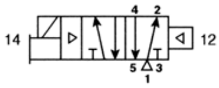
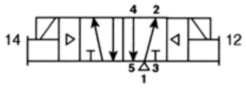
Single Solenoid
4-Way, 2-Position



De-energized position – Solenoid operator 14 de-energized.
Pressure at inlet port 1 connected to outlet port 2.
Outlet port 4 connected to exhaust port 5.

Energized position – Solenoid operator 14 energized.
Pressure at inlet port 1 connected to outlet port 4.
Outlet port 2 connected to exhaust port 3.

Double Solenoid
4-Way, 2-Position

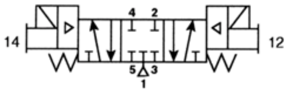


Solenoid operator 14 energized last.
Pressure at inlet port 1 connected to outlet port 4.
Outlet port 2 connected to exhaust port 3.

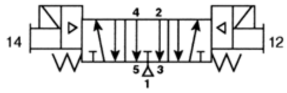
Solenoid operator 12 energized last.
Pressure at inlet port 1 connected to outlet port 2.
Outlet port 4 connected to exhaust port 5.

Double Solenoid
4-Way, 3-Position

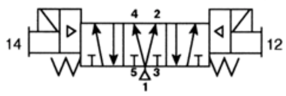
APB



CE



PC



With 12 operator energized – inlet port 1 connected to cylinder port 2, cylinder port 4 connected to exhaust port 5.

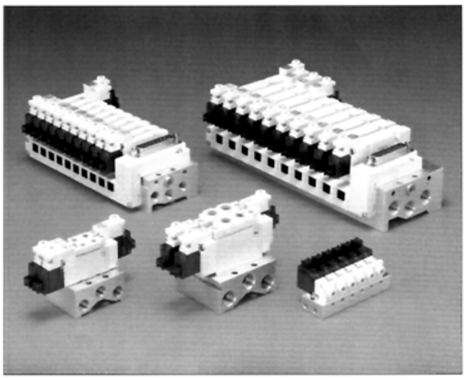
With 14 operator energized – inlet port 1 connected to cylinder port 4, cylinder port 2 connected to exhaust port 3.

Function 1: All Ports Blocked (APB)
All ports blocked in the center position.

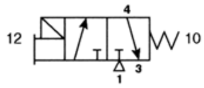
Function 2: Center Exhaust (CE)
Cylinder ports 4 and 2 connected to exhaust ports 5 and 3 in center position. Port 1 is blocked.

Function 3: Pressure Center (PC)
Pressure port 1 connected to cylinder ports 4 and 2, and exhaust ports 5 and 3 blocked in center position.

Dual Pressure (Subbase valves only):
May be used for dual pressure service with pressure at ports 3 & 5. **Specify External Pilot option "X" on Valve AND Manifold.** In the 3-Position valve, the effect of dual pressure is extremely important when the valve is in the center position, as the CE and PC functions are reversed. Therefore, care should be used when selecting a 3-Position valve.



Single Solenoid
3-Way, 2-Position NC

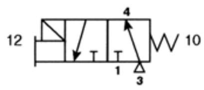


Normally Closed:
De-energized position – Solenoid 12 de-energized.
Pressure at inlet port 1 blocked, outlet port 2 connected to exhaust port 3.

Energized position – Solenoid 12 energized.
Pressure at inlet port 1 connected to outlet port 2, exhaust port 3 is blocked.

> ***Vacuum Applications (Device becomes NO):***
> *'1' port is connected to atmosphere or compressed air † when required.*
> *'2' port is outlet*
> *'3' port is connected to vacuum*
>
> *† When both vacuum and compressed air are required, maximum pressure is 85 PSIG (586 kPa).*

Single Solenoid
3-Way, 2-Position NO*



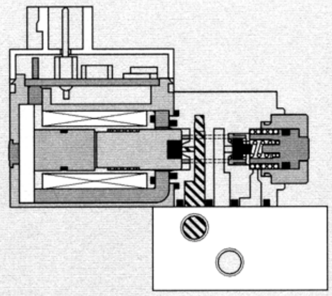
Normally Open:
De-energized position – Solenoid 12 de-energized.
Pressure at inlet port 3 connected to outlet port 2, exhaust port 1 is blocked.

Energized position – Solenoid 12 energized. Pressure at inlet port 3 blocked, outlet port 2 connected to exhaust port 1.

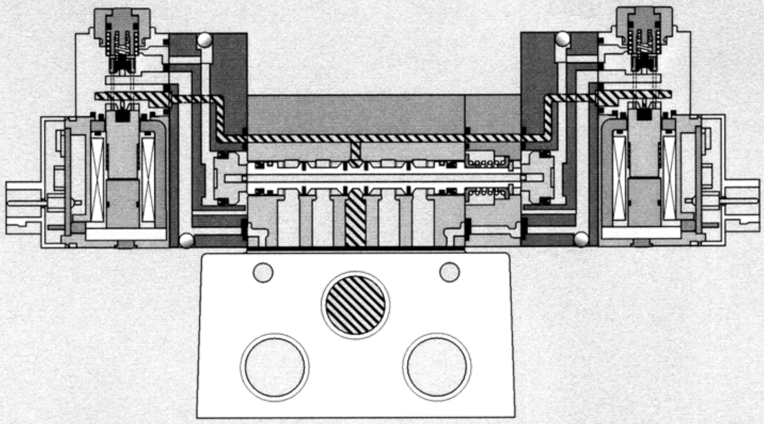
* To obtain NO function, ports 1 & 3 are reversed (1 becomes exhaust and 3 becomes supply).

> ***Vacuum Applications (Device becomes NC):***
> *'1' port is connected to vacuum*
> *'2' port is outlet*
> *'3' port is connected to atmosphere or compressed air † when required.*
>
> *† When both vacuum and compressed air are required, maximum pressure is 58 PSIG (400 kPa).*

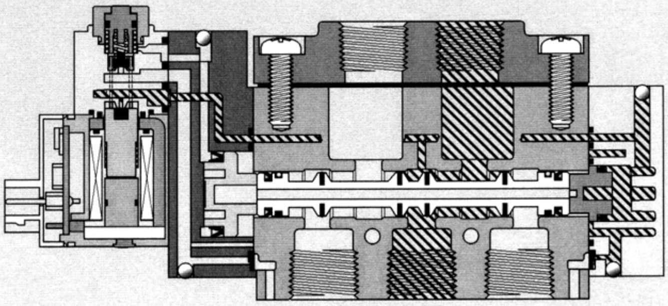
> ***Caution:*** *Normally Open and Normally Closed 3-Way valve* ***cannot*** *be mixed on the same manifold.*



A00S Single Solenoid Normally Closed (NC)



A05P Double Solenoid 3-Position Subbase Mounted



A12R Single Solenoid Inline

Pressure Exhaust

Flow Ratings*

- A00: .01 Cv
- A05: .18 Cv
- A12: .47 Cv

Operating Pressure

- Vacuum to 100 PSIG
- A00S0 (NO) vacuum to 70 PSIG

Ports

- A00: M3
- A05: M5
- A12: 1/8 Inch

Mounting

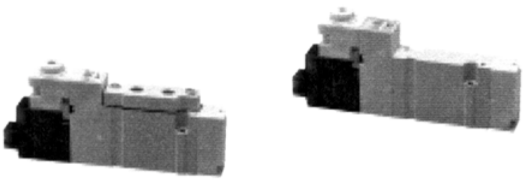
- Inline
- Subbase Mount

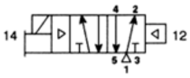
Solenoids

- 0.6 Watt
- 12VDC, 24VDC and 110/120VAC
- LED and Surge Suppression

* ANSI / (NFPA) T3.21.3-1990 standard for Cv measurement.

Single Solenoid
4-Way, 2-Position





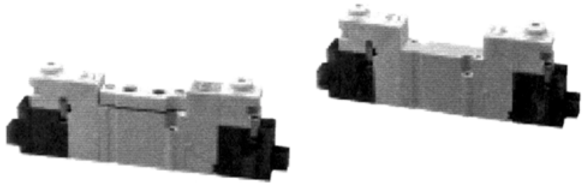
Inline

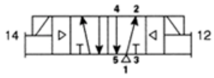
A05	**A05RS251PM5MF** **A05RS252PM5MF**	24VDC 12VDC	M5	.17 C_v
A12	**A12RS251PN1MF** **A12RS252PN1MF**	24VDC 12VDC	1/8"	.47 C_v

Subbase

A05	**A05PS251P** **A05PS252P**	24VDC 12VDC	Less Base	.18 C_v
A12	**A12PS251P** **A12PS252P**	24VDC 12VDC	Less Base	.44 C_v

Double Solenoid
4-Way, 2-Position





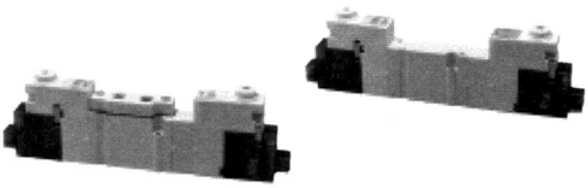
Inline

A05	**A05RD251PM5MF** **A05RD252PM5MF**	24VDC 12VDC	M5	.17 C_v
A12	**A12RD251PN1MF** **A12RD252PN1MF**	24VDC 12VDC	1/8"	.47 C_v

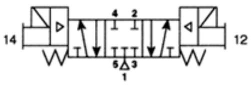
Subbase

A05	**A05PD251P** **A05PD252P**	24VDC 12VDC	Less Base	.18 C_v
A12	**A12PD251P** **A12PD252P**	24VDC 12VDC	Less Base	.44 C_v

Double Solenoid
4-Way, 3-Position, APB



APB



Inline

A05	**A05RD351PM5MF** **A05RD352PM5MF**	24VDC 12VDC	M5	.16 C_v
A12	**A12RD351PN1MF** **A12RD352PN1MF**	24VDC 12VDC	1/8"	.43 C_v

Subbase

A05	**A05PD351P** **A05PD352P**	24VDC 12VDC	Less Base	.16 C_v
A12	**A12PD351P** **A12PD352P**	24VDC 12VDC	Less Base	.40 C_v

ANSI Cv vs. JIS Cv

*For Pneumatic Valve flow, the measurement **C_v** – Coefficient of Flow – is used to convey to the user how much air can flow through a given valve. Most valve manufactures publish this information in their catalogs to assist the user in choosing the proper valve for their application. In publishing this data however, there are discrepancies in how the **C_v** is calculated, resulting in some **C_v**'s being OVERSTATED by **20 to 40%**. This can adversely affect the user's application because the valve flows LESS than the published **C_v**.*

The reason for the large discrepancy is in the method of calculation - the ANSI (NFPA) or the JIS standard.

*Parker's **C_v** valve is calculated using the ANSI (NFPA) T3.21.3-1990 standard. The ANSI (NFPA) method is a structured test using very specific tube sizes and lengths, inlet pressures and pressure drops, and volume chambers.*

Locking Flush Override, 2-Pin Phone Jack Connector.
Mounting screws and gaskets included with valve.

Ordering Information

"ADEX" Series

BOLD OPTIONS ARE STANDARD

Basic Series	Body Type	Operator/ Function	Pilot Source/ Exhaust	Voltage	Options	Port Size/ Thread Type	Valve Type
A05	R	S25	—	1	P	M5	MF

Basic Series	
A05	**Series**
A12	**Series**

Body Type	
P	**Subbase**
R	**Inline**

Operator / Function	
	4-Way
S25	**Single Solenoid, 2-Position, Air Return**
D25	**Double Solenoid, 2-Position**
D35	**Double Solenoid, 3-Position - APB**
E35	Double Solenoid, 3-Position - CE
035	Double Solenoid, 3-Position - PC

Pilot	
Blank	**Internal**
X*	External

* Option for subbase valve only.

Voltage	
1	**24VDC**
2	**12VDC**
4	5VDC
8	110/50 VAC
9	120/60 VAC

Options	
P	**Lights / Surge Suppression**

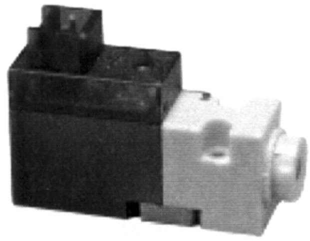
Port Size / Thread Type †	
Blank	**None (Subbase)**
M5	**M5 (A05R Only)**
N1	**1/8" NPT (A12R Only)**
G1	1/8" BSPP "G" (A12R Only)

† Required for inline models only, port size code not used for subbase versions.

Valve Type	
Blank	**Subbase**
MF	**Inline**

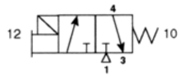
Valve Only – Single Solenoid
3-Way, 2-Position*

A00SC231P Shown



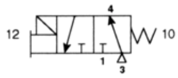
* Screwdriver-Operated, Locking Manual Override (LMOR), 2-Pin Phone Jack Connector.

Normally Closed (NC)



	Model	Voltage	Cv
A00	**A00SC231P**	24VDC	.01 Cv
	A00SC232P	12VDC	
	A00SC234P	5VDC	
	A00SC238P	110/50VAC	
	A00SC239P	120/60VAC	

Normally Open (NO)

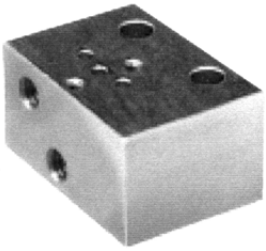


	Model	Voltage	Cv
A00	**A00S0231P**	24VDC	.01 Cv
	A00S0232P	12VDC	
	A00S0234P	5VDC	
	A00S0238P	110/50VAC	
	A00S0239P	120/60VAC	

Mounting screws and gaskets included with valve.

Subbase

A00SBM3 Shown

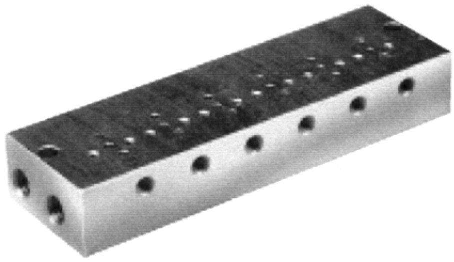


Mounting screws and gaskets included with valve.

	Model Number	All Ports
A00	**A00SBM3**	M3

Manifold*

MMFS6A00M3 Shown



Mounting screws and gaskets included with valve.

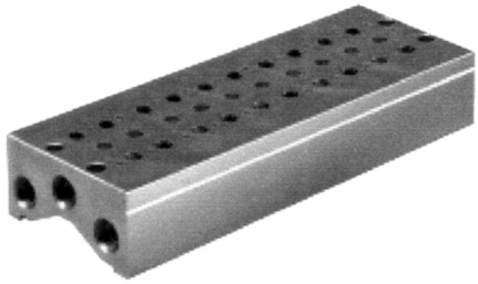
Type	# of Stations	Series	Port Size
MMFS	**2**	**A00**	**M3**

Number of Stations

2	2 Stations
3	3 Stations
4	4 Stations
•	•
•	•
20	20 Stations

* Normally Closed valves (A00SC23•P) and Normally Open valves (A00S023•P) cannot be mounted on the same manifold simultaneously.

"A05" Valve

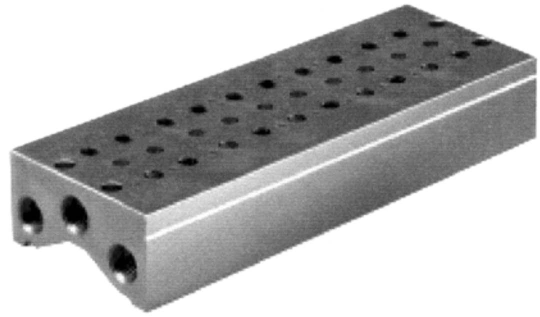


4-Way, NPTF (Individual Wiring Type)	**MMFU##A05F**
4-Way, NPTF (Collective Wiring Type)	**MMCU‡‡A05F**

– stations 2 to 20

‡‡ – stations 2 to 12
(Even numbers only)

"A12" Valve



4-Way, NPTF (Individual Wiring Type)	**MMFU##A12F**
4-Way, NPTF (Collective Wiring Type)	**MMCU‡‡A12F**

– stations 2 to 20

‡‡ – stations 2 to 12
(Even numbers only)

- Utilizes Inline mount ADEX valves.
- **Kit includes:** (1) manifold (bolts and gasket come with valve).

Pilot Exhaust for IEM Manifold –
is captured through the "3" and "5" galley.

Ordering Information

Type	Wiring	Type/Pilot	# of Stations	Valve Size	Port Type
M	**MF**	**U**	**2**	**A05**	**F**

Type	
M	**Bar Manifold**

Wiring	
MF	**Manifold, Individual**
MC	**Manifold, Collective**

Type	
U	**IEM**

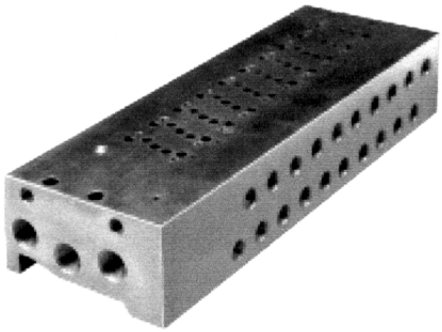
Stations	
MF (Individual)	**MC** (Collective)
2	**2**
3	**4**
4	**6**
•	**8**
•	**10**
20	**12** †

† Maximum of 12 stations available for "MC" Type. (Even # stations only.)

Valve Size	
A05	10mm
A12	15mm

Port Type	
F	**NPTF**
G	BSPP "G"

"A05" Valve

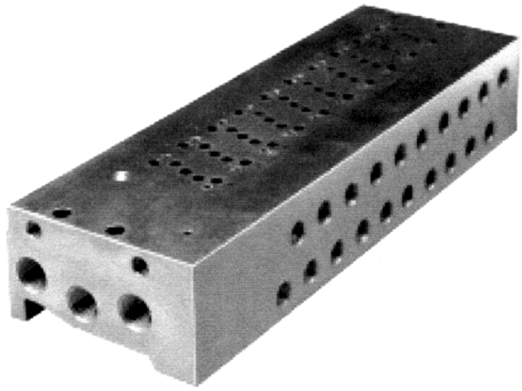


4-Way, M5 (Individual Wiring Type)	**MMFS##A05FM5**
4-Way, M5 (Collective Wiring Type)	**MMCS‡‡A05FM5**

– stations 2 to 20

‡‡ – stations 2 to 12
(Even numbers only)

"A12" Valve



4-Way, 1/8" NPTF (Individual Wiring Type)	**MMFS##A12FF1**
4-Way, 1/8" NPTF (Collective Wiring Type)	**MMCS‡‡A12FF1**

– stations 2 to 20

‡‡ – stations 2 to 12
(Even numbers only)

- Utilizes Subbase mount ADEX valves.
- **Kit includes:** (1) manifold (bolts and gasket come with valve).

Internally Piloted Manifolds –
Pilot exhaust is captured through the "3" and "5" galley.

Externally Pilot Manifold –
Pilot exhaust is captured through the "Y" galley.

Ordering Information

Type	Wiring	Type/Pilot	# of Stations	Valve Size	Port Type	Cylinder Ports
M	**MF**	**S**	**2**	**A05**	**F**	**M5**

Type

M	**Bar Manifold**

Wiring

MF	**Manifold, Individual**
MC	**Manifold, Collective**

Type

S	**Subbase, Internally Piloted**
X	Subbase, Externally Piloted

Stations

MF (Individual)	MC (Collective)
2	**2**
3	**4**
4	**6**
•	**8**
•	**10**
20	**12** †

† Maximum of 12 stations available for "MC" Type. (Even # stations only.)

Valve Size

A05	10mm
A12	15mm

Port Type

F	**NPTF**
G	BSPP "G"

Cylinder Ports

A05 Manifolds

M5	**M5**
C4	5/32" (4mm) Tube

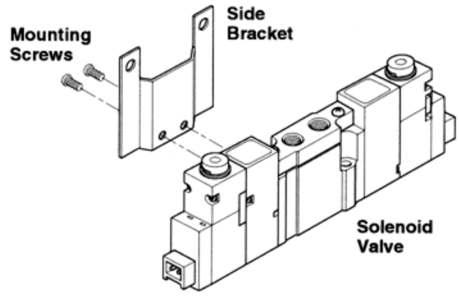
A12 Manifolds

F1	**1/8" NPTF**
G1	1/8" BSPP "G"
P2	1/4" Tube

Mounting Bracket

Size	Type	Part Number
A05	Side	**A05RBS**
A12	Side	**A12RBS**

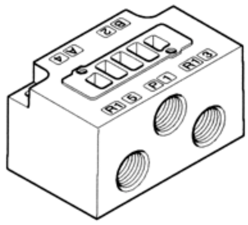
Kit Includes: (1) bracket, (2) screws



Subbases

Size	Port Size	Part Number
A05	1/8" NPT	**A05PBN1**
	1/8" BSPP "G"	**A05PBG1**
A12	1/4" NPT	**A12PBN1**
	1/4" BSPP "G"	**A12PBG1**

Kit Includes: (1) subbase (holddown bolts and gasket are included with valve)

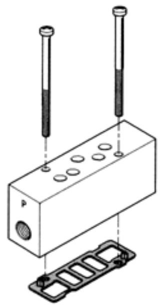


A05BP

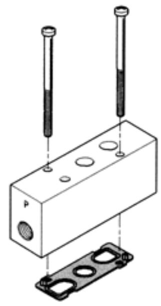
Individual Air Supply Spacer

Size	Type	Port Size	Part Number
A05	Inline	M5 (Nom. 10-32)	**A05RAISM5**
	Subbase	M5 (Nom. 10-32)	**A05PAISM5**
A12	Inline	1/8" NPT	**A12RAISN1**
	Inline	1/8" BSPP "G"	**A12RAISG1**
	Subbase	1/8" NPT	**A12PAISN1**
	Subbase	1/8" BSPP "G"	**A12PAISG1**

Kit Includes: (1) spacer, (2) screws, and (1) gasket



A05PAISM5

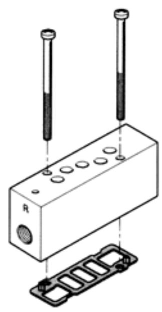


A05RAISM5

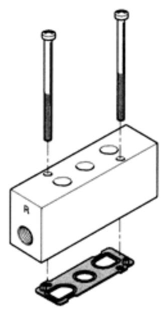
Individual Air Exhaust Spacer

Size	Type	Port Size	Part Number
A05	Inline	M5 (Nom. 10-32)	**A05RAIEM5**
	Subbase	M5 (Nom. 10-32)	**A05PAIEM5**
A12	Inline	1/8" NPT	**A12RAIEN1**
	Inline	1/8" BSPP "G"	**A12RAIEG1**
	Subbase	1/8" NPT	**A12PAIEN1**
	Subbase	1/8" BSPP "G"	**A12PAIEG1**

Kit Includes: (1) spacer, (2) screws, and (1) gasket



A05PAIEM5

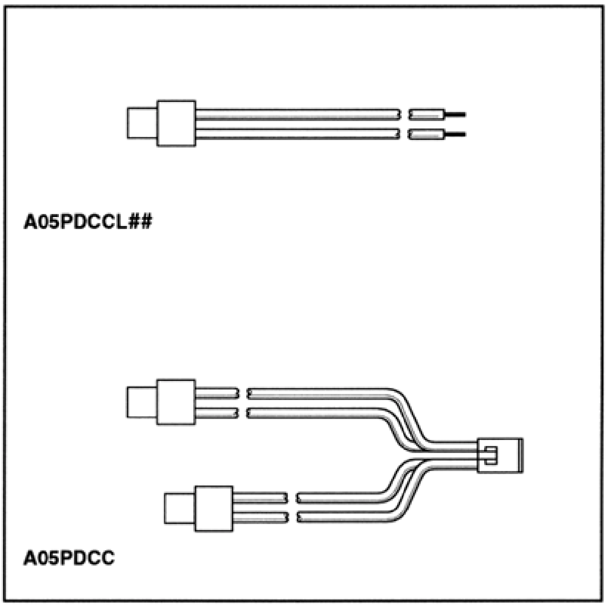


A05RAIEM5

Wired Connectors - Individual

Size	Voltage	Length	Part Number
A00 A05 A12	DC	.5 meter	A05PDCCL5
		1 meter	A05PDCCL10
		3 meter	A05PDCCL30
	AC	.5 meter	A05PACCL5
		1 meter	A05PACCL10

DC Voltage: Positive "+" (Red Wire)
Negative "–" (Black Wire)
AC Voltage: Both Wires are Blue (Polarity Neutral)



Wired Connectors - Collective

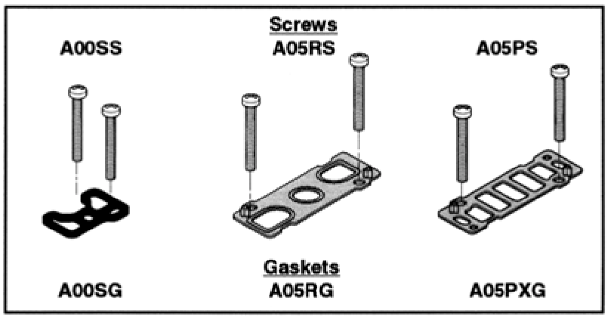
Size		Part Number PNP	Part Number NPN
A05	Single	A05PSCCM	A05PSCC
	Double	A05PDCCM	A05PDCC
A12	Single	A12PSCCM	A12PSCC
	Double	A12PDCCM	A12PDCC

PNP = SOURCING = "Negative Common" = Yellow Wires
NPN = SINKING = "Positive Common" = Red Wires

Base Gasket Kits

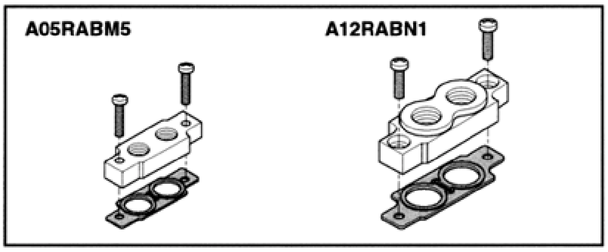
Size	Type	Gasket Only	Screw
A00	Subbase	A00SG	A00SS
A05	Body Ported	A05RG	A05RS
	Subbase	A05PXG	A05PS
A12	Body Ported	A12RG	A12RS
	Subbase	A12PXG	A12PS

These are spare parts, mounting screws and gaskets included with valves.



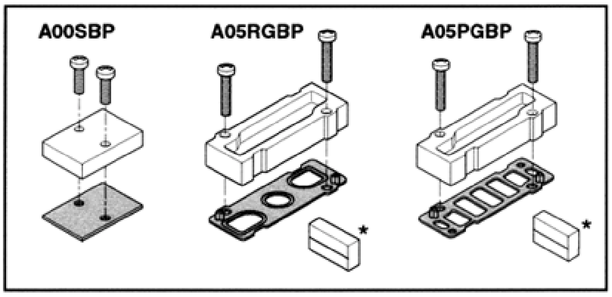
"Cylinder Port" Plate Kits

Size	Fitting	Part Number
A05	M5	A05RABM5
A12	1/8" NPT	A12RABN1
	1/8" BSPP "G"	A12RABG1



Blanking Plate

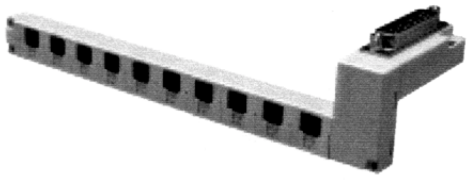
Size	Type	Part Number
A00	Subbase	A00SBP
A05	Body Ported	A05RGBP
	Subbase	A05PGBP
A12	Body Ported	A12RGBP
	Subbase	A12PGBP



* Outlet Pin Cover used with Collective Wiring System only.

Collective Wiring

MCS10A05PDL Shown



Type	# of Stations	Valve Size		Options
MCS	2	A05	P	DL

Type

MCS	Manifold Collective Wiring System

Valve Size

A05	10mm
A12	15mm

Options

DL	Sub-D 25
ML	26-Pin Ribbon

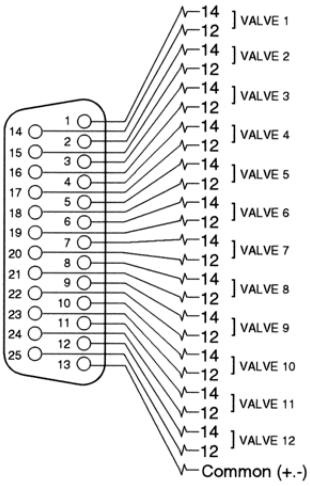
Number of Stations*

2	2 Stations
4	4 Stations
6	6 Stations
8	8 Stations
10	10 Stations
12	12 Stations

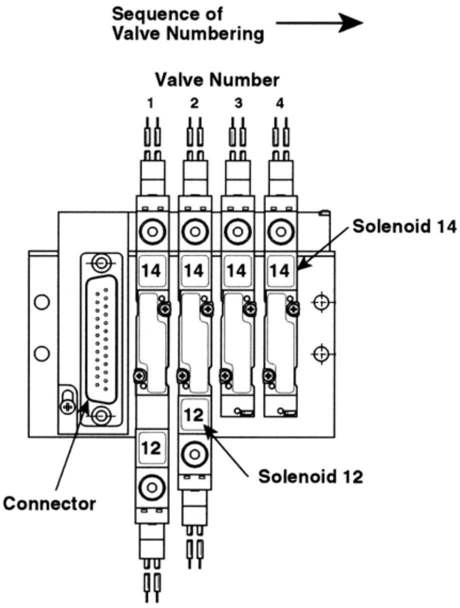
*** Even number of stations only.**

Collective Wiring Pin Mapping

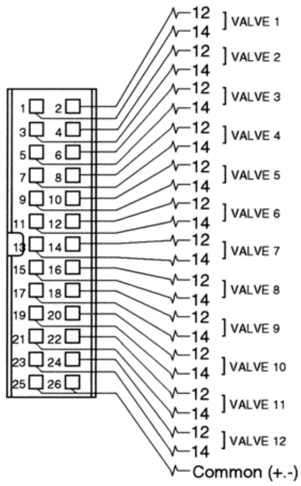
(Not Available for AC Voltages)



Pin Map for Sub-D 25 Connector



Valve and Solenoid Addresses



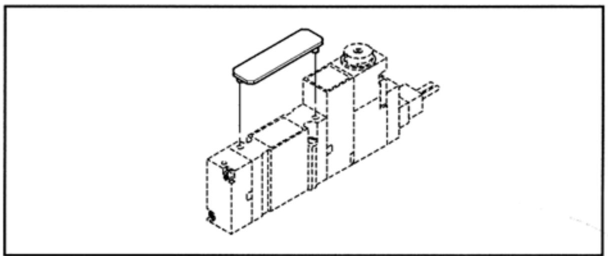
Pin Map for 26-Pin Ribbon Connector

Notes:

1. The MCS Collective Wiring System is "Polarity Neutral". Polarity is addressed with the Collective Wired Connectors (page 10).
   Example: When 'positive' common is used, an A05 single solenoid valve uses an A05PSCC. When 'negative' common is used, use A05PSCCM.
2. The MCS Collective Wiring System provides for both the "14" and "12" addresses at each valve location. When single solenoid valves are used, skip the "12" address for both wiring and controller programming.
3. Be sure that the leakage current of the controller outputs is less than 1.5 ma.

Labeling Tag

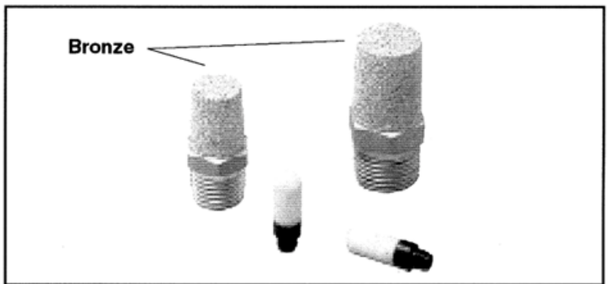
Size	Description	Part Number
A05 A12	White Label Tag	**A05PN**



Exhaust Mufflers

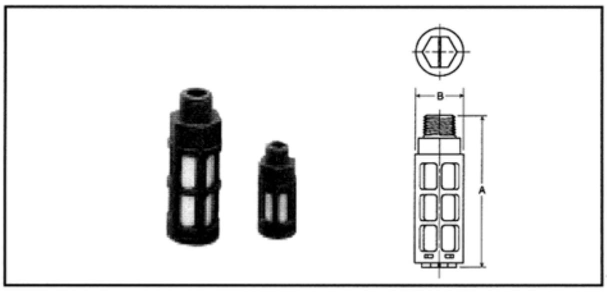
Pipe Thread	Model Number
M5	**P6M-PAC5**
1/8" NPT	**EM12**
1/4" NPT	**EM25**

P6M - Plastic; EM - Sintered Bronze



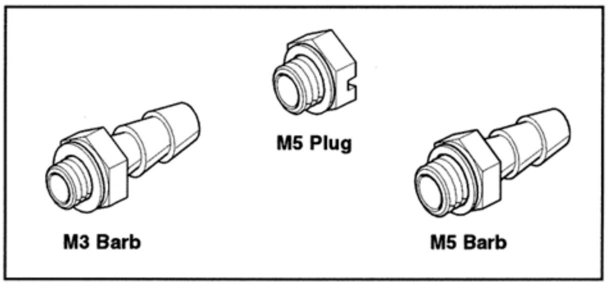
Plastic Silencers

Thread Size	Part Number		A (mm)	B (mm)
	NPT	BSPT "R"		
1/8"	**ASN-6**	**AS-6**	1.57 (40)	.63 (16)
1/4"	**ASN-8**	**AS-8**	2.56 (65)	.83 (21)



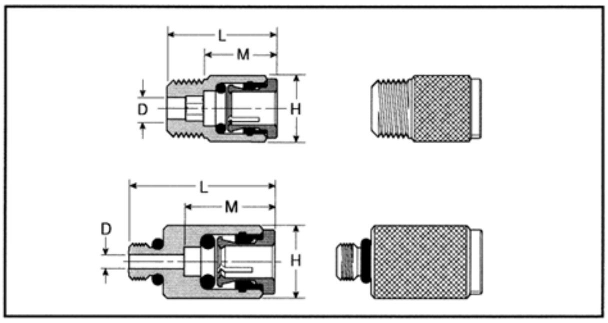
M3 & M5 Fittings

Description	Part Number
M5 Plug Fitting	**N220-1900J**
M3 to 3mm Barb	**BC03M3**
M3 to 4mm Barb	**BC04M3**
M5 to 3mm Barb	**BC03M5**



Microlok Fittings

Tube Size	Pipe Thread	Dia. H	Internal Hex	L	M	Dia. D	Part Number
1/8	10-32	.34	—	.71	.49	.080	**68MLR-2-0**
5/32	10-32	.38	—	.80	.49	.090	**68MLR-5/32-0**
1/4	1/8 NPT	.47	5/32	.80	.52	.160	**W68MLR-4-2**



Flow Rating (C_V)

Size	Port Size	Mounting Style	ANSI / (NFPA) 2-Position	ANSI / (NFPA) 3-Position	JIS Method 2-Position	JIS Method 3-Position
A00	M3	Inline	.01	—	.01	—
A05	M5	Inline	.18	.16	.22	.20
	M5	Subbase	.17	.16	.32	.32
A12	1/8" Ports	Inline	.47	.43	.48	.46
	1/8" Ports	Subbase	.44	.40	.61	.42

ANSI / (NFPA) T3.21.3-1990 standard for Cv measurement.

Operating Pressure

Maximum: **4-Way:** 100 PSIG (690 kPa)
3-Way: 100 PSIG (690 kPa) NC*
70 PSIG (483 kPa) NO*

Minimum:

		Internal Pilot PSIG	Internal Pilot kPa	External Pilot PSIG	External Pilot kPa
4-Way	Single Solenoid	22	152	Vacuum	
				36	248
	Double Solenoid – 2-Position	15	104	Vacuum	
				36	248
	Double Solenoid – 3-Position	30	207	Vacuum	
				36	248
3-Way	A00 Series	Vacuum			

* When using vacuum and pressure on ports 1 & 3 – 85 PSIG (586 kPa) NC; 58 PSIG (400 kPa) NO (see page 2).

Response Time

Valve Size	Port Size	0 Cu. In. Test Chamber Fill	0 Cu. In. Test Chamber Exhaust
2-Position Single Solenoid / Air Return			
A00	M3	.004	.006
A05	M5	.014	.025
A12	1/8"	.016	.030
2-Position Double Solenoid			
A00	M3	—	—
A05	M5	.011	.015
A12	1/8"	.010	.012
3-Position Double Solenoid			
A00	M3	—	—
A05	M5	.013	.017
A12	1/8"	.013	.014

Average Fill Time (Seconds): With 100 PSIG supply, time required to fill from 0-90 PSIG and exhaust from 100 PSIG to 10 PSIG is measured from instant of energizing, or de-energizing 24VDC solenoid. Times shown are average.

Tested per ANSI / (NFPA) T3.21.8.

Temperature Rating

Intermittent Duty (AC & DC Voltage):
32°F to 122°F (0°C to 50°C)
Voltage Rated +10 / –10%

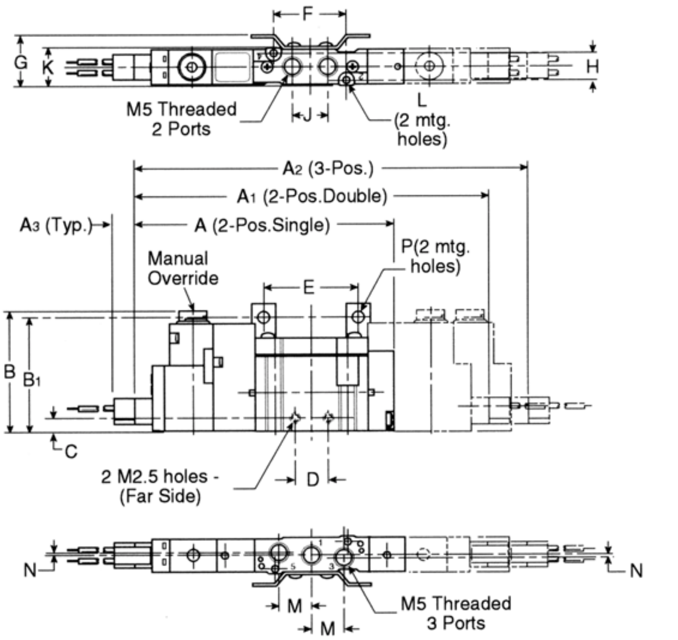
Continuous Duty (DC Voltage Only):
32°F to 104°F (0°C to 40°C)
Voltage Rated +0 / –10%

Solenoid Information

Code	Voltage AC 60Hz	Voltage AC 50Hz	Voltage DC	Power Consumption
4	—	—	5	.6W
2	—	—	12	.6W
1	—	—	24	.6W
8	—	110	—	1.4VA
9	120	—	—	1.4VA

A05

Single & Double Operators – Inline



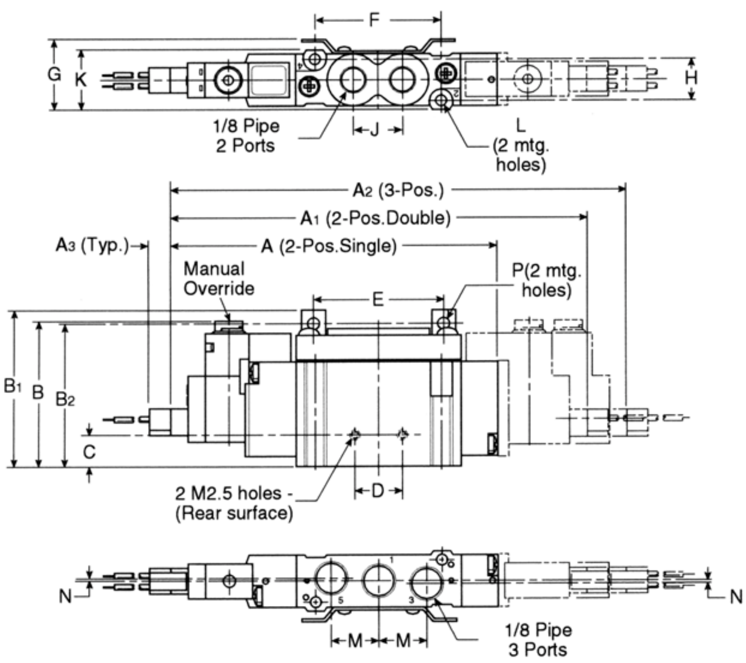
A05R – Inline

A	A_1	A_2	A_3	B
2.91 (74)	3.94 (100)	4.25 (108)	.24 (6)	1.38 (35)
B_1	**C**	**D**	**E**	**F**
1.30 (33)	.16 (4)	.38 (10)	1.06 (27)	.83 (21)
G	**H**	**J**	**K**	**L**
.57 (15)	.33 (9)	.40 (10)	.45 (11,4)	Ø .08 Ø (2,1)
M	**N**	**P**		
.37 (10)	.04 (1)	Ø .14 Ø (3,5)		

Inches (mm)

A12

Single & Double Operators – Inline



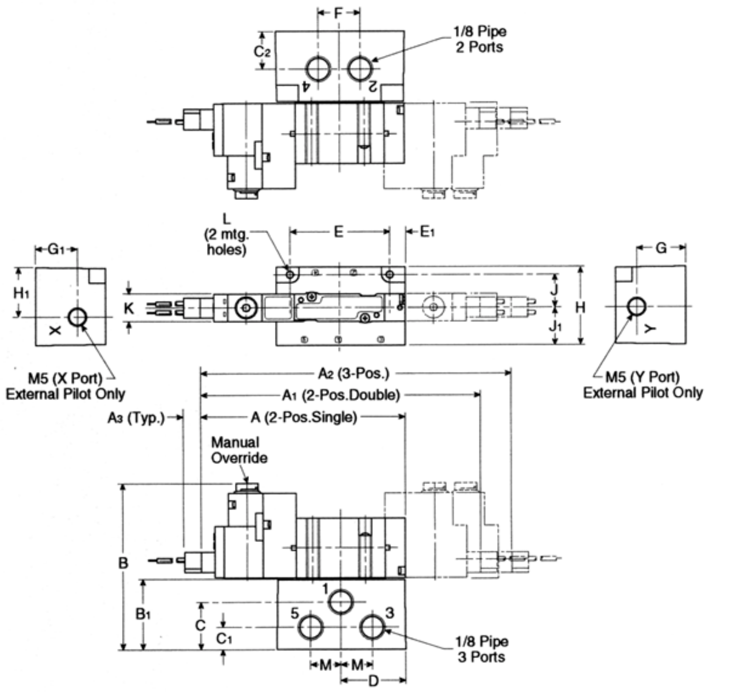
A12R – Inline

A	A_1	A_2	A_3	B
3.68 (94)	4.69 (119)	5.12 (130)	.24 (6)	1.64 (42)
B_1	**B_2**	**C**	**D**	**E**
1.77 (45)	1.70 (43)	.35 (9)	.51 (13)	1.46 (37
F	**G**	**H**	**J**	**K**
1.42 (36)	.80 (20)	.47 (12)	.55 (14)	.68 (17)
L	**M**	**N**	**P**	
Ø .12 Ø (3,1)	.55 (14)	.03 (0,8)	Ø .14 Ø (3,5)	

Inches (mm)

A05

Single & Double Operators – Subbase



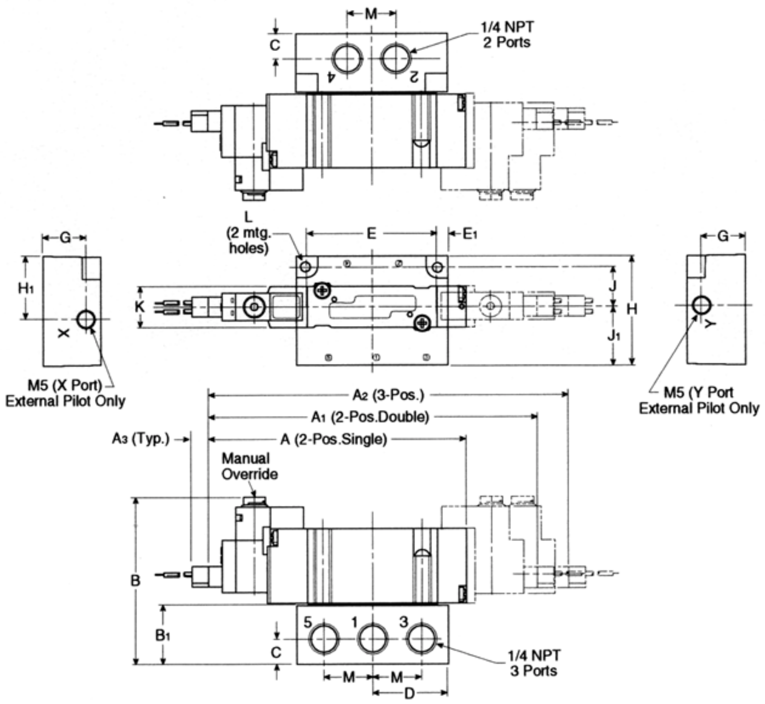
A05P – Subbase

A	**A_1**	**A_2**	**A_3**	**B**
2.91	3.94	4.25	.24	2.35
(74)	(100)	(108)	(6)	(60)
B_1	**C**	**C_1**	**C_2**	**D**
.96	.65	.30	.53	.89
(25)	(17)	(8)	(14)	(23)
E	**E_1**	**F**	**G**	**G_1**
1.38	.20	.57	.67	.59
(35)	(5)	(15)	(17)	(15)
H	**H_1**	**J**	**J_1**	**K**
1.08	.69	.45	.51	.39
(28)	(18)	(12)	(13)	(10)
L	**M**			
Ø .13	.45			
Ø (3,2)	(12)			

Inches (mm)

A12

Single & Double Operators – Subbase



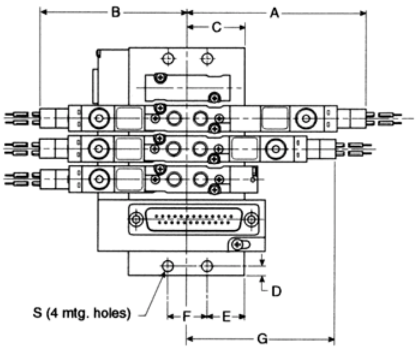
A12P – Subbase

A	**A_1**	**A_2**	**A_3**	**B**
3.68	4.69	5.12	.24	2.41
(94)	(119)	(130)	(6)	(61)
B_1	**C**	**D**	**E**	**E_1**
.87	.37	1.10	1.89	.16
(22)	(10)	(28)	(48)	(4)
G	**H**	**H_1**	**J**	**J_1**
.63	1.59	.93	.57	.87
(16)	(41)	(24)	(15)	(22)
K	**L**	**M**		
.59	Ø .17	.71		
(15)	Ø (4,3)	(18)		

Inches (mm)

A05

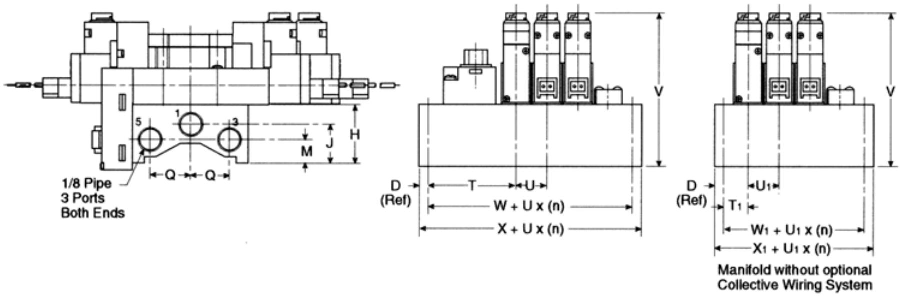
Manifold – Valve Inline



A05R - Manifold, Valve Inline

A	B	C	D	E	F
2.52 (64)	2.21 (56)	.94 (24)	.16 (4)	.61 (16)	.63 (16)
G	**H**	**J**	**M**	**Q**	**S**
2.21 (56)	.94 (24)	.61 (16)	.37 (10)	.63 (16)	Ø .18 Ø (4,5)
T	**T_1**	**U**	**U_1**	**V**	**W**
1.34 (34)	.51 (13)	.49 (12,5)	.41 (10,5)	2.32 (59)	1.36 (35)
W_1	**X**	**X_1**			
.37 (9,5)	167 (43)	.68 (17,5)			

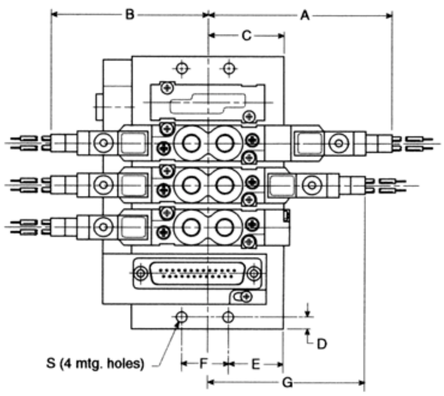
Inches (mm)



n = Number of stations.

A12

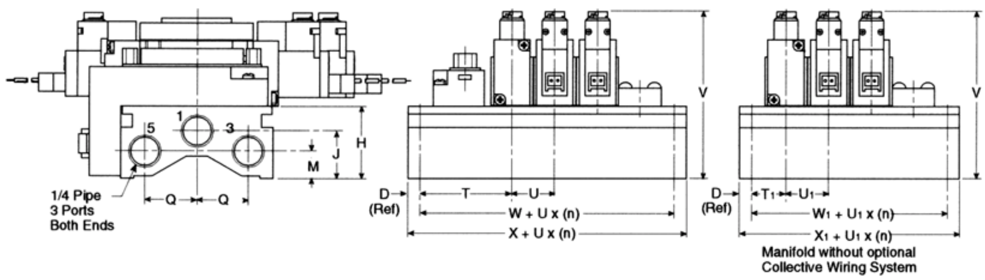
Manifold – Valve Inline



A12R - Manifold, Valve Inline

A	B	C	D	E	F
3.01 (77)	2.58 (66)	1.14 (29)	.20 (5)	.76 (19)	.77 (20)
G	**H**	**J**	**M**	**Q**	**S**
2.58 (66)	1.08 (28)	.71 (18)	.41 (11)	.77 (20)	Ø .18 Ø (4,5)
T	**T_1**	**U**	**U_1**	**V**	**W**
1.48 (38)	.51 (13)	.69 (17,5)	.63 (16)	2.74 (70)	1.34 (34)
W_1	**X**	**X_1**			
.39 (10)	1.73 (44)	.79 (20)			

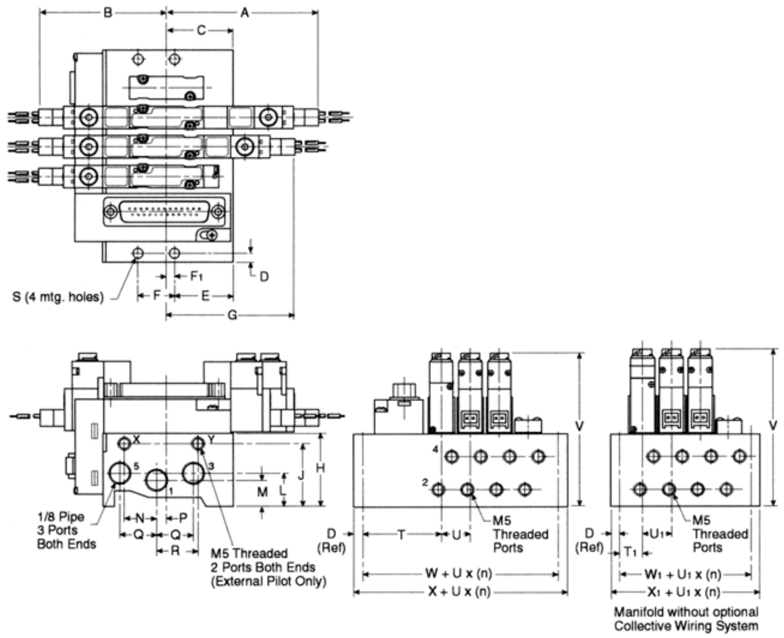
Inches (mm)



n = Number of stations.

A05

Manifold – Side Ports



A05P – Manifold, Side Ports

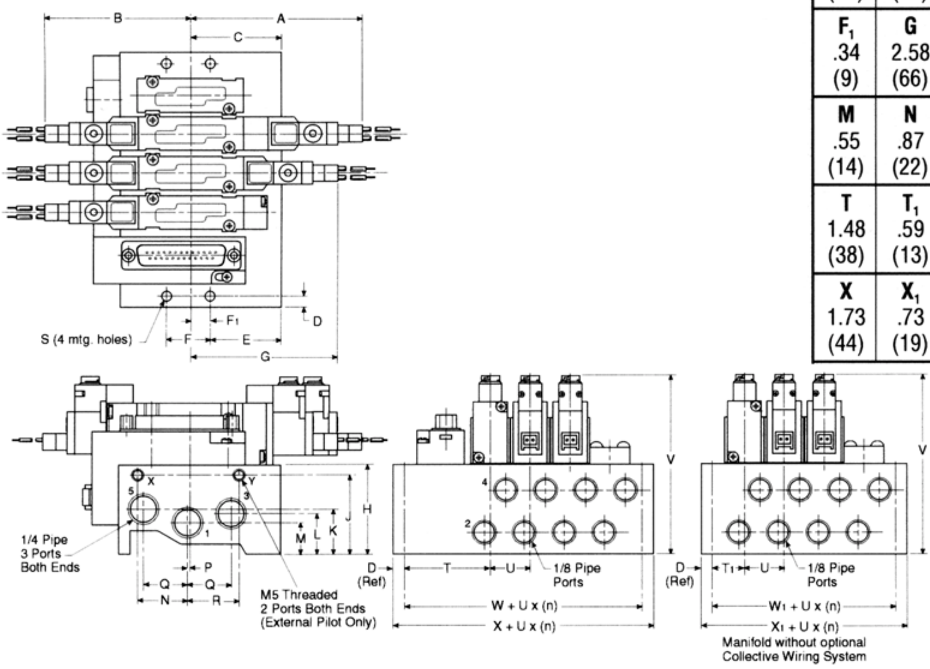
A 2.52 (64)	**B** 2.21 (56)	**C** 1.18 (30)	**D** .16 (4)	**E** .98 (25)	**F** .63 (16)
F_1 .19 (5)	**G** 2.21 (56)	**H** 1.18 (30)	**J** 1.08 (28)	**L** .51 (13)	**M** .39 (10)
N .55 (14)	**P** .13 (3)	**Q** .63 (16)	**R** .71 (18)	**S** Ø .18 Ø (4,5)	**T** 1.34 (34)
T_1 .39 (10)	**U** .49 (12,5)	**U_1** .41 (10,5)	**V** 2.64 (67)	**W** 1.32 (34)	**W_1** .37 (10)
X 1.65 (42)	**X_1** .67 (18)				

Inches (mm)

n = Number of stations.

A12

Manifold – Side Ports



A12P – Manifold, Side Ports

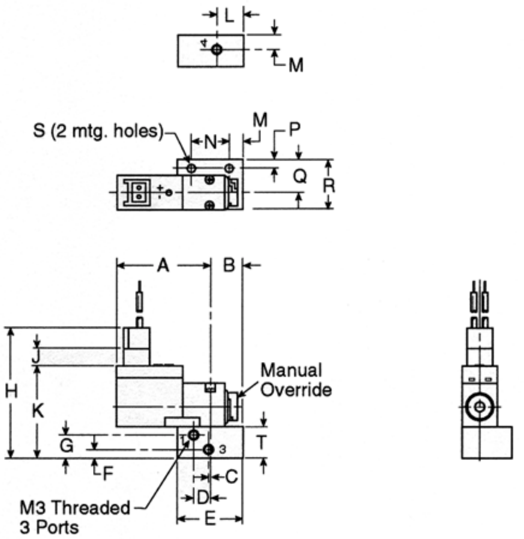
A 3.01 (77)	**B** 2.58 (66)	**C** 1.59 (40)	**D** .20 (5)	**E** 1.25 (32)	**F** .77 (20)
F_1 .34 (9)	**G** 2.58 (66)	**H** 1.57 (40)	**J** 1.38 (35)	**K** .79 (20)	**L** .71 (18)
M .55 (14)	**N** .87 (22)	**P** .04 (1)	**Q** .77 (20)	**R** .91 (23)	**S** Ø .18 Ø (4,5)
T 1.48 (38)	**T_1** .59 (13)	**U** .69 (17,5)	**V** 3.09 (79)	**W** 1.34 (34)	**W_1** .33 (9)
X 1.73 (44)	**X_1** .73 (19)				

Inches (mm)

n = Number of stations.

A00

Subbase



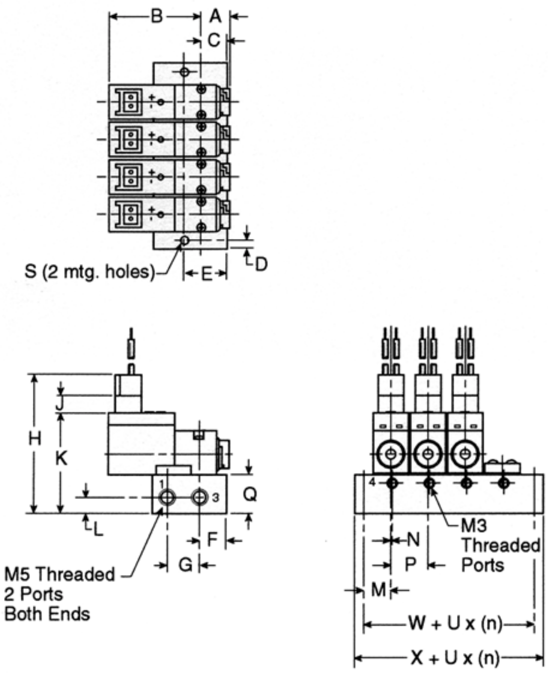
A00 - Subbase

A	B	C	D	E
1.00 (25)	.41 (11)	.015 (.4)	.17 (4)	.79 (20)
F	**G**	**H**	**J**	**K**
.12 (3)	.28 (7)	1.54 (39)	.20 (5)	1.11 (28)
L	**M**	**N**	**P**	**Q**
.32 (8)	.18 (5)	.47 (12)	.10 (3)	.39 (10)
R	**S**	**T**		
.59 (15)	.106 (2,7)	.38 (10)		

Inches (mm)

A00

Manifold



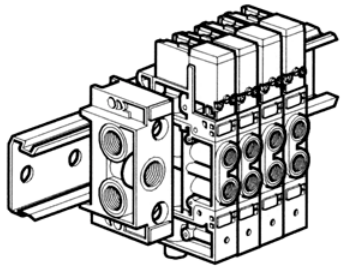
A00 - Manifold

A	B	C	D	E
.36 (9)	1.00 (25)	.31 (8)	.10 (3)	.51 (13)
F	**G**	**H**	**J**	**K**
.31 (8)	.39 (10)	1.63 (42)	.20 (5)	1.22 (31)
L	**M**	**N**	**P**	**Q**
.20 (5)	.33 (9)	.02 (.6)	.41 (10,5)	.47 (12)
S	**U**	**X**	**W**	
.125 (3,2)	.41 (10,5)	.45 (11,5)	.26 (6,5)	

Inches (mm)

n = Number of stations.

- High flow, compact size
- Push-in or threaded connection
- DIN rail or block mounting
- Light weight construction
- Inline stand alone or stackable version
- Available in 2 x 3/2 - 5/3 (PVL-B/C)



Operating information

Working pressure;
Pneumatically operated: 2-10 bar
Electrically operated, bistable: 2-10 bar
Electrically operated, monostable: 3-10 bar

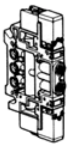
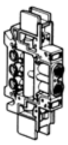
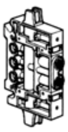
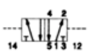
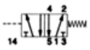
Working temperature -15 °C to +60 °C

		PVL-A	PVL-B	PVL-C
Flow: (acc. to ISO 6358)	Qmax	270	900	1800 l/s

Flow measured with valve on manifold

Main data for PVL-A directional control valves

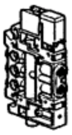
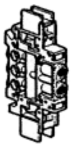
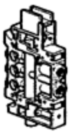
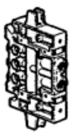
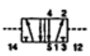
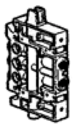
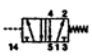
Stackable version

	Symbol	Connec-tion Push-in/ Threaded	Actuator	Return	Signal pressure min, bar at 6 bar actua./return	Changeover time, ms at 6 bar actua./return	Weight Kg	Order code	D
Electrically actuated 5/2 valves Complete with 0,9 W 24 VDC, miniature solenoid, LED indication and Plug-in connector with 2 m cable									
		Ø4 mm	Electric	Electric	1,0/1,0	12/12	0,070	**PVL-A122304B40**	1
		M5			1,0/1,0	12/12	0,070	**PVL-A122315B40**	1
		Ø4 mm	Electric	Spring	2,2/1,2	12/24	0,060	**PVL-A121304B50**	1
		M5			2,2/1,2	12/24	0,060	**PVL-A121315B50**	1
Without miniature solenoid actuator									
		Ø4 mm	Electric	Electric	1,0/1,0	12/12	0,070	**PVL-A122304**	3
		M5			1,0/1,0	12/12	0,070	**PVL-A122315**	3
		Ø4 mm	Electric	Spring	2,2/1,2	12/24	0,060	**PVL-A121304**	3
		M5			2,2/1,2	12/24	0,060	**PVL-A121315**	3
Pneumatically actuated 5/2 valves									
		Ø4 mm	Air	Air	1,0/1,0	10/10	0,070	**PVL-A122104**	1
		M5			1,0/1,0	10/10	0,070	**PVL-A122115**	1
		Ø4 mm	Air	Spring	2,2/1,2	10/22	0,060	**PVL-A121104**	1
		M5			2,2/1,2	10/22	0,060	**PVL-A121115**	1

* Each valve is supplied with two tie rods for use in the "stacking" system

Main data for PVL-A directional control valves

Stand alone version

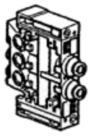
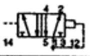
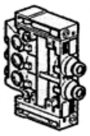
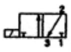
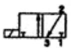
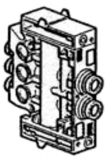
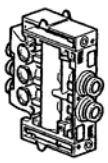
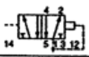
	Symbol	Connection Push-in/ Threaded	Actuator	Return	Signal pressure min, bar at 6 bar actua./return	Changeover time, ms at 6 bar actua./return	Weight Kg	Order code	D
Electrically actuated 5/2 valves Complete unit 0,9 W 24 VDC miniature solenoid, LED indication and plug-in connector with 2 m cable									
		Ø4 mm M5	Electric	Electric	1,0/1,0 1,0/1,0	12/12 12/12	0,070 0,070	**PVL-A112304B40** **PVL-A112315B40**	3 3
		Ø4 mm M5	Electric	Spring	2,2/2,2 2,2/2,2	12/24 12/24	0,060 0,060	**PVL-A111304B50** **PVL-A111315B50**	1 3
Without miniature solenoid actuator									
		Ø4 mm M5	Electric	Electric	1,0/1,0 1,0/1,0	12/12 12/12	0,070 0,070	**PVL-A112304** **PVL-A112315**	3 3
		Ø4 mm M5	Electric	Spring	2,2/1,2 2,2/1,2	12/24 12/24	0,060 0,060	**PVL-A111304** **PVL-A111315**	3 3
Pneumatically actuated 5/2 valves									
		Ø4 mm M5	Air	Air	1,0/1,0 1,0/1,0	10/10 10/10	0,070 0,070	**PVL-A112104** **PVL-A112115**	3 3
		Ø4 mm M5	Air	Spring	2,2/1,0 2,2/1,0	10/22 10/22	0,060 0,060	**PVL-A111104** **PVL-A111115**	3 3

Mounting

The valves have integral mounting holes suitable for M4 screws and can be directly mounted on to any suitable surface
The pipework connections will be either use of threaded fittings or direct Push-in depending on the body selected

Main data for PVL-B/C directional control valves

Stand alone version

Symbol	Connec-tion Push-in/ Threaded	Actuator	Return	Signal pressure min, bar at 6 bar actua./return	Changeover time, ms at 6 bar actua./return	Weight Kg	Order code	D
Electrically/pneumatically actuated 5/2 valves								
Size G1/8								
For use with 1,2 W / 1,6 VA miniature solenoid actuator or air-pilot connector								
	Ø6 mm	Electric	Electric	0,7/0,7	12/12	0,120	**PVL-B112606**	1
	G1/8	or Air	or Air	0,7/0,7	12/12	0,120	**PVL-B112618**	1
	Ø6 mm	Electric	Spring	2,8/1,2	15/30	0,125	**PVL-B111606**	1
	G1/8	or Air		2,8/1,2	15/30	0,125	**PVL-B111618**	1
	Ø6 mm	Electric	Air spring	3,7/2,1	20/35	0,125	**PVL-B113606**	3
	G1/8	or Air		3,7/2,1	20/35	0,125	**PVL-B113618**	3
Electrically actuated 5/3 valves								
	Ø6 mm	Electric	Electric			0,130	**PVL-B117606**	3
	G1/8	Closed centre	Self centering			0,130	**PVL-B117618**	3
	Ø6 mm	Electric	Electric			0,130	**PVL-B118606**	3
	G1/8	Vented centre	Self centering			0,130	**PVL-B118618**	3
Electrically/pneumatically actuated 2 x 3/2 valves								
 	Ø6 mm	Electric or Air	Internal air	2,3/4,5	7/15	0,130	**PVL-B115606**	3
	G1/8	Electric or Air	Internal air	2,3/4,5	7/15	0,130	**PVL-B115618**	3
Size G1/4								
For use with 1,2 W / 1,6 VA miniature solenoid actuator or air-pilot connector								
	Ø8 mm	Electric	Electric	0,9/0,9	17/17	0,230	**PVL-C112608**	3
	G1/4	or	or	0,9/0,9	17/17	0,230	**PVL-C112619**	3
	G3/8	Air	Air	0,9/0,9	17/17	0,230	**PVL-C112613**	3
	Ø8 mm	Electric	Spring	2,8/1,0	25/60	0,240	**PVL-C111608**	1
	G1/4	or		2,8/1,0	25/60	0,240	**PVL-C111619**	3
	G3/8	Air		2,8/1,0	25/60	0,240	**PVL-C111613**	3
	Ø8 mm	Electric	Air spring	3,5/2,3	30/50	0,240	**PVL-C113608**	3
	G1/4	or		3,5/2,3	30/50	0,240	**PVL-C113619**	3
	G3/8	Air		3,5/2,3	30/50	0,240	**PVL-C113613**	3
Electrically actuated 5/3 valves								
	Ø8 mm	Electric	Electric			0,250	**PVL-C117608**	3
	G1/4	Closed centre	Self centering			0,250	**PVL-C117619**	3
	Ø8 mm	Electric	Electric			0,250	**PVL-C118608**	3
	G1/4	Vented centre	Self centering			0,250	**PVL-C118619**	3
Size G1/4								
For use with 6 W / 8,5 VA solenoid actuator or air-pilot connector								
	Ø8 mm	Electric	Electric	0,9/0,9	15/15	0,240	**PVL-C112408**	3
	G1/4	or Air	or Air	0,9/0,9	15/15	0,240	**PVL-C112419**	3
	Ø8 mm	Electric	Spring	2,8/1,0	20/50	0,250	**PVL-C111408**	3
	G1/4	or Air		2,8/1,0	20/50	0,250	**PVL-C111419**	3
	Ø8 mm	Electric	Air spring	3,5/2,3	25/45	0,250	**PVL-C113408**	3
	G1/4	or Air		3,5/2,3	25/45	0,250	**PVL-C113419**	3

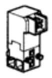
The above valve operation can be either:
- Pneumatic, with the addition of one or two pilot connectors complete with Ø4 mm Push-in connections
- Electrical, with the addition of one or two 1 W or 5W solenoid actuators

Mounting

The valves have integral mounting holes suitable for M4 screws and can be directly mounted onto any suitable surface
The pipework connections will be either use of threaded fittings or direct Push-in depending on the body selected

0,9 W miniature solenoid with built-in indicator, IP 40

Spring return manual override
Actuator only

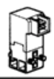


Voltage	Order code	D
12 VDC	**PVA-J1302J9**	3
24 VDC	**PVA-J1302B9**	3

Indexable manual override
Actuator only

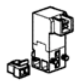
Voltage	Order code	D
12 VDC	**PVA-J1352J9**	3
24 VDC	**PVA-J1352B9**	3

Without manual override
Actuator only



Voltage	Order code	D
12 VDC	**PVA-J1392J9**	3
24 VDC	**PVA-J1392B9**	3

Spring return manual override
With unwired 10 mm cable connector



Voltage	Order code	D
12 VDC	**PVA-J1302J**	3
24 VDC	**PVA-J1302B**	3

Indexable manual override
With unwired 10 mm cable connector

Voltage	Order code	D
12 VDC	**PVA-J1352J**	3
24 VDC	**PVA-J1352B**	3

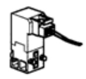
Without manual override
With unwired 10 mm cable connector

Voltage	Order code	D
12 VDC	**PVA-J1392J**	3
24 VDC	**PVA-J1392B**	3

Spring return manual override
With prewired 10 mm cable connector, cable length L=2 m

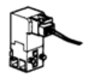
Voltage	Order code	D
12 VDC	**PVA-J1302J0**	3
24 VDC	**PVA-J1302B0**	3

Indexable manual override
With prewired 10 mm cable connector, cable length L=2 m



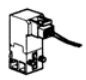
Voltage	Order code	D
12 VDC	**PVA-J1352J0**	3
24 VDC	**PVA-J1352B0**	3

Without manual override
With prewired 10 mm cable connector, cable length L=2 m



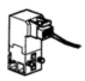
Voltage	Order code	D
12 VDC	**PVA-J1392J0**	3
24 VDC	**PVA-J1392B0**	3

Spring return manual override
With prewired 10 mm cable connector, cable length L=5 m



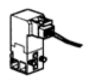
Voltage	Order code	D
12 VDC	**PVA-J1302J1**	3
24 VDC	**PVA-J1302B1**	3

Indexable manual override
With prewired 10 mm cable connector, cable length L=5 m



Voltage	Order code	D
12 VDC	**PVA-J1352J1**	3
24 VDC	**PVA-J1352B1**	3

Without manual override
With prewired 10 mm cable connector, cable length L=5 m



Voltage	Order code	D
12 VDC	**PVA-J1392J1**	3
24 VDC	**PVA-J1392B1**	3

Wiring and connecting accessories for PVL-A

Connector 2 x 0,128 mm²	Order code	D
Connector only (sold in pack of 10 pcs)	**PES-D10**	3
Connector with 2 m cable	**PES-D100**	3
Connector with 5 m cable	**PES-D101**	3
Connector with 10 m cable	**PES-D102**	3
Terminal to be crimped (sold in pack of 10 pcs)	**SY3CM0142**	3

Solenoids 15 mm 1,2 W / 1,6 VA (9,4 mm pin spacing),

Without manual override

Without cable connector

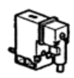
Voltage	Order code	D
12 VDC	**PS1-E2492J**	3
24 VDC	**PS1-E2492B**	3
48 VDC	**PS1-E2492E**	3
24 V 50/60Hz	**PS1-E2491B**	3
48 V 50/60Hz	**PS1-E2491E**	3
115 V 50Hz, 120 V 60Hz	**PS1-E2491F**	3
230 V 50Hz, 240 V 60Hz	**PS1-E2491M**	3

With prewired 15 mm cable connector, cable length L=2 m

Voltage	Order code	D
24 VDC	**PVA-H2492B0**	3
48 VDC	**PVA-H2492E0**	3
24 V 50/60Hz	**PVA-H2491B0**	3
48 V 50/60Hz	**PVA-H2491E0**	3
115 V 50Hz, 120 V 60Hz	**PVA-H2491F0**	3
230 V 50Hz, 240 V 60Hz	**PVA-H2491M0**	3

With unwired 15 mm cable connector

Voltage	Order code	D
24 VDC	**PVA-H2492B**	1
48 VDC	**PVA-H2492E**	3
24 V 50/60Hz	**PVA-H2491B**	1
48 V 50/60Hz	**PVA-H2491E**	3
115 V 50Hz, 120 V 60Hz	**PVA-H2491F**	1
230 V 50Hz, 240 V 60Hz	**PVA-H2491M**	3



With prewired 15 mm cable connector, cable length L=5 m

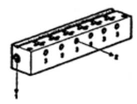
Voltage	Order code	D
24 VDC	**PVA-H2492B1**	3
48 VDC	**PVA-H2492E1**	3
24 V 50/60Hz	**PVA-H2491B1**	3
48 V 50/60Hz	**PVA-H2491E1**	3
115 V 50Hz, 120 V 60Hz	**PVA-H2491F1**	3
230 V 50Hz, 240 V 60Hz	**PVA-H2491M1**	3

Electrical connector 15x15mm (9,4 mm pin spacing)	Order code	D
Connector to be wired (universal)	**PES-C10**	3
Connector to be wired with LED+Protection 24 V DC/AC	**PES-C2020B**	3

Electrical connector 15x15mm (9,4 mm pin spacing)	Order code	D
Connector with 2 m cable (earth terminal opposite cable)	**PES-C12**	3
Connector with 2 m cable with LED+Protection (earth terminal opposite cable) 24 V DC/AC	**PES-C2220B**	3

Multi-subbases for solenoid actuators 3/2 PS1-E24•••

Operating pressure 0 to 10 bar

	Connections	Number of positions	Weight Kg	Order code	D
	common air supply	2	0,095	**PVU-H13152**	3
		4	0,150	**PVU-H13154**	3
		6	0,200	**PVU-H13156**	3
	1 G1/8	8	0,255	**PVU-H13158**	3
	2 M5	10	0,310	**PVU-H131510**	3

Air Pilot Connectors

	Mounting	Type of connection	Weight Kg	Order code	D
	Mounts on the same interface as the 1 W / 1,2 VA solenoid actuator	Push-in Ø4 mm	0,007	**PVA-P111**	1
		Threaded M5	0,002	**PVA-P115**	3

Intermediate Air Pilot Connectors

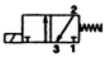
For mounting between the PVA-H24I solenoid actuator and the PVL-BI or PVL-CI power valve 5/2 mounted on DIN rail

	Description	Type of connection	Weight Kg	Order code	D
	For pneumatic piloting of the power valve	Straight, Push-in Ø4 mm	0,040	**PVA-P171**	3
	For external air supply to the 1 W / 1,2 VA miniature solenoid actuators	Swivel, Push-in Ø 4 mm	0,040	**PVA-P161**	1
		Straight, Push-in Ø 4 mm	0,040	**PVA-P163**	3

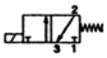
Solenoids 6 W / 8,5 VA

Without manual override

Without cable connector (22x30 mm)

Voltage		Order code	D
12 VDC		**PVA-F192J**	3
24 VDC		**PVA-F192B**	1
48 VDC		**PVA-F192E**	3
24 V 50/60Hz		**PVA-F191B**	3
48 V 50/60Hz		**PVA-F191E**	3
115 V 50Hz, 120 V 60Hz		**PVA-F191F**	3
230 V 50Hz, 240 V 60Hz		**PVA-F191M**	3

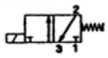
With unwired cable connector (22x30 mm)

Voltage		Order code	D
24 VDC		**PVA-F102B**	1
48 VDC		**PVA-F102E**	3
24 V 50/60Hz		**PVA-F101B**	1
48 V 50/60Hz		**PVA-F101E**	3
115 V 50Hz, 120 V 60Hz		**PVA-F101F**	1
230 V 50Hz, 240 V 60Hz		**PVA-F101M**	1
255 V 50Hz		**PVA-F101U**	3

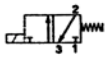
* Versions available for use in explosive atmospheres:
- conforming to certification LCIE 866115 X,
- electrical equipment conforming to harmonised European standards

EN 500 14 dated March 1977 (NFC23 514 dated May 1982)
EN 500 19 dated March 1977 (NFC23 519 dated May 1982)
- marking code EExe II T4 (consult your Technical Sales Office)

With prewired cable connector (22x30 mm), cable length L=2 m

Voltage		Order code	D
24 VDC		**PVA-F102B0**	3
48 VDC		**PVA-F102E0**	3
24 V 50/60Hz		**PVA-F101B0**	3
48 V 50/60Hz		**PVA-F101E0**	3
115 V 50Hz, 120 V 60Hz		**PVA-F101F0**	3
230 V 50Hz, 240 V 60Hz		**PVA-F101M0**	3
255 V 50Hz		**PVA-F101U0**	3

With prewired cable connector (22x30 mm), cable length L=5 m

Voltage		Order code	D
24 VDC		**PVA-F102B1**	3
48 VDC		**PVA-F102E1**	3
24 V 50/60Hz		**PVA-F101B1**	3
48 V 50/60Hz		**PVA-F101E1**	3
115 V 50Hz, 120 V 60Hz		**PVA-F101F1**	3
230 V 50Hz, 240 V 60Hz		**PVA-F101M1**	3
255 V 50Hz		**PVA-F101U1**	3

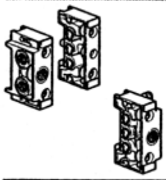
Electrical connector 22x30 mm	Order code	D
Connector to be wired (universal)	**PES-A10**	3
Connector to be wired with LED+Protection 24 V DC/AC	**PES-A2020B**	1
Connector to be wired with LED+Protection 230 VAC	**PES-A2001M**	3
Connector with 2 m cable (earth terminal opposite cable)	**PES-A12**	3
Connector with 2 m cable with LED+Protection (earth terminal opposite cable) 24 V DC/AC	**PES-A2220B**	3

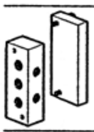
Air Pilot Connectors

	Mounting	Type of connection	Weight Kg	Order code	D
	Mounts on the same interface as the 5 W / 6 VA solenoid actuator	Push-in Ø4 mm, elbow Push-in Ø4 mm, swivel	0,004 0,007	**PVA-P121** **PVA-P122**	3 3
		Threaded M5	0,004	**PVA-P125**	3

Head and tail sets

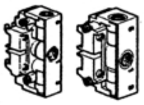
For stacking power valves 5/2, sizes M5, G1/8 and G1/4





Type of mounting	Description	Valve size	Port size	Weight Kg	Order code	D
DIN rail mounting	Single air supply head and tail set	M5	G1/8	0,065	**PVL-A1718**	1
		1/8"	G1/4	0,175	**PVL-B1719**	1
		1/4"	G3/8	0,195	**PVL-C1713**	1
	Dual air supply head and tail set	M5	G1/4	0,080	**PVL-A1728**	1
		1/8"	G1/4	0,245	**PVL-B1729**	1
		1/4"	G3/8	0,285	**PVL-C1723**	1
Surface mounting	Dual air supply head and tail set	1/8"	G1/8	0,200	**PVL-B1818**	3
		1/4"	G1/4	0,225	**PVL-C1819**	3
	Dual air supply head and tail set	1/8"	G1/8	0,260	**PVL-B1828**	3
		1/4"	G1/4	0,280	**PVL-C1829**	3

Components for stacking two sizes of power valve

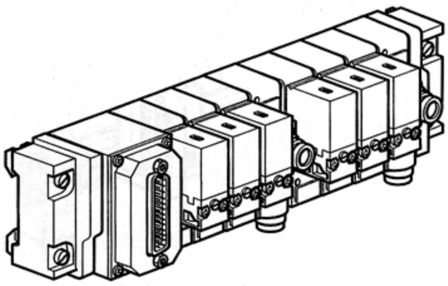


	Type of mounting	Description	Valve size	Weight Kg	Order code	D
Components for stacking 2 sizes: "transfer/take-off" module and corresponding head and tail set	On DIN rail	**Kit for stacking power valves :** - one "transfer/take-off" module	M5 and 1/8"	0,120	**PVU-LBA118**	3
		- two head and tail sets with one in each size.	1/8" and 1/4"	0,642	**PVU-LCB119**	3
Components for intermediate supply	On DIN rail	Intermediate supply module	1/8"		**PVU-LBB118**	3
			1/4"		**PVU-LCC119**	3
Components for inlet/exhaust common gallery sealing		**Kit for sealing the commons:**	M5	0,020	**PVL-A1901**	1
		- 3 common blanking plugs	1/8"	0,035	**PVL-B1901**	1
		- 2 drilled and threaded rods	1/4"	0,065	**PVL-C1901**	3
		- 2 screws for extended tie rods				

Spare Mounting and assembly kits

	Contents	Valve size	Base component	Weight Kg	Order code	D
- Seals for common inlet/exhaust ports	**1 pack of 30 0-ring seals**	1/8"	PVL-B17•• PVL-B18•• PVL-B12••••	0,009	**PPR-V23**	3
		1/4"	PVL-C17•• PVL-C18•• PVL-C12••••	0,017	**PPR-V24**	3
- Seals for pneumatic piloting or solenoid actuator connectors	**1 pack of 50 O-ring seals** for pneumatic piloting connectors type PVA-P12•		PVA-P122 PVA-P121 PVA-P125	0,007	**PPR-V25**	3
	1 pack of 20 seals for solenoid actuator type PVA-H24 and pneumatic piloting connector type PVA-P11•		PVL-B11•6•• PVL-B12•6•• PVL-C11•6•• PVL-C12•6••	0,004	**PPR-V20**	1
- Fixing accessories	**1 pack of 20 hooks** for head and tail modules		PVL-B17•• PVL-C17••	0,110	**PPR-L09**	1
	1 pack of 10 stacking rods for 1/8" power valves		PVL-B12••••	0,040	**PPR-V21**	1
	1 pack of 10 stacking rods for 1/4" power valves		PVL-C12••••	0,058	**PPR-V22**	1

- 3/2 Normally closed, Normally open
- Push-in connection
- High performance 15 mm Electrovalve DIN 43 650 C
- Electrical connection by Cable gland, Sub D25 or industrial connector
- Visual indication by LED with build in protection
- Mounting on DIN rail 35 mm



Operating information

Working pressure	0 to 10 bar
Working temperature	-15 °C to +60 °C
Storage temperature	-40 °C to +70 °C
Fluids	Air or gas, 50 µm filtered, lubricated or not
Manual override	Delivered as standard with flush non locking override
Change-over time	At 6 bar 10 to 15 ms
Orientation	Any plane
Maximum operating frequency	10 Hz
Degree of protection	IP 65
Duty factor	100%
Standard voltage	12 to 120V (other voltages available as option)

Mechanical life with dry air at 6 bar, 20 °C, 1 Hz: 30 million operations

Consumption and flow

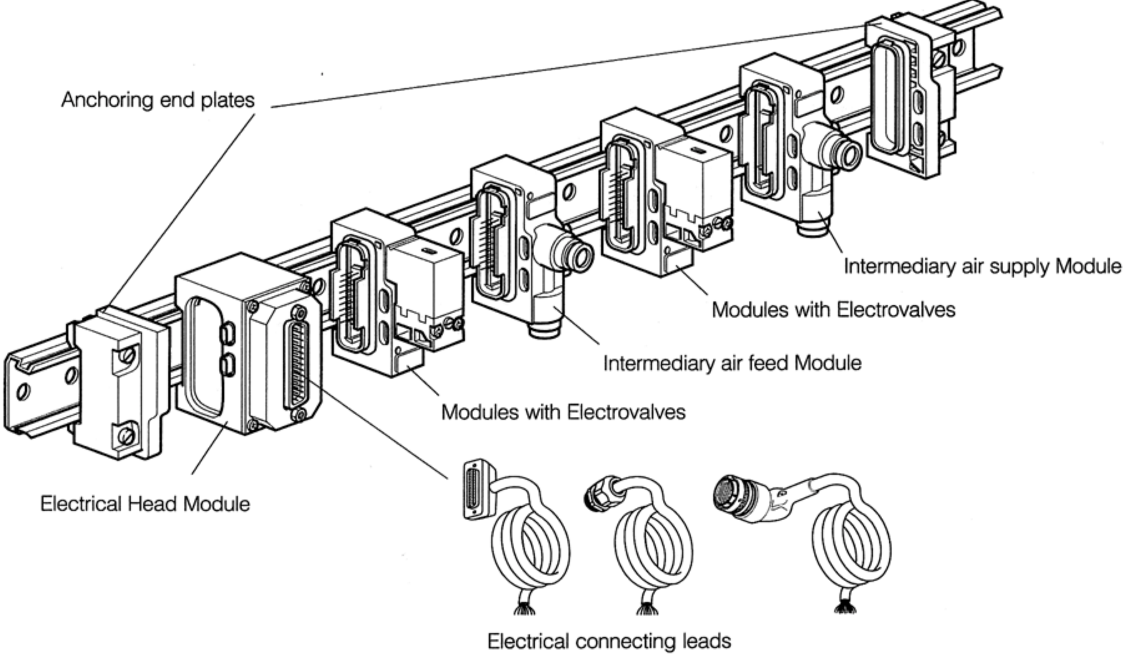
	Electrovalve 3/2 NC Standard	Electrovalve 3/2 NC Highflow	Electrovalve 3/2 NO Standard
Hold	DC 1,2 W AC 1,6 VA	DC 1,8 W AC 2,4 VA	DC 1,8 W AC 2,4 VA
Inrush	DC 1,2 W AC 3,5 VA	DC 1,8 W AC 5,5 VA	DC 1,8 W AC 5,5 VA
Flow (acc. ISO 6358)	33 Nl/min	50 Nl/min	33 Nl/min

Additional information

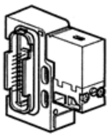
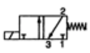
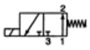
Module for the DC version are protected against overvoltage up to 300 V. Protections on inductive loads connected to the same source are necessary.

Module for theAC version fitted with a DC solenoid is compatible with PLC control card NPN protected.

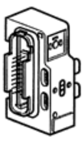
Electrovalves 3/2 NC function and 3/2 NO function **Configuration maximum: Up to 16 Electrovalves**



Series with Electrovalve 15 mm DIN 43 560 form C

Type	Symbol	Actuator	Return	Flow	Voltage	Order code
		Electric 3/2 NC	Spring	33 Nl/mn 50 Nl/mn	24 VDC 24 VDC	**P2S-KW3442CR** **P2S-HW3442CR**
		Electric 3/2 NO	Spring	33 Nl/mn	24 VDC	**P2S-KW1442CR**

Series delivered without Electrovalve*

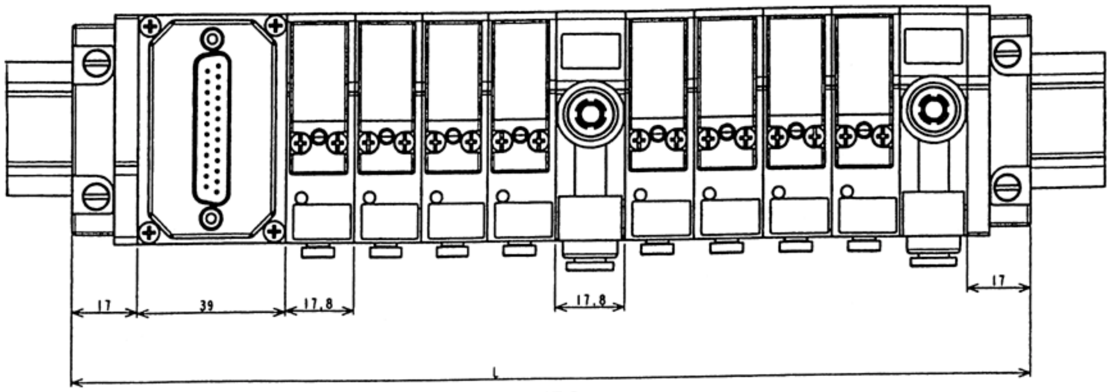
Type	Symbol	Actuator	Return	Flow	Voltage	Order code
		Electric 3/2 N for NO	Spring	33 or 50 Nl/mn according the electrovalve selected	12-48 VDC 24-120 VAC	**P2S-HW3445** **P2S-HW3444**

Electrical and pneumatic head and tail module

Description	Electrical connection	Connection	Order code
Cable gland	HE10 with 20 pins	Ø6 mm	**P2S-KA146H20A**
Sub D 25	25 pins	Ø6 mm	**P2S-HA146D25A**
Cylindrical connection	19 pins	Ø6 mm	**P2S-HA146C19A**
Intermediary air feed		Ø6 mm	**P2S-HA246**
		G1/8"	**P2S-HA211**

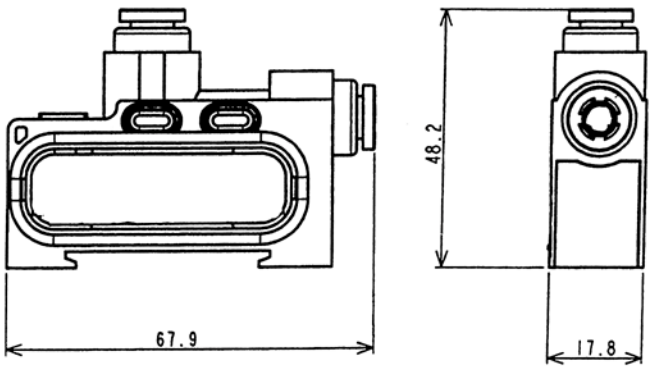
Dimensions, Valvetronic Solstar

Configuration Solstar with intermediary air feed module

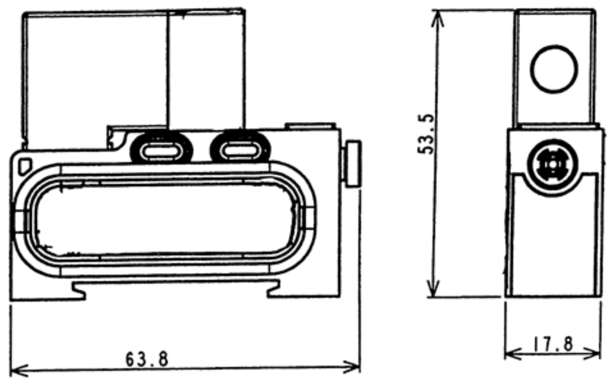


L = 73 + n x 17,8

PS2-HA246
Intermediary air feed module

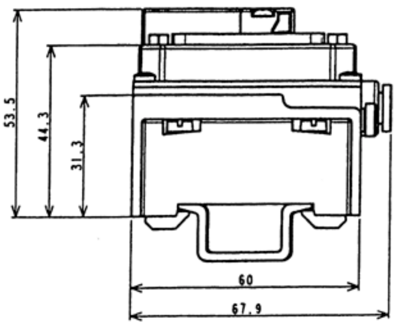


PS2-KW••
Basic module with Electro valve

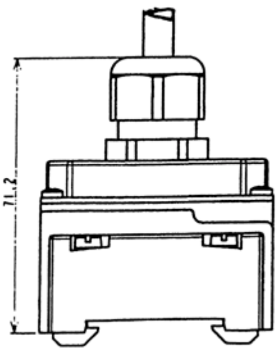


P2S-HA146C13A
Head Modules

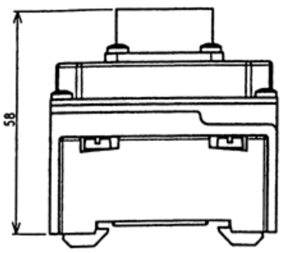
Sub D



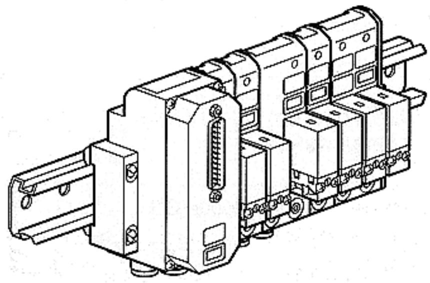
P2S-KA146H20A
Cable gland



P2S-KA146d25A
Cylindrical



- 3/2 and 4/2 modules poppet valve
- Push-in connection
- High performances Solenoid 15 mm DIN 43 650 C
- Electrical connection by Cable gland, Sub D25 or industrial connector
- Visual indication by LED with build in surge suppression
- Compatible with sensor and device bus



Operating information

Working pressure	3 to 8 bar	Duty factor	100%
Working temperature	-15 °C to +60 °C	Standard Voltage	12 to 230 V (other voltages available as options)
Storage temperature	-40 °C to +70 °C		
Fluids	Air or gas, 50 µm filtered, lubricated or not	Consumption	1,2 W 1,6 VA hold 1,2 W 3,5 VA inrush
Response time	10 to 15 ms		
Mechanical life with dry air at 6 bar, 20 °C, 1 Hz: 30 million cycles		Flow; (acc. ISO 6358)	Qn=1,7 Nl/s (100 Nl/min) Qmax=3,4 Nl/s (200 Nl/min) Cv=0,14 kv=2
Orientation	Any plane		
Maximum operating frequency	10 Hz		
Degree of protection	IP 65		

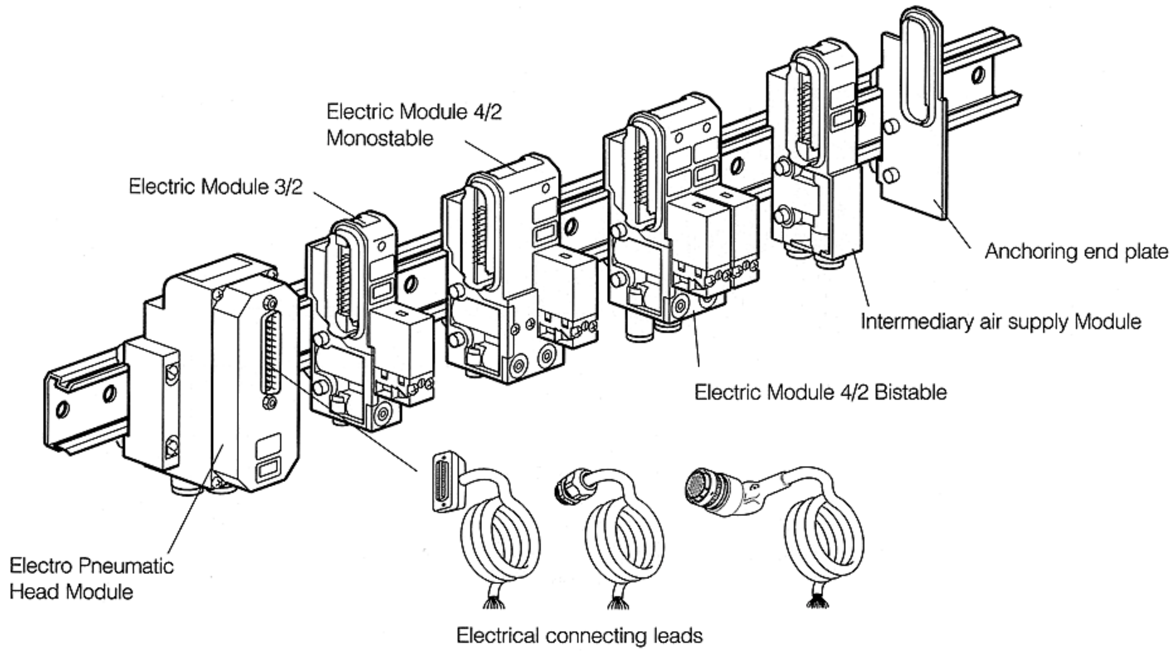
Additional information

Module for the DC version are protected against overvoltage up to 300 V. Protections on inductive loads connected to the same source are necessary.

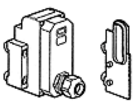
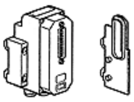
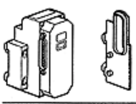
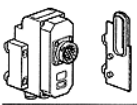
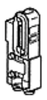
Module for theAC version fitted with a DC solenoid is compatible with PLC control card NPN protected.

Commutation of the Interface is poppet type, therefore the air supply have to raise rapidly (non compatible with Soft Starter 2/2 on the interface air supply). When pressure is applied, the bistable interface takes a pre determined position (non activated). In the absense of electrical signal, output 2 (yellow indicator) is activated, output 4 (red indicator) is not activated. Bistable version is delivered as standard with non locking flush override.

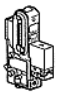
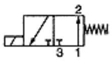
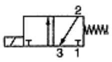
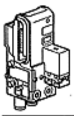
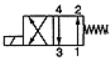
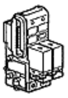
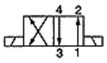
Electrovalves 3/2 NC function and 3/2 NO function **Configuration maximum: Up to 16 Electrovalves**



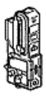
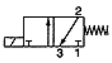
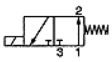
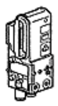
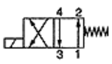
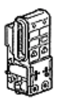
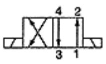
Head and tail sets, intermediate accessories

	Description	Electrical connection	Push-in fitting, mm	Weight Kg	Order code	D
	Head and tail	Cable gland and HE10 20 pins	Ø6 Ø8	0,170 0,180	**P2S-EA146H20A** **P2S-EA148H20A**	1 1
		Cable gland and 5 m flying lead	Ø6 Ø8		**P2S-EA146H20A5** **P2S-EA148H20A5**	1 1
		Sub D25 on the top	Ø6 Ø8	0,175 0,185	**P2S-EA146D25AT** **P2S-EA148D25AT**	1 1
		Sub D25 on the side	Ø6 Ø8	0,175 0,185	**P2S-EA146D25AS** **P2S-EA148D25AS**	1 1
		Cylindrical 19 pins connection	Ø6 Ø8	0,175 0,185	**P2S-EA146C19A** **P2S-EA148C19A**	1 1
	Intermediate air supply module		Ø6 Ø8	0,060 0,070	**P2S-EA246** **P2S-EA248**	1 1

Electro-Pneumatic module with DIN 43 650 form C pin spacing Solenoid

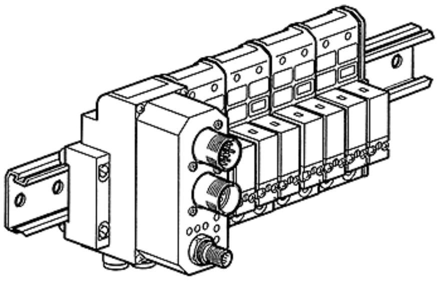
Type		Actuator	Return	Push-in fittings mm	LED indicator and noise suppressor	Weight Kg	Voltage	Order code	D
		Electric 3/2 NO	Spring	Ø4	Yes	0,095	24 VDC	**P2S-EW144ES2CR**	1
					No	0,095		**P2S-EW144ES2CL**	3
		Electric 3/2 NC	Spring	Ø4	Yes	0,095	24 VDC	**P2S-EW344ES2CR**	1
					No	0,095		**P2S-EW344ES2CL**	3
				Ø6	Yes	0,105	24 VDC	**P2S-EW346ES2CR**	1
					No	0,105		**P2S-EW346ES2CL**	3
		Electric 4/2 Monostable	Spring	Ø4	Yes	0,150	24 VDC	**P2S-EW444ES2CR**	1
					No	0,150		**P2S-EW444ES2CL**	3
				Ø6	Yes	0,160	24 VDC	**P2S-EW446ES2CR**	1
					No	0,160		**P2S-EW446ES2CL**	3
		Electric 4/2 Bistable	Electric	Ø4	Yes	0,180	24 VDC	**P2S-EW444EE2CQ**	3
					No	0,180		**P2S-EW444EE2CN**	3
				Ø6	Yes	0,190	24 VDC	**P2S-EW446EE2CQ**	3
					No	0,190		**P2S-EW446EE2CN**	3

Electro-Pneumatic module without solenoid**

Type		Actuator	Return	Push-in fittings mm	LED indicator and noise suppressor	Weight Kg	Voltage	Order code	D
		Electric 3/2 NC	Spring	Ø4	No	0,060	-	**P2S-EW344ES**	3
					Yes	0,060	AC	**P2S-EW344ES4**	3
					Yes	0,060	DC	**P2S-EW344ES5**	3
				Ø6	No	0,070	-	**P2S-EW346ES**	3
					Yes	0,070	AC	**P2S-EW346ES4**	3
					Yes	0,070	DC	**P2S-EW346ES5**	3
		Electric 3/2 NO	Spring	Ø4	No	0,060	-	**P2S-EW144ES**	3
					Yes	0,060	AC	**P2S-EW144ES4**	3
					Yes	0,060	DC	**P2S-EW144ES5**	3
		Electric 4/2 Monostable	Spring	Ø4	No	0,115	-	**P2S-EW444ES**	3
					Yes	0,115	AC	**P2S-EW444ES4**	3
					Yes	0,115	DC	**P2S-EW444ES5**	3
				Ø6	No	0,125	-	**P2S-EW446ES**	3
					Yes	0,125	AC	**P2S-EW446ES4**	3
					Yes	0,125	DC	**P2S-EW446ES5**	3
		Electric 4/2 Bistable	Electric	Ø4	No	0,115	-	**P2S-EW444EE**	3
					Yes	0,115	AC	**P2S-EW444EE4**	3
					Yes	0,115	DC	**P2S-EW444EE5**	3
				Ø6	No	0,125	-	**P2S-EW446EE**	3
					Yes	0,125	AC	**P2S-EW446EE4**	3
					Yes	0,125	DC	**P2S-EW446EE5**	3

* No specified voltage	12-230 V
AC voltage	24-115 VAC
DC voltage	12-48 VDC

- IP 65 Module for up to 16 interface valves
- Interface valves 3/2 or 4/2, 24 VDC with LED
- Bus diagnostic visualisation by LED
- Interbus S
- Profibus DP
- DeviceNet



Operating information

Protection level	IP 65
Diagnostic Bus	3 or 4 LED
Diagnostic voltage	2 LED
Vibrations	IEC 68-2-6 1g
Shocks	IEC 68-2-27 15g 11 ms
Short circuit protection	Diagnostic by LED
EMC protection	IEC 801-2 level 3
	IEC 801-3 level 3
	IEC 801-4 level 3
Working temperature	0 °C to 55 °C, 60% rating
	0 °C to 40 °C, 100% rating
Storage temperature	-40 °C to +70 °C
Bus supply voltage	20,6 to 30 VDC
Solenoid supply voltage	21,6 to 26,4 VDC

Additional information

Electrical power supply connection on head module

Connector male 5 pins - M12 Male

Bus connection on head module

Interbus S

Connector M23 male and female 9 pins (Bus IN)
Connector M23 female 5 pins (Bus Out)

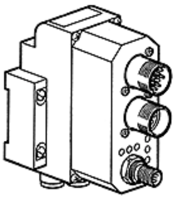
Profibus DP

Connector M12 male 5 pins (Bus IN)
Connector M12 female 5 pins (Bus Out)

DeviceNet

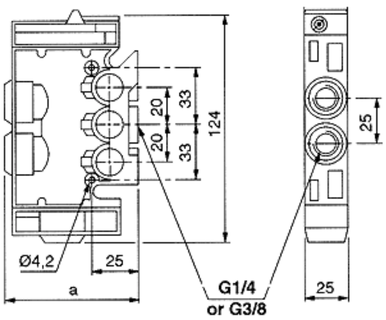
Connector M12 male 5 pins (Bus)

Main data for Device Bus - Interbus S - Profibus D.P. - DeviceNet

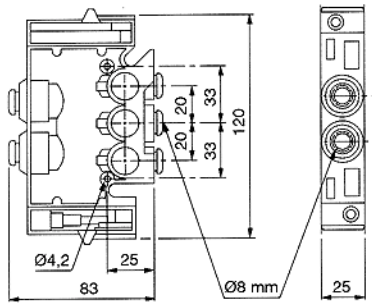
	Description	Connection Push in	Maximum output	Weight Kg	Order code
	Interbus	Ø6 mm	16	0,370	**P2S-EA146BS16A**
		Ø8 mm	16	0,365	**P2S-EA148BS16A**
	Profibus DP	Ø6 mm	16	0,365	**P2S-EA146BP16A**
		Ø8 mm	16	0,290	**P2S-EA148BP16A**
	DeviceNet	Ø6 mm	16	0,280	**P2S-EA146BD16A**
		Ø8 mm	16	0,290	**P2S-EA148BD16A**
	Elbow connector Connection to be made up	Male 5 pins	5 pin n.o.	0,025	**P8C-S1205M**
	Elbow connector Connection to be made up	Female	5 pin n.o.	0,025	**P8C-S1205R**
	Installation Diskett Profibus DP or DeviceNet				**P8B-FDISK**

Stand-alone power valves 1/4" without piloting accessories

Monostable PVL-C1116••, PVL-C1136••, PVL-C1114••, PVL-C1134••



Bistable PVL-C1126••, PVL-C1124••

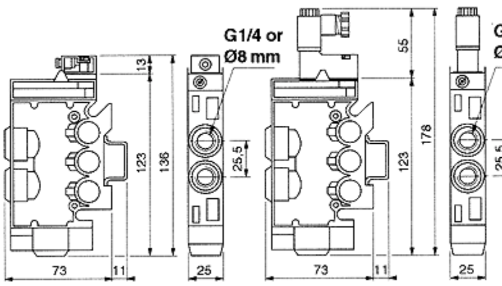


	G1/4	G3/8
a	73	88

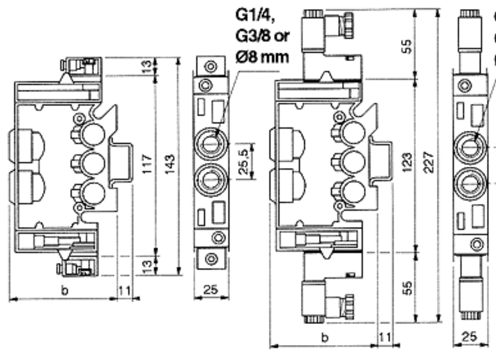
Stacking power valves 1/4" with pneumatic or electrical control

With 1 W solenoid actuator and suitable pneumatic connector

Monostable PVL-C1216••, PVL-C1236••



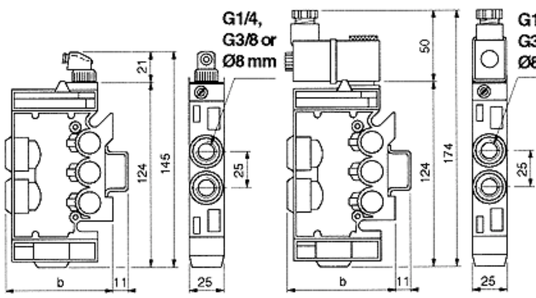
Bistable PVL-C1226••



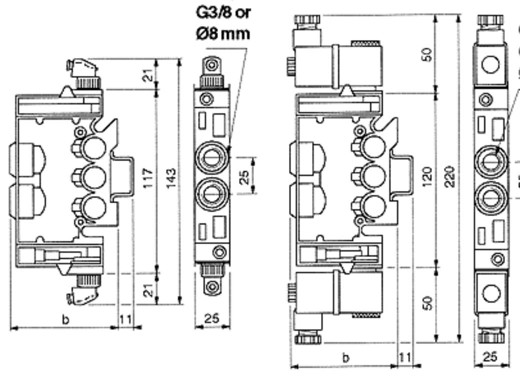
	G1/4	G3/8
b	73	77

With 5W solenoid actuator and suitable pneumatic connector

Monostable PVL-C1214••, PVL-C1234••

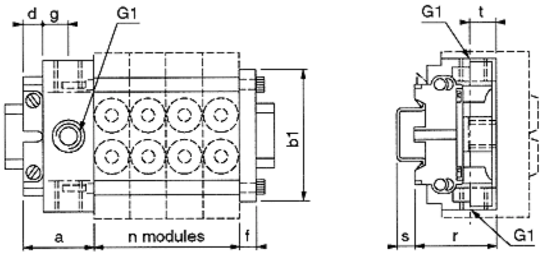


Bistable PVL-C1224••

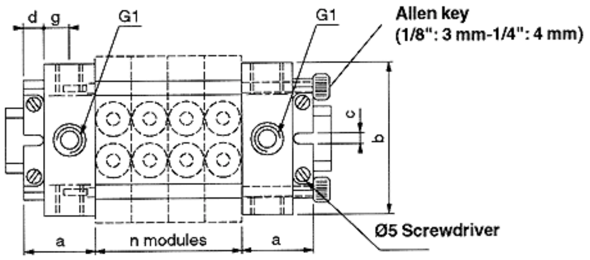


Head and tail sets

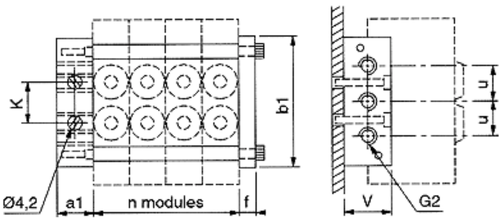
Single air supply
PVL-B1719, PVL-C1713, mounting on DIN rail



Dual air supply
PVL-B1729, PVL-C1723, mounting on DIN rail



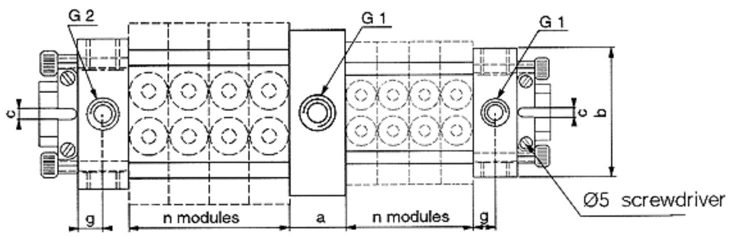
Single air supply
PVL-B1818, PVL-C1819, "stack mounting"



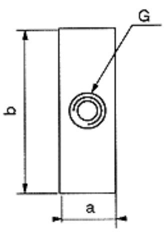
	a	a1	b	b1	c	d	f	g	G1	G2	k	r	s	t	u	v
1/8"	38	16	83	70	4,2	10	8	12	1/4"	1/8"	17,3	44	9	11	16	25
1/4"	38	20	108	100	4,2	10	8	12	3/8"	1/4"	63,5	55	9	13	20	30

"Transfer / take-off" module, intermediate supply module

For combination of sizes 1/4" - 1/8" - PVU-LCB119



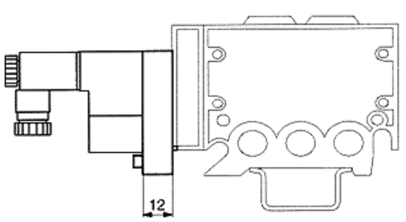
PVUL-BB118 - PVU-LCC119



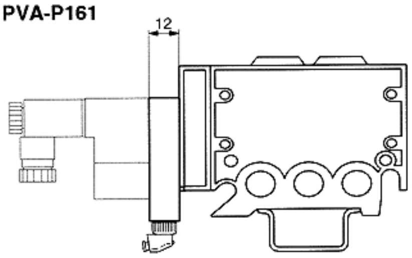
	a	b	G
1/8"	18	75	1/8"
1/4"	25	100	1/4"

Intermediate piloting connectors

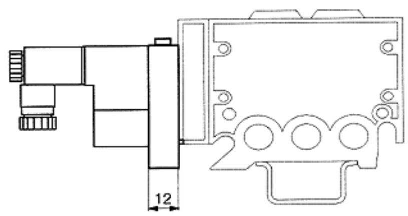
PVA-P171



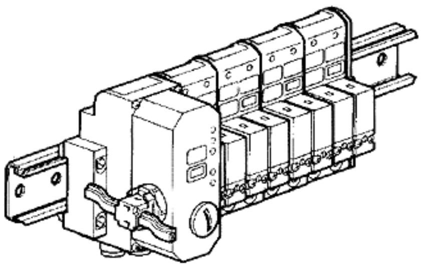
PVA-P161



PVA-P163



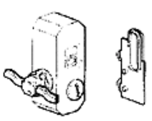
- Integrated ASI Module up to 8 interface monostable valves or 4 interface bistable valves
- Connection by vampire plug
- ASI diagnostic by LED
- Protection level IP65
- DIN rail 35 mm mounting



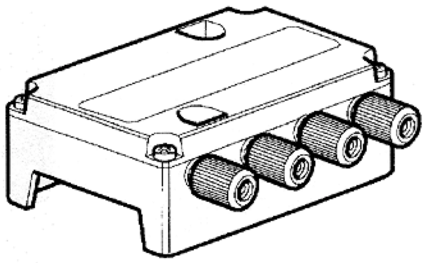
Operating information

Protection level	IP 65
Operating voltages	26,9 to 31,6 V (conform ASI)
ASI diagnostic	By double LED
Vibration	IEC 68-2-6 1g
Shocks	IEC 68-2-27 15g 11 ms
Short circuit protection	Diagnostic by LED
EMC protection	IEC 801-2 level 3 IEC 801-3 level 3 IEC 801-4 level 3
Working temperature	0 °C to 55 °C
Storage temperature	-40 °C to +70 °C
Solenoids supply voltage	From ASI module
Bus connections	Vampire plug
Consumption per solenoid	55 mA
Available current	500 mA
Identification code	8.F.
Mounting	DIN rail, height 15 mm

Main data for ASI - Actuator Sensor Interface Bus

	Description	Pneumatical connection mm	Nb Inputs	Weight kg	Order code
	ASI module unit built in air feed connection	Ø 6	4	0,230	**P2S-EA146BA4V**
		Ø 6	8	0,230	**P2S-EA146BA8V**
		Ø 8	8	0,230	**P2S-EA148BA8V**
	Spare Vampire plug cover clip			0,050	**P8B-AVMP2** Sold by lot of 10
	Connecting lead for the addressing terminal				**P8B-MH02B1**

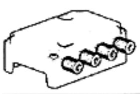
- 4 inputs
- Suitable for 3 wires sensors (2 wires Sensors according types)
- Spring loaded quick connection
- Surface or DIN rail 35 mm mounting
- Protection level IP65



Operating information

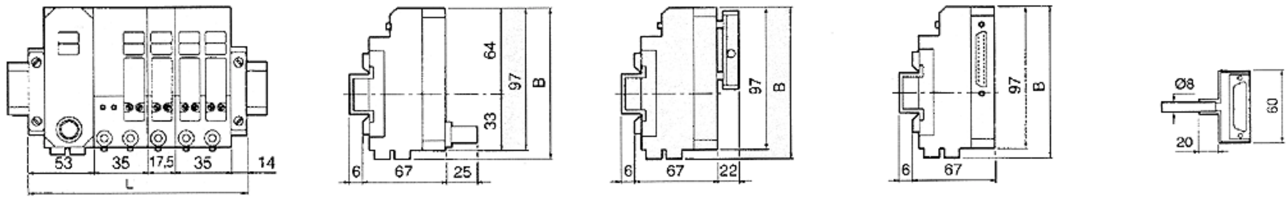
BUS	
Voltage range	26,9 to 31,6 VDC
Consumption	≤ 220 mA
Protection against reverse polarity Yes	
I/O configurations	0 Hex
ID code	F Hex / 0 Hex
Indication ASI voltage	Green LED
Inputs	
Supply connection	Directly from ASI yellow wire
Power supply for 3 wires detectors	25 - 30 V DC by spring terminal block
Protection against short-circuits	Yes
Total detectors current	200 mA
Inputs polarity	PNP
Input current State 1 / State 0	⊕ 1,5 mA / ≤ 0,5 mA
Input voltage State 1 / State 0	> 10 V DC / < 5 V DC
Inputs indication	yellow LED
Cable	Ø 2,8 to 6 mm
Technical characteristics	
Degree of protection	IP 65 (with E PDM cable)
Operating temperature	-25 °C to +70 °C
EMC. protection	IEC 801-2 level 3
	IEC 801-3 level 3
	IEC 801-4 level 3 / A. 3/B
Mounting	DIN rail / screw

Main data for ASI Module with connection for 4 inputs

	Description	Nb Inputs	Weight kg	Order code
	ASI input connecting module for PNP sensor	4	0,140	**P8B-A04V**
	Connecting accessory for the addressing terminal		0,050	**P8B-AVMP1**

Dimensions, Valvetronic Interface 2000

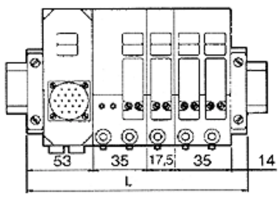
With Cable gland or SubD25 Connection Island



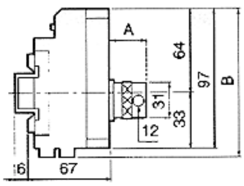
L = 67+(m x 17,5)+(n x 35)
m = number of 3/2 valves
n = number of 4/2 valves

Fitting Ø6 B=105 mm
Fitting Ø8 B=109 mm

With Industrial Cylindrical Island

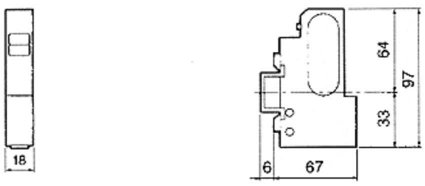


L = 67+(m x 17,5)+(n x 35)
m = number of 3/2 valves
n = number of 4/2 valves

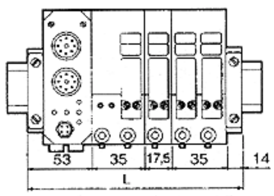


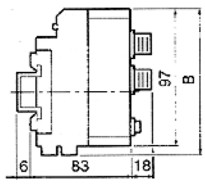
Fitting Ø6	B=105 mm
Fitting Ø8	B=109 mm
Connector 19 pins	A=90 mm
Cable	A=60 mm

Intermediary air supply



With bus : DeviceNet, Profibus DP, Interbus S, FIPIO, ASI

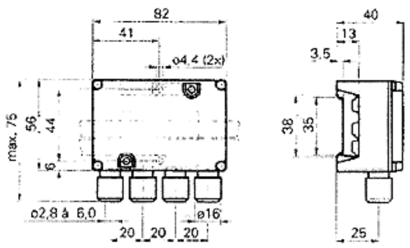




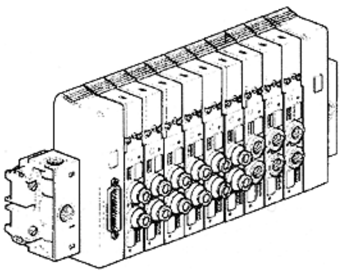
L = 67+(m x 17,5)+(n x 35=
m = number of 3/2 valves
n = number of 4/2 valves

Fitting Ø6 B=105 mm
Fitting Ø8 B=109 mm

ASI connecting module



- High flow, compact, light weight
- Push-in or threaded pneumatic connections
- High performance 15 mm solenoid DIN 43 650 C
- 2 x 3/2 - 5/2 - 5/3 functions
- Electrical head connection by Sub D 25 or Industrial Cylindrical Connection
- Surface or DIN rail 35 mm mounting



Operating information

PVL-B10 valves

Protection level	IP 65
Working Pressure	2 to 10 bar (3 to 10 bar for Monostable)
Storage temperature	-40 °C to +70 °C
Working temperature	-15 °C to +60 °C
Fluids	Air or neutral gas, 50 µm filtered, lubricated or not

Mechanical life with dry air at 6 bar, 20 °C, 1 Hz: 30 million cycles

Duty factor	100 %
Maximum operating frequency	10 Hz bistable
Solenoid voltage	12 to 48 V DC 24 to 115 V AC
Power consumption	1,2 W 1,6 VA Hold 1,2 W 3,5 VA Inrush
Orientation	Any plane
Visualisation	LED indicator
Surge suppression	Diode for DC version Varistor for AC version
Inverting commutation time	12 to 40 ms, according types

Input modules

Protection level	IP65
Voltage and type of output	PNP 24 V CC
Normal current	100 mA
Maxi. available current island	1 A for all the outputs

Output modules

Protection level	IP65
Type and output voltage	PNP 24 V CC
Normal current	100 mA
Maxi. available current island	1 A for all the inputs

Additional information

Modules for the DC version are protected against overvoltage up to 300 V. Protections on inductive loads connected to the same source are necessary.

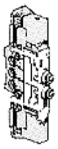
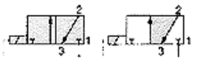
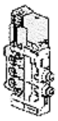
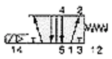
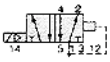
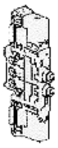
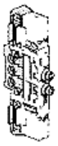
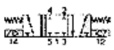
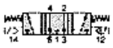
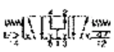
Modules for the AC version are fitted with a DC solenoid are compatible with PLC control card NPN protected.

Flow characteristics

	Type 2 x 3/2 G1/8 threaded	**Type 2 x 3/2 Push in Ø6 mm**	**Type 5/2 G1/8 threaded**	**Type 5/2 Push in Ø6 mm**
Qn	7,33 l/s (440 l/min)	5,83 l/s (350 l/min)	9 l/s (540 l/min)	7,5 l/s (450 l/min)
Qmax	12,5 l/s (750 l/min)	10 l/s (600 l/min)	15l/s (900 l/min)	12,9 l/s (775 l/min)
Cv	0,45	0,36	0,56	0,42
Kv	6,4	5,1	8	6

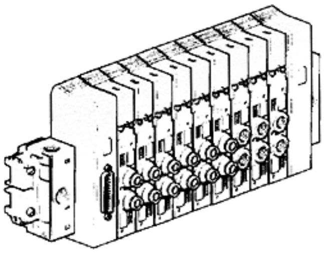
	Type 5/3 closed centre G1/8 threaded	**Type 5/3 closed centre Push in Ø6 mm**	**Type 5/3 vented centre G1/8 threaded**	**Type 5/3 vented centre Push in Ø6 mm**
Qn	6,16 l/s (370 l/min)	4,83 l/s (290 l/min)	9 l/s (540 l/min)	7,5 l/s (450 l/min)
Qmax	10,83 l/s (650 l/min)	8,33 l/s (500 l/min)	15l/s (900 l/min)	12,9 l/s (775 l/min)
Cv	0,38	0,29	0,56	0,46
Kv	5,4	4,2	8	6,5

Main data for PVL-B

	Symbol	Actuator	Return	Solenoid Pilot	Pneumatic Connection	Weight kg	Voltage	Order code
		Electric	Internal air	With	Ø6	0,240	24 VDC	PVL-B10560652B
		double 3/2 NC			G1/8	0,240	24 VDC	PVL-B10561852B
		(2)		Without	Ø6	0,150	DC	PVL-B105606W2
					Ø6	0,150	AC	PVL-B105606W1
					G1/8	0,150	DC	PVL-B105618W2
					G1/8	0,150	AC	PVL-B105618W1
		Electric 5/2	Spring	With	Ø6	0,170	24 VDC	PVL-B10160652B
		(2)			G1/8	0,170	24 VDC	PVL-B10161852B
				Without	Ø6	0,125	DC	PVL-B101606W2
					Ø6	0,125	AC	PVL-B101606W1
					G1/8	0,125	DC	PVL-B101618W2
					G1/8	0,125	AC	PVL-B101618W1
		Electric 5/2	Internal air	With	Ø6	0,170	24 VDC	PVL-B10360652B
		(2)			G1/8	0,170	24 VDC	PVL-B10361852B
				Without	Ø6	0,125	DC	PVL-B103606W2
					G1/8	0,125	DC	PVL-B103618W2
		Electric 5/2	Electric	With	Ø6	0,240	24 VDC	PVL-B10260602B
		(1)			G1/8	0,240	24 VDC	PVL-B10261802B
				Without	Ø6	0,150	DC	PVL-B102606W2
					Ø6	0,150	AC	PVL-B102606W1
					G1/8	0,150	DC	PVL-B102618W2
					G1/8	0,150	AC	PVL-B102618W1
		Electric 5/3	Electric	With	Ø6	0,240	24 VDC	PVL-B10760602B
		Closed Centre	Self centring		G1/8	0,240	24 VDC	PVL-B10761802B
		position*		Without	Ø6	0,150	DC	PVL-B107606W2
		(1)			Ø6	0,150	AC	PVL-B107606W1
					G1/8	0,150	DC	PVL-B107618W2
					G1/8	0,150	AC	PVL-B107618W1
		Electric 5/3	Electric	With	Ø6	0,240	24 VDC	PVL-B10860602B
		Vented Centre	Self centring		G1/8	0,240	24 VDC	PVL-B10861802B
		position*		Without	Ø6	0,150	DC	PVL-B108606W2
		(1)			Ø6	0,150	AC	PVL-B108606W1
					G1/8	0,150	DC	PVL-B108618W2
					G1/8	0,150	AC	PVL-B108618W1
		Electric 5/3	Electric	With	Ø6	0,240	24 VDC	PVL-B10960602B
		Pressurised	Self centring		G1/8	0,240	24 VDC	PVL-B10961802B
		Centre position*		Without	Ø6	0,150	DC	PVL-B109606W2
		(1)			Ø6	0,150	AC	PVL-B109606W1
					G1/8	0,150	DC	PVL-B109618W2
					G1/8	0,150	AC	PVL-B109618W1

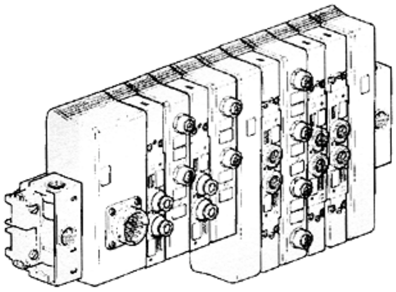
Configuration : Up to 16 valves or 32 I / O maximum

Monostable



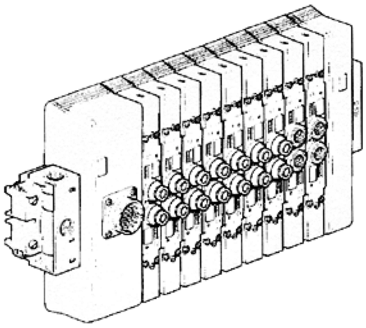
With SubD25 or
cylindrical 19 pins connector
→ 16 valves or 16 I/O

Monostable + Bistable



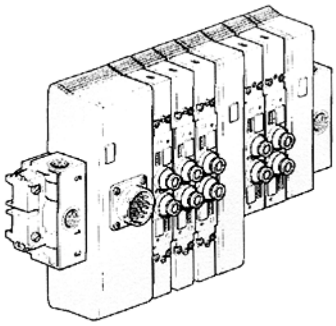
With SubD25 or
cylindrical 19 pins connector
→ 16 valves or 16 I/O

Bistable



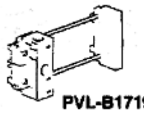
With SubD25 connector
→ 10 valves or 20 I/O
With cylindrical 35 pins connector
→ 16 valves or 32 I/O

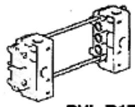
Bistable + Monostable



With SubD25 connector
→ 16 valves or 21 I/O
With cylindrical 35 pins connector
→ 16 valves or 32 I/O

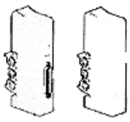
Pneumatic head and tail sets

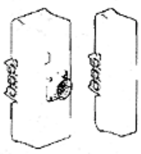

PVL-B1719


PVL-B1729

Type of mounting	Description	Valve size	Pneumatic connection	Weight kg	Order code
DIN rail mounting	Single supply head and tail set	1/8"	G1/4	0,175	**PVL-B1719**
	Dual air supply head and tail set	1/8"	G1/4	0,245	**PVL-B1729**
Surface mounting	Single air supply head and tail set	1/8"	G1/8	0,200	**PVL-B1818**
	Dual air supply head and tail set	1/8"	G1/8	0,260	**PVL-B1828**
	Pressure isolating disc				**PVL-B1902** Sold by lot of 10

Electrical head and tail sets


PVL-B191125


PVL-B192235

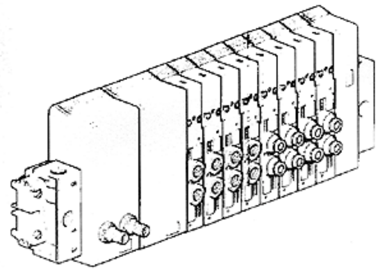
Description	Valves configuration	Type of connector	Weight kg	Order code
Head and tail sets	Monostable	Sub-D25	0,220	**PVL-B191125**
		Cylindrical 19-pins	0,250	**PVL-B191219**
	Bistable	Sub-D25	0,220	**PVL-B192125**
		Cylindrical 35-pins	0,250	**PVL-B192235**
Head and tail sets	Bistable then monostable	Sub-D25	0,370	**PVL-B194125**
		Cylindrical 35-pins	0,420	**PVL-B194235**
	Monostable then bistable	Sub-D25	0,320	**PVL-B193125**
		Cylindrical 19-pins	0,350	**PVL-B193219**
Transfering module	Bistable then monostable		0,220	**PVL-B1940**
	Monostable then bistable		0,240	**PVL-B1930**

Electrical modules for external connection

PVL-B1E1302 PVL-B1E2304
PVL-B1S1302 PVL-B1S2304

Description	Type	Connection	Weight kg	Order code
Input module	PVL-B monostable	2 Inputs	0,180	**PVL-B1E1302**
	PVL-B bistable	4 Inputs	0,240	**PVL-B1E2304**
Output module	PVL-B monostable	2 Outputs	0,180	**PVL-B1S1302**
	PVL-B bistable	4 Outputs	0,240	**PVL-B1S2304**

- Total compatibility with ASI Bus
- Islands from 4 to 16 valves output
- Modularity of 4 outputs
- Protection level IP 65
- One single connection ASI
- One single connection Valve supply 24 V DC



Operating information

ASI Bus Module characteristics

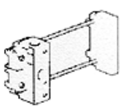
Protection level	IP 65
ASI operating voltage	26,9 to 31,6 V
Solenoid voltage	24 V DC ± 10%
Operating voltage	0 to 55 °C
Vibrations	IEC 68-2-6 1g
Shock	IEC 68-2-27 15 g 11 ms
EMC Protection	IEC 801-2 level 3
	IEC 801-3 level 3
	IEC 801-4 level 3
Working temperature	0 °C to 55 °C
Identification code	8.F
Mounting	DIN rail

ASI Network characteristics

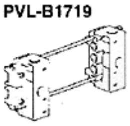
Maximum lengh	100 m
Maximum length with duplicator	200 m
Node capacity	4 inputs and 4 outputs
Total capacity	124 Inputs and 124 output
Number of nods	1 to 31
Response time	5 ms maxi
Nodes supply	Through the Bus
Total available current	2 A or 5 A

Main data for ASI Bus Modules - Outputs version

Description	Valves configuration	Connection	Weight kg	Order code
Head module*	Monostable valves	M12 ASI and valves supply	0,460	**P2S-BA1BA40**
Head* and transfer module	Monostable then bistable valves	M12 ASI and valves supply	0,560	**P2S-BA3BA40**
Head module*	Bistables valves	M12 ASI and valves supply	0,510	**P2S-BA2BA40**
Head* and transfer module	Bistable then monostable valves	M12 ASI and valves supply	0.610	**P2S-BA3BA40**
Transfer module	Monostable valves	-	0.410	**P2S-BA5BA40**
	Bistable valves	-	0,460	**P2S-BA6BA40**
Air supply module	DIN rail monting	Single air supply G1/4	0,175	**PVL-B1719**
		Dual air supply G1/4	0,245	**PVL-B1729**
	Surface mounting	Single air supply G1/8	0,200	**PVL-B1818**
		Dual air supply G1/8	0,260	**PVL-B1828**
Connecting lead to the ASI module addressing terminal (type P2S-BA...)			0.15	**P8L-MH02B1**



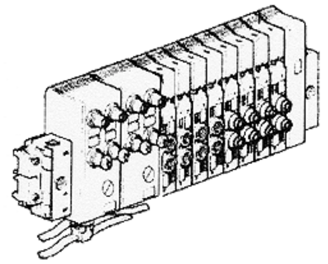
PVL-B1719



PVL-B1729

* Head module = with ASI, and supply 24V DC connection

- Total compatibility with ASI Bus
- Islands from 4 to 16 valves output and 4 or 16 inputs
- Protection level IP 65
- Connection M12 or Vampire plug
- ASI visualisation and 24 V supply diagnostic by LED
- Inputs visualisation by LED



Operating information

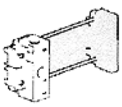
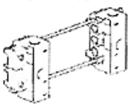
ASI Bus Module Characterisctics

Protection level	IP 65
ASI operating voltage	26,9 to 31,6 V
Solenoid voltage	24 VDC ± 10%
Isolation voltage	1500 V
Vibrations	IEC 68-2-6 1g
Shock	IEC 68-2-27 15 g 11 ms
EMC Protection	IEC 801-2 level 3 IEC 801-3 level 3 IEC 801-4 level 3
Bus diagnostic	2 LED, red and green
Solenoid voltage visualisation	By LED
Short circuit protection	Diagnostic by LED
Working temperature	0 °C to 55 °C
Storage temperature	-40 °C to 70 °C
Solenoid voltage	ASI Vampire plug or M12
Identification code	7.F
Bus connection	ASI Vampire plug or M12 Connector
Available current on inputs	200 mA
Compatibility with sensors or photo-cells	2 or 3 wires technology
Inputs	PNP type

ASI Network characteristics

Maximum lengh	100 m
Maximum length with duplicator	200 m
Node capacity	4 inputs and 4 outputs
Total capacity	124 Inputs and 124 output
Number of nods	1 to 31
Response time	5 ms maxi
Nodes supply	Through the Bus
Total available current	2 A or 5 A

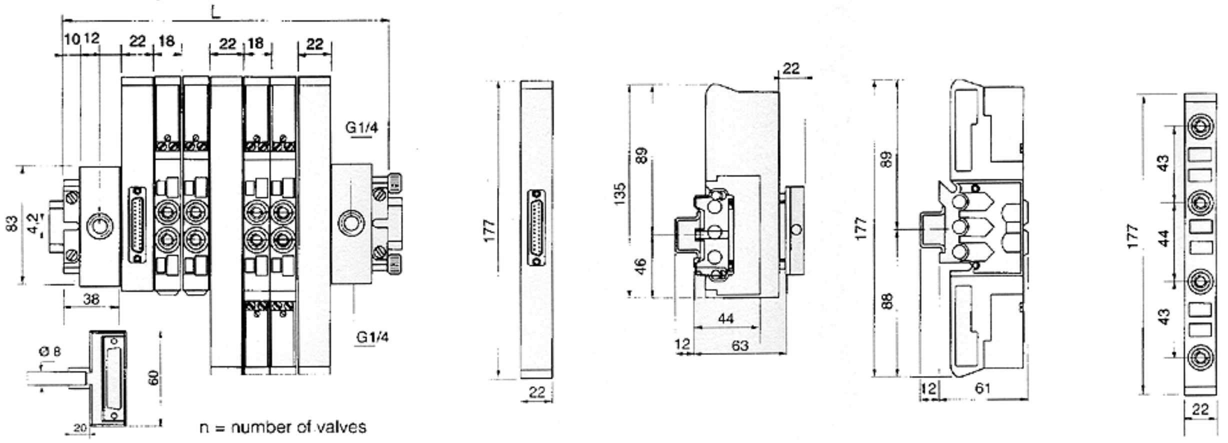
main data for ASI Bus Modules - Inputs and Outputs version

Description	Valves configuration	Connection	Weight kg	Order code
Head module*	Monostable valves	M12 ASI and valves supply	0,460	**PVL-BA1BA44**
		Vampire ASI and valves supply	0.460	**PVL-BA1BA44V**
Head module*	Monostable then bistable valves	M12 ASI and valves supply	0,560	**PVL-BA3BA44**
		Vampire ASI and valves supply	0,560	**PVL-BA3BA44V**
Transfer module	Monostable or bistable valves	-	0,400	**PVL-BA5BA44**
Air supply module  **PVL-B1719**	DIN rail mounting	Single air supply G1/4	0,175	**PVL-B1719**
		Dual air supply G1/4	0.245	**PVL-B1729**
 **PVL-B1729**	Surface mounting	Single air supply G1/8	0,200	**PVL-B1818**
		Dual air supply G1/8	0.260	**PVL-B1828**
Spare Vampire cover clip				**P8B-AVMP2** Sold by lot of 10
Connecting lead to the ASI module addressing terminal (type PVL-BA...)				**P8B-AJACK**

* Head module = with ASI, and supply 24V DC connection

Dimensions, Valvetronic PVL-B10

Uniform configuration L = 120 + (n x 18)*
Mixed configuration L = 142 + (n x 18)*

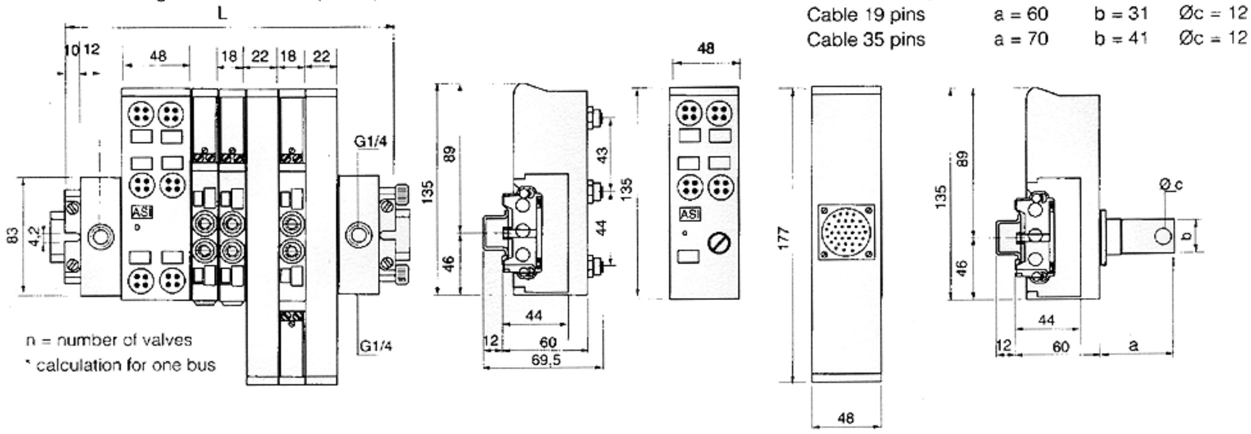


n = number of valves
* calculation for one bus

ASI Bus

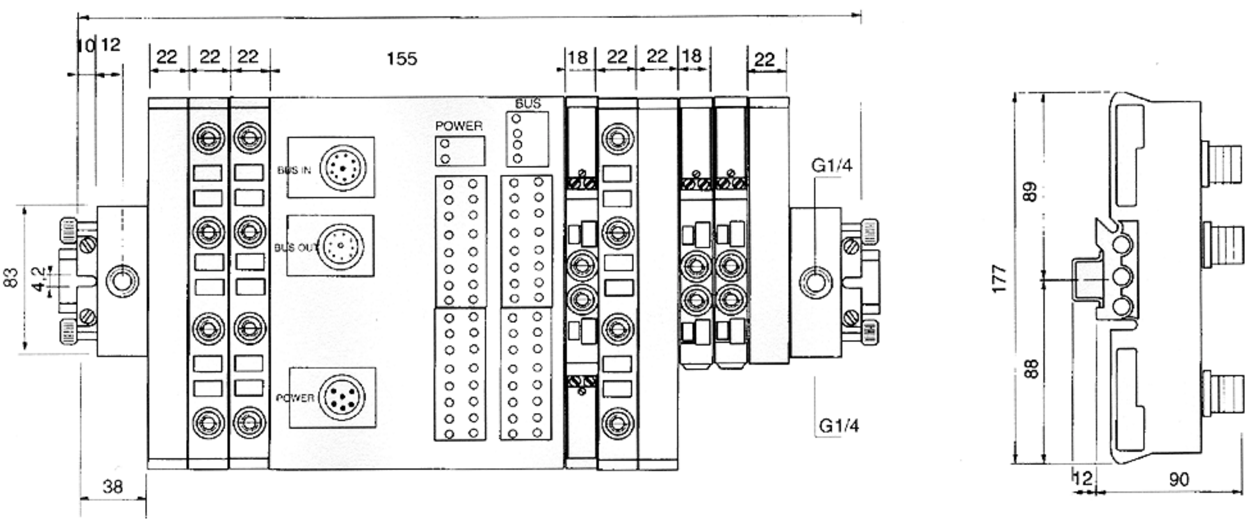
Uniform configuration L = 146 + (n x 18) *
Mixed configuration L = 168 + (n x 18) *

Connector 19 pins	a = 90	b = 31	
Connector 35 pins	a = 115	b = 41	
Cable 19 pins	a = 60	b = 31	Øc = 12
Cable 35 pins	a = 70	b = 41	Øc = 12

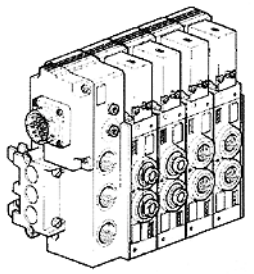


n = number of valves
* calculation for one bus

DeviceNet, Profibus DP, Interbus S, FIPIO



- High flow, compact, light weight
- Push-in or threaded pneumatic outlets
- High performance 15 mm solenoid DIN 43 650 C
- DIN rail or surface mounting
- Electrical head connection by Cable gland, Sub D 25 or Industrial Cylindrical Connection



Operating information

Protection level	IP 65	Solenoid voltage	12 to 48 V DC 24 to 115 V AC (other voltages available as option)
Working Pressure	2 to 10 bar (3 to 10 bar for Monostable)		
Working temperature	-15 °C to 60 °C	Surge consumption	1,2 W 1,6 VA Hold 1,2 W 3,5 VA Inrush
Storage temperature	-40 °C to 70 °C		
Fluids	Air or gas, 50 µm filtered, lubricated or not	Orientation	Any plane
		Surge suppression	Diode for DC version Varistor for AC version
Mechanical life with dry air at 6 bar, 20 °C, 1 Hz: 30 million cycles		Inverting commutation time	15 to 92 ms, according types
Duty factor	100 %		
Maximum operating frequency	10 Hz bistable		

Additional information

Modules for the DC version are protected against overvoltage up to 300 V. Protections on inductive loads connected to the same source are necessary.

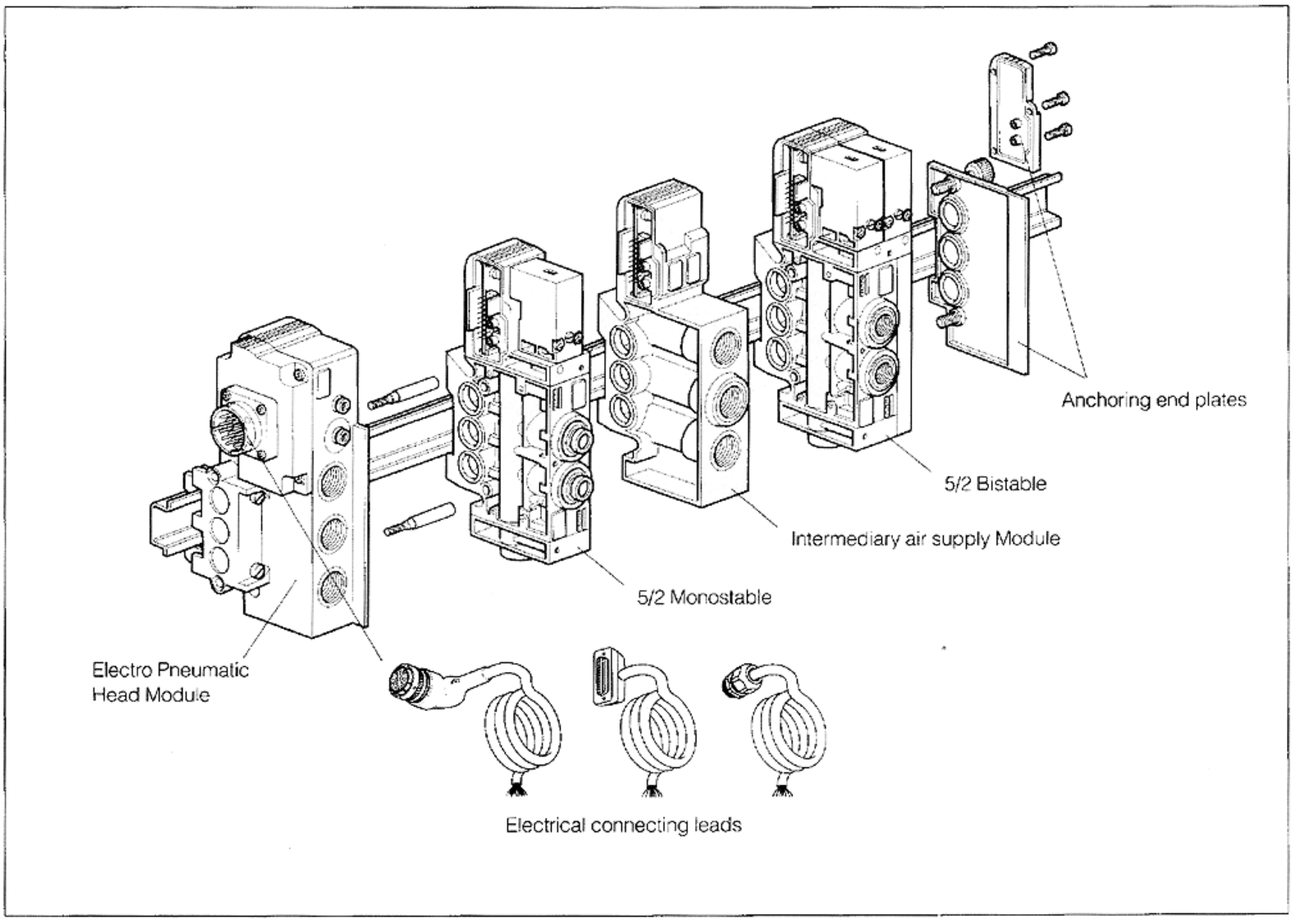
Modules for the AC version fitted with a DC solenoid are compatible with PLC control card NPN protected.

Flow characteristics

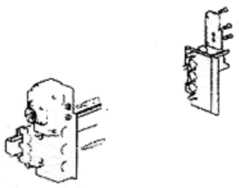
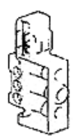
	Type 2 x 3/2 G1/4 threaded	**Type 2 x 3/2 Push in Ø8 mm**	**Type 5/2 G1/4 threaded**	**Type 5/2 Push in Ø8 mm**
Qn	9,5 l/s (570 l/min)	9 l/s (540 l/min)	18,33 l/s (1100 l/min)	14 l/s (840 l/min)
Qmax	15,8 l/s (950 l/min)	15 l/s (900 l/min)	30,83 l/s (1850 l/min)	23,3 l/s (1400 l/min)
Cv	0,58	0,55	1,11	0,86
Kv	8,3	7,8	16	12,2

	Type 5/3 closed centre G1/4 threaded	**Type 5/3 closed centre Push in Ø8 mm**	**Type 5/3 vented centre G1/4 threaded**	**Type 5/3 vented centre Push in Ø8 mm**
Qn	13 l/s (780 l/min)	11,6 l/s (700 l/min)	18,33 l/s (1100 l/min)	14 l/s (840 l/min)
Qmax	21,66 l/s (1300 l/min)	19,5 l/s (1170 l/min)	30,83 l/s (1850 l/min)	23,3 l/s (1400 l/min)
Cv	0,79	0,71	1,11	0,86
Kv	11,3	10,2	16	12,2

	Type 5/3 pressurised centre G1/4 threaded	**Type 5/3 pressurised centre Push in Ø8 mm**
Qn	11 l/s (660 l/min)	10,5 l/s (630 l/min)
Qmax	18,33 l/s (1100 l/min)	17,5 l/s (1050 l/min)
Cv	0,67	0,64
Kv	9,6	9,2

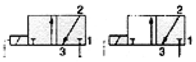
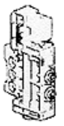
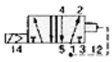
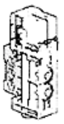
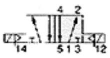
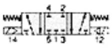


Main data for Head and tail Electro-pneumatic modules

	Description	Auxiliary Pressure px	Electrical Connection	Pneumatic Connection	Order code
	Head modules	Without px*	Cable gland	G3/8	**PVL-C1713H20A**
			Sub D 25	G3/8	**PVL-C1713D25A**
			Cylindrical connection 19 pins	G3/8	**PVL-C1713C19A**
		With px *	Cable gland	G3/8	**PVL-C2713H20A**
			Sub D 25	G3/8	**PVL-C2713D25A**
			Cylindrical connection 19 pins	G3/8	**PVL-C2713C19A**
	Tail air feed Module		-	G3/8	**PVU-LC213 ****
	Intermediary air supply module		-	G3/8	**PVU-LC213E *****
	Pressure isolating discs		-		**PVL-C1902** Sold by lot of 10

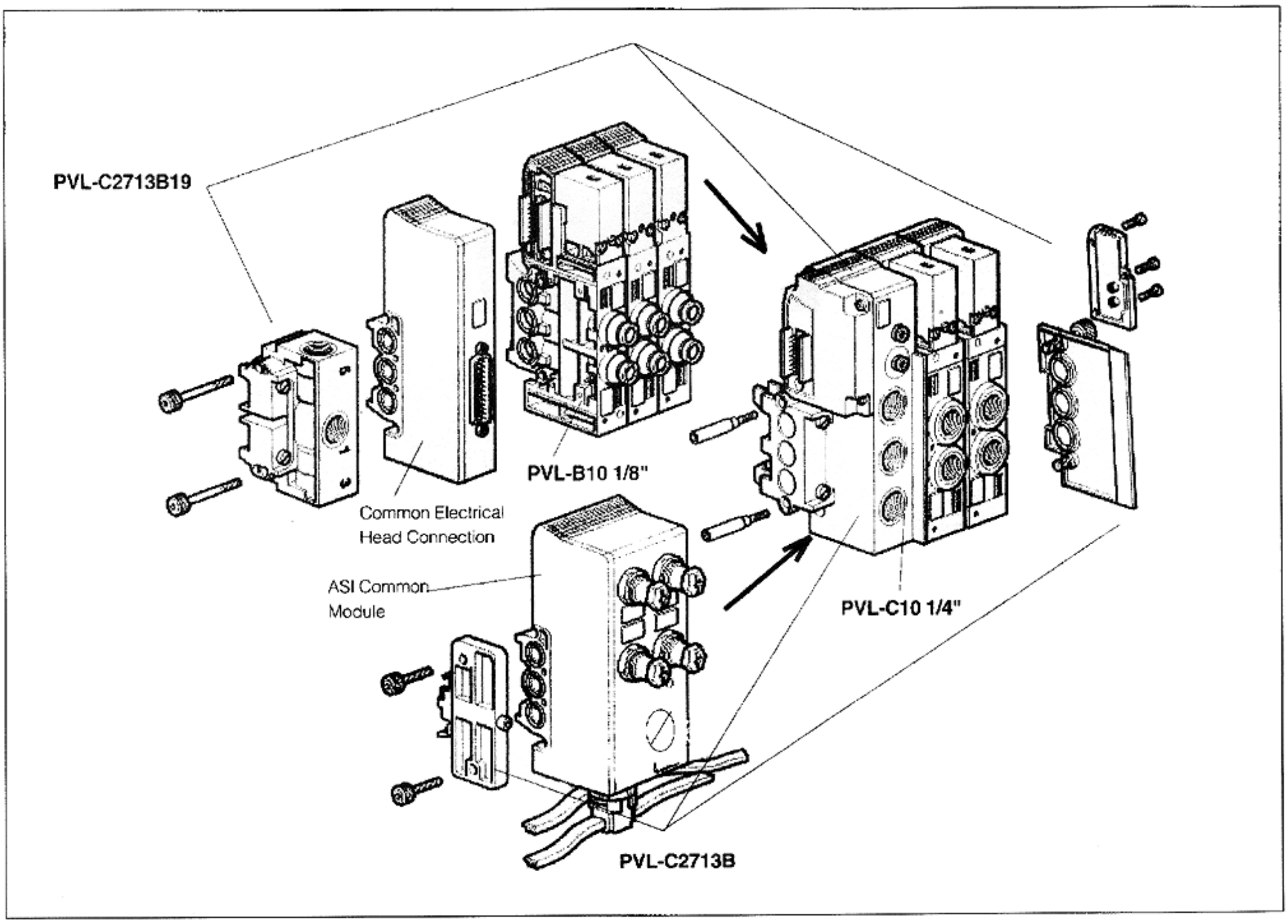
* px = auxiliary air supply for solenoids, separately from the main valves air supply
** To be mounted at the end of the island valves for dual air supply (without connections fitted)
*** For dual air supply ou different supplies, with no defined location in the island valves (with connections fitted)

Main data for PVL-C

	Symbol	Actuator	Return	Solenoid Pilot	Pneumatical connection	Weight kg	Voltage	Order code
		Electric double 3/2 NC (2)	Internal air	With	Ø8	0,240	24 VDC	PVL-C10560852B
					G1/4	0,240	24 VDC	PVL-C10561952B
				Without	Ø8	0,150	DC	PVL-C105608W2
					G1/4	0,150	AC	PVL-C105608W1
					G1/4	0,150	DC	PVL-C105619W2
					G1/4	0,150	AC	PVL-C105619W1
		Electric 5/2 (2)	Spring	With	Ø8	0,170	24 VDC	PVL-C10160852B
					G1/4	0,170	24 VDC	PVL-C10161952B
				Without	Ø8	0,125	DC	PVL-C101608W2
					Ø8	0,125	AC	PVL-C101608W1
					G1/4	0,125	DC	PVL-C101619W2
					G1/4	0,125	AC	PVL-C101619W1
		Electric 5/2 (2)	Internal air	With	Ø8	0,170	24 VDC	PVL-C10360852B
					G1/4	0,170	24 VDC	PVL-C10361952B
				Without	Ø8	0,125	DC	PVL-C103608W2
					G1/4	0,125	DC	PVL-C103619W2
		Electric 5/2 (1)	Electric	With	Ø8	0,240	24 VDC	PVL-C10260802B
					G1/4	0,240	24 VDC	PVL-C10261902B
				Without	Ø8	0,150	DC	PVL-C102608W2
					Ø8	0,150	AC	PVL-C102608W1
					G1/4	0,150	DC	PVL-C102619W2
					G1/4	0,150	AC	PVL-C102619W1
		Electric 5/3 Closed Centre position (1)	Self centring	With	Ø8	0,240	24 VDC	PVL-C10760802B
					G1/4	0,240	24 VDC	PVL-C10761902B
				Without	Ø8	0,150	DC	PVL-C107608W2
					Ø8	0,150	AC	PVL-C107608W1
					G1/4	0,150	DC	PVL-C107619W2
					G1/4	0,150	AC	PVL-C107619W1
		Electric 5/3 Vented Centre position (1)	Self centring	With	Ø8	0,240	24 VDC	PVL-C10860602B
					G1/4	0,240	24 VDC	PVL-C10861902B
				Without	Ø8	0,150	DC	PVL-C108608W2
					Ø8	0,150	AC	PVL-C108608W1
					G1/4	0,150	DC	PVL-C108619W2
					G1/4	0,150	AC	PVL-C108619W1
		Electric 5/3 Pressurised Centre position (1)	Self centring	With	Ø8	0,240	24 VDC	PVL-C10960802B
					G1/4	0,240	24 VDC	PVL-C10961902
				Without	Ø8	0,150	DC	PVL-C109608W2
					Ø8	0,150	AC	PVL-C109608W1
					G1/4	0,150	DC	PVL-C109619W2
					G1/4	0,150	AC	PVL-C109619W1

(1) With override non locking flush (version with solenoid fitted)
(2) With override locking flush (version with solenoid fitted)

- One common Electrical Head Connection for both sizes
- Two separated air feeds 1/4 and 1/8 for dual air supply
- Simple connection of 1/8 and 1/4 sizes (wire free connecting system)
- Up to 21 Pilot Solenoids (Sub D 25 version)
- Up to 32 Pilot Solenoids (Cylindrical 35 version)

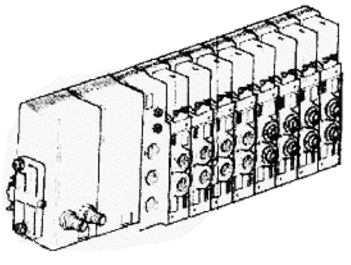


Main data for Combination Kits PVL-B10/PVL-C10

Type of combination module		Connection	Weight kg	Order code
Combination PVL-B10/PVL-C10	Without px version*	G 1/4 and G 3/8	0,530	**PVL-C1713B19**
	With px version(Ø4 mm) *	G 1/4 and G 3/8	0,535	**PVL-C2713B19**
Combination bus ASI/PVL-C10	Without px version*	G 3/8	0,305	**PVL-C1713B**
	With px version(Ø4 mm) *	G 3/8	0,310	**PVL-C2713B**

* px = auxiliary air supply for solenoids, separately from the main valves air supply.

- Total compatibility with ASI Bus
- Islands from 4 to 16 valves output
- Modularity of 4 Outputs
- Protection level IP 65
- One single connection ASI
- One single connection Valve supply 24 V DC



Operating information

ASI Bus Module characteristics

Protection level	IP 65
ASI operating voltage	26,9 to 31,6 V
Solenoid voltage	24 V DC ±10%
Operating voltage	0 to 55 °C
Vibrations	IEC 68-2-6 1g
Shock	IEC 68-2-27 15 g 11 ms
EMC Protection	IEC 801-2 level 3
	IEC 801-3 level 3
	IEC 801-4 level 3
Working temperature	0 °C to 55 °C
Identification code	8.F
Mounting	DIN rail

ASI Network characteristics

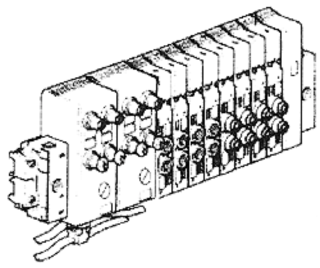
Maximum lengh	100 m
Maximum length with duplicator	200 m
Node capacity	4 inputs and 4 outputs
Total capacity	124 Inputs and 124 output
Number of nods	*1 to 31
Response time	5 ms maxi
Nodes supply	From the Bus
Total available current	2 A or 5 A

Main data for ASI Bus Modules - Outputs version

Description		Connection	Weight kg	Order code
Head module		M12 ASI and valves supply	0.460	**P2S-BA1BA40**
Intermediary air feed module		-	0,410	**P2S-BA5BA40**
Associating module on ASI Bus with	Without px version*	G 3/8	0,305	**PVL-C1713B**
air supply	With px version (Ø4 mm) *	G 3/8	0.310	**PVL-C2713B**
Connecting lead to the ASI module addressing terminal		-	0.150	**P8L-MH02B1**

* px = auxiliary air supply for solenoids, separately from the main valves air supply.

- Total compatibility with ASI Bus
- Islands from 4 to 16 valves output and 4 or 16 inputs
- Protection level IP 65
- Connection M12 or Vampire plug
- ASI visualisation and 24 V supply diagnostic by LED
- Inputs visualisation by LED



Operating information

ASI Bus Module Characterisctics

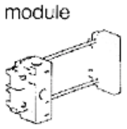
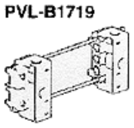
Protection level	IP 65
ASI operating voltage	26,9 to 31,6 V
Solenoid voltage	24 VDC ± 10%
Isolation voltage	1500 V
Vibrations	IEC 68-2-6 1g
Shock	IEC 68-2-27 15 g 11 ms
EMC Protection	IEC 801-2 level 3 IEC 801-3 level 3 IEC 801-4 level 3
Bus diagnostic	2 LED, red and green
Solenoid voltage visualisation	By LED
Short circuit protection	Diagnostic by LED
Working temperature	0 °C to 55 °C
Storage temperature	-40 °C to 70 °C
Solenoid voltage	ASI Vampire plug or M12

Identification code	7.F
Bus connection	ASI Vampire plug or M12 Connector
Available current on inputs	200 mA
Compalibility with sensors or photo-cells	2 or 3 wires technology
Inputs	PNP type

ASI Network characteristics

Maximum lengh	100 m
Maximum length with duplicator	200 m
Node capacity	4 inputs and 4 outputs
Total capacity	124 Inputs and 124 output
Number of nods	1 to 31
Response time	5 ms maxi
Nodes supply	Through the Bus
Total available current	2 A or 5 A

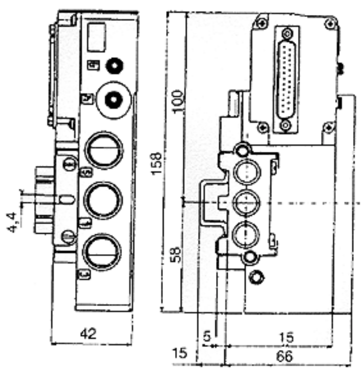
main data for ASI Bus Modules - Inputs and Outputs version

Description	Valves configuration	Connection	Weight kg	Order code
Head module*	Monostable valves	M12 ASI and valves supply	0,460	**PVL-BA1BA44**
		Vampire ASI and valves supply	0,460	**PVL-BA1BA44V**
Head module*	Monostable then bistable valves	M12 ASI and valves supply	0,560	**PVL-BA3BA44**
		Vampire ASI and valves supply	0,560	**PVL-BA3BA44V**
Transfer module	Monostable or bistable valves	-	0,400	**PVL-BA5BA44**
Air supply module  **PVL-B1719**  **PVL-B1729**	DIN rail mounting	Single air supply G1/4	0,175	**PVL-B1719**
		Dual air supply G1/4	0,245	**PVL-B1729**
	Surface mounting	Single air supply G1/8	0,200	**PVL-B1818**
		Dual air supply G1/8	0,260	**PVL-B1828**
Spare Vampire cover clip				**P8B-AVMP2** Sold by lot of 10
Connecting lead to the ASI module addressing terminal (type PVL-BA...)				**P8B-AJACK**

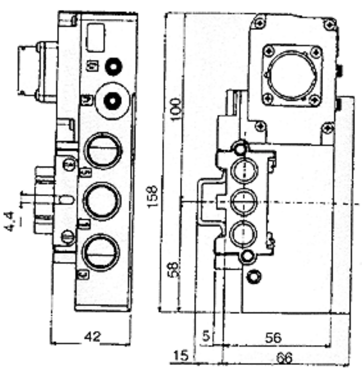
* Head module = with ASI, and supply 24V DC connection

Dimensions, Valvetronic PVL-C10

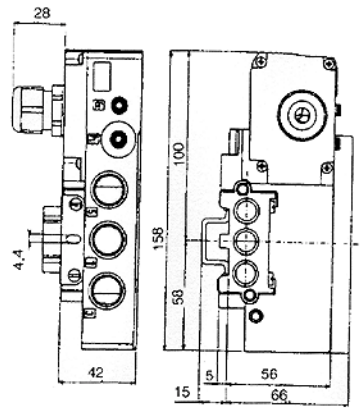
Head modules : SubD25 connector



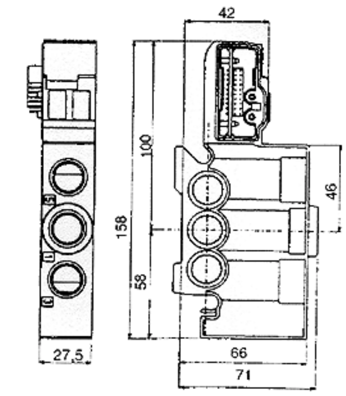
Cylindrical connector



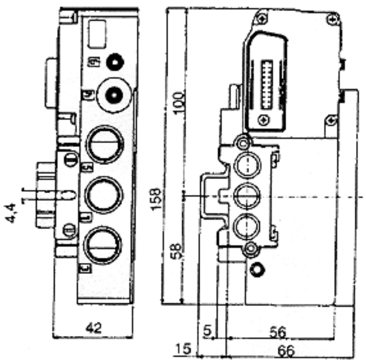
Cable gland



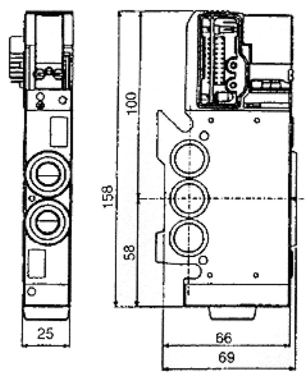
Intermediary air supply module



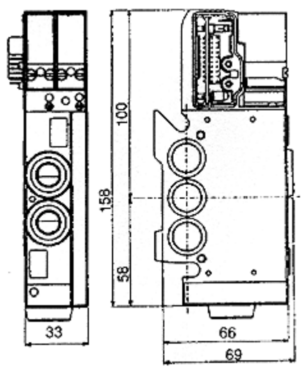
Transfer Module from PVL-B10/PVL-C10 and Head ASI bus / Air feed module PVL-C10



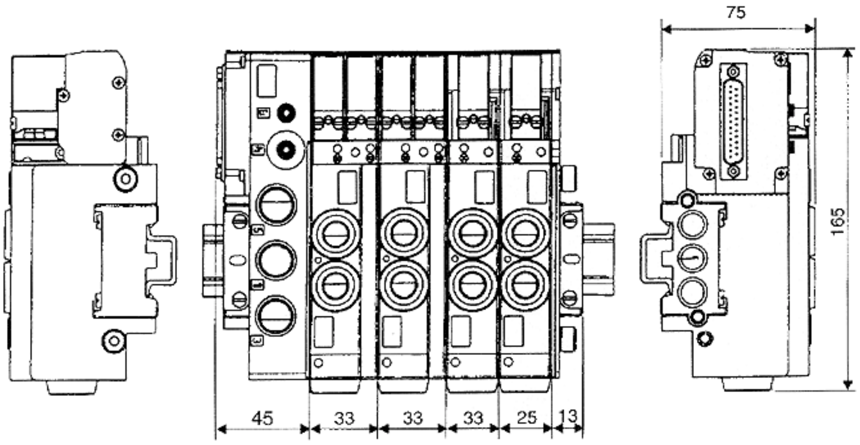
Valve 5/2 monostable



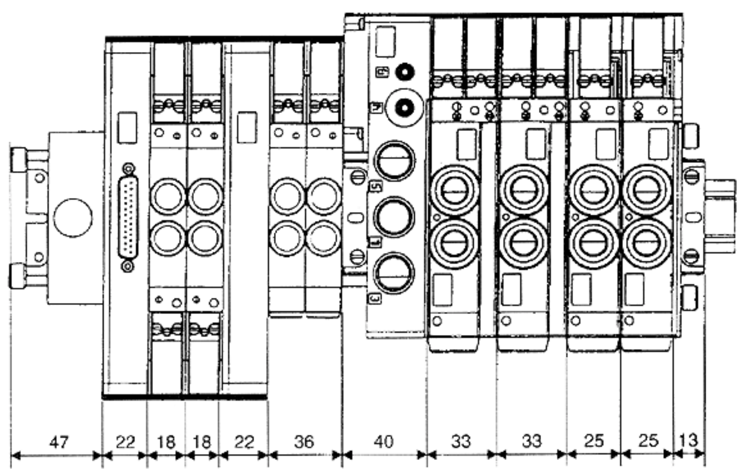
Valve 5/2 bistable - 2x3/2 - 5/3



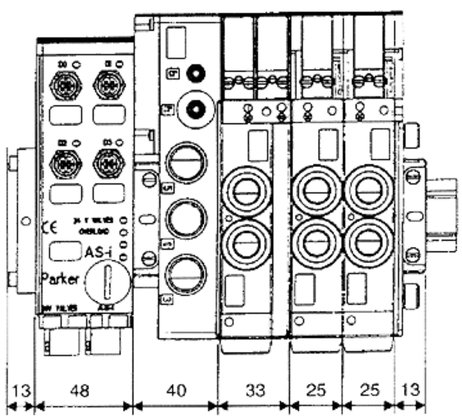
Dimensions, Valvetronic PVL-C10



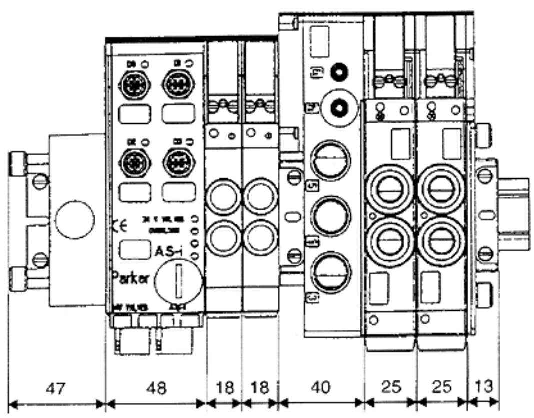
Association PVL-B10 G1/8 and PVL-C10 G1/4



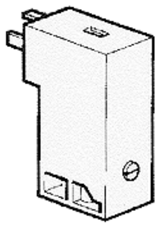
Association ASI and PVL-C10



Association ASI and PVL-B10 and PVL-C10



- High performance and flow
- 8 mm Pin spacing
- UL Listed (according types)
- IP 65 Encapsulated coil (connected)
- Full compliance with European Directives 73/23/ EEC "Low Voltage" 89/336/EEC "Electro-Magnetic Compability"



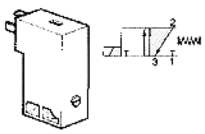
Operating information

	NC, Standard flow	NO, Standard flow	NC, High flow
Working pressure	0 to 10 bar	0 to 10 bar	0 to 10 bar
Working temperature	-15 °C to +60 °C	-15 °C to +50 °C	-15 °C to +50 °C
Orifice diameter	1,0 mm	1,1 mm	1,4 mm
Flow Qmax	33 Nl/min	33 Nl/min	50 Nl/min
Power, Hold	DC1,2 W / AC1,6 VA	DC1,8 W / AC 2,4 VA	DC1,8 W / AC 2,4 VA
Power, Inrush	1,2 W / AC 3,5 VA	1,8 W / AC 5,5 VA	1,8 W / AC 5,5 VA
Voltage range	+ 10 %, -15 %	+ 10 %, -15 %	+ 10 %, -15 %

Note! Solenoids are supplied without screws

Solenoid 15 mm NC Standard flow

(electrical interface same side as pneumatic interface)

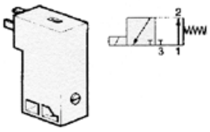


Voltage	Weight kg	Order code Without manual override	Weight kg	Order code With manual override Non locking flush	Weight kg	Order code With manual override Locking flush
12 VDC	0,038	**P2E-KS32B0**	0,038	**P2E-KS32B1**	0,038	**P2E-KS32B2**
24 VDC	0,038	**P2E-KS32C0**	0,038	**P2E-KS32C1**	0,038	**P2E-KS32C2**
48 VDC	0,038	**P2E-KS32D0**	0,038	**P2E-KS32D1**	0,038	**P2E-KS32D2**
24 VAC 50Hz	0,038	**P2E-KS31C0**	0,038	**P2E-KS31C1**	0,038	**P2E-KS31C2**
48 VAC 50/60Hz	0,038	**P2E-KS34D0**	0,038	**P2E-KS34D1**	0,038	**P2E-KS34D2**
115 VAC 50Hz/ 120 VAC 60Hz	0,038	**P2E-KS31F0**	0.038	**P2E-KS31F1**	0,038	**P2E-KS31F2**

Voltage	Weight kg	Order code With manual override Extended non locking	Weight kg	Order code With manual override Extended locking
24 VDC	0,038	**P2E-KS32C3**	0,038	**P2E-KS32C4**
24 VAC 50Hz	0.038	**P2E-KS31C3**	0,038	**P2E-KS31C4**

Solenoid 15 mm NO Standard flow

(electrical interface same side as pneumatic interface)

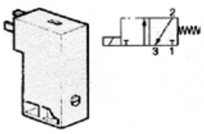


Voltage	Weight kg	Order code Without manual override	Weight kg	Order code Override Non locking flush	Weight kg	Order code Override Locking flush
24 VDC	0,038	**P2E-KS12C0**	0,038	**P2E-KS12C1**	0,038	**P2E-KS12C2**
24 VAC 50Hz	0,038	**P2E-KS11C0**	0,038	**P2E-KS11C1**	0,038	**P2E-KS11C2**

Voltage	Weight kg	Order code Override extended non locking	Weight kg	Order code Override extended locking
24 VDC	0,038	**P2E-KS12C3**	0,038	**P2E-KS12C4**
24 VAC 50Hz	0,038	**P2E-KS11C3**	0,038	**P2E-KS11C4**

Solenoid 15 mm NC High flow

(electrical interface same side as pneumatic interface)



Voltage	Weight kg	Order code Without manual override	Weight kg	Order code Override flush Non locking	Weight kg	Order code Override flush Locking
24 VDC	0,038	**P2E-HS32C0**	0,038	**P2E-HS32C1**	0,038	**P2E-HS32C2**
24 VAC 50Hz	0,038	**P2E-HS31C0**	0,038	**P2E-HS31C1**	0,038	**P2E-HS31C2**
48 VDC	0,038	**P2E-HS32D0**	0,038	**P2E-HS32D1**	0,038	**P2E-HS32D2**
115 V 50Hz / 120 V 60Hz	0,038	**P2E-HS31F0**	0,038	**P2E-HS31F1**	0,038	**P2E-HS31F2**

Voltage	Weight kg	Order code Override extended non locking	Weight kg	Order code Override extended locking
24 VDC	0,038	**P2E-HS32C3**	0,038	**P2E-HS32C4**
24 VAC 50Hz	0,038	**P2E-HS31C3**	0,038	**P2E-HS31C4**
48 VDC	0,038	**P2E-HS32D3**	0,038	**P2E-HS32D4**
115 V 50Hz / 120 V 60Hz	0,038	**P2E-HS31F3**	0,038	**P2E-HS31F4**

Main data for spare set of Solenoids Mounting screws

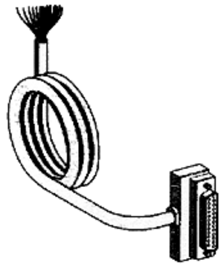
Kit	Type	Material	Ø mm	Length mm	Weight kg	Order code
	Metric	Steel, passivated	M3	26		**P2E-KP026PM3** *
	Self tapping	Steel, passivated	Ø 3 mm	25		**P2E-KP025PS3** *

*Sold by lot of 10

Correspondence table between screws and Valves Series

Valvetronic Series	Description	Mounting screw length	Order code Mounting screw kit
P2S-HW	Valvetronic Solstar	25 mm	**P2E-KP025PS3**
P2S-EW	Interface 2000	26 mm	**P2E-KP026PM3**
PVL-B10	Valvetronic 1/8"	26mm	**P2E-KP026PM3**
PVL-C10	Valvetronic 1/4"	26 mm	**P2E-KP026PM3**

- Leads and connector (plugged in)
- Protection level IP 65
- Suitable for use across the Valvetronic Modular program
- HE 10 for budget cable gland version
- Sub D 25 for compact version
- Cylindrical 19 or 35 pins for heavy duty industrial



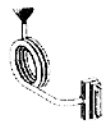
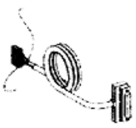
Operating Information

Working temperature	-15 C° to 60 °C	Outside Ø cable with 19 pins	16 mm
Working current;		Outside Ø cable with 32 pins	22 mm
AWG20	5 A		
AWG24	2,5 A		
AWG28	1 A		

Main data for Connecting leads for Head module with cover gland (HE10)

Type	Connection to valve island	Connection to the control system	Lenght m	Weight kg	Order code
	HE10/HE14 female	20 coloured wires AWG 24	5,0	0,510	**P8L-MH20A5**
			9,9	1,010	**P8L-MH20A9**
		HE10 20 pins for direct plug-in connection on PLC AWG24	1,5	0,160	**P8L-MH20A1BH20A**
			3,0	0,310	**P8L-MH20A3BH20A**
			5,0	0,510	**P8L-MH20A5BH20A**
			9,9	1,010	**P8L-MH20A9BH20A**

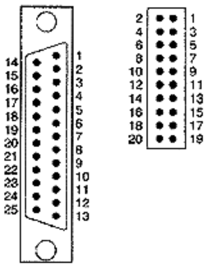
Main data for Connecting leads for Head module with Sub D 25

Type	Connection to valve island	Connection to the control system	Lenght m	Weight kg	Order code
	Leads for head module with Sub D 25 female	20 coloured wires AWG 24	5.0	0,540	**P8L-MD25A5B**
			9,9	1,040	**P8L-MD25A9B**
			15,0	1,540	**P8L-MD25ACB**
		25 wires roles flat ribbon AWG 28	5,0	0,540	**P8L-MD25A5**
			9,9	0,540	**P8L-MD25A9**
		HE10 20 pins for direct plug-in connection on PLC	1,5	0,160	**P8L-MD25A1BH20A**
			3,0	0,310	**P8L-MD25A3BH20A**
			5.0	0,510	**P8L-MD25A5BH20A**
			9.9	1,010	**P8L-MD25A9BH20A**

Main data for Connecting leads for Head module with Cylindrical Heavy duty connector

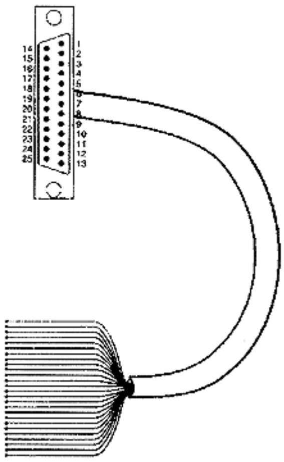
Type	Connection to valve island	Connection to the control system	Lenght m	Weight kg	Order code
	Cylindric connector	19 pins	To be wired	0,060	**P8C-MC19A**
		35 pins	To be wired	0,090	**P8C-MC35A**
	Leads with cylindric	19 coloured wires AWG 20 (16 outputs)	5,0		**P8C-MC19A5**
			9,9		**P8C-MC19A9**
	Connection	35 coloured wires AWG 20 (32 outputs)	5,0		**P8C-MC35A5**
			9,9		**P8C-MC35A9**

Wiring connection for cable gland and Sub D 25 with AWG 24 wire



Colour	Input or Output N°	Sub D 25 Pin Nr	HE10 Pin Nr	Colour	Input or Output Nr	Sub D 25 Pin Nr	HE10 Pin Nr
Green	0	13	1	Orange	13	19	14
Tranparent	1	25	2	White	14	6	15
Dark blue	2	12	3	Grey	15	18	16
Light blue	3	24	4	Red/Black	Free	5	17
Pink	4	11	5	Red	24 V	17	18
Purple	5	23	6	Brown	0 V	4	18
Dark green/Black	6	10	7	Black	0 V	16	-
Yellow	7	22	8		16	3	-
Light green/Black	8	9	9		17	15	-
Yellow/black	9	21	10		18	2	-
Blue/Black	10	8	11		19	14	-
White/Black	11	20	12	*	20	1	-
Khaki	12	7	13	* Red wire for flat ribbon cable			

Wiring connection for Sub D 25 with rolled flat ribbon AWG 28 wires

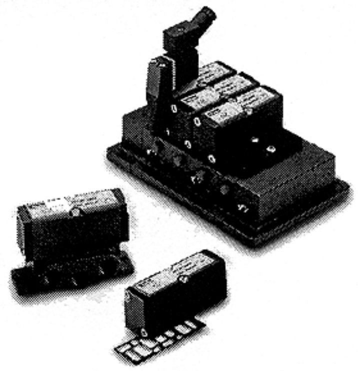


Colour	Nr of Ribbon wires after red wire	Sub D Pin Nr	Input/ Output Nr	Colour	Nr of Ribbon wires after red wire	Sub D Pin Nr	Input/ Output Nr
Grey	24	13	0	Grey	11	19	13
Grey	23	25	1	Grey	10	6	14
Grey	22	12	2	Grey	9	18	15
Grey	21	24	3	Grey	8	5	
Grey	20	11	4	Grey	7	17	
Grey	19	23	5	Grey	6	4	
Grey	18	10	6	Grey	5	16	Common V
Grey	17	22	7	Grey	4	3	16
Grey	16	9	8	Grey	3	15	17
Grey	15	21	9	Grey	2	2	18
Grey	14	8	10	Grey	1	14	19
Grey	13	20	11	Red	0 (Red wire)	1	20
Grey	12	7	12				

Wiring connection for cylindrical 19 or 35 pins with AWG 20 wires

I/O Nr	Colour	Connector Pin Nr 19	32	I/O Nr	Colour	Connector Pin Nr 19	32	I/O Nr	Colour	Connector Pin Nr 19	32	I/O Nr	Colour	Connector Pin Nr 19	32
0	White-Brown	A	A	9	Violet	K	K	18	Brown-Pink	-	V	27	Yellow-Grey	-	e
1	White-Green	B	B	10	Blue	L	L	19	Brown-Blue	-	W	28	Yellow-Pink	-	f
2	White-Yellow	C	C	11	Pink	M	M	20	Brown-Red	-	X	29	Yellow-Blue	-	g
3	White-Grey	D	D	12	Grey	N	N	21	Brown-Black	-	Y	30	Yellow-Red	-	h
4	White-Pink	E	E	13	Yellow	P	P	22	Green-Grey	-	Z	31	Yellow-Black	-	i
5	White-Blue	F	F	14	White	R	R	23	Green-Pink	-	a	0 V valves	Black	T	j
6	White-Red	G	G	15	Green	S	S	24	Green-Blue	-	b	0 V inputs	Brown	U	k
7	White-Black	H	H	16	Brown-Green	-	T	25	Green-Red	-	c	24 V inputs	Red	V	m
8	Brown-Yellow	J	J	17	Brown-Grey	-	U	26	Green-Black	-	d				

- Compact high flow design
- 40% smaller than ISO1 valve
- Developed inconjunction with manufacturers and organisations in the food industry
- Manifolded solenoid exhausts
- VDMA 24563 Size 18 and 26 mm

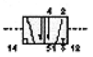
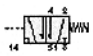
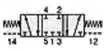


VDMA

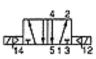
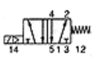
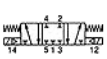
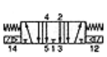
Operating information

Working pressure	Max 10 bar		**P2V-A (18 mm)**	**P2V-B (26 mm)**
Working temperature;				
Electrically actuated	-15 to +60 °C	Flow:	882 l/min	1850 l/min
Pneumatically actuated	-20 to +70 °C			

Pneumatically actuated 5/2 and 5/3 valves

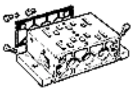
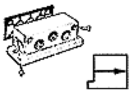
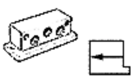
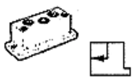
Symbol	Size	Actuator	Return	**Order code**
	18mm 26mm	Air	Air	**P2V-AV500PP** **P2V-BV500PP**
	18mm 26mm	Air	Spring	**P2V-AV500PS** **P2V-BV500PS**
	18mm 26mm	Air Closed Centre	Air Self Centring	**P2V-AV600PP** **P2V-BV600PP**
	18mm 26mm	Air Vented Centre	Air Self Centring	**P2V-AV800PP** **P2V-BV800PP**
	18mm 26mm	Air Pressure Centre	Air Self Centring	**P2V-AV700PP** **P2V-BV700PP**

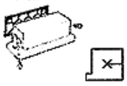
Electrically actuated 5/2 and 5/3 valves

Symbol	Size	Actuator	Return	**Order code No solenoid**	**Order code 24V DC solenoid & cable plug fitted**
	18mm 26mm	Electric	Electric	**P2V-AV500EE**** **P2V-BV500EE****	**P2V-AV500EE2CQ** **P2V-BV500EE2CQ**
	18mm 26mm	Electric	Spring	**P2V-AV500ES*** **P2V-BV500ES***	**P2V-AV500ES2CQ** **P2V-BV500ES2CQ**
	18mm 26mm	Electric Closed Centre	Electric Self Centring	**P2V-AV600EE**** **P2V-BV600EE****	**P2V-AV600EE2CQ** **P2V-BV600EE2CQ**
	18mm 26mm	Electric Vented Centre	Electric Self Centring	**P2V-AV800EE**** **P2V-BV800EE****	**P2V-AV800EE2CQ** **P2V-BV800EE2CQ**
	18mm 26mm	Electric Pressure Centre	Electric Self Centring	**P2V-AV700EE**** **P2V-BV700EE****	**P2V-AV700EE2CQ** **P2V-BV700EE2CQ**

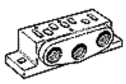
* Solenoid and cable plug
** 2 Solenoids and cable plugs

VDMA accessories

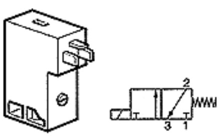
Accessories	Description	Order code 18 mm	Order code 26 mm
	**Manifold** For 2 valve positions	**P2V-AM511PB**	**P2V-BM512PB**
	**End plate** G side Side ports	**P2V-AM512GS**	**P2V-BM513GS**
	**End plate** H side Side ports	**P2V-AM512HS**	**P2V-BM513HS**
	**End plate** G side Top ports	**P2V-AM512GT**	**P2V-BM513GT**
	**End plate** H side Top ports	**P2V-AM512HT**	**P2V-BM513HT**

Accessories	Description	Order code 18 mm	Order code 26 mm
	**Blank end** plate G side	**P2V-AM500G0**	**P2V-BM500G0**
	**Blank end** plate H side	**P2V-AM500H0**	**P2V-BM500H0**
	**Plug** for sealing supply and exhaust ports between manifolds	**P2V-AK0P**	**P2V-BK0P**
	**Blanking plate**	**PS2973F**	**P2V-BA5B**

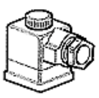
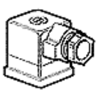
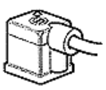
VDMA Subbases

	Description	Order code (18 mm)	Order code (26 mm)
	**Subbase** with side ports	**P2V-AS511SS**	**P2V-BS512SS**
	Subbase with bottom ports		**P2V-BS511SB**

Solenoid 15 mm NC Standard flow DIN 1.2W / 1.6VA

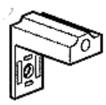
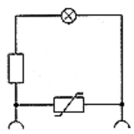
	Voltage	Order code Override flush non locking	Order code Override flush locking
	24 VDC	**P2E-KV32C1**	**P2E-KV32C2**
	48 VDC	**P2E-KV32D1**	**P2E-KV32D2**
	24 VAC 50Hz	**P2E-KV31C1**	**P2E-KV31C2**
	48 VAC 50/60Hz	**P2E-KV34D1**	**P2E-KV34D2**
	115 VAC 50Hz/ 120 VAC 60Hz	**P2E-KV31F1**	**P2E-KV31F2**
	230 VAC 50Hz/ 240 VAC 60Hz	**P2E-KV31J1**	**P2E-KV31J2**

Cable plugs 15 mm (8 mm pin spacing) IP 65

	Description	Order code
	Large headed screw for inaccessible or recess position	
	Standard to be wired universal	**P8C-C**
	To be wired LED+protection 24 VDC	**P8C-C26C**
	With standard screw	
	Standard to be wired universal	**P8C-D**
	To be wired LED+protection 24 VDC	**P8C-D26C**
	With cable and standard screw	
	Standard with 2 m cable	**P8L-C2**
	Standard with 5 m cable	**P8L-C5**
	LED+protection 24 VAC/DC, 2 m	**P8L-C226C**
	LED+protection 24 VAC/DC, 5 m	**P8L-C526C**

Suppressor and LED indicators

For mounting between the solenoid valve and the cable plug.

Symbol	Description	Voltage	Order code
 	LED Indicator	24 V AC/DC	**P8V-CR26C**
		48 V AC/DC	**P8V-CR26D**
		115 V 50 Hz 120 V 60 Hz	**P8V-CR44F**
		230 V~50 Hz 240 V~60 Hz	**P8V-CR44J**

Spare mounting screws and corresponding valves series

Description	Order code
P2V-A VDMA 24 363 18mm Flowstar	**P2E-KD027SS3**
P2V-B 1/4" Flowstar	**P2E-KP025PM3**

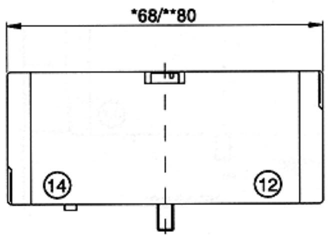
Supplied in packs of 10

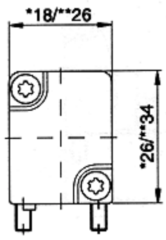
Dimensions

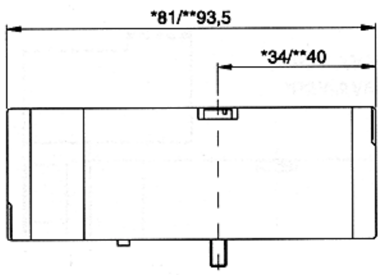
Pneumatically actuated 5/2 and 5/3 valves

***P2V-AV500PP**
***P2V-AV500PS**

****P2V-BV500PP**
****P2V-BV500PS**
****P2V-BV600PP**
****P2V-BV800PP**
****P2V-BV700PP**

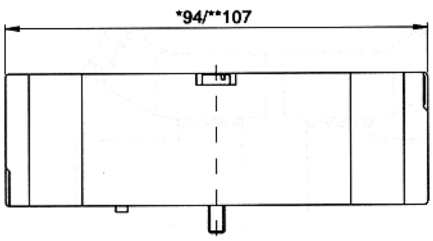






***P2V-AV500QP**
***P2V-AV500QS**

****P2V-BV500QP**
****P2V-BV500QS**

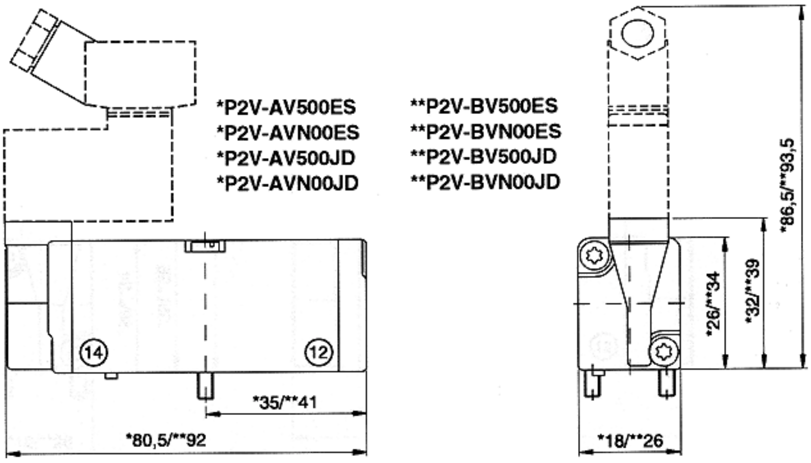


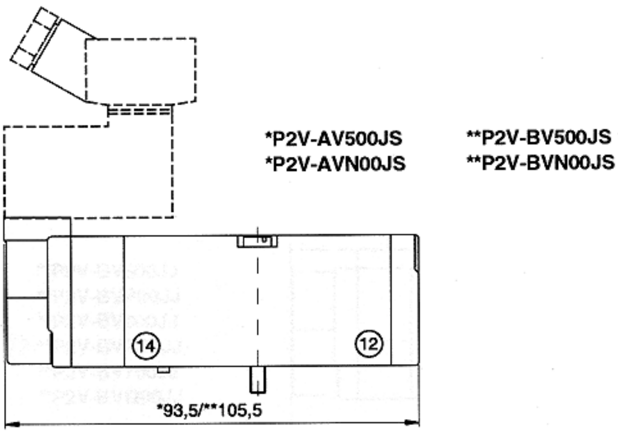
***P2V-AV600PP**
***P2V-AV800PP**
***P2V-AV700PP**

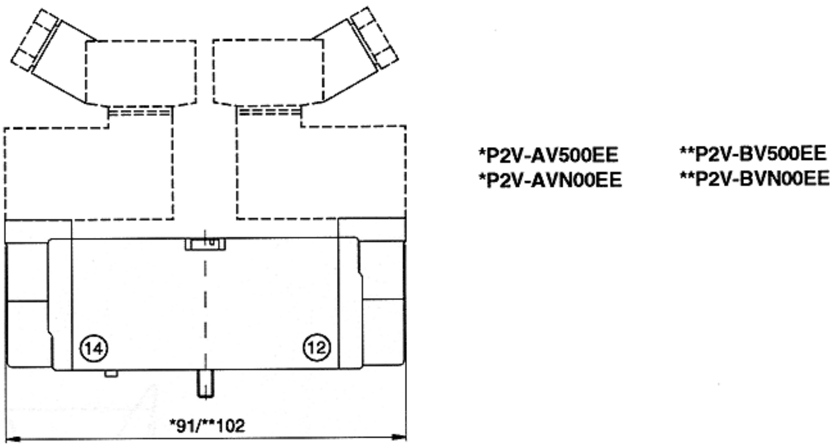
****P2V-BV600QQ**
****P2V-BV800QQ**
****P2V-BV700QQ**

Dimensions

Electrically actuated 5/2 valve

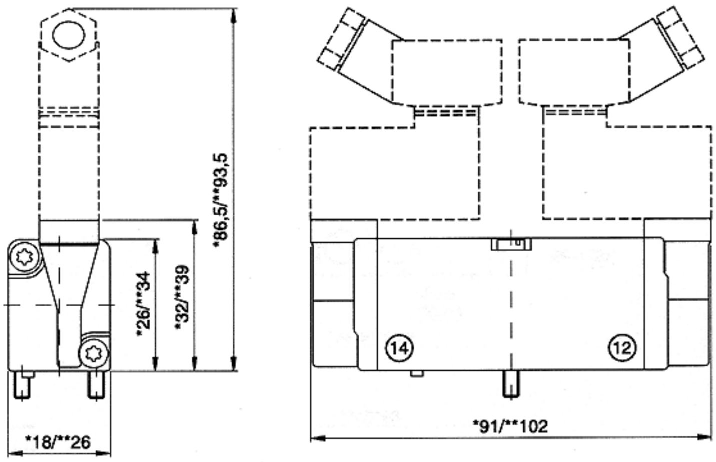






Dimensions

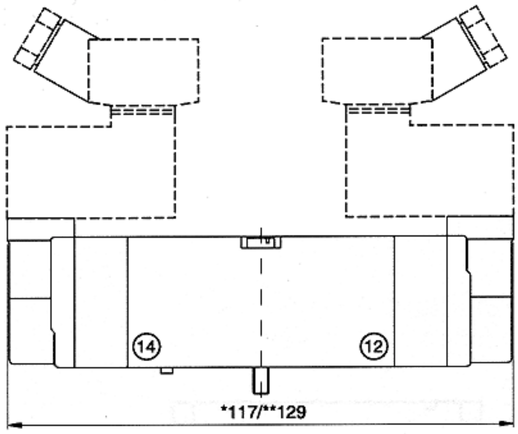
Electrically actuated 5/3 valve



**P2V-BV600EE
**P2V-BVP00EE
**P2V-BV800EE
**P2V-BVR00EE
**P2V-BV700EE
**P2V-BVQ00EE

*P2V-AV600EE
*P2V-AVP00EE
*P2V-AV800EE
*P2V-AVR00EE
*P2V-AV700EE
*P2V-AVQ00EE

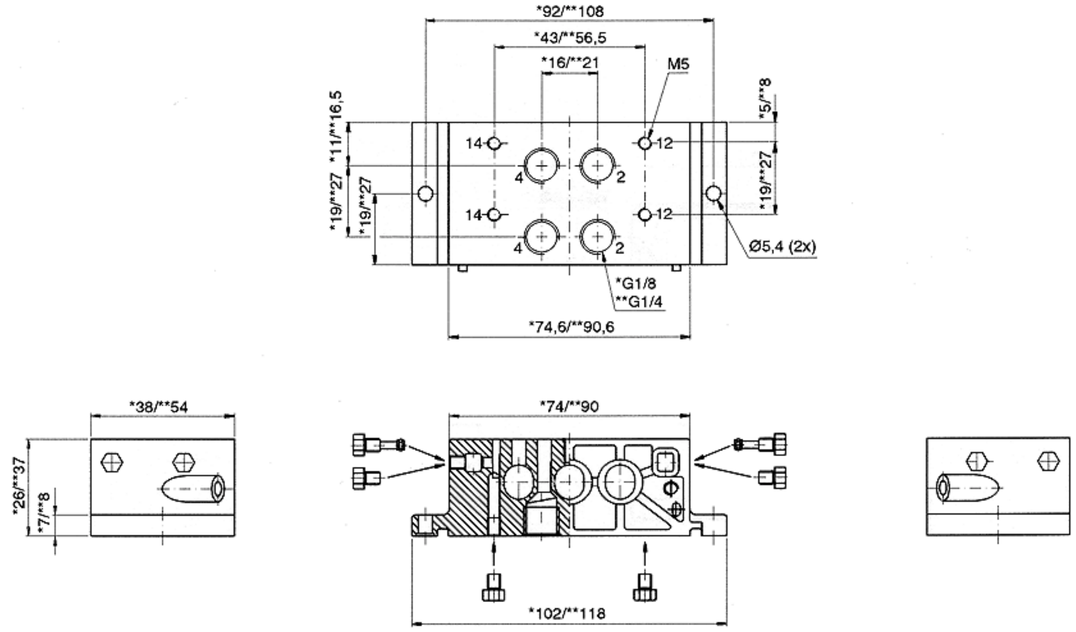
**P2V-BV600JJ
**P2V-BVP00JJ
**P2V-BV800JJ
**P2V-BVR00JJ
**P2V-BV700JJ
**P2V-BVQ00JJ



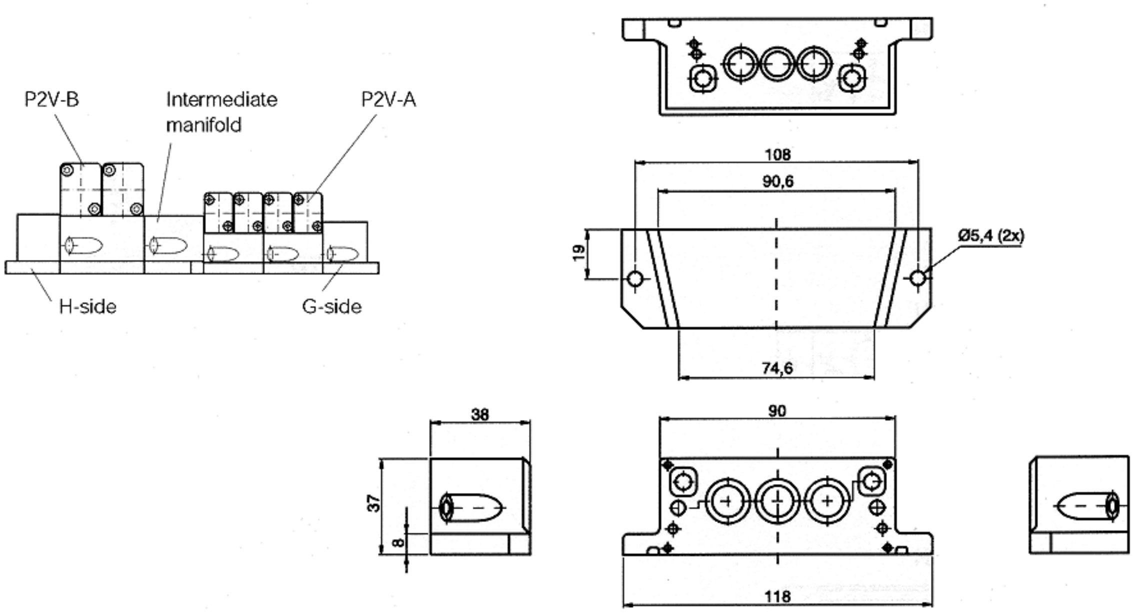
Dimensions

Multiple manifold

***P2V-AM511NB, P2V-AM511PB**
****P2V-BM512NB, P2V-BM512PB**

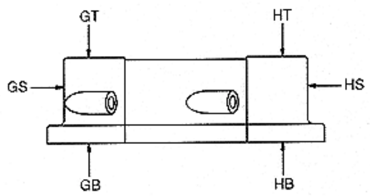


Intermediate manifold 18 to 26 mm
P2V-AM500BE

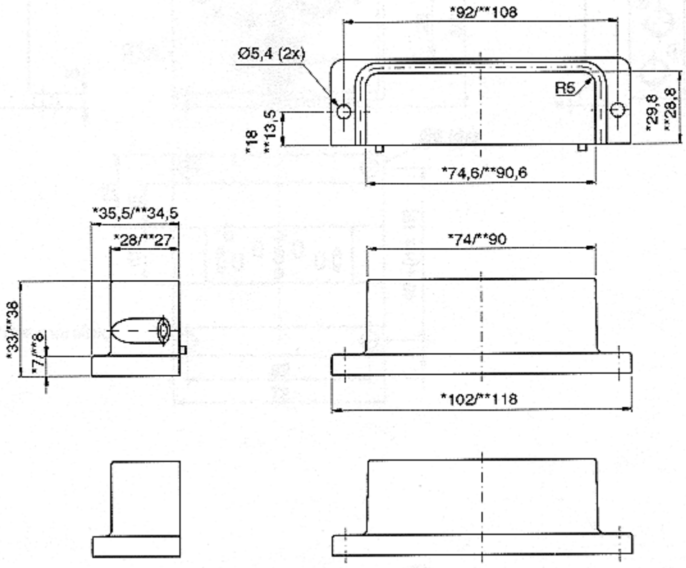


Connection blocks and end covers

The schematic diagram (right) shows how the connections are positioed on GS, GT, GB, HS, HT and HB connection blocks. Blanking end pieces G0 and H0 (below) have no connection ports.



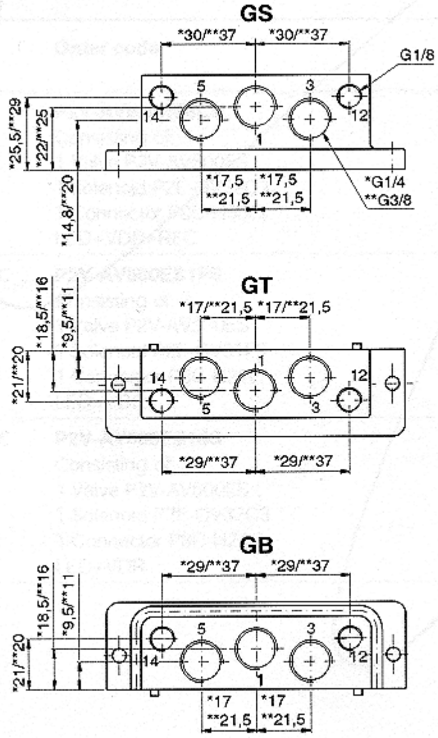
End cover
***P2V-AM512G0/H0**
****P2V-BM512G0/H0**



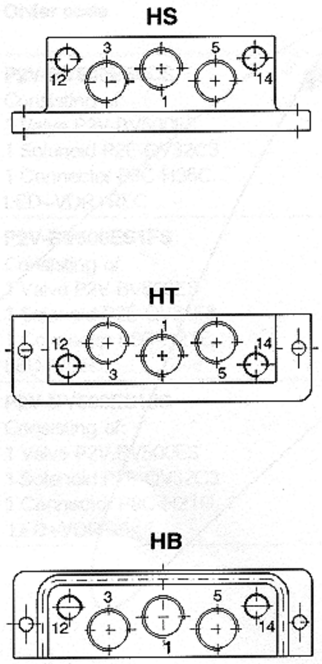
G0

H0

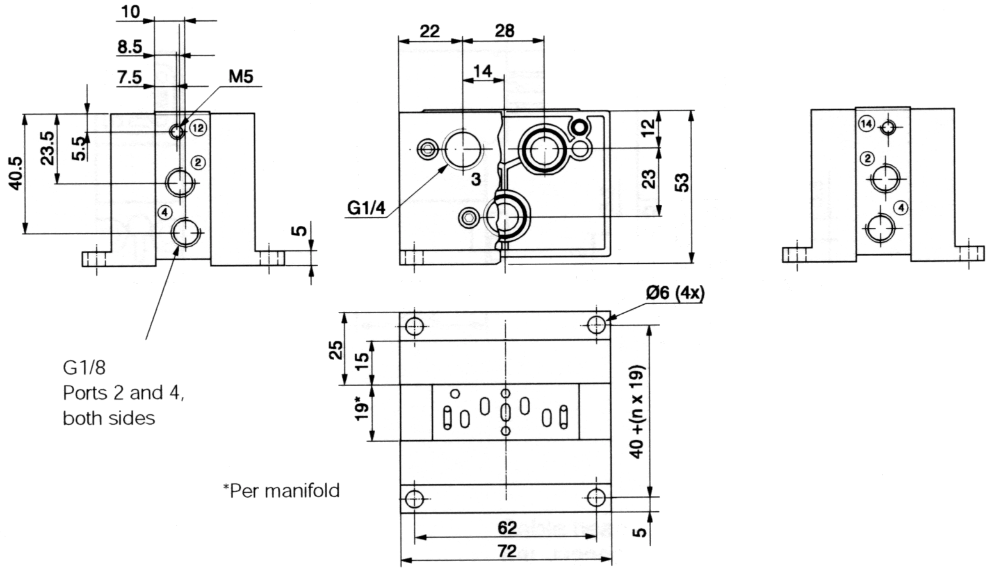
Connection block
***P2V-AM512GS/GT/GB**
****P2V-BM512GS/GT/GB**



***P2V-AM512HS/HT/HB**
****P2V-BM512HS/HT/HB**

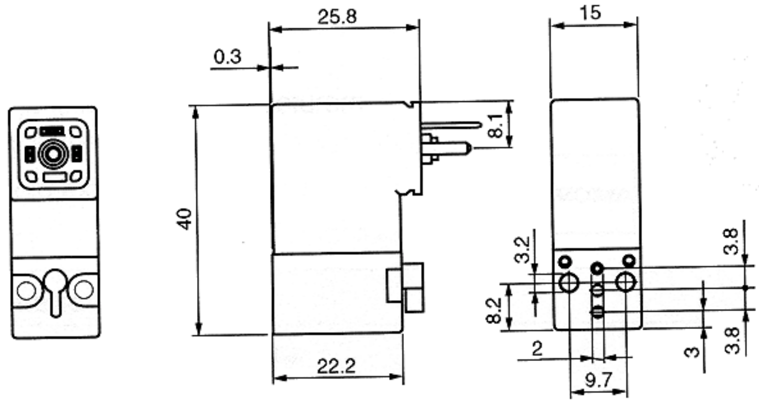


Dimensions
Multiple manifolds with side connection

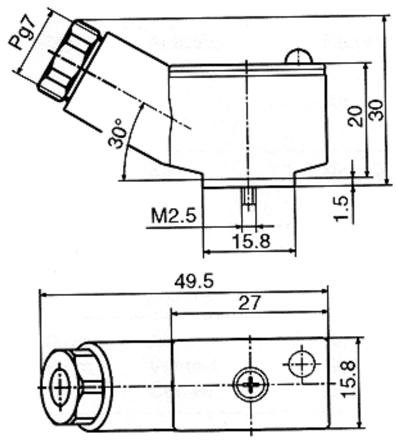


Dimensions

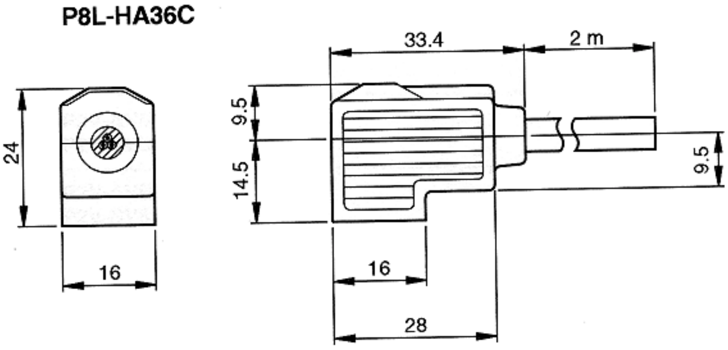
Solenoid valves P2E-•V...



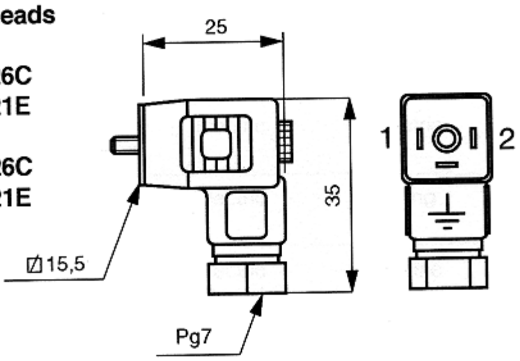
Cable heads
P8C-H
P8C-H36C
P8C-H26C
P8C-H21E
P8C-H21G



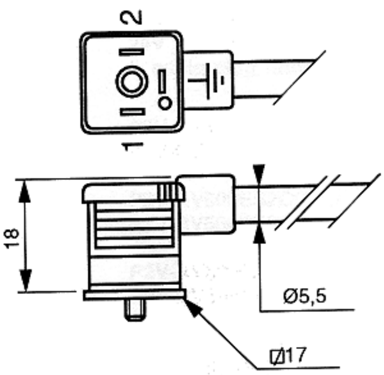
Cable heads
P8L-H236C
P8L-HA36C



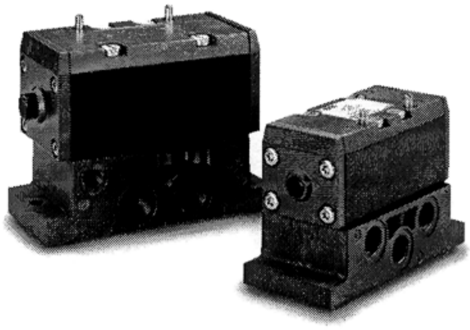
Cable heads
P8C-C
P8C-C26C
P8C-C21E
P8C-D
P8C-D26C
P8C-D21E



Cable heads
P8C-C2
P8C-C5
P8C-C226C
P8C-C526C
P8C-CA26C
P8C-C221E
P8C-C521E



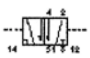
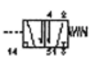
- High flow and fast switching
- Compact light weight design with high corrosion resistance
- Integral adjustable exhaust flow controls
- Manual override of the spool (5/2 versions)
- Wide range of subbases (Low profile and VDMA)



Operating information

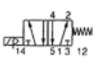
Working pressure max	10 bar		**VG25**	**VG35**	**VG45**
Working temperature, Electrically actuated Pneumatically actuated	 -10 to +55 °C -20 to +70 °C	Flow:	1764 l/min	3480 l/min	6510 l/min

Pneumatically actuated 5/2 and 5/3 valves

Symbol	ISO	Actuator	Return	**Order code**
	1 2 3	Air	Air	**VG25-AA** **VG35-AA** **VG45-AA**
	1 2 3	Air	Spring	**VG25-AS** **VG35-AS** **VG45-AS**

Symbol	ISO	Actuator	Return	**Order code**
	1 2 3	Air closed centre	Air self centring	**VG25-AC** **VG35-AC** **VG45-AC**
	1 2 3	Air vented centre	Air self centring	**VG25-XAC** **VG35-XAC** **VG45-XAC**

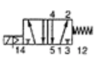
Electrically actuated 5/2 and 5/3 valves - miniature solenoid version

Symbol	ISO	Actuator	Return	**Order code**
	1 2 3	Electric	Electric	**VG25-ERER**** **VG35-ERER**** **VG45-ERER****
	1 2 3	Electric	Spring	**VG25-ERS*** **VG35-ERS*** **VG45-ERS***

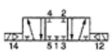
Internal air supply to solenoid valve via port 1, for miniature solenoid VE03

Symbol	ISO	Actuator	Return	**Order code**
	1 2 3	Electric closed centre	Electric self centring	**VG25-ERC**** **VG35-ERC**** **VG45-ERC****
	1 2 3	Electric vented centre	Electric self centring	**VG25-XERC**** **VG35-XERC**** **VG45-XERC****

Electrically actuated 5/2 and 5/3 valves - CNOMO solenoid version

Symbol	ISO	Actuator	Return	**Order code**
	1 2 3	Electric	Electric	**VG25-AERER**** **VG35-AERER**** **VG45-AERER****
	1 2 3	Electric	Spring	**VG25-AERS*** **VG35-AERS*** **VG45-AERS***

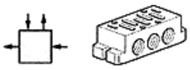
Internal air supply to solenoid valve via port 1, for CNOMO solenoid VG13

Symbol	ISO	Actuator	Return	**Order code**
	1 2 3	Electric closed centre	Electric self centring	**VG25-AERC**** **VG35-AERC**** **VG45-AERC****
	1 2 3	Electric vented centre	Electric self centring	**VG25-AXERC**** **VG35-AXERC**** **VG45-AXERC****

* Solenoid and cable plug
** 2 Solenoids and cable plugs

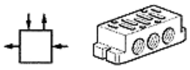
Subbases

Single subbase, ISO size 1



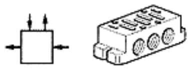
Port size	Order code
G1/4	**P2N-GS512SD**

Single subbase, ISO size 2



Port size	Order code
G3/8	**P2N-HS513SB**

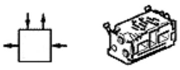
Single subbase, ISO size 3



Port size	Order code
G3/4	**P2N-JS516SD**

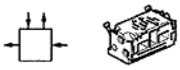
Manifolds

Manifolds, ISO size 1



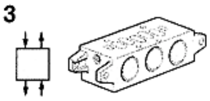
Port size	Order code
G1/4	**P2N-EM512MD**

Manifolds, ISO size 2



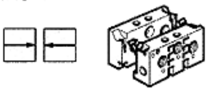
Port size	Order code
G3/8	**P2N-FM513MD**

Manifolds, ISO size 3



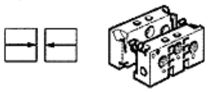
Port size	Order code
G1/2	**P2N-YM514MB**

End plate kit, ISO size 1



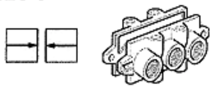
Port size	Order code
G3/8	**P2N-EM513ES**

End plate kit, ISO size 2



Port size	Order code
G1/2	**P2N-FM514ES**

End plate kit, ISO size 3



Port size	Order code
G1/2	**P2N-YM518ES**

Blanking plate, ISO size 1

Order code
P2N-AA5B

Blanking plate, ISO size 2

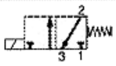
Order code
P2N-BA5B

Blanking plate, ISO size 3

Order code
P2N-CA5B

Solenoids

Miniature solenoids

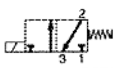


Voltage	Order code
24VDC, 2 watt	**VE03-ESP002C2**
24VDC, 4 watt	**VE03-ESC012C2**
24V, 50/60Hz	**VE03-ESC014C2**
110V, 50/60Hz	**VE03-ESC014E2**
220V, 50/60Hz	**VE03-ESC014H2**
240V, 50/60Hz	**VE03-ESC014K2**

Cable plug, suitable for VE03

Description	Order code
24V DC, LED+Diode	**9125998003**
24V AC/DC, LED+VDR	**9125998005**
110V AC/DC, LED+VDR	**9125998007**
240V AC/DC, LED+VDR	**9125998009**
Black	**9141152500**

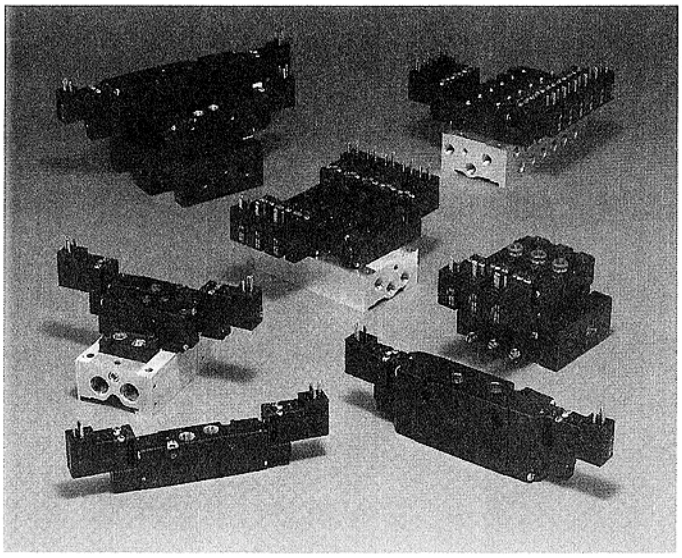
CNOMO solenoids



Voltage	Order code
24VDC (48V 50Hz)	**P2G-PV32C1**
24V/50Hz/60Hz (11VDC)	**P2G-PV34C1**
110V/50Hz/60Hz (50VDC)	**P2G-PV34E1**
230V/50Hz/60Hz (120VDC)	**P2G-PV34J1**
12V/50Hz/60Hz (6VDC)	**P2G-PV34B1**

Cable plug, suitable for VG13

Description	Order code
24V, LED+Diode	**9125998004**
24V AC/DC, LED+VDR	**9125998006**
110V AC/DC, LED+VDR	**9125998008**
240V AC/DC, LED+VDR	**9125998010**
Black	**9125998011**



- 4-way, 2&3-position, double 3/2
- M5 thru 3/8" ports
- Inline, subbase & manifold mounted
- Solenoid or air pilot operated

The B Series family of compact, high-performance valves utilizes Parker's ***WCS*** (Wear Compensation System) to provide wear compensated sealing for non-lube service through millions of cycles. Unique manifold systems combine inline valves into flexible, low-cost packages. You can even mount a variety of sizes as well as functions on one manifold. With a wide choice of functions, voltages and options, these solenoid and remote pilot operated valves are ideal for packaging, assembly and factory floor automation applications.

Operating Information

Pressure Range .... 20 to 145 PSIG (138 to 1000 kPa)
Temperature Range .... 5°F to 120°F (-15°C to 49°C)
Nominal Cv .... B2 = 0.15, B3 = 0.75, B5 = 1.4, B6 = 2.7

Ordering Information

4-Way, 2 & 3-Position Valves

Basic Series	Operator/ Function	Port Size/ Thread Type	Pilot Source/ Exhaust	Overrides/ Lights	Enclosures/ Lead Length	Voltage	Options	Engineering Level
B3	1	0	B	B	5	53	–	C

Basic Series	
B2	B2 Series
B3	B3 Series
B5	B5 Series
B6	B6 Series

Operator / Function	
1	Single Solenoid, 2-Position - Air Return
2	Double Solenoid, 2-Position
3	Single Remote Pilot, 2-Position - Air Return
4	Double Remote Pilot, 2-Position
5	Double Solenoid, 3-Pos, APB
8	Double Remote Pilot, 3-Position, APB
E	Single Solenoid, 2-Position, Air Return/Spring Assist
F	Single Remote Pilot, 2-Pos., Air Return/Spring Assist

Port Size / Thread Type		
B2	C*	M5 Inline
	V	Subbase Valve Less Base
B3	0*	1/8" NPT Inline
	V**	Subbase Valve Less Base
B5	1*	1/4" NPT Inline
	2*	3/8" NPT Inline
B6	2*	3/8" NPT Inline

* Available for use on IEM Manifolds.
** Available for use on Subbase Manifolds.

Pilot Source / Pilot Exhaust	
0	None - Remote Pilot Valve
B	Internal - Port #1 / Vented

Overrides / Lights	
0	None - Remote Pilot
B	Flush - Non-Locking
C	Flush - Locking

Enclosures / Lead Length	
0	None - Remote Pilot Valve
5	15mm 3-Pin DIN 43650C (Male Only)

Voltage	AC 60Hz	AC 50Hz	DC
49			24
53	120	110	
XX	Remote Pilot		

Options	
Blank	None

3-Way Valves

Basic Series	Operator/ Function	Port Size/ Thread Type	Pilot Source/ Exhaust	Overrides/ Lights	Enclosures/ Lead Length	Voltage	Options	Engineering Level
B3	V	C	B	C	5	53	–	C

Basic Series

B2	B2 Series
B3	B3 Series
B5	B5 Series
B6	B6 Series

Operator / Function

3-Way

G*	Single Solenoid, 2-Position NC - Air Return
H*	Single Solenoid, 2-Position NO - Air Return
K*	Single Remote Pilot, 2-Position NC - Air Return
L*	Single Remote Pilot, 2-Position NO - Air Return

* Not available with B2 Valves, see catalog for other options.

Port Size / Thread Type

B2	C*	M5 Inline
B3	0*	1/8" NPT Inline
B5	1*	1/4" NPT Inline
	2*	3/8" NPT Inline
B6	2*	3/8" NPT Inline

*Available for use on IEM Manifolds.

Pilot Source / Pilot Exhaust

0	None - Remote Pilot Valve
B	Internal - Port #1 / Vented

Overrides / Lights

0	None - Remote Pilot
B	Flush - Non-Locking
C	Flush - Locking

Enclosures / Lead Length

0	None - Remote Pilot
5	15mm 3-Pin DIN 43650C (Male Only)

Voltage

	AC 60Hz	AC 50Hz	DC
49			24
53	120	110	
XX	Remote Pilot		

Options

Blank	None

Female Electrical Connectors

For use with Enclosure Style 5

15mm 3-Pin DIN 43650C Quick Connect	
Connector	**Description**
PS298305P	18 inch Cord (1/2 Meter)
PS298320P	72 inch Cord (2 Meter)

15mm 3-Pin DIN 43650C	
Connector	**Description**
PS2932P	Unlighted
PS294675P	Light – 12VAC or DC
PS294679P	Light – 24VAC or DC
PS294683P	Light – 110/120VAC
PS294687P	Light – 240/230 VAC

Aluminum Bar Manifolds

IEM Bar Manifold Kits (Used with Inline Valves)			
Series	**Type**	**Kit Number**	**Blank Plate**
B2	3-Way/4-Way	PSM2BXN##NP	PS4494P
B3	3-Way	PSG3BXN##NP	PS2968P
B3	4-Way	PSM3BXN##NP	PS2969P
B5	3-Way	PSG5BXN##NP	PS2868P
B5	4-Way	PSM5BXN##NP	PS2869P
B6	3-Way	PSG6BXN##NP	PS2669P
B6	4-Way	PSM6BXN##NP	PS2669P

5-Port Subbase Bar Manifold Kits (Used with Subbase Valves)			
Series	**Type**	**Cyl. Port**	**Kit Number**
B2	3&4-Way	1/8" NPT	PSJ2A1N##NP
B2	3&4-Way	1/4" Tube	PSJ2ABN##NP
B3	4-Way	1/8" NPT	PSJ3B1N##NP
B3	4-Way	1/4" Tube	PSJ3BBN##NP

Specify 02 - 12 stations (even numbers only)

Add-A-Fold Assemblies

1. List Add-A-Fold Assembly call out (AA + the part number of the aluminum bar manifold). This automatically includes the aluminum bar manifold and assembly.
2. List complete valve model number, listing left to right, LOOKING AT THE #12 END of the manifold.
   If a blank station is needed, list the blanking plate part number at the desired station.

Aluminum Bar Manifold

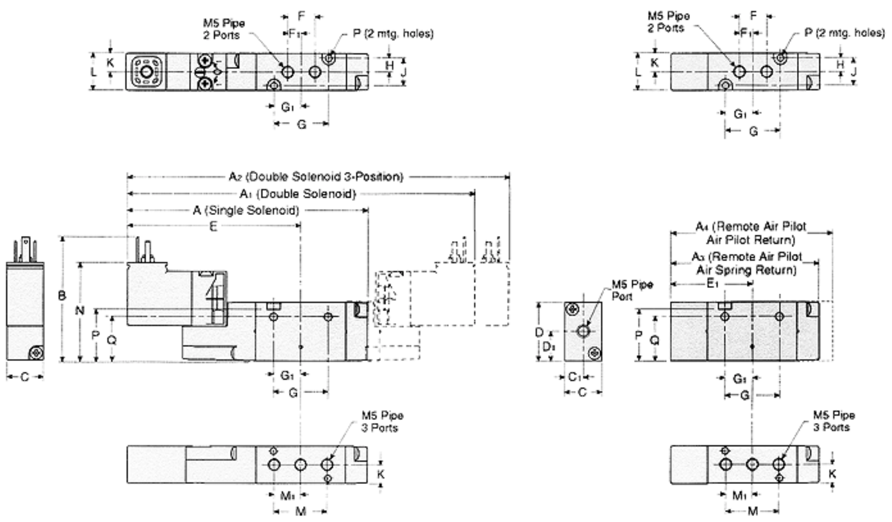
AA PSG 3 BXN03NP

XX	Number of stations
N	NPT
G	BSPP "G"
A	Internal Pilot Manifold (PSJ2 only)
B	External Pilot Manifold (N/A PSJ2)
2	B2 Series
3	B3 Series Valves
5	B5 Series Valves
6	B6 Series Valves
PSJ*	Subbase End Ported
PSG**	IEM 3-Way
PSM	IEM 4-Way
AA	Add-A-Fold Assembly

B2

Single & Double Operators 4-Way

Solenoid **Remote Pilot**



B2 4-Way Inline

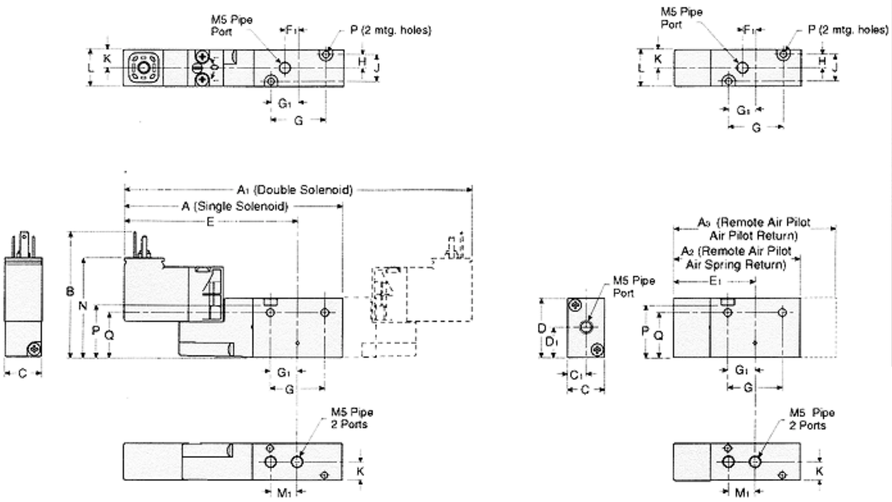
A	A_1	A_2	A_3	A_4
3.74 (95)	5.43 (138)	6.06 (154)	2.32 (59)	2.56 (65)
B	C	C_1	D	D_1
2.00 (51)	.59 (15)	.30 (8)	.94 (24)	.47 (12)
E	E_1	F	F_1	G
2.72 (69)	1.30 (33)	.43 (11)	.22 (5)	.87 (22)
G_1	H	J	K	L
.43 (11)	.22 (6)	.43 (11)	.30 (8)	.59 (15)
M	M_1	N	P	Q
.84 (21)	.43 (11)	1.59 (40)	Ø .83 Ø (21)	.71 (18)

Inches (mm)

B2

Single & Double Operators 3-Way

Solenoid **Remote Pilot**

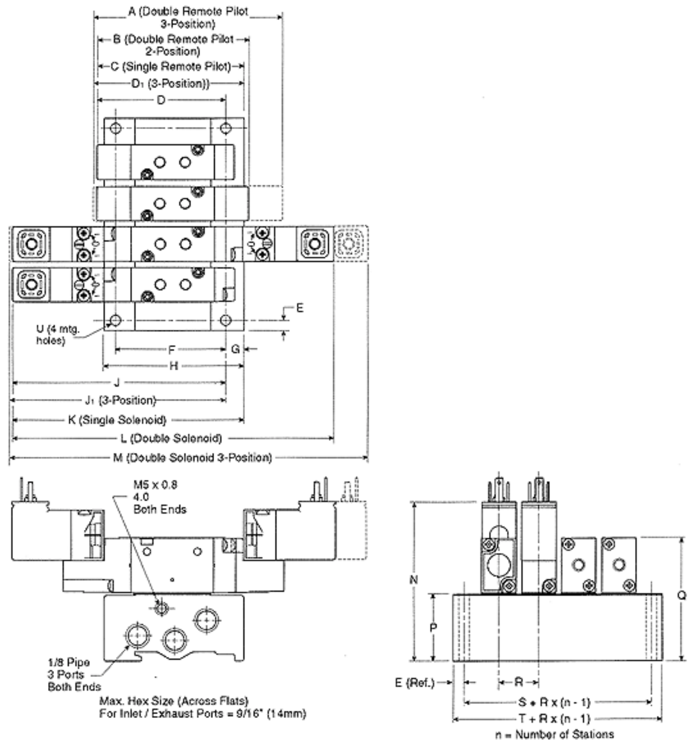


B2 3-Way Inline

A	A_1	A_2	A_3	B
3.39 (86)	5.43 (138)	1.97 (50)	2.56 (65)	2.00 (51)
C	C_1	D	D_1	E
.59 (15)	.30 (8)	.94 (24)	.47 (12)	2.72 (69)
E_1	F_1	G	G_1	H
1.30 (33)	.22 (5)	.87 (22)	.43 (11)	.22 (6)
J	K	L	M_1	N
.43 (11)	.30 (8)	.59 (15)	.43 (11)	1.59 (40)
P	Q			
Ø .83 Ø (21)	.71 (18)			

Inches (mm)

B2 Single & Double Operators – IEM Aluminum Bar Manifold *



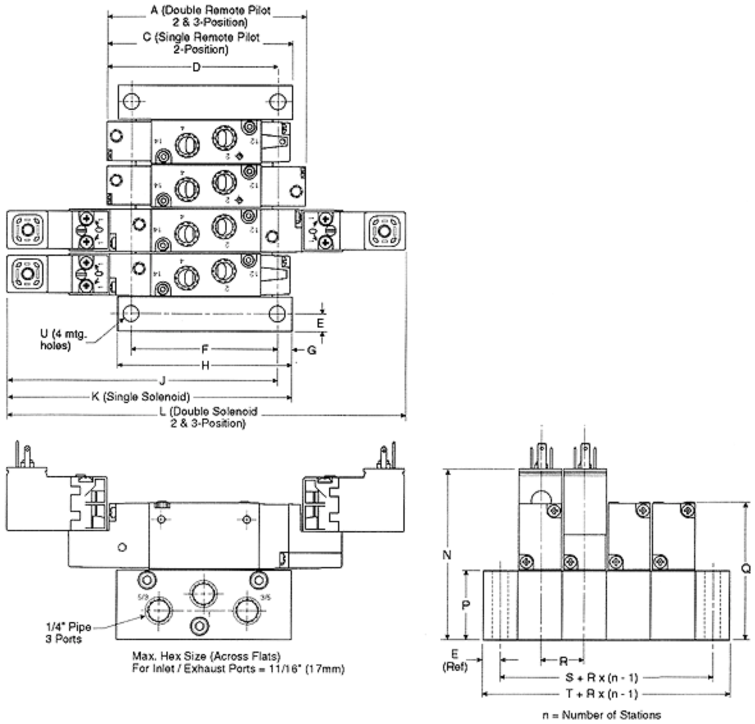
B2 IEM Aluminum Bar Manifold

A	B	C	D	D_1
3.15 (80,0)	2.51 (63,9)	2.48 (62,9)	2.16 (54,9)	2.23 (56,5)
E	**F**	**G**	**H**	**J**
.18 (4,5)	1.89 (48,0)	.32 (8,0)	2.40 (61,0)	3.63 (92,2)
J_1	**K**	**L**	**M**	**N**
3.69 (93,8)	3.94 (100,2)	5.45 (138,4)	6.09 (154,6)	2.74 (69,6)
P	**Q**	**R**	**S**	**T**
1.15 (29,3)	2.12 (53,8)	.69 (17,5)	1.18 (30,0)	1.54 (39,0)
U				
Ø .18 Ø (4,5)				

Inches (mm)

* Use with 3-Way & 4-Way valves. Dimensions are the same.

B3 Single & Double Operators – 4-Way IEM Stackable

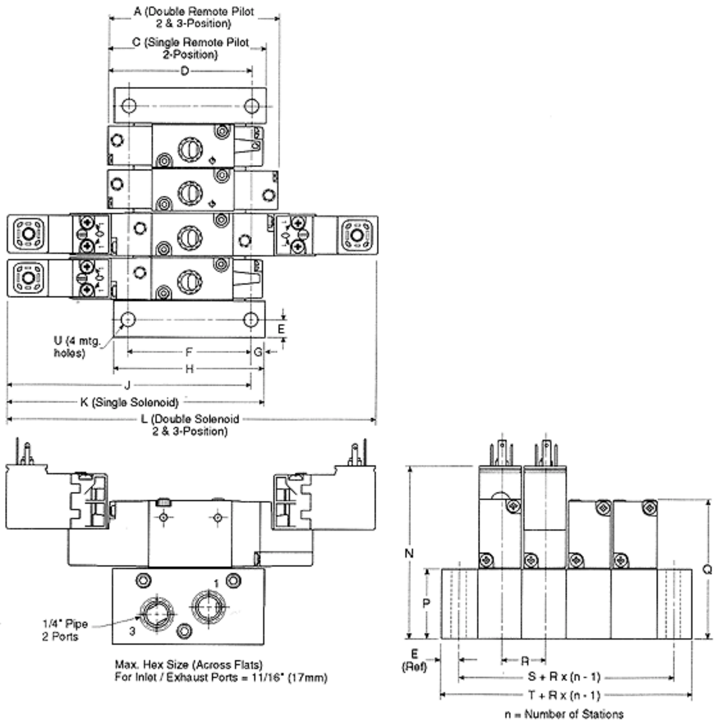


B3 4-Way IEM Stackables

A	C	D	E	F
3.29 (83,6)	3.10 (78,7)	2.89 (73,4)	.30 (7,6)	2.49 (63,3)
G	**H**	**J**	**K**	**L**
.25 (6,4)	3.00 (76,2)	4.46 (113,3)	4.67 (118,6)	6.43 (163,3)
N	**P**	**Q**	**R**	
2.91 (73,9)	1.25 (31,8)	2.38 (60,5)	.74 ±.01 (18,8) ± .3	
S	**T**	**U**		
1.34 (34,0)	1.94 (49,3)	Ø .28 Ø (7,1)		

Inches (mm)

B3 Single & Double Operators – 3-Way IEM Stackable

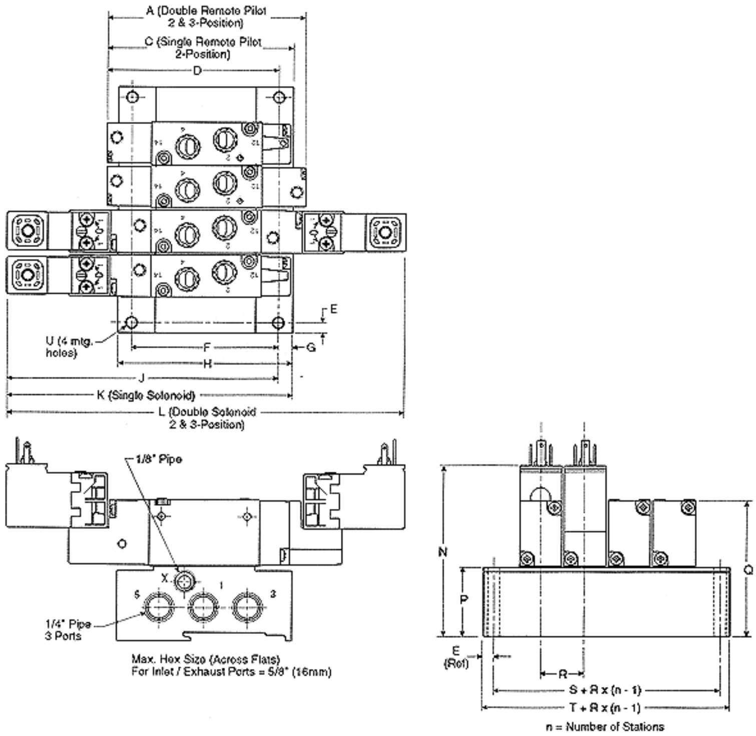


B3 3-Way IEM Stackable

A	C	D	E	F
2.82 (71,6)	2.63 (66,8)	2.43 (61,8)	.30 (7,6)	2.05 (52,0)
G	**H**	**J**	**K**	**L**
.24 (6,0)	2.52 (64,0)	4.00 (101,7)	4.20 (106,7)	5.96 (151,4)
N	**P**	**Q**	**R**	
2.91 (73,9)	1.25 (31,8)	2.38 (60,5)	.74 ±.01 (18,8) ± .3	
S	**T**	**U**		
1.34 (34,0)	1.94 (49,3)	Ø .28 Ø (7,1)		

Inches (mm)

B3 Single & Double Operators – 4-Way IEM Aluminum Bar

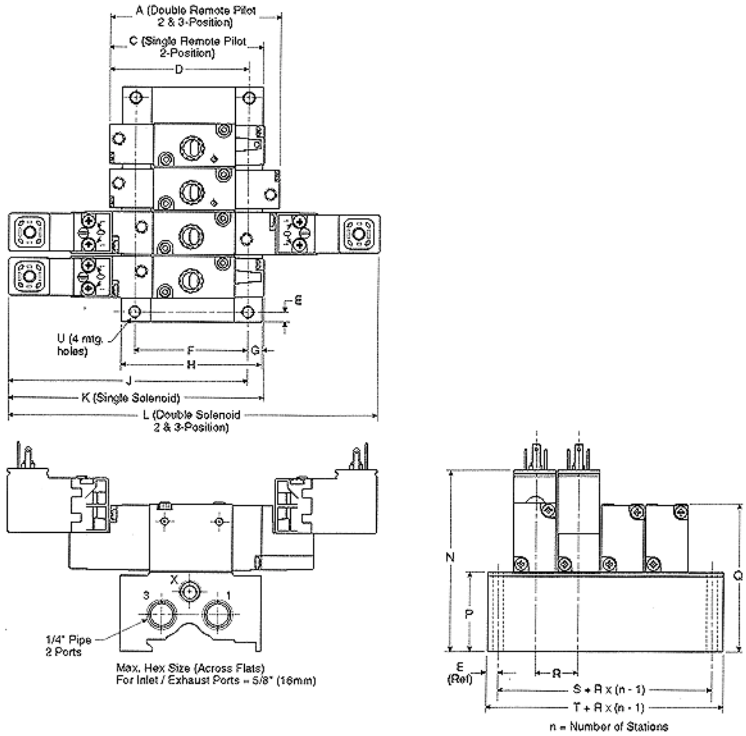


B3 4-Way IEM Aluminum Bar Manifold

A	C	D	E	F
3.29 (83,6)	3.15 (80,0)	2.92 (74,1)	.25 (6,4)	2.54 (64,5)
G	**H**	**J**	**K**	**L**
.23 (5,9)	3.00 (76,2)	4.50 (114,2)	4.73 (120,1)	6.43 (163,3)
N	**P**	**Q**	**R**	**S**
2.94 (74,7)	1.28 (32,5)	2.41 (61,2)	.81 (20,5)	1.13 (28,8)
T	**U**			
1.64 (41,6)	Ø .23 Ø (5,8)			

Inches (mm)

B3 Single & Double Operators – 3-Way IEM Aluminum Bar



B3 3-Way IEM Aluminum Bar Manifold

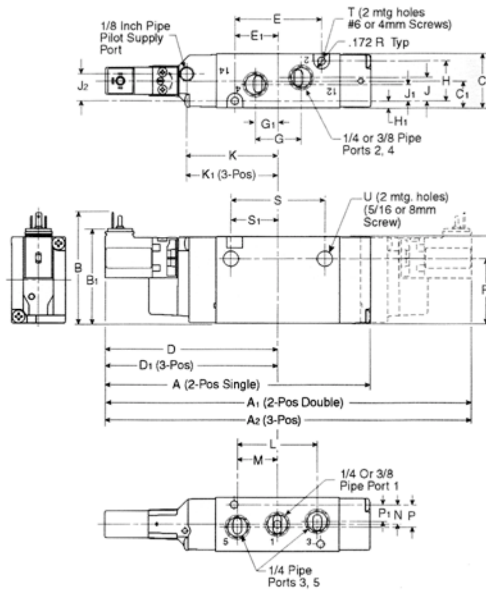
A	C	D	E	F
2.82 (71,6)	2.63 (66,8)	2.31 (58,7)	.25 (6,4)	1.80 (45,7)
G	**H**	**J**	**K**	**L**
.23 (5,9)	2.25 (57,2)	3.88 (98,6)	4.20 (106,7)	5.96 (151,4)
N	**P**	**Q**	**R**	**S**
2.93 (74,5)	1.27 (32,4)	2.40 (61,1)	.81 (20,5)	1.13 (28,8)
T	**U**			
1.64 (41,6)	Ø .23 Ø (5,8)			

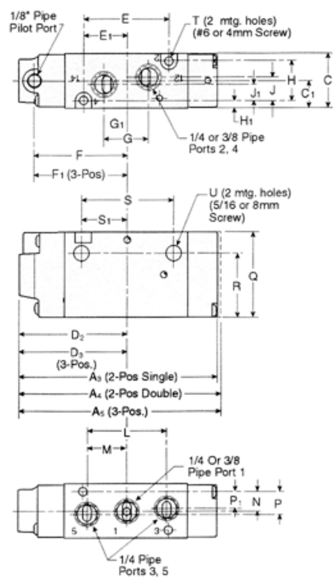
Inches (mm)

B5 Single & Double Operators – 4-Way Inline

Solenoid

Remote Pilot





B5 4-Way Inline

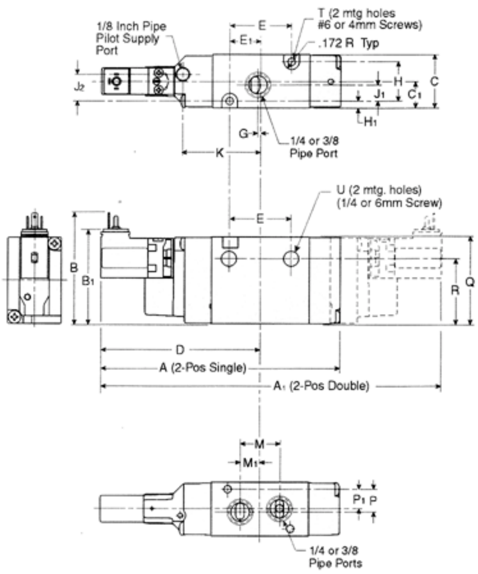
A	**A_1**	**A_2**	**A_3**	**A_4**
5.78 (147)	7.51 (191)	8.45 (215)	4.37 (110)	4.70 (119)
A_5	**B**	**B_1**	**C**	**C_1**
5.64 (143)	2.41 (61)	2.06 (52)	1.18 (30)	.59 (15)
D	**D_1**	**D_2**	**D_3**	**E**
3.76 (96)	4.23 (107)	2.35 (60)	2.82 (72)	1.89 (48)
E_1	**F**	**F_1**	**G**	**G_1**
.95 (24)	2.01 (51)	2.47 (63)	1.00 (25)	.50 (13)
H	**H_1**	**J**	**J_1**	**J_2**
.87 (22)	.16 (4)	.51 (13)	.36 (9)	.58 (15)
K	**K_1**	**L**	**M**	**N**
2.00 (51)	2.47 (63)	1.75 (44)	.88 (22)	.43 (48)
P	**P_1**	**Q**	**R**	**S**
.50 (13)	.37 (92)	1.89 (48)	1.41 (36)	2.05 (52)
S_1	**T**	**U**		
1.03 (26)	Ø .177 Ø (4.5)	Ø .34 Ø (9)		

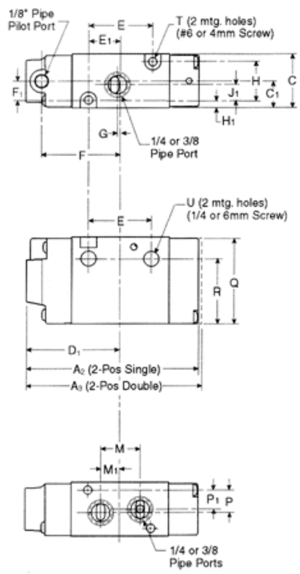
Inches (mm)

B5 Single & Double Operators – 3-Way Inline

Solenoid

Remote Pilot





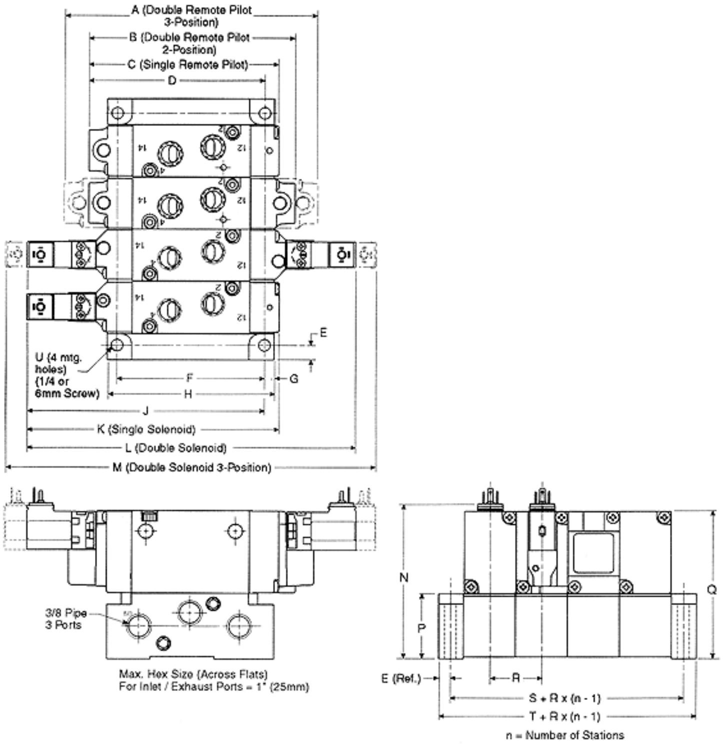
B5 3-Way Inline

A	**A_1**	**A_2**	**A_3**	**B**
5.20 (132)	6.86 (174)	3.88 (99)	4.21 (107)	2.41 (61)
B_1	**C**	**C_1**	**D**	**D_1**
2.06 (52)	1.18 (30)	.59 (15)	3.43 (87)	2.11 **(54)**
E	**E_1**	**F**	**F_1**	**G**
1.40 (36)	.70 (18)	1.77 (45)	.43 (11)	.06 (2)
H	**H_1**	**J_1**	**J_2**	**K**
87 (22)	.16 (4)	.36 (9)	.58 (15)	1.67 (42)
M	**M_1**	**P**	**P_1**	**Q**
.88 (22)	.44 (11)	.50 (13)	.37 (9)	1.89 (48)
R	**T**	**U**		
1.41 (36)	Ø .177 Ø (4.5)	Ø .26 Ø (6.6)		

Inches (mm)

B5

Single & Double Operators – 4-Way IEM Stackable

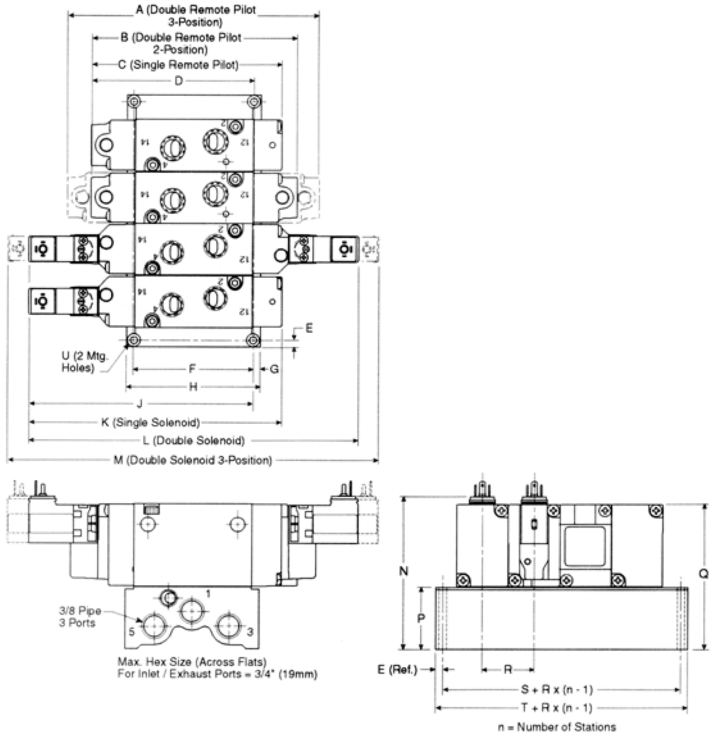


B5 4-Way IEM Stackable

A	B	C	D	E
5.64 (143,3)	4.70 (119,4)	4.37 (110,0)	4.29 (109,0)	.29 (7,4)
F	**G**	**H**	**J**	**K**
3.44 (87,4)	.24 (6,1)	3.92 (99,6)	5.48 (139,2)	5.78 (146,8)
L	**M**	**N**	**P**	**Q**
7.52 (191,0)	8.46 (214,9)	3.56 (90,4)	1.50 (38,1)	3.42 (86,9)
R		**S**	**T**	**U**
1.21 ± .01 (30,7) ± (,3)		1.79 (45,5)	2.37 (60,2)	Ø .28 Ø (7,1)

Inches (mm)

B5 Single & Double Operators – 4-Way IEM Aluminum Bar

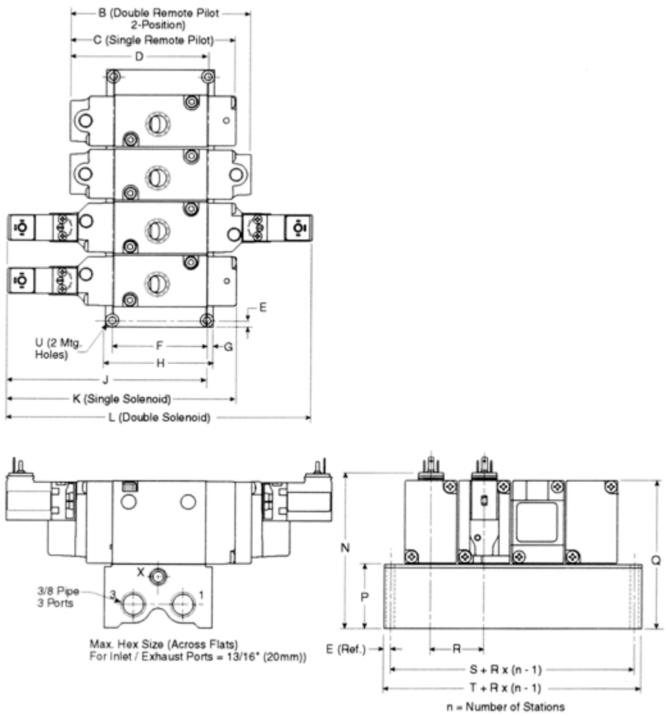


B5 4-Way IEM Aluminum Bar Manifold

A	B	C	D	E
5.64 (143,3)	4.70 (119,4)	4.37 (110,0)	3.74 (95,0)	.18 (4,6)
F	**G**	**H**	**J**	**K**
2.78 (70,6)	.17 (4,3)	3.12 (79,2)	5.15 (130,8)	5.78 (146,8)
L	**M**	**N**	**P**	**Q**
7.52 (191,0)	8.46 (214,9)	3.50 (89,0)	1.44 (36,6)	3.36 (85,3)
R	**S**	**T**	**U**	
1.26 (32,0)	1.78 (45,2)	2.14 (54,4)	Ø .22 Ø (5,5)	

Inches (mm)

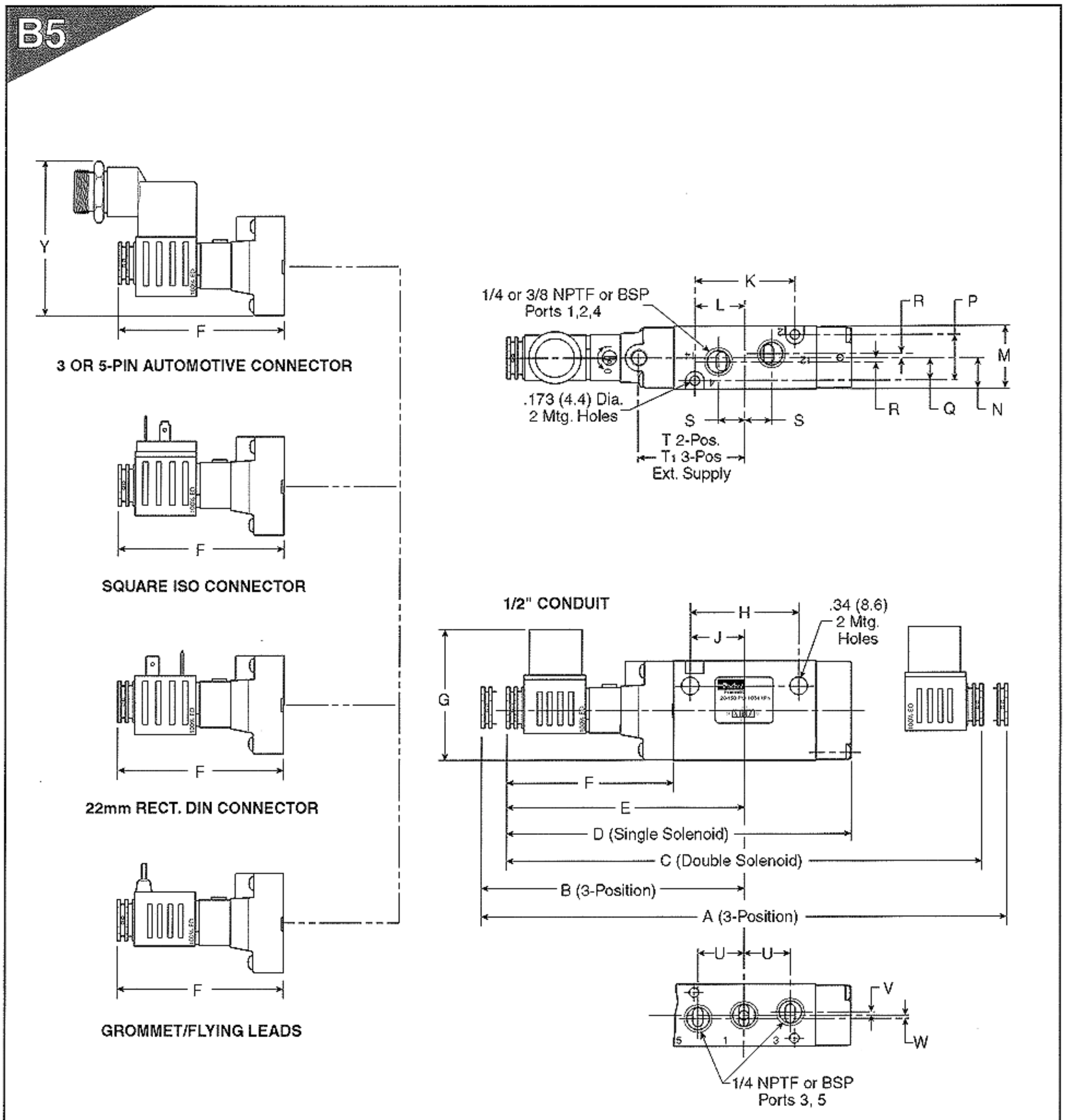
B5 Single & Double Operators – 3-Way IEM Aluminum Bar



B5 3-Way IEM Aluminum Bar Manifold

B	C	D	E	F
4.21 (106,9)	3.88 (98,6)	3.41 (86,6)	.18 (4,6)	2.12 (53,8)
G	**H**	**J**	**K**	**L**
.17 (4,3)	2.46 (62,5)	4.82 (122,4)	5.29 (134,4)	7.03 (178,6)
N	**P**	**Q**	**R**	**S**
3.50 (89,0)	1.44 (36,6)	3.36 (85,3)	1.26 (32,0)	1.76 (44,7)
T	**U**			
2.12 (53,8)	Ø .18 Ø (4,6)			

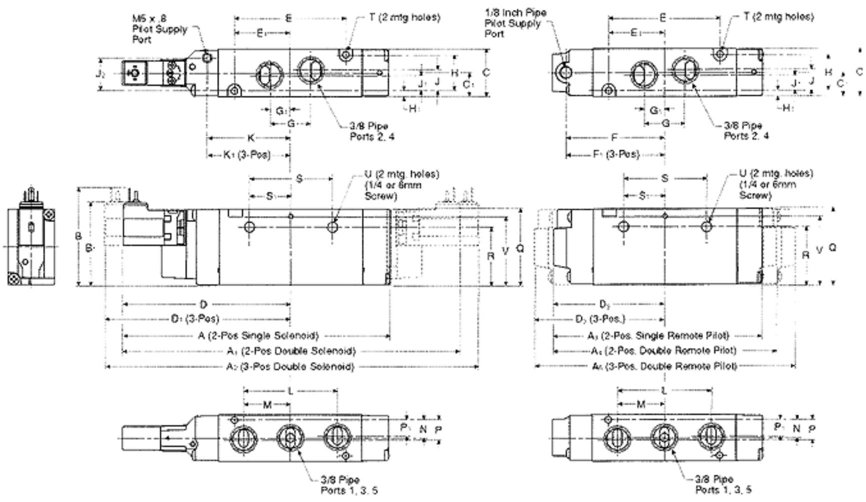
Inches (mm)



B5 Alternative – Electrical Enclosures

	A	B	C	D	E	F	G	H	J	K	L	M	N
inches	9.94	4.97	9.00	6.52	4.50	3.15	2.47	2.05	1.03	1.89	.95	1.18	.59
mm	252,5	126,2	228,6	165,6	114,3	80,0	62,8	52,1	26,2	48,0	24,1	30,0	15,0
	P	**Q**	**R**	**S**	**T**	**T_1**	**U**	**V**	**W**	**Y**			
inches	.87	.43	.08	.50	2.01	2.47	.87	.06	.07	2.90			
mm	22,1	10,9	2,0	12,7	51,0	62,7	22,1	1,5	1,8	73,6			

B6 Single & Double Operators – 4-Way Inline

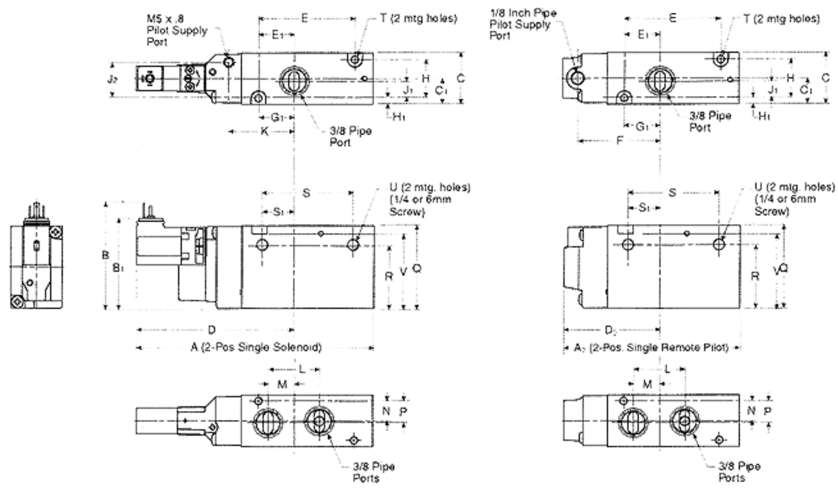


B6 4-Way Inline

A	**A_1**	**A_2**	**A_3**	**A_4**
6.67	8.41	9.35	5.26	5.59
(169,5)	(213,7)	(237,6)	(133,7)	(142,1)
A_5	**B**	**B_1**	**C**	**C_1**
6.54	2.41	2.06	1.18	.59
(166,0)	(61,3)	(52,3)	(30,0)	(15,0)
D	**D_1**	**D_2**	**D_3**	**E**
4.21	4.68	2.80	3.27	2.79
(106,8)	(118,8)	(71,0)	(83,0)	(70,8)
E_1	**F**	**F_1**	**G**	**G_1**
1.39	2.45	2.92	1.03	.51
(35,4)	(62,3)	(74,3)	(26,1)	(13,1)
H	**H_1**	**J**	**J_1**	**K**
.91	.14	.51	.39	2.09
(23,0)	(3,5)	(13,1)	(10,0)	(53,0)
K_1	**L**	**M**	**N**	**P**
2.56	2.34	1.17	.45	.49
(64,9)	(59,4)	(29,7)	(11,5)	(12,5)
P_1	**Q**	**R**	**S**	**S_1**
.41	1.89	1.45	2.09	1.04
(10,5)	(48,0)	(36,8)	(53,0)	(26,5)
T	**U**	**V**		
Ø .17	Ø .27	1.69		
Ø (4,4)	Ø (6,9)	(43,0)		

Inches (mm)

B6 Single & Double Operators – 3-Way Inline

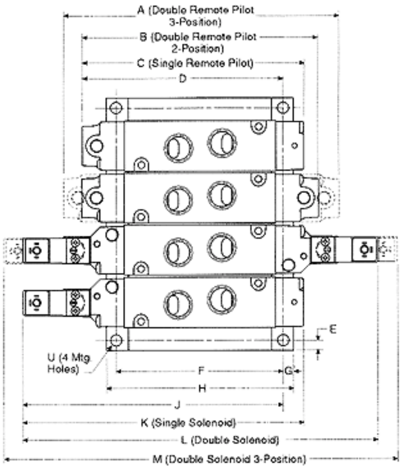


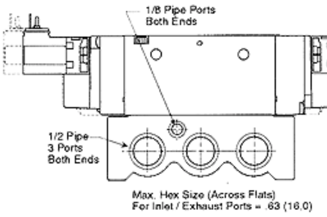
B6 3-Way Inline

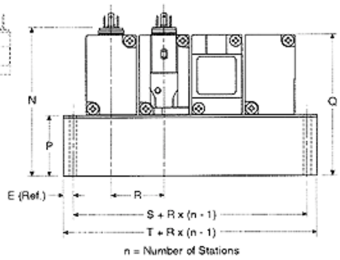
A	**A_3**	**B**	**B_1**	**C**
5.42	4.01	2.41	2.06	1.18
(137,7)	(101,9)	(61,3)	(52,3)	(30,0)
C_1	**D**	**D_2**	**E**	**E_1**
.59	3.63	2.22	2.19	0.82
(15,0)	(92,1)	(56,3)	(55,6)	(20,7)
F	**H**	**H_1**	**J_1**	**J_2**
1.87	.91	.14	.39	.81
(47,6)	(23,0)	(3,5)	(10,0)	(20,6)
K	**L**	**M**	**N**	**P**
1.51	1.17	.59	.45	.49
(38,3)	(29,7)	(15,0)	(11,5)	(12,5)
Q	**R**	**S**	**S_1**	**T**
1.89	1.45	2.09	0.76	Ø .17
(48,0)	(36,8)	(53,0)	(19,4)	Ø (4,4)
U	**V**			
Ø .27	1.69			
Ø (6,9)	(43,0)			

Inches (mm)

B6 Single & Double Operators – 4-Way IEM Aluminum Bar





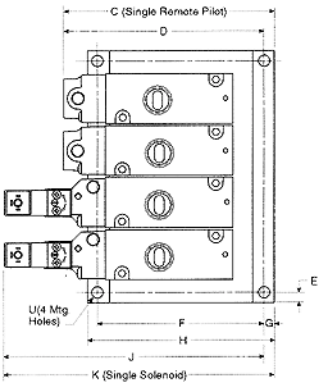


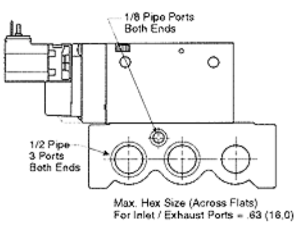
B6 4-Way IEM Aluminum Bar Manifold

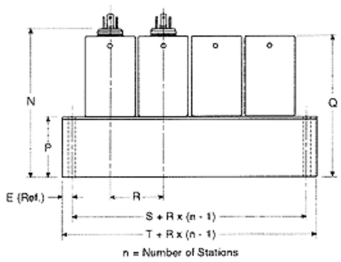
A	B	C	D	E
6.54 (166,0)	5.59 (142,1)	5.26 (133,7)	4.76 (121,0)	.24 (6,0)
F	**G**	**H**	**J**	**K**
3.94 (100,0)	.24 (6,0)	4.41 (112,0)	6.17 (156,8)	6.67 (169,5)
L	**M**	**N**	**P**	**Q**
8.41 (213,7)	9.35 (237,6)	3.60 (91,3)	1.54 (39,0)	3.43 (87,0)
R	**S**	**T**	**U**	
1.24 (31,5)	1.77 (45,0)	2.24 (57,0)	ø .26 ø (6,5)	

Inches (mm)

B6 Single & Double Operators – 3-Way IEM Aluminum Bar





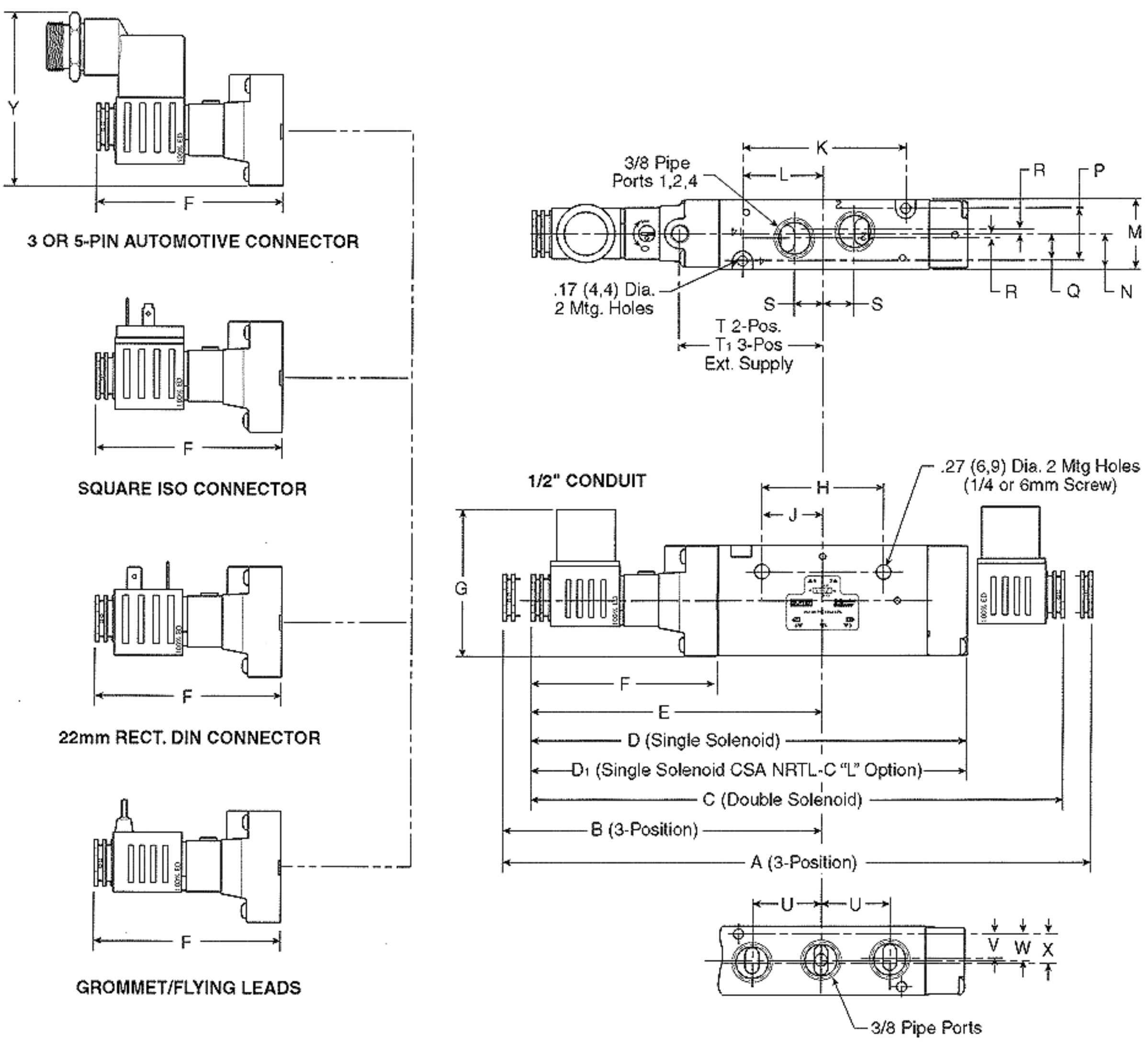


B6 3-Way IEM Aluminum Bar Manifold

C	D	E	F	G
5.00 (127.0)	4.76 (121,0)	.24 (6,0)	3.94 (100,0)	.24 (6,0)
H	**J**	**K**	**N**	**P**
4.41 (112,0)	6.17 (156,8)	6.41 (162,8)	3.60 (91,3)	1.54 (39,0)
Q	**R**	**S**	**T**	**U**
3.43 (87,0)	1.24 (31,5)	1.77 (45,0)	2.24 (57,0)	Ø .26 Ø (6,5)

Inches (mm)

B6

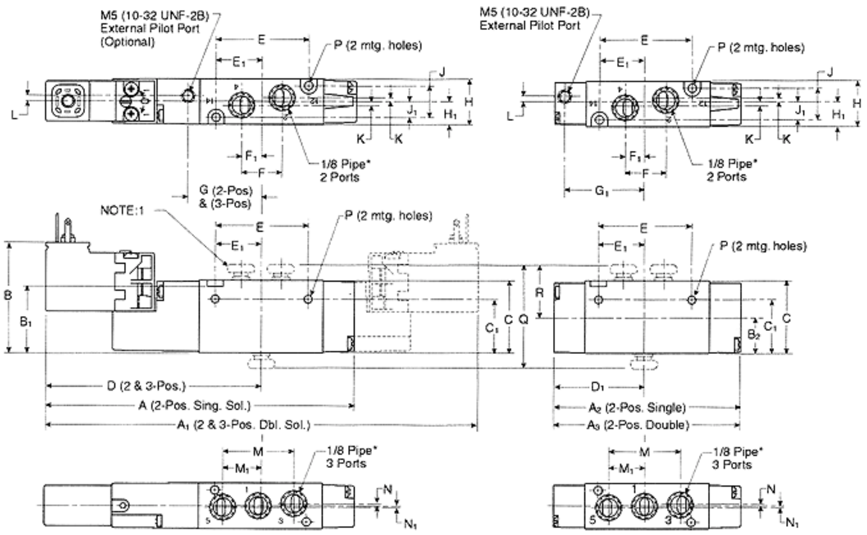


B6 Alternative – Electrical Enclosures

	A	B	C	D	D1	E	F	G	H	J	K	L	M
inches	10.84	5.41	9.89	7.41	7.74	4.94	3.15	2.47	2.09	1.04	2.79	1.39	1.18
mm	275,3	137,5	251,3	188,2	196,6	125,6	80,0	62,8	53,0	26,5	70,8	35,4	30,0
	N	P	Q	R	S	T	T1	U	V	W	X	Y	
inches	.59	.91	.45	.06	.51	2.45	2.93	.59	.41	.45	.49	2.90	
mm	15,0	23,0	11,5	1,6	13,1	62,3	29,7	15,0	10,5	11,5	12,5	76,3	

B3 Single & Double Operators – 4-Way Inline

Solenoid **Remote Pilot**



NOTE 1: Series B3 valves with integral PRESTOLOK ports must use Parker PARFLEX tubing, which has the required O.D. tolerances for use. Be sure to use the tube support (part no. 63PTU) when using the series U polyurethane tubing. All applications should be carefully tested through the range of conditions which may be encountered prior to use.

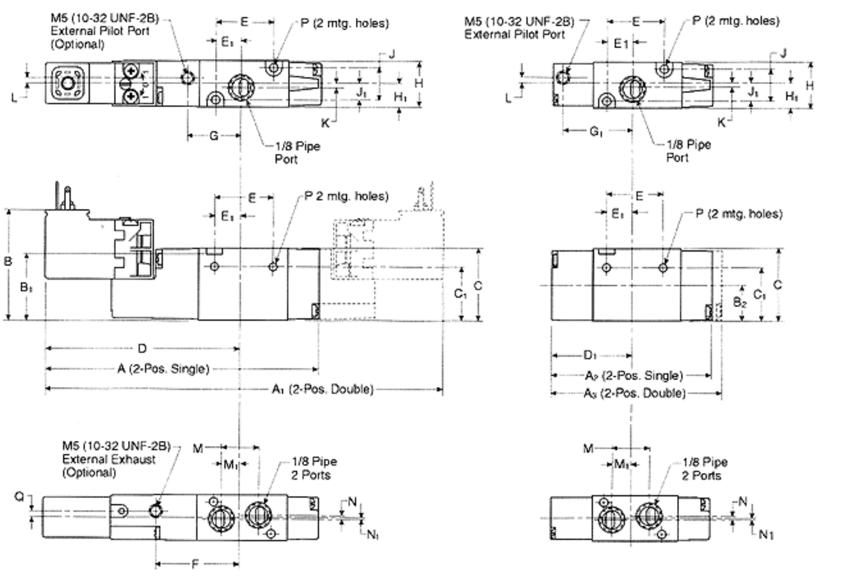
B3 4-Way Inline

A	**A_1**	**A_2**	**A_3**	**B**
4.67 (119)	6.44 (164)	3.10 (79)	3.29 (84)	1.66 (42)
B_1	**B_2**	**C**	**C_1**	**D**
1.05 (27)	.57 (14)	1.13 (29)	.84 (21)	3.22 (82)
D_1	**E**	**E_1**	**F**	**F_1**
1.64 (42)	1.47 (37)	.73 (19)	.63 (16)	.32 (8)
G	**G_1**	**H**	**H_1**	**J**
1.13 (29)	1.49 (38)	.71 (18)	.36 (9)	.51 (13)
J_1	**K**	**L**	**M**	**M_1**
.26 (7)	.06 (2)	.11 (3)	1.12 (28)	.56 (14)
N	**N_1**	**P**	**Q 5/32 Prestolok**	**Q 1/4 Prestolok**
.05 (1)	.05 (1)	Ø .128 (Ø 3.3)	1.54 (39)	1.58 (40)
Q 1/4 Prestolok	**R 1/4 Prestolok**			
.77 (20)	.79 (20)			

Inches (mm)

B3 Single & Double Operators – 3-Way Inline

Solenoid **Remote Pilot**



B3 3-Way Inline

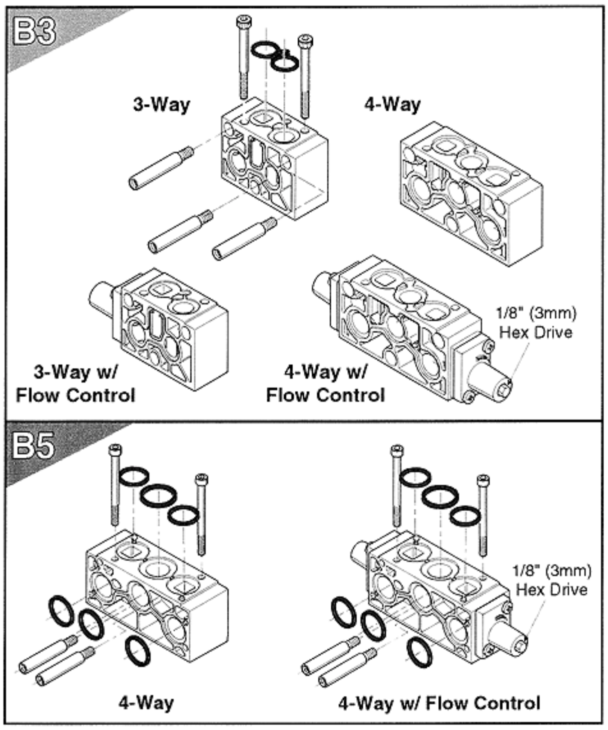
A	**A_1**	**A_2**	**A_3**	**B**
4.20 (107)	5.96 (151)	2.63 (67)	2.82 (72)	1.66 (42)
B_1	**B_2**	**C**	**C_1**	**D**
1.05 (27)	.57 (14)	1.13 (29)	.84 (21)	2.93 (74)
D_1	**E**	**E_1**	**F**	**G**
1.36 (35)	.98 (25)	.44 (11)	1.32 (34)	.85 (22)
G_1	**H**	**H_1**	**J**	**J_1**
1.21 (31)	.71 (18)	.36 (9)	.51 (13)	.26 (7)
K	**L**	**M**	**M_1**	**N**
.06 (2)	.11 (3)	.63 (16)	.27 (7)	.12 (3)
N_1	**P**	**Q**		
.06 (2)	Ø .128 (Ø 3.3)	.08 (2)		

Inches (mm)

IEM Stackable Manifolds

Size		Kit Number	
		Standard	Flow Control
B3	3-Way	**PS2948P**	**PS2949P**
	4-Way	**PS2917P**	**PS2918P**
B5	4-Way	**PS2817P**	**PS2818P**

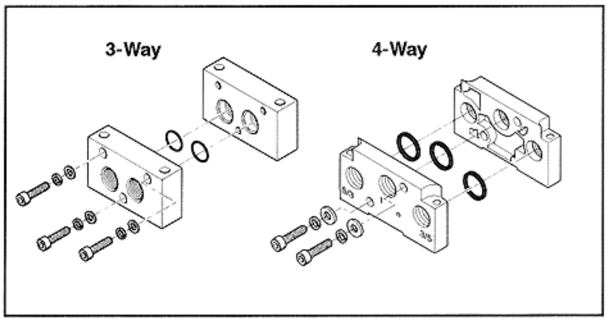
- Individual Manifold Bases stack together to form lightweight, custom length manifold system.
- Easy-to-connect male/female tie rods for modular assembly.
- Utilizes B3 3-Way & 4-Way and B5 4-Way Inline Valves.
- Low-cost, built-in Flow Controls with heavy-duty brass adjusting needles to control meter-out exhaust flow.
- Accessories include Isolator Plugs for pressure isolation and Universal Blanking Plates for auxiliary inlet and exhaust supply and future valve additions.
- **Kit includes:** (1) manifold base, (2) hold-down bolts, tie-rods, gaskets and o-rings.



End Plate Kits

Size		Kit Number	
		NPT	BSPP "G"
B3	3-Way	**PS2950P**	PS2951P
	4-Way	**PS2915P**	PS2916P
B5	4-Way	**PS2815P**	PS2816P

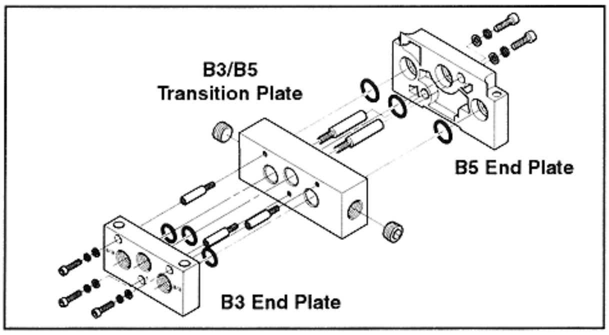
Kit includes: Right and Left End Plate, o-rings, socket head cap screws, flat washers and lockwashers.

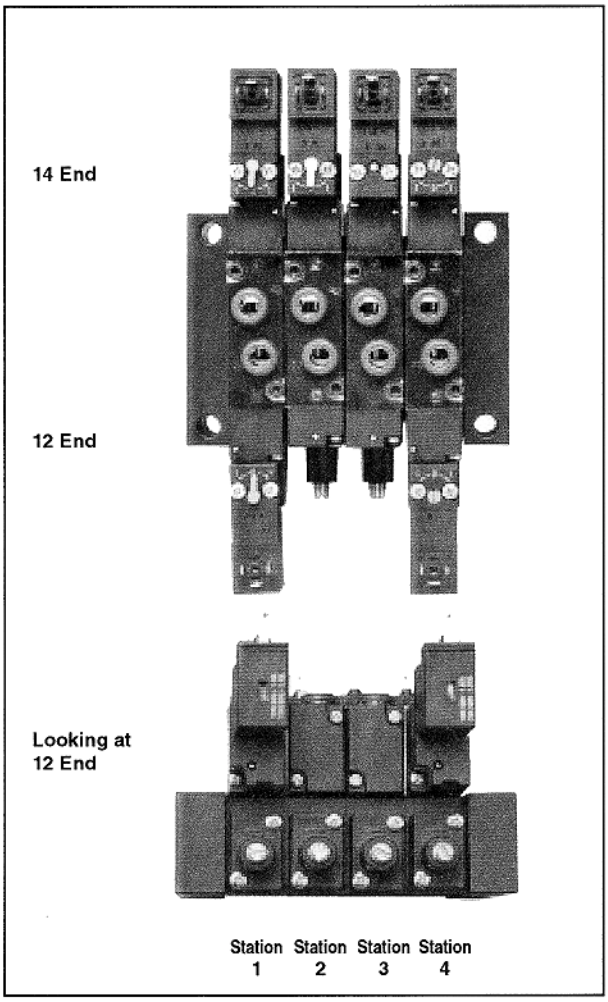


Transition Plate Kit

Size	Kit Number	
	NPT	BSPP "G"
B3 B5	**PS2842BP**	PS2843BP

- Combines B3 and B5 4-Way valves into a common inlet and exhaust manifold system. Looking at the #12 end, the B5 is on the right and the B3 is on the left.
- **Kit includes:** B3 end plate, B3/B5 transition plate, B5 end plate, socket head cap screws, flat washers, lockwashers, tie rods, o-rings, pipe plugs, and roll pins.





How To Order IEM Stackable Add-A-Fold Assemblies

1. List Add-A-Fold Assembly call out.
   This automatically includes the end plate kit, manifold bases and assembly.
2. List complete inline valve model number, listing left to right LOOKING AT THE #12 END of the manifold. The left most station is station 1.

   (If a blank station is needed, list the Blank Plate part number at the desired station.)

B3 B5

AAB3FC0204

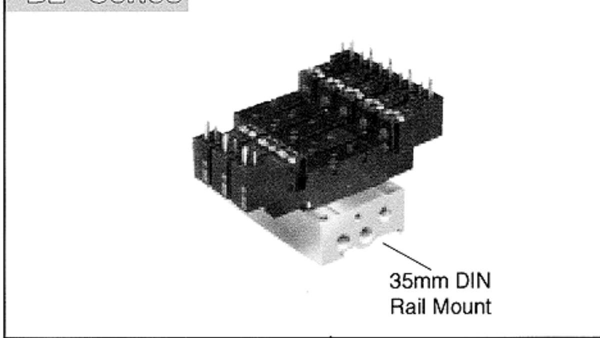
XX	Total Number of Stations
FCXX*	Number of Flow Control bases in assembly (Omit if none)
B33	3-Way Valve
B3	4-Way Valve
B5	4-Way Valve
AA	Add-A-Fold Assembly

* Flow control bases must start at station 1 in Add-A-Folds. *Example:* AAB3FC0206. Station 1 & 2 have flow controls, station 3 – 6 do not.

Example: Application requires a 4-station manifold with flow controls and requires isolation between station 2 & 3 for all three main galleys.

Qty.	Part No.	Comment
1	AAB3FC0404	
1	B32FBD553C	Station 1
1	B31FBE553C	Station 2
1	PS2919P	Galley 1, 3, 5 *Between Station 2 & 3*
1	B31FBB553C	Station 3
1	B35FBB553C	Station 4

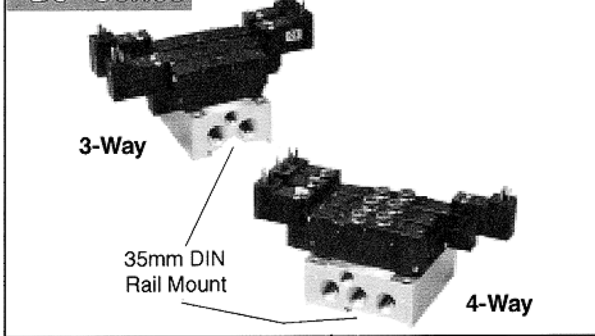
"B2" Series



3-Way / 4-Way, NPT	**PSM2BXN##NP**

– stations 02 to 20

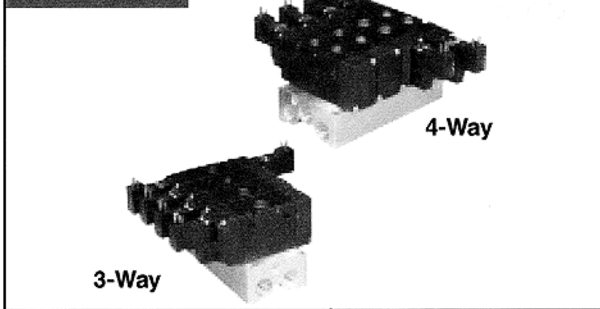
"B3" Series



3-Way, NPT	**PSG3BXN##NP**
4-Way, NPT	**PSM3BXN##NP**

– stations 02 to 12

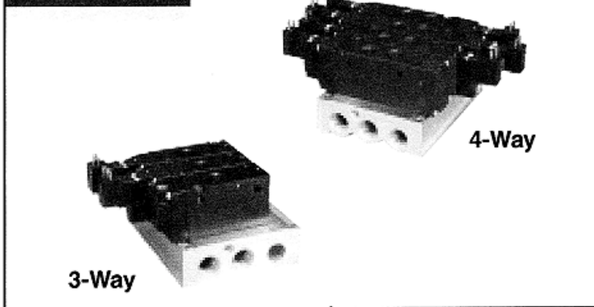
"B5" Series



3-Way, NPT	**PSG5BXN##NP**
4-Way, NPT	**PSM5BXN##NP**

– stations 02 to 12

"B6" Series



3-Way, NPT	**PSG6BXN##NP**
4-Way, NPT	**PSM6BXN##NP**

– stations 02 to 12

- Utilizes Inline mount "B" Series valves.
- Different manifold for 3-Way & 4-Way valves ("B2" uses common manifold).
- Common External Pilot galley is standard.
- Standard Internal Pilot valves need not use this galley, and the galley does not need to be plugged.
- External Pilot Valves – "X" or "W", must have Common External Galley pressurized.
- Kits (PS....) include: (1) manifold, valve hold down bolts, gaskets.

Model Number

		Type	Series	Pilot	Cylinder Ports	Port Type	# of Stations	Options	
AA	**PS**	**M**	**5**	**B**	**X**	**N**	**04**	**N**	**P**

Blank	Manifold Only
AA	Manifold with Valves Mounted

Type	
G*	IEM – 3-Way
M	IEM – 4-Way

* Not available with "B2".

Series	
2	B2 Series
3	B3 Series
5	B5 Series
6	B6 Series

Pilot	
B	External

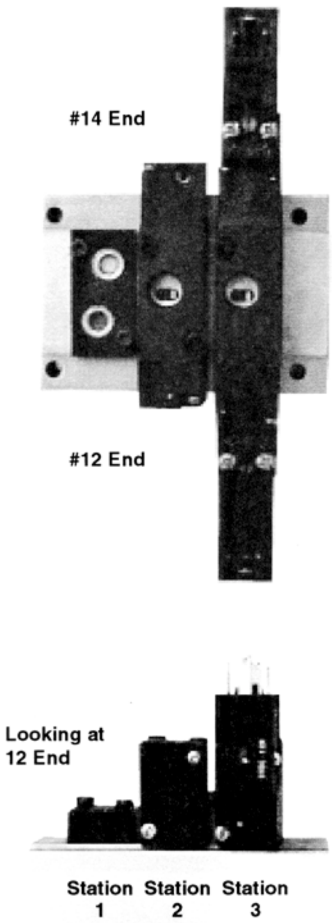
Cylinder Ports	
X	IEM Manifold

Port Type	
G	BSPP "G"
N	NPT

Stations
02
•
•
•
12 †

† 20 stations available with "B2" Series.

Options	
N	None



How To Order Aluminum Bar Manifold Assemblies

1. List Manifold Assembly call out. Use AA + the part number of the aluminum bar manifold. This automatically includes the aluminum bar manifold and assembly.
2. List complete valve model number, listing left to right, LOOKING AT THE #12 END of the manifold. The left most station is station 1.

   (If a blank station is needed, list the blanking plate part number at the desired station.)

AA PS****##P**

- PS******##P — Use Aluminum Bar Manifold Kit Numbers from previous pages.
- AA — Manifold Assembly

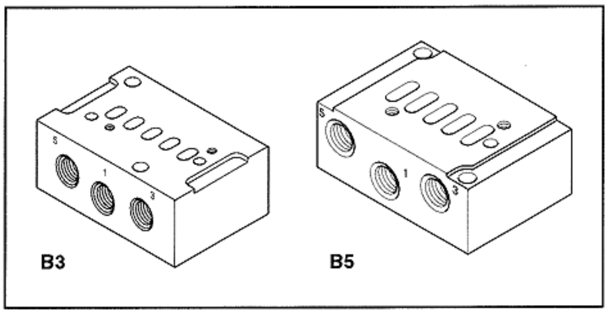
Example: Application requires a 3-station "B3" 3-Way manifold with station #1 blanked off with valves assembled.

Qty.	Part No.	Comment
1	AAPSG3BXN03NP	
1	PS2966P	Station 1
1	B330000XXC	Station 2
1	B3J0BB553C	Station 3

Subbase

Size		Kit Number	
		NPT	BSPP "G"
B3 4-Way	1/8"	**PS2933P**	PS2935P
	1/4"	**PS2934P**	PS2936P
B5 4-Way	1/4"	**PS2833P**	PS2835P
	3/8"	**PS2834P**	PS2836P

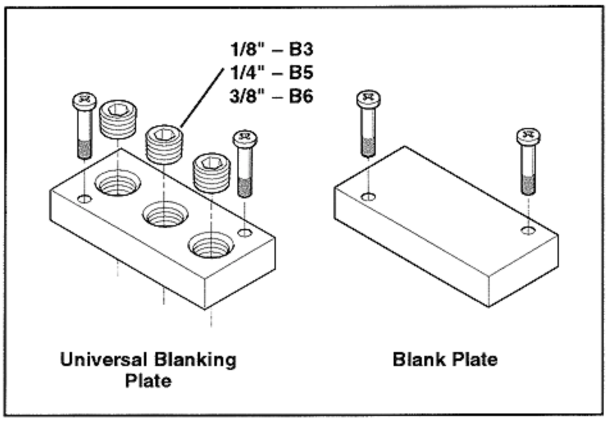
Kit includes: (1) subbase.
(Hold down bolts & gasket are included with valve.)



Blanking Plate

Size	Kit Number			
	IEM Universal		IEM Blank	Subbase Blank
	NPT	BSPP "G"		
B2 3-Way 4-Way	— —	— —	**PS4494P**	
B3 3-Way 4-Way	**PS2966P** **PS2920P**	PS2967P PS2921P	**PS2968P** **PS2969P**	— **PS2994P**
B5 3-Way 4-Way	**PS2866P** **PS2820P**	PS2867P PS2821P	**PS2868P** **PS2869P**	— —
B6 3-Way 4-Way	**PS2620P**	PS2621P	**PS2669P**	—

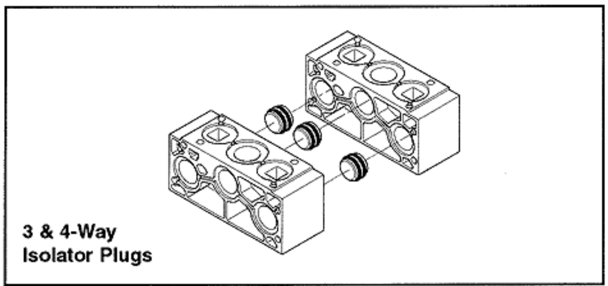
Kit Includes: (1) Plate, (2) Screws, Seal/Gaskets



Isolator Plugs – IEM Stackable

Size	Kit Number	
	3-Way	4-Way
B3	**PS291901P**	**PS2919P**
B5	—	**PS2819P**

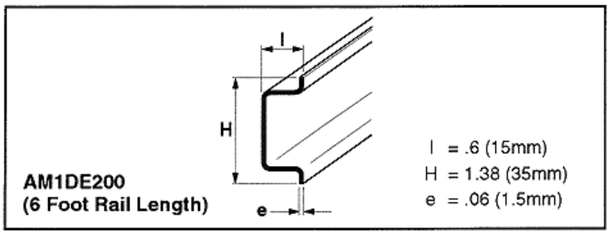
- Used to isolate the #1, #3 or #5 gallery between two Manifold Bases. (IEM STACKABLE ONLY)
- **Kit includes:** 3-Way – (2) plugs and (4) o-rings
  4-Way – (3) plugs and (6) o-rings



DIN Rail Hardware Kit

	IEM Bar	5-Port Subbase Bar
B2	PS4490P	PS4491P
B3	PS2990P	PS2991P

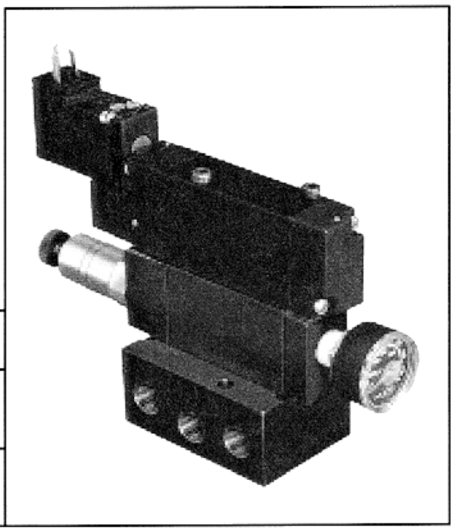
Kit Includes: (2) Screws, (2) Nuts, (2) Clamps



Sandwich Regulators

B2 B3 **Features**

- Use with B2 & B3 subbase valves on 5-Ported Subbase Bar Manifolds.
- Common Port or Dual Port regulation control.
- Unregulated Pressure Supplied to Valve Pilot - Use Pilot Source - 'X'.
- Easy adjust knob control.

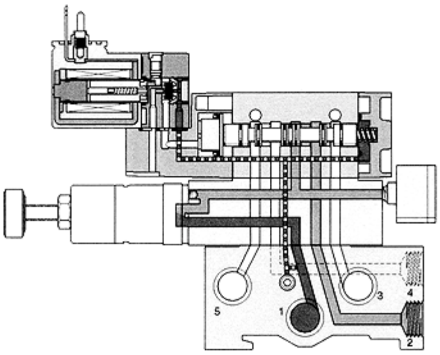


	Common Port with Gauge *	Common Port without Gauge	Dual Port without Gauge	Cv
B2 5-125 PSI	PS4430166P	PS4430133P	PS4430233P	.11
B2 2-60 PSI	PS4430155P	PS4430122P	PS4430222P	
B3 5-125 PSI	PS2930166P	PS2930133P	PS2930233P	.33
B3 2-60 PSI	PS2930155P	PS2930122P	PS2930222P	

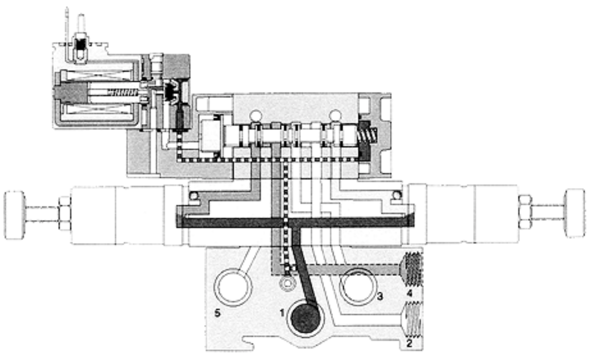
*Gauge is 160 PSI or 60 PSI, depending on pressure range. Gauge shipped unassembled. For different gauge mounting configuration, use brass adapters listed at bottom of page.

B2

Common Port

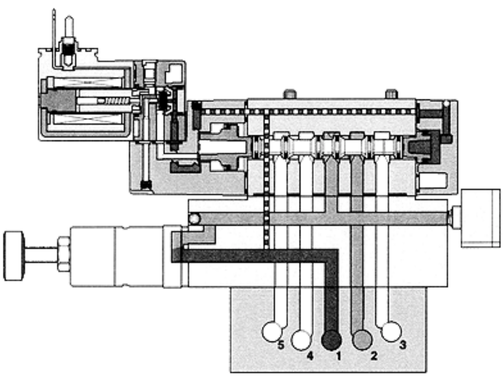


Dual Port

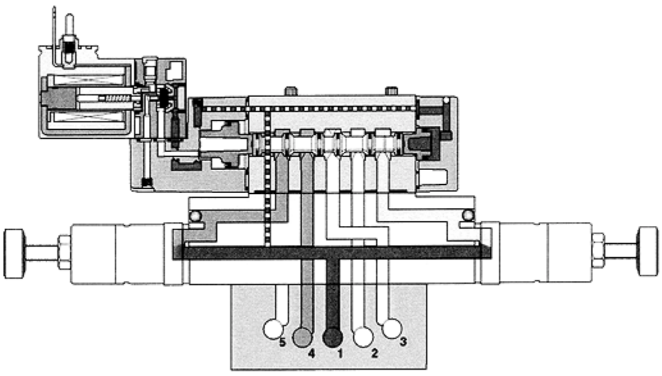


B3

Common Port



Dual Port



Brass Adapters for Gauge –

1/8" to 1/8" Female Coupling 207P-2
1/8" Male Pipe Nippled 1.5" 215PNL-2-15
1/8" Male to Female Adapter 222P-2-2
1/8" to 1/8" 45° Female Elbow 2201P-2-2
1/8" to 1/8" 90° Female Elbow 2200P-2-2

Gauge 3/4" Face –

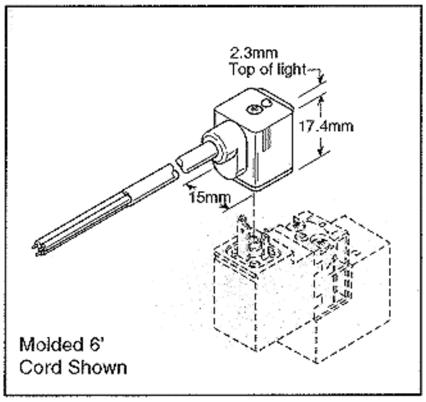
0-60 PSI PS3451060P
0-160 PSI PS3451160P

15mm 3-Pin DIN 43650C
(Use with Enclosure "5")

Connector	Connector with 6' (2m) Cord	Description
PS2932P	PS2932JP	Unlighted
PS294675P	PS2946J75P*	Light – 12VAC or DC
PS294679P	PS2946J79P*	Light – 24VAC or DC
PS294683P	PS2946J83P*	Light – 110/120VAC
PS294687P	N/A	Light – 240/230VAC

* LED with surge suppression.

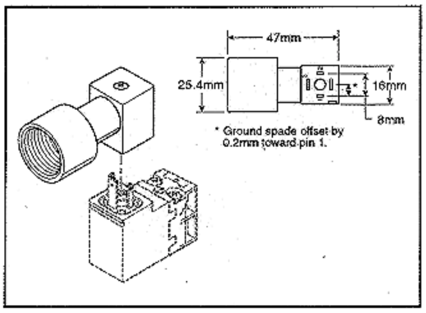
Note: Max ø6.5mm cable size required for connector w/o 6' (2m) cord.
IP65 rated when properly installed.



15mm 3-Pin DIN 43650C to 1/2" Conduit
(Use with Enclosure "5")

Connector	Description
PS2998P	1/2" NPTF Conduit – Unlighted with 3' (1m) Leads 20 AWG Wire

Note: Rated up to 250VAC or VDC; 6 Amps
IP65 rated when properly installed.

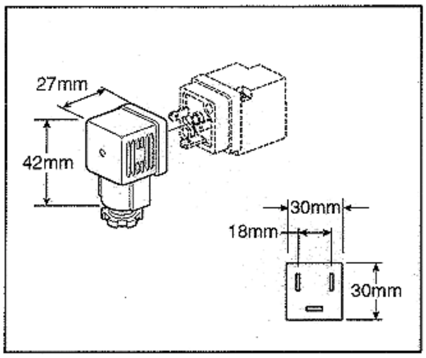


30mm Square 3-Pin – ISO 4400, DIN 43650A
(Use with Enclosure "A")

Connector	Connector with 6' (2m) Cord	Description
PS2028BP	PS2028JBP	Unlighted
PS203279BP	PS2032J79BP*	Light – 6-48V, 50/60Hz, 6-48VDC
PS203283BP	PS2032J83BP*	Light – 120V/60Hz
PS203283BP	N/A	Light – 240V/60Hz

* LED with surge suppression.

Note: Max ø6.5mm cable size required for connector w/o 6' (2m) cord.
IP65 rated when properly installed.



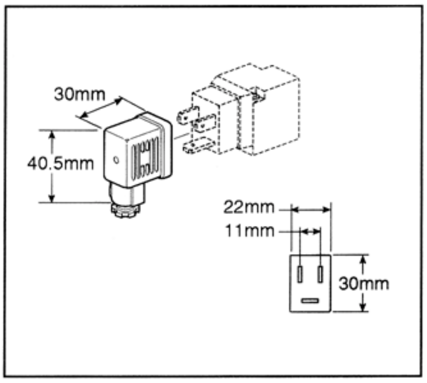
Female Electrical Connectors/ Accessories

22mm Rectangular 3-Pin – Type B Industrial (Use with Enclosure "B")

Connector	Connector with 6' (2m) Cord	Description
PS2429P	PS2429JP	Unlighted
PS243079P	PS2430J79P*	Light – 24V/60Hz, 24VDC
PS243083P	PS2430J83P*	Light – 120V/60Hz
PS243087P	N/A	Light – 240V/60Hz

* LED with surge suppression.

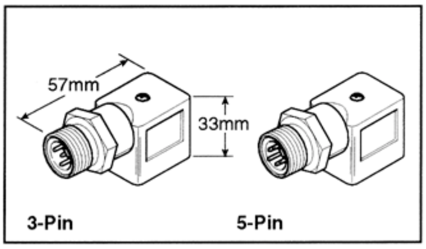
Note: Max ø6.5mm cable size required for connector w/o 6' (2m) cord. IP65 rated when properly installed.



3-Pin / 5-Pin Male Automotive Connectors (Use on 22mm Rectangular 3-Pin Solenoid)

3-Pin	5-Pin	Description
PS2893CP	PS2893DP	Unlighted
PS2893C##P	PS2893D##P	Lighted - Voltage

— 75 - 12VDC; 79 - 24VDC & 24VAC; 83 - 120VAC; 87 - 240VAC



Flow Rating (Cv)

Size	Port Size	Mounting Style	2-Position	3-Position
B2	M5	Inline	.15	.13
	1/8" Ports	Subbase	.16	.13
B3	1/8" Ports	Inline	.75	.60
	1/4" Tube	Inline	.45	.45
	1/8" Ports	Subbase	.65	.45
	1/4" Ports	Subbase	.65	.50
B5	1/4" Ports	Inline	1.4	1.1
	3/8" Ports	Inline	1.4	1.1
	1/4" Ports	Subbase	1.4	1.1
	3/8" Ports	Subbase	1.4	1.1
B6	3/8" Ports	Inline	2.7	2.1

ANSI / (NFPA) T3.21.3-1990 standard for Cv measurement.

Operating Pressure

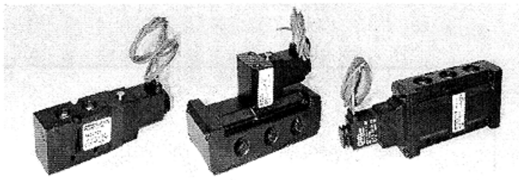
Maximum: 145 PSIG (1000 kPa)

Minimum:

Operator/ Function	Internal Pilot	MIN PSIG (kPa)			
		B2	B3	B5	B6
1, G, H	Single Solenoid - Air Return	25 (173)	20 (138)	20 (138)	20 (138)
2, A, J, S	Double Solenoid				
3, K, L	Single Remote Pilot - Air Return				
4, M	Double Remote Pilot	Vacuum			
5, 6, 7	Double Solenoid - APB, CE, PC	35 (241)	30 (207)	30 (207)	30 (207)
8, 9, 0	Double Remote Pilot - APB, CE, PC	Vacuum			
E, V, W	Single Solenoid - Air Return / Spring Assist	25 (173)	35 (241)	35 (241)	35 (241)
F, X, Y	Single Remote Pilot - Air Return / Spring Assist				
	External Pilot *				
All	"B" Series	Vacuum			

* External Pilot Pressure / Remote Pilot Signal 35-145 PSIG (241-1000 kPa).

Note: For CSA-NRTL/C approved solenoid valves – insert an 'L' at the end of the valve part number.
B2: Maximum pressure - 120 PSI
B3: Maximum pressure - 120 PSI
B5: Consult Factory
B6: Maximum pressure - 145 PSI

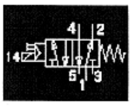
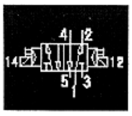
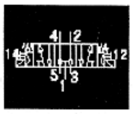
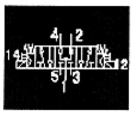


- **Lead wire / DIN connection**
- **Push button type / Lever type manual control**
- **5/2 way(All type), 5/3 way(only 510,520,530 type)**
- **CE certification(520,530,540,541 type)**
- **Manifold block(2~10station:510type, 2~9station:520,530type)**

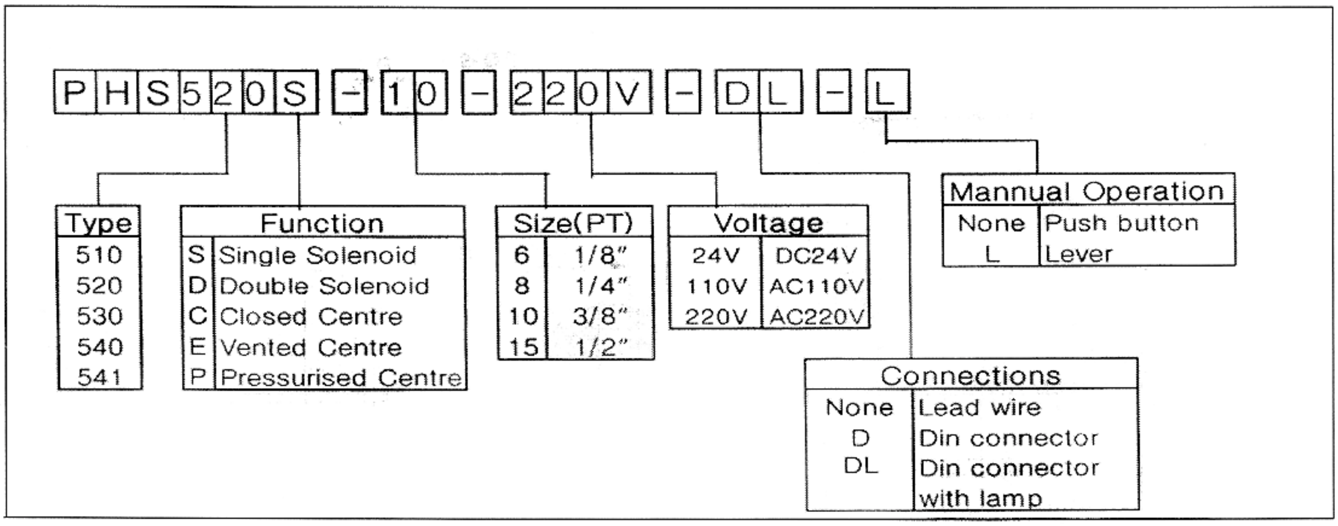
Operating information

Working pressure	1.5 to 9 bar	Cv :	510S , 510D	0.6	510C,510E,510P	0.4
Working temperature	0 to +60 ℃		520S , 520D	1.0	520C,520E,520P	0.8
Port size (PT)	510 : 1/8", 520 : 1/4", 530 : 3/8"		530 type	1.6	540, 541 (1/2")	3.1
	540,541 : 1/2"					

Electrically actuated 5/2 and 5/3 valves

Symbol	Size	Actuator	Return	Voltage	**Order code**
5/2 valves					
	1/8	Electric	Differential	AC110/220V(50/60Hz)	PHS510S-6-24V
	1/4		Air/Spring	DC24V	PHS520S-8-24V
	3/8				PHS530S-10-24V
	1/2				PHS540S-15-24V
	1/2				PHS541S-15-24V
	1/8	Electric	Electric	AC110/220V(50/60Hz)	PHS510D-6-24V
	1/4			DC24V	PHS520D-8-24V
	3/8				PHS530D-10-24V
	1/2				PHS540D-15-24V
	1/2				PHS541D-15-24V
5/3 valves					
	1/8	Electric	Electric	AC110/220V(50/60Hz)	PHS510C-6-24V-DL
	1/4	Closed	Self	DC24V	PHS520C-8-24V-DL
	3/8	Centre	centring		PHS530C-10-24V-DL
	1/8	Electric	Electric	AC110/220V(50/60Hz)	PHS510E-6-24V-DL
	1/4	Vented	Self	DC24V	PHS520E-8-24V-DL
	3/8	Centre	centring		PHS530E-10-24V-DL
	1/8	Electric	Electric	AC110/220V(50/60Hz)	PHS510P-6-24V-DL
	1/4	Pressure	Self	DC24V	PHS520P-8-24V-DL
	3/8	Centre	centring		PHS530P-10-24V-DL

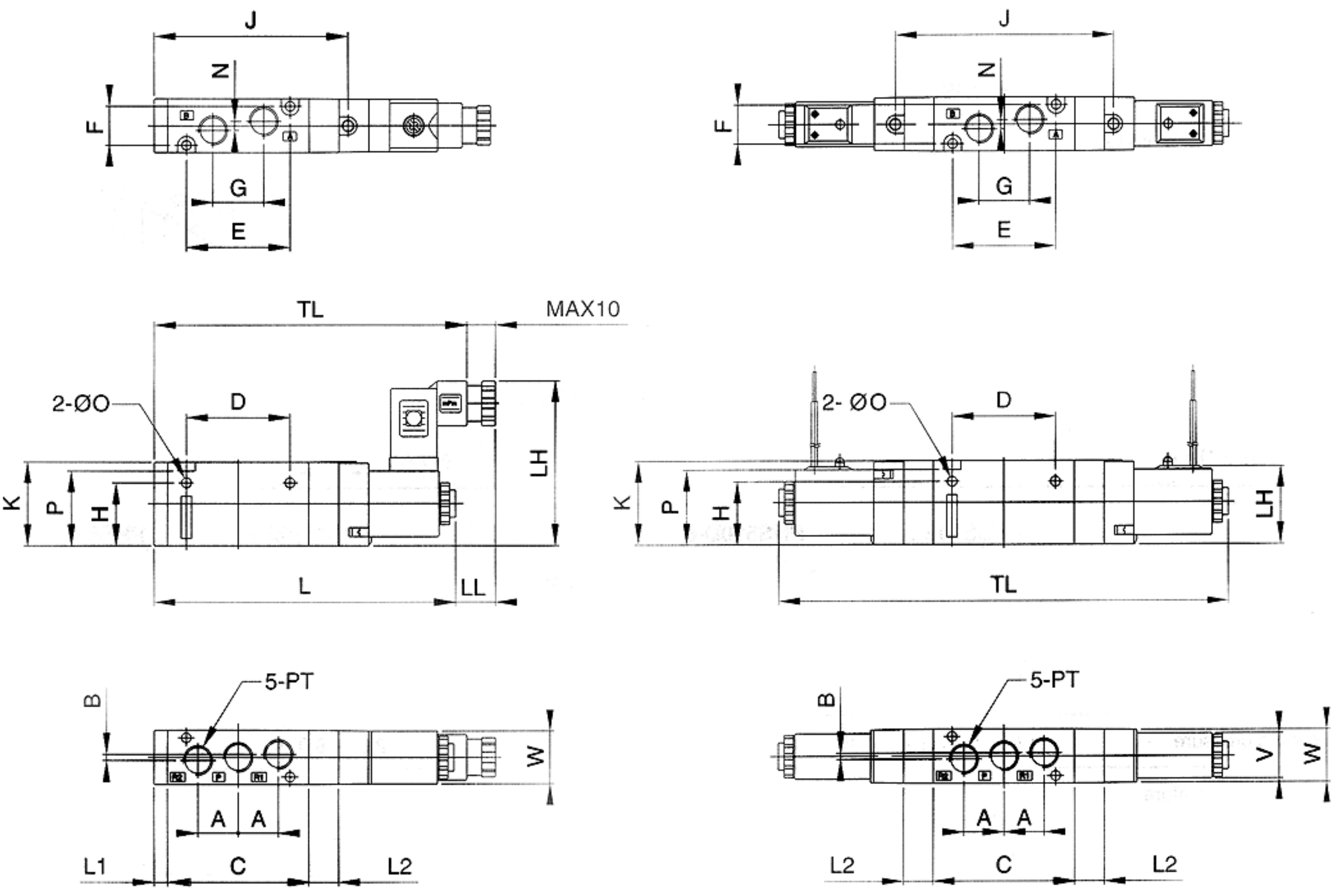
Ordering Information



Manifold block

Type	Size (PT) P,R port	Block	Order code
510	1/4	2	PHS510-M2
		3	PHS510-M3
		4	PHS510-M4
		5	PHS510-M5
		6	PHS510-M6
		7	PHS510-M7
		8	PHS510-M8
		9	PHS510-M9
		10	PHS510-M10
520	1/4	2	PHS520-M2
		3	PHS520-M3
		4	PHS520-M4
		5	PHS520-M5
		6	PHS520-M6
		7	PHS520-M7
		8	PHS520-M8
		9	PHS520-M9
530	3/8	2	PHS530-M2
		3	PHS530-M3
		4	PHS530-M4
		5	PHS530-M5
		6	PHS530-M6
		7	PHS530-M7
		8	PHS530-M8
		9	PHS530-M9

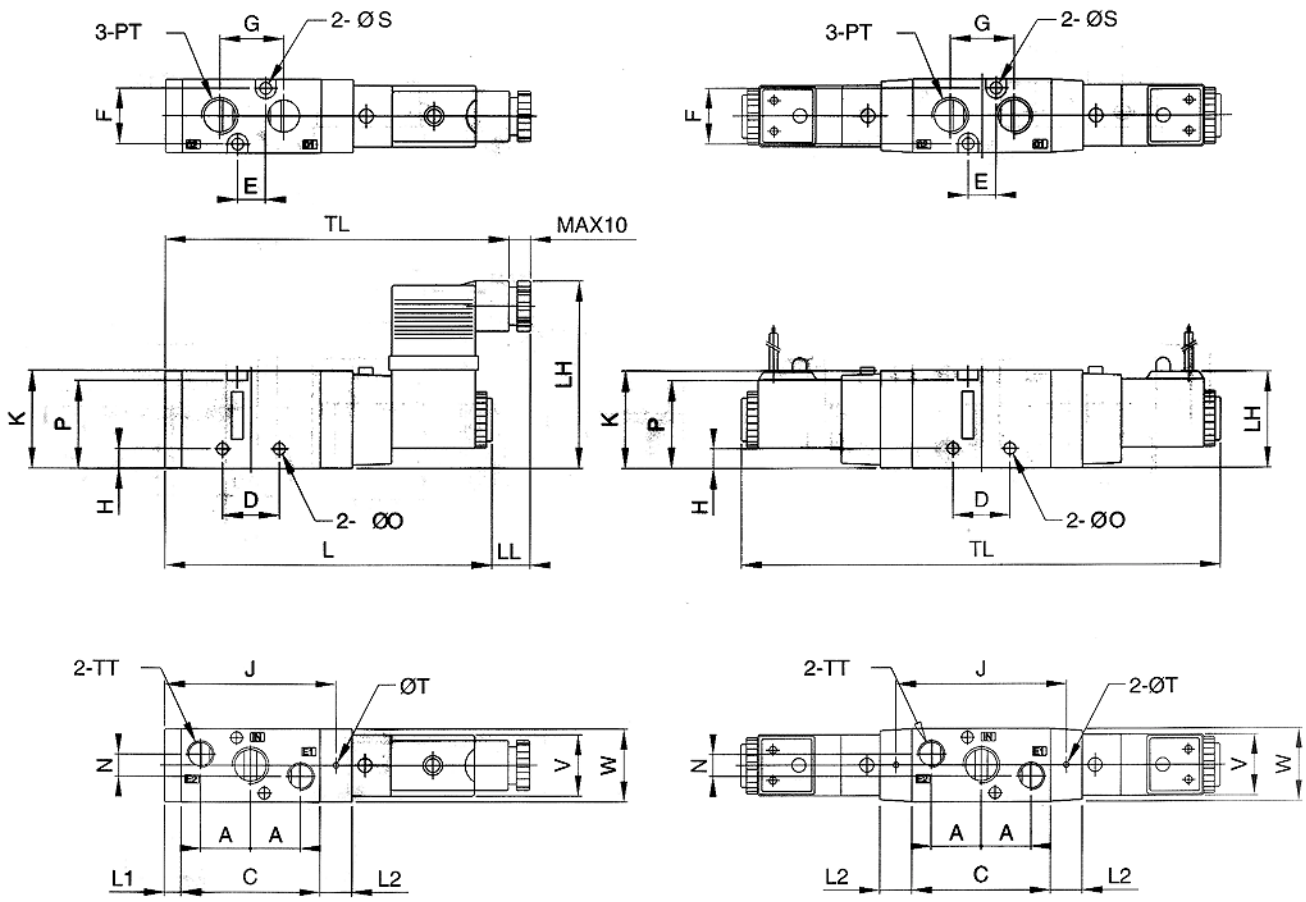
Dimensions, PHS510



MODEL	A	B	C	D	E	F	G	H	J	K	L	L1
PHS510S-6	13.5	2	47.5	35	35	13	17	21	65	28	101	4.5
PHS510D-6	13.5	2	47.5	35	35	13	17	21	73.5	28	-	-
PHS510C, E, P-6	13.5	2	47.5	35	35	13	17	21	85.5	28	-	-

MODEL	L2	LL	LH	N	ØO	ØP	PT	ØS	TL	V	W
PHS510S-6	10	12	55	3	3.3	25	1/8	3.3	105	-	18
PHS510D-6	10	-	26	3	3.3	25	1/8	3.3	151.5	15	18
PHS510C, E, P-6	16	-	26	3	3.3	25	1/8	3.3	163.5	15	18

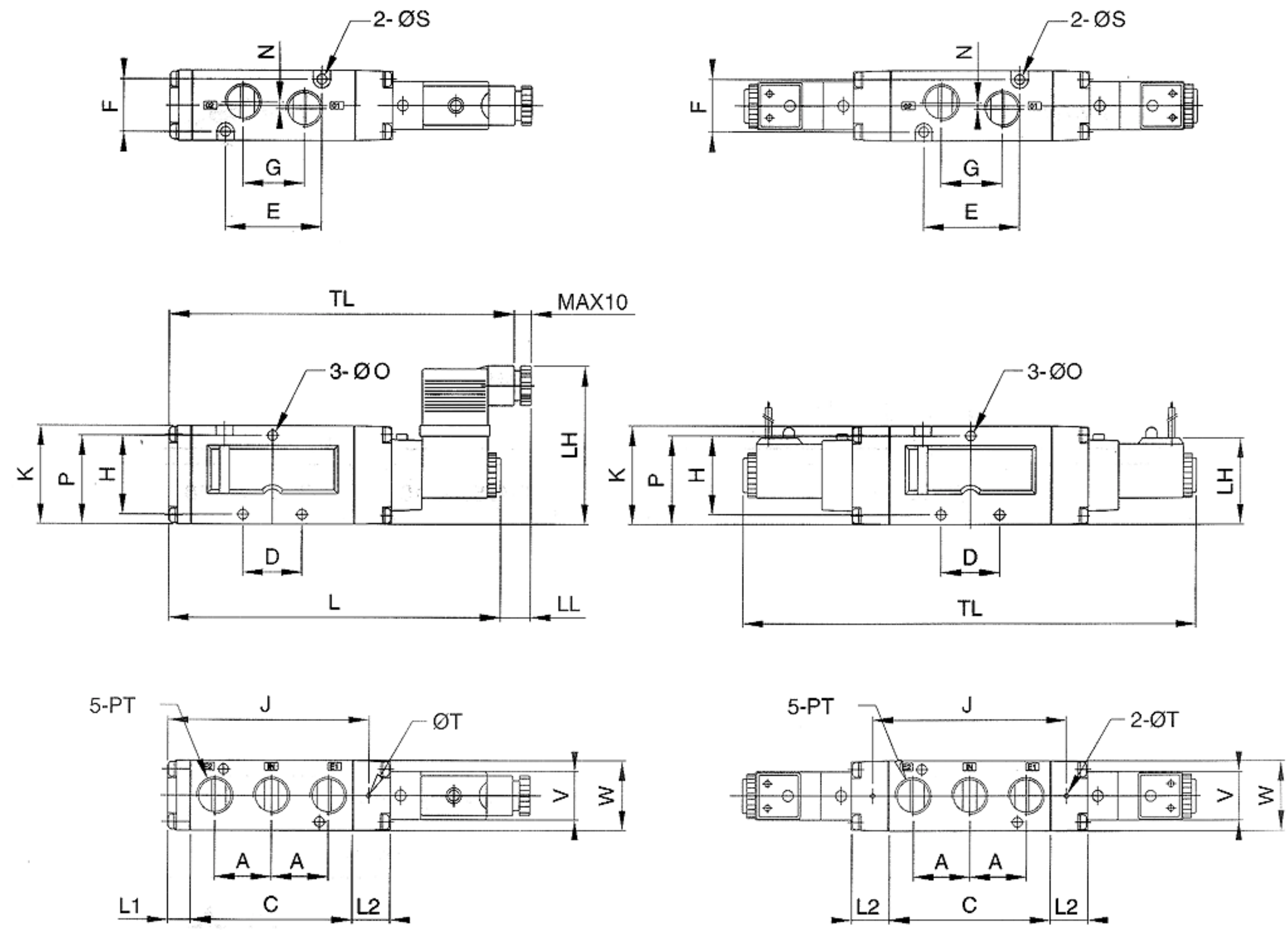
Dimensions, PHS520



MODEL	A	C	D	E	F	G	H	J	K	L	L1	L2	LH
PHS520S-8	18	50	20.5	10	20	23	7	61.8	35	119.5	6	11.5	67
PHS520D-8	18	50	20.5	10	20	23	7	62	35	-	-	11.5	34.5
PHS520C, E, P-8	18	50	20.5	10	20	23	7	72.5	35	-	-	21.8	34.5

MODEL	LL	N	ØO	P	PT	ØS	ØT	TL	TT	V	W
PHS520S-8	12	8	4.2	31.5	1/4	4.2	2	131.5	1/8	22	26.4
PHS520D-8	12	8	4.2	31.5	1/4	4.2	2	201	1/8	22	26.4
PHS520C, E, P-8	12	8	4.2	31.5	1/4	4.2	2	221.6	1/8	22	26.4

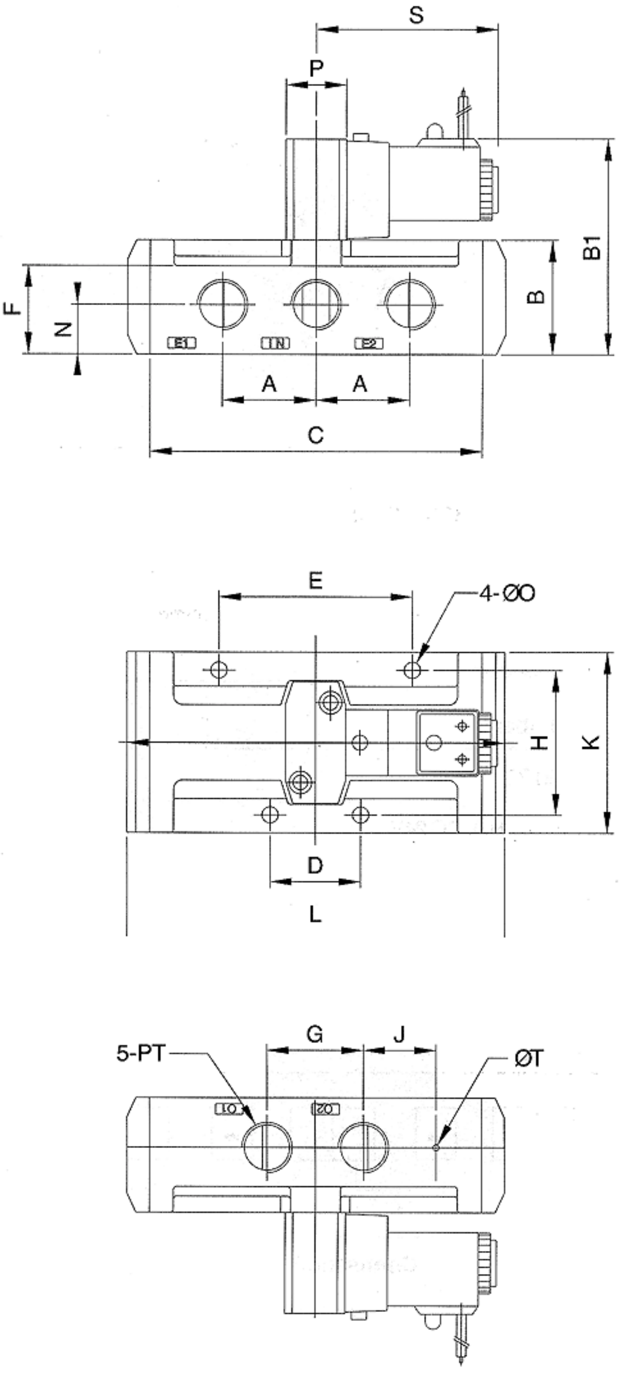
Dimensions, PHS530



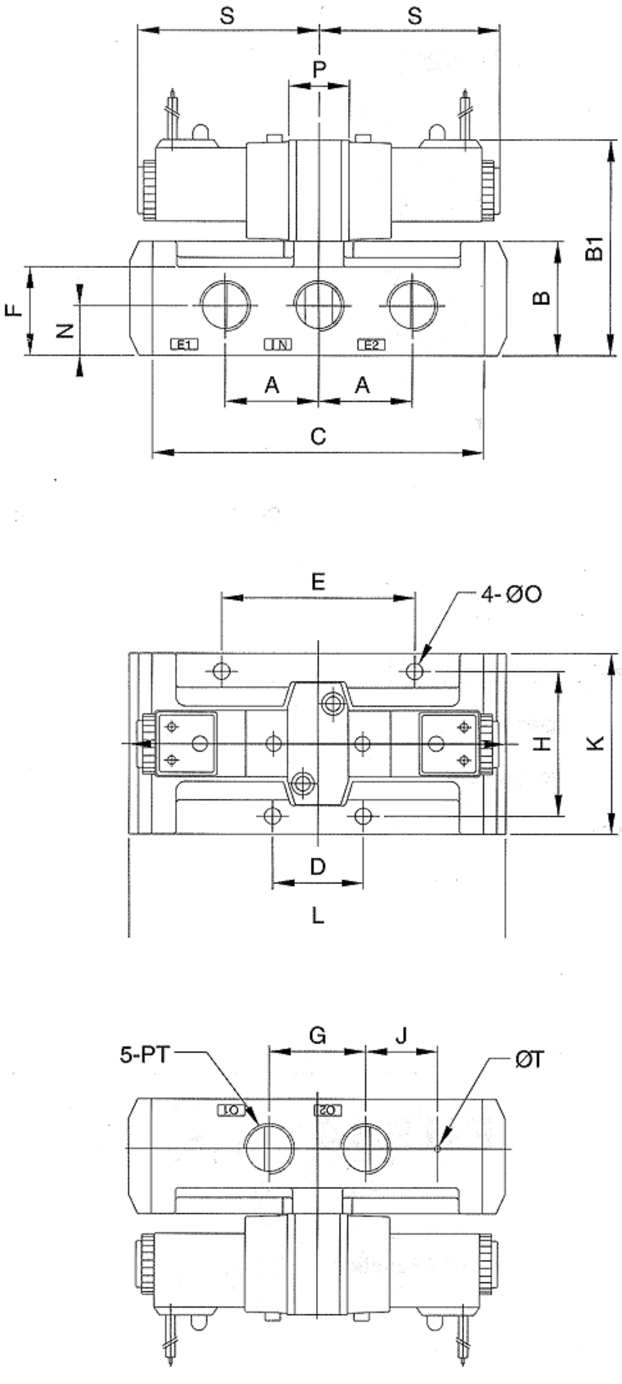
MODEL	A	C	D	E	F	G	H	J	K	L	L1	L2	LH
PHS530S-10	26	74	27	44	24	28	36	92	45	152.8	10	16.8	72
PHS530D-10	26	74	27	44	24	28	36	89	45	-	-	16.8	39.5
PHS530C, E, P-10	26	74	27	44	24	28	36	89	45	-	-	32.3	39.5

MODEL	LL	N	ØO	P	PT	ØS	ØT	TL	V	W
PHS530S-10	12	3	4.5	40.5	3/8	4.5	2	164.8	22	32
PHS530D-10	12	3	4.5	40.5	3/8	4.5	2	235.6	22	32
PHS530C, E, P-10	12	3	4.5	40.5	3/8	4.5	2	266.6	22	32

Dimensions, PHS540S-10, 15

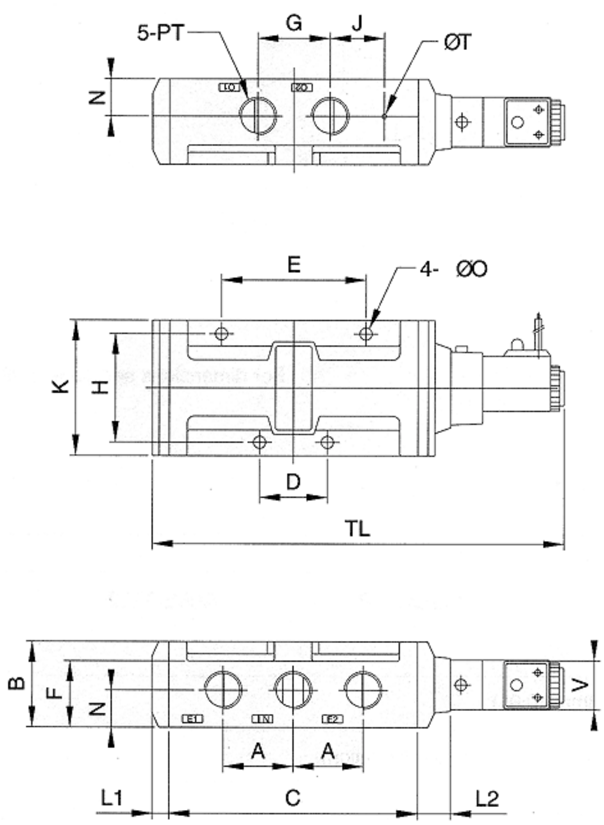


PHS540D-10, 15

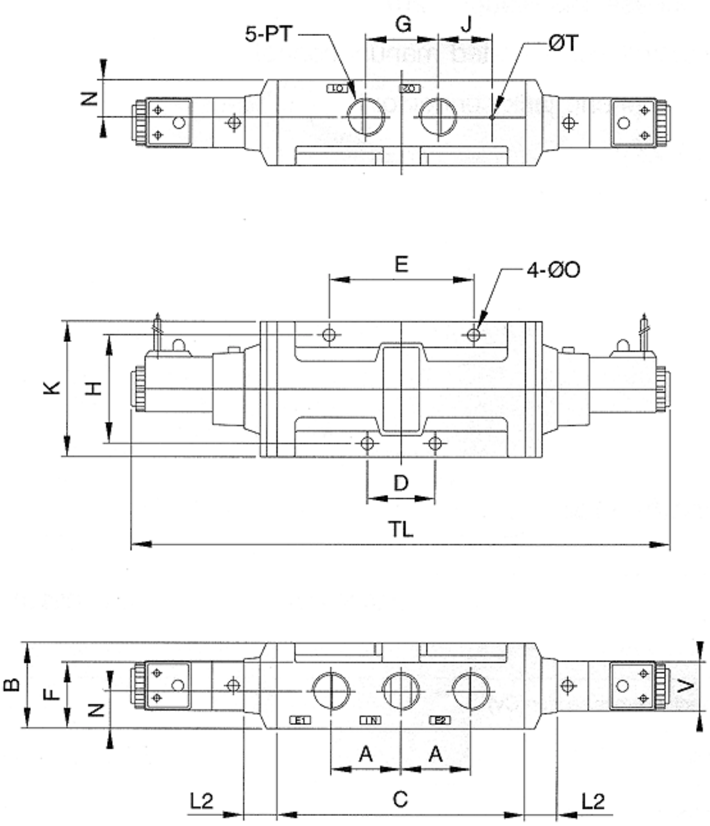


MODEL	A	B	B1	C	D	E	F	G	H	J	K	L	N	ØO	P	PT	S	T
PHS540S-10, 15	31	38	71.5	110	31	64	29.5	32	48	24	60	125	16.5	5.5	20	3/8 1/2	62	2
PHS540D-10, 15	31	38	71.5	110	31	64	29.5	32	48	24	60	125	16.5	5.5	20	3/8 1/2	62	2

Dimensions, PHS541S-10, 15

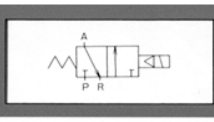


PHS541D-10, 15



MODEL	A	B	C	D	E	F	G	H	J	K	L1	L2	N	ØO	PT	T	TL	V
PHS541S-10, 15	31	38	110	31	64	29.5	32	48	24	60	7.5	14.5	16.5	5.5	3/8 1/2	2	184	22
PHS541D-10, 15	31	38	110	31	64	29.5	32	48	24	60	-	14.5	16.5	5.5	3/8 1/2	2	243	22

PMS23Series



2-position, 3-way, 3-port
Single Solenoid,
Spring Return

INDICATION

Ordering Information G L

❶ ❷ ❸ ❹ ❺

❶ Model No.

❷ Port size
- 01 : Rc 1/8
- 02 : Rc 1/4
- 03 : Rc 3/8
- 04 : Rc 1/2
- 06 : Rc 3/4
- 08 : Rc 1

❸ Voltage
- 024 : AC24V
- 100 : AC100/110V
- 200 : AC200/220V
- 240 : AC240V
- D24 : DC24V
- D48 : DC48V

❹ Wiring
- L : Lead wire
- G : Grommet with terminal
- C : Conduit with terminal
- D : DIN connecter

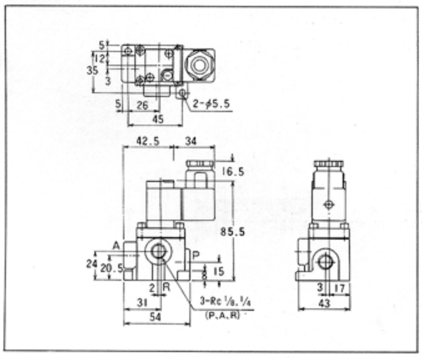
❺ Manual override
- No mark : None locking
- L : Locking override

Operating Information

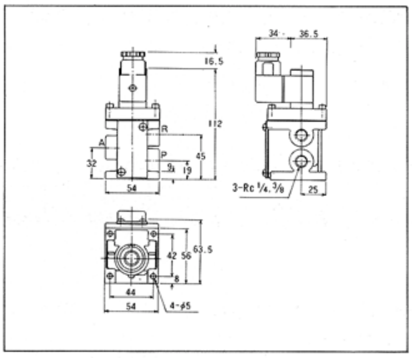
Model No.			Unit	PMS2306	PMS2308	PMS2310	PMS2315	PMS2325
Port size			Rc	1/8", 1/4"	1/4", 3/8"	3/8", 1/2"	1/2", 3/4"	3/4", 1"
Effective Area			mm^2	11	22	38	80	190
Cv Value				0.60	1.19	2.06	4.34	10.3
Temperature Range			°C	5 ~ 60				
Pressure Range			MPa	0.2 ~ 0.7				
Operating Speed			cycle/min	360		300	120	60
Response Time (at 5 kgf/cm^2)			Sec.	ON/OFF 0.010/0.020	ON/OFF 0.010/0.030	ON/OFF 0.015/0.035	ON/OFF 0.020/0.055	ON/OFF 0.050/0.085 (0.060/0.115)
Voltage				AC 24, 100/110, 200/220, 240 50/60Hz DC 24, 48				
Solenoid Data (AC)	Holding	50Hz	VA	(100/200) 3.2				6.2
		60Hz	VA	(100/200) 2.6				5.4
	Inrush	50Hz	VA	(100/200) 5.0				10.5
		60Hz	VA	(100/200) 4.5				9.2
Power Consumption (DC)			W	2				1.8
Weight			kg	0.3	0.5	0.8	1.2	3

DIMENSIONAL DATA: (Unit: mm)

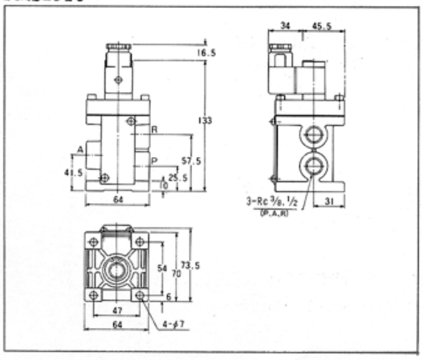
PMS2306



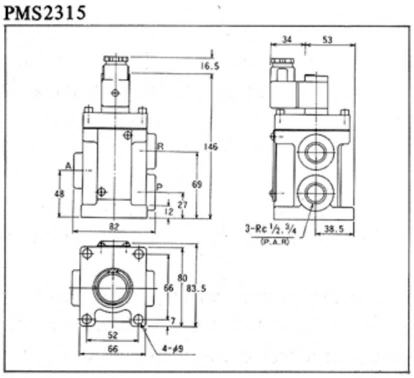
PMS2308



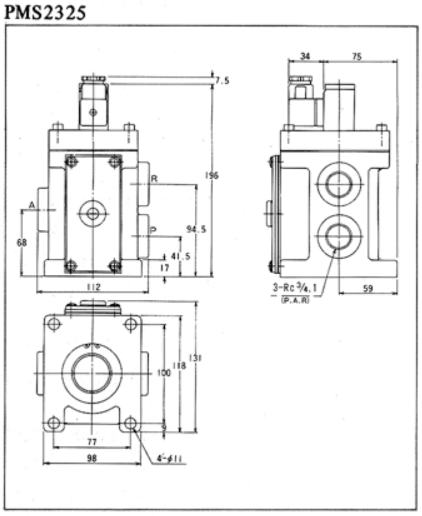
PMS2310



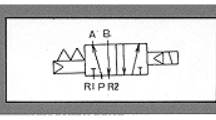
PMS2315



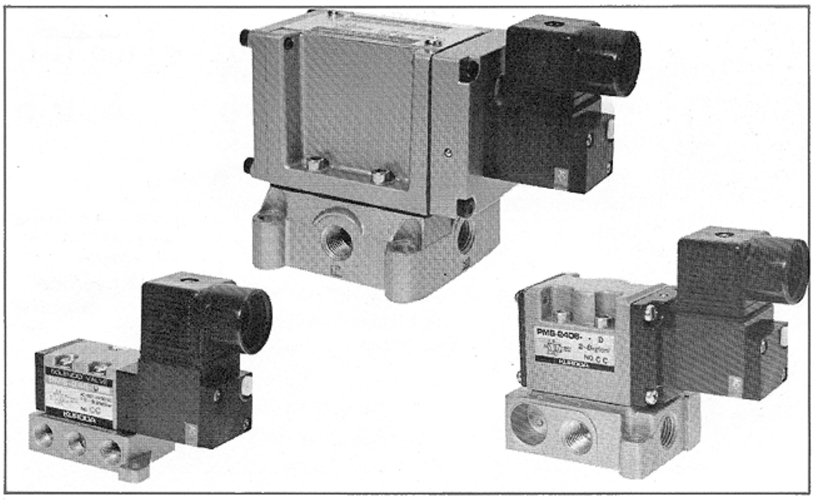
PMS2325



PMS24 Series



2-position, 4-way, 5-port
Single Solenoid,
Spring Return



Ordering Information

PMS2408 — 03 — 100 G L

① ② ③ ④ ⑤

① Model No.

② Port size
- 01 : Rc 1/8
- 02 : Rc 1/4
- 03 : Rc 3/8
- 04 : Rc 1/2
- 06 : Rc 3/4
- 08 : Rc 1
- 10 : Rc 1 1/4
- NB : Non-base

③ Voltage
- 024 : AC24V
- 100 : AC100/110V
- 200 : AC200/220V
- 240 : AC240V
- D24 : DC24V
- D48 : DC48V

④ Wiring
- L : Lead wire
- G : Grommet with terminal
- C : Conduit with terminal
- D : DIN connecter

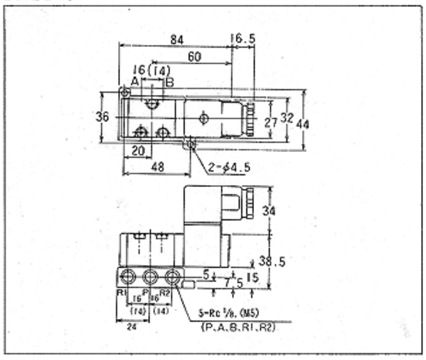
⑤ Manual override
- No mark : None locking
- L : Locking override

Operating Information

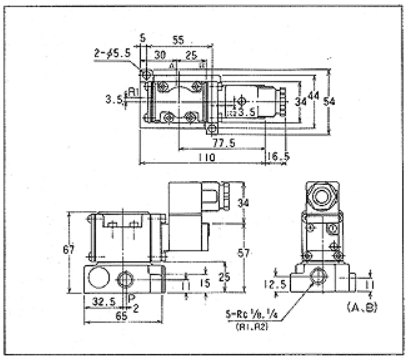
Model No.			Unit	PMS246	PMS2406	PMS2408	PMS2410	PMS2415	PMS2425
Port size			Rc	M5, 1/8″	1/8″, 1/4″	1/4″, 3/8″	3/8″, 1/2″	1/2″, 3/4″	3/4″, 1″, 1-1/4″
Effective Area			mm²	4, 6.5	12.5	30	50	75	170, 200, 210
Cv Value				0.22, 0.35	0.68	1.63	3.71	4.07	9.22, 10.84, 11.39
Temperature Range			°C	5 ~ 60					
Pressure Range			MPa	0.15～1	0.2 ～ 0.8				
Operating Speed			cycle/min	360			300	120	60
Response Time (at 5 kgf/cm²)			Sec.	ON/OFF 0.022/0.012	ON/OFF 0.010/0.020	ON/OFF 0.010/0.030	ON/OFF 0.015/0.035	ON/OFF 0.022/0.055	ON/OFF 0.050/0.085 (0.060/0.115)
Voltage			V	AC 24, 100, 110, 200, 220, 240, 50/60Hz DC 24, 48					
Solenoid Data (AC)	Holding	50Hz	VA	(100/200) 3.2					6.2
		60Hz	VA	(100/200) 2.6					5.4
	Inrush	50Hz	VA	(100/200) 5.0					10.5
		60Hz	VA	(100/200) 4.5					9.2
Power Consumption (DC)			W	2					1.8
Weight			kg	0.16	0.4	0.9	1.5	2.3	6.1

DIMENSIONAL DATA: (Unit: mm)

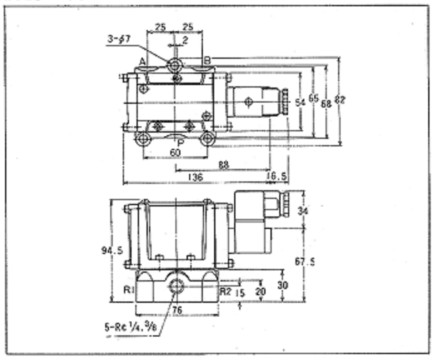
PMS246



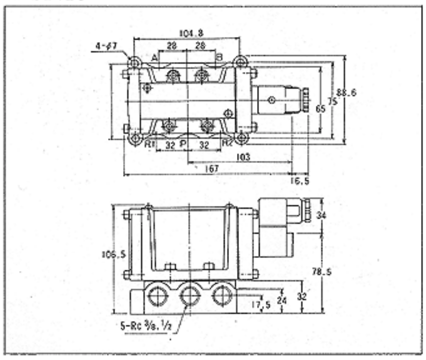
PMS2406



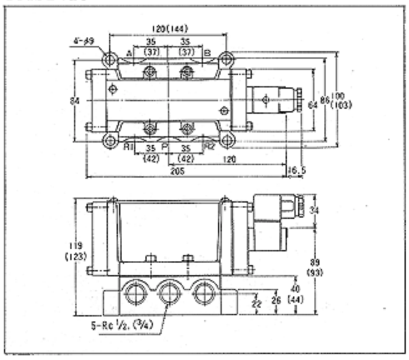
PMS2408



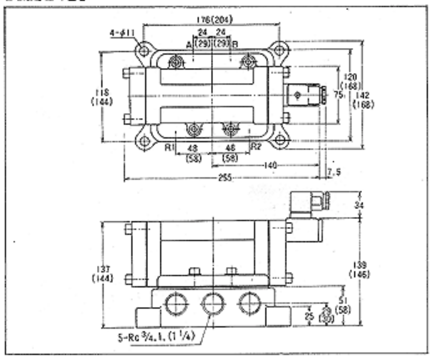
PMS2410



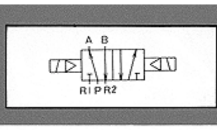
PMS2415



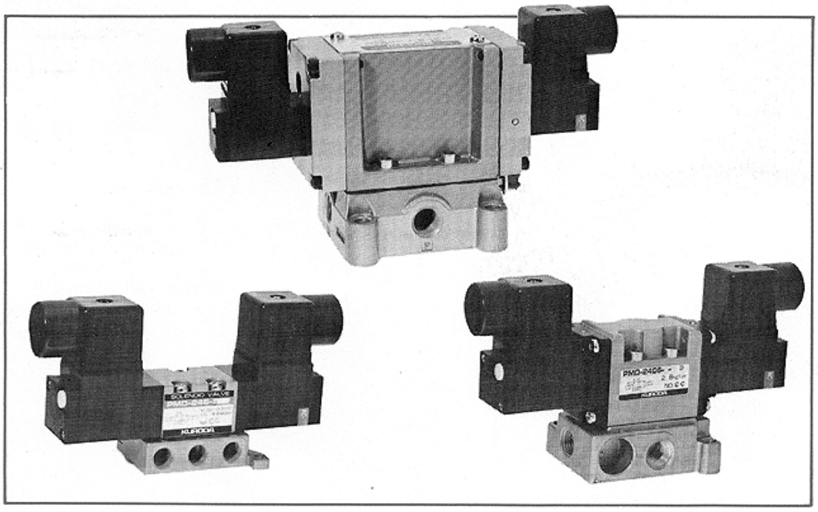
PMS2425



PMD24Series



2-position, 4-way, 5-port
Double Solenoid,
Mechanically Detented



Ordering Information

PMD2408 — 03 — 100 G L

① ② ③ ④ ⑤

① Model No.

② Port size
- 01 : Rc1/8
- 02 : Rc1/4
- 03 : Rc3/8
- 04 : Rc1/2
- 06 : Rc3/4
- 08 : Rc1
- 10 : Rc1 1/4
- NB : Non-base

③ Voltage
- 024 : AC24V
- 100 : AC100/110V
- 200 : AC200/220V
- 240 : AC240V
- D24 : DC24V
- D48 : DC48V

④ Wiring
- L : Lead wire
- G : Grommet with terminal
- C : Conduit with terminal
- D : DIN connecter

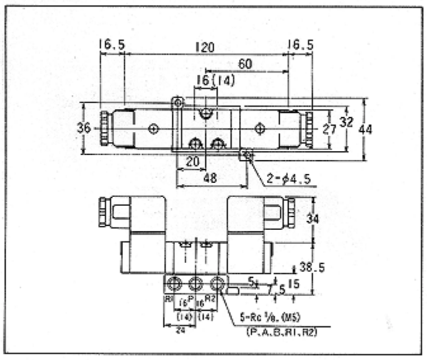
⑤ Manual override
- No mark : None locking
- L : Locking override

Operating Information

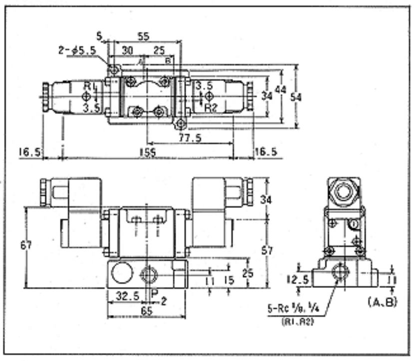
Model No.			Unit	PMD246	PMD2406	PMD2408	PMD2410	PMD2415	PMD2425
Port size			Rc	M5, 1/8"	1/8", 1/4"	1/4", 3/8"	3/8", 1/2"	1/2", 3/4"	3/4", 1", 1-1/4"
Effective Area			mm^2	4, 6.5	12.5	30	50	75	170, 200, 210
Cv Value				0.22, 0.35	0.68	1.63	2.71	4.07	9.22, 10.84, 11.39
Temperature Range			°C	5 ~ 60					
Pressure Range			MPa	0.15 ~ 1	0.2 ~ 0.8				
Operating Speed			cycle/min	360			300	120	60
Response Time (at 5 kgf/cm^2)			Sec.	ON/0.010	ON/0.010	ON/0.010	ON/0.015	ON/0.020	ON/0.075 AC 0.085 DC
Voltage			V	AC 24, 100, 110, 200, 220, 240, 50/60Hz DC 24, 48					
Solenoid Data (AC)	Holding	50Hz	VA	(100/200) 3.2					6.2
		60Hz	VA	(100/200) 2.6					5.4
	Inrush	50Hz	VA	(100/200) 5.0					10.5
		60Hz	VA	(100/200) 4.5					9.2
Power Consumption (DC)			W	2					1.8
Weight			kg	0.24	0.5	1.1	1.6	2.4	

DIMENSIONAL DATA: (Unit: mm)

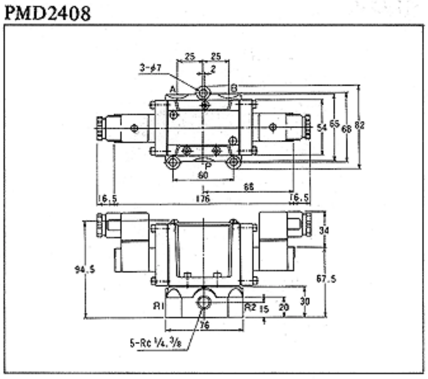
PMD246



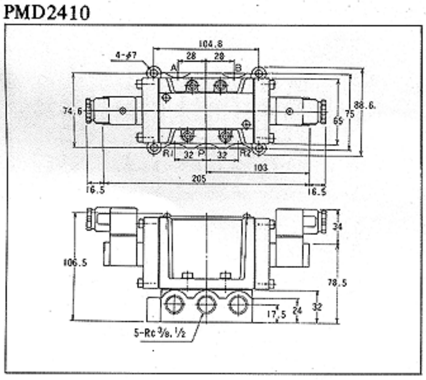
PMD2406



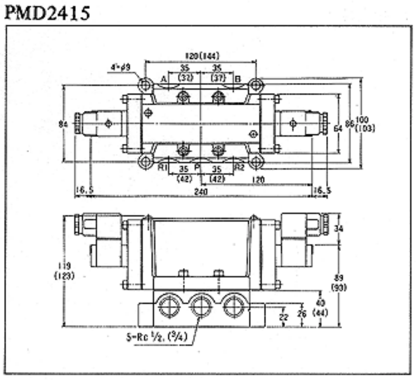
PMD2408



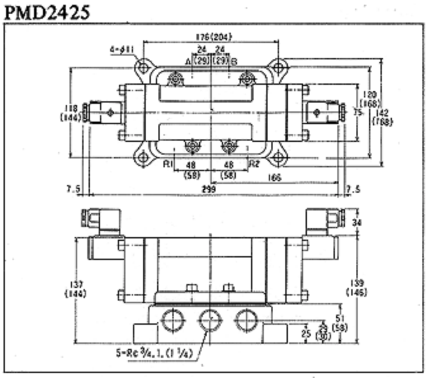
PMD2410



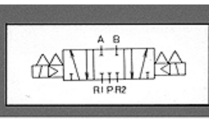
PMD2415



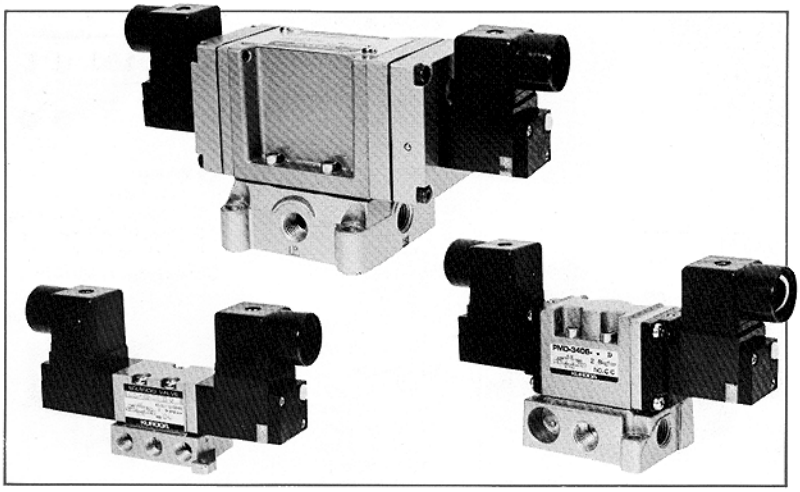
PMD2425



PMD34 Series



3-position, 4-way, 5-port Double Solenoid, All Ports Blocked in Neutral



Ordering Information

PMD3408 – 03 – 100 G L

① ② ③ ④ ⑤

① Model No.

② Port size
- 01 : Rc 1/8
- 02 : Rc 1/4
- 03 : Rc 3/8
- 04 : Rc 1/2
- 06 : Rc 3/4
- 08 : Rc 1
- 10 : Rc 1 1/4
- NB : Non-base

③ Voltage
- 024 : AC24V
- 100 : AC100/110V
- 200 : AC200/220V
- 240 : AC240V
- D24 : DC24V
- D48 : DC48V

④ Wiring
- L : Lead wire
- G : Grommet with terminal
- C : Conduit with terminal
- D : DIN connecter

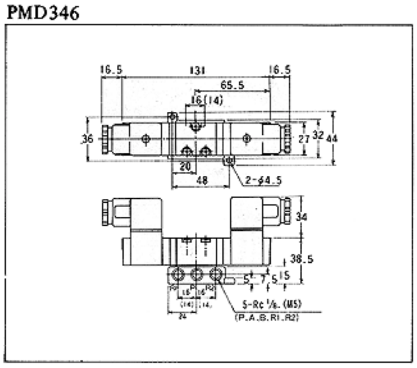
⑤ Manual override
- No mark : None locking
- L : Locking override

Operating Information

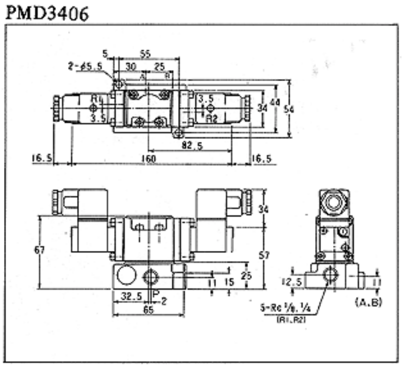
Model No.			Unit	PMD346	PMD3406	PMD3408	PMD3410	PMD3415	PMD3425
Port size			Rc	M5, 1/8"	1/8", 1/4"	1/4", 3/8"	3/8", 1/2"	1/2", 3/4"	3/4", 1", 1-1/4"
Effective Area			mm²	4, 6.5	12.0	25	50	75	165, 190, 195
Cv Value				0.22, 0.35	0.65	1.35	2.71	4.07	8.94, 10.29, 10.57
Temperature Range			°C	5 ~ 60					
Pressure Range			MPa	0.15 ~ 1	0.2 ~ 0.8				
Operating Speed			cycle/min	360		300	240	120	60
Response Time (at 5 kgf/cm²)			Sec.	ON/OFF 0.022/0.012	ON/OFF 0.010/0.020	ON/OFF 0.010/0.030	ON/OFF 0.015/0.035	ON/OFF 0.022/0.055	ON/OFF 0.075/0.115 (0.090/0.120)
Voltage			V	AC 24, 100, 110, 200, 220, 240, 50/60Hz DC 24, 48					
Solenoid Data (AC)	Holding	50Hz	VA	(100/200) 3.2					6.2
		60Hz	VA	(100/200) 2.6					5.4
	Inrush	50Hz	VA	(100/200) 5.0					10.5
		60Hz	VA	(100/200) 4.5					9.2
Power Consumption (DC)			W	2					1.8
Weight			kg	0.26	0.5	1.2	1.9	2.7	6.9

DIMENSIONAL DATA: (Unit: mm)

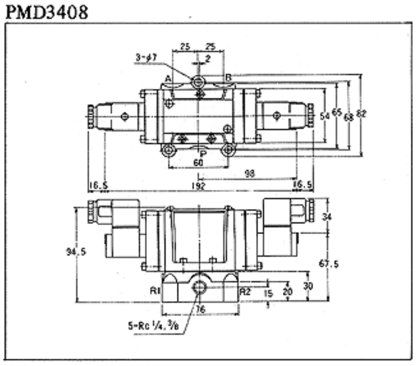
PMD346



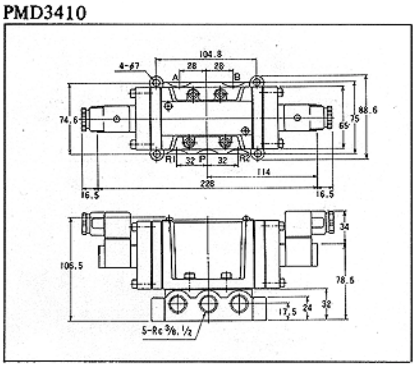
PMD3406



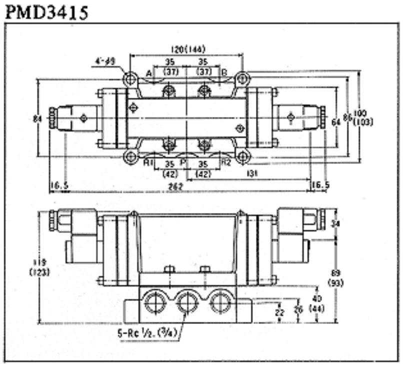
PMD3408



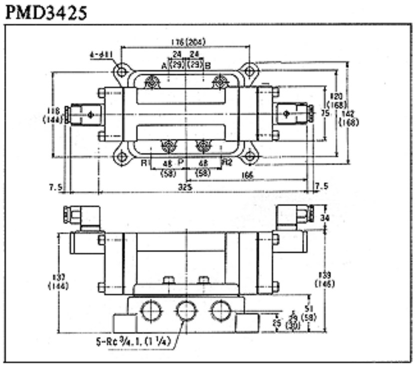
PMD3410



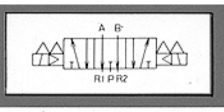
PMD3415



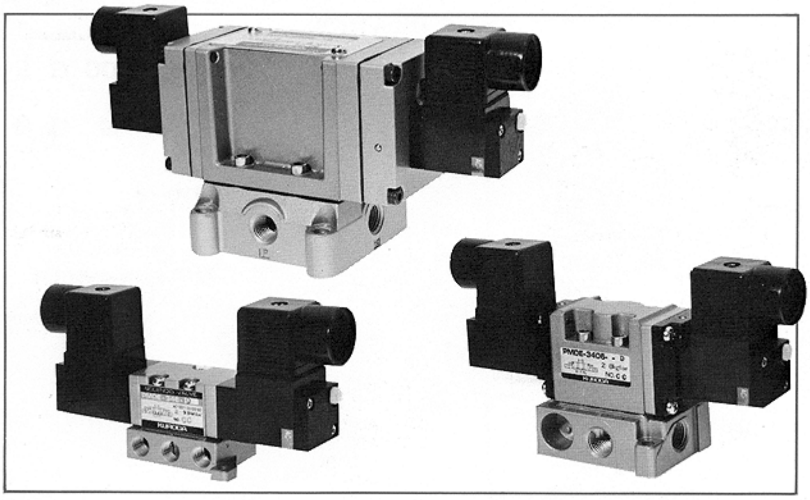
PMD3425



PME34 Series



3-position, 4-way, 5-port Double Solenoid, Exhaust Ports Opened in Neutral



Ordering Information

PME3408 — 03 — 100 G L

❶ ❷ ❸ ❹ ❺

❶ Model No.

❷ Port size
- 01 : Rc 1/8
- 02 : Rc 1/4
- 03 : Rc 3/8
- 04 : Rc 1/2
- 06 : Rc 3/4
- 08 : Rc 1
- 10 : Rc 1 1/4
- NB : Non-base

❸ Voltage
- 024 : AC24V
- 100 : AC100/110V
- 200 : AC200/220V
- 240 : AC240V
- D24 : DC24V
- D48 : DC48V

❹ Wiring
- L : Lead wire
- G : Grommet with terminal
- C : Conduit with terminal
- D : DIN connecter

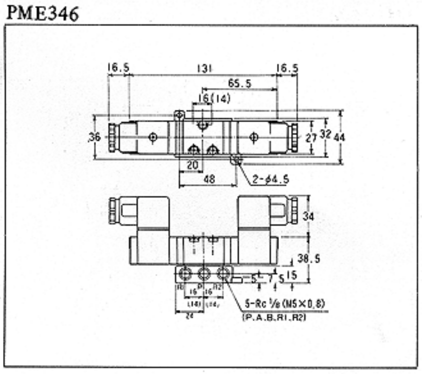
❺ Manual override
- No mark : None locking
- L : Locking override

Operating Information

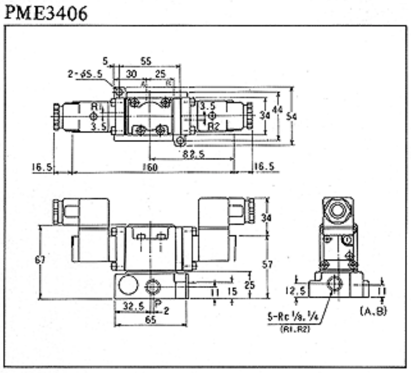
Model No.			Unit	PME346	PME3406	PME3408	PME3410	PME3415	PME3425
Port size			Rc	M5, 1/8"	1/8", 1/4"	1/4", 3/8"	3/8", 1/2"	1/2", 3/4"	3/4", 1", 1-1/4"
Effective Area			mm²	4, 6.5	12.0	25	50	75	165, 190, 195
Cv Value				0.22, 0.35	0.65	1.35	2.71	4.07	8.94, 10.29, 10.57
Temperature Range			°C	5 ~ 60					
Pressure Range			MPa	0.15 ~ 1	0.2 ~ 0.8				
Operating Speed			cycle/min	360		300	240	120	60
Response Time (at 5 kgf/cm²)			Sec.	ON/OFF 0.022/0.012	ON/OFF 0.010/0.020	ON/OFF 0.010/0.030	ON/OFF 0.015/0.035	ON/OFF 0.022/0.055	ON/OFF 0.075/0.115 (0.090/0.120)
Voltage			V	AC 24, 100, 110, 200, 220, 240, 50/60Hz DC 24, 48					
Solenoid Data (AC)	Holding	50Hz	VA	(100/200) 3.2					6.2
		60Hz	VA	(100/200) 2.6					5.4
	Inrush	50Hz	VA	(100/200) 5.0					10.5
		60Hz	VA	(100/200) 4.5					9.2
Power Consumption (DC)			W	2					1.8
Weight			kg	0.26	0.5	1.2	1.9	2.7	6.9

DIMENSIONAL DATA: (Unit: mm)

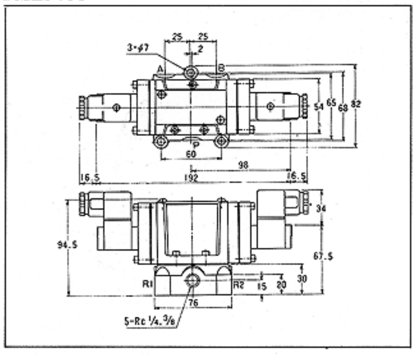
PME346



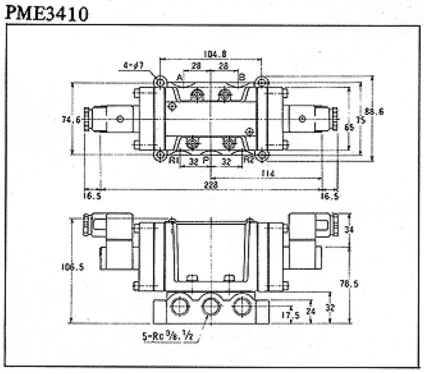
PME3406



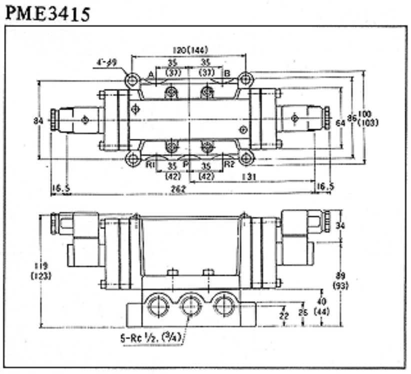
PME3408



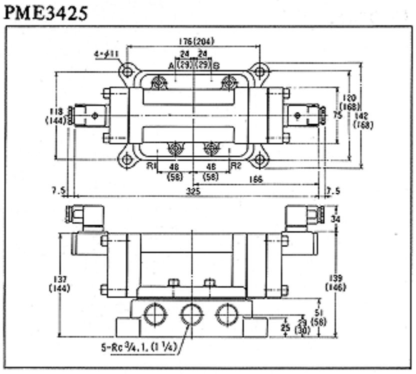
PME3410



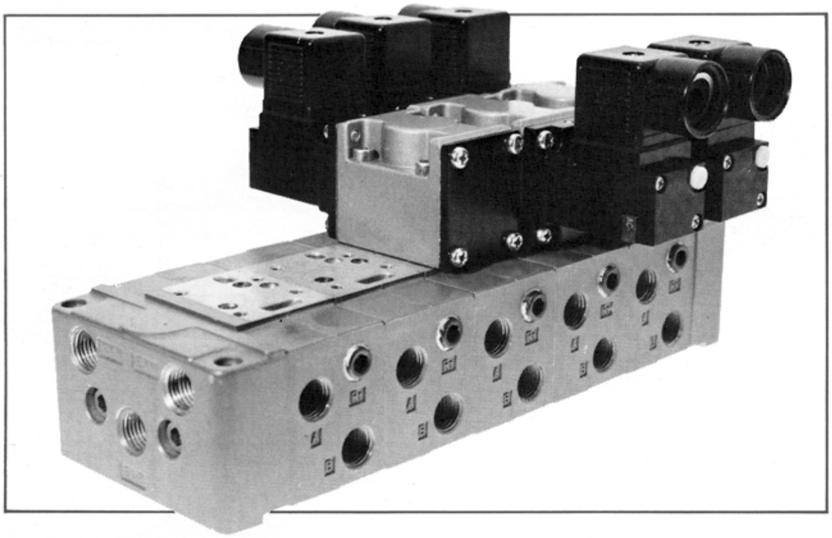
PME3415



PME3425



Manifold for PMS/D



Ordering Information

Manifold

MF 5 – CC08 – 02

- 5: Number of stations
- CC08: Model No.
- 02: Cylinder Port size

Blanking plate

CC08 – BP

- CC08: Manifold model No. (Common to CI)
- BP: Blanking plate

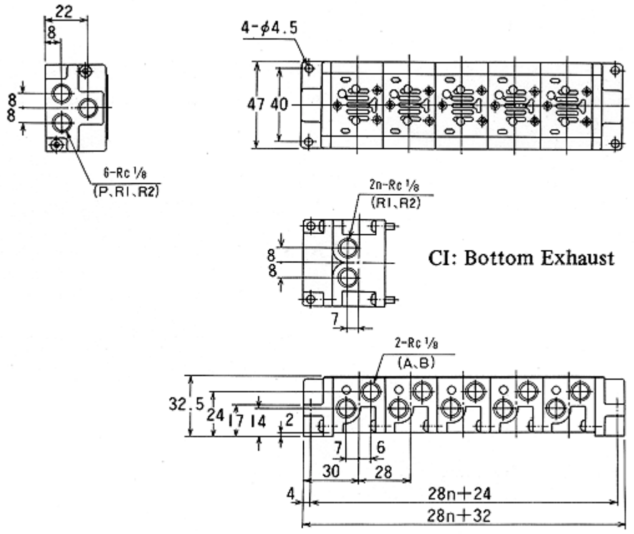
Operating Information

Manifold		MF□□-CI6	MF□□-CI06	MF□□-CI08	MF□□-CI10	MF□□-CI15	MF□□-CI25
		Common Supply & Exhaust					
Port size	Supply	Rc 1/8, 1/4	Rc 1/4	Rc 3/8	Rc 1/2	Rc 3/4	Rc 1
	Exhaust	Rc 1/8	Rc 1/4	Rc 3/8	Rc 1/2	Rc 3/4	Rc 1
	Cylinder	M5, Rc 1/8	Rc 1/8, 1/4	Rc 1/4, 3/8	Rc 3/8, 1/2	Rc 1/2	Rc 3/4, 1
Stations		2 ~ 10	2 ~ 10	2 ~ 10	2 ~ 10	2 ~ 10	2 ~ 10
Valves		PMS 246-NB-※※ PMD246-NB-※※ PMD346-NB-※※ PME 346-NB-※※	PMS 2406-NB-※※ PMD2406-NB-※※ PMD3406-NB-※※ PME 3406-NB-※※	PMS 2408-NB-※※ PMD2408-NB-※※ PMD3408-NB-※※ PME 3408-NB-※※	PMS 2410-NB-※※ PMD2410-NB-※※ PMD3410-NB-※※ PME 3410-NB-※※	PMS 2415-NB-※※ PMD2415-NB-※※ PMD3415-NB-※※ PME 3415-NB-※※	PMS 2425-NB-※※ PMD2425-NB-※※ PMD3425-NB-※※ PME 3425-NB-※※

Manifold		MF□□-CC16	MF□□-CC106	MF□□-CC0108	MF□□-CC110	MF□□-CC115	MF□□-CC125
		Common Supply, Individual Exhaust					
Port size	Supply	Rc 1/8, 1/4	Rc 1/4	Rc 3/8	Rc 1/2	Rc 3/4	Rc 1
	Exhaust	M5, Rc 1/8	Rc 1/4	Rc 3/8	Rc 1/2	Rc 3/4	Rc 1
	Cylinder	M5, Rc 1/8	Rc 1/8, 1/4	Rc 1/4, 3/8	Rc 3/8, 1/2	Rc 1/2	Rc 3/4, 1
Stations		2 ~ 10	2 ~ 10	2 ~ 10	2 ~ 10	2 ~ 10	2 ~ 10
Valves		PMS 246-NB-※※ PMD246-NB-※※ PMD346-NB-※※ PME 346-NB-※※	PMS 2406-NB-※※ PMD2406-NB-※※ PMD3406-NB-※※ PME 3406-NB-※※	PMS 2408-NB-※※ PMD2408-NB-※※ PMD3408-NB-※※ PME 3408-NB-※※	PMS 2410-NB-※※ PMD2410-NB-※※ PMD3410-NB-※※ PME 3410-NB-※※	PMS 2415-NB-※※ PMD2415-NB-※※ PMD3415-NB-※※ PME 3415-NB-※※	PMS 2425-NB-※※ PMD2425-NB-※※ PMD3425-NB-※※ PME 3425-NB-※※

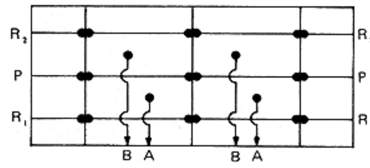
DIMENSIONAL DATA: (Unit: mm)

MF-$^{CC}_{CI}$6 (CI: Bottom Exhaust)

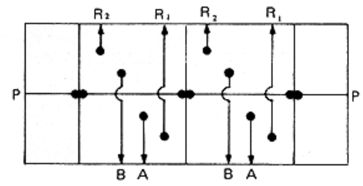


Manifold Circuit Diagram

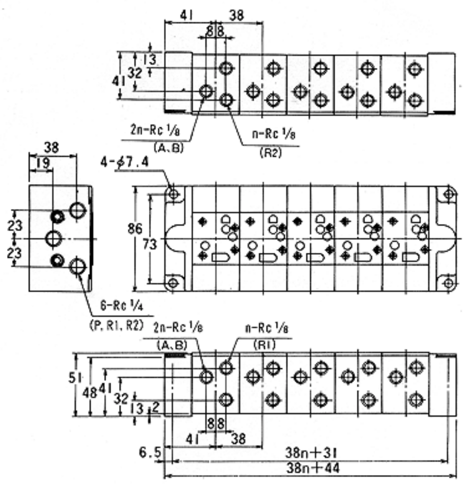
CC



CI

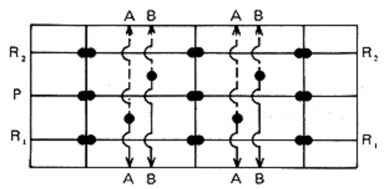


MF-$^{CC}_{CI}$06

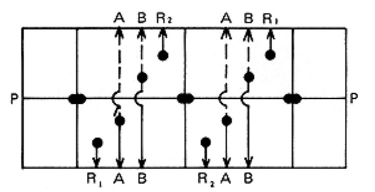


Manifold Circuit Diagram

CC

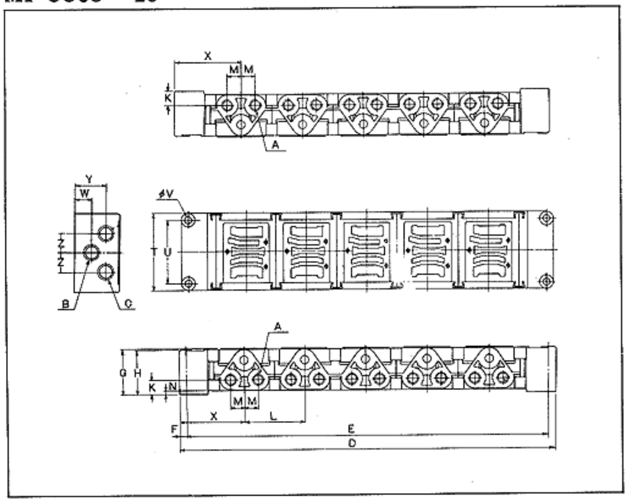


CI

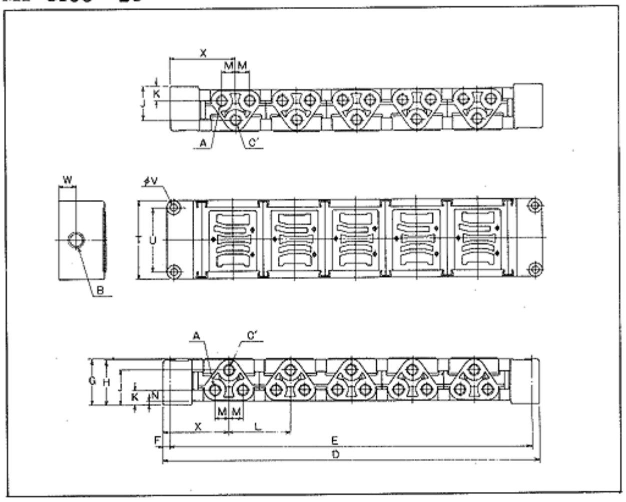


DIMENSIONAL DATA: (Unit: mm)

MF-CC08 ~ 25



MF-CI08 ~25

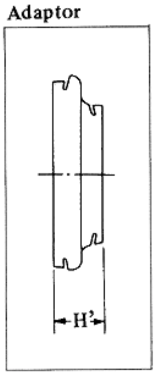


(Unit: mm)

Model No.	A	B	C	C'	D	E	F	G	H	J	K	L	M	N	T	U	V	W	X	Y	Z
MF-CI08	Rc1/4	Rc3/8	Rc3/8	—	70n +80	70n +64	8	52	51	—	16.5	70	16	4	90	74	8.5	19	75	35	22
MF-C108			—	Rc1/4						39.5										—	—
MF-CI10	Rc3/8	Rc1/2	Rc1/2	—	90n +90	90n +60	15	54	48	—	18.5	90	21.5	4	120	100	10.5	30	90	30	32
MF-C110			—	Rc3/8						39.5										—	—
MF-CI15	Rc1/2	Rc3/4	Rc3/4	—	110n +110	110n +80	15	69	60	—	23	110	26	4	144	120	12.5	35	112	35	37
MF-C115			—	Rc1/2						49										—	—
MF-CI25	Rc3/4	Rc1	Rc1	—	150n +140	150n +110	15	85	80	—	29	150	36	4	200	170	15	50	145	50	54
MF-C125			—	Rc3/4						59										—	—

n: Number of Manifold

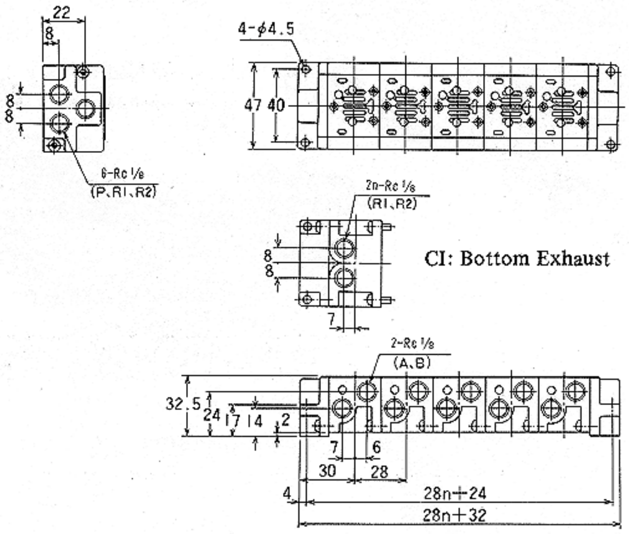
Adaptor



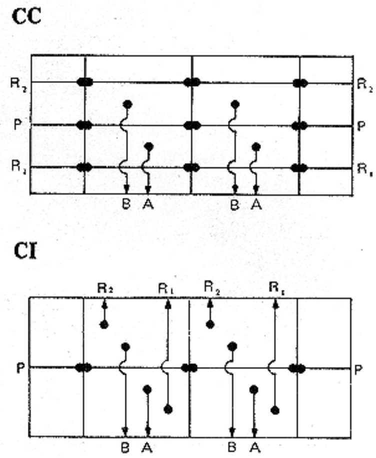
No.	H'
06 - 08	24mm
08 - 10	30mm
10 - 15	40mm
15 - 25	50mm

DIMENSIONAL DATA: (Unit: mm)

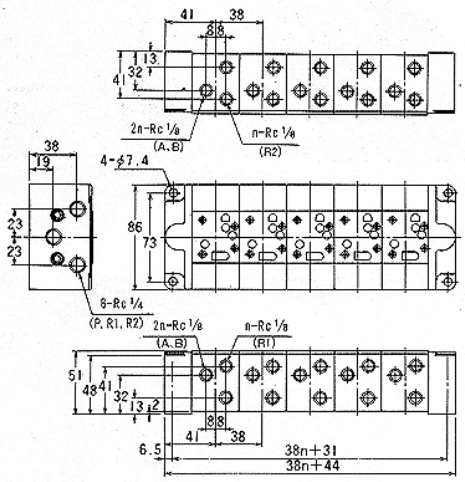
MF-$^{CC}_{CI}$6 (CI: Bottom Exhaust)



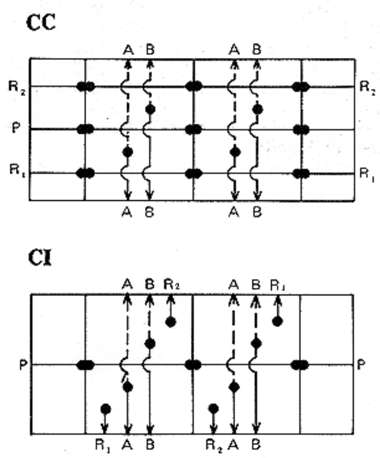
Manifold Circuit Diagram



MF-$^{CC}_{CI}$06



Manifold Circuit Diagram



SP	Straight type
SPE	Elbow type
SPF	Flat type
SPER	Universal elbow type
SPSR	Universal type
SPR	Universal type (Meter-in)

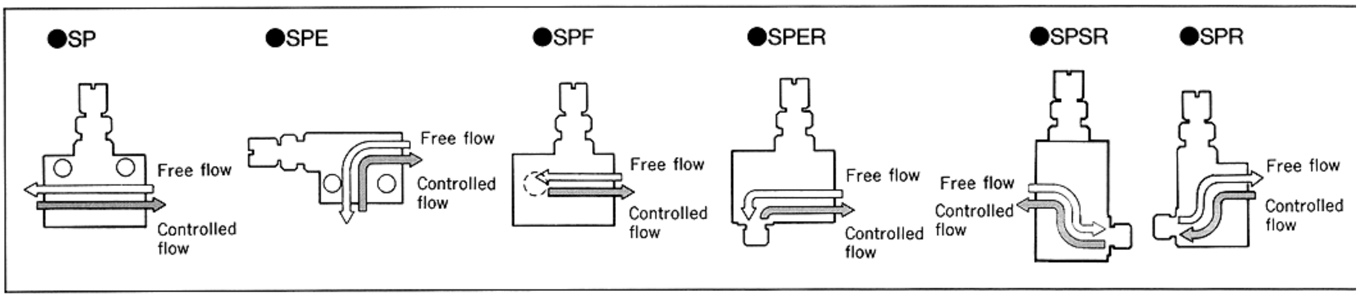
Operating Information

Model No.	Unit	SP-Z-M3	SPER-Z-M3	SPSR-Z-M3	SPR-Z-M3N
Port size		M3×0.5			
Effective area	mm^2	0.4			
Cv factor (Full open)		0.022			
Media		Non lubricated or lubricated air & inert gases			
Pressure range	MPa(kgf/cm^2)	0～0.8(0～8.2)			
Ambient temperature	℃	−5～60			
Mass	g	3	4	5	4

Model No.	Unit	SP-H-M5	SPE-H-M5	SPF-H-M5	SPER-H-M5	SPSR-H-M5	SPR-H-M5N
Port size		M5×0.8					
Effective area	mm^2	1					
Cv factor (Full open)		0.056					
Media		Non lubricated or lubricated air & inert gases					
Pressure range	MPa(kgf/cm^2)	0～0.8(0～8.2)					
Ambient temperature	℃	−5～60					
Mass	g	10	10	15	15	16	15

(Note) • Effective area : controlled flow, full open.
• Special care should be taken for freezing when operating an Speed control valve at a temperature below 5℃.
If water is completely removed from air using an air dryer, the Speed control valve can be operated at a temperature of −5℃.

■CONTROL METHOD



Ordering Information

SP - Z [ ] - M3 [ ] [ ]

① ② ③ ④ ⑤ ⑥

①Type
- SP : Straight type
- SPE : Elbow type
- SPF : Flat type
- SPER : Universal elbow type
- SPSR : Universal type
- SPR : Universal type (Meter-in)

(Note) SPE,SPF is available only with H series.

②Series
- Z : Z series
- H : H series

③Surface treatment
- No mark : Standard
- S : Electroless Nickel Plating

④Port size
- M3 : M3×0.5
- M5 : M5×0.8

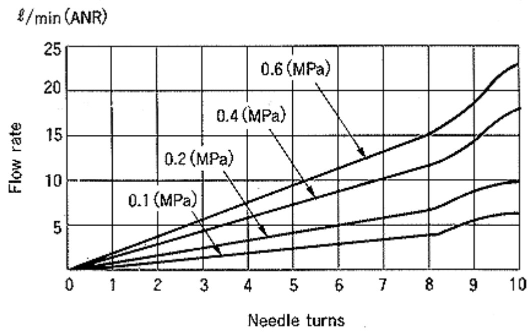
⑤Control method
- No mark : Meter-out
- N : Meter-in

(Note) Meter-in is available only with SPR.

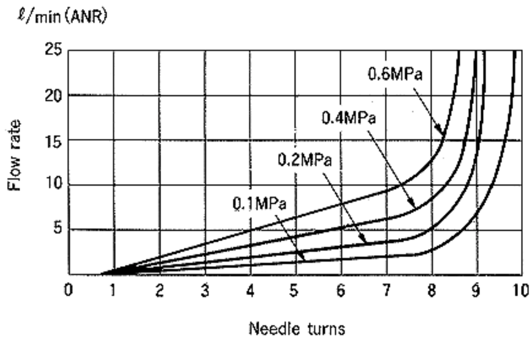
⑥Version
- No mark : Standard (Prelubricated)
- F : Perfectly without prelubricant in speed control valve

■FLOW CHARACTERISTICS

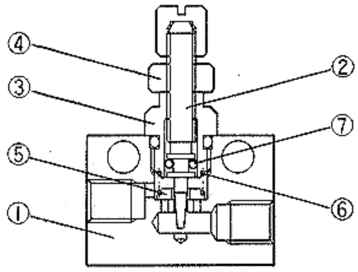
Zseries



Hseries



■CONSTRUCTIONS



■PARTS LIST

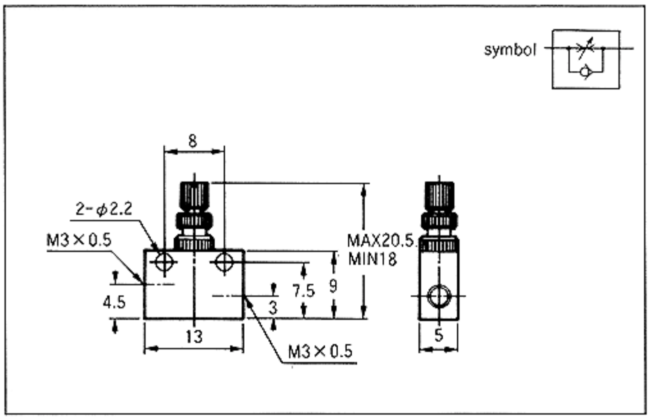
No.	Description
①	Body
②	Needle
③	Cover
④	Lock nut
⑤	Check valve seat
⑥	Spring
⑦	O-ring

CAUTION

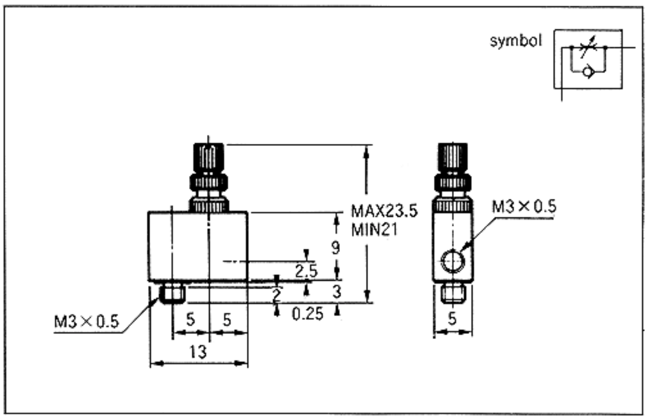
- Make sure the direction of flow before connecting the speed control valve.
- Refer the technical information on page 12 for tightening torque and piping of the speed control valve.

■DIMENSIONS

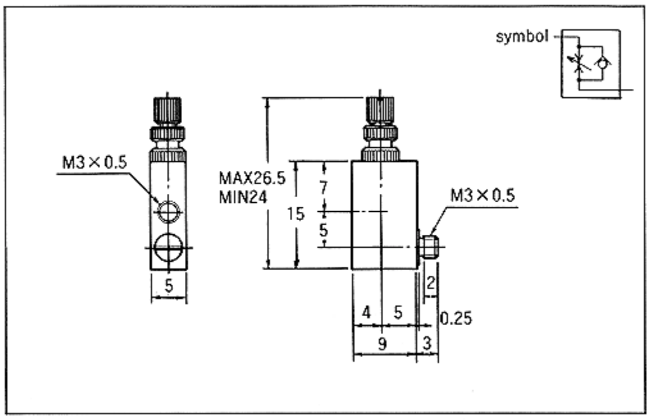
●SP-Z-M3 (Unit : mm)



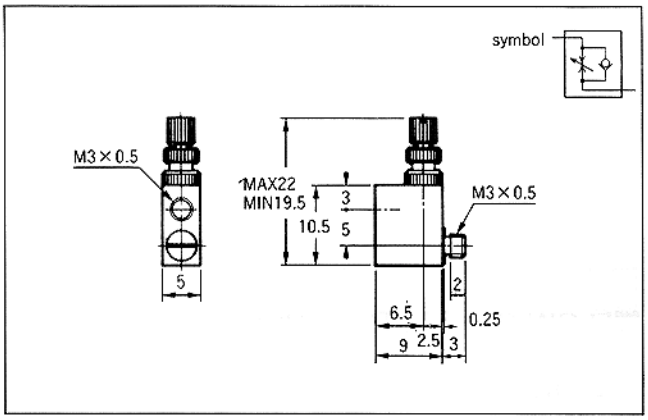
●SPSR-Z-M3 (Unit : mm)



●SPER-Z-M3 (Unit : mm)

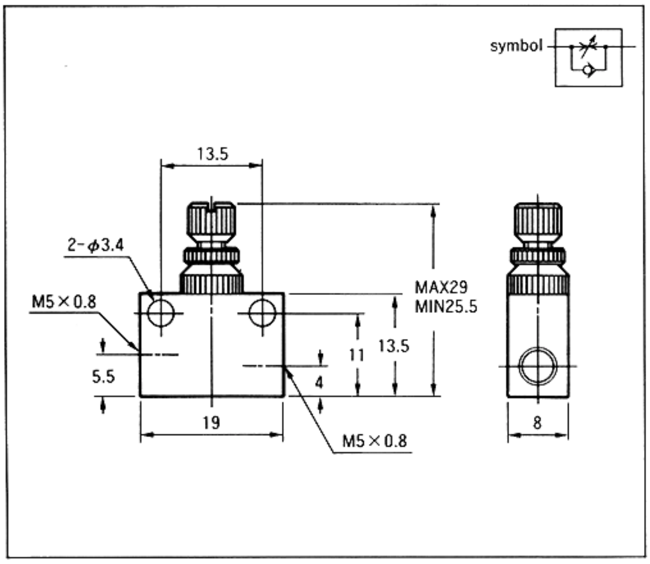


●SPR-Z-M3N (Unit : mm)

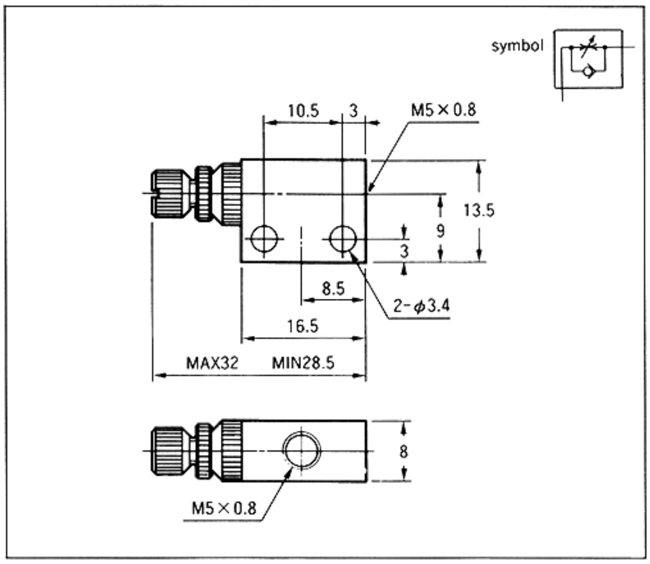


■DIMENSIONS

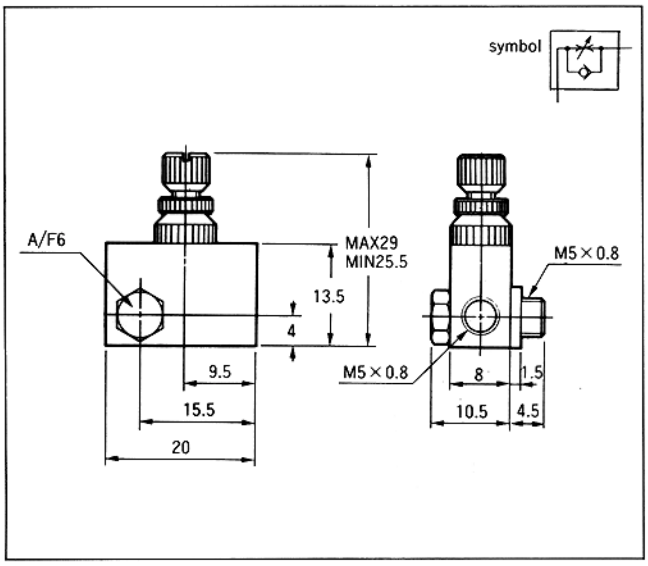
●SP-H-M5 (Unit : mm)



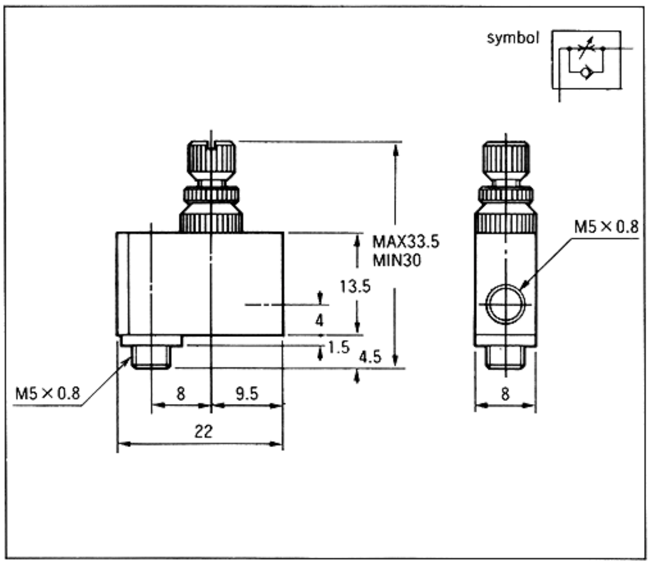
●SPE-H-M5 (Unit : mm)



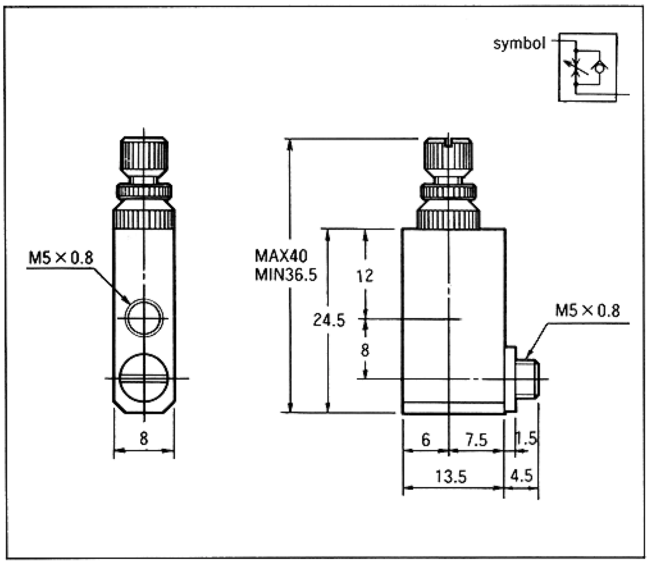
●SPF-H-M5 (Unit : mm)



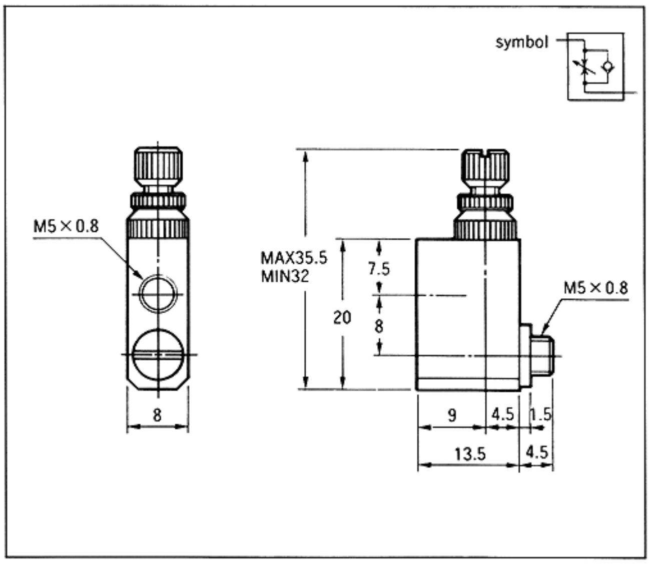
●SPER-H-M5 (Unit : mm)



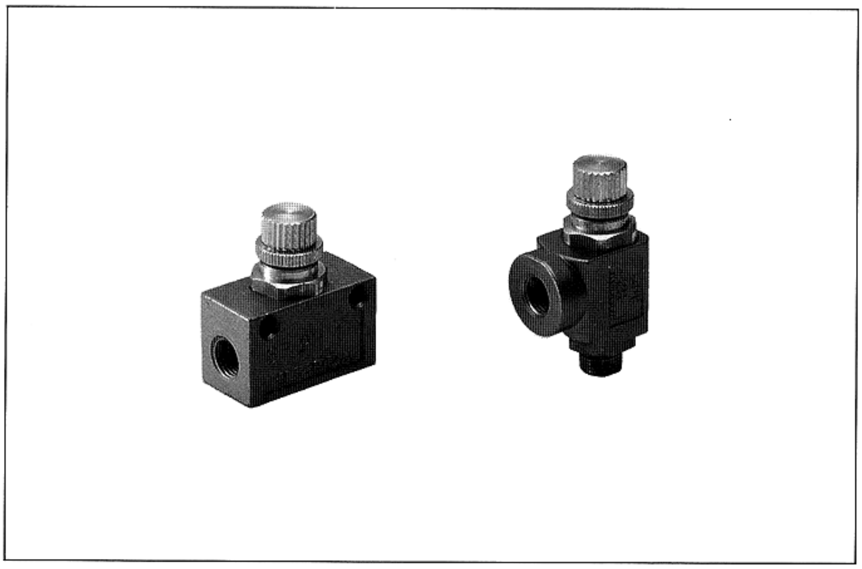
●SPSR-H-M5 (Unit : mm)



●SPR-H-M5N (Unit : mm)



SP-2H	Straight type
SPE-2H	Elbow type



Operating Information

Model No.	Unit	SP-2H-1	SP-2H-2	SPE-2H-1	SPE-2H-2
Port size		Rc⅛	Rc¼	R、Rc⅛	R、Rc¼
Effective area	mm^2	2.7			
Cv factor (Full open)		0.15			
Media		Non lubricated or lubricated air & inert gases			
Pressure range	MPa〔kgf/cm^2〕	0～1〔0～10.2〕			
Ambient temperature	℃	−5～60			
Mass	g	45	51	52	60

(Note) • Effective area : controlled flow, full open.
• Special care should be taken for freezing when operating an Speed control valve at a temperature below 5℃.
If water is completely removed from air using an air dryer, the Speed control valve can be operated at a temperature of −5℃.

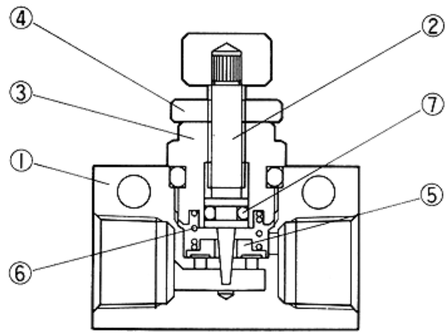
Ordering Information

SP - 2H - 1
① ②

①Type
SP : Straight type
SPE : Elbow type

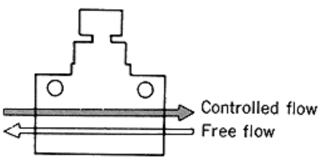
②Port size
1 : R、Rc⅛
2 : R、Rc¼

■CONSTRUCTIONS

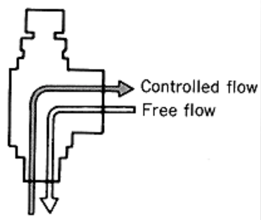


■CONTROL METHOD

●SP-2H



●SPE-2H

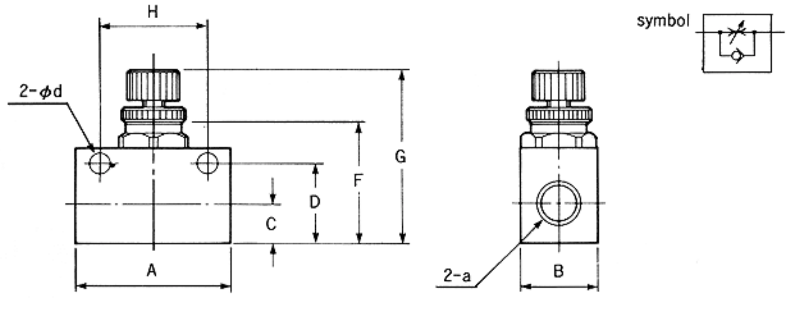


■PARTS LIST

No.	Description
①	Body
②	Needle
③	Cover
④	Lock nut
⑤	Check valve seat
⑥	Spring
⑦	O-ring

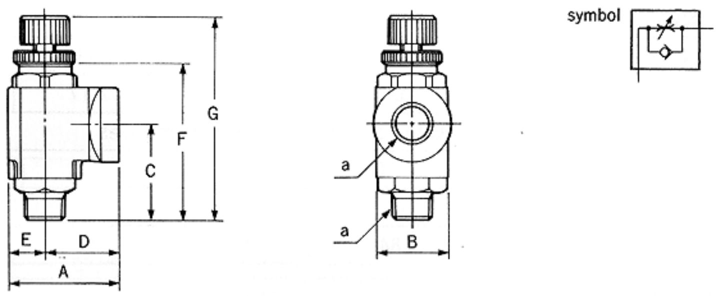
■DIMENSIONS

●SP-2H (Unit : mm)



Model No.	A	B	C	D	F	G	H	a Rc	d
SP-2H-1	36	18	9	18.5	28	MAX45、MIN40	25	⅛	4.5
SP-2H-2	36	18	9	18.5	28	MAX45、MIN40	25	¼	4.5

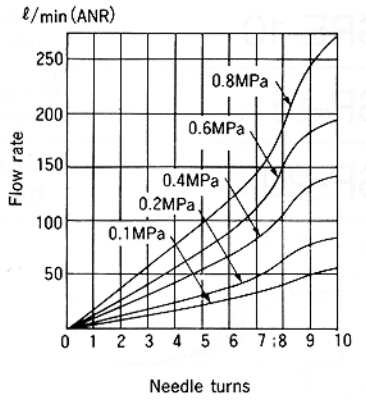
●SPE-2H (Unit : mm)



Model No.	A	B	C	D	E	F	G	a R、Rc
SPE-2H-1	27.5	18	24	18.5	9	39.5	MAX56、MIN51	⅛
SPE-2H-2	27.5	18	28	18.5	9	43.5	MAX60、MIN55	¼

■FLOW CHARACTERISTICS

●SP-2H、SPE-2H



⚠ CAUTION

- Make sure the direction of flow before connecting the speed control valve.
- Refer the technical information on page 12 for tightening torque and piping of the speed control valve.

SP-06	Straight type
SPE-06	Elbow type
SPE-10	Elbow type
SP-15	Straight type
SP-20	Straight type

Operating Information

Model No.	Unit	SP-06-1	SP-06-2	SPE-06-1	SPE-06-2	SPE-10-3	SPE-10-34
Port size		Rc1/8	Rc1/4	R、Rc1/8	R、Rc1/4	R、Rc3/8	External R1/2 Internal Rc3/8
Effective area	mm^2	14	17	9	12	39	45
Cv factor (Full open)		0.78	0.94	0.5	0.67	2.17	2.5
Media		Non lubricated or lubricated air & inert gases					
Pressure range	MPa〔kgf/cm^2〕	0～1〔0～10.2〕					
Ambient temperature	℃	−5～60					
Mass	g	205	200	84	85	190	195

Model No.	Unit	SP-15-3	SP-15-4	SP-15-46	SP-15-6	SP-20-6	SP-20-8
Port size		Rc3/8	Rc1/2	Free flow Rc1/2 Cont. flow Rc3/4	Rc3/4	Rc3/4	Rc1
Effective area	mm^2	64	69	69	70	155	174
Cv factor (Full open)		3.56	3.83	3.83	3.89	8.61	9.67
Media		Non lubricated or lubricated air & inert gases					
Pressure range	MPa〔kgf/cm^2〕	0～1〔0～10.2〕					
Ambient temperature	℃	−5～60					
Mass	g	195	185	173	160	625	600

(Note) • Effective area : controlled flow, full open.
• Special care should be taken for freezing when operating an Speed control valve at a temperature below 5℃.
If water is completely removed from air using an air dryer, the Speed control valve can be operated at a temperature of −5℃.

Ordering Information

SP - 06 - 1
① ② ③

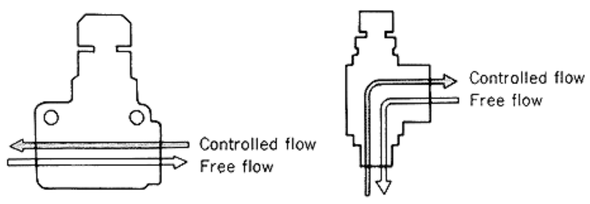
①Type
SP : Straight type
SPE : Elbow type

②Series

③Port size
1 : R、Rc1/8
2 : R、Rc1/4
3 : R、Rc3/8
34 : External thread R1/2
Internal thread Rc3/8
4 : Rc1/2
46 : Free flow Rc1/2
Controlled flow Rc3/4
6 : Rc3/4
8 : Rc1

■CONTROL METHOD

●SP-06、15、20 ●SPE-06、10

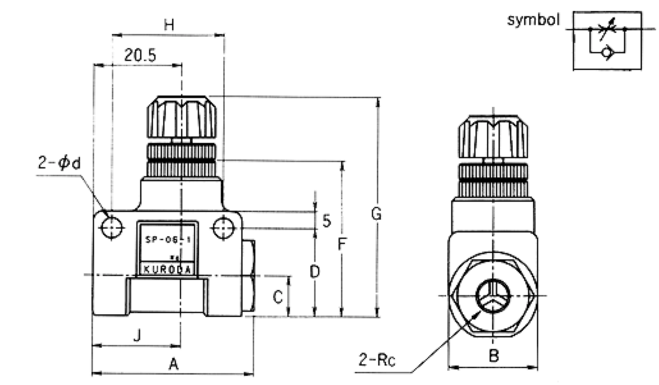


⚠ CAUTION

• Make sure the direction of flow before connecting the speed control valve.
• Refer the technical information on page 12 for tightening torque and piping of the speed control valve.

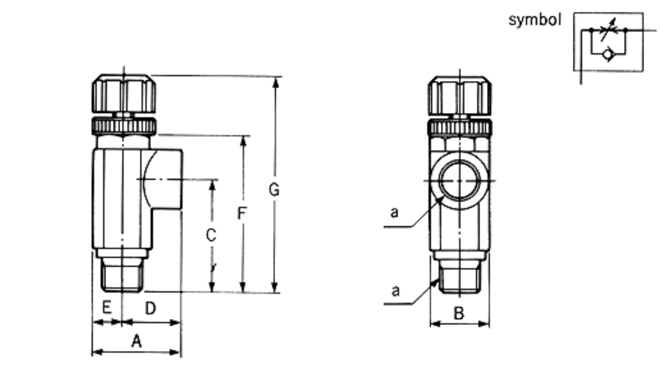
■DIMENSIONS

●SP-06 (Unit : mm)



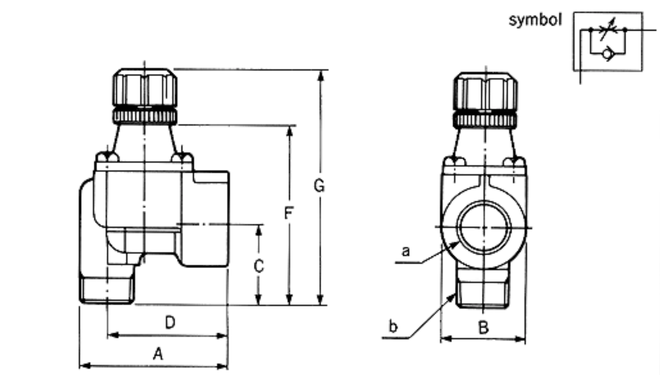
Model No.	A	B	C	D	F	G	H	J	a Rc	d
SP-06-1	47.7	26	13	27	47	MAX74、MIN66	33	26	⅛	6
SP-06-2	47.7	26	13	27	47	MAX74、MIN66	33	26	¼	6

●SPE-06 (Unit : mm)



Model No.	A	B	C	D	E	F	G	a R、Rc
SPE-06-1	28.5	19	33.5	19	9.5	47	MAX74.5、MIN66	⅛
SPE-06-2	28.5	19	37.5	19	9.5	51	MAX78.5、MIN70	¼

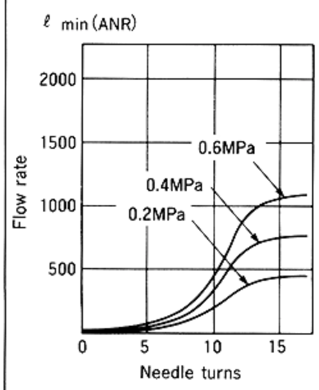
●SPE-10 (Unit : mm)



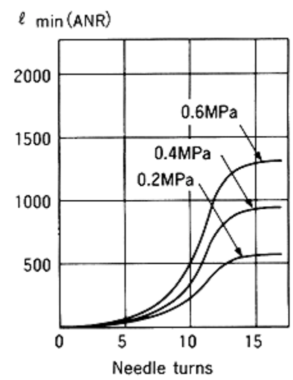
Model No.	A	B	C	D	F	G	a Rc	b R
SPE-10-3	47.7	27	26	39	58	MAX83、MIN76	⅜	⅜
SPE-10-34	49.5	27	28	39	60	MAX85、MIN78	⅜	½

■FLOW CHARACTERISTICS

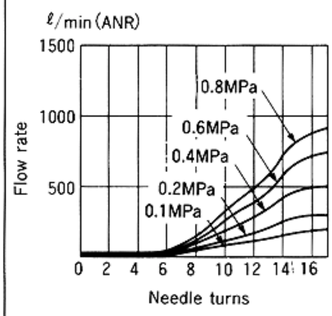
●SP-06-1



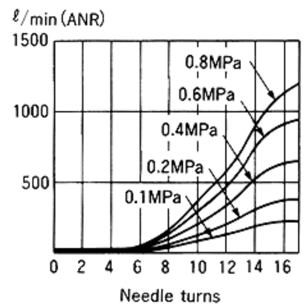
●SP-06-2



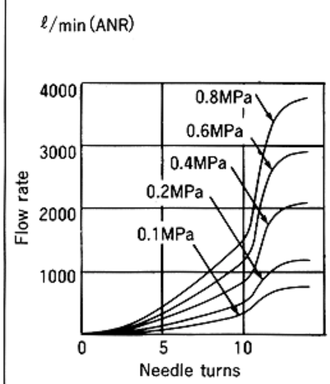
●SPE-06-1



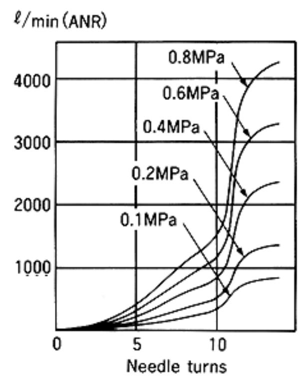
●SPE-06-2



●SPE-10-3

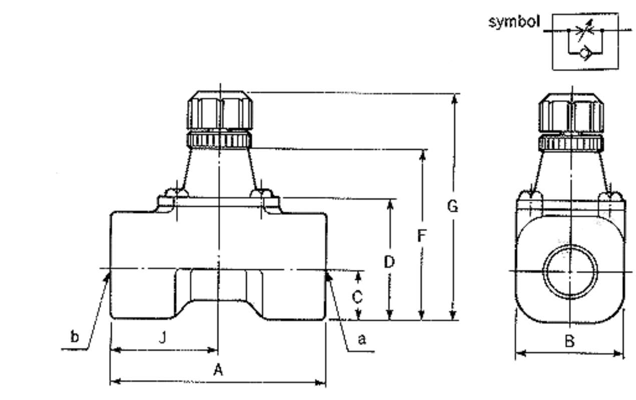


●SPE-10-34



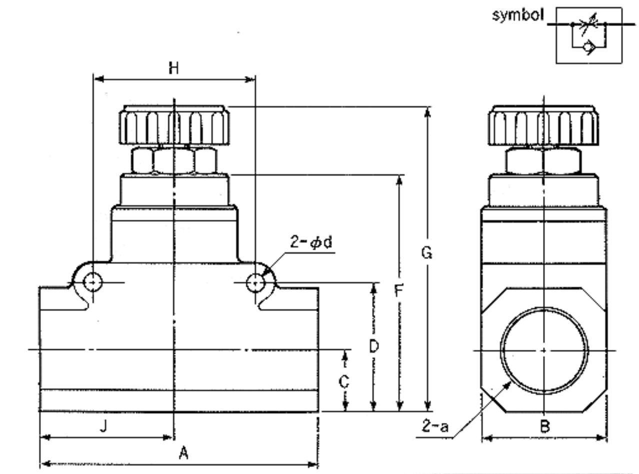
■DIMENSIONS

●SP-15 (Unit : mm)



Model No.	A	B	C	D	F	G	J	a Rc	b Rc
SP-15-3	68	34	16	39	55	MAX85、MIN73	34	3/8	3/8
SP-15-4	68	34	16	39	55	MAX85、MIN73	34	1/2	1/2
SP-15-46	68	34	16	39	55	MAX85、MIN73	34	1/2	3/4
SP-15-6	68	34	16	39	55	MAX85、MIN73	34	3/4	3/4

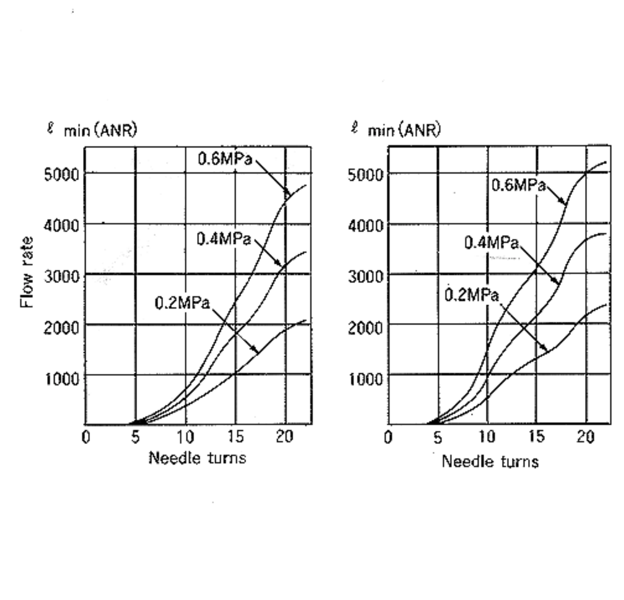
●SP-20 (Unit : mm)



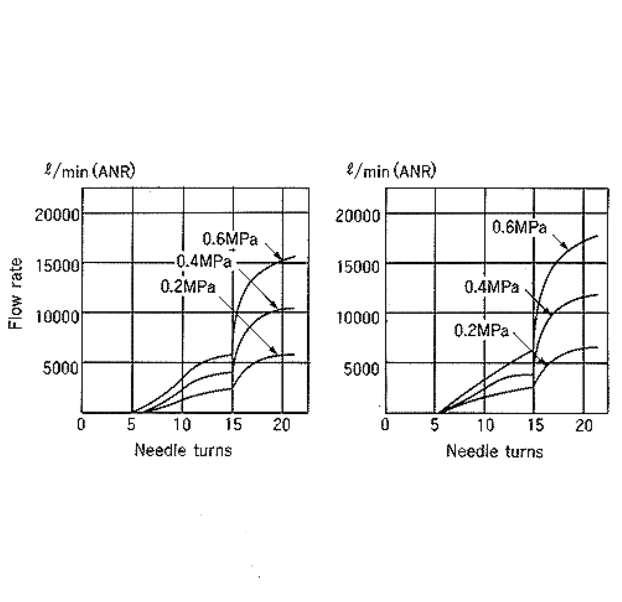
Model No.	A	B	C	D	F	G	H	J	a Rc	d
SP-20-6	103	46	23	48	88	MAX132.5、MIN113.5	60	50	3/4	6.5
SP-20-8	103	46	23	48	88	MAX132.5、MIN113.5	60	50	1	6.5

■FLOW CHARACTERISTICS

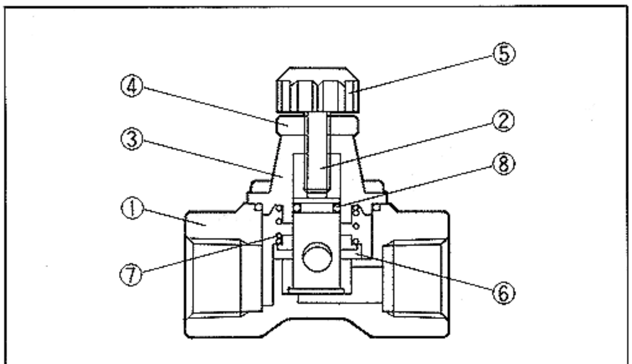
●SP-15-3 ●SP-15-4



●SP-20-6 ●SP-20-8

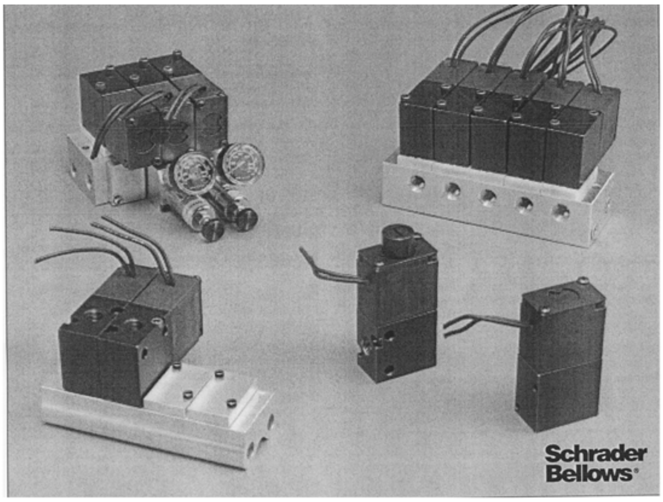


■CONSTRUCTIONS

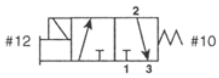


■PARTS LIST

No.	Description
①	Body
②	Needle
③	Cover
④	Lock nut
⑤	Knob
⑥	Check valve seat
⑦	Spring
⑧	O-ring



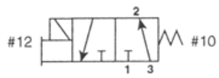
3-Way, 2-Position, Normally Closed



De-energized position – Solenoid #12 de-energized. Pressure at inlet port 1 blocked, outlet port 2 connected to exhaust port 3.

Energized position – Solenoid #12 energized. Pressure at inlet port 1 is connected to outlet port 2, exhaust port 3 is blocked.

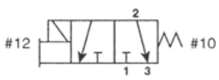
3-Way, 2-Position, Normally Open



De-energized position – Solenoid #12 de-energized. Pressure at inlet port 3 connected to outlet port 2, exhaust port 1 is blocked.

Energized position – Solenoid #12 energized. Pressure at inlet port 3 blocked, outlet port 2 connected to exhaust port 1.

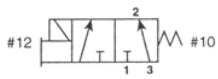
3-Way, 2-Position, Diverter



De-energized position – Solenoid #12 de-energized. Pressure at inlet port 2 connected to outlet port 3. Port 1 is blocked.

Energized position – Solenoid #12 energized. Pressure at inlet port 2 is connected to outlet port 1. Port 3 is blocked.

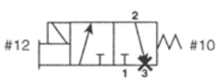
3-Way, 2-Position, Selector



De-energized position – Solenoid #12 de-energized. Pressure at inlet port 1 is blocked. Pressure at inlet port 3 is connected to outlet port 2.

Energized position – Solenoid #12 energized. Pressure at inlet port 1 is connected to outlet port 2. Pressure at port 3 is blocked.

2-Way, 2-Position, Normally Closed

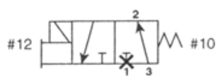


De-energized position – Solenoid #12 de-energized. Pressure at inlet port 1 blocked, port 2 is connected to port 3, which is plugged.

Energized position – Solenoid #12 energized. Pressure at inlet port 1 is connected to outlet port 2. Port 3 is blocked.

* Plug port 3.

2-Way, 2-Position, Normally Open



De-energized position – Solenoid #12 de-energized. Pressure at inlet port 3 is connected to outlet port 2. Port 1 is blocked.

Energized position – Solenoid #12 energized. Pressure at inlet port 3 is blocked. Port 2 is connected to port 1, which is plugged.

* Plug port 1.

MicroKing Subbase Valve on 3-Port Subbase Bar Manifold is available as 3-Way NC and 3-Way NO. When choosing either an NC or NO valve, the valve is the same but the selector gasket is different to give the desired function.

Flow Characteristics
- MK 3-Way: .19 Cv

Operating Pressure
- Vacuum to 125 PSIG

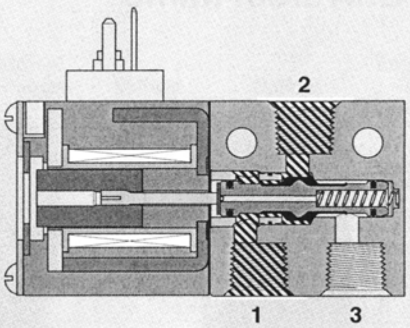
Ports
- 1/8" NPT, BSPP 'G'
- M5
- 1/4 Inch Tube

Mounting
- Inline – Universal Function
  - NC, NO
  - Selector, Diverter
- IEM Bar Manifold
- Subbase Valve
  - NC, NO, Selector
- 3-Port Subbase Aluminum Bar Manifold

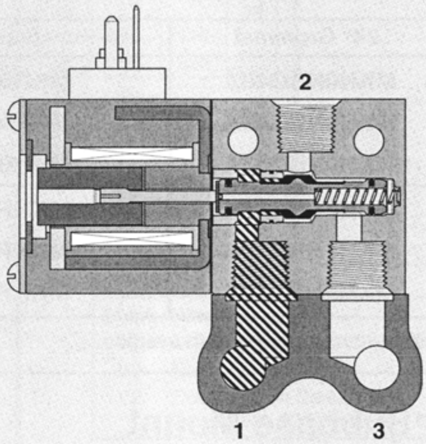
Solenoids
- 4.8 Watt
- Continuous Duty Rated
- 24" Grommet, 15mm 3-Pin DIN 43650C
- 12VDC to 240VAC

Balanced Poppet
- Buna-N
- Fluorocarbon

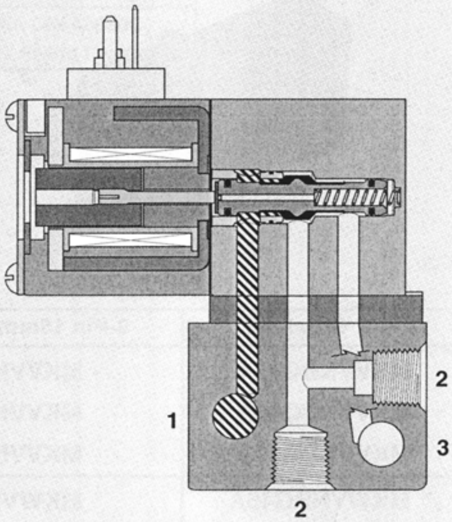
Certification/Approval
- Approved to be CE marked



Inline Valve
Shown Energized



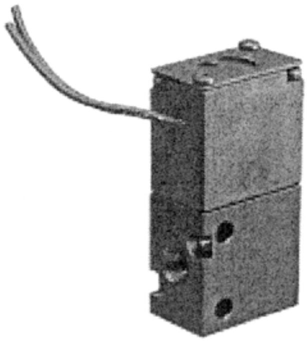
Inline Valve with IEM Bar Manifold
Shown De-Energized

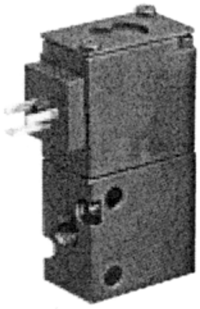


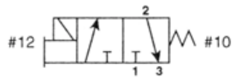
Subbase Valve on 3-Ported Subbase Bar Manifold
Shown De-Energized

Pressure   Exhaust

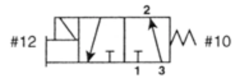
3-Way Universal Inline



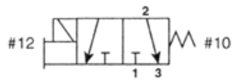




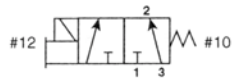
Normally Closed



Normally Open



Diverter

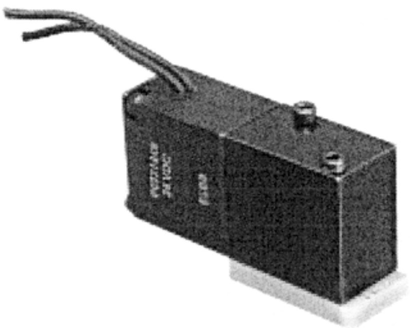


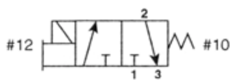
Selector

24" Grommet	3-Pin 15mm DIN 43650C	Voltage	Port Size
MKH0NBG45A	MKH0NB545A	12VDC	
MKH0NBG49A	MKH0NB549A	24VDC	1/8" NPT
MKH0NBG53A	MKH0NB553A	120VAC	
MKHFNBG45A	MKHFNB545A	12VDC	1/4" Tube Port #2
MKHFNBG49A	MKHFNB549A	24VDC	
MKHFNBG53A	MKHFNB553A	120VAC	1/8" NPT Port #1 & #3

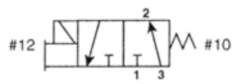
Note: All units with non-locking flush override.

3-Way Subbase Mount





Normally Closed



Normally Open

24" Grommet	3-Pin 15mm DIN 43650C	Voltage	Function
MKVVNBG45A	MKVVNB545A	12VDC	
MKVVNBG49A	MKVVNB549A	24VDC	Normally Closed
MKVVNBG53A	MKVVNB553A	120VAC	
MKWVNBG45A	MKWVNB545A	12VDC	
MKWVNBG49A	MKWVNB549A	24VDC	Normally Open
MKWVNBG53A	MKWVNB553A	120VAC	

Note: All units with non-locking flush override. Valve includes mounting bolts & appropriate NC or NO selector gasket.
Subbase valves must be used on PSEK & PSFK Bar Manifolds (Page 7).

MicroKing BOLD OPTIONS ARE STANDARD

Basic Series	Operator/ Function	Port Size/ Thread Type	Pilot Source/ Exhaust	Overrides	Enclosures/ Lead Length	Voltage	Options	Engineering Level
MK	H	0	N	B	G	53	–	A

Operator / Function

3-Way Inline
- **H** **Universal 3-Way, Spring Return**

3-Way Subbase
- **V** **3-Way Normally Closed, Spring Return**
- **W** **3-Way Normally Open, Spring Return**

Port Size / Thread Type

3-Way

0*	**1/8" NPT Inline**
3	1/4" Tube - Port 1 & 2; 1/8" NPT - Port 3 Inline
5*	1/8" BSPP "G" Inline
6	1/4" Tube - Port 2 & 3; 1/8" NPT - Port 1 Inline
C*	M5 Inline
D	1/4" Tube - Port 1, 2 & 3 Inline
F*	**1/4" Tube - Port 2; 1/8" NPT - Port 1 & 3 Inline**
V	**Subbase Valve Less Base**

* Available on IEM Manifold

Pilot Source / Pilot Exhaust

N	**Direct Operated**

Overrides

B	**Flush - Non-Locking**
C	Flush - Locking

Enclosures / Lead Length

5	**15mm 3-Pin DIN 43650C**
G	**Grommet / Flying Leads 24"**

Voltage

	AC 60Hz	AC 50Hz	DC
42	24	22	
45			**12**
47*			12
48*			24
49			**24**
53	**120**	**110**	
57	240	220	

* Mobile Voltage

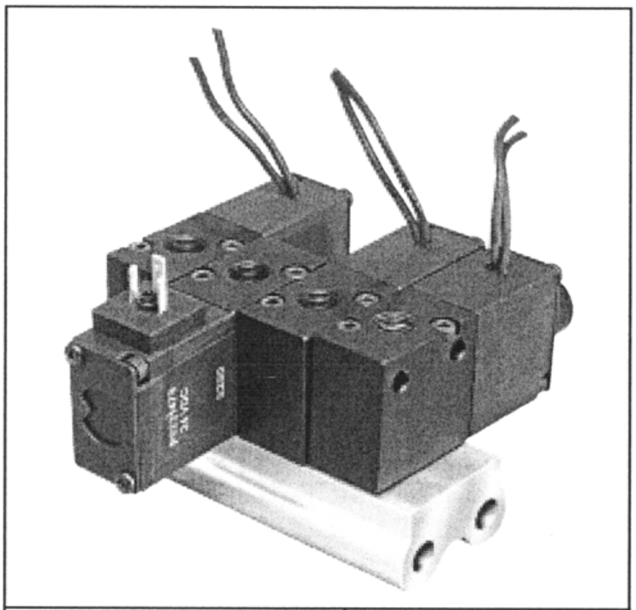
Options

Blank	**None**
02	Coil Connection 180° from Port #2
V0	Fluorocarbon Seals
V2	Fluorocarbon Seals, Coil Connection 180° from Port #2

Engineering Level

A	**Current**

Subbase valves with option '02' or 'V2' will not mount on Subbase Manifolds with the Regulator Option.
Inline valves with option '02' or 'V2' will not mount on IEM Manifolds with Sandwich Regulators when the valve is configured for Normally Closed function.



3-Way IEM, NPT	PSMKNXN##NP

– stations 02 to 20

- IEM Bar Manifold uses standard Universal Inline MicroKing Valves.
- Standard Manifold allows mounting of Normally Closed and Normally Open Valves simultaneously by rotating valve mounting as shown in picture.
- Manifolds available in all station lengths 2 thru 20.
- Manifold Kit includes o-rings and bolts.

Accessories

Blank Plate - Universal 1/8" NPT PS2166P
Blank Plate - Universal 1/8" BSPP "G" PS2167P
Blank Plate PS2169P
DIN Rail Clip - IEM / Subbase (2) PS2190P

Replacement Kits

IEM Valve/Manifold O-ring Kit (10) PS2184P
IEM Valve/Manifold Bolt Kit (10) PS2187P

Model Number

	Type	Series	Pilot	Cylinder Ports	Port Type	# of Stations	Options	
AA	PS	M	K	N	X	N	04	N	P

Blank	Manifold Only
AA	Manifold with Valves Mounted

Type	
M	IEM

Series	
K	MicroKing

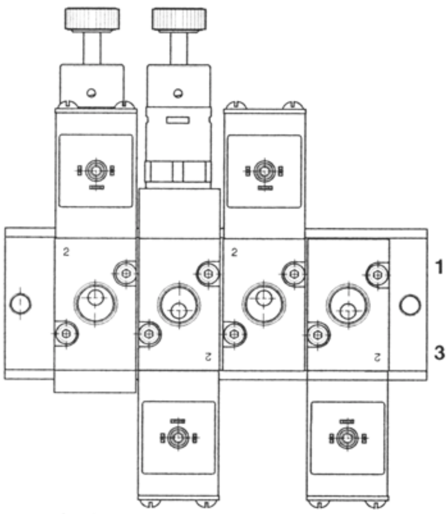
Pilot	
N	Direct

Cylinder Ports	
X	IEM Manifold

Port Type	
G	BSPP "G"
N	NPT

Stations
02
•
•
•
20

Options	
N	None



Station 1 Station 2 Station 3 Station 4

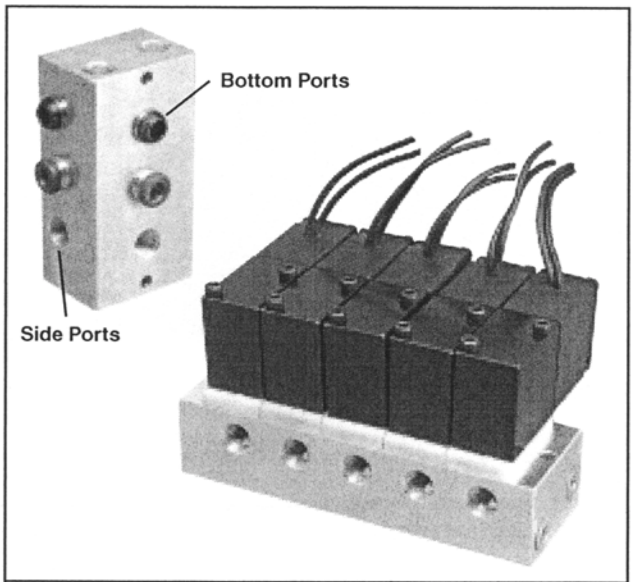
How to Order an Add-A-Fold Assembly

Item	Qty	Part Number
001	1	AAPSMKNXN04NP
002	4	MKH0NB549A
		- Station 1, 3 - Normally Closed
		- Station 2, 4 - Normally Open
003	2	PS2130166P*
		- Station 1, 2

* Regulator Gauges included but not assembled.

When ordering Add-A-Folds, list valves left to right when looking at the Port #3 side of the manifold.

Valve Function NC or NO and Regulator / Blank Plate location must be specified.



3-Way, Subbase, NPT	**PSFKN1N##NP**
3-Way, Subbase, 1/4" Tube Port #2	**PSFKNBN##NP**

– stations 02 to 20

- 3-Ported Subbase Bar Manifold uses Subbase mount MicroKing Valves.
- Standard Manifold allows mounting of Normally Closed and Normally Open Valves simultaneously by use of selector gaskets.
- Bar Manifold Regulator Option is available with Option Code 'R'.

Accessories

Regulator Cover Plate PS2109P
DIN Rail Clip - IEM / Subbase (2) PS2190P
Blank Plate (Includes PS2106P) PS2194P

Replacement Kits

Selector Gasket NC PS2105P
Selector Gasket NO PS2106P
Subbase Valve / Manifold Bolt Kit (10) PS2188P

Model Number

		Type	Series	Pilot	Cylinder Ports	Port Type	# of Stations	Options	
AA	PS	F	K	N	1	N	04	N	P

Blank	**Manifold Only**
AA	Manifold with Valves Mounted

Type	
E	3-Way Bottom Port
F	**3-Way End Port**

Series	
K	**MicroKing**

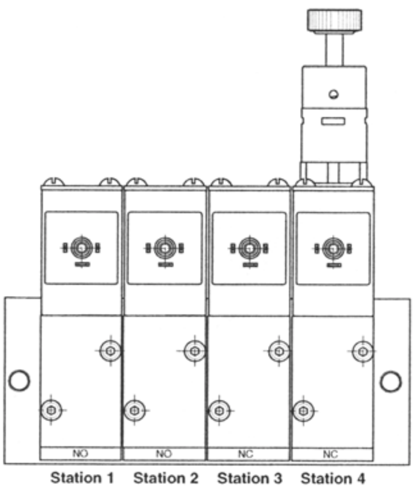
Pilot	
N	**Direct Operated**

Cylinder Ports	
0	M5
1	**1/8"**
B	**1/4" Tube**

Port Type	
G	BSPP "G"
N	**NPT**

Stations
02
•
•
•
20

Options	
N	**None**
R	Machined for Regulator (All Stations)



How to Order an Add-A-Fold Assembly

Item	Qty	Part Number
001	1	AAPSFKN1N04RP
002	2	MKWVNB549A **- Station 1, 2**
003	2	MKVVNB549A **- Station 3, 4**
004	3	PS2109P **- Station 1, 2 & 3**
005	1	PS2131166P* **- Station 4**

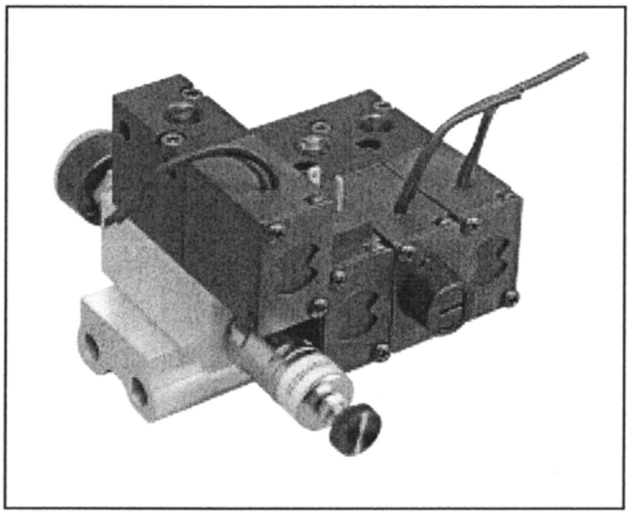
* Regulator gauges included but not assembled.

When ordering Add-A-Folds, list valves left to right when looking at the Port 2 side of the manifold.

Regulator / Cover Plate / Blank Plate location must be specified.

IEM Sandwich Regulator

- Pressure regulation for individual valves mounted on IEM Bar Manifold.
- Same Sandwich Regulator used for Normally Closed and Normally Open Valves.



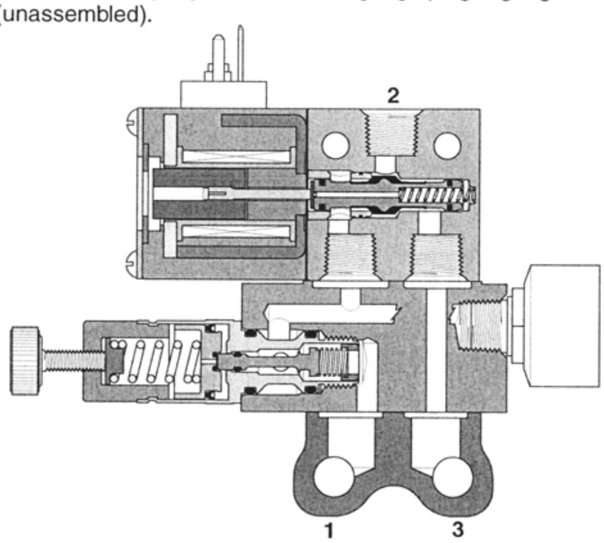
	Common Port with Gauge *	Common Port without Gauge	Cv
60 PSI	PS2130155P	PS2130122P	.11
125 PSI	PS2130166P	PS2130133P	

* Gauge is 60 PSI or 160 PSI, depending on pressure range.

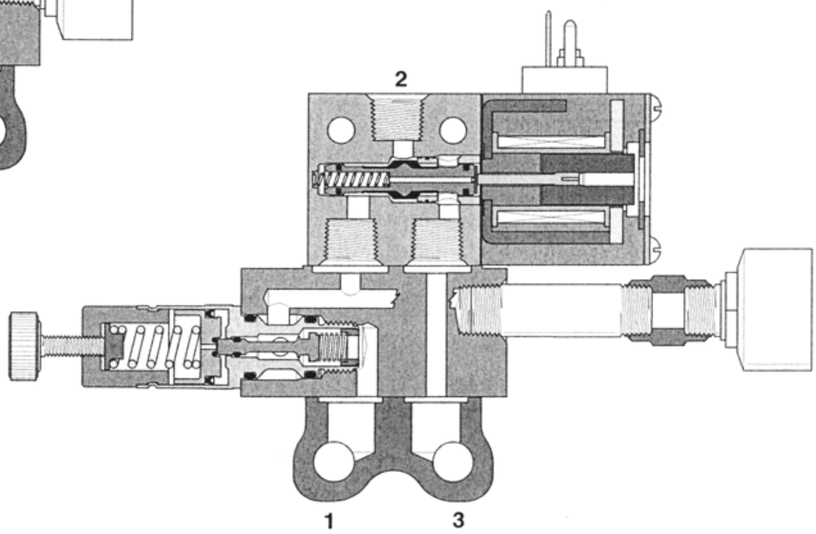
When mounting Regulators side-by-side or with Normally Open valves, gauges must be staggered. Brass adapters are listed at the bottom of the page.

Regulator without gauge includes 1/8" gauge plug.

Regulator with gauge includes 1/8" gauge plug & gauge (unassembled).



Normally Closed



Normally Open

Brass Adapters for Gauge –

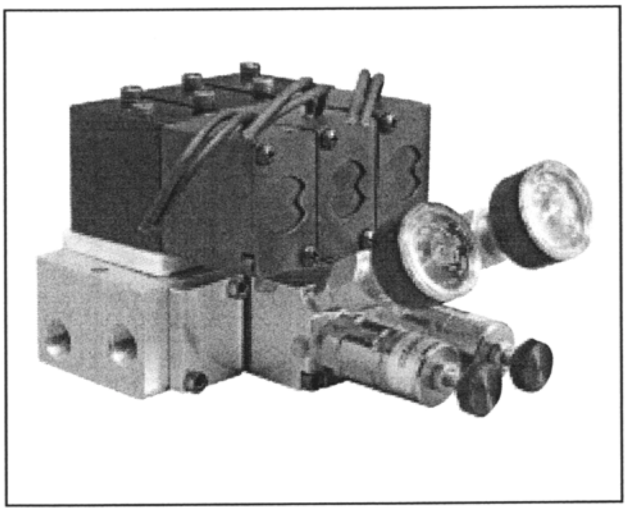
1/8" to 1/8" Female Coupling 207P-2
1/8" Male Pipe Nippled 1.5" 215PNL-2-15
1/8" Male to Female Adapter 222P-2-2
1/8" to 1/8" 45° Female Elbow 2201P-2-2
1/8" to 1/8" 90° Female Elbow 2200P-2-2

Gauge 3/4" Face (.91" OD) –

0-60 PSI PS3451060P
0-160 PSI PS3451160P

Subbase Manifold Regulator

- Pressure regulation for individual valves mounted on 3-Port Subbase Bar Manifold.
- Use Manifold with Option Code 'R' – all stations prepared to accept Regulator Kits or Cover Kits.
- Regulator Kits and Cover Kits ordered separately.



	Common Port with Gauge *	Common Port without Gauge	Cv
60 PSI	PS2131155P	PS2131122P	.11
125 PSI	PS2131166P	PS2131133P	

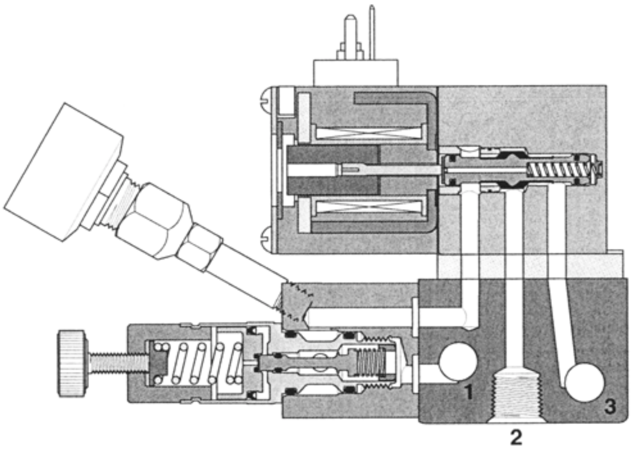
* Gauge is 60 PSI or 160 PSI, depending on pressure range.

When mounting Regulators side-by-side, gauges must be staggered. Brass adapters are listed at the bottom of the page.

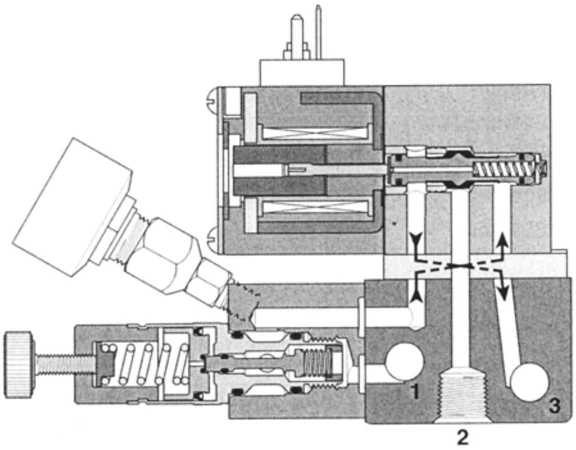
Regulator without gauge includes M5 gauge plug.

Regulator with gauge includes M5 gauge plug, 10-32x1/8" swivel fitting & gauge (unassembled).

Regulator Cover Plate PS2109P



Normally Closed



Normally Open

Note: Valve with Locking Override Option 'C' not available when Regulator Gauge is used.

Brass Adapters for Gauge –
#10-32 Male to #10-32 Female Extender (Qty. 10) PS2195P
#10-32 Male to 1/8" Female Straight Swivel (Qty. 5) PS2196P

Gauge 3/4" Face (.91" OD) –
0-60 PSI PS3451060P
0-160 PSI PS3451160P

Performance Information

Code	Electrical: Voltage AC 60Hz	Voltage AC 50Hz	Voltage DC	Power Consumption (W / VA)	Holding Current (Amps)	Flow: Cv Chart - Buna-N (Fluorocarbon) Inline M5	Inline 1/8", 1/4" Tube	Subbase M5	Subbase 1/8", 1/4" Tube
42	24	22	—	5.4VA	.228	.15 (.11)	.19 (.15)	.11 (.11)	.15 (.15)
45	—	—	12	4.8W	.401				
47*	—	—	12	4.3W	.402	.15 (.11)	.15 (.15)	.11 (.11)	.15 (.15)
48*	—	—	24	4.9W	.204				
49	—	—	24	4.9W	.203	.15 (.11)	.19 (.15)	.11 (.11)	.15 (.15)
53	120	110	—	5.4VA	.045				
57	240	230	—	6.0VA	.025				

Note: Voltage Tolerance: +10 / -15%
* For mobile voltage applications: +25 / -30%

Cv tested per ANSI / (NFPA) T3.21.3

Response Time

Code	Voltage	0 Cu. In. Test Chamber Fill	0 Cu. In. Test Chamber Exhaust	12 Cu. In. Test Chamber Fill	12 Cu. In. Test Chamber Exhaust
49	24VDC	.025	.018	.335	.374
53	120VAC	.021	.029	.309	.389

Average Fill Time (Seconds): With 100 PSIG supply, time required to fill from 0-90 PSIG and exhaust from 100 PSIG to 10 PSIG is measured from instant of energizing, or de-energizing solenoid. Times shown are average.

Tested per ANSI / (NFPA) T3.21.8.

Operating Pressure

Vacuum to 125 PSIG

Temperature Rating

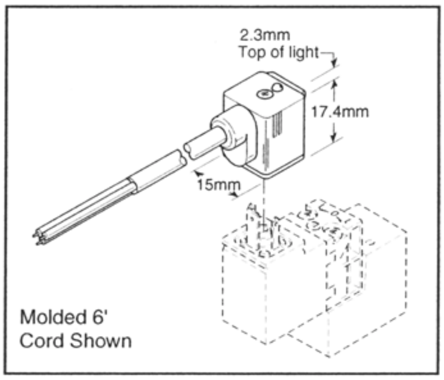
Buna-N
5°F to 120°F (-15°C to 49°C)
Fluorocarbon
5°F to 140°F (-15°C to 60°C)

15mm 3-Pin DIN 43650C

Connector	Connector with 6' (2m) Cord	Description
PS2932P	PS2932JP	Unlighted
PS294675P	PS2946J75P*	Light – 12VAC or DC
PS294679P	PS2946J79P*	Light – 24VAC or DC
PS294683P	PS2946J83P*	Light – 110/120VAC
PS294687P	N/A	Light – 240/230VAC

* LED with surge suppression.

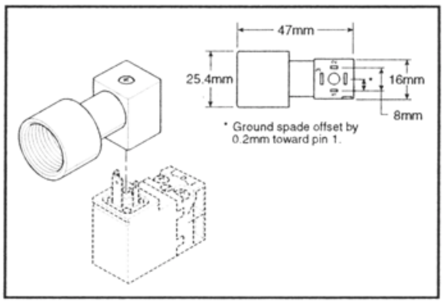
Note: Max ø6.5mm cable size required for connector w/o 6' (2m) cord.

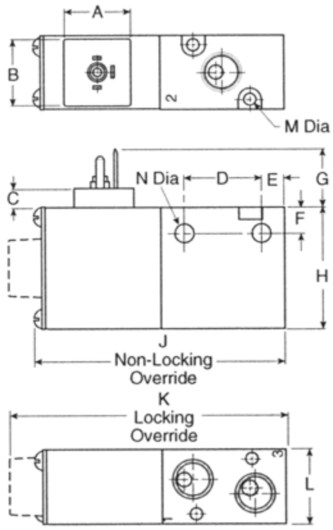


15mm 3-Pin DIN 43650C to 1/2" Conduit

Connector	Description
PS2998P	1/2" NPTF Conduit – Unlighted with 3' (1m) Leads 20 AWG Wire

Note: Rated up to 250VAC or VDC; 6 Amps





Max. Hex Size (Across Flats)
For Inlet / Exhaust Ports = 9/16" (14mm)

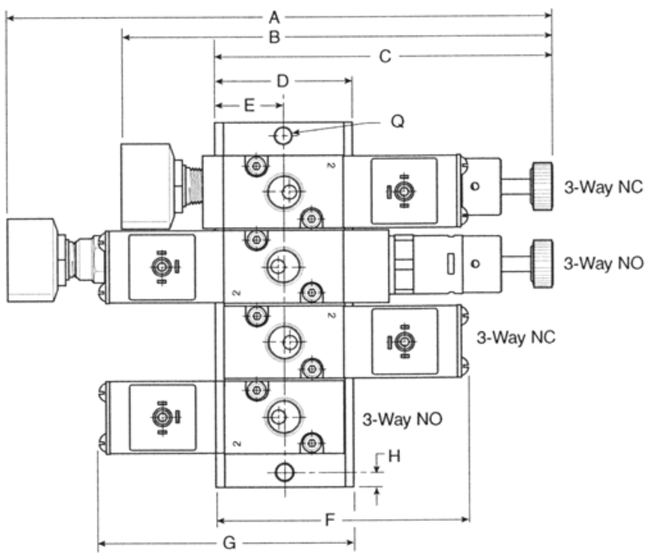
MicroKing 3-Way Inline

A	B	C*	D	E
.71 (18)	.71 (18)	.20 (5)	.79 (20)	.24 (6)
F	**G***	**H**	**J**	**K**
.28 (7)	.63 (16)	1.30 (33)	2.60 (66)	2.87 (73)
L	**M**	**N**		
.79 (20)	.13 (3.3)	.20 (5)		

Inches (mm)

* Dimensions C & G not applicable to grommet version.

Weight .... 4.5 oz (.12 Kg)

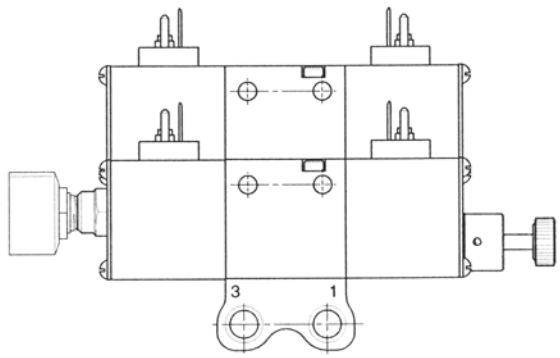


MicroKing IEM Manifold

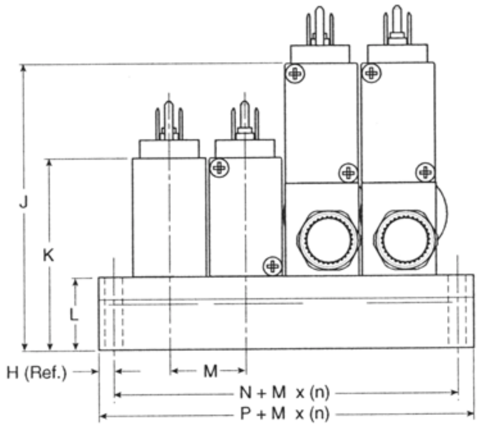
A	B	C	D	E
5.99 (152)[§]	4.53 (115)	3.70 (94)	1.48 (38)	.74 (19)
F	**G**	**H**	**J**	**K**
2.68 (68)	2.68 (68)	.20 (5)	3.03 (77)	2.13 (54)
L	**M**	**N**	**P**	**Q**
.83 (21)	.81 (20,5)	.42 (10,8)	.82 (20,8)	Ø .26 Ø (6.8)

[§] - 3mm

Weight
2 Station .... 2.5 oz (.07 Kg)
Each Additional .... 1 oz (.03 Kg)
Regulator w/Gauge .. 4.5 oz (.12 Kg)



Max. Hex Size (Across Flats)
For Inlet / Exhaust Ports = 3/4" (18mm)



MicroKing 3-Way Subbase

A	B	C	D	E
4.33 (110)†	2.74 (70)‡	1.57 (40)§	.79 (20)	.20 (5)
F	**G**	**H**	**J**	**K**
2.58 (66)	1.10 (28)	.81 (20,5)	.38 (9,7)	.77 (19,7)
L				
Ø .26 Ø (6.8)				

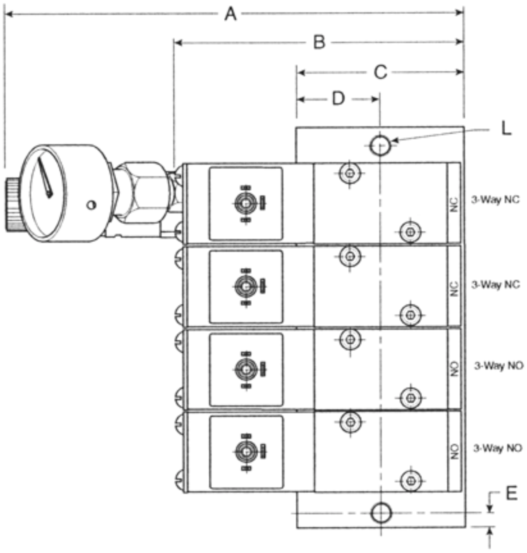
Inches (mm)

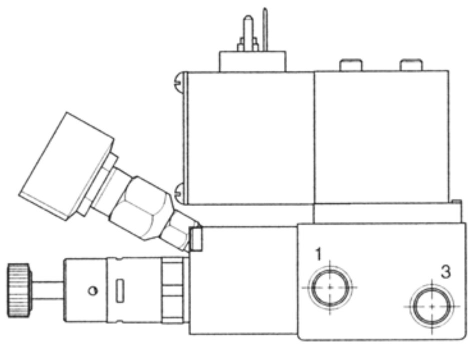
† ± 5mm

‡ ± 3mm

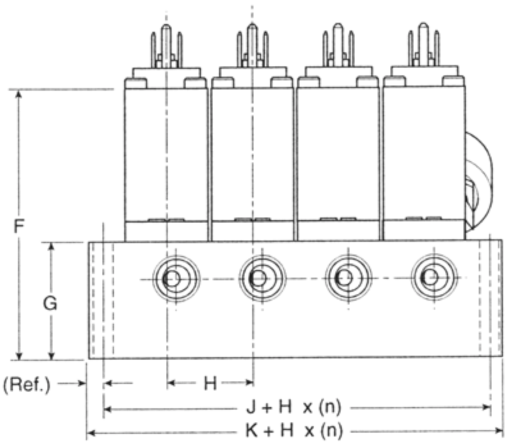
§ - 3mm

Weight
2 Station .... 5.0 oz (.14 Kg)
Each Additional .... 1.8 oz (.05 Kg)
Regulator w/Gauge .... 3.5 oz (.1 Kg)





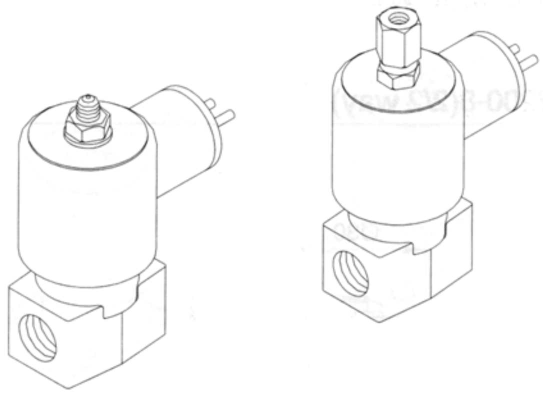
Max. Hex Size (Across Flats)
For Inlet / Exhaust Ports = 13/16" (20mm)



n = Number of Stations

Note: Valve options '02' & 'V2' - Solenoid Rotated 180° - NOT available with regulator option.

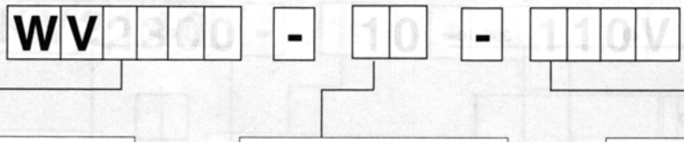
- Direct actuating type
- Air, water or oil control
- Molded coil
- Lead wire connection
- 2/2 way, 3/2 way



Operating Information

	WV2200-8	WV2300-10	WV3300-8 Body	WV3300-8 Top
Port size (PT)	1/4"	3/8"	1/4"	1/4"
Effective cross section(Cv)	$5mm^2$(0.27)	$11mm^2$(0.6)	$6mm^2$(0.33)	$2.7mm^2$(0.15)
Fluid	Compressed air, water, oil(below CST 50)			
Working pressure	0 ~ 7 (bar)			
Working temperature	5 ~ 60 °C			
Consumption(AC, DC)	AC 110V, 220V (50/60 Hz), DC 24V			
	AC 110V(9VA), AC 220V(7VA), DC 24V(8W)	AC 110V(13.3VA), AC 220V(10VA), DC 24V(16W)	AC 110V(30 VA), AC 220V(28VA), DC 24V(12W)	

Ordering Information



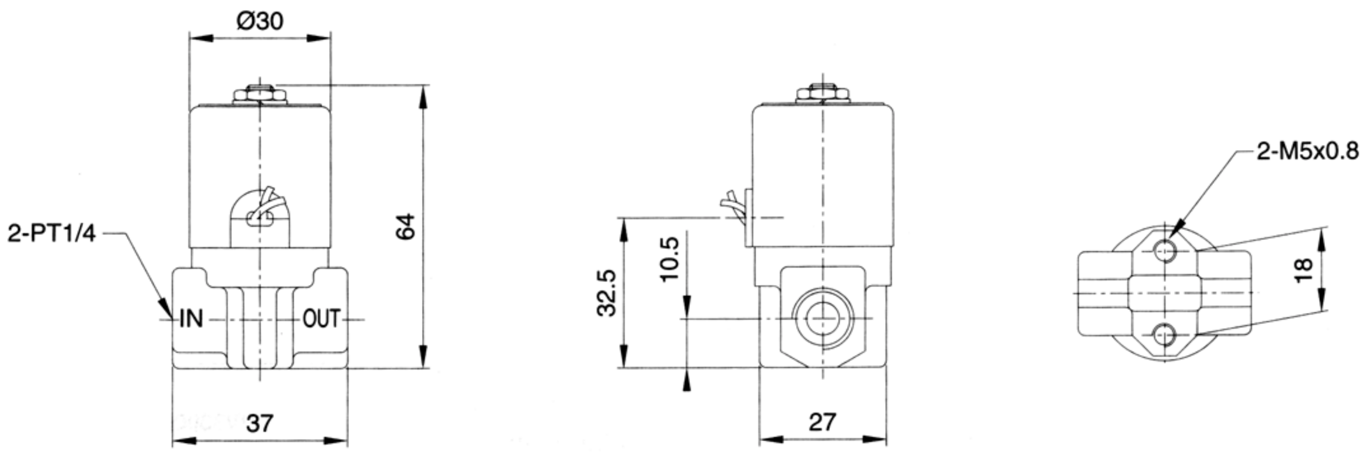
Operation/Function	
2200	2/2 way
2300	2/2 way
3300	3/2 way

Port size(PT)	
8	1/4" (2200, 3300 type only)
10	3/8" (2300 type only)

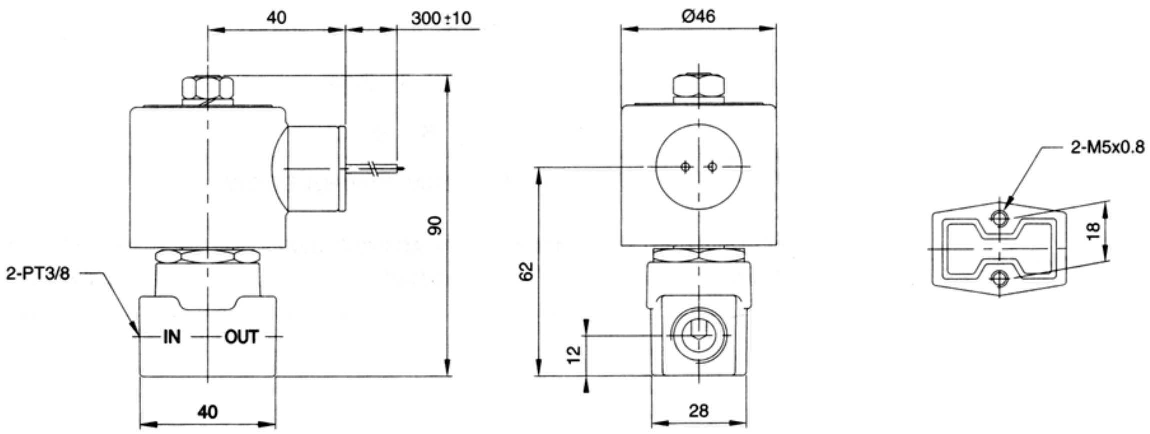
Voltage	
24V	DC 24V
110V	AC 110V
220V	AC 220V

Dimensions, WV

WV 2200-8(2/2 way)



WV 2300-10(2/2 way)



WV 3300(3/2 way)