## Indicating I/O modules

**■ Input/output**

**-D8N** : Digital Input × 8

**-D16N** : Digital Input × 16

**-D8S** : Digital Output × 8

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

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

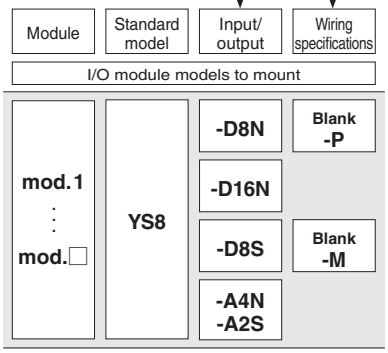
**■ Wiring specifications**

**Input: -D8N**

**Blank** : NPN type
**-P** : PNP type

**Output: -D8S**

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




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

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

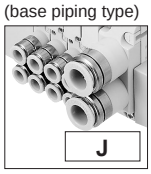
### ■ Maximum Number of Units for Communication Specifications

| Communication specifications | Maximum control points | Maximum number of units<br>Wiring connection specification<br>Packed wiring (blank) | Maximum number of units<br>Wiring connection specification<br>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.<br>Specify a number of units so that the number of solenoids being controlled does not exceed the maximum number of control units.<br>**-K3** and **-M3** have a maximum of 20 connected units. | 16 units |
| **-M3**: EtherNet/IP (32 outputs) supported | 32 points | | 16 units |

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

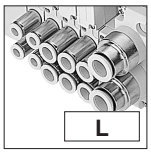
## ■ Manifold output specification

With dual use fitting blocks (base piping type)



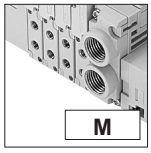

**Outlet port fitting**
**F10**: $\phi$4, $\phi$6

With selectable fittings (base piping type)




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

With female thread blocks (base piping type)




**Outlet port female thread**
**F10**: M5 x 0.8

With plates (direct piping type)


## ■ Pilot specification

**Blank**
Internal pilot manifold

**G**
External pilot manifold

### ■ Piping block specification (air supply and exhaust)

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

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

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

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

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

**Intermediate piping block**
**-JT**: Dual use fitting, both-side mounting, intermediate piping block $\phi$6, $\phi$8
**-J5T**: Single use fitting, both-side mounting, intermediate piping block $\phi$6
**-J6T**: Single use fitting, both-side mounting, intermediate piping block $\phi$8
**-MT**: Female thread, both-side mounting, intermediate piping block Rc1/8
**-MTH**: Female thread, both-side mounting, intermediate piping block NPT1/8 Note13

## ■ Communication specifications

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

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

### ■ Number of modules specifications

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

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

## ■ Mounting specification

**Blank**
Direct mounting

**-DN**
With DIN brackets (without rails)

**-DR**
With DIN brackets, with rails
Note: For details of rails to be assembled and shipped, see page 57.

## ■ 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 | Number of units | Manifold outlet specification | Pilot specification | Piping block specification | Communication specifications | Number of modules specifications | Wiring connection specification | Mounting specification |
|---|---|---|---|---|---|---|---|---|
| Manifold model | | | | | | | | |
| Base piping type | F10M | XT (※Rc) | J<br>M | Blank<br>G | -JR -J5R -JT<br>-JL -J5L -J5T<br>-JD -J5D -J6T<br>-MR -J6R -MT<br>-ML -J6L<br>-MD -J6D | -K3<br>-M3 | Blank<br>-1~-8 | Blank<br>-W | Blank<br>-DN<br>-DR |
| Base piping type selectable fitting | F10M | XT (※Rc)<br>XTH (※NPT)<br>Only L or Blank is available in the inch female thread specification and the manifold outlet specification. | L | Blank<br>G | -JR -MLH Note12 -J6D<br>-JL -MDH Note12 -JT<br>-JD -J5R -J5T<br>-MR -J5L -J6T<br>-ML -J5D -MT<br>-MD -J6R -MTH Note12<br>-MRH Note12 -J6L | -K3<br>-M3 | Blank<br>-1~-8 | Blank<br>-W | Blank<br>-DN<br>-DR |
| Direct piping type | F10M | XT (※Rc)<br>XTH (※NPT)<br>Only L or Blank is available in the inch female thread specification and the manifold outlet specification. | Blank | Blank<br>G | -JR -MLH Note12 -J6D<br>-JL -MDH Note12 -JT<br>-JD -J5R -J5T<br>-MR -J5L -J6T<br>-ML -J5D -MT<br>-MD -J6R -MTH Note12<br>-MRH Note12 -J6L | -K3<br>-M3 | Blank<br>-1~-8 | Blank<br>-W | Blank<br>-DN<br>-DR |

Note 1: 2 . . . ☐

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

## Valve specification

**T0**: 2-position, for single solenoid only
**T1**: 2-position, single solenoid specification
**T2**: 2-position, double solenoid specification
**T3**: 3-position, closed center
**T4**: 3-position, exhaust center
**T5**: 3-position, pressure center
**TA**: Tandem 3-port (NC and 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**: $\phi$4, $\phi$6
**-FJ5** With single use fitting block (direct piping type) **F10**: $\phi$4
**-FJ6** With single use fitting block (direct piping type) **F10**: $\phi$6
**-FM** With female thread blocks (direct piping type) **F10**: M5 x 0.8
**-FMH** With female thread blockNote13 (direct piping type) **F10**: 10-32UNF

**3-port specification**

**-FJ5A** With single use fitting block, normally closed (NC) (direct piping type) **F10**: $\phi$4
**-FJ5B** With single use fitting block, normally open (NO) (direct piping type) **F10**: $\phi$4
**-FJ6A** With single use fitting block, normally closed (NC) (direct piping type) **F10**: $\phi$6
**-FJ6B** With single use fitting block, normally open (NO) (direct piping type) **F10**: $\phi$6
**-FMA** With female thread block, normally closed (NC) (direct piping type) **F10**: M5 x 0.8
**-FMAH** With female thread block, normally closed (NC)Note13 (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)Note13 (direct piping type) **F10**: 10-32UNF

## Manifold fitting specification

**5-port specification**

**-J5** With single use fitting block (base piping type) **F10**: $\phi$4
**-J6** With single use fitting block (base piping type) **F10**: $\phi$6
**-M** With female thread blocks (base piping type) **F10**: M5 x 0.8
**-MH** With female thread blockNote13 (base piping type) **F10**: 10-32UNF

**3-port specification**

**-J5A** With single use fitting block, normally closed (NC) (base piping type) **F10**: $\phi$4
**-J5B** With single use fitting block, normally open (NO) (base piping type) **F10**: $\phi$4
**-J6A** With single use fitting block, normally closed (NC) (base piping type) **F10**: $\phi$6
**-J6B** With single use fitting block, normally open (NO) (base piping type) **F10**: $\phi$6
**-MA** With female thread block, normally closed (NC) (base piping type) **F10**: M5 x 0.8
**-MAH** With female thread block, normally closed (NC)Note13 (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)Note13 (base piping type) **F10**: 10-32UNF

## 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
**-XPPM**: Individual air supply spacer (with M5 female thread for F10)
**-XPRM**: Individual exhaust spacer (with M5 female thread for F10)

## Block off plate wiring specification

**Blank**: Double wiring
**-S** : Single wiring

| Station | Valve size | Valve specification | Operation type | Manual override | Valve outlet type | Manifold fitting specification | Back pressure prevention valve | Individual air supply and exhaust spacer | Port isolator | Block off plate wiring specification | Voltage |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mounting valve model | | | | | | | | | | | |
| stn. 1 ⋮ stn.□ Note 2 | F10 F10L | T0 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 -XPPM -XPRM | Blank -XSP Note 6 -XSR Note 6 -XSA Note 6 | Blank -S | DC24V |
| | F10 | XBPP (for block-off plate) Note 4 | | | | | | | | | |
| If selecting an intermediate piping block, see page 37 to enter information. | | | | | | | | | | | |
| stn. 1 ⋮ stn.□ Note 2 | F10 F10L | 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 Note11 -J6 Note11 -M Note11 -MH Note12 -J5A Note11 -J5B Note11 -J6A Note11 -J6B Note11 -MA Note11 -MAH Note12 -MB Note11 -MBH Note12 | Blank -E2 Note 10 | Blank -XPPM -XPRM | Blank -XSP Note 6 -XSR Note 6 -XSA Note 6 | Blank -S | DC24V |
| | F10 | XBPP (for block-off plate) Note 4 | | | | | | | | | |
| If selecting an intermediate piping block, see page 37 to enter information. | | | | | | | | | | | |
| stn. 1 ⋮ stn.□ Note 2 | F10 F10L | 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 Note11 -FJ5 Note11 -FJ6 Note11 -FM Note11 -FMH Note12 -FJ5A Note11 -FJ5B Note11 -FJ6A Note11 -FJ6B Note11 -FMA Note11 -FMAH Note12 -FMB Note11 -FMBH Note12 | Blank -E2 Note 10 | Blank -XPPM -XPRM | Blank -XSP Note 6 -XSR Note 6 -XSA Note 6 | Blank -S | DC24V |
| | F10 | XBPP (for block-off plate) Note 4 | | | | | | | | | |
| If selecting an intermediate piping block, see page 37 to enter information. | | | | | | | | | | | |

Notes: 6. Port isolators can be installed only when piping blocks are mounted on both sides. In addition, only 1 port isolator can be mounted in 1 manifold for **-XSA**, or 1 each port isolator for **-XSP** and **-XSR** for a total of 2 locations. When shipping, the designated port isolators are mounted between the designated station and the station to its immediate left (the next smaller stn. No.).
7. Cannot be mounted on the external pilot manifold.
8. Cannot be mounted on the internal pilot manifold.
9. Not available in external pilot type.
10. Not available with the individual exhaust spacer.
11. The 3-port specifications are only available in the valve specification **T0**, **T1**, and **T2**.
12. Can be selected only when the manifold type is **XTH**.

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

## Intermediate piping block

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

**F 10 ZX □ - □ - TK - □**

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

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

**Manifold model**
**TK**: For I/O terminal

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

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

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

## Indicating I/O modules

**■Input/output**

**-D8N** : Digital Input × 8

**-D16N** : Digital Input × 16

**-D8S** : Digital Output × 8

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

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

**■Wiring specifications**

**Input: -D8N**
**Blank** : NPN type
**-P** : PNP type

**Output: -D8S**
**Blank** : Sink type (load side + common)
**-M** : Source type (load side - common)

| Module | Standard model | Input/ output | Wiring specifications |
|---|---|---|---|
| I/O module models to mount | | | |
| mod.1 ⋮ mod.□ | YS8 | -D8N | Blank -P |
| | | -D16N | |
| | | -D8S | Blank -M |
| | | -A4N -A2S | |

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

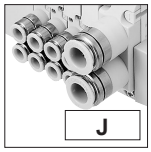
| I/O module symbol | Classification | Specifications |
|---|---|---|
| **YS8-D8N** | Digital input | 8 points, 3-wire type, NPN connection |
| **YS8-D8N-P** | | 8 points, 3-wire type, PNP connection |
| **YS8-D16N** | | 16 points, 2-wire type |
| **YS8-D8S** | Digital output | 8 points, sink type (load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

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

* The photos show the F10 series.

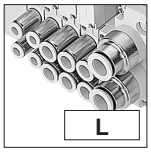
## ■ Manifold output specification

With dual use fitting blocks (base piping type)



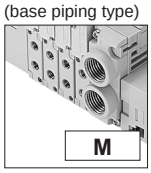

**Outlet port fitting**
**F15**: $\phi$6, $\phi$8

With selectable fittings (base piping type)



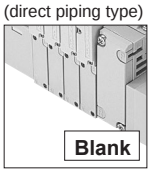

**Outlet port should be selected in accordance with the manifold fitting specification.**

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)

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

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

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

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

## ■ Communication specifications

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

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

### ■ Number of modules specifications

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

NOTE

When entering the order codes for I/O modules, indicate the I/O modules after indicating the mounted valves.
For details on how to indicate I/O modules, see Indicating I/O modules on page ㊶.

## ■ 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 | Communication specifications | Number of modules specifications | Wiring connection Specifications |
|---|---|---|---|---|---|---|---|
| Manifold model | | | | | | | |
| Base piping type | **F15M** | **2** ⋮ □ Note 1 | **T** (※Rc) | **J** **M** | **Blank** **G** | **-JR** **-JL** **-JD** **-MR** **-ML** **-MD** **-J5R** **-J6R** **-J5L** **-J6L** **-J5D** **-J6D** | **-K3** **-M3** | **Blank** **-1~-8** | **Blank** **-W** |
| Base piping type selectable fitting | | | **T** (※Rc) | **L** | **Blank** **G** | **-JR**Note12 **-JL**Note12 **-JD**Note12 **-MR**Note12 **-ML**Note12 **-MD**Note12 **-MRH**Note13 **-MLH**Note13 **-MDH**Note13 **-J5R**Note12 **-J6R**Note12 **-J5L**Note12 **-J6L**Note12 **-J5D**Note12 **-J6D**Note12 | **-K3** **-M3** | **Blank** **-1~-8** | **Blank** **-W** |
| Direct piping type | | | **TH** (※NPT) | **Blank** | **Blank** **G** | **-JR**Note12 **-JL**Note12 **-JD**Note12 **-MR**Note12 **-ML**Note12 **-MD**Note12 **-MRH**Note13 **-MLH**Note13 **-MDH**Note13 **-J5R**Note12 **-J6R**Note12 **-J5L**Note12 **-J6L**Note12 **-J5D**Note12 **-J6D**Note12 | **-K3** **-M3** | **Blank** **-1~-8** | **Blank** **-W** |

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

## ■ Valve specification

**T0**: 2-position, for single solenoid only
**T1**: 2-position, single solenoid specification
**T2**: 2-position, double solenoid specification
**T3**: 3-position, closed center
**T4**: 3-position, exhaust center
**T5**: 3-position, pressure center
**TA**: Tandem 3-port (NC and NC)Note 9
**TB**: Tandem 3-port (NO and NO)Note 9
**TC**: Tandem 3-port (NC and NO)Note 9

## ■ Operation type

**Blank**
Internal pilot 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**: $\phi$6, $\phi$8
**-FJ5** With single use fitting block (direct piping type) **F15**: $\phi$6
**-FJ6** With single use fitting block (direct piping type) **F15**: $\phi$8
**-FM** With female thread block (direct piping type) **F15**: Rc1/8
**-FMH** With female thread blockNote13 (direct piping type) **F10:** NPT1/8

**3**-port specification

**-FJ5A** With single use fitting block, normally closed (NC) (direct piping type) **F15**: $\phi$6
**-FJ5B** With single use fitting block, normally open (NO) (direct piping type) **F15**: $\phi$6
**-FJ6A** With single use fitting block, normally closed (NC) (direct piping type) **F15**: $\phi$8
**-FJ6B** With single use fitting block, normally open (NO) (direct piping type) **F15**: $\phi$8
**-FMA** With female thread block, normally closed (NC) (direct piping type) **F15**: Rc1/8
**-FMAH** With female thread block, normally closed (NC)Note12 (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)Note13 (direct piping type) **F15**: NPT1/8

## ■ Manifold fitting specification

**5**-port specification

**-J5** With single use fitting block (base piping type) **F15**: $\phi$6
**-J6** With single use fitting block (base piping type) **F15**: $\phi$8
**-M** With female thread block (base piping type) **F15**: Rc1/8
**-MH** With female thread blockNote11 (base piping type) **F15**: NPT1/8

**3**-port specification

**-J5A** With single use fitting block, normally closed (NC) (base piping type) **F15**: $\phi$6
**-J5B** With single use fitting block, normally open (NO) (base piping type) **F15**: $\phi$6
**-J6A** With single use fitting block, normally closed (NC) (base piping type) **F15**: $\phi$8
**-J6B** With single use fitting block, normally open (NO) (base piping type) **F15**: $\phi$8
**-MA** With female thread block, normally closed (NC) (base piping type) **F15**: Rc1/8
**-MAH** With female thread block, normally closed (NC)Note13 (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)Note13 (base piping type) **F15**: NPT1/8

## ■ 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
**-PP6**: Individual air supply spacer (with $\phi$ 6 fitting for F15)
**-PP8**: Individual air supply spacer (with $\phi$ 8 fitting for F15)
**-PR6**: Individual exhaust spacer (with $\phi$ 6 fitting for F15)
**-PR8**: Individual exhaust spacer (with $\phi$ 8 fitting for F15)

| 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 -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[Note12] -J6A[Note12] -J6[Note12] -J6B[Note12] -M[Note12] -MA[Note12] -MH[Note11] -MAH[Note13] -J5A[Note12] -MB[Note12] -J5B[Note12] -MBH[Note13] | 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[Note12] -FJ6A[Note12] -FJ5[Note12] -FJ6B[Note12] -FJ6[Note12] -FMA[Note12] -FM[Note12] -FMAH[Note13] -FMH[Note13] -FMB[Note12] -FJ5A[Note12] -FMBH[Note11] -FJ5B[Note12] | | 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 Type Manifold with I/O Terminal

## Indicating I/O modules

**■ Input/output**

**-D8N** : Digital Input × 8

**-D16N** : Digital Input × 16

**-D8S** : Digital Output × 8

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

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

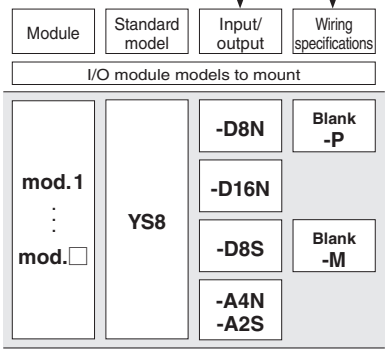
**■ Wiring specifications**

**Input: -D8N**

**Blank** : NPN type
**-P** : PNP type

**Output: -D8S**

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




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

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

### ■ Maximum Number of Units for Communication Specifications

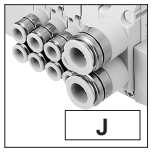
| | | Maximum number of units | |
|---|---|---|---|
| | | Wiring connection specification | |
| Communication specifications | Maximum control points | Packed wiring (blank) | Double wiring (**-W**) |
| **-K3**: EtherCAT (32 outputs) supported | 32 points | Varies depending on the number of single solenoids, double solenoids, and block off plates that are mounted.<br>Specify a number of units so that the number of solenoids being controlled does not exceed the maximum number of control units.<br>**-K3** and **-M3** have a maximum of 20 connected units. | 16 units |
| **-M3**: EtherNet/IP (32 outputs) supported | 32 points | | 16 units |

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

*The photos show the F10 series.

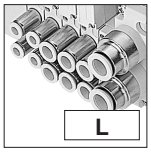
## Manifold output specification

With dual use fitting blocks (base piping type)



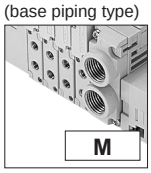

**Outlet port fitting**
**F15**: $\phi$6, $\phi$8

With selectable fittings (base piping type)



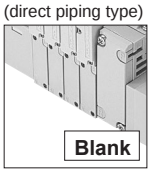

**Outlet port should be selected in accordance with the manifold fitting specification.**

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)

**Fitting block**
**-JR**: Dual use fitting, right-side mounting
**-JL**: Dual use fitting, left-side mounting
**-JD**: Dual use fitting, both-side mounting
Fitting size (1(P), 3, 5(R) ports), $\phi$8, $\phi$10

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

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

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

**-J6R**: Single use fitting, right-side mounting
**-J6L**: Single use fitting, left-side mounting
**-J6D**: Single use fitting, both-side mounting
Fitting size (1(P), 3, 5(R) ports), $\phi$10

**Intermediate piping block**
**-JT**: Dual use fitting, both-side mounting, intermediate piping block $\phi$8, $\phi$10
**-J5T**: Single use fitting, both-side mounting, intermediate piping block $\phi$8
**-J6T**: Single use fitting, both-side mounting, intermediate piping block $\phi$10
**-MT**: Female thread, both-side mounting, intermediate piping block Rc1/4
**-MTH**: Female thread, both-side mounting, intermediate piping block NPT1/4 Note13

## Communication specifications

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

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

## Number of modules specifications

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

NOTE
When entering the order codes for I/O modules, indicate the I/O modules after indicating the mounted valves.
For details on how to indicate I/O modules, see Indicating I/O modules on page 45.

## Mounting specification

**Blank**
Direct mounting

**-DN**
With DIN brackets (without rails)

**-DR**
With DIN brackets, with rails
Note: For details of rails to be assembled and shipped, see page 63.

## 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 | Number of units | Manifold outlet specification | Pilot specification | Piping block specification | Communication specifications | Number of modules specifications | Wiring connection specification | Mounting specification |
|---|---|---|---|---|---|---|---|---|
| Base piping type: **F15M** | **2** ⋮ □ Note 1 | **XT** (※Rc) | **J** **M** | **Blank** **G** | **-JR** **-JL** **-JD** **-MR** **-ML** **-MD** **-J5R** **-J5L** **-J5D** **-J6R** **-J6L** **-J6D** **-JT** **-J5T** **-J6T** **-MT** | **-K3** **-M3** | **Blank** **-1~-8** | **Blank** **-W** | **Blank** **-DN** **-DR** |
| Base piping type selectable fitting: **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** **-JL** **-JD** **-MR** **-ML** **-MD** **-MRH** Note12 **-MLH** Note12 **-MDH** Note12 **-J5R** **-J5L** **-J5D** **-J6R** **-J6L** **-J6D** **-JT** **-J5T** **-J6T** **-MT** **-MTH** Note12 | **-K3** **-M3** | **Blank** **-1~-8** | **Blank** **-W** | **Blank** **-DN** **-DR** |
| Direct piping type: **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** **-JL** **-JD** **-MR** **-ML** **-MD** **-MRH** Note12 **-MLH** Note12 **-MDH** Note12 **-J5R** **-J5L** **-J5D** **-J6R** **-J6L** **-J6D** **-JT** **-J5T** **-J6T** **-MT** **-MTH** Note12 | **-K3** **-M3** | **Blank** **-1~-8** | **Blank** **-W** | **Blank** **-DN** **-DR** |

Notes: 1. To determine the maximum number of units, see “Maximum Number of Units for Communication Specifications” on page 41.
2. Valve mounting location is from the left, with the solenoid on top, and the 4(A), 2(B) port side in front.
3. When selecting **J**, **M**, or **L** (base piping type) for the manifold outlet specifications, always enter **-A1** (with plate) for the valve outlet type.
4. For the wiring connection specification for block off plate, you can select single and double with the block off plate wiring connection specification, apart from the manifold (valve) wiring connection specification.
5. When the valve specification is **T1** or **T2**, the manual override lever is placed only on the A side.

## Valve specification

**T0**: 2-position, for single solenoid only
**T1**: 2-position, single solenoid specification
**T2**: 2-position, double solenoid specification
**T3**: 3-position, closed center
**T4**: 3-position, exhaust center
**T5**: 3-position, pressure center
**TA**: Tandem 3-port (NC and 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**: $\phi$6, $\phi$8
**-FJ5** With single use fitting block (direct piping type) **F15**: $\phi$6
**-FJ6** With single use fitting block (direct piping type) **F15**: $\phi$8
**-FM** With female thread blocks (direct piping type) **F15**: Rc1/8
**-FMH** With female thread block[Note13] (direct piping type) **F15**: NPT1/8

**3-port specification**

**-FJ5A** With single use fitting block, normally closed (NC) (direct piping type) **F15**: $\phi$6
**-FJ5B** With single use fitting block, normally open (NO) (direct piping type) **F15**: $\phi$6
**-FJ6A** With single use fitting block, normally closed (NC) (direct piping type) **F15**: $\phi$8
**-FJ6B** With single use fitting block, normally open (NO) (direct piping type) **F15**: $\phi$8
**-FMA** With female thread block, normally closed (NC) (direct piping type) **F15**: Rc1/8
**-FMAH** With female thread block, normally closed (NC)[Note13] (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)[Note13] (direct piping type) **F15**: NPT1/8

## Manifold fitting specification

**5-port specification**

**-J5** With single use fitting block (base piping type) **F15**: $\phi$6
**-J6** With single use fitting block (base piping type) **F15**: $\phi$8
**-M** With female thread blocks (base piping type) **F15**: Rc1/8
**-MH** With female thread block[Note13] (base piping type) **F15**: NPT1/8

**3-port specification**

**-J5A** With single use fitting block, normally closed (NC) (base piping type) **F15**: $\phi$6
**-J5B** With single use fitting block, normally open (NO) (base piping type) **F15**: $\phi$6
**-J6A** With single use fitting block, normally closed (NC) (base piping type) **F15**: $\phi$8
**-J6B** With single use fitting block, normally open (NO) (base piping type) **F15**: $\phi$8
**-MA** With female thread block, normally closed (NC) (base piping type) **F15**: Rc1/8
**-MAH** With female thread block, normally closed (NC)[Note13] (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)[Note13] (base piping type) **F15**: NPT1/8

## Back pressure prevention valve

**Blank**
No back pressure prevention valve

**-E2**
With back pressure prevention valve[Note 10]

## Individual air supply and exhaust spacer

**Blank**: No spacer
**-PP6**: Individual air supply spacer (with $\phi$ 6 fitting for F15)
**-PP8**: Individual air supply spacer (with $\phi$ 8 fitting for F15)
**-PR6**: Individual exhaust spacer (with $\phi$ 6 fitting for F15)
**-PR8**: Individual exhaust spacer (with $\phi$ 8 fitting for F15)

## Port isolator

**Blank**: No port isolator
**-XSP**: For 1(P) port[Note 6]
**-XSR**: For 3(R2), 5(R1) ports[Note 6]
**-XSA**: For 1(P), 3(R2), 5(R1) ports[Note 6]

## Block off plate wiring specification

**Blank**: Double wiring
**-S** : Single wiring

## Mounting valve model

| Station | Valve size | Valve specification | Operation type | Manual override | Valve outlet type | Manifold fitting specification | Back pressure prevention valve | Individual air supply and exhaust spacer | Port isolator | Block off plate wiring specification | Voltage |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 |
| F15 | XBPP (for block-off plate)[Note 4] | | | | | | | | | | Blank -S |
| If selecting an intermediate piping block, see page 45 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[Note11] -J6[Note11] -M[Note11] -MH[Note12] -J5A[Note11] -J5B[Note11] -J6A[Note11] -J6B[Note11] -MA[Note11] -MAH[Note12] -MB[Note11] -MBH[Note12] | Blank -E2[Note 10] | Blank -XPP6 -XPR6 -XPP8 -XPR8 | Blank -XSP[Note 6] -XSR[Note 6] -XSA[Note 6] | | DC24V |
| F15 | XBPP (for block-off plate)[Note 4] | | | | | | | | | | Blank -S |
| If selecting an intermediate piping block, see page 45 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[Note11] -FJ5[Note11] -FJ6[Note11] -FM[Note11] -FMH[Note12] -FJ5A[Note11] -FJ5B[Note11] -FJ6A[Note11] -FJ6B[Note11] -FMA[Note11] -FMAH[Note12] -FMB[Note11] -FMBH[Note12] | | Blank -E2[Note 10] | Blank -XPP6 -XPR6 -XPP8 -XPR8 | Blank -XSP[Note 6] -XSR[Note 6] -XSA[Note 6] | | DC24V |
| F15 | XBPP (for block-off plate)[Note 4] | | | | | | | | | | Blank -S |
| If selecting an intermediate piping block, see page 45 to enter information. | | | | | | | | | | | |

Notes: 6. Port isolators can be installed only when piping blocks are mounted on both sides. In addition, only 1 port isolator can be mounted in 1 manifold for **-XSA**, or 1 each port isolator for **-XSP** and **-XSR** for a total of 2 locations. When shipping, the designated port isolators are mounted between the designated station and the station to its immediate left (the next smaller stn. No.).
7. Cannot be mounted on the external pilot manifold.
8. Cannot be mounted on the internal pilot manifold.
9. Not available in external pilot type.
10. Not available with the individual exhaust spacer.
11. The 3-port specifications are only available in the valve specification **T0**, **T1**, and **T2**.
12. Can be selected only when the manifold type is **XTH**.

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

## Intermediate piping block

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

**F 15 ZX □ - □ - TK - □**

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

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

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

**Manifold model**
**TK**: For I/O terminal

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

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

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

## Indicating I/O modules

**■ Input/output**

**-D8N** : Digital Input × 8

**-D16N** : Digital Input × 16

**-D8S** : Digital Output × 8

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

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

**■ Wiring specifications**

**Input: -D8N**

**Blank** : NPN type
**-P** : PNP type

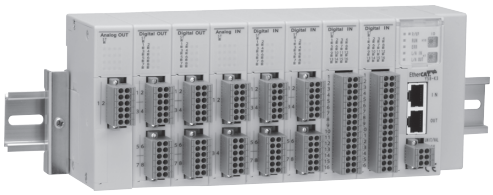
**Output: -D8S**

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

| Module | Standard model | Input/ output | Wiring specifications |
|---|---|---|---|
| I/O module models to mount | | | |
| mod.1 ⋮ mod.□ | YS8 | -D8N | Blank -P |
| | | -D16N | |
| | | -D8S | Blank -M |
| | | -A4N -A2S | |

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

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



**YS8E** □ - □ - □

**Standard model**

**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 mounting
**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 × 8 (3-wire type) : **YS8 - D8N -** □
**Digital input specifications**
**Blank** : NPN type
**P** : PNP type

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

Digital Output × 8 : **YS8 - D8S -** □
**Digital output specifications**
**Blank** : Sink type (load side + common)
**M** : Source type (load side - common)

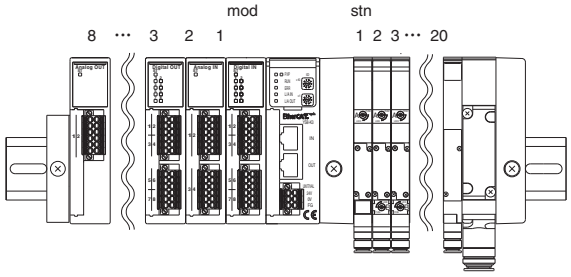
Analog Input × 4 : **YS8 - A4N**
(Switchable between 0-5 V/0-10 V/0-20 mA)

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

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

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

## ●Arrangement of stns and mods




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

| YS8-A2S | YS8-D8S-□ | YS8-A4N | YS8-D□N-□ | YS8-K3 |
|---|---|---|---|---|
| Output | | 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** : With right end block

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

## ● I/O module single unit

**Digital input × 8 (3-wire type)**

**YS8 - D8N - □**

**Digital input specifications**
**Blank** : NPN type
**P** : PNP type

**Digital input × 16 (2-wire type)**

**YS8 - D16N**

**Digital Output × 8**

**YS8 - D8S - □**

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

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

**YS8 - A4N**

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

**YS8 - A2S**

## ●Additional parts

### ・Connecting rods (2 pcs per set, small screws and washers included)

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

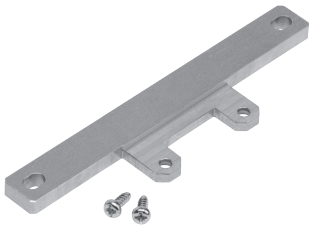
**YS8Z - □**

**Number of I/O modules**
**1** : 1
⋮
**8** : 8

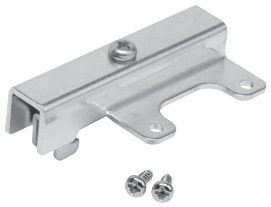
### ・Mounting bracket

**YS8Z - □**

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



YS8Z-DM



YS8Z-DN

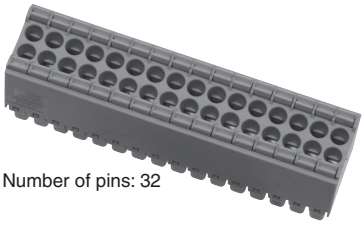
### ・Connector

**YS8Z - CN □**

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

Number of pins: 6

Number of pins: 12



Number of pins: 32

### ・I/O module connection cover

**YS8Z - C**

### ・DIN rail (unit: 1 pc)

**DIN - □**

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

# Mass

## I/O terminal (not including valves)

g [oz]

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

n: Number of modules

Calculation example: **YS8EK3-4-DR**
**mod.1 YS8-D8N**
**mod.2 YS8-A4N**
**mod.3 YS8-D8S**
**mod.4 YS8-A2S**
235 [8.29] + 97 [3.42] × 4 = 623 g [21.98 oz]

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

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

g [oz]

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

n: Number of modules

Calculation example: **F10M8XTJ-JR-K3-4-W-DR**
**stn.1** to **8** **F10T1-A1** **24 VDC**
**mod.1** to **4** **YS8-D8N**
(92 [3.25] × 8) + 310 [10.93] + 32 [1.13] + 175 [6.17] +
(97 [3.42] × 4) = 1641 g [57.88 oz]

## F10 series

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

g [oz]

| Plugin type Serial transmission supported type | Calculation of mass for each number of units | | | |
|---|---|---|---|---|
| | 4 (A) and 2 (B) port output specifications | | | |
| | Female thread block | Dual use fitting block | $\phi$4 [0.157] fitting block | $\phi$6 [0.236] fitting block |
| | (79 [2.79] × n) + 120 [4.23] | (83 [2.93] × n) + 120 [4.23] | (85 [3.00] × n) + 120 [4.23] | (88 [3.10] × n) + 120 [4.23] |

n: Valve units

g [oz]

| Mass to add | | | |
|---|---|---|---|
| Piping block specification | | | |
| Female thread block | Dual use fitting block | $\phi$8 [0.315] fitting block | $\phi$10 [0.394] fitting block |
| 111 [3.92] | 125 [4.41] | 149 [5.26] | 159 [5.61] |

## F10 series

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

g [oz]

| Mounting option | Calculation of mass for each number of units | | | |
|---|---|---|---|---|
| | Outlet port specifications | | | |
| | Female thread block | Dual use fitting block | $\phi$4 [0.157] fitting block | $\phi$6 [0.236] fitting block |
| No symbol | (86 [3.03] × n) + 227 [8.01] | (90 [3.17] × n) + 227 [8.01] | (92 [3.25] × n) + 227 [8.01] | (95 [3.35] × n) + 227 [8.01] |
| **-DN** | (86 [3.03] × n) + 288 [10.16] | (90 [3.17] × n) + 288 [10.16] | (92 [3.25] × n) + 288 [10.16] | (95 [3.35] × n) + 288 [10.16] |
| **-DR** | (88 [3.10] × n) + 310 [10.93] | (92 [3.25] × n) + 310 [10.93] | (94 [3.32] × n) + 310 [10.93] | (97 [3.42] × n) + 310 [10.93] |

n: Valve units

g [oz]

| Fitting specifications | Mass to add | | | |
|---|---|---|---|---|
| | Air supply and exhaust ports | | | |
| | Female thread block | Dual use fitting block | $\phi$6 [0.236] fitting block | $\phi$8 [0.315] fitting block |
| **J□ M□** | 22 [0.78] | 32 [1.13] | 43 [1.52] | 48 [1.69] |
| **J□D MD** | 26 [0.92] | 46 [1.62] | 68 [2.40] | 78 [2.75] |
| **J□T MT** | 31 [1.09] | 61 [2.15] | 94 [3.32] | 109 [3.84] |

When mounting the block plate, subtract 50 g [1.76 oz] per series from the above calculation result.
When mounting **F10□T0** products, subtract 10 g [0.35 oz] per unit from the above calculation result.

## Mass

### F15 series

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

g [oz]

| Plugin type Serial transmission type | Calculation of mass for each number of units | | | |
|---|---|---|---|---|
| | 4 (A) and 2 (B) port output specifications | | | |
| | Female thread block | Dual use fitting block | $\phi$6 [0.236] fitting block | $\phi$8 [0.315] fitting block |
| | (177 [6.24] × n) + 249 [8.78] | (187 [6.60] × n) + 249 [8.78] | (198 [6.98] × n) + 249 [8.78] | (203 [7.16] × n) + 249 [8.78] |

g [oz]

| Mass to add | | | |
|---|---|---|---|
| Piping block specification | | | |
| Female thread block | Dual use fitting block | $\phi$8 [0.315] fitting block | $\phi$10 [0.394] fitting block |
| 153 [5.40] | 167 [5.89] | 191 [6.74] | 201 [7.09] |

### F15 series

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

g [oz]

| Mounting option | Calculation of mass for each number of units | | | |
|---|---|---|---|---|
| | Outlet port specifications | | | |
| | Female thread block | Dual use fitting block | $\phi$6 [0.236] fitting block | $\phi$8 [0.315] fitting block |
| No symbol | (189 [6.67] × n) + 306 [10.79] | (199 [7.02] × n) + 306 [10.79] | (210 [7.41] × n) + 306 [10.79] | (215 [7.58] × n) + 306 [10.79] |
| **-DN** | (189 [6.67] × n) + 369 [13.02] | (199 [7.02] × n) + 369 [13.02] | (210 [7.41] × n) + 369 [13.02] | (215 [7.58] × n) + 369 [13.02] |
| **-DR** | (192 [6.77] × n) + 391 [13.79] | (201 [7.09] × n) + 391 [13.79] | (213 [7.51] × n) + 391 [13.79] | (218 [7.69] × 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 | $\phi$8 [0.315] fitting block | $\phi$10 [0.394] fitting block |
| **J□ M□** | 34 [1.20] | 48 [1.69] | 72 [2.54] | 82 [2.89] |
| **J□D MD** | 44 [1.55] | 72 [2.54] | 120 [4.23] | 140 [4.94] |
| **J□T MT** | -27 [-0.95] | 15 [0.53] | 87 [3.07] | 117 [4.13] |

When mounting the block plate, subtract 100 g [3.53 oz] per series from the above calculation result.
When mounting **F15□T0** products, subtract 13 g [0.46 oz] per series from the above calculation result.

## Current consumption calculation

### Calculation example: F10M20TJ-JR-M3-8

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

mod.1 to 4 : YS8-D8N
mod.5 : YS8-A4N
mod.6 : YS8-D8S
mod.7, 8 : YS8-A2S

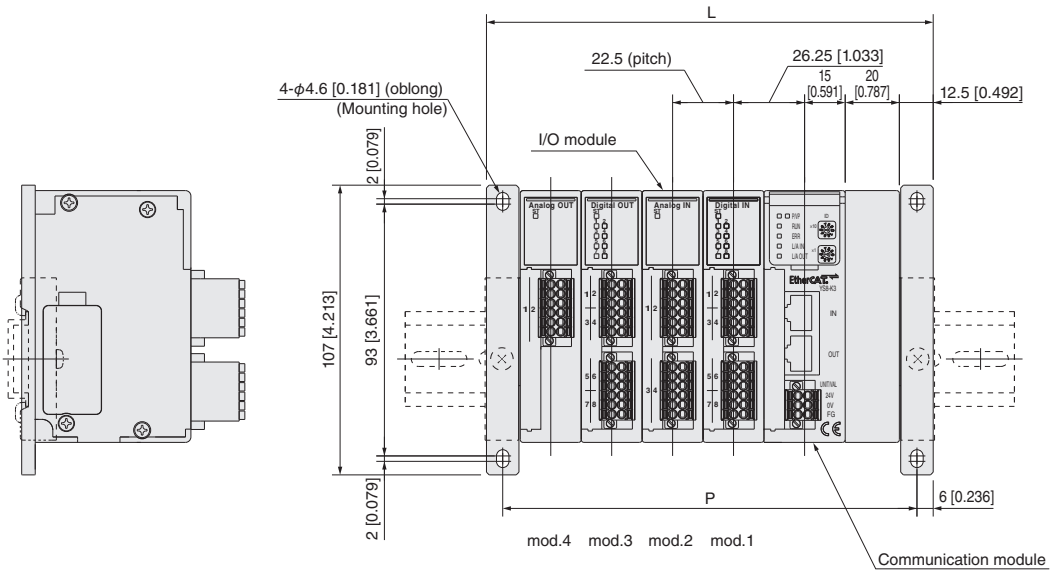
| Number | Module | Model | Internal current consumption (mA) | |
|---|---|---|---|---|
| | | | Power for input | Power for output |
| 0 | F10 20 connected valves | F10T1-A1DC24V × 20 | – | 340 (= 17 mA × 20 connected) |
| 0 | Transmission | YS8-M3 | 100 | – |
| 1 | Digital input | YS8-D8N | 10 | – |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

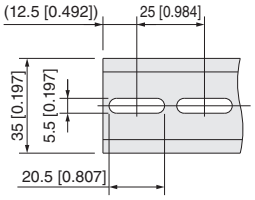
| | | |
|---|---|---|
| Total internal current consumption (mA) | 195 | 440 |
| Usable current (mA) | 1805 | 1560 |

Ensure that the total of internal and external consumption currents for both the input power supply and output power supply does not exceed 2A.
Also, select connected devices so that the maximum load current for digital output modules is not exceeded.

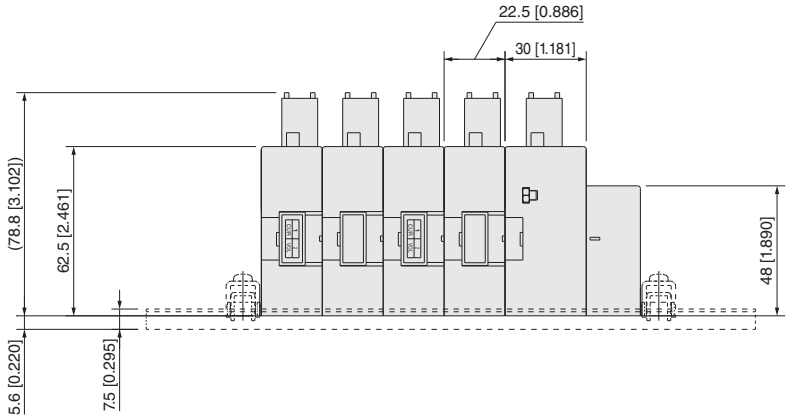
## ● I/O terminal (EtherCAT communication)

**YS8EK3 -** Number of I/O modules **-** Mounting specification




-DR: DIN rail mounting hole dimensions




## Dimensions for each number of I/O modules

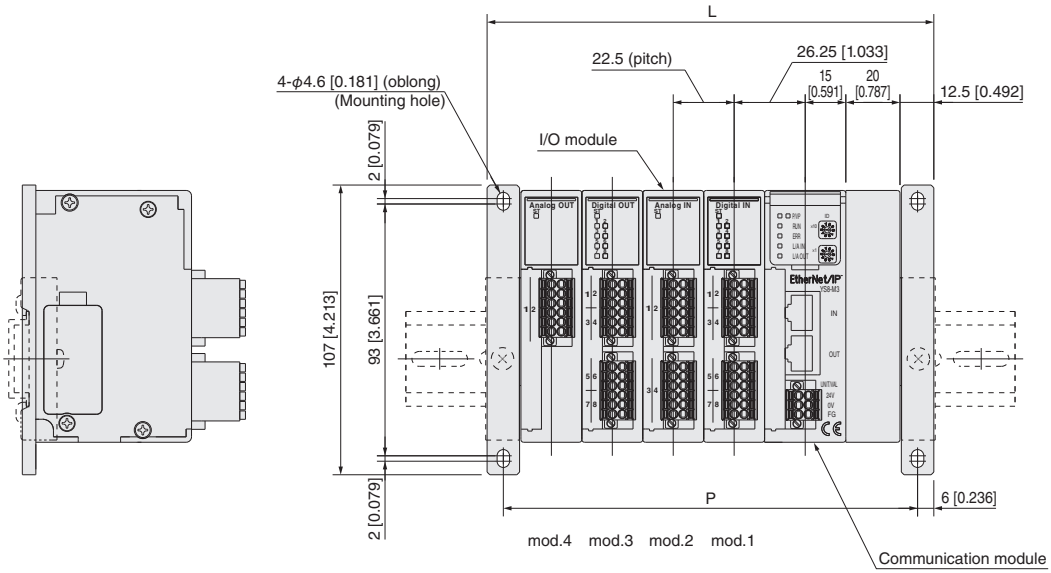
| Number of mods | L | P | DIN rail |
|---|---|---|---|
| 1 | 97.5 [3.839] | 85.5 [3.366] | 150 [5.906] |
| 2 | 120.0 [4.724] | 108.0 [4.252] | 175 [6.890] |
| 3 | 142.5 [5.610] | 130.5 [5.138] | 200 [7.874] |
| 4 | 165.0 [6.496] | 153.0 [6.024] | 225 [8.858] |
| 5 | 187.5 [7.382] | 175.5 [6.909] | 225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

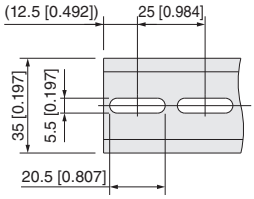
Note 1: The maximum number of units that can be connected is 8.
2: For DIN rail mounting, add 1.0 mm [0.039 in.] to L.

Examples of models in illustration
YS8EK3-4
mod.1 YS8-D8N
mod.2 YS8-A4N
mod.3 YS8-D8S
mod.4 YS8-A2S

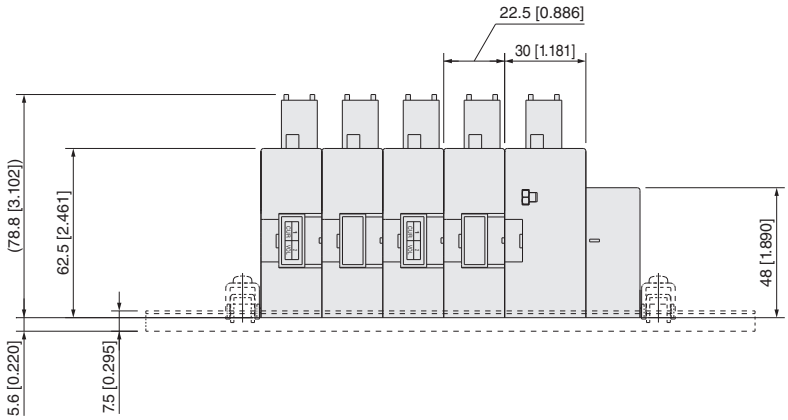
## ● I/O terminal (EtherNet/IP communication)

**YS8EM3 -** Number of I/O modules **-** Mounting specification




-DR: DIN rail mounting hole dimensions




## Dimensions for each number of I/O modules

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

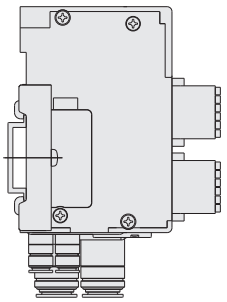
Note 1: The maximum number of units that can be connected is 8.
2: For DIN rail mounting, add 1.0 mm [0.039 in.] to L.

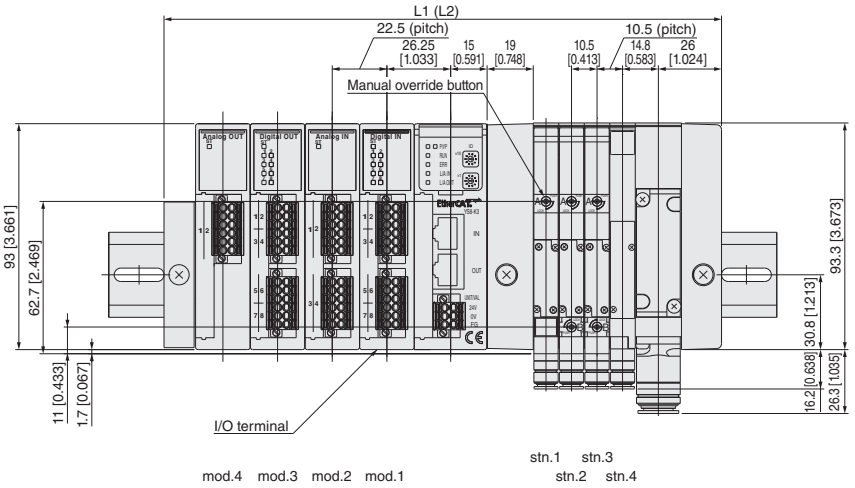
Examples of models in illustration
YS8EM3-4
mod.1 YS8-D8N
mod.2 YS8-A4N
mod.3 YS8-D8S
mod.4 YS8-A2S

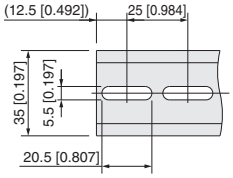
## ● F10 series Split Type Manifold with I/O Terminal

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

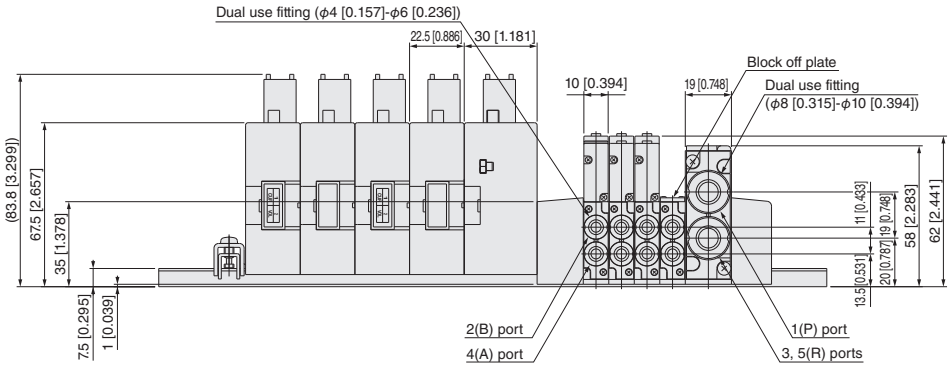
Manifold outlet port with Dual use fitting block
(EtherCAT, EtherNet/IP) * The illustrations show EtherCAT






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 |

## Dimensions (mm)

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

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

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

## Dimensions (in.)

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

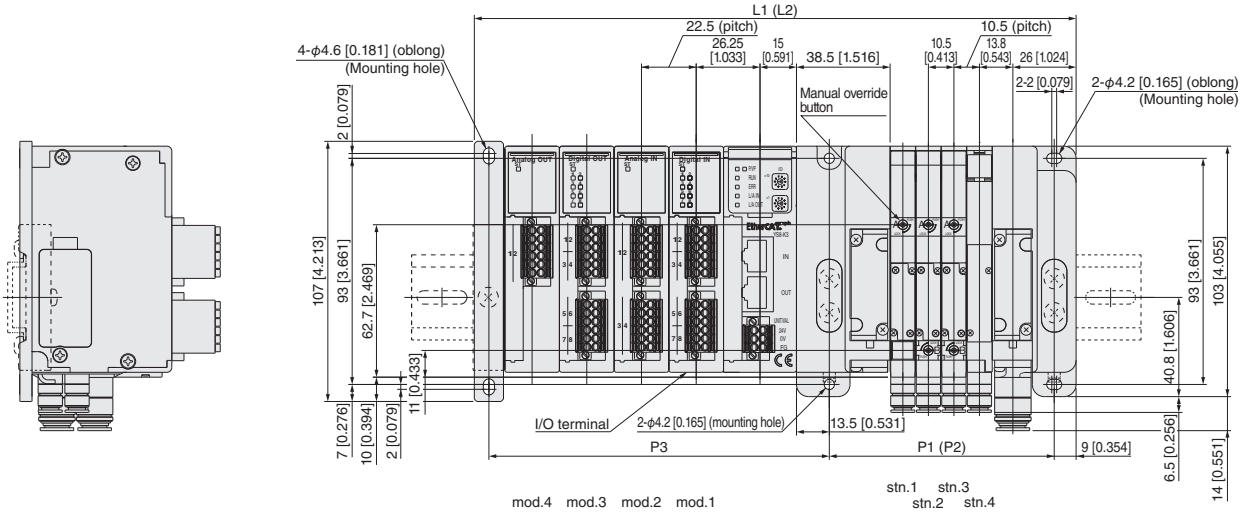
| | | L2 For two piping blocks | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of mods | | 0 | | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | |
| Dimension location | | L2 | DIN | L2 | DIN | L2 | DIN | L2 | DIN | L2 | DIN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

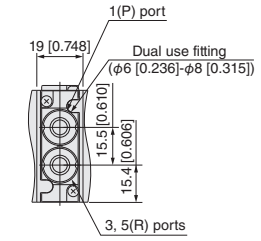
Note 1: L1 and L2 of mod 0 are the dimensions up to the left end of the communication module.

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

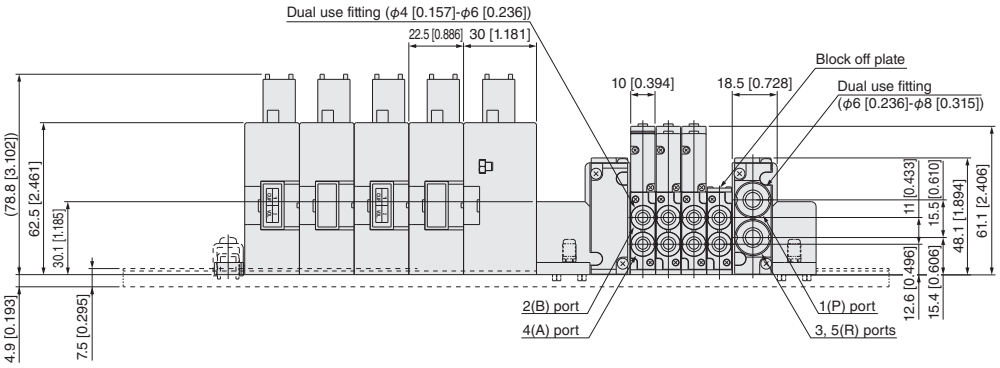
**F10M** Valve units **XT** J M L Pilot specification (base piping type)

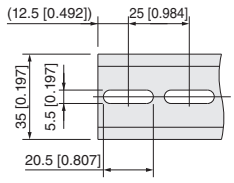
Manifold outlet port with Dual use fitting block
(EtherCAT, EtherNet/IP) * The illustrations show EtherCAT




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 |

## Dimensions (mm)

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

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

Note 1: L1 and L2 are dimensions for direct mounting installation. For DIN rail mounting, add 0.5 mm.
Except, however, when the mod number is 0.
2: L1 and L2 of mod 0 are the dimensions up to the left end of the communication module.

## Dimensions (in.)

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

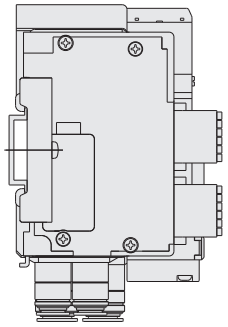
| | | If with intermediate piping block | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of mods | | 0 | | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | P2 |
| | P3 | - | | 72.5 | | 95 | | 117.5 | | 140 | | 162.5 |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

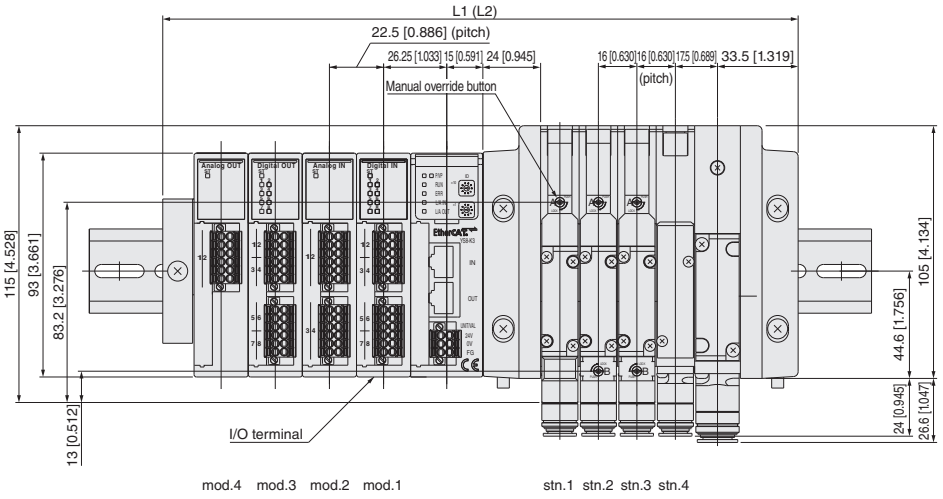
Note 1: L1 and L2 are dimensions for direct mounting installation. For DIN rail mounting, add 0.020 in.
Except, however, when the mod number is 0.
2: L1 and L2 of mod 0 are the dimensions up to the left end of the communication module.

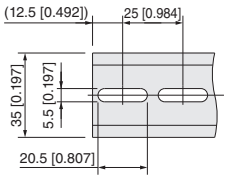
## ● F15 series Split Type Manifold with I/O Terminal

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

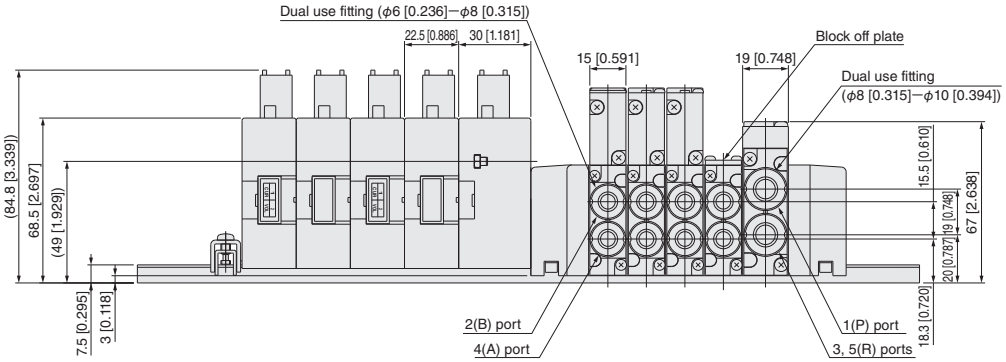
Manifold outlet port with Dual use fitting block
(EtherCAT, EtherNet/IP) * The illustrations show EtherCAT






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 |

## Dimensions (mm)

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

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

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

## Dimensions (in.)

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

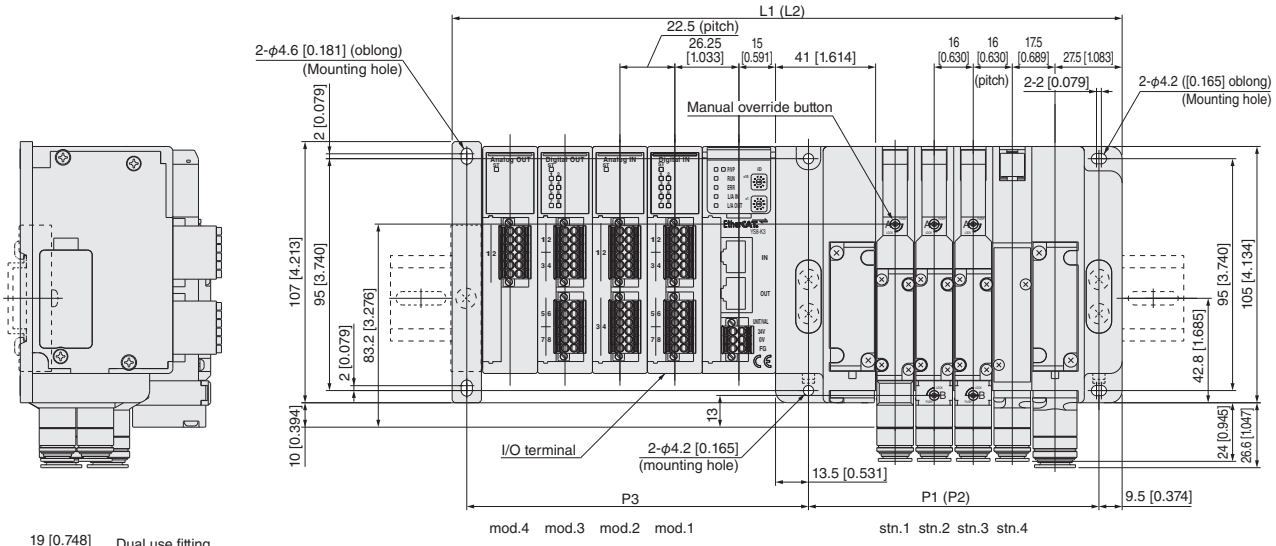
| | | L2 For two piping blocks | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of mods | | 0 | | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | |
| Dimension location | | L2 | DIN | L2 | DIN | L2 | DIN | L2 | DIN | L2 | DIN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

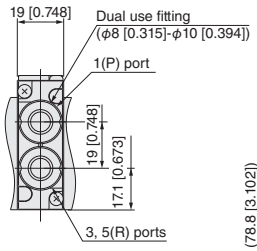
Note 1: L1 and L2 of mod 0 are the dimensions up to the left end of the communication module.

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

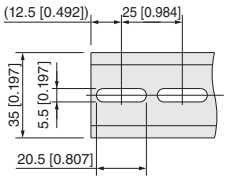
**F15M** Valve units **XT** J / M / L Pilot specification (base piping type)

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

## Dimensions (mm)

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

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

Note 1: L1 and L2 are dimensions for direct mounting installation. For DIN rail mounting, add 0.5 mm.
Except, however, when the mod number is 0.
2: L1 and L2 of mod 0 are the dimensions up to the left end of the communication module.

## Dimensions (in.)

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

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

Note 1: L1 and L2 are dimensions for direct mounting installation. For DIN rail mounting, add 0.020 in.
Except, however, when the mod number is 0.
2: L1 and L2 of mod 0 are the dimensions up to the left end of the communication module.

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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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