



<http://www.koganei.co.jp>



# F10 & F15 series solenoid valves

## IP specifications

**IP65 compliant** protective construction can be used in a wide range of operating environments!

### Ingress protection according to IEC 60529 standard

Electrical enclosures constructed to protect against intrusion of dust and water from the outside

International Protection Rating

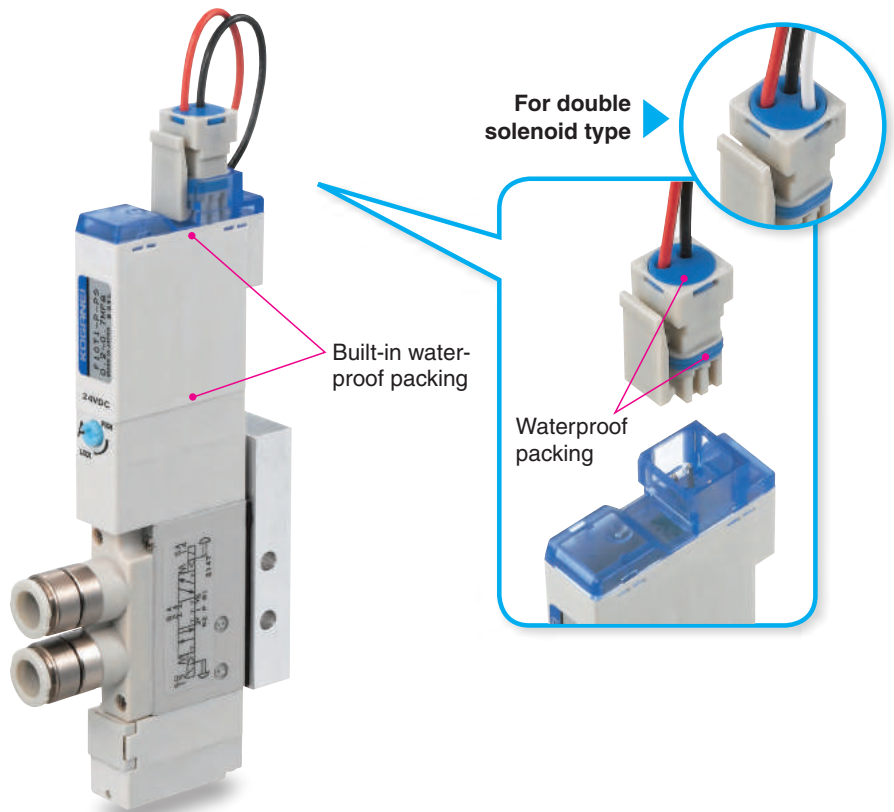
## IP65

2nd digit indicates protection against the ingress of water<sup>Note</sup>

Jets of water by a nozzle against enclosure from any direction has no harmful effects.

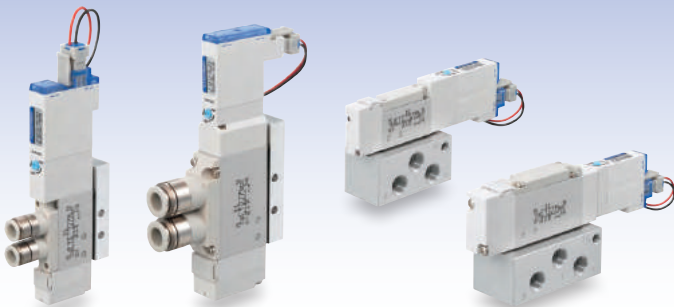
1st digit indicates protection against solid foreign objects  
No ingress of dust.

Note: The device cannot be used underwater.



### Variations

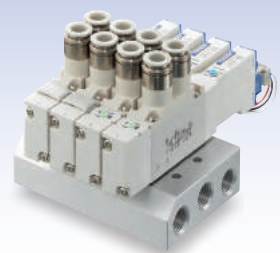
Single valve unit



Monoblock manifold A type



Monoblock manifold F type



**CAUTION** Before use, be sure to read the "Safety Precautions" in the general personal catalog.

\*Consult the nearest Koganei sales office for use in locations or environments subject to liquids other than water, such as organic solvents, cutting oil, or chemicals.

# F10, F15 Series Single Valve Unit Order Codes

## Valve size

### F10

10 mm [0.394 in.] width  
Standard type

### F10L

10 mm [0.394 in.] width  
Low-current type

### F15

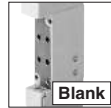
15 mm [0.591 in.] width  
Standard type

### F15L

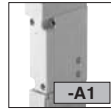
15 mm [0.591 in.] width  
Low-current type

## Valve outlet type

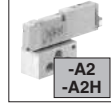
Without inlet/  
outlet block



With A type  
outlet plate



With A type sub-base



**-A2 inlet/outlet port**  
F10: Rc1/8  
F15: Rc1/8

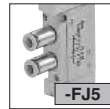
**-A2H inlet/outlet port**  
F10: NPT1/8  
F15: NPT1/8

With outlet port dual use  
fitting block



**Outlet port fitting**  
F10: φ 4, φ 6  
F15: φ 6, φ 8

With outlet port  
single use fitting block



**Outlet port fitting**  
F10: φ 4  
F15: φ 6

With outlet port  
single use fitting block



**Outlet port fitting**  
F10: φ 6  
F15: φ 8

With outlet port  
female thread block



**-FM outlet port**  
F10: M5 × 0.8  
F15: Rc1/8

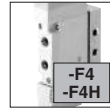
**-FMH outlet port**  
F10: 10-32UNF  
F15: NPT1/8

With outlet port dual use  
fitting block  
With inlet port  
female thread block<sup>Note5</sup>



**Outlet port fitting**  
F10: φ 4, φ 6  
F15: φ 6, φ 8

With outlet port  
female thread block  
With inlet port  
female thread block



**-F4 inlet/outlet port**  
F10: M5 × 0.8  
F15: Rc1/8

**-F4H inlet/outlet port**  
F10: 10-32UNF  
F15: NPT1/8

With outlet port  
single use fitting block  
With inlet port  
female thread block<sup>Note5</sup>



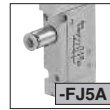
**Outlet port fitting**  
F10: φ 4  
F15: φ 6

With outlet port  
single use fitting block  
With inlet port  
female thread block<sup>Note5</sup>



**Outlet port fitting**  
F10: φ 6  
F15: φ 8

3-port normally closed  
(NC)<sup>Note5</sup>  
With outlet port  
single use fitting block



**Outlet port fitting**  
F10: φ 4  
F15: φ 6

3-port normally open  
(NO)<sup>Note5</sup>  
With outlet port  
single use fitting block



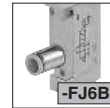
**Outlet port fitting**  
F10: φ 4  
F15: φ 6

3-port normally closed  
(NC)<sup>Note5</sup>  
With outlet port  
single use fitting block



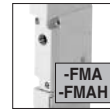
**Outlet port fitting**  
F10: φ 6  
F15: φ 8

3-port normally open  
(NO)<sup>Note5</sup>  
With outlet port  
single use fitting block



**Outlet port fitting**  
F10: φ 6  
F15: φ 8

3-port normally closed  
(NC)<sup>Note5</sup>  
With outlet port  
female thread block



**-FMA outlet port**  
F10: M5 × 0.8  
F15: Rc1/8

**-FMAH outlet port**  
F10: 10-32UNF  
F15: NPT1/8

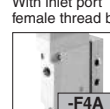
3-port normally open  
(NO)<sup>Note5</sup>  
With outlet port  
female thread block



**-FMB outlet port**  
F10: M5 × 0.8  
F15: Rc1/8

**-FMBH outlet port**  
F10: 10-32UNF  
F15: NPT1/8

3-port normally closed  
(NC)<sup>Note5</sup>  
With outlet port  
female thread block  
With inlet port  
female thread block



**-F4A inlet/outlet port**  
F10: M5 × 0.8  
F15: Rc1/8

**-F4AH inlet/outlet port**  
F10: 10-32UNF  
F15: NPT1/8

3-port normally open  
(NO)<sup>Note5</sup>  
With outlet port  
female thread block  
With inlet port  
female thread block



**-F4B inlet/outlet port**  
F10: M5 × 0.8  
F15: Rc1/8

**-F4BH inlet/outlet port**  
F10: 10-32UNF  
F15: NPT1/8

3-port normally closed  
(NC)<sup>Note5</sup>  
With outlet port  
single use fitting block  
With inlet port  
female thread block<sup>Note6</sup>



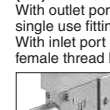
**Outlet port fitting**  
F10: φ 4  
F15: φ 6

3-port normally open  
(NO)<sup>Note5</sup>  
With outlet port  
single use fitting block  
With inlet port  
female thread block<sup>Note6</sup>



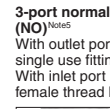
**Outlet port fitting**  
F10: φ 4  
F15: φ 6

3-port normally closed  
(NC)<sup>Note5</sup>  
With outlet port  
single use fitting block  
With inlet port  
female thread block<sup>Note6</sup>



**Outlet port fitting**  
F10: φ 6  
F15: φ 8

3-port normally open  
(NO)<sup>Note5</sup>  
With outlet port  
single use fitting block  
With inlet port  
female thread block<sup>Note6</sup>



**Outlet port fitting**  
F10: φ 6  
F15: φ 8

## Wiring specification

L type plug connector  
Without connector



S type plug connector  
Without connector



S type plug connector  
Lead wire 300 mm  
[11.8 in.]



L type plug connector  
Lead wire 300 mm  
[11.8 in.]



S type plug connector  
Lead wire 3000 mm  
[118 in.]



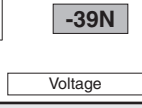
L type plug connector  
Lead wire 3000 mm  
[118 in.]



DIN connector type  
with indicator<sup>Note10</sup>



DIN connector type  
without connector<sup>Note10</sup>



## Valve specification

- T0 : 2-position, for single solenoid only
- T1 : 2-position single solenoid specification (for both single and double solenoid use)
- T2 : 2-position double solenoid specification (for both single and double solenoid use)
- T3 : 3-position closed center
- T4 : 3-position exhaust center<sup>Note3</sup>
- T5 : 3-position pressure center<sup>Note3</sup>
- TA : Tandem 3-port (NC and NO)<sup>Note4</sup>
- TB : Tandem 3-port (NO and NO)<sup>Note4</sup>
- TC : Tandem 3-port (NC and NO)<sup>Note4</sup>

## Operation type

### Blank

Internal pilot type

### G

External pilot type<sup>Note</sup>  
(for positive pressure)

### V

External pilot type<sup>Note</sup>  
(for vacuum)<sup>\*</sup>  
※ This is a vacuum valve.

Note: When using as a single unit, select **-A2**, **-A2H** (A type with sub-base) for the valve outlet type. Without a sub-base, piping for the external pilot is not possible.

## Manual override

Manual override button



No protrusion with  
DIN connector

Manual override lever<sup>Note1</sup>



Protruding locking type<sup>Note9</sup>



Valve size	Valve specification	Operation type	IP65 specification	Manual override	Valve outlet type	Wiring specification	Voltage
F10	T0 T1	Blank	-P	Blank	Blank <sup>Note2</sup>	Blank	DC24V
F10L	T2 T3						DC12V <sup>Note7</sup>
F15	T4 <sup>Note3</sup> T5 <sup>Note3</sup>						AC100V <sup>Note8, 11</sup>
F15L	TA <sup>Note4</sup> TB <sup>Note4</sup> TC <sup>Note4</sup>						AC120V <sup>Note8</sup> AC240V <sup>Note8, 9</sup>

- Notes: 1. When the valve specification is T1 or T2, the manual override lever is placed only on the A side. This is not available with **-39□**.
2. Two manifold mounting screws are included.
3. Not available in the vacuum valves.
4. Not available in external pilot type and vacuum valves.
5. Only for valve specification T0, T1, and T2.
6. Thread size for the inlet port female thread block is F10: M5 × 0.8, F15: Rc1/8.

7. Not available in low-current type.
8. Not available in low-current type and tandem 3-port valves.
9. Only for wiring specification **-39□**.
10. Only for F15 series and not available for valve specification T1, TA, TB, and TC. In addition, the valve is used only as a double solenoid for T2.
11. Not available with DIN connectors.

Remark: Negative common specifications are also available as made to order products (add **-129W** to the end of order code). For details, consult us.

Manifolds on which IP specification valves can be mounted are the A type and F type monoblock manifold, and the split manifold non-plug-in type in the F10 and F15 series. For the A type and the split manifold non-plug-in type, you must put a **-P** after the operation type of each valve. For the F type, you must put a **-P** after the valve specifications of each valve. They can be combined only with IP specification valves. See the F series solenoid valve catalog for details about the manifold order codes.

# F10, F15 Series Single Valve Unit Additional Parts Order Codes

## ● For internal pilot

F  Z -

**Valve size**

10: 10 mm  
[0.394 in.] width  
15: 15 mm  
[0.591 in.] width

**Parts content**

- 21 : Mounting bracket (mounting bracket, 2 mounting screws)
- 25 : Sub-base Rc1/8 (sub-base body, gasket, exhaust valve)<sup>Note1</sup>
- 25H : Sub-base NPT1/8 (sub-base body, gasket, exhaust valve)<sup>Note1</sup>
- P : Plate (plate, gasket, 2 mounting screws)
- J : Dual use fitting block (fitting block, gasket, 2 mounting screws)
- J5 : Single use fitting block F10: φ 4, F15: φ 6 (fitting block, gasket, 2 mounting screws)
- J6 : Single use fitting block F10: φ 6, F15: φ 8 (fitting block, gasket, 2 mounting screws)
- J5A : Single use fitting block for 3-port F10: φ 4, F15: φ 6 (fitting block, gasket, 2 mounting screws)<sup>Note3</sup>
- J6A : Single use fitting block for 3-port F10: φ 6, F15: φ 8 (fitting block, gasket, 2 mounting screws)<sup>Note3</sup>
- M : Female thread block F10: M5 × 0.8 F15: Rc1/8 (female thread block, gasket, 2 mounting screws)
- MH : Female thread block F10: 10-32UNF F15: NPT1/8 (female thread block, gasket, 2 mounting screws)
- MA : Female thread block for 3-port F10: M5 × 8 F15: Rc1/8 (female thread block, gasket, 2 mounting screws)<sup>Note3</sup>
- MAH : Female thread block for 3-port F10: 10-32UNF F15: NPT1/8 (female thread block, gasket, 2 mounting screws)<sup>Note3</sup>
- MPP : P port female thread block F10: M5 × 0.8 F15: Rc1/8 (P port female thread block, gasket)<sup>Note1</sup>
- MPPH : P port female thread block F10: 10-32UNF F15: NPT1/8 (P port female thread block, gasket)<sup>Note1</sup>
- GS1 : Gasket (gasket, exhaust valve)<sup>Note2</sup>

- Notes: 1. Valve mounting screws are not included.  
2. Caution should be exercised as this gasket is different from the **GS2** gasket for the split-type manifolds.  
3. Common to both normally closed (NC) and normally open (NO) types. Select the mounting direction by application requirements.

## ● For external pilot

F  Z -

**Valve size**

10: 10 mm  
[0.394 in.] width  
15: 15 mm  
[0.591 in.] width

**Parts content**

- P : Plate (plate, gasket, 2 mounting screws)
- J : Dual use fitting block (fitting block, gasket, 2 mounting screws)
- J5 : Single use fitting block F10: φ 4, F15: φ 6 (fitting block, gasket, 2 mounting screws)
- J6 : Single use fitting block F10: φ 6, F15: φ 8 (fitting block, gasket, 2 mounting screws)
- J5A : Single use fitting block for 3-port F10: φ 4, F15: φ 6 (fitting block, gasket, 2 mounting screws)<sup>Note1</sup>
- J6A : Single use fitting block for 3-port F10: φ 6, F15: φ 8 (fitting block, gasket, 2 mounting screws)<sup>Note1</sup>
- M : Female thread block F10: M5 × 0.8 F15: Rc1/8 (female thread block, gasket, 2 mounting screws)
- MH : Female thread block F10: 10-32UNF F15: NPT1/8 (female thread block, gasket, 2 mounting screws)
- MA : Female thread block for 3-port F10: M5 × 0.8 F15: Rc1/8 (female thread block, gasket, 2 mounting screws)<sup>Note1</sup>
- MAH : Female thread block for 3-port F10: 10-32UNF F15: NPT1/8 (female thread block, gasket, 2 mounting screws)<sup>Note1</sup>
- GS1 : Gasket (gasket, exhaust valve)<sup>Note2</sup>

- Notes: 1. Common to both normally closed (NC) and normally open (NO) types. Select the mounting direction by application requirements.  
2. Caution should be exercised as this gasket is different from the **GS2** gasket for the split type manifolds.

## Sub-base for external pilot

F  ZG - 25

**Valve size**

10: 10 mm [0.394 in.] width  
15: 15 mm [0.591 in.] width  
Sub-base Rc1/8

F  ZG - 25H

**Valve size**

10: 10 mm [0.394 in.] width  
15: 15 mm [0.591 in.] width  
Sub-base NPT1/8

## Connector-related order codes

JAZ - P -  (For Double solenoid valve only)

**Valve specification**  
For T2, T3, T4,  
T5,  
TA, TB, TC

**Connector specification**

- CP : Connector, lead wire length 300 mm [11.8 in.]
- CP3 : Connector, lead wire length 3000 mm [118 in.]
- PA : Positive common A type, lead wire length 300 mm [11.8 in.] \*
- PA3 : Positive common A type, lead wire length 3000 mm [118 in.] \*
- PB : Positive common B type, lead wire length 300 mm [11.8 in.] \*
- PB3 : Positive common B type, lead wire length 3000 mm [118 in.] \*
- PC : Positive common C type, lead wire length 300 mm [11.8 in.] \*
- PC3 : Positive common C type, lead wire length 3000 mm [118 in.] \*

The \* (asterisk) indicates a common connector assembly.

JAZ0 - P -  (For Single solenoid valve only)

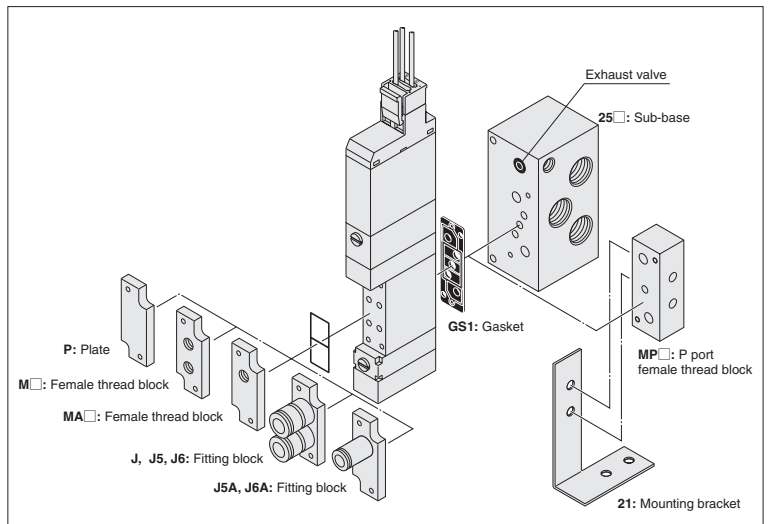
**Valve specification**  
For T0, T1

**Connector specification**

- CP : Connector, lead wire length 300 mm [11.8 in.]
- CP3 : Connector, lead wire length 3000 mm [118 in.]
- PA : Positive common A type, lead wire length 300 mm [11.8 in.] \*
- PA3 : Positive common A type, lead wire length 3000 mm [118 in.] \*
- PB : Positive common B type, lead wire length 300 mm [11.8 in.] \*
- PB3 : Positive common B type, lead wire length 3000 mm [118 in.] \*
- PC : Positive common C type, lead wire length 300 mm [11.8 in.] \*
- PC3 : Positive common C type, lead wire length 3000 mm [118 in.] \*

The \* (asterisk) indicates a common connector assembly.

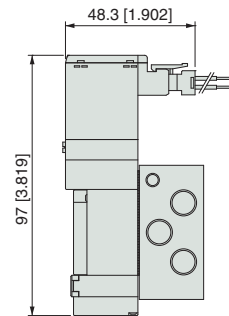
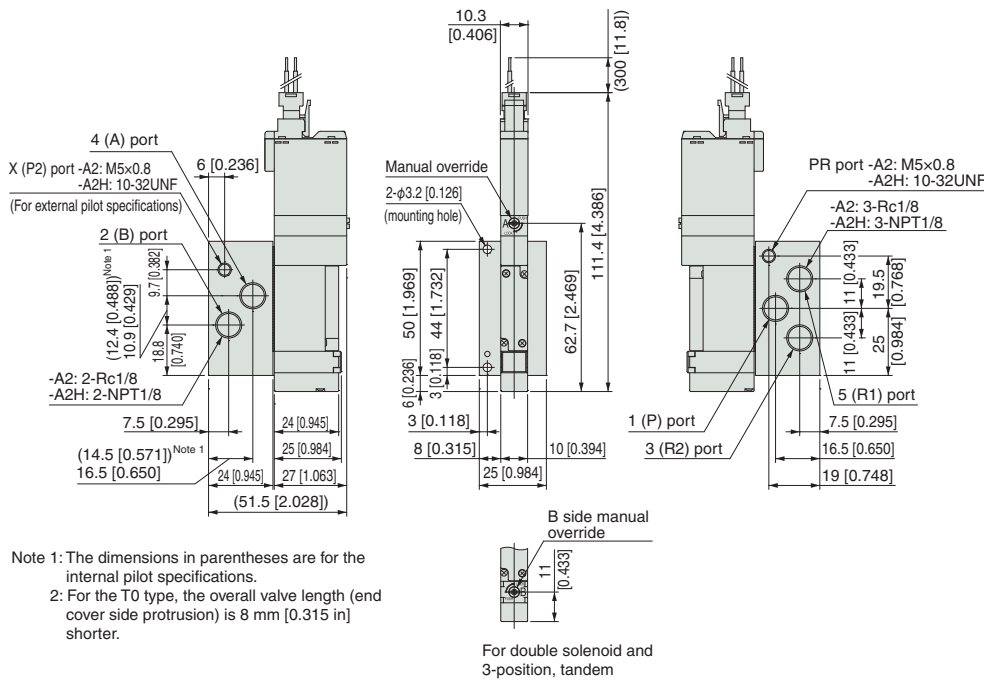
- Note 1: If the valve specification is T1, select the single solenoid type **JAZ0-P-** only.  
2: To switch between single and double solenoid (T1/T2), purchase and use the connector specified for the single or double solenoid (the single and double solenoid have a different number of holes in the packing for the lead wires).  
3: The **JAZ0-P-** have no white lead wire.  
4: The connectors must be disassembled to add valves to the common connector assemblies. Consult the nearest Koganei sales office.  
5: Consult the nearest Koganei sales office for use in locations or environments subject to liquids other than water, such as organic solvents, cutting oil, or chemicals.  
6: Consult the nearest Koganei sales office about how to replace the waterproof packing.



**F10T** Valve specifications **Operation type -P-A2-PS**

**F10T** Valve specifications **Operation type -P-A2H-PS**

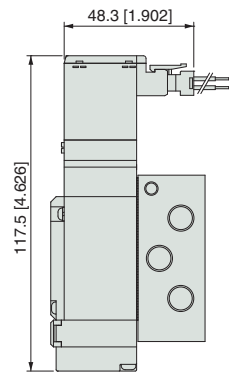
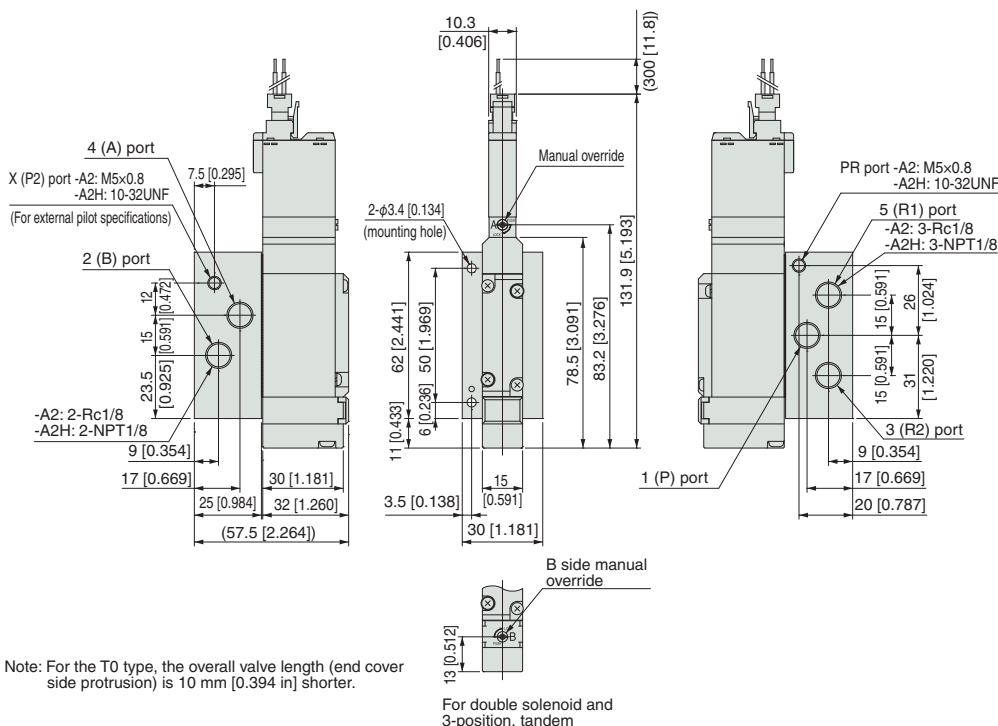
● L-type plug connector: **-PL**



**F15T** Valve specifications **Operation type -P-A2-PS**

**F15T** Valve specifications **Operation type -P-A2H-PS**

● L-type plug connector: **-PL**



URL <http://www.koganei.co.jp>

E-mail: [overseas@koganei.co.jp](mailto:overseas@koganei.co.jp)



**KOGANEI CORPORATION**

OVERSEAS DEPARTMENT  
 3-11-28, Midori-cho, Koganei City, Tokyo 184-8533, Japan  
 Tel: 81-42-383-7271 Fax: 81-42-383-7276

KOGANEI INTERNATIONAL AMERICA, INC.  
 39300 Civic Center Dr., Suite 280, Fremont, CA 94538, U.S.A.  
 Tel: 1-510-744-1626 Fax: 1-510-744-1676

SHANGHAI KOGANEI INTERNATIONAL TRADING CORPORATION  
 Room 2606-2607, Tongda Venture Building No.1, Lane 600, Tianshan Road, Shanghai, 200051, China  
 Tel: 86-21-6145-7313 Fax: 86-21-6145-7323

TAIWAN KOGANEI TRADING CO., LTD.  
 Rm. 2, 13F., No88, Sec. 2, Zhongxiao E. Rd., Zhongzheng Dist., Taipei City 100, Taiwan (ROC)  
 Tel: 886-2-2393-2717 Fax: 886-2-2393-2719

KOGANEI KOREA CO., LTD.  
 3300/90, Tower B, Elephant Tower, 16th Fl., Phaholyothin Road, Chomphon, Chatuchak, Bangkok 10900, Thailand  
 Tel: 82-31-246-0414 Fax: 82-31-246-0415

KOGANEI (THAILAND) CO., LTD.  
 3300/90, Tower B, Elephant Tower, 16th Fl., Phaholyothin Road, Chomphon, Chatuchak, Bangkok 10900, Thailand  
 Tel: 66-2-937-4250 Fax: 66-2-937-4254

KOGANEI ASIA PTE. LTD.  
 69 Ubi Road 1, #05-18 Oxley Bizhub, Singapore 408731  
 Tel: 65-6293-4512 Fax: 65-6293-4513