



Presenting our CAD drawing
data catalog



KOGANEI

VALVES GENERAL CATALOG

PC-VALVE UNIT

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Disconti

Changing the Concept of Manifold — Its Key Phrases Is “Simple and Clean Figure.”

PC-VALVE UNIT

Manifolds that can mount up to 8 valves are standard products as high-density units.

Flexible mounting design, and a clean and simple figure that improve space efficiency and have offered new control systems.

Moreover, you can choose ports with quick fittings, flat cable connectors or D sub connectors, or serial transmission types for electrical connections.

Various mounting methods are available, such as direct mounting, flange mounting, angle mounting and DIN rail mounting, and they can be installed in any location.

Also customized orders can be made.



● **Power supply LED indicator**

When power is supplied, LED is ON.
(Except for PCV205 and PCV206)

● **Print circuit board**

A surge absorption circuit and a wrong polarity prevention circuit are integrated.

● **Operation LED indicator**

This displays which valve is in operation.

● **Pilot valve**

The electrical signal is converted into pneumatic signal.
The main valve is operated by low power consumption of 1.2W.

● **Manual override (with locking mechanism)**

This is the manual override to operate valve.

● **Wiring connector**

Compatible with flat cable connector (10-pin), D sub connector (15-pin) and serial transmission type.

● **Power supply connector**

This is used when power is supplied from the unit.
(For PCV201, PCV202, PCV203, PCV204 only)



● **R port (exhaust) connection port**

Quick fitting for $\phi 6$ tube is equipped as standard.

● **P port (air supply) connection port**

Quick fitting for $\phi 6$ tube is equipped as standard.

● **A, B connection port**

Quick fitting for $\phi 4$ tube is equipped as standard.

● **Dedicated tool for removing tube**

Tool for connecting and disconnecting tube smoothly.
When not being used, it can be attached to the body.

● **Main valve**

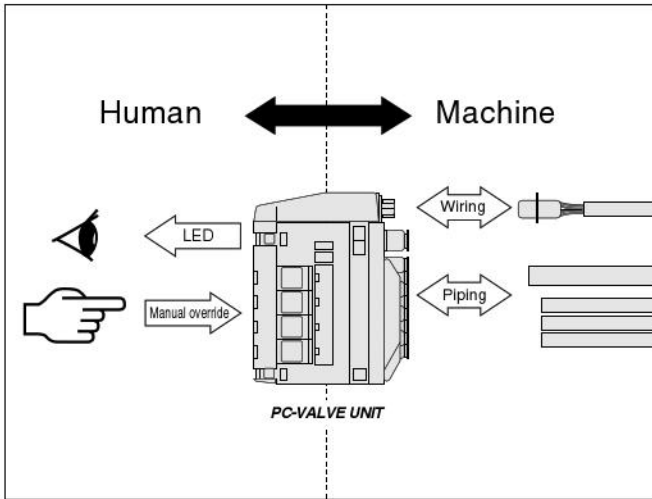
Effective area 2.0mm², 5-port, 2-, 3-position.

● **Exhaust valve for prevention of back pressure (option)**

When used as a 3-port valve, incorrect operation of actuator caused by back pressure is prevented.

An Ideal Product for an Easy-to-Use Man Machine Interface.

LED indicator indicates operation and power status, and manual override is on the front panel of the body. Wiring and piping connections are on the back of the body to concentrate functions on each side of the PC-Valve Unit.

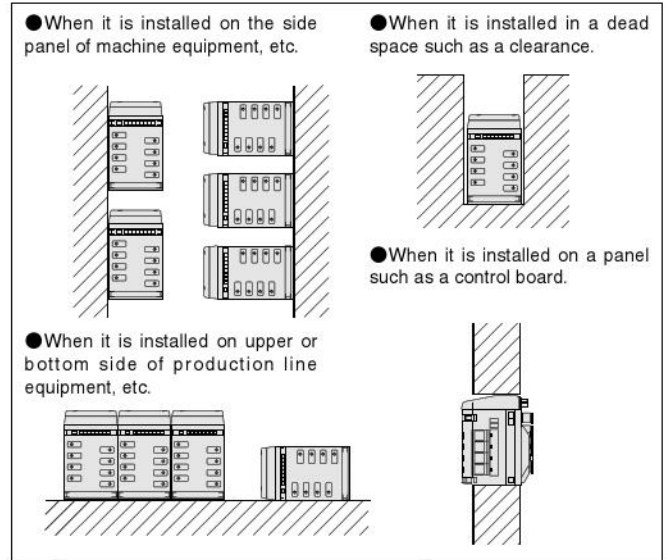


Since This Unit Is Limited to 8 Stations, Standardization Is Accelerated.

Pilot valves and main valves are separated in the valves with 8 limited stations. T-shaped main valves in staggered positions have realized high density and high integration of 6 mm pitch. By standardizing using valves, wiring and piping, the effects can be extended to the standardization of drawings, models, slip of papers, inventory, maintenance and other things.

Block Shaped Unit Which Can Be Installed in Any Location and Improves Space Efficiency. A Unique Design That Has Never Been Before Now Available.

4 types of mounting are available: direct mounting, flange mounting, angle mounting, and DIN rail mounting. A new shape that can be easily installed in a confined space, clearance, or panel of machine equipment. Since P, R, A and B port with quick fittings are located on the back side, mounting and maintenance in confined space is easy.



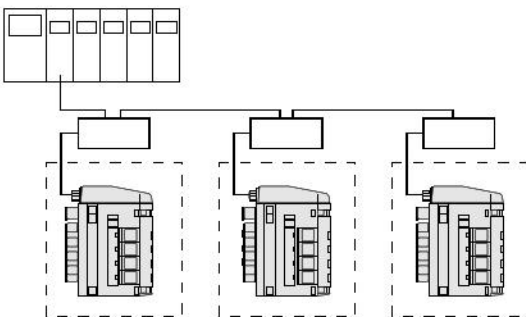
Not Only the Appearance and Function but Also the Shape Is Clear and It Can Be Easily Ordered.

Since it is a package type, it does not need a troublesome order form, and it can be easily ordered. When the combination other than the standard package is required, customized orders can be made.

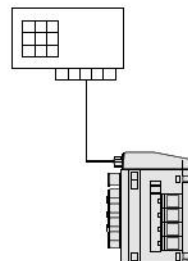
Connection Example

Flexible unit which can be best fit to various control systems.

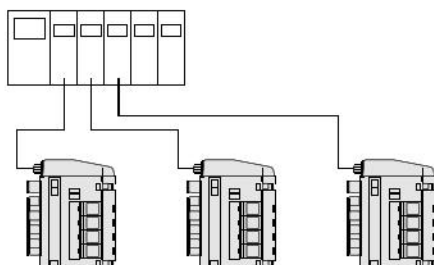
● Decentralized control and PC-VALVE UNIT



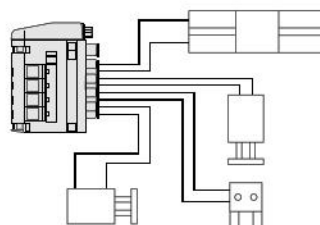
● Stand alone type and PC-VALVE UNIT



● Concentrated control and PC-VALVE UNIT

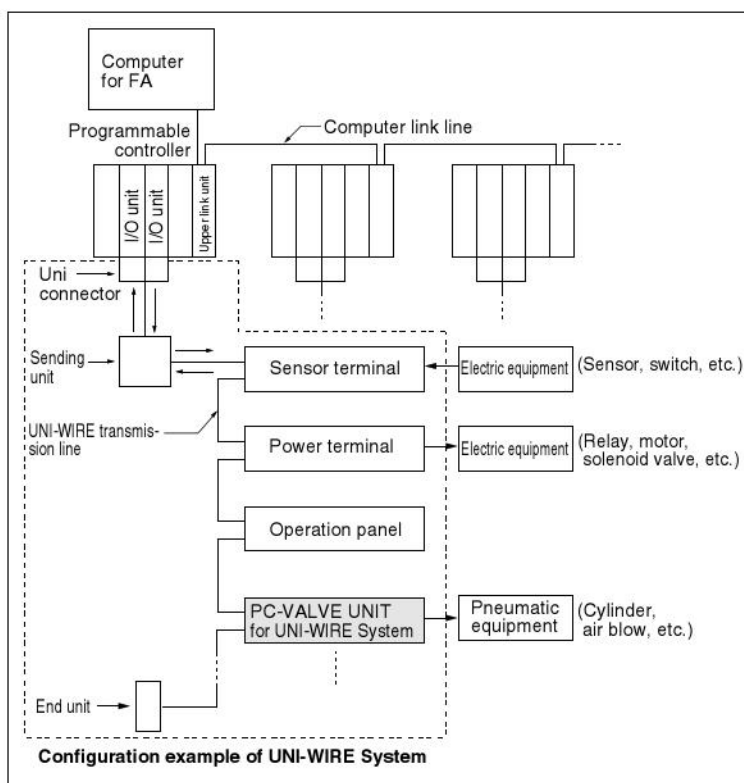
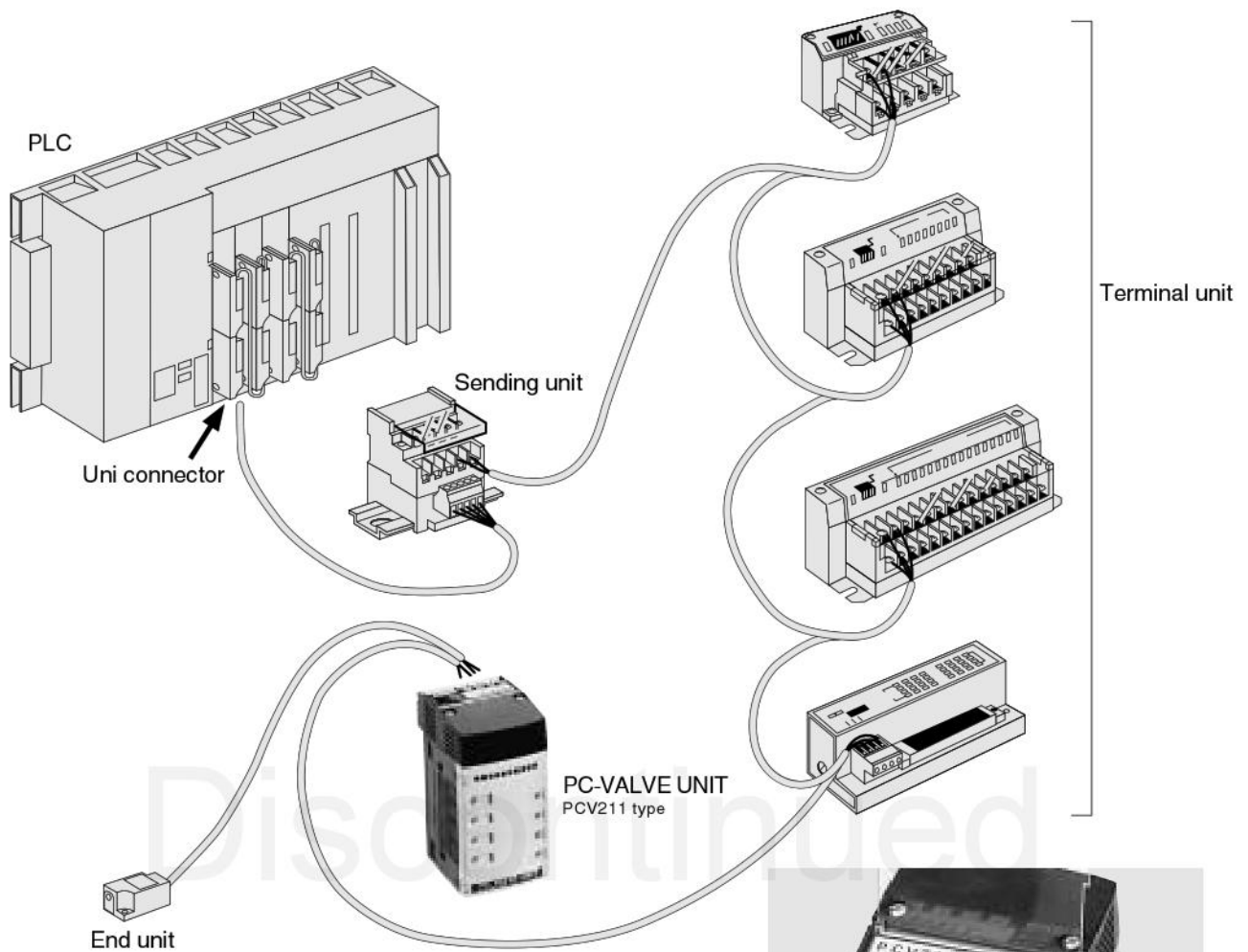


● Actuators and PC-VALVE UNIT



Conforming to UNI-WIRE® System Type

System Configuration



UNI-WIRE® System

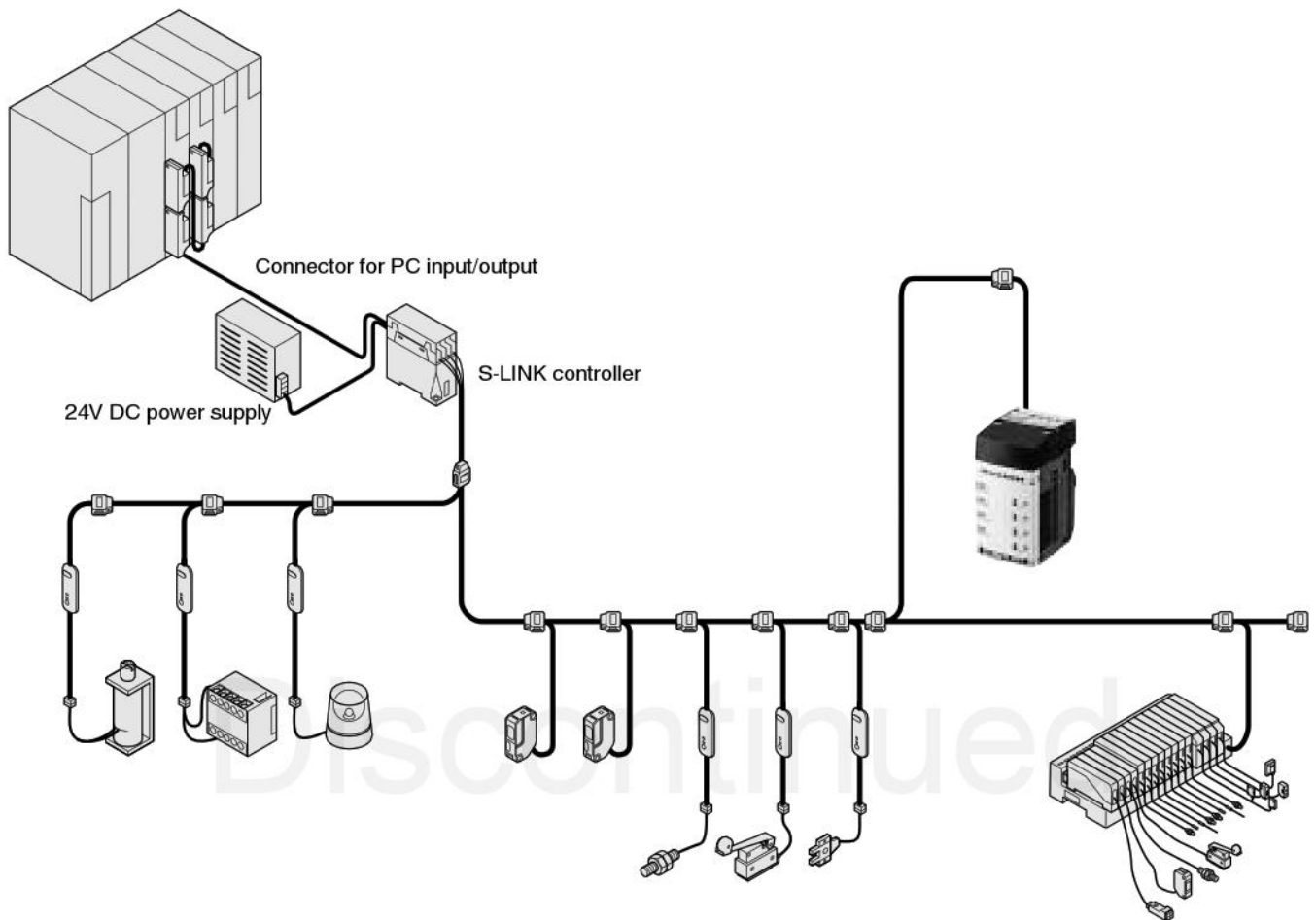
An independent transmission system that can be connected to controllers such as a personal computer, SBC, VME without being restrictions, and can transmit signals to decentralized devices such as solenoid valves on manifolds by 1 cable (2 leads). This system can be connected to an I/O unit for each company through a uni connector and sending unit and can control it without changing the program of the PC and other items. This system realizes a reduction of wiring and a remote transmission system by the controllers already installed without observing a UNI-WIRE System.

- ◎ Number of input/output points Maximum 128 points
- ◎ Maximum number of stations 20 stations
- ◎ Maximum total extension length 200 m

UNI-WIRE® System is a serial parallel transmission system developed jointly by NKE and Kuroda Precision Industries. The UNI-WIRE Systems peripheral equipment is sold separately. For details about usage, see the UNI-WIRE Systems manual.

Conforming to S-LINK System Type

System Configuration



S-LINK

- Sensor & wiring reduction link system by Sunx.
- Input/output of 128 points can be transmitted by 2 signal cables.
Also T-shaped branch multi drop connection can be used that never existed before.
- Can be used with any PC.
- Signal transmission with high reliability can be realized by loop connection.

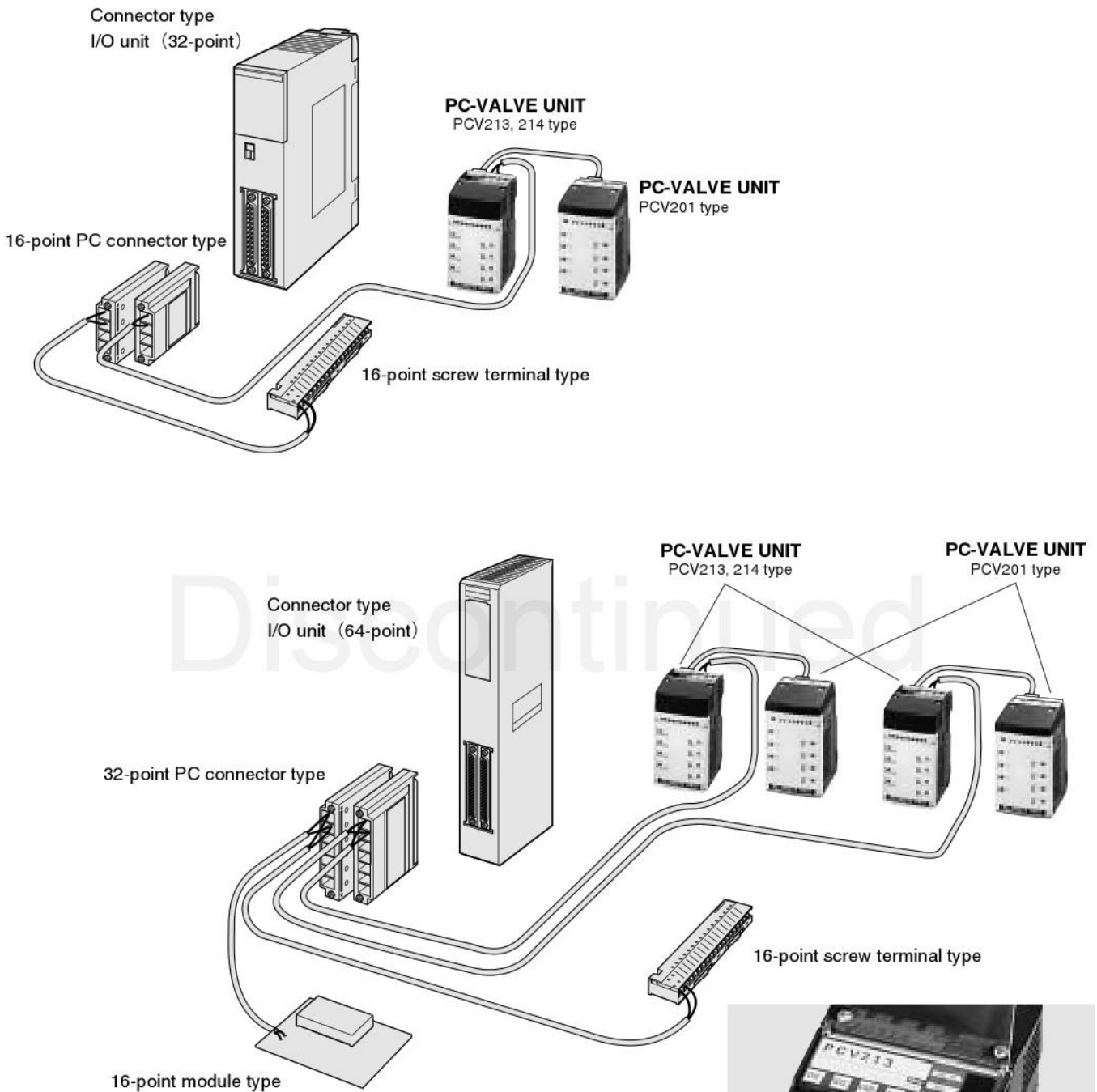
※ S-LINK is a wiring saving link system by Sunx.
Purchase devices required to construct system separately.
Contact Sunx for details.



Conforming to B7A Link Terminal Type (Standard, High Speed Type)

System Configuration

Example of connection with PC



Directly connected to OMRON Corporation B7A Link Terminal (16-point)

- Control signal of 16 points can be transmitted by a pair of cables (2 leads).
- 8 points of 16 points are allocated to output to PC-VALVE UNIT, and the remaining 8 points are output to the outside.
- 2 types of transmission delay time are available : Standard type (19.2ms): PCV213, and high speed type (3ms): PCV214.
- Maximum transmission distance can be up to 500m with the standard type.



B7A Link Terminal is a system by Omron.
For details, see the Omron catalog and document.

Specifications

Unit Specifications

Basic model		PCV201 PCV202	PCV203 PCV204	PCV205 PCV206	PCV211	PCV212	PCV213 PCV214	
Item								
Media		Air						
Operation method		Internal pilot type (inside the unit)						
Operating pressure range	MPa {kgf/cm ² }	0.15~0.7 {1.5~7.1}						
Proof pressure	MPa {kgf/cm ² }	1.05 {10.7}						
Operating temperature range	°C	5~50			5~40			
Shock resistance	m/s ² {G}	1373.0 {140} (axial direction 294.2 {30})			98.1 {10}			
Mounting direction		Any						
Unit structure		Pilot valve/Main valve separate type						
Number of pilot control points		Max. 8 points						
Number of mounted main valves		Max. 8 (All single solenoid valves) or Max. 4 (All double solenoid valves)						
Port size	P port	φ 6mm quick fitting X1 plc.						
	R port	φ 6mm quick fitting X2 plcs.						
	A, B port	φ 4mm quick fitting						
Rated voltage	DC V	24						
Operating voltage range (±10%)	DC V	21.6~26.4			21.6~26.4 Ripple 0.5 Max. Vp.p			
Current (When rated voltage and 8 points are simultaneously operated)	mA	400 (Max./UNIT)						
Power consumption (When rated voltage and 8 points are simultaneously operated)	W	9.6 (Max./UNIT)						
LED indicator		Power supply: Green	Operation: Red	Operation: Red	Power supply and transmission: Green			Operation: Red
Surge suppression		Flywheel diode + zener diode			Flywheel diode			
Insulation resistance		Between external terminal and case Min. 20MΩ						
Voltage resistance		Between external terminal and case 1000V for one minute						

Remark: Conversion to psi., 1Mpa=145psi., 1kgf/cm²=14.2psi., e.g. 0.15Mpa=21.8psi.

Valve Specifications

Basic model		PCZ2510	PCZ2520	PCZ2530	PCZ2540	PCZ2550	
Pilot valve	Operation method	Direct acting (for main valve operation)					
	Seal type	Elastic, poppet type					
	Solenoid rated voltage	V DC	24				
	Operating voltage range (±10%)	V DC	21.6 ~26.4				
	Current (When rated voltage is applied)	mA	50/1 point				
	Maximum allowable leakage current	mA	Max. 3 (removed voltage 2V)				
	Power consumption	W	1.2/1 point				
	Manual override		With locking mechanism				
Main valve	Operation method	Air operating by pilot valve					
	Seal type	Elastic seals on spool type					
	Number of positions	2 positions		3 positions			
	Number of ports	5 ports					
	Valve function	Single	Double	All port block	ABR connection	PAB connection	
	Number of points occupied by pilot	1	2	2	2	2	
	Effective area	mm ²	2.0		1.7		
	Response time*	OFF→ON	ms				Max. 15
		ON→OFF	ms				Max. 20
	Maximum operating frequency	Hz	5				
Minimum time to energize for self holding	ms	—	50	—			

*: Values when mounted on a unit, and 0.5MPa {5.1kg f /cm²} applied.

Wiring Specifications

Item	Basic model	PCV201 PCV202	PCV203 PCV204	PCV205 PCV206	PCV211	PCV212	PCV213 PCV214
Type		Flat cable connector 10-pin	D sub connector 15-pin	Flat cable connector 10-pin	M3 terminal screw 4P (D,G,24V,0V)	M3 terminal screw 4P (G,D,0V,24V)	M3 terminal screw 4P (0V,SIG,ERR,24V)
Common		201,203,205 (plus common), 202,204,206 (minus common)			Plus common		
Others		External power supply connector and cable (length 2000 mm) included		—	● With address setting SW ● With output selection SW	● With address setting SW ● With abnormal operation output selection SW	● With address setting SW ● With output selection SW

Output Specifications (External Output)

Item	Basic model	PCV211	PCV212	PCV213	PCV214
Output type		—	—	NPN open connector	
Rated load voltage		—	—	DC24V	
Output current		—	—	Sink current Max. 50mA /1 point, sink current Max. 40mA (error output)	

Transmission Specifications

Item	Basic model	PCV211	PCV212	PCV213	PCV214
Noise resistance		1,200Vp-p (pulse width 1μs)	—	Noise level 1.5kV, pulse width 100ns, 1μs	
Transmission method		Bidirectional time division multiplex transmission		Monodirectional time division multiplex transmission	
Synchronous method		Bit synchronous method		—	
Transmission procedure		UNI-WIRE protocol	S-LINK protocol	—	
Transmission speed		28.5kbps		—	
Delay time of transmission		10.7ms (Max.)		Max. 31ms	Max.5ms
Connection method		Multi drop connection	T-shaped branch multi drop connection	1 to 1	
Transmission distance		Max. 200m		Max. 500m	Max. 100m

Mass

● Package type mass

g

Package model	Mass		
	PCV201, 202, 205, 206	PCV203, 204	PCV211,212, 213,214
A	484	489	508
B	492	497	518
C	452	457	478
D	420	425	446
E	424	429	450
F	488	493	514

● Additional mass of full choice type

g

Model	Unit basic mass	Additional mass of mounting valve				Additional mass of mounting base				Power cable additional mass PCV2-DC
		Space block PCZ2500	Single solenoid PCZ2510	Double solenoid PCZ2520	3-position PCZ2530 PCZ2540 PCZ2550	Flange type -B1	Angle type -B2	Long angle type -B3	DIN rail type -B4	
PCV201Z PCV202Z	300	7	23	48	47	56	44	167	117	19
PCV203Z PCV204Z	305									
PCV205Z PCV206Z	300									
PCV211Z	326									
PCV213Z PCV214Z	326									

Calculation example : For mounting 6 single solenoids, 1 double solenoid, with flange type mounting base to PCV201Z (PCV201Z-B1 stn.1~6 PCZ2510 stn.7 PCZ2520),

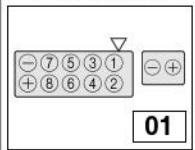
$$300 + (23 \times 6 + 48) + 56 = 542g$$

Order Code

Order Code

Wiring

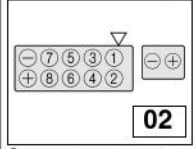
Flat cable connector 10-pin



01

● Plus common, with power supply connector

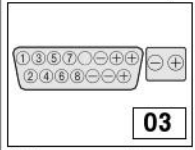
Flat cable connector 10-pin



02

● Minus common, with power supply connector

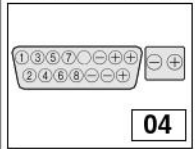
D-sub connector 15-pin



03

● Plus common, with power supply connector

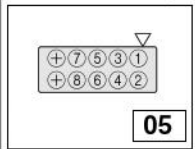
D-sub connector 15-pin



04

● Minus common, with power supply connector

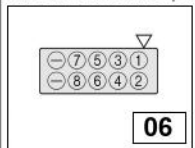
Flat cable connector 10-pin



05

● Plus common, without power supply connector

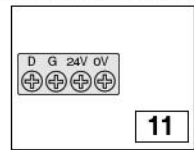
Flat cable connector 10-pin



06

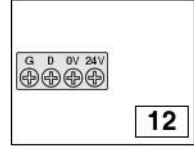
● Minus common, without power supply connector

For UNI-WIRE System



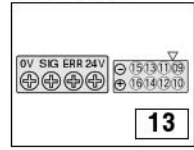
11

For S-LINK



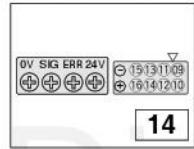
12

For Omron B7A (Standard type)



13

For Omron B7A (High speed type)

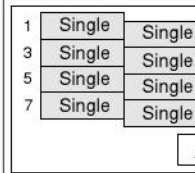


14

Dedicated cable is not included to serial transmission type at time of delivery.

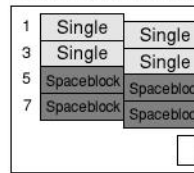
Mounted valve package

Single solenoid 8 stns.



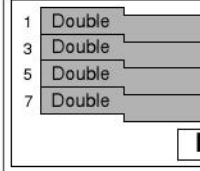
A

Single solenoid 4 stns.



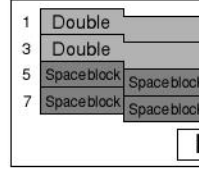
D

Double solenoid 4 stns.



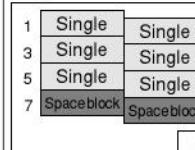
B

Double solenoid 2 stns.



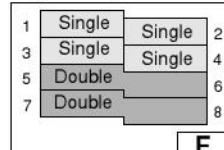
E

Single solenoid 6 stns.



C

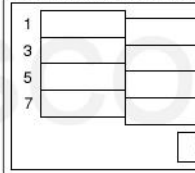
Single 4 stns., Double 2 stns.



F

Full choice type

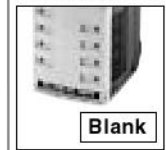
This type is used when selecting mounting valves with a customized order other than the packages above. Be sure to indicate customized order code for stn. 1-8.



Z

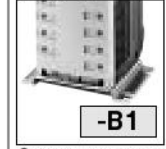
Mounting base

Without mounting base



Blank

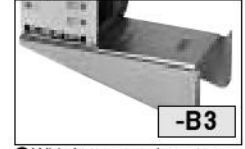
Flange type



-B1

● With two mounting screws

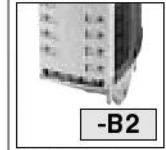
Long angle type



-B3

● With four mounting screws

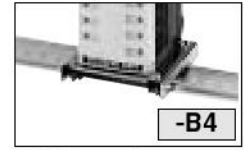
Angle type



-B2

● With two mounting screws

DIN rail type



-B4

● With two mounting screws

Exhaust valve

Blank : Standard

-EP : Exhaust valve built-in type (For prevention of back pressure from main valve)

Customized order code

(Indicate only when full choice type is selected.)

PCZ2500: Space block

PCZ2510: Single solenoid (2-position)

PCZ2520: Double solenoid (2-position)

PCZ2530: All port block (3-position)

PCZ2540: ABR connection (3-position)

PCZ2550: PAB connection (3-position)

Unit basic model	01 06 02 11 03 12 04 13 05 14	A D B E C F Z	-EP	-B1 -B2 -B3 -B4	stn. 1 : stn. 8
PCV2					

● The number of above wiring diagram show solenoid (station) number.

● When double solenoid valve is used, mount it on station 1, 3, 5 and 7. In this case, the next even numbered station cannot be designated.
● When adding or replacing mounting valves, please contact us.

Additional Parts (Sold Separately)

Mounting base

Flange type



PCV2-B1

● With two mounting screws

Angle type



PCV2-B2

● With two mounting screws

Long angle type



PCV2-B3

● With four mounting screws

DIN rail type

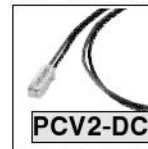


PCV2-B4

● With two mounting screws

Power supply cable

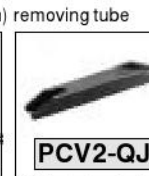
(Cable length: 2000mm)



PCV2-DC

● Attached to PCV201-204 as standard

Dedicated tool for removing tube



PCV2-QJ

● Attached as standard

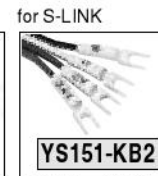
Muffler



KM-J6

● For φ 6 quick fitting (1 set of 10 mufflers)

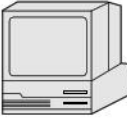
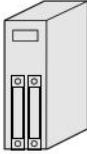

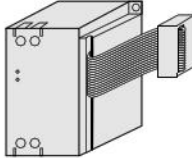
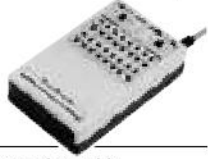


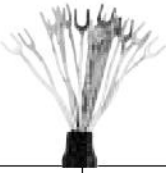
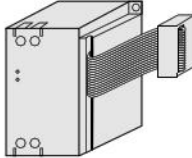

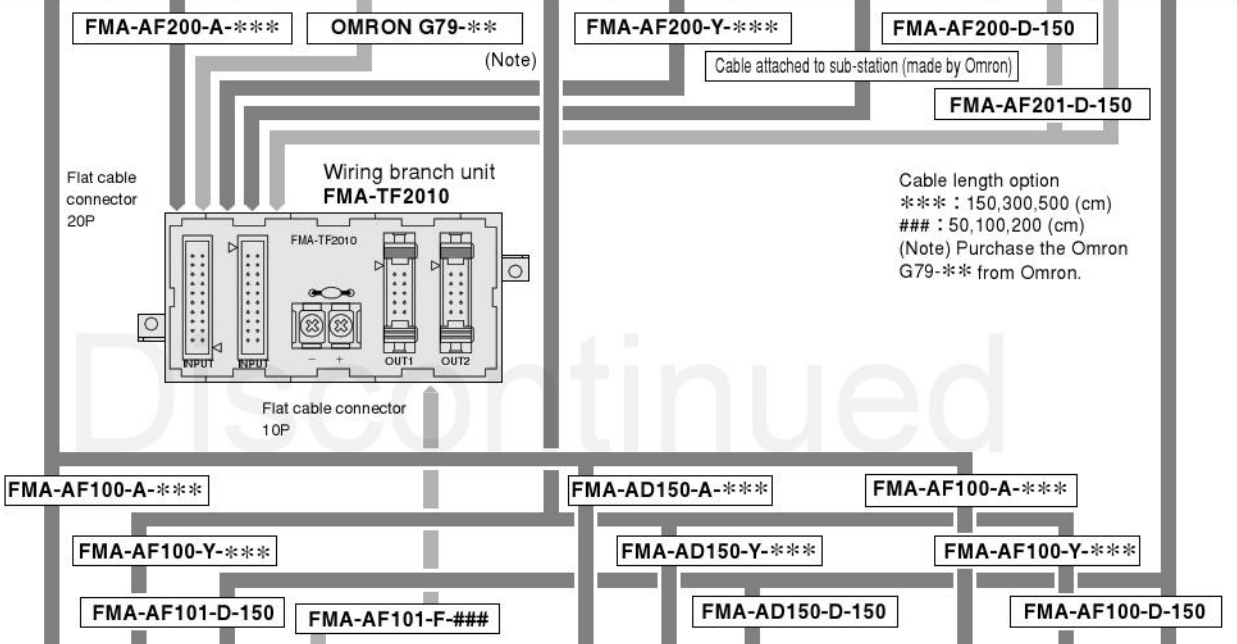



Dedicated cable for S-LINK



YS151-KB2

● Cable length: 2000mm

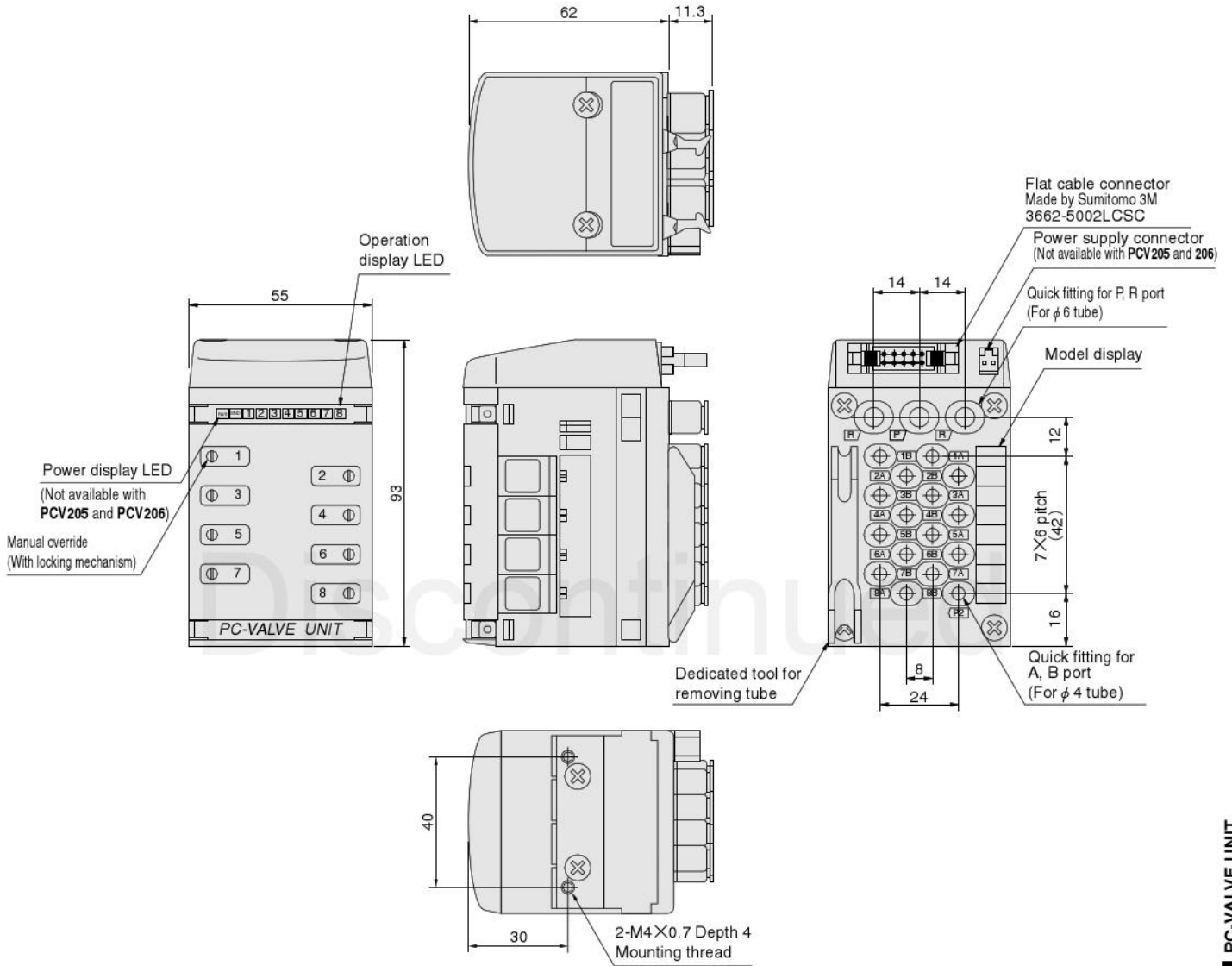
Table of Cable Assemblies and Connector Cables

Control side					
Connection devices					
Connection type	Output type ●AWG 28 With numbering 	●Fujitsu 360 connector 24P FCN361J-024-AU connector FCN361C-024-B cover 	PC terminal type output ●M3.5 (Max.) With numbering 	 A cable attached to sub-station (made by Omron) is connected to the body.	Connection cable ●D sub connector 25P 
Order code	 <p>Wiring branch unit FMA-TF2010</p> <p>Flat cable connector 20P</p> <p>Flat cable connector 10P</p> <p>Cable length option *** : 150,300,500 (cm) ### : 50,100,200 (cm) (Note) Purchase the Omron G79-** from Omron.</p>				
Connection type	 Flat cable connector 10P	 D sub connector 15P	 Flat cable connector 10P		
PC-VALVE UNIT	PCV201/PCV202	PCV203/PCV204	PCV205/PCV206		
Operation side					
	Flat cable connector 10P (PCV201/PCV202/PCV205/PCV206)		D sub connector 15P (PCV203/PCV204)		
Connector	●Press hold type Made by Sumitomo 3M Socket : 7910-6500SC Strain relief : 3448-7910 FMA-BF10SA		●Press hold type Made by Japan Aviation Electronics Industry Socket : DASP-JB15S Strain relief : DASP-SR FMA-BD15SA		●Solder type Made by Japan Aviation Electronics Industry Socket : DA-15S-N FMA-BD15SH
Flat cable	Flat cable 10 leads UL-20012-ST10X28AWG Made by Hitachi Cable Flat Ace Cord type, 10m roll FMA-CF10X10		Flat cable 20 leads UL-20012-ST20X28AWG Made by Hitachi Cable Flat Ace Cord type, 10m roll FMA-CF20X10		
Round cable	Round cable 26 leads UL-2464-SB(MA)-13P X28AWG Made by Hitachi Cable MA cable, 10m roll FMA-CR26X10				

Dimensions of PC-VALVE UNIT

Dimensions of Flat Cable Connector Type (Scale 1/2, Unit mm)

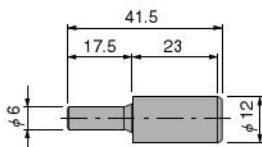
- PCV201/PCV202 (with power supply connector)
- PCV205/PCV206 (without power supply connector)



PC-VALVE UNIT

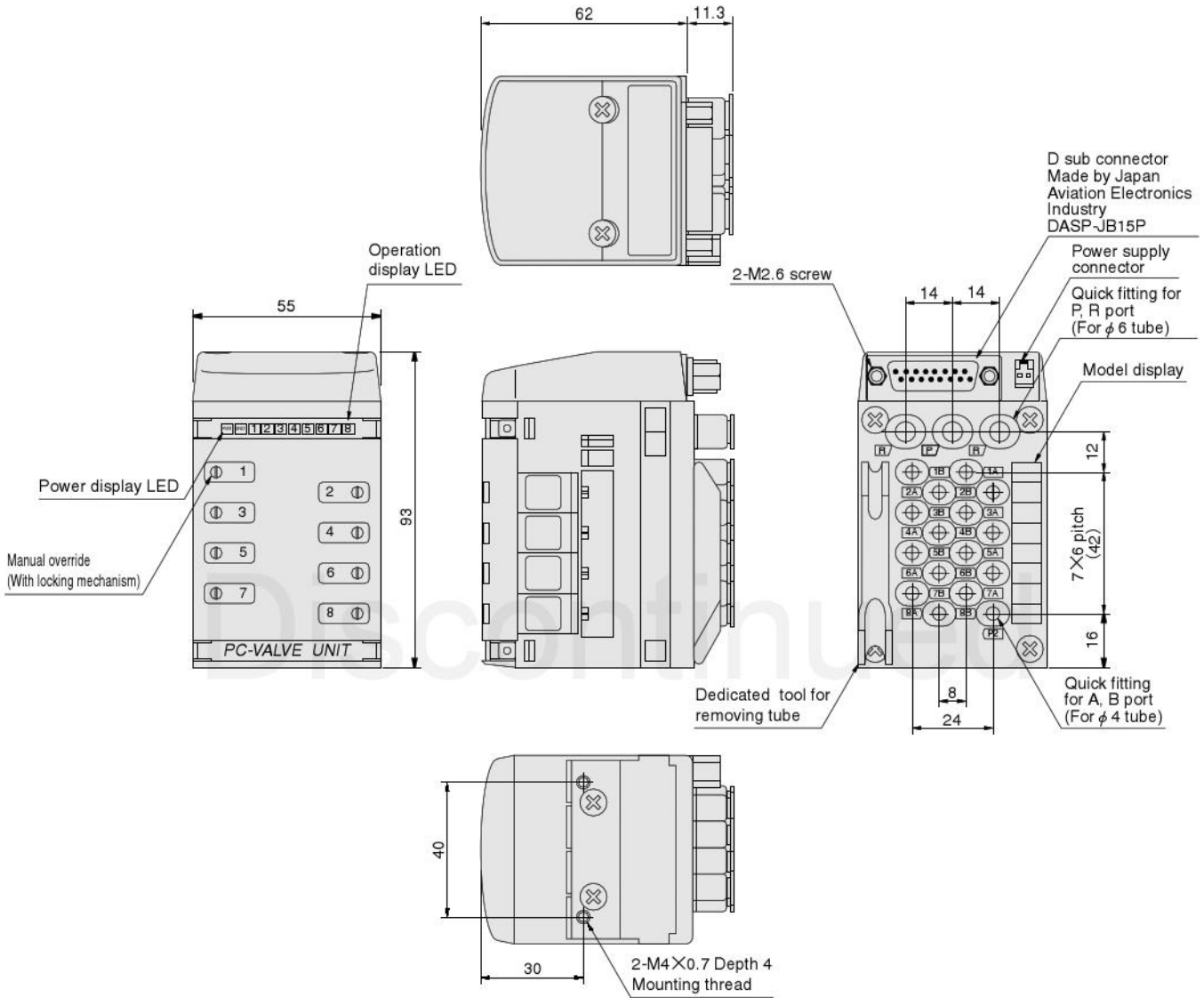
Sold Separately

- Muffler : KM-J6



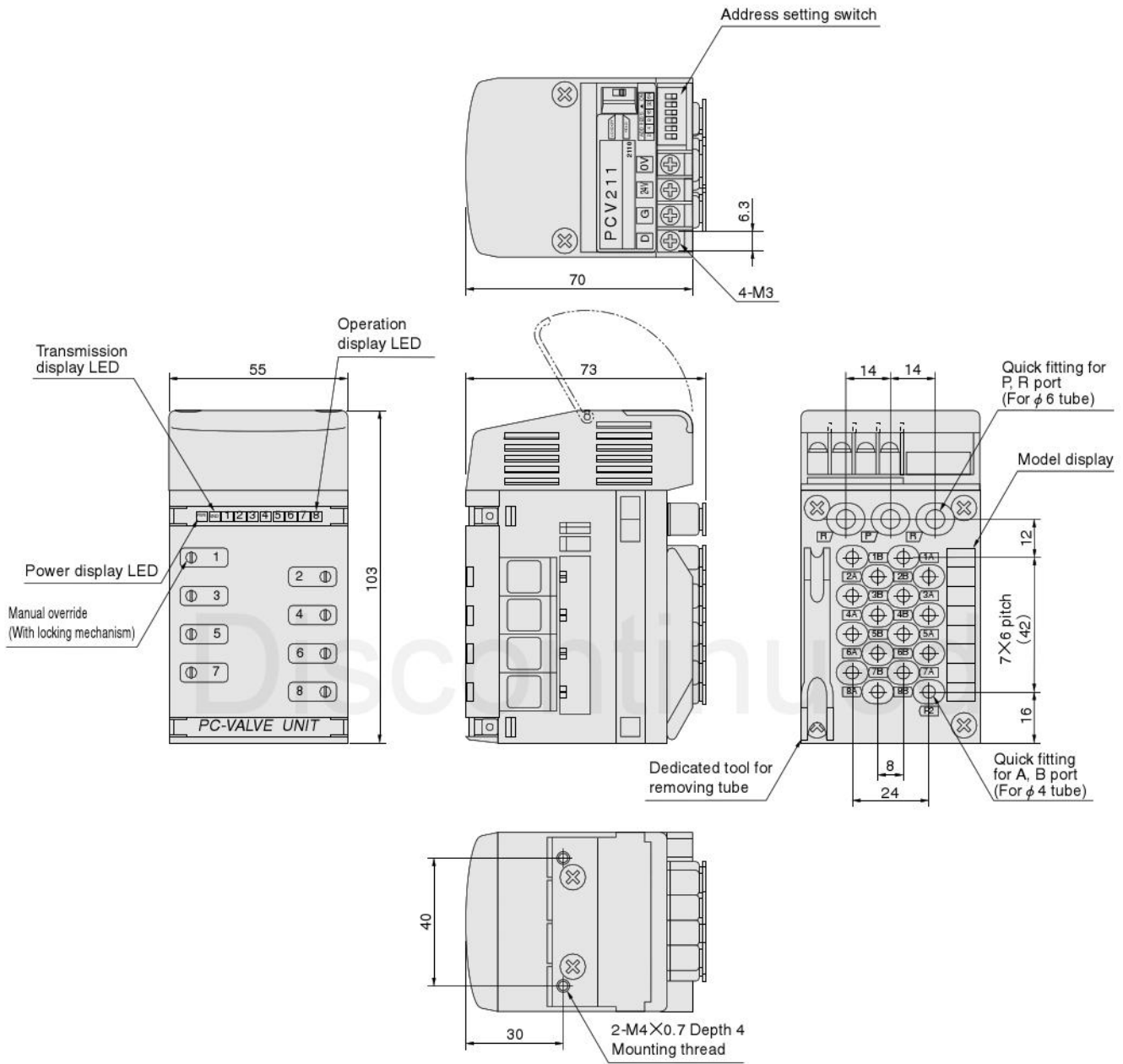
Dimensions of D Sub Connector Type (Scale 1/2, Unit mm)

●PCV203/PCV204 (with power supply connector)



Dimensions of Conforming to UNI-WIRE System Type (Scale 1/2, Unit mm)

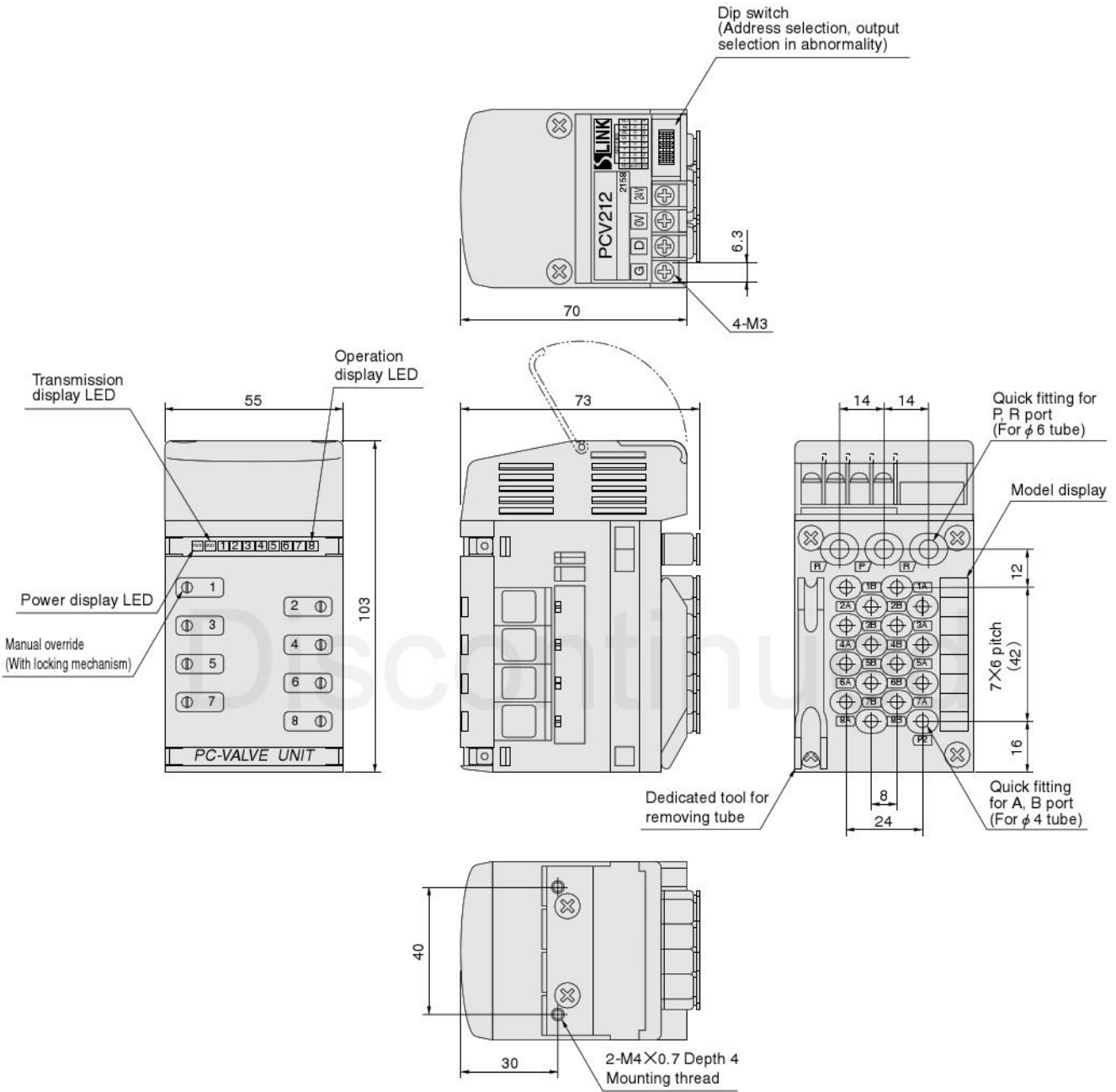
● PCV211



PC-VALVE UNIT

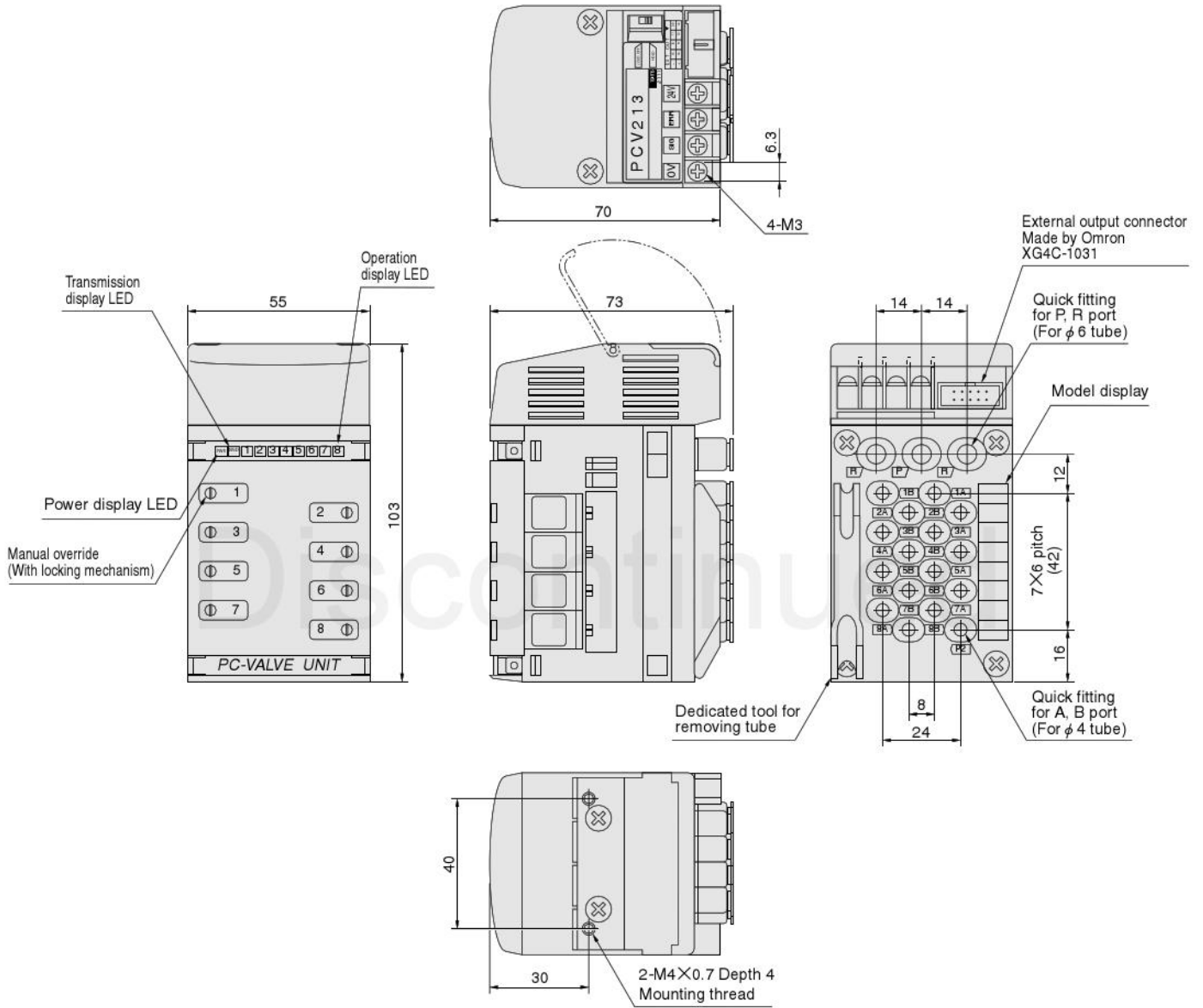
Dimensions of Conforming to S-LINK Type (Scale 1/2, Unit mm)

● **PCV212**



Dimensions of Conforming to B7A Link Terminal Type (Scale 1/2, Unit mm)

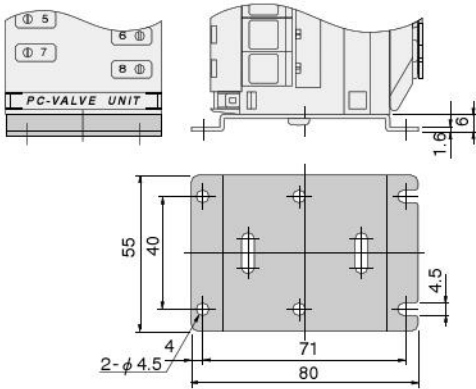
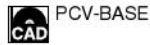
- **PCV213** (Standard : 19.2ms type)
- **PCV214** (High speed : 3ms type)



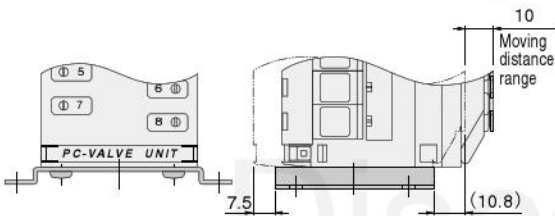
PC-VALVE UNIT

Dimensions of Mounting Base (Scale 1/3, Unit mm)

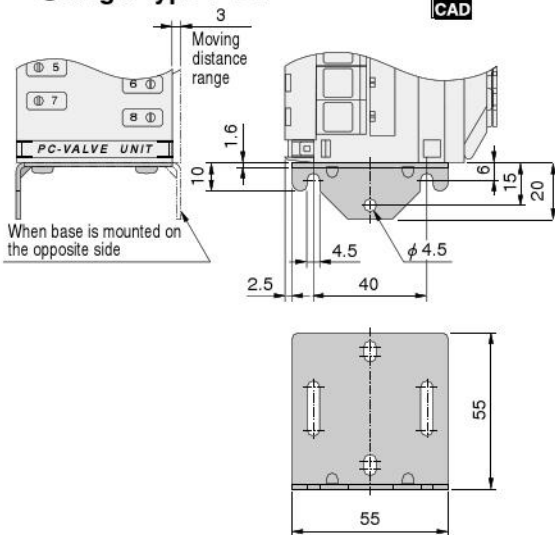
● **Flange type : -B1**



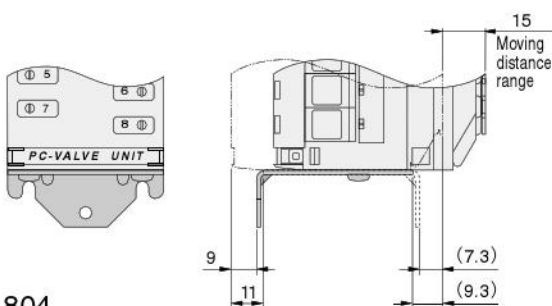
● **When the base is rotated 90° for mounting**



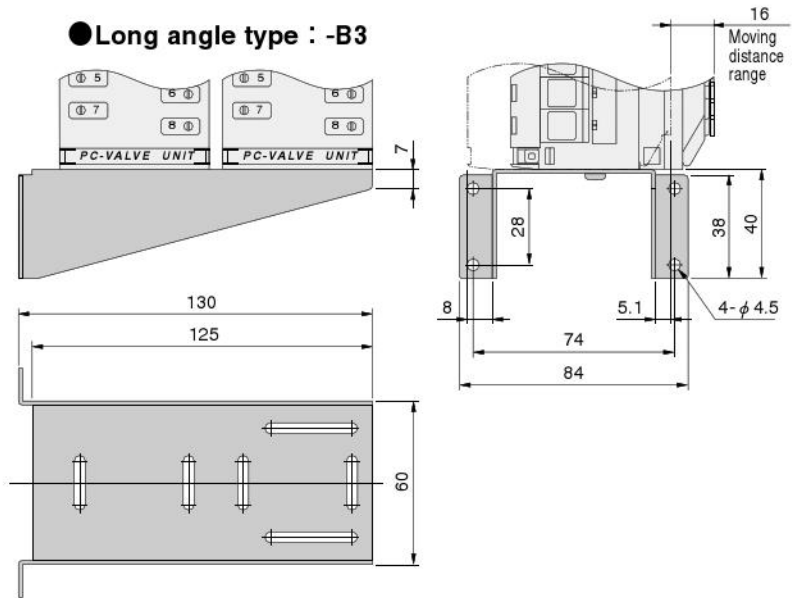
● **Angle type : -B2**



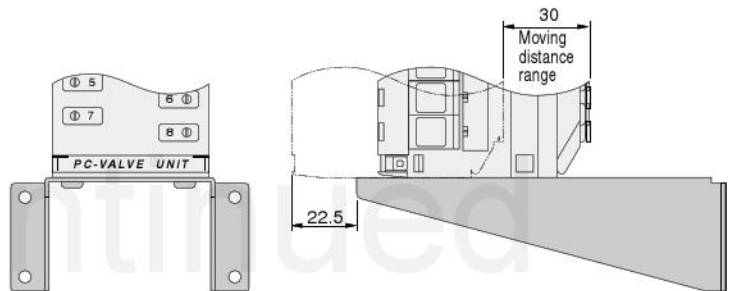
● **When the base is rotated 90° for mounting**



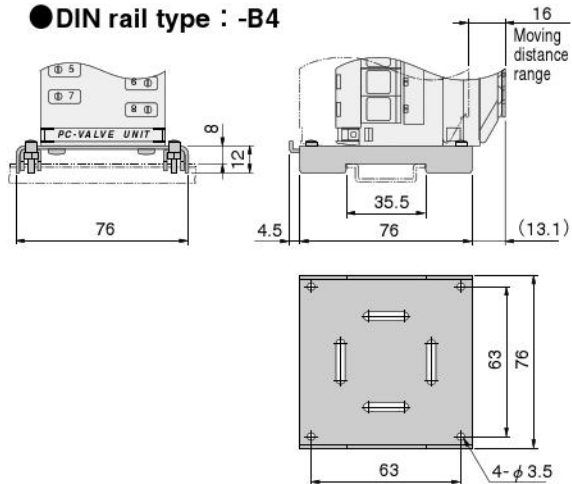
● **Long angle type : -B3**



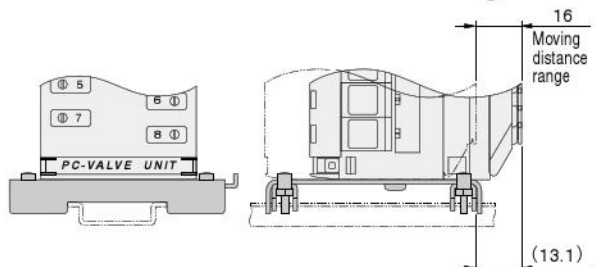
● **When the base is rotated 90° for mounting**



● **DIN rail type : -B4**

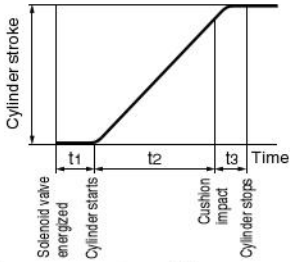


● **When the base is rotated 90° for mounting**



Cylinder Operating Speed

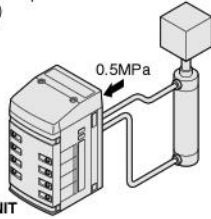
Cylinder operating speed



To obtain the time required for the cylinder to complete 1 stroke, add cylinder's delay time t_1 (time between energizing of solenoid valve and actual starting of cylinder), to the cylinder's max. operating speed time t_2 . When a cushion is used, add the cushioning time t_3 , to the above calculation. Standard cushioning time t_3 is approximately 0.2 seconds.

Measurement conditions

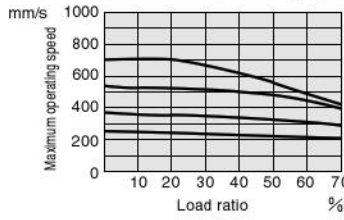
- Air pressure : 0.5MPa (5.1kgf/cm²)
- Piping inner diameter and length: $\phi 2.5 \times 1000\text{mm}$, $\phi 2.5 \times 3000\text{mm}$
- Fitting : $\phi 4$ straight quick fitting (TSK4-M6M)
- Load ratio = $\frac{\text{Load}}{\text{Cylinder theoretical thrust}}$ (%)
- Cylinder stroke : 150mm for $\phi 20 \sim \phi 40$



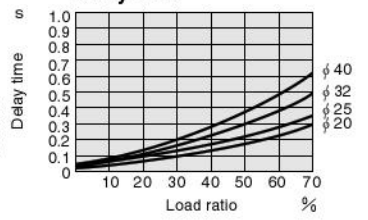
PC-VALVE UNIT

● When tube length is 1000mm

Maximum operating speed

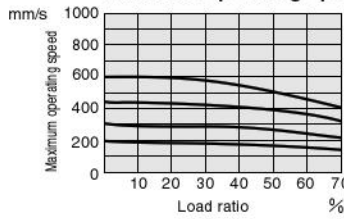


Delay time

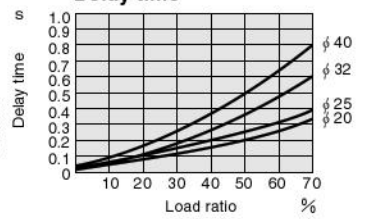


● When tube length is 3000mm

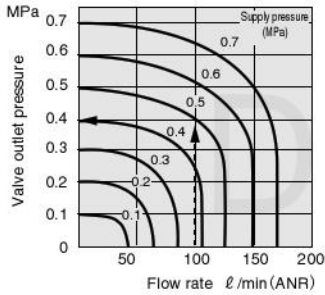
Maximum operating speed



Delay time



Flow Rate



How to read the graph

If supply pressure is 0.5MPa and flow rate is 100 l/min (ANR), valve outlet pressure becomes 0.4MPa.

FMA-TF2010 Wiring Branch Unit

Function : Converts the 16-point output on the control side to 8 units× 2 for compatibility with PC-VALVE UNIT.

Input : Two different wiring pattern. Select and wire according to the control side.

- Input 1 : Pin arrangement for Koganei F201, and for Omron's remote I/O sub-station G71-OD16
- Input 2 : Pin arrangement for Koganei F200

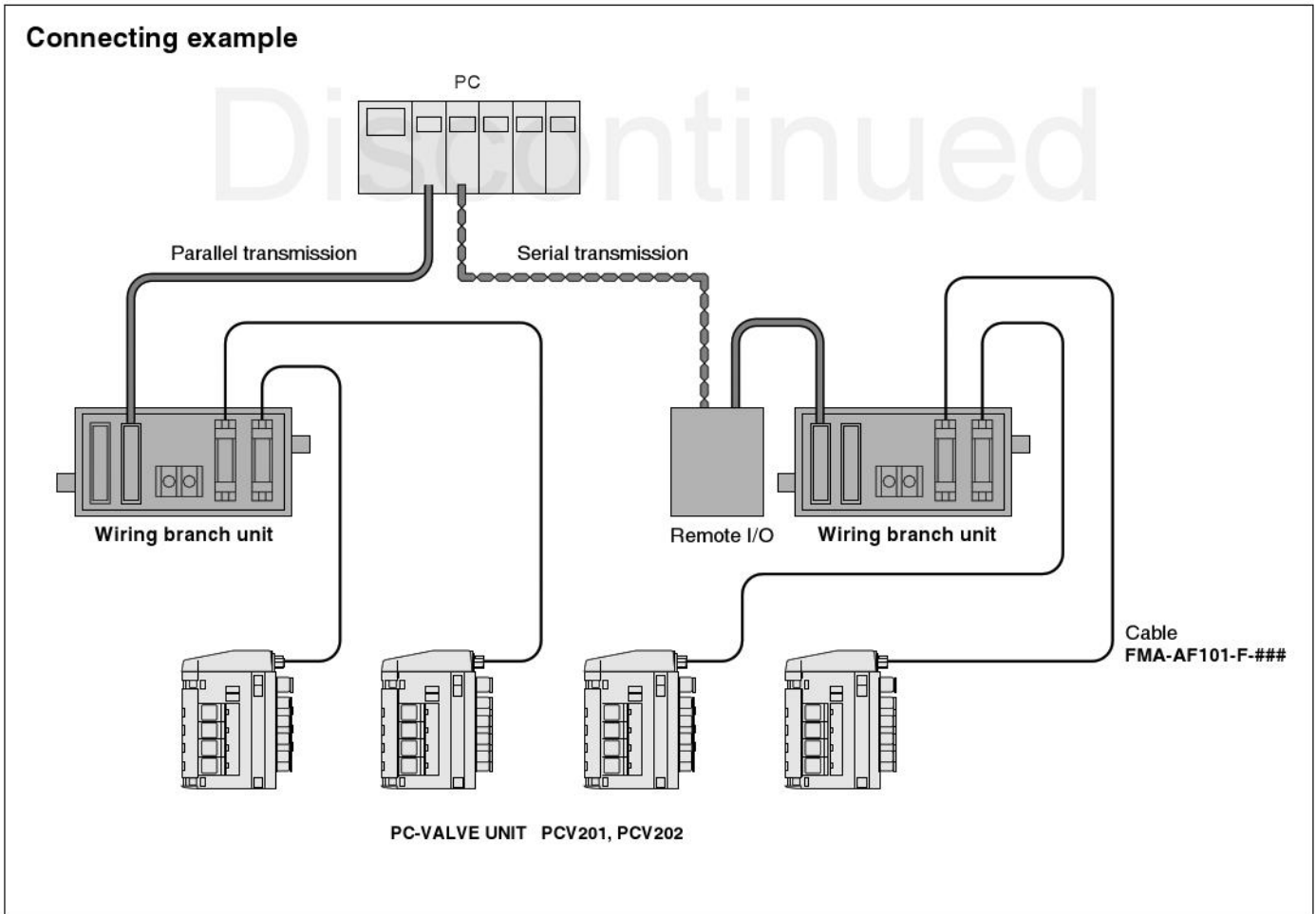
Power source : Equipped with terminal for external power source, and wrong polarity prevention diode. Using this power supply is also possible.

Output : Compatibility with PC-VALVE UNIT means simple connections with flat cable connector.

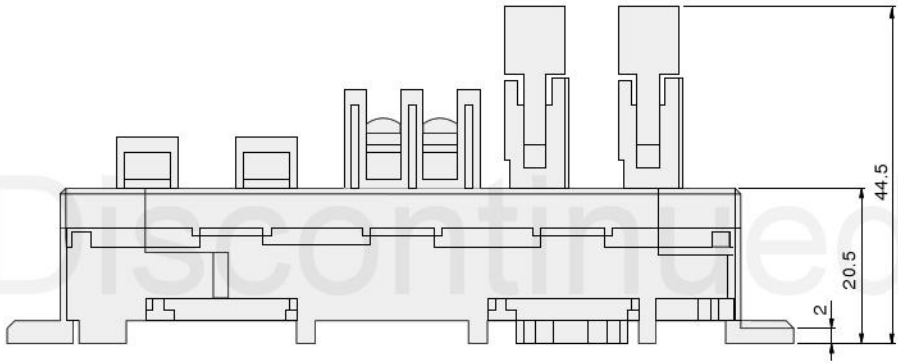
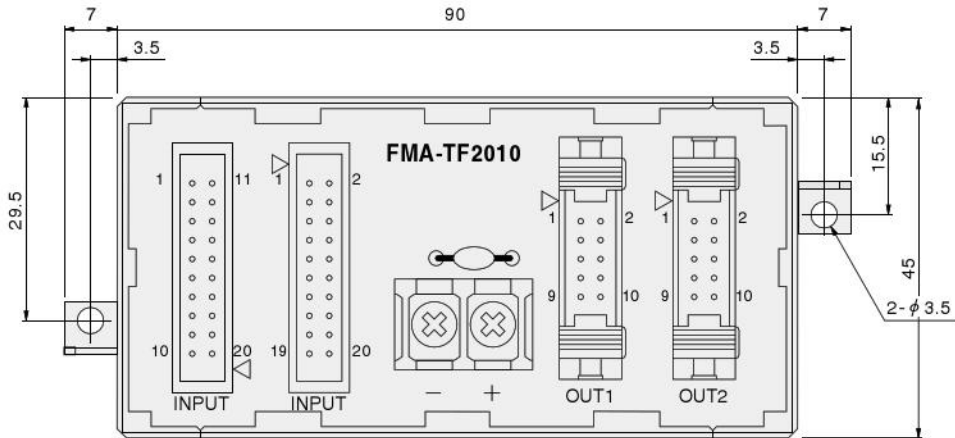
Mounting : Can be mounted on either DIN rail, or by direct mounting.

Other : Dedicated cables for PCV201 and PCV202 also available.

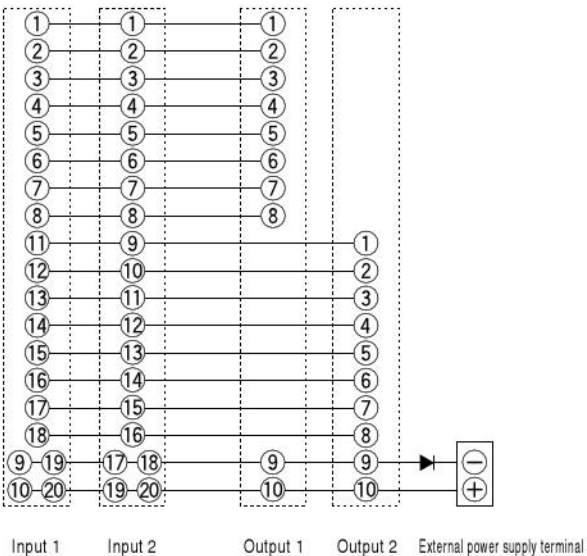
For details, see p. 798.



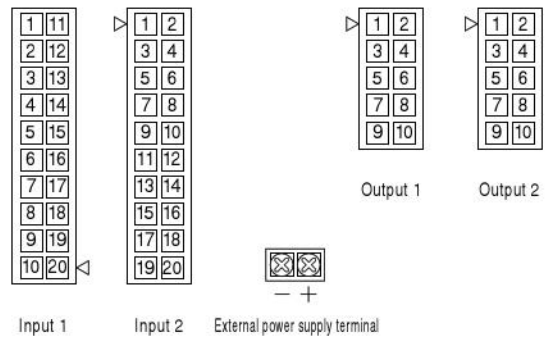
Dimensions of Wiring Branch Unit (Scale 1/1, Unit mm)



Internal circuit diagram



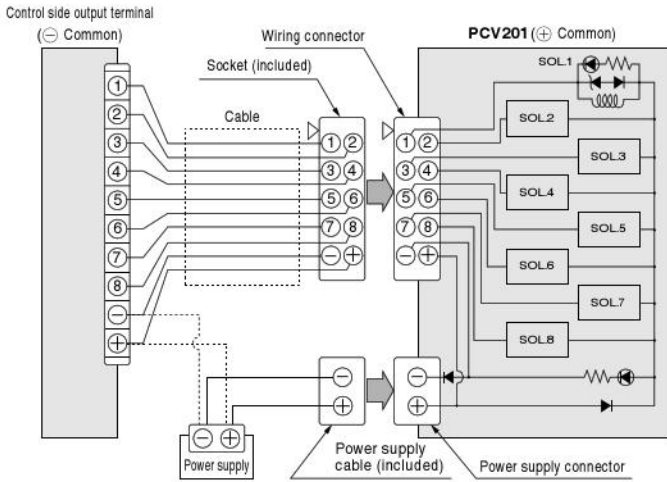
Pin locations diagram



Internal Circuit and Wiring Connection Examples

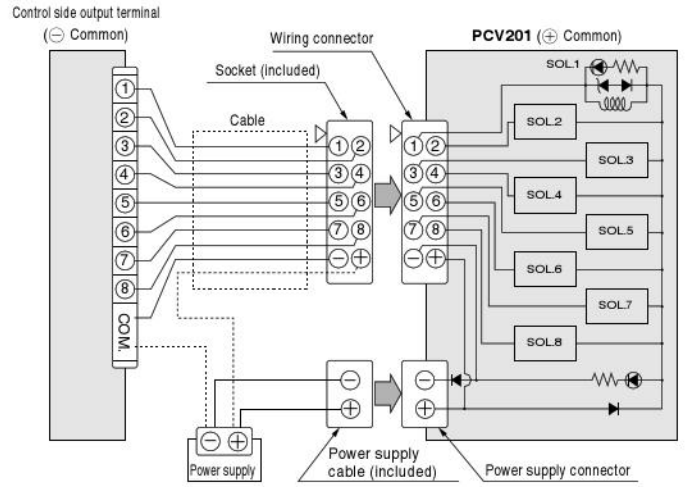
●PCV201

1. When the control-side output terminals include power supply terminals ⊕ and ⊖.



Though power is supplied from unit side, it can be supplied from control side as shown by dashed lines.

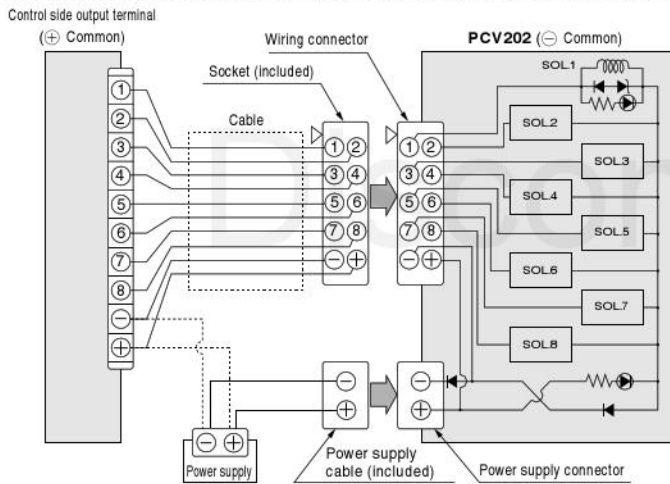
2. When the control-side output terminals include "COMMON."



Though power is supplied from unit side, it can be supplied also from control side as shown by dashed lines.

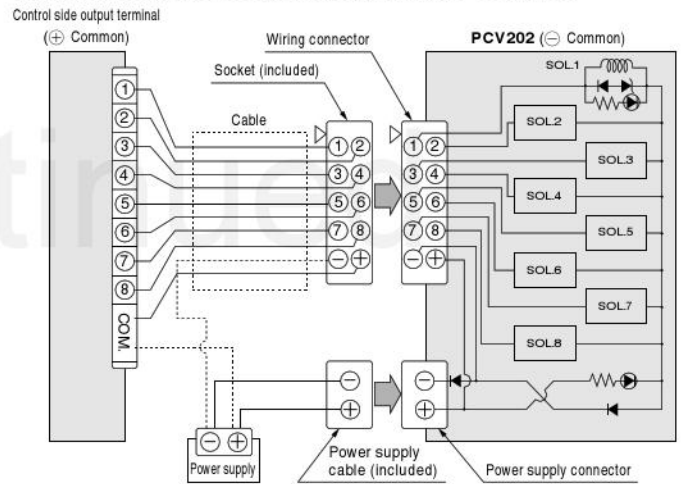
●PCV202

1. When the control-side output terminals include power supply terminals ⊕ and ⊖.



Though power is supplied from unit side, it can be supplied also from control side as shown by dashed lines.

2. When the control-side output terminals include "COMMON."



Though power is supplied from unit side, it can be supplied also from control side as shown by dashed lines.

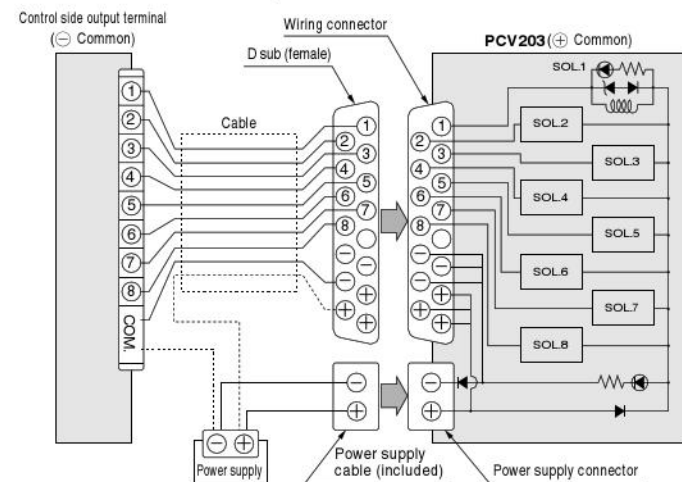
●PCV203

1. When the control-side output terminals include power supply terminals ⊕ and ⊖.



Though power is supplied from unit side, it can be supplied also from control side as shown by dashed lines.

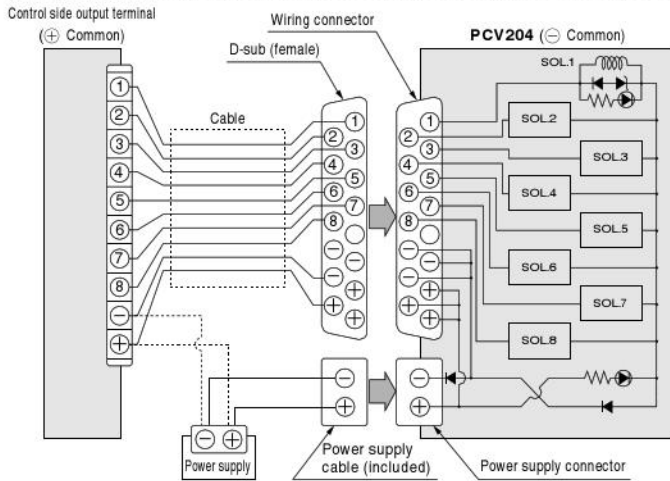
2. When the control-side output terminals include "COMMON."



Though power is supplied from unit side, it can be supplied also from control side as shown by dashed lines.

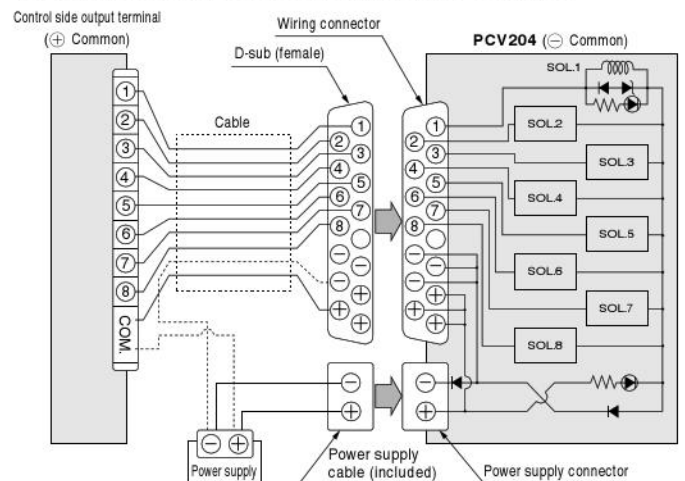
●PCV204

1. When the control-side output terminals include power supply terminals ⊕ and ⊖.



Though power is supplied from unit side, it can be supplied also from control side as shown by dashed lines.

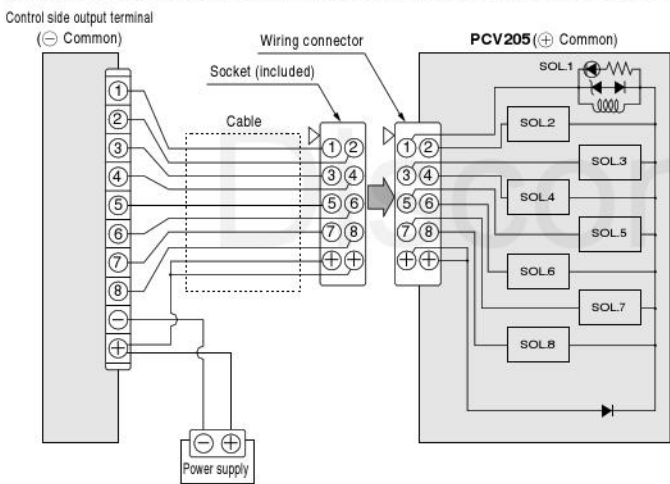
2. When the control-side output terminals include "COMMON."



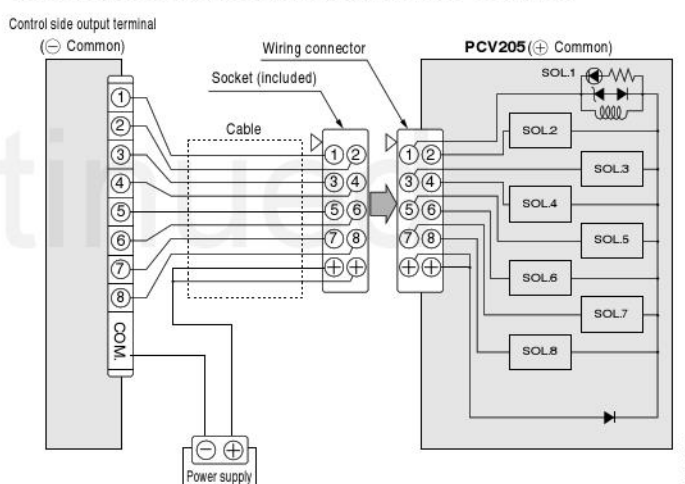
Though power is supplied from unit side, it can be supplied also from control side as shown by dashed lines.

●PCV205

1. When the control-side output terminals include power supply terminals ⊕ and ⊖.

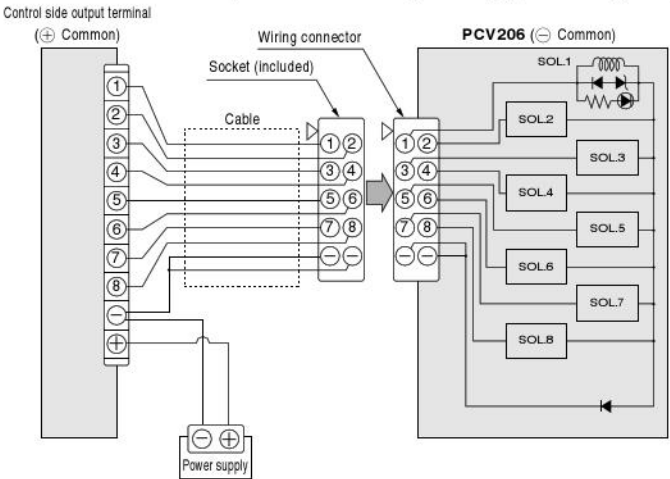


2. When the control-side output terminals include "COMMON."

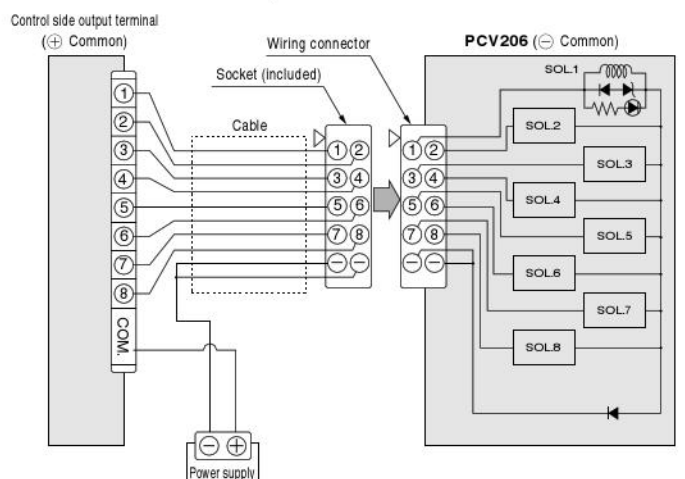


●PCV206

1. When the control-side output terminals include power supply terminals ⊕ and ⊖.



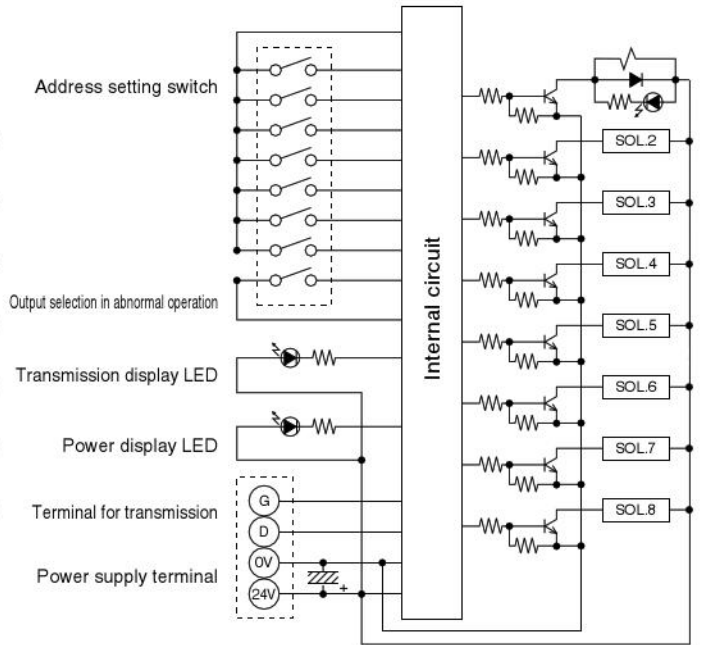
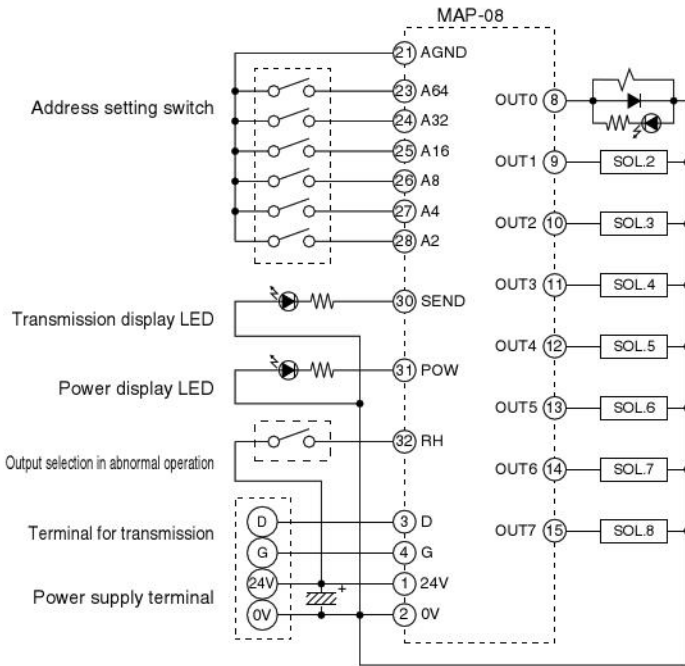
2. When the control-side output terminals include "COMMON."



Internal Circuit

● PCV211 For UNI-WIRE System

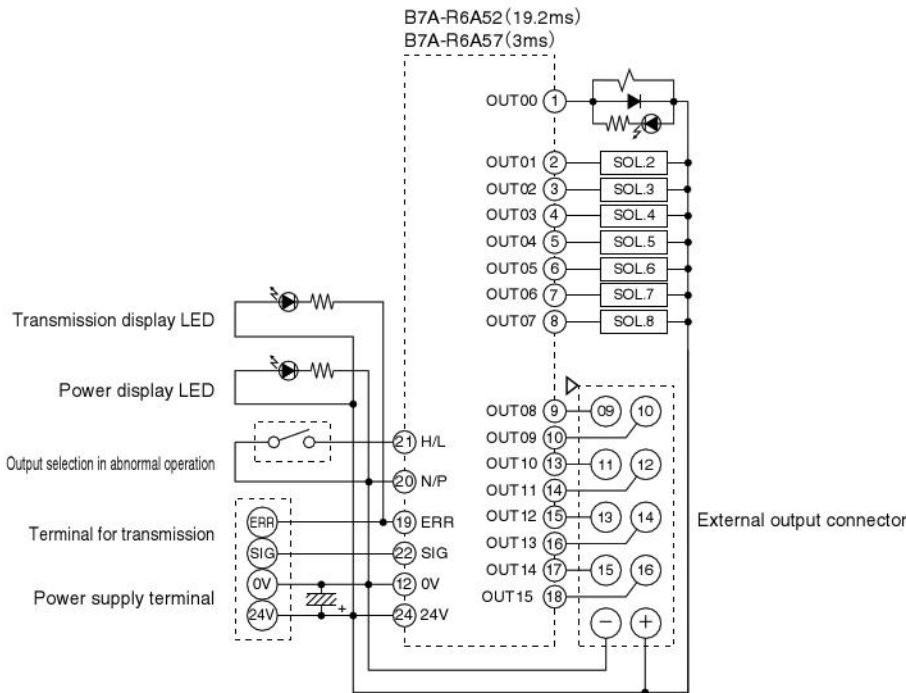
● PCV212 For S-LINK



Discontinued

● PCV213 For B7A Link Terminal

● PCV214





General precautions

Mounting

1. Before piping with peripheral equipment, always thoroughly flush out (blow by compressed air) the piping interior. Intrusion of metal chips or sealing tape, rust, etc., generated during plumbing could result in air leaks and other defective operations.
2. When mounting a valve unit inside the control panels or when the operation requires long energizing periods, provide heat radiation measures.
3. The valve unit cannot be used with the A and B ports open.

Atmosphere

Avoid use in the locations and environment listed below, as it may result in failure of the valve.

If use in such conditions is unavoidable, always provide a cover or other appropriate protective measures.

- ① Location affected by strong vibration or impact.
- ② Location with temperature exceeding the specification range.
- ③ Location with large variation in temperature and dew condensation.
- ④ Location exposed to direct sunlight.
- ⑤ Location with atmosphere containing organic solvents, phosphorus acid ester type hydraulic oil, sulfurous acid gas, chlorine gas, or other acids etc.
- ⑥ Location directly exposed to water drops and oil drops.
- ⑦ Environment where valve unit is subject to dew condensation.
- ⑧ Location where valve unit is directly exposed to metal chips, dust, etc.

Media

1. Use air as the media. When using other media, consult us.
2. Use air containing no deteriorated compressor oil, etc. Install an air filter (filtration of 40 μ m) close to the valve unit and remove collected liquid and dust. Periodically remove the collected liquid and clean the filter element.
3. As much as possible, use with no lubrication. When the actuator requires lubrication, use turbine oil Class 1 (ISO VG32) or equivalents. Avoid using spindle oil, or machine oil.

Piping

When installing piping or mufflers to the R port, ensure there is minimum exhaust resistance.

Models of quick fitting

A, B port : TSK4-M6M

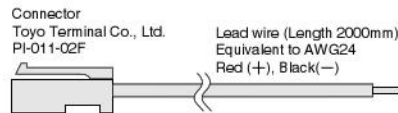
P, R port : TSK6-M8M

Muffler models : KM-J6

Wiring

1. Confirm plus common or minus common.
2. Confirm polarity of power and pin locations, and connect correctly.

Power cable



Included as standard on PCV201, PCV202, PCV203, and PCV204. (Model : PCV2-DC)

Other application methods

●When using as 3 port valve

When using with the A port plugged and the B port as output, it becomes a NO type 3 port valve.

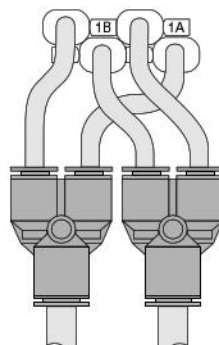
When using with the B port plugged and the A port as output, it becomes a NC type 3 port valve.

In either case, we recommend the exhaust valve built-in type (-EP), to prevent erroneous operations due to back pressure.

●When more flow rate is required.

Combines the two outputs. Uses a different-diameter union Y (UYD6-4) to combine. One connects with the A port, and the other with the B port.

(After combining, use 6mm tube)

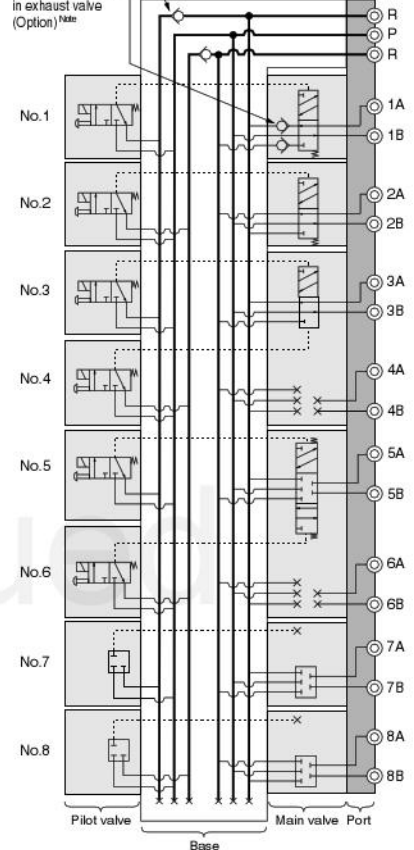


Pneumatic circuit diagrams

● Unit configuration example

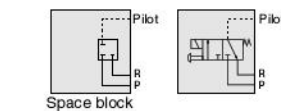
PCV2□□Z	stn.1, 2	PCZ2510
	stn.3	PCZ2520
	stn.5	PCZ2530
	stn.7, 8	PCZ2500

Check valve:
Prevents main exhaust from interfering with pilot valve.
For type with built-in exhaust valve (Option)[※]

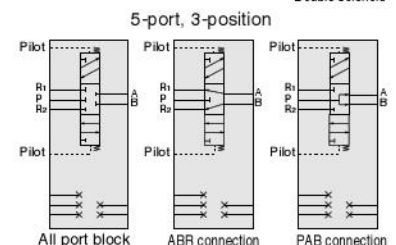
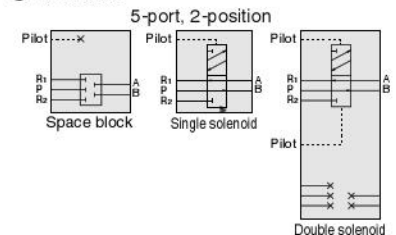


Note: This exhaust valve is not built into each main valve, but is instead built in on the unit side.
All main exhausts, therefore, are protected against exhaust pressure.

●Pilot valve

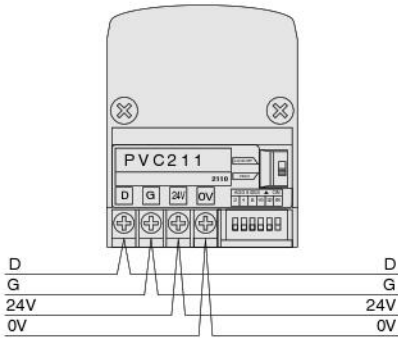


●Main valve

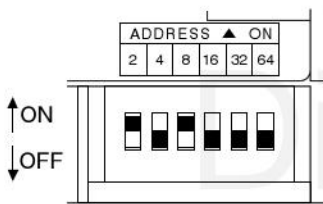


PCV211 (For UNI-WIRE System)

●Wiring procedure

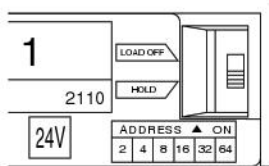


●Address setting



The total sum of values set on the ON side is the leading address.
 Example :The leading address for the above setting is 10. (2+8=10)

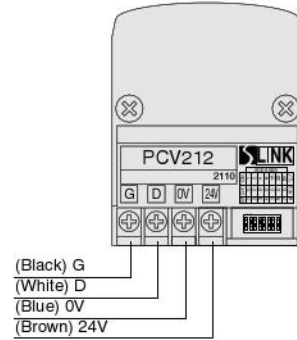
●Output selection in abnormal operation



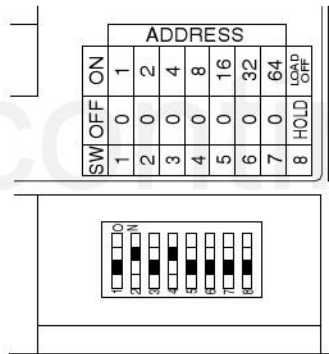
HOLD : When transmission is abnormal, output is held. (held in immediately previous state)
LOAD OFF : When transmission is abnormal, output is turned off. (All of 8 points)

PCV212 (For S-LINK)

●Wiring procedure



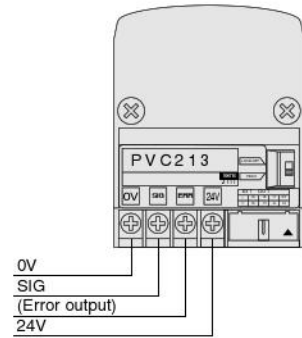
●Dip switch setting



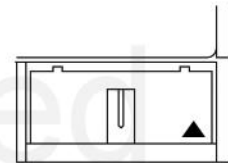
※ **Address setting**
 Set by switch numbers 1 to 7
 ※ **Output selection in abnormal operation**
HOLD : When transmission is abnormal, output is held. (held in immediately previous state)
LOAD OFF : When transmission is abnormal, output is turned off. (All of 8 points)

PCV213, 214 (For B7A Link Terminal)

●Wiring procedure

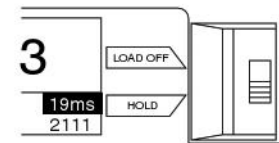


●External connector



EXT OUT ▼				
-	15	13	11	09
+	16	14	12	10

●Output selection in abnormal operation



HOLD : When transmission is abnormal, output is held. (held in immediately previous state)
LOAD OFF : When transmission is abnormal, output is turned off. (All of 8 points)

PC-VALVE UNIT Specifications Confirmation Form

No. _____

Date: _____

Wiring	
01	● Flat cable connector 10-pin Plus common, with power supply connector
02	● Flat cable connector 10-pin Minus common, with power supply connector
03	● D sub connector 15-pin Plus common, with power supply connector
04	● D sub connector 15-pin Minus common, with power supply connector
05	● Flat cable connector 10-pin Plus common, without power supply connector
06	● Flat cable connector 10-pin Minus common, without power supply connector
11	● For UNI-WIRE System
12	● For S-LINK
13	● For Omron B7A (Standard type)
14	● For Omron B7A (High speed type)

Package type	stn.No.							
	1	2	3	4	5	6	7	8
A	Single	Single	Single	Single	Single	Single	Single	Single
B	Double		Double		Double		Double	
C	Single	Single	Single	Single	Single	Single	—	—
D	Single	Single	Single	Single	—	—	—	—
E	Double		Double		—	—	—	—
F	Single	Single	Single	Single	Double		Double	
Select the package type from the above		— : Space block Single : Single solenoid Double : 2-position double solenoid						

Unit	stn.No.							
	1	2	3	4	5	6	7	8
PCZ2500 Space block								
PCZ2510 2-position single solenoid								
PCZ2520 2-position double solenoid								
PCZ2530 3-position all port block								
PCZ2540 3-position ABR connection								
PCZ2550 3-position PAB connection								
When Z is selected, it is required to specify every station from 1 to 8. Select required unit and enter ○ in the column.								

Wiring 01~06, 11~14 Package type (A~F) Full choice type (Z)

Mounting valve pattern

Exhaust valve
 Blank : Standard
 EP : Exhaust valve built-in type

Mounting base

Blank : Without mounting base
 B1 : Flange type
 B2 : Angle type
 B3 : Long angle type
 B4 : DIN rail type

Basic model
PCV2 □ □ - □ □ (DC24V)

Company name	
Department	
Name	
Quantity of sets to be ordered	set

Our entry column		PCV2 □ □ - □ □
Checked by		stn.No. _____
Written by		No. _____
		No. _____
		No. _____
		No. _____
		No. _____

Remark

PC-VALVE UNIT