## Compendium of 6D/6DW Series

### Manual Lock Design

1.Manual push does not automatically lock, used for valve installation and debugging.
2.Use caution, prior to activating manual override.
3.With the correct size screw driver: gently press and turn to lock (Torque: 0.1N.m)

Normal Position  Lock Position

### Multi-series and Multi-port types are optional

6D0500, 6D100, 6D200 series;
6DW0500, 6DW100, 6DW200 series;
Φ4、Φ6、Φ8、Φ10 ports for options.

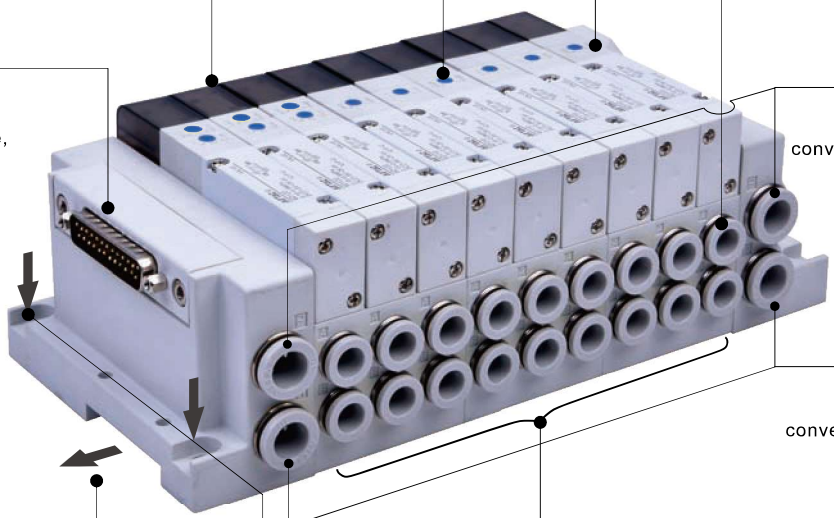
| Series/Ports(A\B ports) | Φ4 | Φ6 | Φ8 | Φ10 |
|---|---|---|---|---|
| 6D0500/6DW0500 | • | • | | |
| 6D100/6DW100 | • | • | • | |
| 6D200/6DW200 | | | • | • |

### Adaptor design of pilot valve

Easy to install with stable signaling, decreases risk during manual wiring

### Consolidate Input

The D-SUB25PIN(6D) or D-SUB37PIN(6DW) cable, simplifies wiring process and enhances risk-resisting function.



### Dual Centralized inlet ports

Centralized inlet, convenient piping, saving installation space.

| Series | 6D0500 | 6D100 | 6D200 |
|---|---|---|---|
| | 6DW0500 | 6DW100 | 6DW200 |
| Ports(P) | Φ8 | Φ10 | Φ12 |

### Dual Centralized outlet ports

Centralized exhaust, convenient piping, saving installation space.

| Series | 6D0500 | 6D100 | 6D200 |
|---|---|---|---|
| | 6DW0500 | 6DW100 | 6DW200 |
| Ports(R) | Φ8 | Φ10 | Φ12 |

### Manifold design

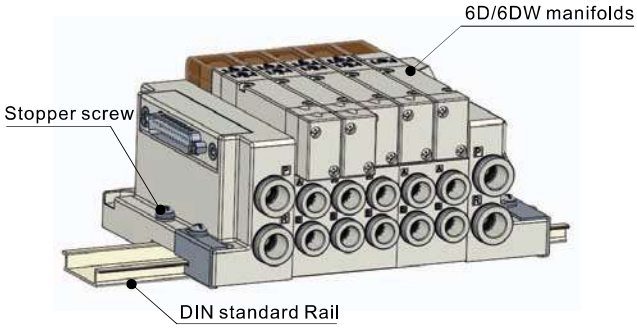
It is convenient and flexible to disassemble and replace.

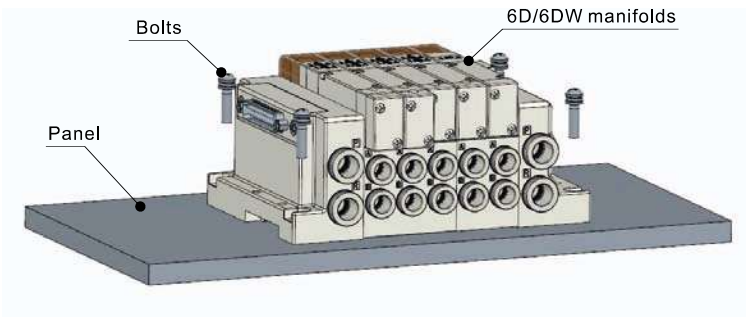
### DIN rail compatibility

Manifold is compatible with DIN standard rail. 6D/6DW integrated valve can be fixed at any position of rail by stop screw.

### Diverse installation

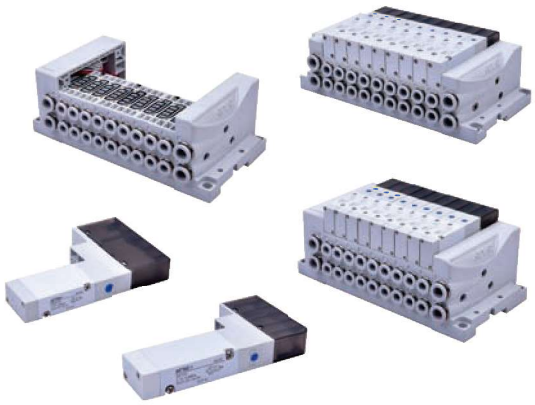
With four bolts, it can be fixed anywhere on panel.



# Integrated solenoid valve (5/2, 5/3 way)

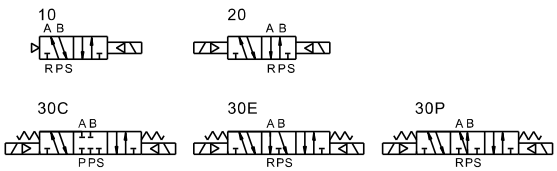
## 6D/6DW Series



## Specification

| Model | | 6D0500/6DW0500 | 6D100/6DW100 | 6D200/6DW200 |
|---|---|---|---|---|
| Fluid | | Air(to be filtered by 40μm filter element) | | |
| Acting | | Pilot | | |
| Operating pressure | 5/3 way | 0.2~0.8MPa(29~114psi) | | |
| | Others | 0.15~0.8MPa(21~114psi) | | |
| Proof pressure | | 1.2MPa(175psi) | | |
| Temperature | | -20~70℃ | | |
| Type of inlet and exhaust | | Centralized inlet and exhaust | | |
| Numbers of station | 6D | 3-21 stations | | |
| | 6DW | 13-33 stations | | |
| Port size | A、B ports | Φ4/Φ6 tube fitting | Φ4/Φ6/Φ8 tube fitting | Φ8/Φ10 tube fitting |
| | P、R ports | Φ8 tube fitting | Φ10 tube fitting | Φ12 tube fitting |
| Electrical entry | | Terminal , 25pinD-SUB/37pinD-SUB | | |

## Symbol



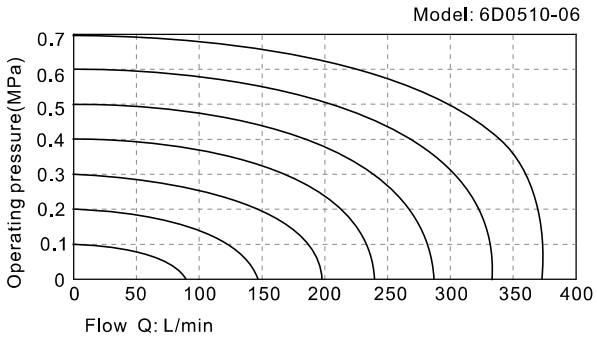

## Coil specification

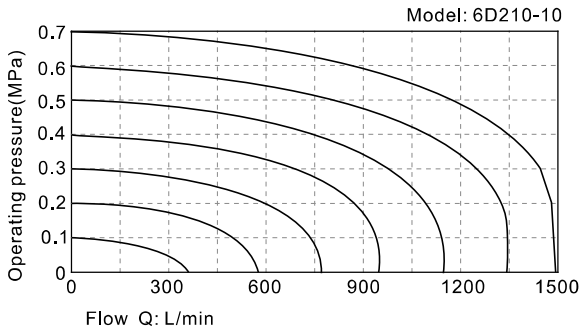
| Item | Specification | |
|---|---|---|
| Standard voltage | DC24V | DC12V |
| Scope of voltage | DC： ±10% | |
| Power of consumption | DC：0.7W | |
| Protection | Dustproof | |
| Temperature classification | F Class | |
| Electrical entry | Terminal | |
| Activating time | 0.05 sec and below | |

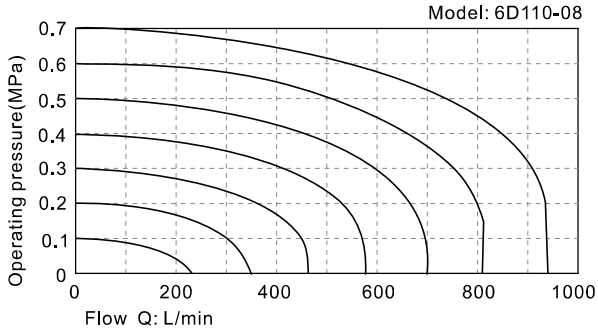
## Product feature

1. Centralized inlets, outlets and signal input(25pin D-SUB or 37pin D-SUB) make it highly simplifies installation and reduces risk during mounting.
2. Flexible combination for various applications.
3. Convenient installation, can be fixed on panel or DIN rail without other accessory.
4. 2 position and 3 position valves can be installed on the same manifold without further accessories.
5. Affiliated manual devices are equipped to facilitate installation and debugging.
6. Low starting voltage and long service life.

## Flow chart




Flow rate data obtained from the AirTAC R&D Lab.

## Manifold ports Ordering Code (With Valves,25PIN)

**6D1H 8F-J06 B S1 D2 C2 E2 P1 □**

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

Without communication module

Without communication module

With communication module

| | | | | | |
|---|---|---|---|---|---|
| ①Model | 6D05H: 6D0500 Series integrated Solenoid valve | | 6D1H: 6D100 Series integrated Solenoid valve | 6D2H: 6D200 Series integrated Solenoid valve | |
| ②Number of stations | 3F: 3 stations 4F: 4 stations ..... 21F: 21stations | | | | |
| ③Port size(A/B Port) | J04: Φ4 tube fitting<br>J06: Φ6 tube fitting | | J04: Φ4 tube fitting<br>J06: Φ6 tube fitting<br>J08: Φ8 tube fitting | J08: Φ8 tube fitting<br>J10: Φ10 tube fitting | |
| ④Standard voltage | B:DC24V F:DC12V | | | | |
| ⑤Single solenoid 5/2 way | Total number of valves | Blank: No S1: 1 piece S2: 2 pieces.....S21: 21 pieces | | | Total number of valves must be ≤21 |
| ⑥Double solenoid 5/2 way | | Blank: No D1: 1 piece D2: 2 pieces.....D12: 12 pieces | | | |
| ⑦Double solenoid 5/3 way closed center | | Blank: No C1: 1 piece C2: 2 pieces.....C12: 12 pieces | | | |
| ⑧Double solenoid 5/3 way exhaust center | | Blank: No E1: 1 piece E2: 2 pieces.....E12: 12 pieces | | | |
| ⑨Double solenoid 5/3 way pressure center | | Blank: No P1: 1 piece P2: 2 pieces.....P12: 12 pieces | | | |
| ⑩Type of communication module | Blank: Without communication module<br>CPN1: Profinet+PNP CPN2: Profinet+NPN<br>CEN1: EtherNet/IP+PNP CEN2: EtherNet/IP+NPN<br>CEA1: EtherCAT+PNP CEA2: EtherCAT+NPN<br>CLK1: IO-Link+PNP | | | | |

Ordering code instruction:
1. 6D series comes with D-SUB25PIN.
2. Fill in spec, number of stations, port size, voltage in order code accordingly.
3. Valve installation sequence : start from D-SUB side.
4. Valve installation sequence : (1) Double solenoid 5/3 way(C→E→P). (2) Double solenoid 5/2 way. (3)Single solenoid.
5. For empty position, please install provisional block.
6. 0500 series in/outlet ports (P/R) is Ø8, 100 series in/outlet ports (P/R) is Ø10, 200 series in/outlet ports (P/R) is Ø12
7. Less than 8 stations(inclusive):come with 1 plug type silencer and 2 plugs; More than 8 stations: come with 2 plug type silencers and 1 plug.
8. Total number of single solenoids+double solenoids+5/3way(C) + 5/3way(E) + 5/3way(P) must be ≤21
9. For station 3~12, total number of ⑥+⑦+⑧+⑨ must be ≤12 (come with double solenoid manifold)
   For station 13-15, total numbers of ⑥+⑦+⑧+⑨ must be ≤9 ; station 16-18, total numbers of ⑥+⑦+⑧+⑨ must be ≤6.
   station 19-21, total numbers of ⑥+⑦+⑧+⑨ must be ≤3.

## Manifold ports Ordering Code (Without Valves, 25PIN)

**6D1H 8F J06**

① ② ③

| | | | |
|---|---|---|---|
| ①Model | 6D05H: 6D0500 Series manifold | 6D1H: 6D100 Series manifold | 6D2H: 6D200 Series manifold |
| ②Number of stations | 3F: 3 stations 4F: 4 stations ..... 21F: 21stations | | |
| ③Port size(A/B Port) | J04: Φ4 tube fitting<br>J06: Φ6 tube fitting | J04: Φ4 tube fitting<br>J06: Φ6 tube fitting<br>J08: Φ8 tube fitting | J08: Φ8 tube fitting<br>J10: Φ10 tube fitting |

Note:
1. 6D series comes with D-SUB25PIN.
2. For station 3~12, it comes with double solenoid type manifold.
   On 13 to 15 station valve banks, only the first 9 positions can have double solenoid valves(2 or 3 positions)
   On 16 to 18 station valve banks, only the first 6 positions can have double solenoid valves(2 or 3 positions)
   On 19 to 21 station valve banks, only the first 3 positions can have double solenoid valves(2 or 3 positions)
3. Valve installation sequence: start from D-SUB side.
4. 0500 series in/outlet ports (P/R) is Ø8, 100 series in/outlet ports (P/R) is Ø10, 200 series in/outlet ports (P/R) is Ø12
5. Less than 8 stations(inclusive): come with 1 plug type silencer and 2 plugs; More than 8 stations: come with 2 plug type silencers and 1 plug.

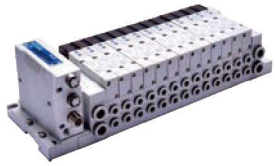
## Manifold ports Ordering Code (With Valves,37PIN)

6DW1H 18F-J06 B S5 D8C2 E1 P2 □

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

Without communication module

Without communication module



With communication module

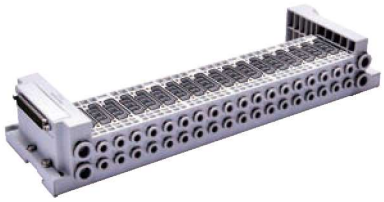
| | | | | |
|---|---|---|---|---|
| ①Model | 6DW05H: 6DW0500 Series integrated Solenoid valve | | 6DW1H: 6DW100 Series integrated Solenoid valve | 6DW2H: 6DW200 Series integrated Solenoid valve |
| ②Number of stations | 13F: 13 stations 14F: 14 stations ..... 33F: 33stations | | | |
| ③Port size(A/B Port) | J04: Φ4 tube fitting<br>J06: Φ6 tube fitting | | J04: Φ4 tube fitting<br>J06: Φ6 tube fitting<br>J08: Φ8 tube fitting | J08: Φ8 tube fitting<br>J10: Φ10 tube fitting |
| ④Standard voltage | B:DC24V F:DC12V | | | |
| ⑤Single solenoid 5/2 way | Total number of valves | Blank: No S1: 1 piece S2: 2 pieces.....S33: 33 pieces | | Total number of valves must be ≤33 |
| ⑥Double solenoid 5/2 way | | Blank: No D1: 1 piece D2: 2 pieces.....D18: 18 pieces | | |
| ⑦Double solenoid 5/3 way closed center | | Blank: No C1: 1 piece C2: 2 pieces.....C18: 18 pieces | | |
| ⑧Double solenoid 5/3 way exhaust center | | Blank: No E1: 1 piece E2: 2 pieces.....E18: 18 pieces | | |
| ⑨Double solenoid 5/3 way pressure center | | Blank: No P1: 1 piece P2: 2 pieces.....P18: 18 pieces | | |
| ⑩Type of communication module | Blank: Without communication module<br>CPN11: Profinet+PNP CPN22: Profinet+NPN<br>CEN11: EtherNet/IP+PNP CEN22: EtherNet/IP+NPN<br>CEA11: EtherCAT+PNP CEA22: EtherCAT+NPN<br>CLK11: IO-Link+PNP | | | |

Ordering code instruction:
1. 6DW series comes with D-SUB37PIN.
2. Fill in spec, number of stations, port size, voltage in order code accordingly.
3. Valve installation sequence : start from D-SUB side.
4. Valve installation sequence : (1) Double solenoid 5/3 way(C→E→P). (2) Double solenoid 5/2 way. (3)Single solenoid.
5. For empty position, please install provisional block.
6. 0500 series in/outlet ports (P/R) is Ø8, 100 series in/outlet ports (P/R) is Ø10, 200 series in/outlet ports (P/R) is Ø12
7. 6DW series comes with 2 plug type silencers and 1 plug.
8. Total number of single solenoids+double solenoids+5/3way(C) + 5/3way(E) + 5/3way(P) must be ≤33
9. For station 13~18, total number of ⑥+⑦+⑧+⑨ must be ≤18 (come with double solenoid manifold)
   For station 19-21, total numbers of ⑥+⑦+⑧+⑨ must be ≤15. Station 22-24, total numbers of ⑥+⑦+⑧+⑨ must be ≤12.
   Station 25-27, total numbers of ⑥+⑦+⑧+⑨ must be ≤9. Station 28-30, total numbers of ⑥+⑦+⑧+⑨ must be ≤6.
   Station 31-33, total numbers of ⑥+⑦+⑧+⑨ must be ≤3.

## Manifold ports Ordering Code (Without Valves, 37PIN)

6DW1H 8F J06

① ② ③



| | | | |
|---|---|---|---|
| ①Model | 6DW05H: 6DW0500 Series manifold | 6DW1H: 6DW100 Series manifold | 6DW2H: 6DW200 Series manifold |
| ②Number of stations | 13F: 13 stations 14F: 14 stations ..... 33F: 33stations | | |
| ③Port size(A/B Port) | J04: Φ4 tube fitting<br>J06: Φ6 tube fitting | J04: Φ4 tube fitting<br>J06: Φ6 tube fitting<br>J08: Φ8 tube fitting | J08: Φ8 tube fitting<br>J10: Φ10 tube fitting |

Note:
1. 6DW series comes with D-SUB37PIN.
2. For station 13~18, it comes with double solenoid type manifold.
   On 19 to 21 station valve banks, only the first 15 positions can have double solenoid valves(2 or 3 positions).
   On 22 to 24 station valve banks, only the first 12 positions can have double solenoid valves(2 or 3 positions).
   On 25 to 27 station valve banks, only the first 9 positions can have double solenoid valves(2 or 3 positions).
   On 28 to 30 station valve banks, only the first 6 positions can have double solenoid valves(2 or 3 positions).
   On 31 to 33 station valve banks, only the first 3 positions can have double solenoid valves(2 or 3 positions).
3. Valve installation sequence: start from D-SUB side.
4. 0500 series in/outlet ports (P/R) is Ø8, 100 series in/outlet ports (P/R) is Ø10, 200 series in/outlet ports (P/R) is Ø12
5. 6DW series comes with 2 plug type silencers and 1 plug.

## 6D/6DW Series

### Solenoid Valve Ordering Code

**6D 1 20 B**

① ② ③ ④

| | | | |
|---|---|---|---|
| ①Model | 6D: 5-port, 2/3-position solenoid valve | | |
| ②Code | 05: 0500 Series | 1: 100 Series | 2: 200 Series |
| ③Valve type | 10 : Single solenoid(5/2 Way) 20 : Double solenoid(5/2 Way) 30C : Double solenoid(5/3 way closed center) | | |
| | 30E : Double solenoid(5/3 way exhaust center) 30P : Double solenoid(5/3 way pressure center) | | |
| ④Standard Voltage | B: DC24V F: DC12V | | |

### Provisional Block Ordering Code

**P - 6D100M - R2**

① ② ③

| | | | |
|---|---|---|---|
| ①Accessories | P : Accessories | | |
| ②Model | 6D0500M: 0500 Series | 6D100M: 100 Series | 6D200M: 200 Series |
| ③Provisional block code | R2: 6D series Provisional block | | |

Note:Orders come with screw bolts.

### DIN Rail Ordering Code

**F – DINX140**

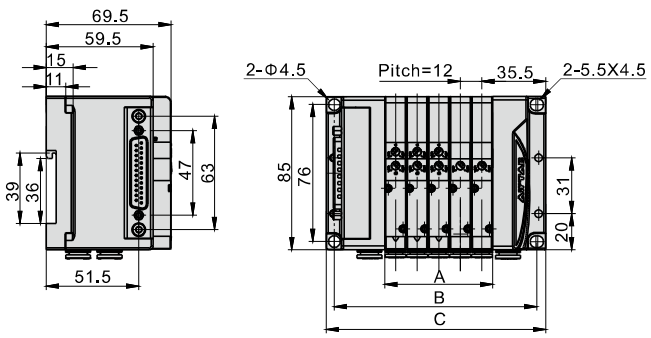
① ②

| | |
|---|---|
| ①Accessories | F–DIN: DIN Rail |
| ②Length of DIN rail | 140 : 140mm 175 : 175mm 210 : 210mm .....1000 : 1000mm |

Note: DIN rail add length is 35mm each step.

### Dimensions

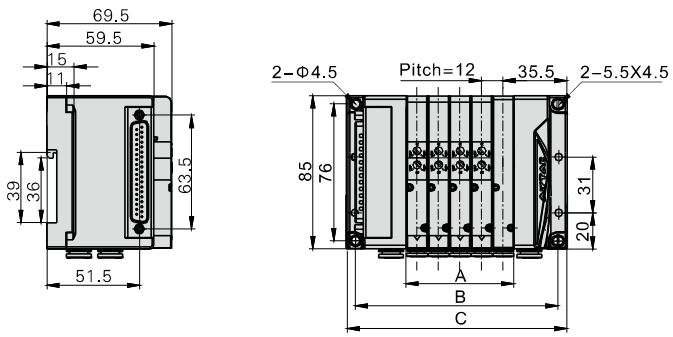
**6D0500**




| Item\Stations | 3F | 4F | 5F | 6F | 7F | 8F | 9F | 10F | 11F |
|---|---|---|---|---|---|---|---|---|---|
| A | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 |
| B | 88.5 | 100.5 | 112.5 | 124.5 | 136.5 | 148.5 | 160.5 | 172.5 | 184.5 |
| C | 98 | 110 | 122 | 134 | 146 | 158 | 170 | 182 | 194 |

| Item\Stations | 12F | 13F | 14F | 15F | 16F | 17F | 18F | 19F | 20F | 21F |
|---|---|---|---|---|---|---|---|---|---|---|
| A | 144 | 156 | 168 | 180 | 192 | 204 | 216 | 228 | 240 | 252 |
| B | 196.5 | 208.5 | 220.5 | 232.5 | 244.5 | 256.5 | 268.5 | 280.5 | 292.5 | 304.5 |
| C | 206 | 218 | 230 | 242 | 254 | 266 | 278 | 290 | 302 | 314 |

**6DW0500**

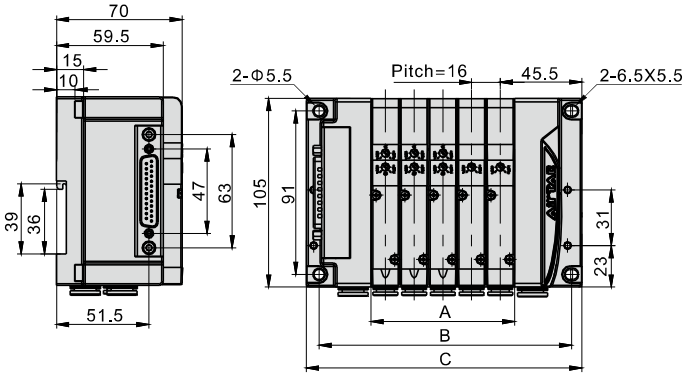



| Item\Stations | 13F | 14F | 15F | 16F | 17F | 18F | 19F | 20F | 21F | 22F |
|---|---|---|---|---|---|---|---|---|---|---|
| A | 156 | 168 | 180 | 192 | 204 | 216 | 228 | 240 | 252 | 264 |
| B | 208.5 | 220.5 | 232.5 | 244.5 | 256.5 | 268.5 | 280.5 | 292.5 | 304.5 | 316.5 |
| C | 218 | 230 | 242 | 254 | 266 | 278 | 290 | 302 | 314 | 326 |

| Item\Stations | 23F | 24F | 25F | 26F | 27F | 28F | 29F | 30F | 31F | 32F | 33F |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 276 | 288 | 300 | 312 | 324 | 336 | 348 | 360 | 272 | 384 | 396 |
| B | 328.5 | 340.5 | 352.5 | 364.5 | 376.5 | 388.5 | 400.5 | 412.5 | 424.5 | 436.5 | 448.5 |
| C | 338 | 350 | 362 | 374 | 386 | 398 | 410 | 422 | 434 | 446 | 458 |

## 6D/6DW Series

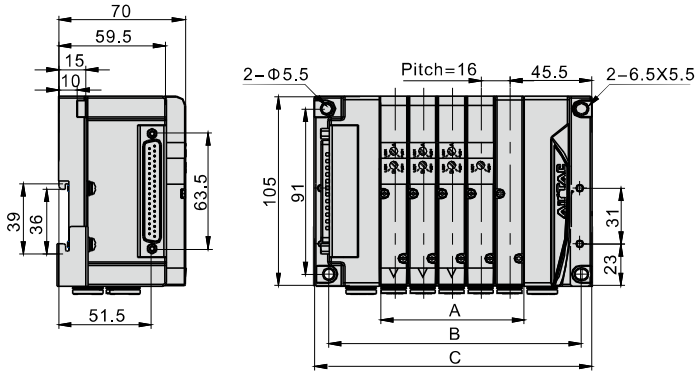
### 6D100




| Item\Stations | 3F | 4F | 5F | 6F | 7F | 8F | 9F | 10F | 11F |
|---|---|---|---|---|---|---|---|---|---|
| A | 48 | 64 | 80 | 96 | 112 | 128 | 144 | 160 | 176 |
| B | 108.5 | 124.5 | 140.5 | 156.5 | 172.5 | 188.5 | 204.5 | 220.5 | 236.5 |
| C | 121.5 | 137.5 | 153.5 | 169.5 | 185.5 | 201.5 | 217.5 | 233.5 | 249.5 |

| Item\Stations | 12F | 13F | 14F | 15F | 16F | 17F | 18F | 19F | 20F | 21F |
|---|---|---|---|---|---|---|---|---|---|---|
| A | 192 | 208 | 224 | 240 | 256 | 272 | 288 | 304 | 320 | 336 |
| B | 252.5 | 268.5 | 284.5 | 300.5 | 316.5 | 332.5 | 348.5 | 364.5 | 380.5 | 396.5 |
| C | 265.5 | 281.5 | 297.5 | 313.5 | 329.5 | 345.5 | 361.5 | 377.5 | 393.5 | 409.5 |

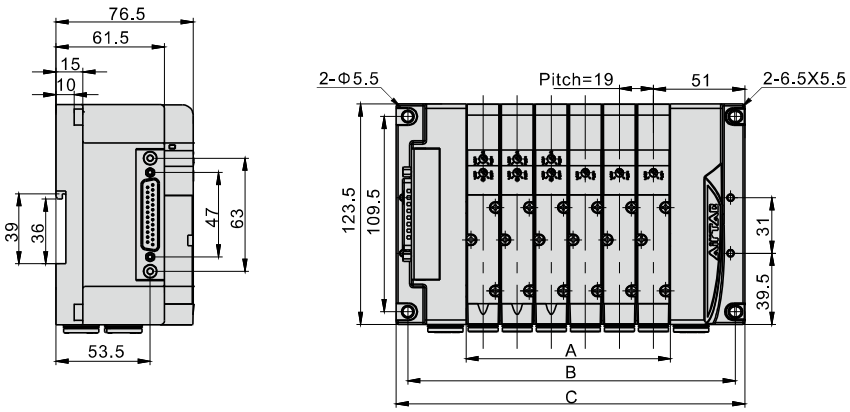
### 6DW100




| Item\Stations | 13F | 14F | 15F | 16F | 17F | 18F | 19F | 20F | 21F | 22F |
|---|---|---|---|---|---|---|---|---|---|---|
| A | 208 | 224 | 240 | 256 | 272 | 288 | 304 | 320 | 336 | 352 |
| B | 268.5 | 284.5 | 300.5 | 316.5 | 332.5 | 348.5 | 364.5 | 380.5 | 396.5 | 412.5 |
| C | 281.5 | 297.5 | 313.5 | 329.5 | 345.5 | 361.5 | 377.5 | 393.5 | 409.5 | 425.5 |

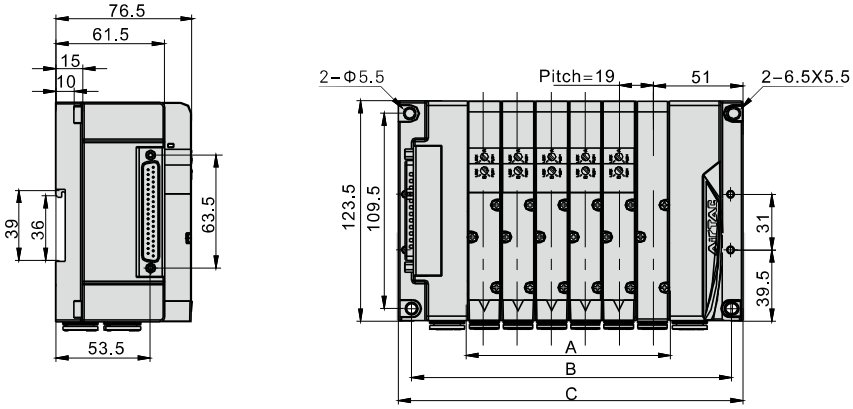
| Item\Stations | 23F | 24F | 25F | 26F | 27F | 28F | 29F | 30F | 31F | 32F | 33F |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 368 | 384 | 400 | 416 | 432 | 448 | 464 | 480 | 496 | 512 | 528 |
| B | 428.5 | 444.5 | 460.5 | 476.5 | 492.5 | 508.5 | 524.5 | 540.5 | 556.5 | 572.5 | 588.5 |
| C | 441.5 | 457.5 | 473.5 | 489.5 | 505.5 | 521.5 | 537.5 | 553.5 | 569.5 | 585.5 | 601.5 |

### 6D200




| Item\Stations | 3F | 4F | 5F | 6F | 7F | 8F | 9F | 10F | 11F | 12F | 13F | 14F | 15F | 16F | 17F | 18F | 19F | 20F | 21F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 57 | 76 | 95 | 114 | 133 | 152 | 171 | 190 | 209 | 228 | 247 | 266 | 285 | 304 | 323 | 342 | 361 | 380 | 399 |
| B | 125.5 | 144.5 | 163.5 | 182.5 | 201.5 | 220.5 | 239.5 | 258.5 | 277.5 | 296.5 | 315.5 | 334.5 | 353.5 | 372.5 | 391.5 | 410.5 | 429.5 | 448.5 | 467.5 |
| C | 137.5 | 156.5 | 175.5 | 194.5 | 213.5 | 232.5 | 251.5 | 270.5 | 289.5 | 308.5 | 327.5 | 346.5 | 365.5 | 384.5 | 403.5 | 422.5 | 441.5 | 460.5 | 479.5 |

### 6DW200

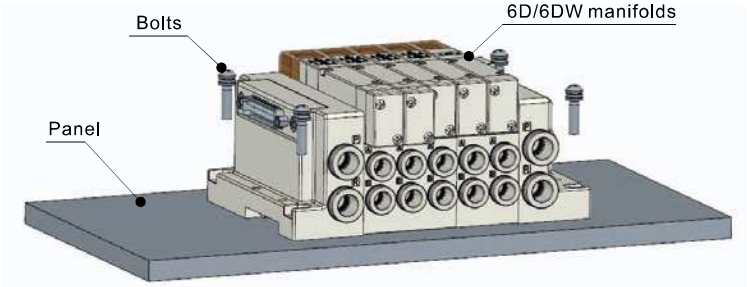



| Item\Stations | 13F | 14F | 15F | 16F | 17F | 18F | 19F | 20F | 21F | 22F | 23F | 24F | 25F | 26F | 27F | 28F | 29F | 30F | 31F | 32F | 33F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 247 | 266 | 285 | 304 | 323 | 342 | 361 | 380 | 399 | 418 | 437 | 456 | 475 | 494 | 513 | 532 | 551 | 570 | 589 | 608 | 627 |
| B | 315.5 | 334.5 | 353.5 | 372.5 | 391.5 | 410.5 | 429.5 | 448.5 | 467.5 | 486.5 | 505.5 | 524.5 | 543.5 | 562.5 | 581.5 | 600.5 | 619.5 | 638.5 | 657.5 | 676.5 | 695.5 |
| C | 327.5 | 346.5 | 365.5 | 384.5 | 403.5 | 422.5 | 441.5 | 460.5 | 479.5 | 498.5 | 517.5 | 536.5 | 555.5 | 574.5 | 593.5 | 612.5 | 631.5 | 650.5 | 669.5 | 688.5 | 707.5 |

## Installtion and application

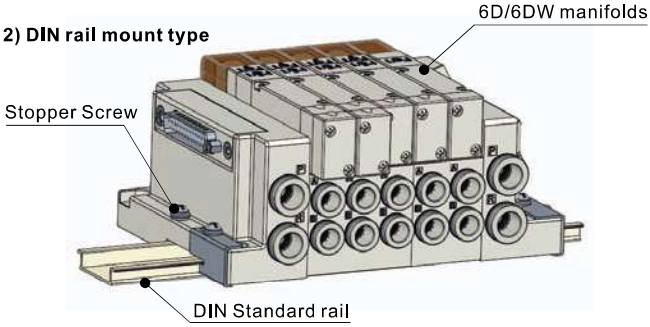
1. Two types of installation are available, choose appropriate type based on working environment.

**1) Panel mount type**




Four counterbore holes for screw bolts, suitable for panel installation.

**2) DIN rail mount type**




Compatible with standard DIN rail.
6D/6DW manifolds can be fixed at any position of rail by stop screw.

2. P\R ports connection: Please select the appropriate tube diameter according to the following specification table.

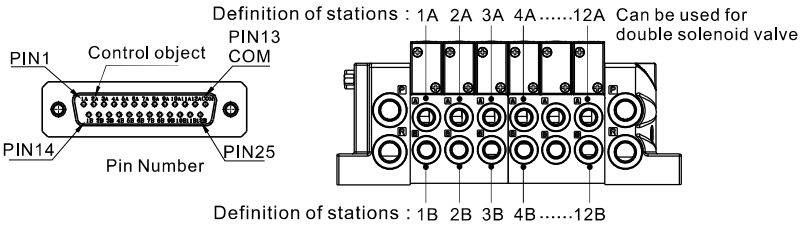
| Series | Port (P) | Port (R) |
|---|---|---|
| 6D0500/6DW0500 | Φ8 | Φ8 |
| 6D100/6DW100 | Φ10 | Φ10 |
| 6D200/6DW200 | Φ12 | Φ12 |

3. A\B ports connection: Please select the appropriate tube diameter according to the following specification table.

| Series\Ports(A\B ports) | Φ4 | Φ6 | Φ8 | Φ10 |
|---|---|---|---|---|
| 6D0500/6DW0500 | • | • | | |
| 6D100/6DW100 | • | • | • | |
| 6D200/6DW200 | | | • | • |

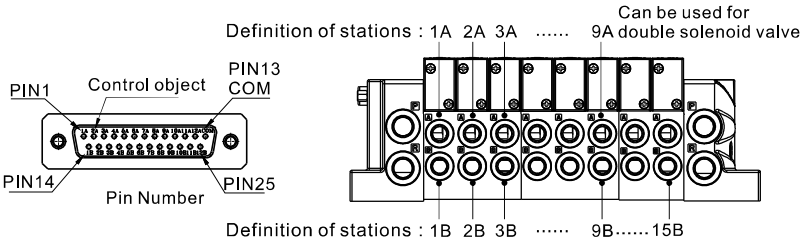
4. PIN assignment of 6D series:

**Explanation of 3-12 stations connection pin.**



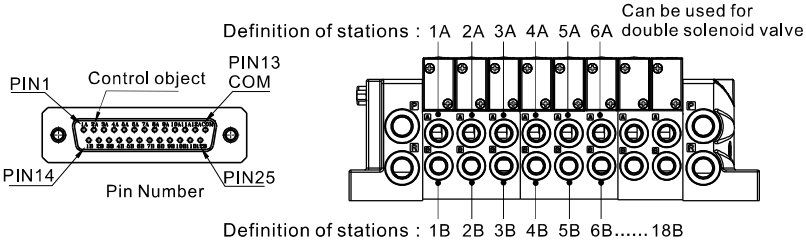

| Pin NO. | Polarity -COM | Polarity +COM | Control object | Pin NO. | Polarity -COM | Polarity +COM | Control object |
|---|---|---|---|---|---|---|---|
| 1 | (+) | (-) | 1B | 14 | (+) | (-) | 1A |
| 2 | (+) | (-) | 2B | 15 | (+) | (-) | 2A |
| 3 | (+) | (-) | 3B | 16 | (+) | (-) | 3A |
| 4 | (+) | (-) | 4B | 17 | (+) | (-) | 4A |
| 5 | (+) | (-) | 5B | 18 | (+) | (-) | 5A |
| 6 | (+) | (-) | 6B | 19 | (+) | (-) | 6A |
| 7 | (+) | (-) | 7B | 20 | (+) | (-) | 7A |
| 8 | (+) | (-) | 8B | 21 | (+) | (-) | 8A |
| 9 | (+) | (-) | 9B | 22 | (+) | (-) | 9A |
| 10 | (+) | (-) | 10B | 23 | (+) | (-) | 10A |
| 11 | (+) | (-) | 11B | 24 | (+) | (-) | 11A |
| 12 | (+) | (-) | 12B | 25 | (+) | (-) | 12A |
| 13 | (-) | (+) | COM | When mounted with single solenoid valves, A signal is empty | | | |

**Explanation of 13-15 stations connection pin.**




| Pin NO. | Polarity -COM | Polarity +COM | Control object | Pin NO. | Polarity -COM | Polarity +COM | Control object |
|---|---|---|---|---|---|---|---|
| 1 | (+) | (-) | 1B | 14 | (+) | (-) | 1A |
| 2 | (+) | (-) | 2B | 15 | (+) | (-) | 2A |
| 3 | (+) | (-) | 3B | 16 | (+) | (-) | 3A |
| 4 | (+) | (-) | 4B | 17 | (+) | (-) | 4A |
| 5 | (+) | (-) | 5B | 18 | (+) | (-) | 5A |
| 6 | (+) | (-) | 6B | 19 | (+) | (-) | 6A |
| 7 | (+) | (-) | 7B | 20 | (+) | (-) | 7A |
| 8 | (+) | (-) | 8B | 21 | (+) | (-) | 8A |
| 9 | (+) | (-) | 9B | 22 | (+) | (-) | 9A |
| 10 | (+) | (-) | 10B | 23 | (+) | (-) | 11B |
| 11 | (+) | (-) | 12B | 24 | (+) | (-) | 13B |
| 12 | (+) | (-) | 14B | 25 | (+) | (-) | 15B |
| 13 | (-) | (+) | COM | When mounted with single solenoid valves, A signal is empty | | | |

**Explanation of 16-18 stations connection pin.**

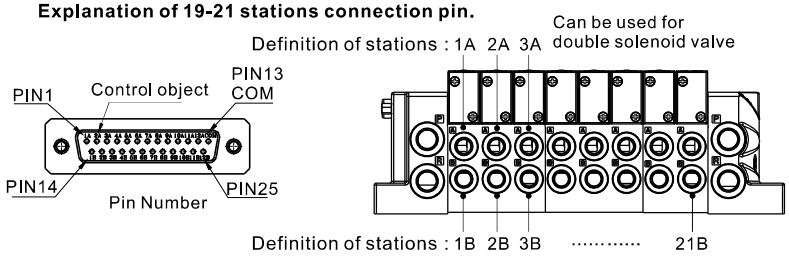



| Pin NO. | Polarity -COM | Polarity +COM | Control object | Pin NO. | Polarity -COM | Polarity +COM | Control object |
|---|---|---|---|---|---|---|---|
| 1 | (+) | (-) | 1B | 14 | (+) | (-) | 1A |
| 2 | (+) | (-) | 2B | 15 | (+) | (-) | 2A |
| 3 | (+) | (-) | 3B | 16 | (+) | (-) | 3A |
| 4 | (+) | (-) | 4B | 17 | (+) | (-) | 4A |
| 5 | (+) | (-) | 5B | 18 | (+) | (-) | 5A |
| 6 | (+) | (-) | 6B | 19 | (+) | (-) | 6A |
| 7 | (+) | (-) | 7B | 20 | (+) | (-) | 8B |
| 8 | (+) | (-) | 9B | 21 | (+) | (-) | 10B |
| 9 | (+) | (-) | 11B | 22 | (+) | (-) | 12B |
| 10 | (+) | (-) | 13B | 23 | (+) | (-) | 14B |
| 11 | (+) | (-) | 15B | 24 | (+) | (-) | 16B |
| 12 | (+) | (-) | 17B | 25 | (+) | (-) | 18B |
| 13 | (-) | (+) | COM | When mounted with single solenoid valves, A signal is empty | | | |

Note: Gauge number of cable connecting to D-Sub pin No.13(COM) must be≤22AWG

## 6D/6DW Series

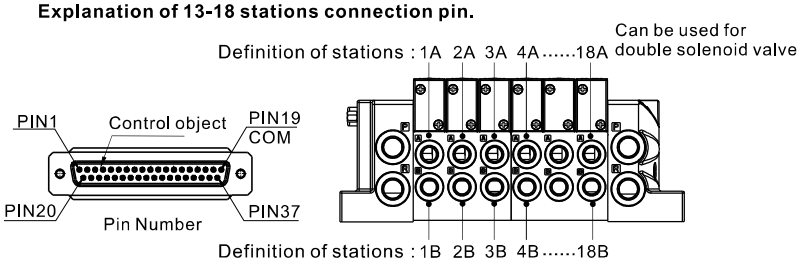
**Explanation of 19-21 stations connection pin.**




| Pin NO. | Polarity -COM | Polarity +COM | Control object | Pin NO. | Polarity -COM | Polarity +COM | Control object |
|---|---|---|---|---|---|---|---|
| 1 | (+) | (-) | 1B | 14 | (+) | (-) | 1A |
| 2 | (+) | (-) | 2B | 15 | (+) | (-) | 2A |
| 3 | (+) | (-) | 3B | 16 | (+) | (-) | 3A |
| 4 | (+) | (-) | 4B | 17 | (+) | (-) | 5B |
| 5 | (+) | (-) | 6B | 18 | (+) | (-) | 7B |
| 6 | (+) | (-) | 8B | 19 | (+) | (-) | 9B |
| 7 | (+) | (-) | 10B | 20 | (+) | (-) | 11B |
| 8 | (+) | (-) | 12B | 21 | (+) | (-) | 13B |
| 9 | (+) | (-) | 14B | 22 | (+) | (-) | 15B |
| 10 | (+) | (-) | 16B | 23 | (+) | (-) | 17B |
| 11 | (+) | (-) | 18B | 24 | (+) | (-) | 19B |
| 12 | (+) | (-) | 20B | 25 | (+) | (-) | 21B |
| 13 | (-) | (+) | COM | When mounted with single solenoid valves, A signal is empty | | | |

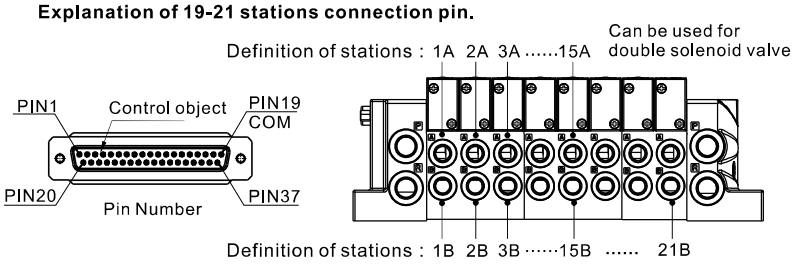
5. PIN assignment of 6DW series:

**Explanation of 13-18 stations connection pin.**



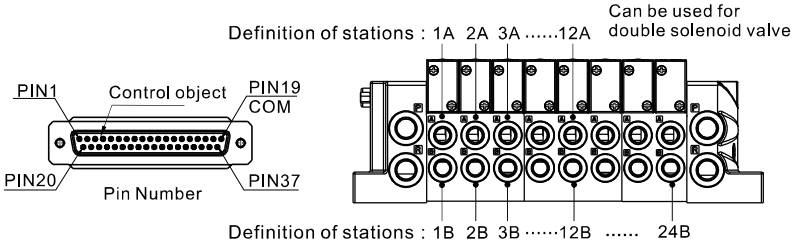

| Pin NO. | Polarity -COM | Polarity +COM | Control object | Pin NO. | Polarity -COM | Polarity +COM | Control object |
|---|---|---|---|---|---|---|---|
| 1 | (+) | (-) | 1B | 20 | (+) | (-) | 1A |
| 2 | (+) | (-) | 2B | 21 | (+) | (-) | 2A |
| 3 | (+) | (-) | 3B | 22 | (+) | (-) | 3A |
| 4 | (+) | (-) | 4B | 23 | (+) | (-) | 4A |
| 5 | (+) | (-) | 5B | 24 | (+) | (-) | 5A |
| 6 | (+) | (-) | 6B | 25 | (+) | (-) | 6A |
| 7 | (+) | (-) | 7B | 26 | (+) | (-) | 7A |
| 8 | (+) | (-) | 8B | 27 | (+) | (-) | 8A |
| 9 | (+) | (-) | 9B | 28 | (+) | (-) | 9A |
| 10 | (+) | (-) | 10B | 29 | (+) | (-) | 10A |
| 11 | (+) | (-) | 11B | 30 | (+) | (-) | 11A |
| 12 | (+) | (-) | 12B | 31 | (+) | (-) | 12A |
| 13 | (+) | (-) | 13B | 32 | (+) | (-) | 13A |
| 14 | (+) | (-) | 14B | 33 | (+) | (-) | 14A |
| 15 | (+) | (-) | 15B | 34 | (+) | (-) | 15A |
| 16 | (+) | (-) | 16B | 35 | (+) | (-) | 16A |
| 17 | (+) | (-) | 17B | 36 | (+) | (-) | 17A |
| 18 | (+) | (-) | 18B | 37 | (+) | (-) | 18A |
| 19 | (-) | (+) | COM | When mounted with single solenoid valves, A signal is empty | | | |

**Explanation of 19-21 stations connection pin.**




| Pin NO. | Polarity -COM | Polarity +COM | Control object | Pin NO. | Polarity -COM | Polarity +COM | Control object |
|---|---|---|---|---|---|---|---|
| 1 | (+) | (-) | 1B | 20 | (+) | (-) | 1A |
| 2 | (+) | (-) | 2B | 21 | (+) | (-) | 2A |
| 3 | (+) | (-) | 3B | 22 | (+) | (-) | 3A |
| 4 | (+) | (-) | 4B | 23 | (+) | (-) | 4A |
| 5 | (+) | (-) | 5B | 24 | (+) | (-) | 5A |
| 6 | (+) | (-) | 6B | 25 | (+) | (-) | 6A |
| 7 | (+) | (-) | 7B | 26 | (+) | (-) | 7A |
| 8 | (+) | (-) | 8B | 27 | (+) | (-) | 8A |
| 9 | (+) | (-) | 9B | 28 | (+) | (-) | 9A |
| 10 | (+) | (-) | 10B | 29 | (+) | (-) | 10A |
| 11 | (+) | (-) | 11B | 30 | (+) | (-) | 11A |
| 12 | (+) | (-) | 12B | 31 | (+) | (-) | 12A |
| 13 | (+) | (-) | 13B | 32 | (+) | (-) | 13A |
| 14 | (+) | (-) | 14B | 33 | (+) | (-) | 14A |
| 15 | (+) | (-) | 15B | 34 | (+) | (-) | 15A |
| 16 | (+) | (-) | 16B | 35 | (+) | (-) | 17B |
| 17 | (+) | (-) | 18B | 36 | (+) | (-) | 19B |
| 18 | (+) | (-) | 20B | 37 | (+) | (-) | 21B |
| 19 | (-) | (+) | COM | When mounted with single solenoid valves, A signal is empty | | | |

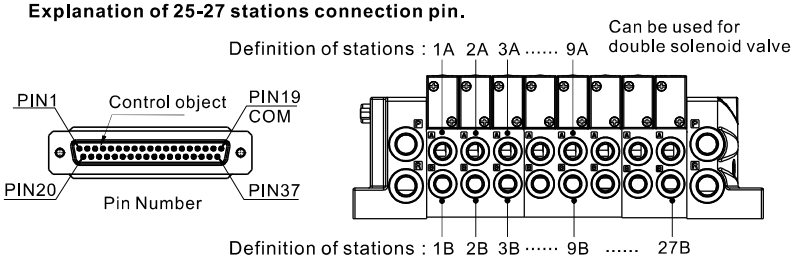
**Explanation of 22-24 stations connection pin.**




| Pin NO. | Polarity -COM | Polarity +COM | Control object | Pin NO. | Polarity -COM | Polarity +COM | Control object |
|---|---|---|---|---|---|---|---|
| 1 | (+) | (-) | 1B | 20 | (+) | (-) | 1A |
| 2 | (+) | (-) | 2B | 21 | (+) | (-) | 2A |
| 3 | (+) | (-) | 3B | 22 | (+) | (-) | 3A |
| 4 | (+) | (-) | 4B | 23 | (+) | (-) | 4A |
| 5 | (+) | (-) | 5B | 24 | (+) | (-) | 5A |
| 6 | (+) | (-) | 6B | 25 | (+) | (-) | 6A |
| 7 | (+) | (-) | 7B | 26 | (+) | (-) | 7A |
| 8 | (+) | (-) | 8B | 27 | (+) | (-) | 8A |
| 9 | (+) | (-) | 9B | 28 | (+) | (-) | 9A |
| 10 | (+) | (-) | 10B | 29 | (+) | (-) | 10A |
| 11 | (+) | (-) | 11B | 30 | (+) | (-) | 11A |
| 12 | (+) | (-) | 12B | 31 | (+) | (-) | 12A |
| 13 | (+) | (-) | 13B | 32 | (+) | (-) | 14B |
| 14 | (+) | (-) | 15B | 33 | (+) | (-) | 16B |
| 15 | (+) | (-) | 17B | 34 | (+) | (-) | 18B |
| 16 | (+) | (-) | 19B | 35 | (+) | (-) | 20B |
| 17 | (+) | (-) | 21B | 36 | (+) | (-) | 22B |
| 18 | (+) | (-) | 23B | 37 | (+) | (-) | 24B |
| 19 | (-) | (+) | COM | When mounted with single solenoid valves, A signal is empty | | | |

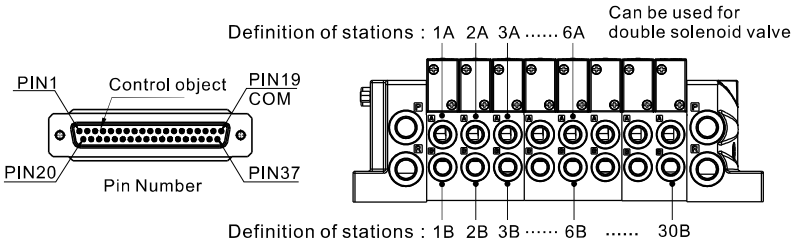
Note: Gauge number of cable connecting to D-Sub pin No.13(19)(COM) must be≤22AWG

**Explanation of 25-27 stations connection pin.**



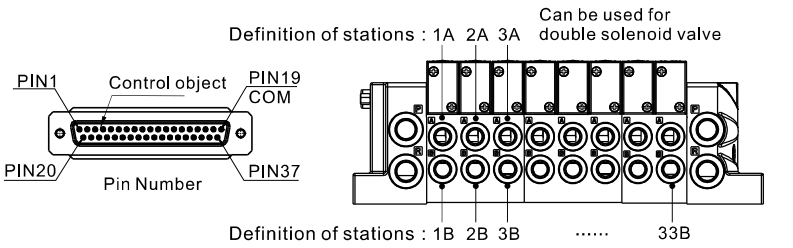

| Pin NO. | Polarity -COM | Polarity +COM | Control object | Pin NO. | Polarity -COM | Polarity +COM | Control object |
|---|---|---|---|---|---|---|---|
| 1 | (+) | (-) | 1B | 20 | (+) | (-) | 1A |
| 2 | (+) | (-) | 2B | 21 | (+) | (-) | 2A |
| 3 | (+) | (-) | 3B | 22 | (+) | (-) | 3A |
| 4 | (+) | (-) | 4B | 23 | (+) | (-) | 4A |
| 5 | (+) | (-) | 5B | 24 | (+) | (-) | 5A |
| 6 | (+) | (-) | 6B | 25 | (+) | (-) | 6A |
| 7 | (+) | (-) | 7B | 26 | (+) | (-) | 7A |
| 8 | (+) | (-) | 8B | 27 | (+) | (-) | 8A |
| 9 | (+) | (-) | 9B | 28 | (+) | (-) | 9A |
| 10 | (+) | (-) | 10B | 29 | (+) | (-) | 11B |
| 11 | (+) | (-) | 12B | 30 | (+) | (-) | 13B |
| 12 | (+) | (-) | 14B | 31 | (+) | (-) | 15B |
| 13 | (+) | (-) | 16B | 32 | (+) | (-) | 17B |
| 14 | (+) | (-) | 18B | 33 | (+) | (-) | 19B |
| 15 | (+) | (-) | 20B | 34 | (+) | (-) | 21B |
| 16 | (+) | (-) | 22B | 35 | (+) | (-) | 23B |
| 17 | (+) | (-) | 24B | 36 | (+) | (-) | 25B |
| 18 | (+) | (-) | 26B | 37 | (+) | (-) | 27B |
| 19 | (-) | (+) | COM | When mounted with single solenoid valves, A signal is empty | | | |

**Explanation of 28-30 stations connection pin.**




| Pin NO. | Polarity -COM | Polarity +COM | Control object | Pin NO. | Polarity -COM | Polarity +COM | Control object |
|---|---|---|---|---|---|---|---|
| 1 | (+) | (-) | 1B | 20 | (+) | (-) | 1A |
| 2 | (+) | (-) | 2B | 21 | (+) | (-) | 2A |
| 3 | (+) | (-) | 3B | 22 | (+) | (-) | 3A |
| 4 | (+) | (-) | 4B | 23 | (+) | (-) | 4A |
| 5 | (+) | (-) | 5B | 24 | (+) | (-) | 5A |
| 6 | (+) | (-) | 6B | 25 | (+) | (-) | 6A |
| 7 | (+) | (-) | 7B | 26 | (+) | (-) | 8B |
| 8 | (+) | (-) | 9B | 27 | (+) | (-) | 10B |
| 9 | (+) | (-) | 11B | 28 | (+) | (-) | 12B |
| 10 | (+) | (-) | 13B | 29 | (+) | (-) | 14B |
| 11 | (+) | (-) | 15B | 30 | (+) | (-) | 16B |
| 12 | (+) | (-) | 17B | 31 | (+) | (-) | 18B |
| 13 | (+) | (-) | 19B | 32 | (+) | (-) | 20B |
| 14 | (+) | (-) | 21B | 33 | (+) | (-) | 22B |
| 15 | (+) | (-) | 23B | 34 | (+) | (-) | 24B |
| 16 | (+) | (-) | 25B | 35 | (+) | (-) | 26B |
| 17 | (+) | (-) | 27B | 36 | (+) | (-) | 28B |
| 18 | (+) | (-) | 29B | 37 | (+) | (-) | 30B |
| 19 | (-) | (+) | COM | When mounted with single solenoid valves, A signal is empty | | | |

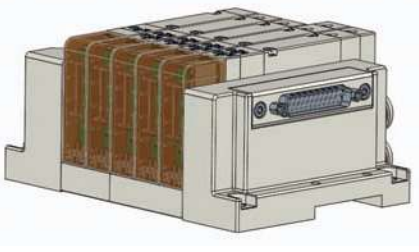
**Explanation of 31-33 stations connection pin.**



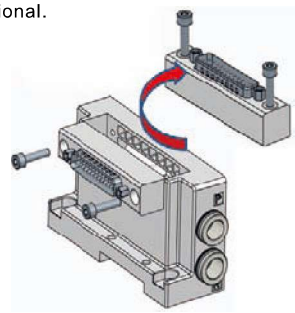

| Pin NO. | Polarity -COM | Polarity +COM | Control object | Pin NO. | Polarity -COM | Polarity +COM | Control object |
|---|---|---|---|---|---|---|---|
| 1 | (+) | (-) | 1B | 20 | (+) | (-) | 1A |
| 2 | (+) | (-) | 2B | 21 | (+) | (-) | 2A |
| 3 | (+) | (-) | 3B | 22 | (+) | (-) | 3A |
| 4 | (+) | (-) | 4B | 23 | (+) | (-) | 5B |
| 5 | (+) | (-) | 6B | 24 | (+) | (-) | 7B |
| 6 | (+) | (-) | 8B | 25 | (+) | (-) | 9B |
| 7 | (+) | (-) | 10B | 26 | (+) | (-) | 11B |
| 8 | (+) | (-) | 12B | 27 | (+) | (-) | 13B |
| 9 | (+) | (-) | 14B | 28 | (+) | (-) | 15B |
| 10 | (+) | (-) | 16B | 29 | (+) | (-) | 17B |
| 11 | (+) | (-) | 18B | 30 | (+) | (-) | 19B |
| 12 | (+) | (-) | 20B | 31 | (+) | (-) | 21B |
| 13 | (+) | (-) | 22B | 32 | (+) | (-) | 23B |
| 14 | (+) | (-) | 24B | 33 | (+) | (-) | 25B |
| 15 | (+) | (-) | 26B | 34 | (+) | (-) | 27B |
| 16 | (+) | (-) | 28B | 35 | (+) | (-) | 29B |
| 17 | (+) | (-) | 30B | 36 | (+) | (-) | 31B |
| 18 | (+) | (-) | 32B | 37 | (+) | (-) | 33B |
| 19 | (-) | (+) | COM | When mounted with single solenoid valves, A signal is empty | | | |

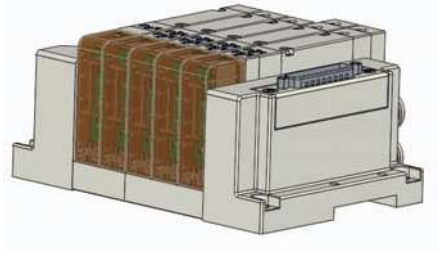
Note: Gauge number of cable connecting to D-Sub pin No.19(COM) must be≤22AWG

6. Flip-able D-SUB portZ: horizontal and vertical side are optional.



Horizontal plug-in





Vertical plug-in

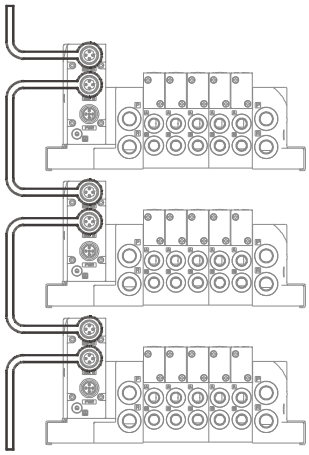
## Compendium of 6D/6DW Series(with communication module)

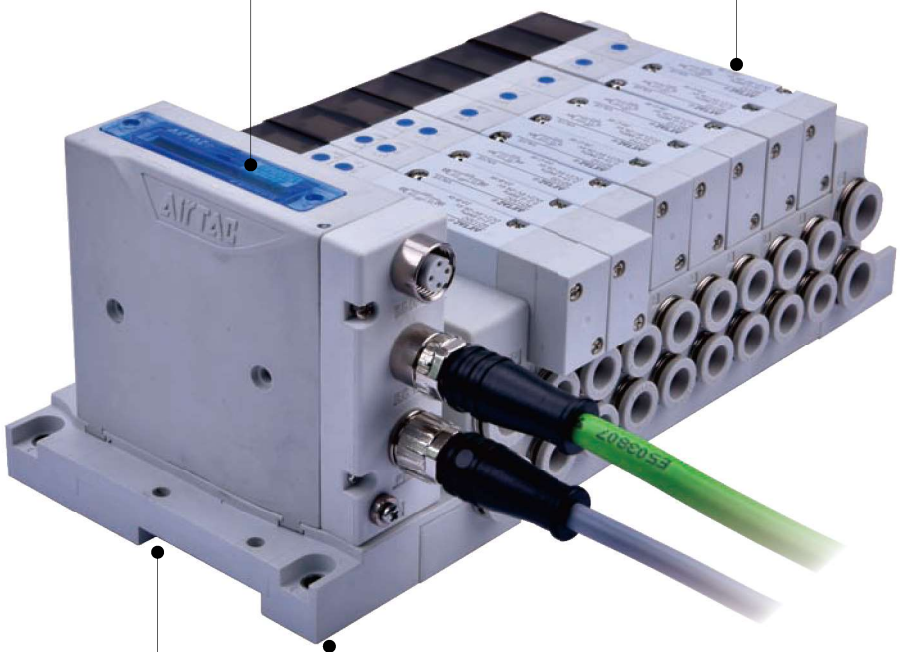
**Multiple communication modules and protocols are optional**

| Communication module | | Applicable model |
|---|---|---|
| No. | Protocols | |
| 1 | PROFINET | 6D0500/6DW0500<br>6D100/6DW100<br>6D200/6DW200 |
| 2 | EtherNet/IP | |
| 3 | EtherCAT | |
| 4 | IO-Link | |

**Network Topology**

Daisy-chain wiring

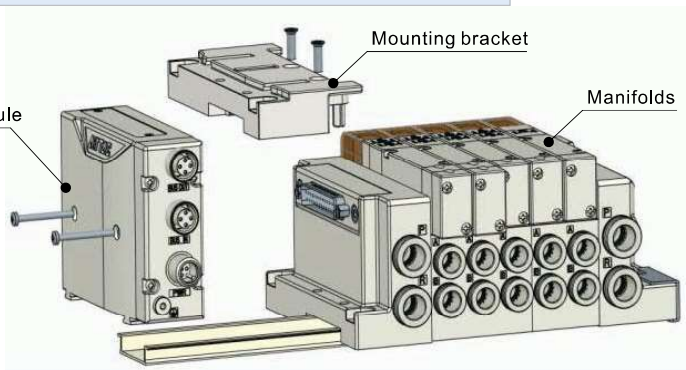




**Mounting accessory**

| No. | Ordering code |
|---|---|
| 1 | F-6D0500PN-R2 |
| 2 | F-6D100PN-R2 |
| 3 | F-6D200PN-R2 |

**Integration design of communication module**



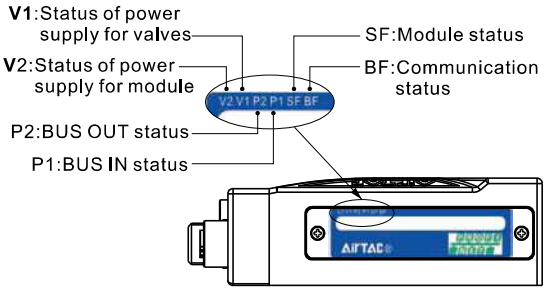
## Communication module

## Specification

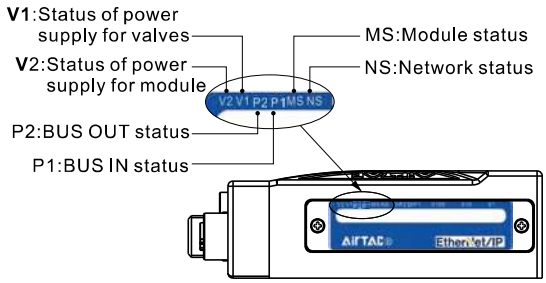
| Protocol | PROFINET | EtherNet/IP | EtherCAT | IO-Link |
|---|---|---|---|---|
| Number of outputs | 24 outputs/36 outputs | | | |
| Communication speed | 100Mbps | | | COM3/COM2 |
| Configuration file | GSDML file | EDS file | XML file | IODD file |
| Input power: Voltage | DC24V ± 10% | | | |
| Input power: Current consumption | <100mA | | | |
| Voltage output | DC24V ± 10% | | | |
| Output type | PNP or NPN | | | PNP |
| Power connector | M12 plug 5 pins A-coded | | | M12 plug 5 pins A-coded |
| Bus connector | 2XM12 socket 4 pins D-coded | | | |
| Protection | Dust proof | | | |
| Working temperature | -10~60℃ | | | |
| Working humidity | 35~85% RH | | | |
| Withstand voltage | AC500V 1min Between terminals and housing | | | |
| Insulation resistance | >10MΩ (DC500V), Between terminals and housing | | | |
| Communication connection | Daisy-chain wiring | | | No |

## LED indicator

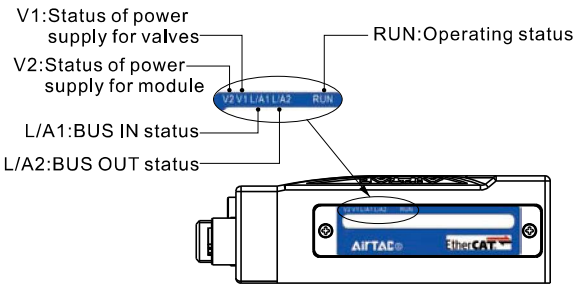
### Profinet(C-6DPN□)



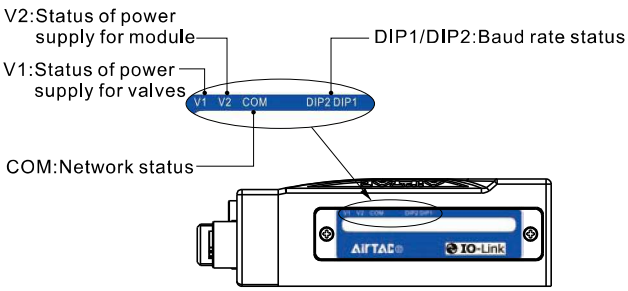

### EtherNet/IP(C-6DEN□)




### EtherCAT(C-6DEA□)

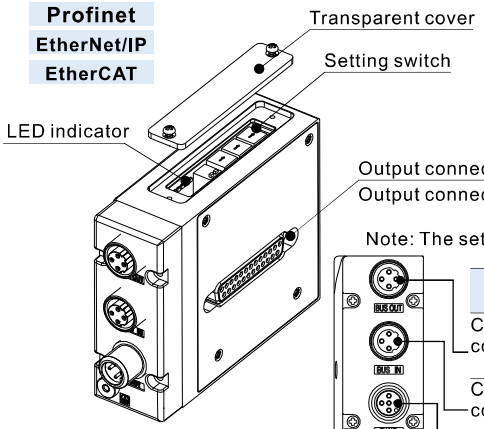



### IO-Link(C-6DLK□)




## Construction and function

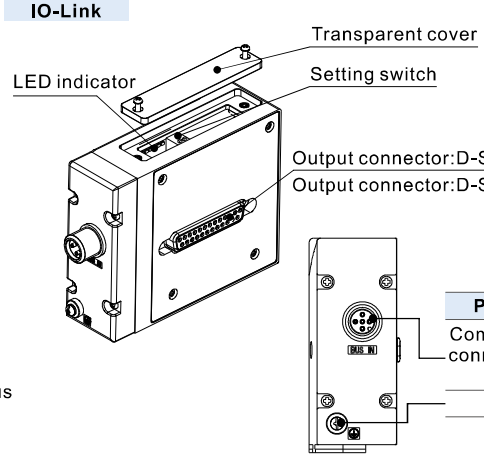
### Profinet / EtherNet/IP / EtherCAT




Note: The setting varies based on different protocols.

| Protocols | PROFINET EtherNet/IP EtherCAT |
|---|---|
| Communication connector(M12) BUS OUT | 4 pins,socket D-coded(SPEEDCON) |
| Communication connector(M12) BUS IN | 4 pins,socket D-coded(SPEEDCON) |
| Power connector(M12) | 5 pins, plug A-coded(SPEEDCON) |
| Ground | M2.5 |

### IO-Link




| Protocols | IO-Link |
|---|---|
| Communication connector(M12) BUS IN | 5 pins, plug A-coded(SPEEDCON) |
| Ground | M2.5 |

## Communication module

### Ordering Code of communication module

C –6D PN 1
1 2 3

| | |
|---|---|
| ①Model | 6D：6D series communication module |
| ②Protocol type | PN：Profinet　EN：EtherNet/IP　EA：EtherCAT　LK：IO-Link |
| ③Output type | 1：PNP+24 outputs　2：NPN+24 outputs　11：PNP+36 outputs　22：NPN+36 outputs |

Note: IO-Link module doesn't have NPN type.

### Ordering Code of communication cable

C –M12 RJ PN □ 050
1 2 3 4 5

M12 male connector
D-coded

M12 to M12

RJ45

M12 to RJ45

M12 to wire

| | | |
|---|---|---|
| ①Model | C-M12：Communication cable (M12 connector) | |
| ②Connector type | Blank：M12 male connectors on both end<br>RJ：M12 male connector+RJ45 terminal | M: M12 female connector+M12 male connector<br>S: M12 female connector+wire |
| ③Protocol type | PN：Applicable to Profinet, EtherNet/IP, EtherCAT | LK：Applicable to IO-Link |
| ④Cable type | Blank: Cable | |
| ⑤Cable length | 050：0.5m　100：1m　200：2m　300：3m　500：5m | |

### Ordering Code of power supply cable

F –M12 PN □ 150
1 2 3 4

| | |
|---|---|
| ①Model | F-M12：Power supply cable (M12 female connector) |
| ②Protocol type | PN：Applicable to Profinet, EtherNet/IP, EtherCAT |
| ③Cable type | Blank：Cable |
| ④Cable length | 150：1.5m　300：3m　500：5m |

### Ordering Code of mounting bracket

F –6D0500 PN – R2
1 2 3 4

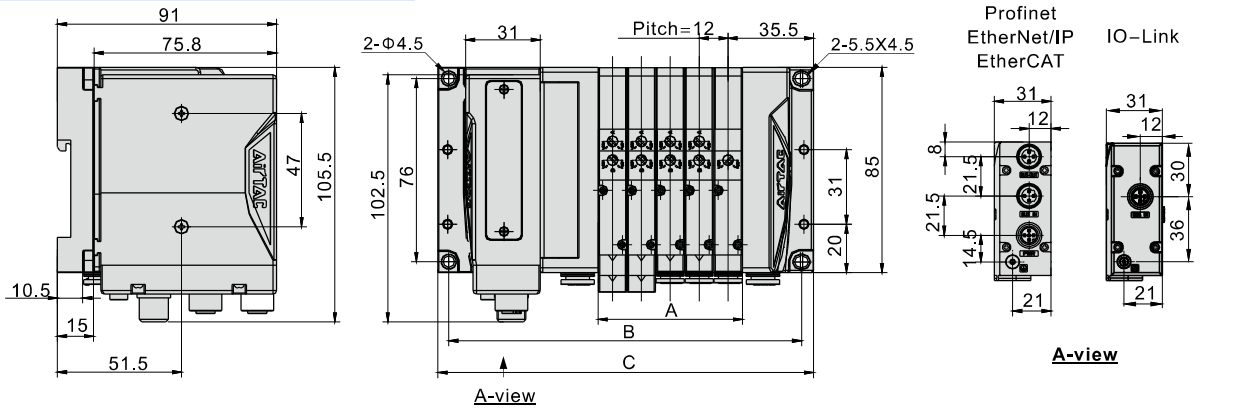
| | |
|---|---|
| ①Model | F：Mounting accessory |
| ②Code | 6D0500：6D0500 Series　6D100：6D100 Serie　6D200：6D200 Serie |
| ③Protocol type | PN：For 6D module installation |
| ④Output type | R2：Mounting bracket for communication module |

Note: Product comes with mounting screws.

## Communication module

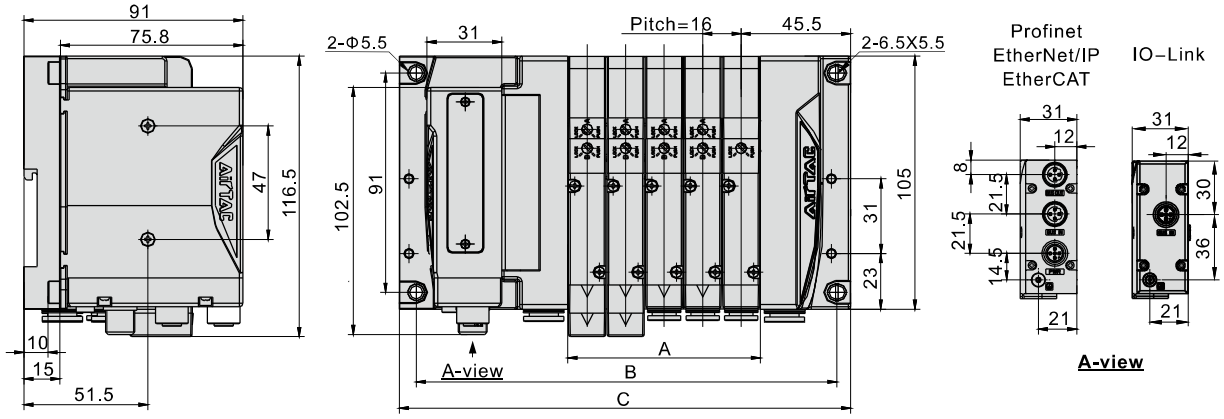
### Dimensions

**6D0500 series with communication module**



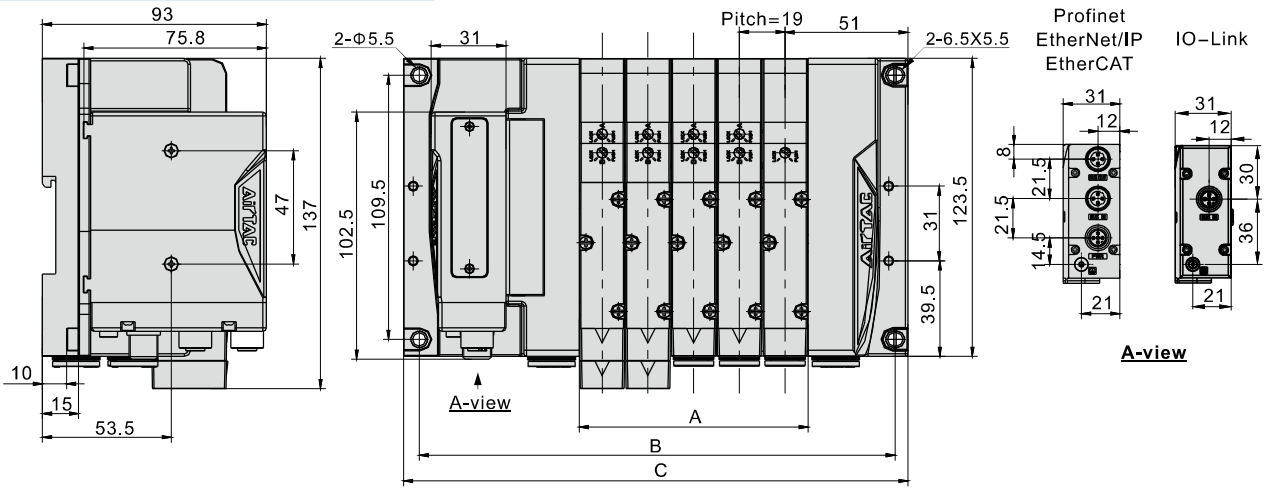

| Item\Stations | 3F | 4F | 5F | 6F | 7F | 8F | 9F | 10F | 11F | 12F | 13F | 14F | 15F | 16F | 17F | 18F | 19F | 20F | 21F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 | 144 | 156 | 168 | 180 | 192 | 204 | 216 | 228 | 240 | 252 |
| B | 122.5 | 134.5 | 146.5 | 158.5 | 170.5 | 182.5 | 194.5 | 206.5 | 218.5 | 230.5 | 242.5 | 254.5 | 266.5 | 278.5 | 290.5 | 302.5 | 314.5 | 326.5 | 338.5 |
| C | 132 | 144 | 156 | 168 | 180 | 192 | 204 | 216 | 228 | 240 | 252 | 264 | 276 | 288 | 300 | 312 | 324 | 336 | 348 |

**6D100 series with communication module**




| Item\Stations | 3F | 4F | 5F | 6F | 7F | 8F | 9F | 10F | 11F | 12F | 13F | 14F | 15F | 16F | 17F | 18F | 19F | 20F | 21F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 48 | 64 | 80 | 96 | 112 | 128 | 144 | 160 | 176 | 192 | 208 | 224 | 240 | 256 | 272 | 288 | 304 | 320 | 336 |
| B | 142.5 | 158.5 | 174.5 | 190.5 | 206.5 | 222.5 | 238.5 | 254.5 | 270.5 | 286.5 | 302.5 | 318.5 | 334.5 | 350.5 | 366.5 | 382.5 | 398.5 | 414.5 | 430.5 |
| C | 155.5 | 171.5 | 187.5 | 203.5 | 219.5 | 235.5 | 251.5 | 267.5 | 283.5 | 299.5 | 315.5 | 331.5 | 347.5 | 363.5 | 379.5 | 395.5 | 411.5 | 427.5 | 443.5 |

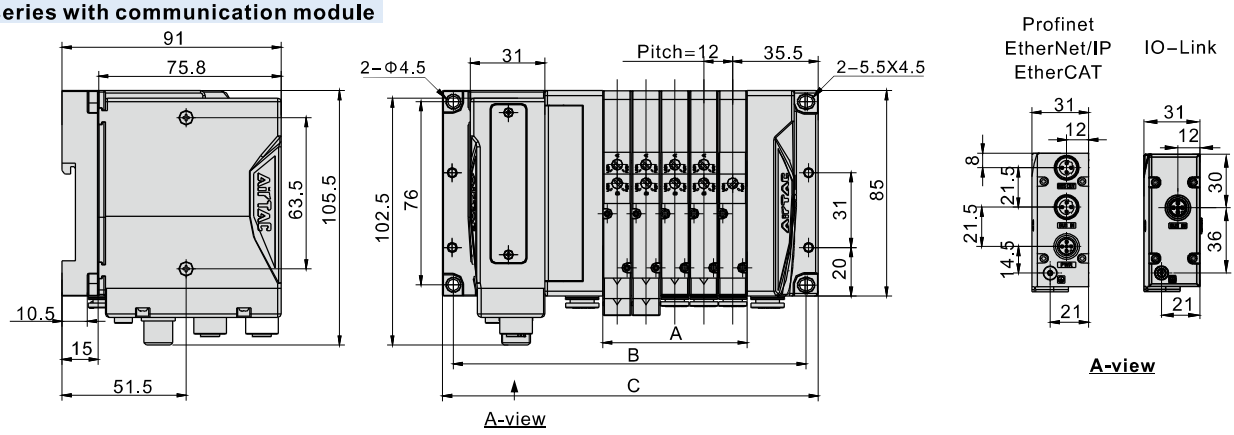
**6D200 series with communication module**




| Item\Stations | 3F | 4F | 5F | 6F | 7F | 8F | 9F | 10F | 11F | 12F | 13F | 14F | 15F | 16F | 17F | 18F | 19F | 20F | 21F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 57 | 76 | 95 | 114 | 133 | 152 | 171 | 190 | 209 | 228 | 247 | 266 | 285 | 304 | 323 | 342 | 361 | 380 | 399 |
| B | 159.5 | 178.5 | 197.5 | 216.5 | 235.5 | 254.5 | 273.5 | 292.5 | 311.5 | 330.5 | 349.5 | 368.5 | 387.5 | 406.5 | 425.5 | 444.5 | 463.5 | 482.5 | 501.5 |
| C | 171.5 | 190.5 | 209.5 | 228.5 | 247.5 | 266.5 | 285.5 | 304.5 | 323.5 | 342.5 | 361.5 | 380.5 | 399.5 | 418.5 | 437.5 | 456.5 | 475.5 | 494.5 | 513.5 |

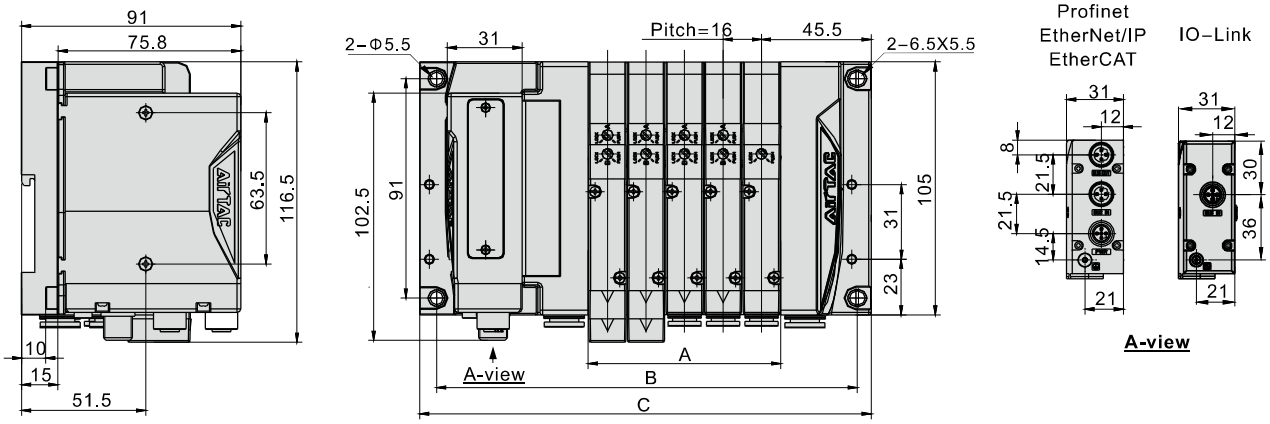
## Communication module

### 6DW0500 series with communication module



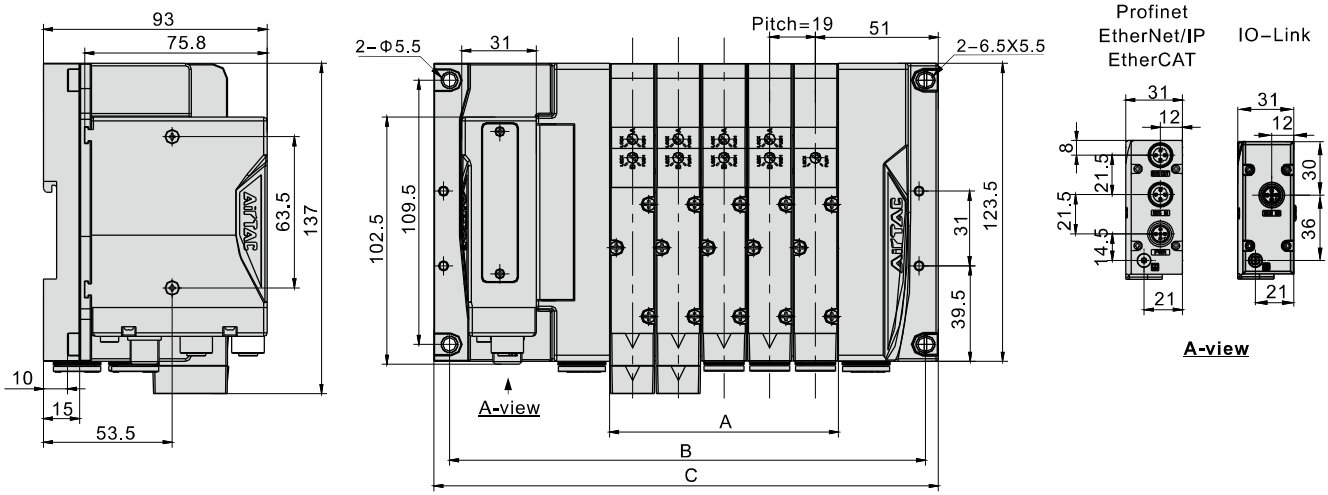

| Item\Stations | 13F | 14F | 15F | 16F | 17F | 18F | 19F | 20F | 21F | 22F | 23F | 24F | 25F | 26F | 27F | 28F | 29F | 30F | 31F | 32F | 33F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 156 | 168 | 180 | 192 | 204 | 216 | 228 | 240 | 252 | 264 | 276 | 288 | 300 | 312 | 324 | 336 | 348 | 360 | 272 | 384 | 396 |
| B | 242.5 | 254.5 | 266.5 | 278.5 | 290.5 | 302.5 | 314.5 | 326.5 | 338.5 | 350.5 | 362.5 | 374.5 | 386.5 | 398.5 | 410.5 | 422.5 | 434.5 | 446.5 | 458.5 | 470.5 | 482.5 |
| C | 252 | 264 | 276 | 288 | 300 | 312 | 324 | 336 | 348 | 360 | 372 | 384 | 396 | 408 | 420 | 432 | 444 | 456 | 468 | 480 | 492 |

### 6DW100 series with communication module




| Item\Stations | 13F | 14F | 15F | 16F | 17F | 18F | 19F | 20F | 21F | 22F | 23F | 24F | 25F | 26F | 27F | 28F | 29F | 30F | 31F | 32F | 33F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 208 | 224 | 240 | 256 | 272 | 288 | 304 | 320 | 336 | 352 | 368 | 384 | 400 | 416 | 432 | 448 | 464 | 480 | 496 | 512 | 528 |
| B | 302.5 | 318.5 | 334.5 | 350.5 | 366.5 | 382.5 | 395.5 | 414.5 | 430.5 | 446.5 | 462.5 | 478.5 | 494.5 | 510.5 | 526.5 | 542.5 | 558.5 | 574.5 | 590.5 | 606.5 | 622.5 |
| C | 315.5 | 331.5 | 347.5 | 363.5 | 379.5 | 395.5 | 411.5 | 427.5 | 443.5 | 459.5 | 475.5 | 491.5 | 507.5 | 523.5 | 539.5 | 555.5 | 571.5 | 587.5 | 603.5 | 619.5 | 635.5 |

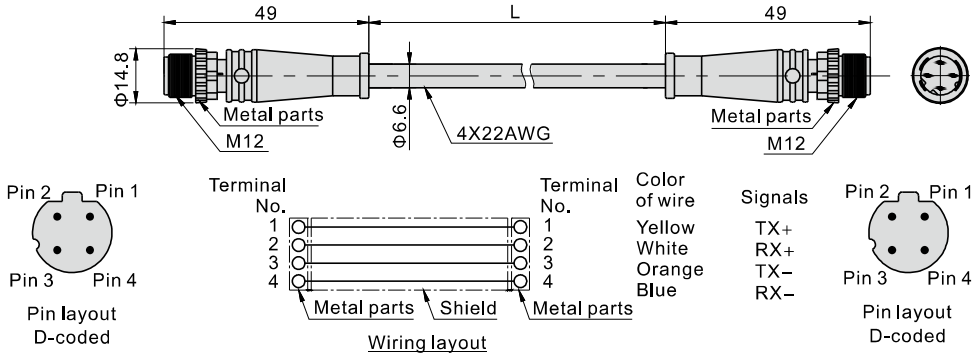
### 6DW200 series with communication module



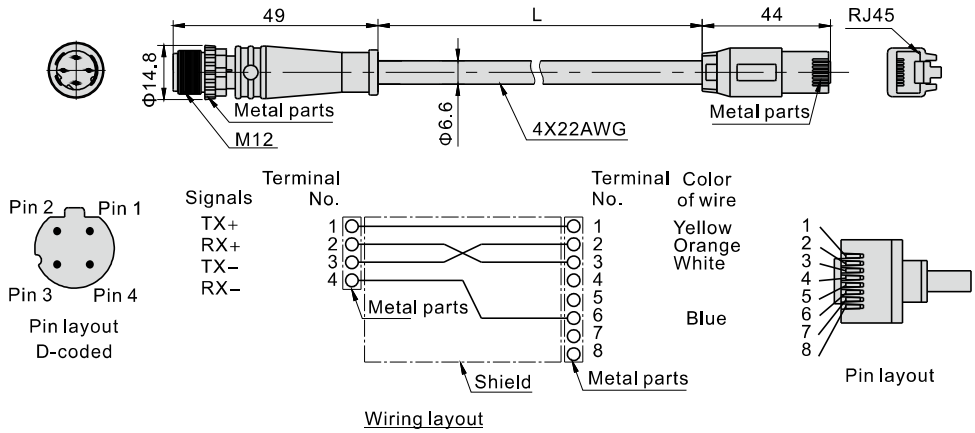

| Item\Stations | 13F | 14F | 15F | 16F | 17F | 18F | 19F | 20F | 21F | 22F | 23F | 24F | 25F | 26F | 27F | 28F | 29F | 30F | 31F | 32F | 33F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 247 | 266 | 285 | 304 | 323 | 342 | 361 | 380 | 399 | 418 | 437 | 456 | 475 | 494 | 513 | 532 | 551 | 570 | 589 | 608 | 627 |
| B | 349.5 | 368.5 | 387.5 | 406.5 | 425.5 | 444.5 | 463.5 | 482.5 | 501.5 | 520.5 | 539.5 | 558.5 | 577.5 | 596.5 | 615.5 | 634.5 | 653.5 | 672.5 | 691.5 | 710.5 | 729.5 |
| C | 361.5 | 380.5 | 399.5 | 418.5 | 437.5 | 456.5 | 475.5 | 494.5 | 513.5 | 532.5 | 551.5 | 570.5 | 589.5 | 608.5 | 627.5 | 646.5 | 665.5 | 684.5 | 703.5 | 722.5 | 741.5 |

## Communication module

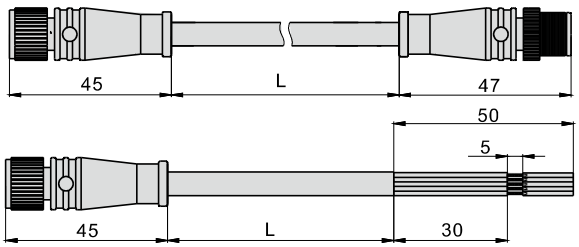
### Communication cable M12 to M12

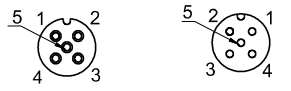


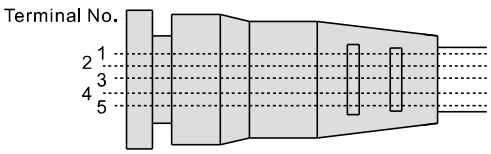

### Communication cable M12 to RJ45




### Communication cable M12 to M12/M12 to wires(IO-Link)

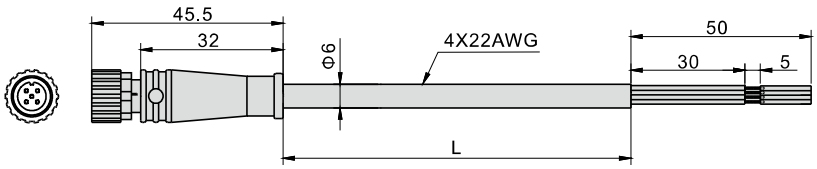


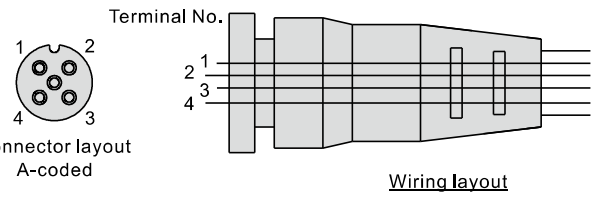




| Wire layout instruction | | | |
|---|---|---|---|
| Terminal No. | Gauge(AWG) | Description | Color |
| 1 | 22 | DC24V±10%(Power supply) | Brown |
| 2 | 22 | DC24V±10%(Power supply for solenoid valve) | White |
| 3 | 22 | 0V(Power supply) | Blue |
| 4 | 22 | IO-Link communication | Black |
| 5 | 22 | 0V(Power supply for solenoid valve) | Gray |

### Power supply cable M12 to wires




| Wire layout instruction | | | |
|---|---|---|---|
| Terminal No. | Gauge(AWG) | Description | Color |
| 1 | 22 | DC24V±10%(Power supply for solenoid valve) | Brown |
| 2 | 22 | 0V(Power supply for solenoid valve) | White |
| 3 | 22 | DC24V ± 10%(Power supply) | Blue |
| 4 | 22 | 0V(Power supply) | Black |

## 6D Series Integrated Valve Ordering Code (With individual inlet type valves)

**6D1H 6F–J06 B S2 D1 C1 □ □ □–□**

1 2 3 4 5 6 7 8 9 10 11

| | | | | |
|---|---|---|---|---|
| ①Model | 6D05H: 6D0500 Series integrated Solenoid valve | 6D1H: 6D100 Series integrated Solenoid valve | 6D2H: 6D200 Series integrated Solenoid valve | |
| ②Number of stations | 3F: 3 stations 4F: 4 stations ..... 21F: 21stations | | | |
| ③Port size(A/B Port) | J04: Φ4 tube fitting<br>J06: Φ6 tube fitting | J04: Φ4 tube fitting<br>J06: Φ6 tube fitting<br>J08: Φ8 tube fitting | J08: Φ8 tube fitting<br>J10: Φ10 tube fitting | |
| ④Standard voltage | B:DC24V F:DC12V | | | |
| ⑤Single solenoid 5/2 way | Total number of valves | Blank: No S1: 1 piece S2: 2 pieces.....S21: 21 pieces | | Total number of valves (Includes individual inlet valves) must be ⩽21 |
| ⑥Double solenoid 5/2 way | | Blank: No D1: 1 piece D2: 2 pieces.....D12: 12 pieces | | |
| ⑦Double solenoid 5/3 way closed center | | Blank: No C1: 1 piece C2: 2 pieces.....C12: 12 pieces | | |
| ⑧Double solenoid 5/3 way exhaust center | | Blank: No E1: 1 piece E2: 2 pieces.....E12: 12 pieces | | |
| ⑨Double solenoid 5/3 way pressure center | | Blank: No P1: 1 piece P2: 2 pieces.....P12: 12 pieces | | |
| ⑩Type of communication module | Blank: Without communication module CPN1: Profinet+PNP<br>CPN2: Profinet+NPN CEN1: EtherNet/IP+PNP<br>CEN2: EtherNet/IP+NPN CEA1: EtherCAT+PNP<br>CEA2: EtherCAT+NPN CLK1: IO-Link+PNP | | | |
| ⑪Number of individual inlet valves | SE□: Single solenoid 5/2 way DE□: Double solenoid 5/2 way<br>CE□: Double solenoid 5/3 way closed center<br>EE□: Double solenoid 5/3 way exhaust center<br>PE□: Double solenoid 5/3 way pressure center | | | |

Note:

1.Add the individual inlet type valve "E"with quantity after the standard 6D series integrated valve ordering code;
2. Maximum can add 2 types of individual inlet type valve;
3. Individual inlet type valves are mounted after the standard valves with same control type;
4. Others are the same as the standard;
5.Ordering code example: 6D1H 6F–J06 B S2 D1 C1 CPN1–SE1 DE1

- DE1 — 1 pc of individual inlet type valve (Double solenoid 5/2 way)
- SE1 — 1 pc of individual inlet type valve (Single solenoid 5/2 way)

## 6D Series Integrated Valve Ordering Code (With individual exhaust type valves)

**6D1H 6F–J06 B S2 D1 C1 □ □ □–□**

1 2 3 4 5 6 7 8 9 10 11

| | | | | |
|---|---|---|---|---|
| ①Model | 6D05H: 6D0500 Series integrated Solenoid valve | 6D1H: 6D100 Series integrated Solenoid valve | 6D2H: 6D200 Series integrated Solenoid valve | |
| ②Number of stations | 3F: 3 stations 4F: 4 stations ..... 21F: 21stations | | | |
| ③Port size(A/B Port) | J04: Φ4 tube fitting<br>J06: Φ6 tube fitting | J04: Φ4 tube fitting<br>J06: Φ6 tube fitting<br>J08: Φ8 tube fitting | J08: Φ8 tube fitting<br>J10: Φ10 tube fitting | |
| ④Standard voltage | B:DC24V F:DC12V | | | |
| ⑤Single solenoid 5/2 way | Total number of valves | Blank: No S1: 1 piece S2: 2 pieces.....S21: 21 pieces | | Total number of valves (Includes individual exhaust valves) must be⩽21 |
| ⑥Double solenoid 5/2 way | | Blank: No D1: 1 piece D2: 2 pieces.....D12: 12 pieces | | |
| ⑦Double solenoid 5/3 way closed center | | Blank: No C1: 1 piece C2: 2 pieces.....C12: 12 pieces | | |
| ⑧Double solenoid 5/3 way exhaust center | | Blank: No E1: 1 piece E2: 2 pieces.....E12: 12 pieces | | |
| ⑨Double solenoid 5/3 way pressure center | | Blank: No P1: 1 piece P2: 2 pieces.....P12: 12 pieces | | |
| ⑩Type of communication module | Blank: Without communication module CPN1: Profinet+PNP<br>CPN2: Profinet+NPN CEN1: EtherNet/IP+PNP<br>CEN2: EtherNet/IP+NPN CEA1: EtherCAT+PNP<br>CEA2: EtherCAT+NPN CLK1: IO-Link+PNP | | | |
| ⑪Number of individual exhaust type valves | SR□: Single solenoid 5/2 way DR□: Double solenoid 5/2 way<br>CR□: Double solenoid 5/3 way closed center<br>ER□: Double solenoid 5/3 way exhaust center<br>PR□: Double solenoid 5/3 way pressure center | | | |

Note:

1. Add the individual exhaust type valve "R"with quantity after the standard 6D series integrated valve ordering code;
2. Maximum can add 2 types of individual exhaust type valve;
3. Individual exhaust type valves are mounted after the standard valves with same control type;
4. Others are the same as the standard;
5. Ordering code example: 6D1H 6F–J06 B S2 D1 C1 CPN1–SR1 DR1

- DR1 — 1 pc of individual exhaust type valve (Double solenoid 5/2 way)
- SR1 — 1 pc of individual exhaust type valve (Single solenoid 5/2 way)

## 6D/6DW Series Derivatives

### 6D Series Integrated Valve Ordering Code (With external pilot type valves)

**6D1H 6F–J06 B S2 D1 C1 □ □ □–□**

1 2 3 4 5 6 7 8 9 10 11

| | | | |
|---|---|---|---|
| ①Model | 6D05H: 6D0500 Series integrated Solenoid valve | 6D1H: 6D100 Series integrated Solenoid valve | 6D2H: 6D200 Series integrated Solenoid valve |
| ②Number of stations | 3F: 3 stations 4F: 4 stations ..... 21F: 21stations | | |
| ③Port size(A/B Port) | J04: Φ4 tube fitting<br>J06: Φ6 tube fitting | J04: Φ4 tube fitting<br>J06: Φ6 tube fitting<br>J08: Φ8 tube fitting | J08: Φ8 tube fitting<br>J10: Φ10 tube fitting |
| ④Standard voltage | B:DC24V F:DC12V | | |
| ⑤Single solenoid 5/2 way | Total number of valves | Blank: No S1: 1 piece S2: 2 pieces.....S21: 21 pieces | Total number of valve (Includes external pilot valves) must be≤21 |
| ⑥Double solenoid 5/2 way | | Blank: No D1: 1 piece D2: 2 pieces.....D12: 12 pieces | |
| ⑦Double solenoid 5/3 way closed center | | Blank: No C1: 1 piece C2: 2 pieces.....C12: 12 pieces | |
| ⑧Double solenoid 5/3 way exhaust center | | Blank: No E1: 1 piece E2: 2 pieces.....E12: 12 pieces | |
| ⑨Double solenoid 5/3 way pressure center | | Blank: No P1: 1 piece P2: 2 pieces.....P12: 12 pieces | |
| ⑩Type of communication module | Blank: Without communication module CPN1: Profinet+PNP<br>CPN2: Profinet+NPN CEN1: EtherNet/IP+PNP<br>CEN2: EtherNet/IP+NPN CEA1: EtherCAT+PNP<br>CEA2: EtherCAT+NPN CLK1: IO-Link+PNP | | |
| ⑪Number of external pilot type valves | SW□: Single solenoid 5/2 way DW□: Double solenoid 5/2 way<br>CW□: Double solenoid 5/3 way closed center<br>EW□: Double solenoid 5/3 way exhaust center<br>PW□: Double solenoid 5/3 way pressure center | | |

Note:

1.Add the external pilot type valve "W"with quantity after the standard 6D series integrated valve ordering code;
2. Maximum can add 2 types of external pilot type valve;
3. External pilot type valves are mounted after the standard valves with same control type;
4. Others are the same as the standard;
5. Ordering code example: 6D1H 6F–J06 B S2 D1 C1 CPN1–SW1 DW1

1 pc of external pilot type valve (Double solenoid 5/2 way)
1 pc of external pilot type valve (Single solenoid 5/2 way)

### 6D Series Integrated Valve Ordering Code (With 2X3/2 way valves)

**6D1H 6F–J06 B S2 D1 C1 □ □ □–□**

1 2 3 4 5 6 7 8 9 10 11

| | | | |
|---|---|---|---|
| ①Model | 6D05H: 6D0500 Series integrated Solenoid valve | 6D1H: 6D100 Series integrated Solenoid valve | 6D2H: 6D200 Series integrated Solenoid valve |
| ②Number of stations | 3F: 3 stations 4F: 4 stations ..... 21F: 21stations | | |
| ③Port size(A/B Port) | J04: Φ4 tube fitting<br>J06: Φ6 tube fitting | J04: Φ4 tube fitting<br>J06: Φ6 tube fitting<br>J08: Φ8 tube fitting | J08: Φ8 tube fitting<br>J10: Φ10 tube fitting |
| ④Standard voltage | B:DC24V F:DC12V | | |
| ⑤Single solenoid 5/2 way | Total number of valves | Blank: No S1: 1 piece S2: 2 pieces.....S21: 21 pieces | Total number of valves (Includes 2X3/2 way valves) must be≤21 |
| ⑥Double solenoid 5/2 way | | Blank: No D1: 1 piece D2: 2 pieces.....D12: 12 pieces | |
| ⑦Double solenoid 5/3 way closed center | | Blank: No C1: 1 piece C2: 2 pieces.....C12: 12 pieces | |
| ⑧Double solenoid 5/3 way exhaust center | | Blank: No E1: 1 piece E2: 2 pieces.....E12: 12 pieces | |
| ⑨Double solenoid 5/3 way pressure center | | Blank: No P1: 1 piece P2: 2 pieces.....P12: 12 pieces | |
| ⑩Type of communication module | Blank: Without communication module CPN1: Profinet+PNP<br>CPN2: Profinet+NPN CEN1: EtherNet/IP+PNP<br>CEN2: EtherNet/IP+NPN CEA1: EtherCAT+PNP<br>CEA2: EtherCAT+NPN CLK1: IO-Link+PNP | | |
| ⑪Number of 2X3/2 way valves | DNC□: 2X3/2 way solenoid valve (NC-NC)<br>DNO□: 2X3/2 way solenoid valve (NO-NO) | | |

Note:

1. Add 2X3/2way valves "NC" or "NO"with quantity after the standard 6D series integrated valve ordering code;
2. 2X3/2way valves are mounted after the standard double solenoid 5/2 way;
3. Others are the same as the standard;
4. Ordering code example:6D1H 6F–J06 B S2 D1 C1 CPN1–DNC1 DNO1

1 pc of 2X3/2way valve NO-NO (Double solenoid 5/2 way)
1 pc of 2X3/2way valve NC-NC (Double solenoid 5/2 way)

## 6D/6DW Series Derivatives

### 6D Series 2X3/2way Solenoid Valve Ordering Code

6D 1 20NC B

1 2 3 4

| | | | |
|---|---|---|---|
| ①Model | 6D: 6D series solenoid valve | | |
| ②Code | 05：0500 Series | 1：100 Series | 2：200 Series |
| ③Valve type | 20NC：Double 3/2 Way solenoid valve(NC-NC type) | 20NO：Double 3/2 Way solenoid valve(NO-NO type) | |
| ④Standard Voltage | B：DC24V | F：DC12V | |

### 6D Series Solenoid Valve Ordering Code(With different inlet type)

6D 1 20 B – W

1 2 3 4 5

W：External pilot type

E：Individual inlet type

R：Individual exhaust type

| | | | |
|---|---|---|---|
| ①Model | 6D: 6D series solenoid valve | | |
| ②Code | 05：0500 Series | 1：100 Series | 2：200 Series |
| ③Valve type | 10：Single solenoid(5/2 Way) | 20：Double solenoid(5/2 Way) | 30C：Double solenoid(5/3 way closed center) |
| | 30E：Double solenoid(5/3 way exhaust center) | 30P：Double solenoid(5/3 way pressure center) | |
| ④Standard Voltage | B：DC24V | F：DC12V | |
| ⑤Valve type | W：External pilot type | E：Individual inlet type | R：Individual exhaust type |