aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding

Global ISO Valves Platform

A complete range of pneumatic ISO valves

ISYS and ISOMAX

Catalogue PDE2589TCUK February 2011

Parker

ENGINEERING YOUR SUCCESS.

Important !
Before carrying out any service work, ensure that the valve and manifold have been vented. Remove the primary supply air hose to ensure total disconnection of the air supply before dismantling valves or blank connection blocks.

NB !
All technical data in this catalogue is typical only.

The air quality is decisive for the valve life: see ISO 8573.

WARNING

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.
This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met. The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Parker Hannifin Corporation and its subsidiaries at any time without notice.

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ISO Specifications

5599-1

ISO 5599-1

External electrical connection subbase valves

The ISO Standard 5599-1 specifies an interface pattern for a common subbase valve consisting of pressure passages 1, 3, 5, 2 & 4 and pilot passages 12 & 14. The width of the pattern and location of the 4 bolt holes are also specified. There are no specifications for the type of external electrical connection used to control the valve.

Size : 1 2 3

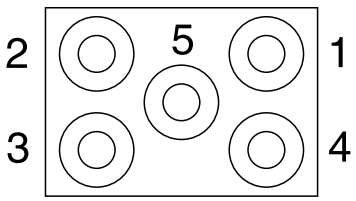
5599-2

ISO 5599-2

Body-to-base plug-in subbase valves

Same as 5599-1 for pneumatic pressure passages, 5599-2 standard also specifies a plug-in electrical connection.

Sizes : 1 2 3



1 = 12 solenoid
2 = 14 solenoid
3 = 12 solenoid
4 = 14 solenoid
5 = Ground

ISO Specifications

15407-1 **(VDMA 24563)**

ISO 15407-1

External electrical connection subbase valves

The ISO Standard 15407-1 specifies an interface pattern for a common subbase valve consisting of pressure passages 1, 3, 5, 2 & 4 and pilot passages 12 & 14. The width of the pattern and location of the 4 bolt holes are also specified. There are no specifications for the type of external electrical connection used to control the valve.

Size : 02 01

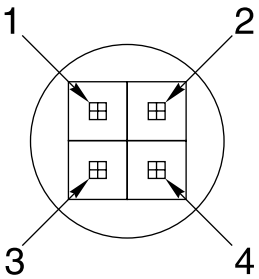
15407-2

ISO 15407-2

Body-to-base plug-in subbase valves

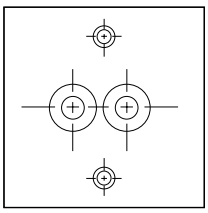
Same as 15407-1 for pneumatic pressure passages, 15407-2 standard also specifies a plug-in electrical connection.

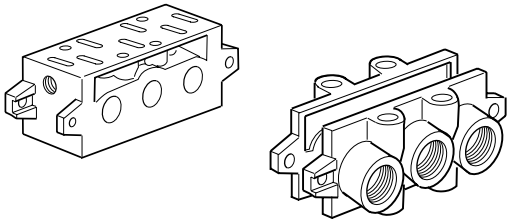
Size : 01 02



Pin 1 = 14 solenoid
Pin 2 = 12 solenoid
Pin 3 = Ground +
Pin 4 = Common -

ISO Specifications





CNOMO 06-05-01

The solenoid pilot interface often used with ISO 5599-1 valves is the CNOMO interface. The CNOMO interface specifies the pressure and actuator port, and the screw holes for the mounting of this solenoid pilot. It is commonly used in European automotive plants, and its usage is becoming more prevalent for industrial ISO 5599-1 valves.

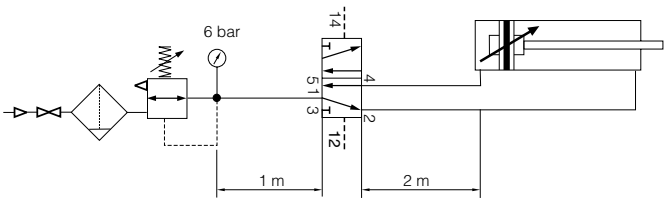
VDMA 24345

The VDMA 24345 is a standard for Manifolds and Subbase specifying a common base mounting footprint in addition to ISO 5599-1 Interface standard. (VDMA is a German organisation - Verband Deutscher Maschinen und Anglagen-Bauer - which is translated to Federation of German Machine and Unit Builders.)

Choice of components for air supply to cylinders

In the chart below can you find the suitable valves, tubes etc. for each cylinder size. If you have a tube length over 2 m, choose one tube size larger than in the chart.

Following data is valid:
Supply pressure: min 7,0 bar
Regulator pressure setting: 6,0 bar
Pipe length between air treatment unit and valve: max 1 m
Pipe length between valve and cylinder : max 2 m



Cylinder bore		<Ø20	Ø20-32	Ø40-50	Ø63	Ø80	Ø100	Ø125	Ø160	Ø200
Cylinder port		M5	G1/8	G1/4	G3/8	G3/8	G1/2	G1/2	G3/4	G3/4
Tubing Ext / Int		4 / 2.7	6 / 4	8 / 6	10 / 7	10 / 7 12 / 9	12 / 9 14 / 11	14 / 11	18 / 15	20 / 18
Size 02	Isomax	G1/8	G1/8	G1/8	G1/8					
	ISYS	G1/8	G1/8	G1/8	G1/8	G1/8				
Size 01	Isomax	G1/4	G1/4	G1/4	G1/4	G1/4				
	ISYS	G1/4	G1/4	G1/4	G1/4	G1/4	G1/4			
Size 1	Isomax	G1/4	G1/4	G1/4	G1/4	G1/4	G1/4			
	ISYS	G1/4	G1/4	G1/4	G1/4	G1/4	G1/4			
	ISYS			G3/8	G3/8	G3/8	G3/8	G3/8		
Size 2	Isomax			G3/8	G3/8	G3/8	G3/8	G3/8		
	ISYS			G3/8	G3/8	G3/8	G3/8	G3/8		
	ISYS				G1/2	G1/2	G1/2	G1/2	G1/2	G1/2
Size 3	Isomax				G1/2	G1/2	G1/2	G1/2	G1/2	G1/2
	ISYS				G1/2	G1/2	G1/2	G1/2	G1/2	G1/2
	ISYS						G3/4	G3/4	G3/4	G3/4

Cylinder speed < 0.5 m/s Cylinder speed < 1 m/s Cylinder speed > 1 m/s

ISO 15407 Size 02 / 01

Cylinders from Ø 10 to 100

ISO 15407-1 — Individual Connection

DIN C	**Isomax**  Page 13
M12	**ISYS ISO**  Page 25
Remote pilot	**Isomax**  Page 14 **ISYS ISO**  Page 25
Subbase, Manifolds	 Page 34
Flow Control, Regulator	 Page 42

ISO 15407-2 — Plug-in

Plug-in	**ISYS ISO**  Page 27
Subbase, Manifolds	 Page 36
Flow Control, Regulator	 Page 42

ISO 5599 Size 1 / 2 / 3

Cylinders from Ø 63 to 200

ISO 5599-1 — Individual Connection

DIN A, Industrial	**Isomax**  Page 16	**ISYS ISO**  Page 29
M12, M23	**Isomax**  Page 18	**ISYS ISO**  Page 31
Remote pilot	**Isomax**  Page 17	**ISYS ISO**  Page 31
Subbase, Manifolds	 Page 38	
Flow Control, Regulator	 Page 44	

ISO 5599-2 — Plug-in

Plug-in	**ISYS ISO**  Page 33	
Subbase, Manifolds	 Page 40	
Flow Control, Regulator	 Page 44	

Isomax - General Applications

Market Application

- Automotive Handling
- Packaging
- Manufacturing
- General application

Ceramic technology

All ISOMAX products use high-tech ceramic switching technology :

- **Excellent reliability :**

  Long life in excess of 100 million operations*.

  Operates with lubricated or non lubricated air.

  Low sensitivity to air quality changes ; switching without seal.

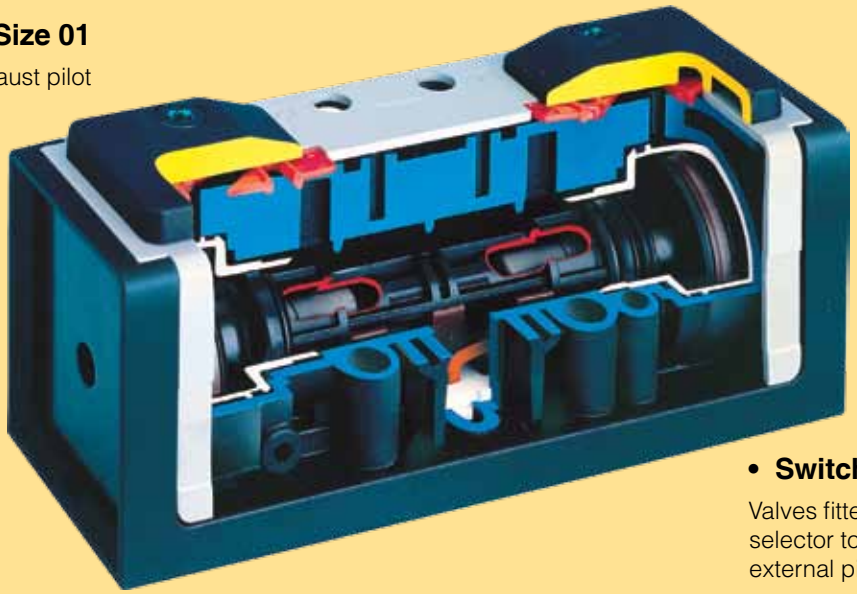
  Stiction free.

- **High performances :**

  Slide valve concept allows high flow / size ratio and short response time due to short slide stroke and low friction.

- **Size 02 & Size 01**

  Solenoid exhaust pilot



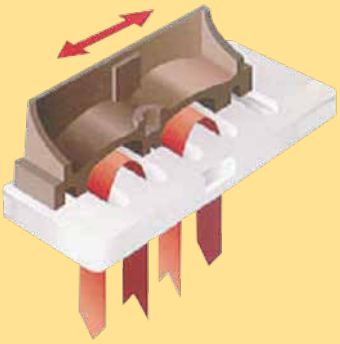
- **Switchable selector**

  Valves fitted with switchable selector to give internal or external pilot supply

- **Stable long lasting performances**

  Low friction switching : minimum wear of the valve member/seal assembly.

Ceramic plate



Rust and corrosion resistant body

With the valve body in polyamide reinforced fiberglass and the casting in anodised aluminium, the Isomax range presents a comprehensive modern design to suit most industrial environments.

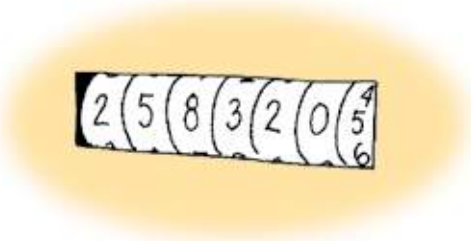
Central M12 connection or M12 coil

All sizes of ISO 5599-1 are supplied with central M12 integrated connector, a M12 bridge cable or with a 30 x 30mm coil having M12 interface.

External supply selection

In order to use actuator with low pressure, it is possible to connect an external pressure on port 14 to supply both solenoids. Selection is easily made by reversing the gasket under the operator.

High reliability



Valves easily comply with the requirements for the component reliability in accordance with EU Machinery Directive standards EN292-2 and EN983.

Maintenance

Spares are not required for the main valve or spool but solenoid operators can be replaced if required.

Manual Override

Solenoids are available with locking or non- locking manual overrides so that valves can be operated when the electrical supply is turned off.

Solenoid valves, CNOMO interface, 15mm solenoid

The standard valve is fitted with a 30mm solenoid having DIN 43650 Industrial form A connector for sizes 1, 2 and 3 15mm solenoid for sizes 01 and 02.

Low noise level

Size 01 and 02 valves fitted with the 15mm solenoid option use captured pilot exhaust which is channelled through the valve body and exhausts to atmosphere through channel 12

High electrical encapsulation class

The solenoid valves are protected to IP65 with the standard cable plug. Available with DIN A or M12 connection.

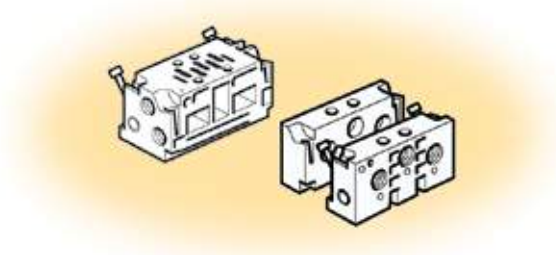
Wide choice of solenoid connectors/cable plugs

Solenoid connectors are available with or without LED and rectifier and may be selected fitted pre-wired with flying leads.

Valves having ATEX approval

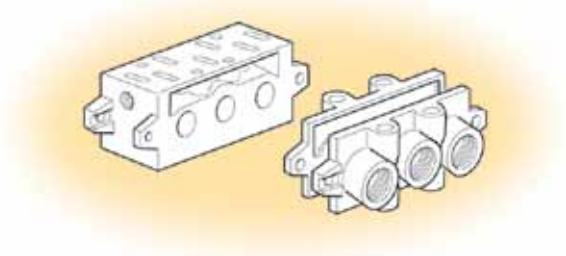
ATEX approved options are available for use in explosive atmospheres. Consult our Technical Sales Department for further information.

Bottom or side ported manifold



Manifolds with common ducts for ports 1,3 and 5, outlet port 2 and 4, and supply port for 12 and 14 are available side or bottom ported. Those manifolds are common for Isomax and Isys Iso.

Subbase installation VDMA

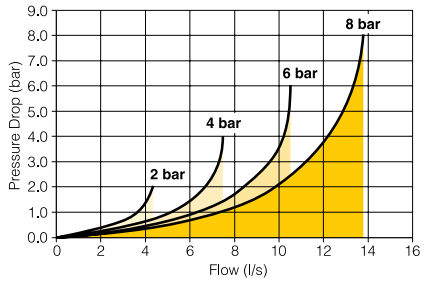


A large range of subbase, VDMA or not VDMA, bottom or side ported.

Isomax Flow Characteristics

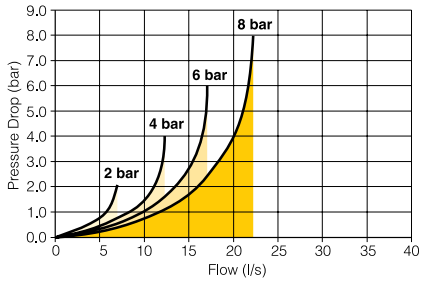
Flow capacities in accordance with ISO6358, for 5/2 function. 5/3 function are around 10 to 20% less.

Technical Data Isomax Size 02



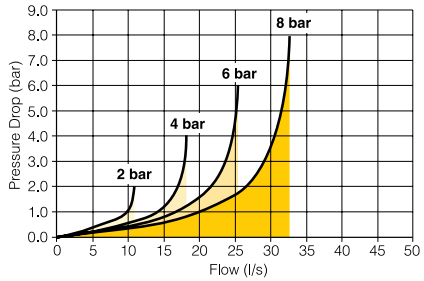
Operating pressure.	
5/2 Spring return	4,0 - 10 bar
5/2 Differential	3,0 - 10 bar
5/2 Double solenoid or pneumatic	2,0 - 10 bar
5/3 Double solenoid or pneumatic	4,0 - 10 bar
Working temperature.	-10°C to + 60°C
Flow (acc. to ISO 6358)	c = 1,5 Nl/s x bar
	b = 0,25
	Qn = 6,3 l/s
	Qmax = 10,6 l/s

Technical Data Isomax Size 01



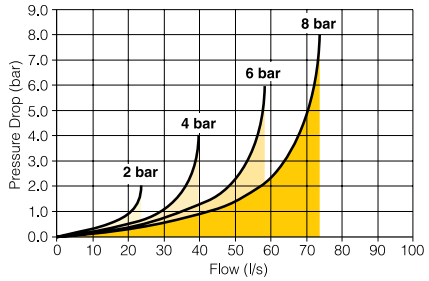
Operating pressure.	
5/2 Spring return	4,0 - 10 bar
5/2 Differential	3,0 - 10 bar
5/2 Double solenoid or pneumatic	2,0 - 10 bar
5/3 Double solenoid or pneumatic	4,0 - 10 bar
Working temperature.	-10°C to + 60°C
Flow (acc. to ISO 6358)	c = 2,5 Nl/s x bar
	b = 0,25
	Qn = 9,8 l/s
	Qmax = 17,1 l/s

Technical Data Isomax Size 1



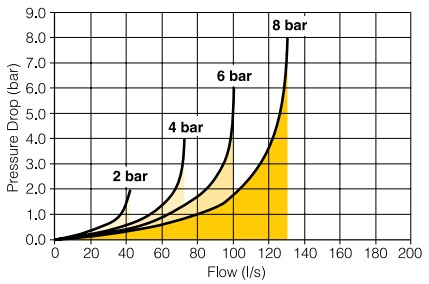
Operating pressure.	
5/2 Spring return	3,0 - 10 bar
5/2 Differential	2,0 - 10 bar
5/2 Double solenoid	1,0 - 10 bar
5/3 Double solenoid	3,5 - 10 bar
Pneumatic version	12 bar
Working temperature.	-10°C to + 60°C
Flow (acc. to ISO 6358)	c = 3,8 Nl/s x bar
	b = 0,35
	Qn = 17,2 l/s
	Qmax = 25,5 l/s

Technical Data Isomax Size 2



Operating pressure.	
5/2 Spring return	2,5 - 10 bar
5/2 Differential	2,0 - 10 bar
5/2 Double solenoid	1,0 - 10 bar
5/3 Double solenoid	3,0 - 10 bar
Pneumatic version	12 bar
Working temperature.	-10°C to + 60°C
Flow (acc. to ISO 6358)	c = 8,2 Nl/s x bar
	b = 0,35
	Qn = 38,3 l/s
	Qmax = 58,7 l/s

Technical Data Isomax Size 3



Operating pressure.	
5/2 Spring return	2,5 - 10 bar
5/2 Differential	2,0 - 10 bar
5/2 Double solenoid	1,0 - 10 bar
5/3 Double solenoid	3,0 - 10 bar
Pneumatic version	12 bar
Working temperature.	-10°C to + 60°C
Flow (acc. to ISO 6358)	c = 14,5 Nl/s x bar
	b = 0,35
	Qn = 64,0 l/s
	Qmax = 101,0 l/s

Isomax Material Specification and Characteristics

15407

Valve member - seat :	Self lubricating acetal - ceramic
Body :	Polyamide reinforced fibreglass
Casing - End plates :	Anodised aluminium - Painted zinc plated steel
Valve plate :	Zamak
Seals :	Nitrile
Springs :	Stainless steel
Screws :	Zinc plated steel
Function selector :	
Top cover - Seal :	Polyamide reinforced fiberglass - Polyester

Characteristics

Fluid:	Air or inert gas filtered 40u class 5 according to ISO 8573-1 dry class 4 according to ISO 8573-1 non-lubricated, or lubricated
Storage temperature	-20° to $+ 70^{\circ}$
Vibration	according to IEC 68-2-6 2G 2 to 150Hz
Shock	according to IEC 68-2-7 15G 11ms
Manual override	Non-locking, other type on request

Solenoid : please see page 53

Certification

EMC / CE mark.	According to EN 61 000-6-2
Dust & water protection	IP65 according to EN 60529

5599

Valve member - seat :	Self lubricating acetal - ceramic
Body :	Polyamide reinforced fibreglass
Casing - End plates :	Anodised aluminium - Painted zinc plated steel
Valve plate :	Zamak
Seals :	Nitrile
Springs :	Stainless steel
Screws :	Zinc plated steel
Function selector :	
Top cover - Seal :	Polyamide reinforced fiberglass - Polyester

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Fluid:	Air or inert gas filtered 40u class 5 according to ISO 8573-1 dry class 4 according to ISO 8573-1 non-lubricated, or lubricated
Storage temperature	-20° to $+ 70^{\circ}$
Vibration	according to IEC 68-2-6 2G 2 to 150Hz
Shock	according to IEC 68-2-7 15G 11ms
Manual override	Non-locking, other type on request

Solenoid : please see page 56

Certification

EMC / CE mark.	According to EN 61 000-6-2
Dust & water protection	IP65 according to EN 60529

Isomax - ISO 15407 - 15mm Solenoid

Order chart

DX 01 - 6 21 - 95 1 M S

	Size
02	18 mm (ISO 15407)
01	26 mm (ISO 15407)

	Pilot
4	Pneumatic
6	Electro-Pneumatic

Valve type function	
Internal pilot supply / Capture exhaust 12	
06	5/2 double solenoid
56	5/2 double solenoid, 14 prioritised
21	5/2 single solenoid, spring return
51	5/2 single solenoid, differential return
11	5/3 double solenoid vented centre
16	5/3 double solenoid closed centre
External pilot 14 supply / Capture exhaust 12	
05	5/2 double solenoid
59	5/2 double solenoid, 14 prioritised
23	5/2 single solenoid, spring return
54	5/2 single solenoid, differential return
09	5/3 double solenoid vented centre
19	5/3 double solenoid closed centre

	Voltage
B	12 VAC
C	24 VAC
D	48 VAC
J	110 VAC
A	230 VAC
L	12 VDC
M	24 VDC
N	48 VDC

Shaded voltage part numbers are available from stock.
Unshaded part numbers are available on request but will be subject to minimum order quantities.
Otherwise order coil/solenoid and valve separately.

	Manual override
0	Without any
1	Flush non locking
3	Flush locking
2	Flush non locking (extended 15 mm)
5	Flush locking (extended 15 mm)

	Electrical operator
60	Without any *
95	15 mm solenoid 1,2 W DIN 43650 form C †

* Standard for Pneumatic version
† Standard for electro-pneumatic version

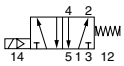
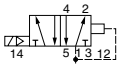
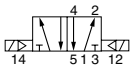
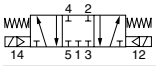
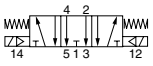
	Connector
	Without any
C	Standard connector
S	Connector with LED and protection
S3	Connector with LED and protection - 3 m cable
S5	Connector with LED and protection - 5 m cable

Shaded part numbers are standard

Isomax

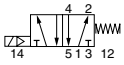
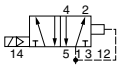
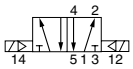
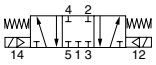
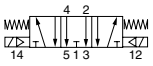
Solenoid operated ISO valve fitted with 15 mm solenoid 24 VDC

Solenoid plug/connector to be ordered separately. See page 58

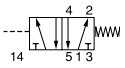
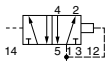
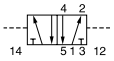
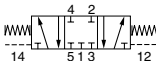
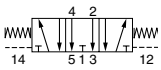
Symbol	Size	Actuation	Return	Changeover time (ms) at 6 bar actua./return	Weight kg	Order code
5/2 Valves						
	02 - 18 mm 01 - 26 mm	Electrical signal Electrical signal	Spring Spring	15/25 25/35	0.13 0.17	**DX02-621-951M** **DX01-621-951M**
	02 - 18 mm 01 - 26 mm	Electrical signal Electrical signal	Differential Differential	15/30 20/40	0.13 0.17	**DX02-651-951M** **DX01-651-951M**
	02 - 18 mm 01 - 26 mm	Electrical signal Electrical signal	Electrical signal Electrical signal	12/12 15/15	0.17 0.21	**DX02-606-951M** **DX01-606-951M**
5/3 Valves						
	02 - 18 mm 01 - 26 mm	Electrical signal Closed center	Electrical signal Self centering	20/60 20/60	0.17 0.21	**DX02-616-951M** **DX01-616-951M**
	02 - 18 mm 01 - 26 mm	Electrical signal Vented center	Electrical signal Self centering	20/60 20/60	0.17 0.21	**DX02-611-951M** **DX01-611-951M**

Solenoid operated ISO valve fitted with adaptor to accept 15 mm solenoid

Solenoid plug/connector to be ordered separately. See pages 54 & 58

Symbol	Size	Actuation	Return	Changeover time (ms) at 6 bar actua./return	Weight kg	Order code
5/2 Valves						
	02 - 18 mm 01 - 26 mm	Electrical signal Electrical signal	Spring Spring	15/25 25/35	0.9 0.13	**DX02-621-60** **DX01-621-60**
	02 - 18 mm 01 - 26 mm	Electrical signal Electrical signal	Differential Differential	15/30 20/40	0.9 0.13	**DX02-651-60** **DX01-651-60**
	02 - 18 mm 01 - 26 mm	Electrical signal Electrical signal	Electrical signal Electrical signal	12/12 15/15	0.9 0.13	**DX02-606-60** **DX01-606-60**
5/3 Valves						
	02 - 18 mm 01 - 26 mm	Electrical signal Closed center	Electrical signal Self centering	20/60 20/60	0.9 0.13	**DX02-616-60** **DX01-616-60**
	02 - 18 mm 01 - 26 mm	Electrical signal Vented center	Electrical signal Self centering	20/60 20/60	0.9 0.13	**DX02-611-60** **DX01-611-60**

Pneumatic operated ISO valve

Symbol	Size	Actuation	Return	Changeover time (ms) at 6 bar actua./return	Weight kg	**Order code**
5/2 Valves						
	02 - 18 mm 01 - 26 mm	Air signal Air signal	Spring Spring	15/25 25/35	0.9 0.13	**DX02-421-60** **DX01-421-60**
	02 - 18 mm 01 - 26 mm	Air signal Air signal	Differential Differential	15/30 20/40	0.9 0.13	**DX02-451-60** **DX01-451-60**
	02 - 18 mm 01 - 26 mm	Air signal Air signal	Air signal Air signal	12/12 14/14	0.9 0.13	**DX02-406-60** **DX01-406-60**
5/3 Valves						
	02 - 18 mm 01 - 26 mm	Air signal Closed center	Air signal Self centering	20/50 20/50	0.9 0.13	**DX02-416-60** **DX01-416-60**
	02 - 18 mm 01 - 26 mm	Air signal Vented center	Air signal Self centering	20/50 20/50	0.9 0.13	**DX02-411-60** **DX01-411-60**

Isomax - ISO 5599 - Size 1 / 2 / 3 - CNOMO

Order chart

DX **1** - **6** **51** - **B** **L** **49**

	Size
1	Size 1 (ISO 5599)
2	Size 2 (ISO 5599)
3	Size 3 (ISO 5599)

	Pilot
4	Pneumatic
6	Electro-Pneumatic

Valve type function	
Internal pilot supply	
06	5/2 double solenoid
56	5/2 double solenoid, 14 prioritised
21	5/2 single solenoid, spring return
51	5/2 single solenoid, differential return
11	5/3 double solenoid vented centre
16	5/3 double solenoid closed centre
13	5/3 double solenoid pressurised center
External pilot 14 supply	
05	5/2 double solenoid
59	5/2 double solenoid, 14 prioritised
23	5/2 single solenoid, spring return
54	5/2 single solenoid, differential return
09	5/3 double solenoid vented centre
19	5/3 double solenoid closed centre
14	5/3 double solenoid pressurised center

	Overrides
60	Remote pilot / without solenoid
70	Remote pilot / without solenoid *
A	No override
B	Non-locking (single sol.) Flush - Metal
C	Locking (double sol.) Flush - Plastic

* Fitted with direct spool override.

	Solenoid enclosure
2*	Central M12 connection
6*	M12 on each coil
L	3 pin 30mm DIN 43650A
P	3 pin Industrial form B
N	Valve less coil

***19** for M12 coil

Voltage		
	DC	**AC**
45	12	
49	24	
40		12
42		24
53		110
57		230
Blank	Valve less coil	

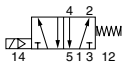
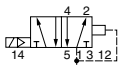
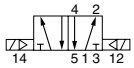
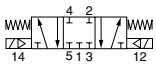
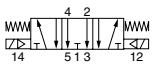
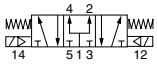
Shaded voltage part numbers are available from stock.
Unshaded part numbers are available on request but will be subject to minimum order quantities.
Otherwise order coil/solenoid and valve separately.

Shaded part numbers are standard

Isomax

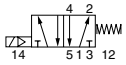
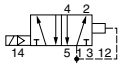
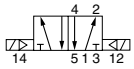
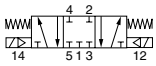
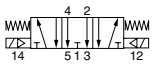
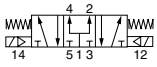
Solenoid operated ISO valve fitted with CNOMO solenoid(s) 24 VDC

Solenoid plug/connector to be ordered separately. See page 58

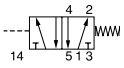
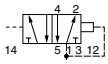
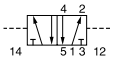
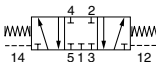
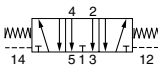
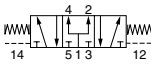
Symbol	Size	Actuation	Return	Changeover time (ms) at 6 bar actua./return	Weight kg	Order code
5/2 Valves						
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Spring Spring Spring	40/55 60/105 85/160	0.5 0.75 1.25	**DX1-621-BL49** **DX2-621-BL49** **DX3-621-BL49**
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Differential Differential Differential	30/70 55/110 80/180	0.5 0.75 1.25	**DX1-651-BL49** **DX2-651-BL49** **DX3-651-BL49**
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Electrical signal Electrical signal Electrical signal	25/25 30/30 40/40	0.65 0.9 1.4	**DX1-606-BL49** **DX2-606-BL49** **DX3-606-BL49**
5/3 Valves						
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Closed center	Electrical signal Self centering	30/95 40/190 55/330	0.65 0.9 1.4	**DX1-616-BL49** **DX2-616-BL49** **DX3-616-BL49**
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Vented center	Electrical signal Self centering	25/70 40/140 60/270	0.65 0.9 1.4	**DX1-611-BL49** **DX2-611-BL49** **DX3-611-BL49**
	1 - 43mm 2 - 56mm	Electrical signal Press. center	Electrical signal Self centering	25/65 40/150	0.65 0.9	**DX1-613-BL49** **DX2-613-BL49**

Solenoid operated ISO valve fitted with CNOMO operator without coil

Solenoid plug/connector to be ordered separately. See page 57

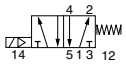
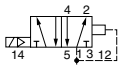
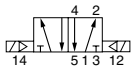
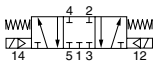
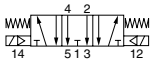
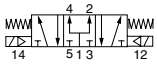
Symbol	Size	Actuation	Return	Changeover time (ms) at 6 bar actua./return	Weight kg	Order code
5/2 Valves						
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Spring Spring Spring	40/55 60/105 85/160	0.4 0.65 1.15	**DX1-621-BN** **DX2-621-BN** **DX3-621-BN**
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Differential Differential Differential	30/70 55/110 80/180	0.4 0.65 1.15	**DX1-651-BN** **DX2-651-BN** **DX3-651-BN**
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Electrical signal Electrical signal Electrical signal	25/25 30/30 40/40	0.55 0.8 1.3	**DX1-606-BN** **DX2-606-BN** **DX3-606-BN**
5/3 Valves						
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Closed center	Electrical signal Self centering	30/95 40/190 55/330	0.55 0.8 1.3	**DX1-616-BN** **DX2-616-BN** **DX3-616-BN**
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Vented center	Electrical signal Self centering	25/70 40/140 60/270	0.55 0.8 1.3	**DX1-611-BN** **DX2-611-BN** **DX3-611-BN**
	1 - 43mm 2 - 56mm	Electrical signal Press. center	Electrical signal Self centering	25/65 40/150	0.55 0.8	**DX1-613-BN** **DX2-613-BN**

Pneumatic operated ISO valve without valve spool override

Symbol	Size	Actuation	Return	Changeover time (ms) at 6 bar actua./return	Weight kg	Order code
5/2 Valves						
	1 - 43mm	Air signal	Spring	30/45	0.35	**DX1-421-60**
	2 - 56mm	Air signal	Spring	50/95	0.6	**DX2-421-60**
	3 - 71mm	Air signal	Spring	80/160	1.1	**DX3-421-60**
	1 - 43mm	Air signal	Differential	25/60	0.35	**DX1-451-60**
	2 - 56mm	Air signal	Differential	45/100	0.6	**DX2-451-60**
	3 - 71mm	Air signal	Differential	70/170	1.1	**DX3-451-60**
	1 - 43mm	Air signal	Air signal	20/20	0.35	**DX1-406-60**
	2 - 56mm	Air signal	Air signal	25/25	0.6	**DX2-406-60**
	3 - 71mm	Air signal	Air signal	35/35	1.1	**DX3-406-60**
5/3 Valves						
	1 - 43mm	Air signal	Air signal	20/80	0.35	**DX1-416-60**
	2 - 56mm	Closed center	Self centering	30/170	0.6	**DX2-416-60**
	3 - 71mm			45/330	1.1	**DX3-416-60**
	1 - 43mm	Air signal	Air signal	20/65	0.35	**DX1-411-60**
	2 - 56mm	Vented center	Self centering	30/140	0.6	**DX2-411-60**
	3 - 71mm			50/270	1.1	**DX3-411-60**
	1 - 43mm	Air signal	Air signal	20/60	0.35	**DX1-413-60**
	2 - 56mm	Press. center	Self centering	25/140	0.6	**DX2-413-60**

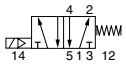
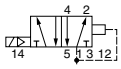
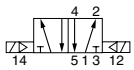
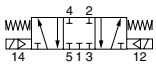
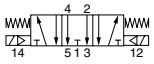
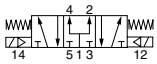
Solenoid operated ISO valve, CNOMO, 24 VDC with M12 coil

M12 connection is integrated on the coil, Led & surge suppressor

Symbol	Size	Actuation	Return	Changeover time (ms) at 6 bar actua./return	Weight kg	Order code
5/2 Valves						
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Spring Spring Spring	40/55 60/105 85/160	0.5 0.75 1.25	**DX1-621-B619** **DX2-621-B619** **DX3-621-B619**
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Differential Differential Differential	30/70 55/110 80/180	0.5 0.75 1.25	**DX1-651-B619** **DX2-651-B619** **DX3-651-B619**
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Electrical signal Electrical signal Electrical signal	25/25 30/30 40/40	0.65 0.9 1.4	**DX1-606-B619** **DX2-606-B619** **DX3-606-B619**
5/3 Valves						
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Closed center	Electrical signal Self centering	30/95 40/190 55/330	0.65 0.9 1.4	**DX1-616-B619** **DX2-616-B619** **DX3-616-B619**
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Vented center	Electrical signal Self centering	25/70 40/140 60/270	0.65 0.9 1.4	**DX1-611-B619** **DX2-611-B619** **DX3-611-B619**
	1 - 43mm 2 - 56mm	Electrical signal Press. center	Electrical signal Self centering	25/65 40/150	0.65 0.9	**DX1-613-B619** **DX2-613-B619**

Solenoid operated ISO valve, CNOMO, 24 VDC with Din A coil and M12 connector

M12 connection is made with an adaptor between coils, Led & surge suppressor

Symbol	Size	Actuation	Return	Changeover time (ms) at 6 bar actua./return	Weight kg	Order code
5/2 Valves						
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Spring Spring Spring	40/55 60/105 85/160	0.65 0.9 1.4	**DX1-621-B219** **DX2-621-B219** **DX3-621-B219**
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Differential Differential Differential	30/70 55/110 80/180	0.65 0.9 1.4	**DX1-651-B219** **DX2-651-B219** **DX3-651-B219**
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Electrical signal Electrical signal Electrical signal	25/25 30/30 40/40	0.8 1.05 1.55	**DX1-606-B219** **DX2-606-B219** **DX3-606-B219**
5/3 Valves						
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Closed center	Electrical signal Self centering	30/95 40/190 55/330	0.8 1.05 1.55	**DX1-616-B219** **DX2-616-B219** **DX3-616-B219**
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Vented center	Electrical signal Self centering	25/70 40/140 60/270	0.8 1.05 1.55	**DX1-611-B219** **DX2-611-B219** **DX3-611-B219**
	1 - 43mm 2 - 56mm	Electrical signal Press. center	Electrical signal Self centering	25/65 40/150	0.8 1.05	**DX1-613-B219** **DX2-613-B219**

ISYS ISO - Heavy Duty Applications

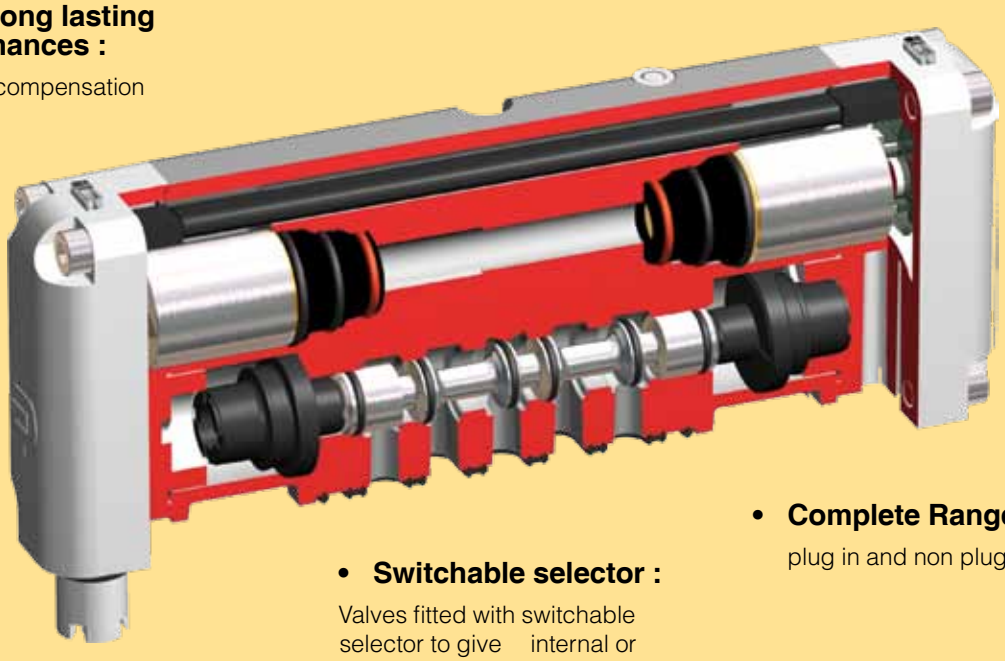
Market Applications

- Automotive
- Machine tools
- Mobile

- **Excellent reliability :**
  Long life in excess of 30 million operations.

- **Heavy Duty Metal Body**

- **Stable long lasting performances :**
  due to wear compensation

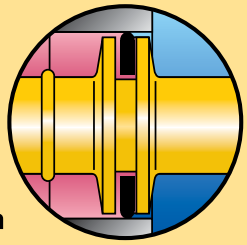


- **Complete Range :**
  plug in and non plug in

- **Switchable selector :**
  Valves fitted with switchable selector to give internal or external pilot supply

- **WCS Spool Technology**

WCS
Wear Compensating System



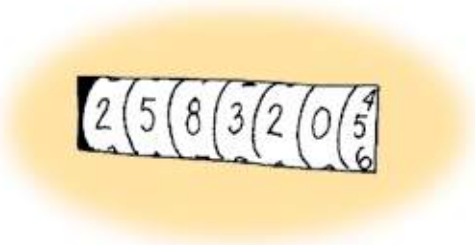
ISYS ISO Features

Complete ISO valve range
ISO 15407-1, ISO 15407-2, ISO 5599-1, ISO 5599-2, ISO 4400 DIN A, 12mm, 23 mm, multipole and centralized fieldbus are all feature of ISYS ISO valve.

Heavy duty and corrosion resistant body
with a valve body made of painted die casted aluminium and polyamide reinforced glassfiber caps, Isys Iso are suitable for heavy duty enviromnment

External supply selection
In order to use actuator with low pressure, it is possible to connect an external pressure on port 14 to supply both solenoids. Selection is easily made by reversing the gasket under the operator.

High reliability



Valves comply with the requirements for the component reliability in accordance with EU Machinery Directive standards EN292-2 and EN983.

Mobile appications
ISYS ISO range could be fit with a metal mobile CNOMO solenoid. Available with different coil voltages, allowing +/- 30% voltage tolerance, operating from -15°C to 50°C, under demanding vibration and shock condition, ISYS ISO is suitable for mobile and railway applications.

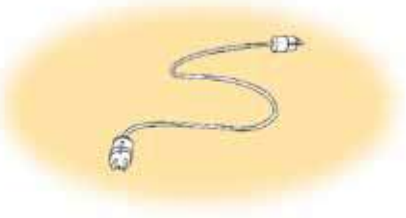
Solenoid valves, CNOMO interface, integrated solenoid

The standard valve is fitted with a 30mm solenoid having DIN 43650 Industrial form A connector for sizes 1, 2 and 3. For sizes 01 and 02, the solenoid is integrated in the valve body.

Central M12 & M23 connection or M12 coil
Sizes 01 & 02 are available with a central M12 connection
Sizes 1, 2 & 3 are available with a central M12 or M23 connector, compatible with differents automotive standard, but also with 30x30 coil having the M12 connection.

Internal or external led & rectifier
Sizes 01 & 02 have integrated Led and rectifier, for all connections. Sizes 1,2, 3 are available with integrated Led and rectifier in the coil or basic Din A coil.

High electrical encapsulation class

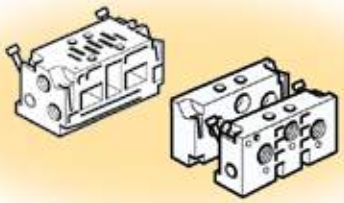


The solenoid valves are protected to IP65 with the standard cable plug. Available with DIN A or M12 connection.

Wide range of solenoid connectors / cable plugs for ISO 5599-1

Solenoid connectors are available with or without LED and rectifier and may be selected fitted pre-wired with flying leads.

Bottom or side ported manifolds and subbases



Manifolds are common for ISO 15407-1 & ISO 5599-1.
A dedicated range of maniflod is available for ISYS ISO with integrated electrical connection in the base (plug in)

Insensitive to dirty air
Thanks to large flow passage areas and the large flow diameter of 1.3 in the pilot valves, the ISO valve can be used in normal industrial or mobile environments without any problems of blocking. However the service life of the valve depends on the cleanliness of the air. Please refer to ISO 8573.

ISYS ISO - Features

Serial communication
ISYSNET provides an open communications protocole with a common platform that is compatible with all ISO valves. ISYSNET allows connecting with Ethernet IP, Profibus DP , ControlNet, and DeviceNet. The communication modules are IP65 protected and can be easily replaced by using latching mechanisms that eliminate the need for screws. DIP and rotary switches come standards, as well of electrical connection.
A total of 63 Input / Output modules can be assembled with a single communication module node. Both digital (M8, M12, and M23 connection) and analog (current or voltage) Inputs / Outputs modules are available. Sinking (NPN) or sourcing (PNP) modules complete the connectivity solution. Built in Diagnostic, such as open circuit, noload, and short-circuit detection, simplify maintenance. the modules also have overvoltage protection and reverse-polarity protected.

Collective wiring
There are no wires between connectors and base circuit boards. Circuits boards make make all connections-thoughout the manifold, decreasing opportunities for electrical failures due to loose wire. Plate cover for collective wiring have an IP65 rating. Main connector available on left end module are :
- 25 pin D-Sub connector allowing 24 solenoids
- 19 pin Brad Harrison round connector allowing 16 solenoids
- 12 pin M23 round connector allowing 8 solenoids
- 16 Point terminal strip, allowing 16 solenoids
- ISYS NET module, 32 outputs, allowing 32 solenoids

Hard wiring
In case of 110 or 230 VAC standard voltage, or for a small number of valve on the manifold, specialy for sizes 2 & 3, hard wiring could be preferred. This method requires wiring each valve though a simple cable or a screw terminal.

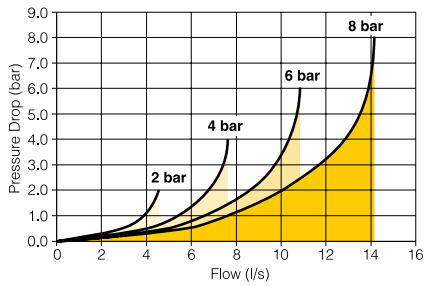
ISO 15407-2 manifolds
Using ISO 15407 standards as foundation, the Isys line leapfrogs proprietary valves to install 18 and 26 mm valves within the same manifold.
Manifold bases are available in two-station multiple.
Two-station manifolds increase rigidity for longer manifolds and decrease the number of base to base electrical and pneumatic connections, reducing the potential for leaks and electrical misconnections. Cylinders ports are available with BSPP, NPT in inch sizes.
Manifold bases are available with side or side and bottom ported.

Oversize ports for ISO 5599-2 manifolds
Due to the standardized size of bases and valve, the resulting flow is limited by port size. All manifold for size 1, 2, and 3 are available with oversize port to optimise the flow for size. As an exemple, size 1 valve and manifold, equiped with a 3/8 port is suitable with a 100mm diameter cylinder where a size 2 valve will have been choosen.
This is all the more true than the cylinder speed is limited with flow control and adjusted near 0,5m/s

ISYS ISO Flow Characteristics

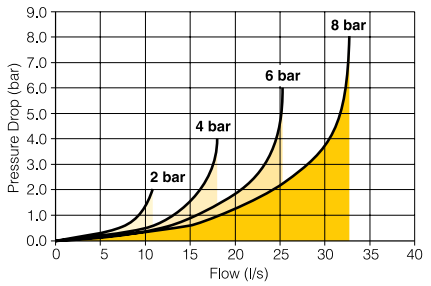
Flow capacities in accordance with ISO6358, for 5/2 function. 5/3 function are around 10 to 20% less

Technical Data ISYS ISO Size 02



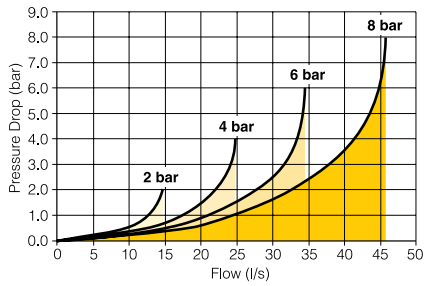
Operating pressure.	
5/2 Spring return	2,0 - 10 bar
5/2 Differential	2,0 - 10 bar
5/2 Double solenoid	2,0 - 10 bar
5/3 Double solenoid	2,5 - 10 bar
Working temperature.	-15^{O}C to + 50^{O}C
Flow (acc. to ISO 6358)	c = 1,5 Nl/s x bar
	b = 0,25
	Qn = 6,5 l/s
	Qmax = 10,8 l/s

Technical Data ISYS ISO Size 01



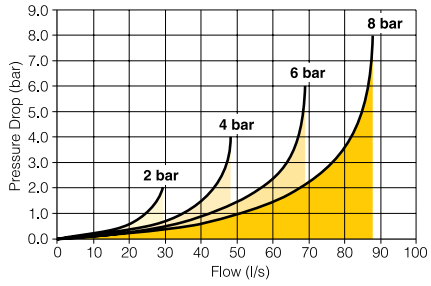
Operating pressure.	
5/2 Spring return	2,0 - 10 bar
5/2 Differential	1,7 - 10 bar
5/2 Double solenoid	1,7 - 10 bar
5/3 Double solenoid	2,5 - 10 bar
Working temperature.	-15^{O}C to + 50^{O}C
Flow (acc. to ISO 6358)	c = 3,6 Nl/s x bar
	b = 0,30
	Qn = 15,3 l/s
	Qmax = 25,3 l/s

Technical Data ISYS ISO Size 1



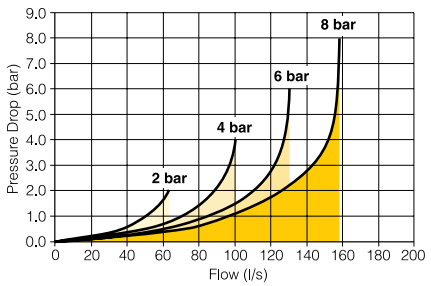
Operating pressure.	
5/2 Spring return	2,4 - 10 bar
5/2 Differential	1,7 - 10 bar
5/2 Double solenoid	1,7 - 10 bar
5/3 Double solenoid	2,5 - 10 bar
Working temperature.	-15^{O}C to + 50^{O}C
Flow (acc. to ISO 6358)	c = 5,0 Nl/s x bar
	b = 0,30
	Qn = 20,8 l/s
	Qmax = 34,5 l/s

Technical Data ISYS ISO Size 2



Operating pressure.	
5/2 Spring return	3,1 - 10 bar
5/2 Differential	1,7 - 10 bar
5/2 Double solenoid	1,7 - 10 bar
5/3 Double solenoid	3,5 - 10 bar
Working temperature.	-15^{O}C to + 50^{O}C
Flow (acc. to ISO 6358)	c = 9,7 Nl/s x bar
	b = 0,35
	Qn = 42,0 l/s
	Qmax = 69,0 l/s

Technical Data ISYS ISO Size 3



Operating pressure.	
5/2 Spring return	3,1 - 10 bar
5/2 Differential	2,5 - 10 bar
5/2 Double solenoid	2,5 - 10 bar
5/3 Double solenoid	3,5 - 10 bar
Working temperature.	-15^{O}C to + 50^{O}C
Flow (acc. to ISO 6358)	c = 18,7 Nl/s x bar
	b = 0,35
	Qn = 83,7 l/s
	Qmax = 130,8 l/s

ISYS ISO Material Specification and Characteristics

Material specification

Valve body:	Die cast aluminium
End cover:	PBT
Spool:	Aluminium + nitrile rubber
Piston:	Acetal plastic
End cover sealing:	Nitrile rubber
Fasteners:	Zinc plated steel

Characteristics

Fluid:	Air, inert gas filtered 40u class 5 according to ISO 8573-1 dry class 4 according to ISO 8573-1 non-lubricated, or lubricated
Storage temperature	-20° to + 70°
Vibration, according to IEC 68-2-6	2G 2 to 150Hz
Shock, according to IEC 68-2-7	15G 11ms
Manual override	Non-locking, other type on request

HA & HB Solenoids

Minimum operating voltage:	DC 20,4 V, AC 102 V
Power:	DC 1W, AC 2VA
Bi polar:	
Surge suppressor:	Standard
Light indicator:	Standard

Plug-in Solenoids

Minimum operating voltage:	DC 20,4 V, AC 102 V
Power:	DC 3W, AC 4,5VA
Bi polar:	
Surge suppressor:	On lighted coils
Light indicator:	Standard

Certification

CSA / C-US approved	
EMC / CE mark.	According to EN 61 000-6-2
Dust & water protection	IP65 according to EN 60529

ISYS ISO M12 and Pilot

Order chart

H	B	1	WX	B	G	2	G9	000F	A

	Size
B	ISO 15407 - 18mm
A	ISO 15407 - 26mm

	Pilot source / Pilot exhaust
B	Internal pilot, port#1 / vented
L	External pilot#14 port / vented

Voltage	
	DC
G9	24

2	Central M12

Valve type function	
1	Single solenoid, 2 position - Differential
2	Double solenoid, 2 position
5	Double solenoid, 3 position - APB
6	Double solenoid, 3 position - CE
7	Double solenoid, 3 position - PC
E	Single solenoid, 2 position, Differential, spring assist

	Overrides
G	Non-locking, flush, push - w/ light
H	Locking, flush, push / turn - w/ light

Shaded voltage part numbers are available from stock.
Unshaded part numbers are available on request but will be subject to minimum order quantities.
Otherwise order coil/solenoid and valve separately.

Shaded part numbers are standard

ISYS ISO

ISYS ISO Remote Pilot

Order chart

H	B	3	WX 000 XX A

	Size
B	ISO 15407 - 18mm
A	ISO 15407 - 26mm

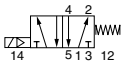
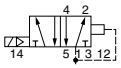
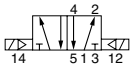
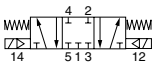
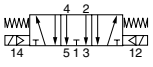
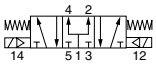
Valve type function	
3	Single remote pilot, 2 position - Differential
4	Double remote pilot, 2 position
8	Double remote pilot, 3 position - APB
9	Double remote pilot, 3 position - CE
0	Double remote pilot, 3 position - PC
F	Single solenoid, 2 position, Differential, spring assist

Shaded part numbers are standard

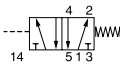
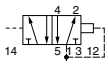
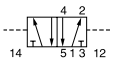
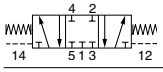
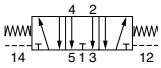
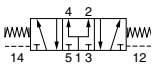
ISYS ISO

Solenoid operated ISO valve, 24 VDC, central M12 connection

Oriented side 14, Led & surge suppressor

Symbol	Size	Actuation	Return	Changeover time (ms) at 6 bar actua./return	Weight kg	Order code
5/2 Valves						
	02 - 18mm 01 - 26mm	Electrical signal Electrical signal	Spring & Diff. Spring & Diff.	20/40 20/45	0.15 0.25	**HBEWXBG2G9000FA** **HAEWXBG2G9000FA**
	02 - 18mm 01 - 26mm	Electrical signal Electrical signal	Differential Differential	15/40 15/50	0.15 0.25	**HB1WXBG2G9000FA** **HA1WXBG2G9000FA**
	02 - 18mm 01 - 26mm	Electrical signal Electrical signal	Electrical signal Electrical signal	10 10	0.165 0.265	**HB2WXBG2G9000FA** **HA2WXBG2G9000FA**
5/3 Valves						
	02 - 18mm 01 - 26mm	Electrical signal Closed center	Electrical signal Self centering	15/60 15/50	0.165 0.265	**HB5WXBG2G9000FA** **HA5WXBG2G9000FA**
	02 - 18mm 01 - 26mm	Electrical signal Vented center	Electrical signal Self centering	15/60 15/50	0.165 0.265	**HB6WXBG2G9000FA** **HA6WXBG2G9000FA**
	02 - 18mm 01 - 26mm	Electrical signal Press. center	Electrical signal Self centering	15/60 15/50	0.165 0.265	**HB7WXBG2G9000FA** **HA7WXBG2G9000FA**

Pneumatic operated ISO valve

Symbol	Size	Actuation	Return	Changeover time (ms) at 6 bar actua./return	Weight kg	Order code
5/2 Valves						
	02 - 18mm 01 - 26mm	Air signal Air signal	Spring & Diff. Spring & Diff.	15/30 15/40	0.115 0.215	**HBFWX000XXA** **HAFWX000XXA**
	02 - 18mm 01 - 26mm	Air signal Air signal	Differential Differential	10/30 15/35	0.115 0.215	**HB3WX000XXA** **HA3WX000XXA**
	02 - 18mm 01 - 26mm	Air signal Air signal	Air signal Air signal	8 10	0.115 0.215	**HB4WX000XXA** **HA4WX000XXA**
5/3 Valves						
	02 - 18mm 01 - 26mm	Air signal Closed center	Air signal Self centering	15/35 15/40	0.115 0.215	**HB8WX000XXA** **HA8WX000XXA**
	02 - 18mm 01 - 26mm	Air signal Vented center	Air signal Self centering	15/35 15/40	0.115 0.215	**HB9WX000XXA** **HA9WX000XXA**
	02 - 18mm 01 - 26mm	Air signal Press. center	Air signal Self centering	15/35 15/40	0.115 0.215	**HB0WX000XXA** **HA0WX000XXA**

Indicates stocked product.

ISYS ISO Plug in

Order chart

H	B	1	VX	B	G	0	G9	A

	Size
B	ISO 15407 - 18mm
A	ISO 15407 - 26mm

	Pilot source / Pilot exhaust
B	Internal pilot, port#1 / vented
L	External pilot#14 port / vented

Voltage	
G9	24 VDC
23	115 VAC

Shaded voltage part numbers are available from stock.
Unshaded part numbers are available on request but will be subject to minimum order quantities.
Otherwise order coil/solenoid and valve separately.

Valve type function	
1	Single solenoid, 2 position - Differential
2	Double solenoid, 2 position
5	Double solenoid, 3 position - APB
6	Double solenoid, 3 position - CE
7	Double solenoid, 3 position - PC
E	Single solenoid, 2 position, Air return, spring assist

* Only available with pilot source / pilot exhaust 'O'.
Available on HA only, must use DX01 manifold or HA subbase

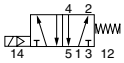
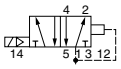
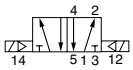
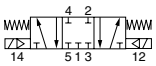
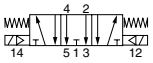
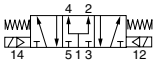
	Overrides
G	Non-locking, flush, push - w/ light
H	Locking, flush, push / turn - w/ light

Shaded part numbers are standard

ISYS ISO

Solenoid operated ISO plug-in valve, 24 VDC

Manual override non locking, Led & surge suppressor

Symbol	Size	Actuation	Return	Changeover time (ms) at 6 bar actua./return	Weight kg	Order code
5/2 Valves						
	02 - 18mm 01 - 26mm	Electrical signal Electrical signal	Spring & Diff. Spring & Diff.	20/40 20/45	0.13 0.23	**HBEVXBG0G9A** **HAEVXBG0G9A**
	02 - 18mm 01 - 26mm	Electrical signal Electrical signal	Differential Differential	15/40 15/50	0.13 0.23	**HB1VXBG0G9A** **HA1VXBG0G9A**
	02 - 18mm 01 - 26mm	Electrical signal Electrical signal	Electrical signal Electrical signal	10 10	0.145 0.245	**HB2VXBG0G9A** **HA2VXBG0G9A**
5/3 Valves						
	02 - 18mm 01 - 26mm	Electrical signal Closed center	Electrical signal Self centering	15/60 15/50	0.145 0.245	**HB5VXBG0G9A** **HA5VXBG0G9A**
	02 - 18mm 01 - 26mm	Electrical signal Vented center	Electrical signal Self centering	15/60 15/50	0.145 0.245	**HB6VXBG0G9A** **HA6VXBG0G9A**
	02 - 18mm 01 - 26mm	Electrical signal Press. center	Electrical signal Self centering	15/60 15/50	0.145 0.245	**HB7VXBG0G9A** **HA7VXBG0G9A**

ISYS ISO - ISO 5599-1 - CNOMO - Size 1 / 2 / 3

Order chart

H	1	E	WX	B	B	L	49	C

	Size
1	ISO 5599-1 - Size 1
2	ISO 5599-1 - Size 2
3	ISO 5599-1 - Size 3

	Pilot source / Pilot exhaust
B	Internal pilot#1 port / vented
X*	External pilot#12 or #14 port / vented

* Must be specified when using Sandwich regulators

	Voltage
42	24 VAC
49	24 VDC
53	120 VAC
57	230 VAC
XX	Valve less coil

Shaded voltage part numbers are available from stock.
Unshaded part numbers are available on request but will be subject to minimum order quantities.
Otherwise order coil/solenoid and valve separately.

Valve type function	
1	Single solenoid, 2 position - Differential
2	Double solenoid, 2 position
5	Double solenoid, 3 position - APB
6	Double solenoid, 3 position - CE
7	Double solenoid, 3 position - PC
E	Single solenoid, 2 position, Differential, spring assist

	Enclosure / Lead lengths
L	3-pin 30mm DIN 43650A with CNOMO operator
N	Valve less coil

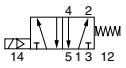
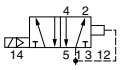
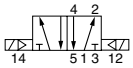
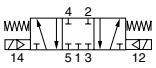
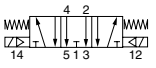
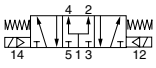
B	Overrides / Lights
C	Non-locking, flush, push - w/o light
	Locking, flush, push / turn - w/o light

Shaded part numbers are standard

ISYS ISO

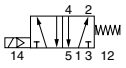
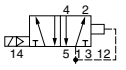
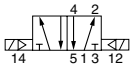
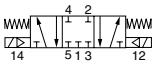
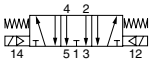
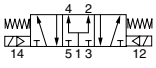
Solenoid operated ISO valve fitted with CNOMO solenoid(s) 24 VDC

solenoid plug/connector to be ordered separately. See page 58

Symbol	Size	Actuation	Return	Changeover time (ms) at 6 bar actua./return	Weight kg	Order code
5/2 Valves						
	1 - 43mm	Electrical signal	Spring & Diff.	25/35	0.77	**H1EWXBBL49C**
	2 - 56mm	Electrical signal	Spring & Diff.	40/70	1.19	**H2EWXBBL49C**
	3 - 71mm	Electrical signal	Spring & Diff.	70/80	1.47	**H3EWXBBL49C**
	1 - 43mm	Electrical signal	Differential	25/45	0.77	**H11WXBBL49C**
	2 - 56mm	Electrical signal	Differential	35/80	1.19	**H21WXBBL49C**
	3 - 71mm	Electrical signal	Differential	55/85	1.47	**H31WXBBL49C**
	1 - 43mm	Electrical signal	Electrical signal	15	0.94	**H12WXBBL49C**
	2 - 56mm	Electrical signal	Electrical signal	20	1.36	**H22WXBBL49C**
	3 - 71mm	Electrical signal	Electrical signal	25	1.64	**H32WXBBL49C**
5/3 Valves						
	1 - 43mm	Electrical signal	Electrical signal	15/60	0.94	**H15WXBBL49C**
	2 - 56mm	Closed center	Self centering	30/75	1.36	**H25WXBBL49C**
	3 - 71mm			23/80	1.64	**H35WXBBL49C**
	1 - 43mm	Electrical signal	Electrical signal	15/60	0.94	**H16WXBBL49C**
	2 - 56mm	Vented center	Self centering	30/75	1.36	**H26WXBBL49C**
	3 - 71mm			23/80	1.64	**H36WXBBL49C**
	1 - 43mm	Electrical signal	Electrical signal	15/60	0.94	**H17WXBBL49C**
	2 - 56mm	Press. center	Self centering	30/75	1.36	**H27WXBBL49C**
	3 - 71mm			23/80	1.64	**H37WXBBL49C**

Solenoid operated ISO valve fitted with CNOMO operator without coil

Coils and plug/connector should be ordered separately. See page 57

Symbol	Size	Actuation	Return	Changeover time (ms) at 6 bar actua./return	Weight kg	Order code
5/2 Valves						
	1 - 43mm	Electrical signal	Spring & Diff.	25/35	0.65	**H1EWXBBNXXC**
	2 - 56mm	Electrical signal	Spring & Diff.	40/70	1.07	**H2EWXBBNXXC**
	3 - 71mm	Electrical signal	Spring & Diff.	70/80	1.35	**H3EWXBBNXXC**
	1 - 43mm	Electrical signal	Differential	25/45	0.65	**H11WXBBNXXC**
	2 - 56mm	Electrical signal	Differential	35/80	1.07	**H21WXBBNXXC**
	3 - 71mm	Electrical signal	Differential	55/85	1.35	**H31WXBBNXXC**
	1 - 43mm	Electrical signal	Electrical signal	15	0.7	**H12WXBBNXXC**
	2 - 56mm	Electrical signal	Electrical signal	20	1.12	**H22WXBBNXXC**
	3 - 71mm	Electrical signal	Electrical signal	25	1.4	**H32WXBBNXXC**
5/3 Valves						
	1 - 43mm	Electrical signal	Electrical signal	15/60	0.7	**H15WXBBNXXC**
	2 - 56mm	Closed center	Self centering	30/75	1.12	**H25WXBBNXXC**
	3 - 71mm			23/80	1.4	**H35WXBBNXXC**
	1 - 43mm	Electrical signal	Electrical signal	15/60	0.7	**H16WXBBNXXC**
	2 - 56mm	Vented center	Self centering	30/75	1.12	**H26WXBBNXXC**
	3 - 71mm			23/80	1.4	**H36WXBBNXXC**
	1 - 43mm	Electrical signal	Electrical signal	15/60	0.7	**H17WXBBNXXC**
	2 - 56mm	Press. center	Self centering	30/75	1.12	**H27WXBBNXXC**
	3 - 71mm			23/80	1.4	**H37WXBBNXXC**

ISYS ISO 5599-1 Size 1 / 2 / 3 Central Connection

Order chart

H	1	E	WX	B	G	2 B9	000	F	C

	Size
1	ISO 5599-1 - Size 1
2	ISO 5599-1 - Size 2
3	ISO 5599-1 - Size 3

	Pilot source / Pilot exhaust
B	Internal pilot#1 port / vented
X*	External pilot#12 port / vented

* Must be specified when using Sandwich regulators

	Wiring options
F	Standard

	Enclosure / Voltage
2B9	4-pin M12 Connector 24 VDC
619	2-pin M12 on coil 24 VDC

Valve type function	
1	Single solenoid, 2 position - Differential
2	Double solenoid, 2 position
5	Double solenoid, 3 position - APB
6	Double solenoid, 3 position - CE
7	Double solenoid, 3 position - PC
E	Single solenoid, 2 position, Differential, spring assist

	Overrides / Lights
G	Non-locking, flush, push - w/ light
H	Locking, flush, push / turn - w/ light

Shaded part numbers are standard

ISYS ISO

ISYS ISO 5599-1 Size 1 / 2 / 3 Remote Pilot

Order chart

H	1	F	WX 000 XX C

	Size
1	ISO 5599-1 - Size 1
2	ISO 5599-1 - Size 2
3	ISO 5599-1 - Size 3

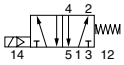
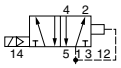
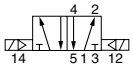
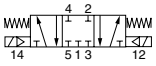
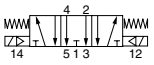
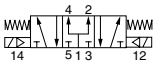
Valve type function	
3	Single remote pilot, 2 position - Differential
4	Double remote pilot, 2 position
8	Double remote pilot, 3 position - APB
9	Double remote pilot, 3 position - CE
0	Double remote pilot, 3 position - PC
F	Single remote pilot, 2 position, Differential, spring assist

Shaded part numbers are standard

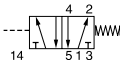
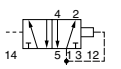
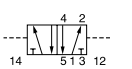
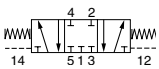
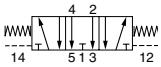
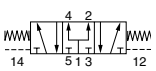
ISYS ISO

Solenoid operated ISO valve, 24VDC, central M12 connection

Oriented side 14, Led & surge suppressor

Symbol	Size	Actuation	Return	Changeover time (ms) at 6 bar actua./return	Weight kg	Order code
5/2 Valves						
	1 - 43mm	Electrical signal	Spring & Diff.	30/40	0.77	**H1EWXBG2B9000FC**
	2 - 56mm	Electrical signal	Spring & Diff.	45/70	1.29	**H2EWXBG2B9000FC**
	3 - 71mm	Electrical signal	Spring & Diff.	75/80	1.57	**H3EWXBG2B9000FC**
	1 - 43mm	Electrical signal	Differential	30/50	0.77	**H11WXBG2B9000FC**
	2 - 56mm	Electrical signal	Differential	40/80	1.29	**H21WXBG2B9000FC**
	3 - 71mm	Electrical signal	Differential	60/85	1.57	**H31WXBG2B9000FC**
	1 - 43mm	Electrical signal	Electrical signal	20	1.04	**H12WXBG2B9000FC**
	2 - 56mm	Electrical signal	Electrical signal	25	1.46	**H22WXBG2B9000FC**
	3 - 71mm	Electrical signal	Electrical signal	30	1.74	**H32WXBG2B9000FC**
5/3 Valves						
	1 - 43mm	Electrical signal	Electrical signal	20/65	1.04	**H15WXBG2B9000FC**
	2 - 56mm	Closed center	Self centering	35/80	1.46	**H25WXBG2B9000FC**
	3 - 71mm			40/85	1.74	**H35WXBG2B9000FC**
	1 - 43mm	Electrical signal	Electrical signal	20/65	1.04	**H16WXBG2B9000FC**
	2 - 56mm	Vented center	Self centering	35/80	1.46	**H26WXBG2B9000FC**
	3 - 71mm			40/85	1.74	**H36WXBG2B9000FC**
	1 - 43mm	Electrical signal	Electrical signal	20/65	1.04	**H17WXBG2B9000FC**
	2 - 56mm	Press. center	Self centering	35/80	1.46	**H27WXBG2B9000FC**
	3 - 71mm			40/85	1.74	**H37WXBG2B9000FC**

Pneumatic operated ISO valve without manual override

Symbol	Size	Actuation	Return	Changeover time (ms) at 6 bar actua./return	Weight kg	Order code
5/2 Valves						
	1 - 43mm	Air signal	Spring & Diff.	20/30	0.6	**H1FWX000XXC**
	2 - 56mm	Air signal	Spring & Diff.	35/70	1.02	**H2FWX000XXC**
	3 - 71mm	Air signal	Spring & Diff.	65/75	1.3	**H3FWX000XXC**
	1 - 43mm	Air signal	Differential	20/40	0.6	**H13WX000XXC**
	2 - 56mm	Air signal	Differential	30/80	1.02	**H23WX000XXC**
	3 - 71mm	Air signal	Differential	50/85	1.3	**H33WX000XXC**
	1 - 43mm	Air signal	Air signal	12	0.6	**H14WX000XXC**
	2 - 56mm	Air signal	Air signal	16	1.02	**H24WX000XXC**
	3 - 71mm	Air signal	Air signal	20	1.3	**H34WX000XXC**
5/3 Valves						
	1 - 43mm	Air signal	Air signal	15/55	0.6	**H18WX000XXC**
	2 - 56mm	Closed center	Self centering	20/70	1.12	**H28WX000XXC**
	3 - 71mm			30/80	1.3	**H38WX000XXC**
	1 - 43mm	Air signal	Air signal	15/55	0.6	**H19WX000XXC**
	2 - 56mm	Vented center	Self centering	20/70	1.02	**H29WX000XXC**
	3 - 71mm			30/80	1.3	**H39WX000XXC**
	1 - 43mm	Air signal	Air signal	15/55	0.6	**H10WX000XXC**
	2 - 56mm	Press. center	Self centering	20/70	1.02	**H20WX000XXC**
	3 - 71mm			30/80	1.3	**H30WX000XXC**

ISYS ISO - 5599-2 - Size 1 / 2 / 3 - Plug in
Order chart

H	1	E	VX	B	G	0	B9	C

	Size
1	ISO 5599-2 - Size 1
2	ISO 5599-2 - Size 2
3	ISO 5599-2 - Size 3

	Pilot source / Pilot exhaust
B	Internal pilot#1 port / vented
X*	External pilot#12 or #14 port / vented

* Must be specified when using Sandwich regulators

Valve type function	
1	Single solenoid, 2 position - Differential
2	Double solenoid, 2 position
5	Double solenoid, 3 position - APB
6	Double solenoid, 3 position - CE
7	Double solenoid, 3 position - PC
E	Single solenoid, 2 position, Differential, spring assist

* Only available with pilot source / pilot exhaust 'O'.

Voltage & Frequency **				
	AC		DC	Light & surge sup
	60Hz	50Hz		
42				
45			12	
B9*			24	LED & Sup
23	120	115		LED & Sup
57	240			
XX	Valve less coil			

* Solenoid is blue

	Enclosure
0	Non, Valve with coil
N	Non, Valve less coil

	Overrides / Lights
B	Non-locking, flush, push - w/o light
C	Locking, flush, push / turn - w/o light
G	Non-locking, flush, push - with light
H	Locking, flush, push / turn - with light

Shaded part numbers are standard

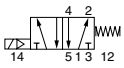
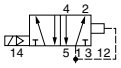
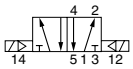
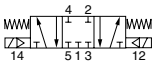
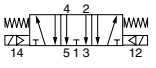
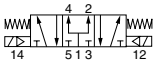
Shaded voltage part numbers are available from stock.
Unshaded part numbers are available on request but will be subject to minimum order quantities.
Otherwise order coil/solenoid and valve separately.

ISYS ISO

Subbase & Manifolds - See pages 34 - 36

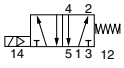
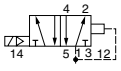
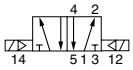
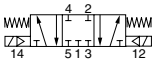
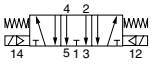
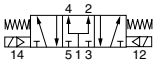
Solenoid operated ISO valve, 24VDC, Plug-in

Led & surge suppressor

Symbol	Size	Actuation	Return	Changeover time (ms) at 6 bar actua./return	Weight kg	Order code
5/2 Valves						
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Spring & Diff. Spring & Diff. Spring & Diff.	30/40 45/70 75/80	0.77 1.19 1.47	**H1EVXBG0B9C** **H2EVXBG0B9C** **H3EVXBG0B9C**
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Differential Differential Differential	30/50 40/80 60/85	0.77 1.19 1.47	**H11VXBG0B9C** **H21VXBG0B9C** **H31VXBG0B9C**
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Electrical signal Electrical signal Electrical signal	20 25 30	0.94 1.36 1.64	**H12VXBG0B9C** **H22VXBG0B9C** **H32VXBG0B9C**
5/3 Valves						
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Closed center	Electrical signal Self centering	20/65 35/80 40/85	0.94 1.36 1.64	**H15VXBG0B9C** **H25VXBG0B9C** **H35VXBG0B9C**
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Vented center	Electrical signal Self centering	20/65 35/80 40/85	0.94 1.36 1.64	**H16VXBG0B9C** **H26VXBG0B9C** **H36VXBG0B9C**
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Press. center	Electrical signal Self centering	20/65 35/80 40/85	0.94 1.36 1.64	**H17VXBG0B9C** **H27VXBG0B9C** **H37VXBG0B9C**

Solenoid operated ISO valve, with plug in operator, without coil

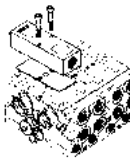
coil have to be ordered separately, see page 40

Symbol	Size	Actuation	Return	Changeover time (ms) at 6 bar actua./return	Weight kg	Order code
5/2 Valves						
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Spring & Diff. Spring & Diff. Spring & Diff.	30/40 45/70 75/80	0.65 1.07 1.35	**H1EVXBGNXXC** **H2EVXBGNXXC** **H3EVXBGNXXC**
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Differential Differential Differential	30/50 40/80 60/85	0.65 1.07 1.35	**H11VXBGNXXC** **H21VXBGNXXC** **H31VXBGNXXC**
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Electrical signal Electrical signal Electrical signal	20 25 30	0.7 1.12 1.4	**H12VXBGNXXC** **H22VXBGNXXC** **H32VXBGNXXC**
5/3 Valves						
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Closed center	Electrical signal Self centering	20/65 35/80 40/85	0.7 1.12 1.4	**H15VXBGNXXC** **H25VXBGNXXC** **H35VXBGNXXC**
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Vented center	Electrical signal Self centering	20/65 35/80 40/85	0.7 1.12 1.4	**H16VXBGNXXC** **H26VXBGNXXC** **H36VXBGNXXC**
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Press. center	Electrical signal Self centering	20/65 35/80 40/85	0.7 1.12 1.4	**H17VXBGNXXC** **H27VXBGNXXC** **H37VXBGNXXC**

Side ported subbase

	Description	Port size	Weight (kg)	Order code BSPP "G"	Order code NPT
	**Individual subbase kit**				
	Subbase with side port				
	Size 02	G1/8	0.07	**PL02-01-70**	**PL02-01-80**
	Size 01	G1/4	0.12	**PL01-02-70**	**PL01-02-80**

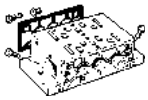
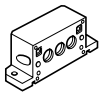
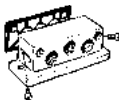
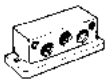
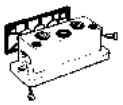
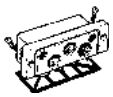
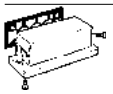
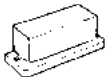
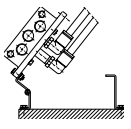
Side ported manifold

	Description	Port size	Weight (kg)	Order code BSPP "G"	Order code NPT
	**Two station manifold base with side ports**				
	To suit valves with internal supply solenoid				
	Size 02	G1/8	0.14	**PJLP02-201-70**	**PJLP02-201-80**
	Size 01	G1/4	0.7	**PJLP01-202-70**	**PJLP01-202-80**
	Two station manifold base				
	To suit pneumatic actuated valves				
	Size 01	G1/4	0.73	**PJL01-202-70**	**PJL01-202-80**
	End plate kit - for side ported two station manifold base				
	Size 02	G1/4	0.15	**PEJ02-02-70**	**PEJ02-02-80***
	Size 01	G3/8	0.52	**PEJ01-03-70**	**PEJ01-03-80****
	* Use with PJLP02				
	** Use with PJLP01 or PJL01				
	Gaskets and assembly hardware included.				

Accessories

	Description	Weight (kg)	Order code
	**Blanking plate**		
	Size 02	0.04	**DX02BLK**
	Size 01	0.05	**DX01BLK**
	Blanking plug (for subbase PJL)		
	Size 02	0.01	**D02BD0**
	Size 01	0.02	**D01BD0**
	Bolt, washer and nut		
	Size 02		**DX02M2MB**
	Size 01		**DX01M2MB**

Bottom ported manifolds

Accessories	Designation	Weight (kg)	Order code (P2V-A, 18 mm)	Weight (kg)	Order code (P2V-B, 26 mm)
	**Multiple manifold** Including seal, fitting screws and plugs. Ports 2, 4, and 14 are bottom-connected. Fit plugs as required to provide common supply of operating air and common exhausts for solenoid valves. Plug assembly instruction, see page 35.	0,20	**P2V-AM511NB**	0,40	**P2V-BM512NB**
	Multiple manifold Multiple manifold as above, but with the plugs fitted to suit use with valves with internal supply to solenoid.	0,20	**P2V-AM511PB**	0,40	**P2V-BM512PB**
	**Intermediate manifold, 18 to 26 mm** Including seals and fitting screws. For connecting P2V-AM511NB/PB multiple manifolds to P2V-BM511NB/PB multiple manifolds.	0,33	**P2V-AM500BE**	0,33	**P2V-AM500BE**
 	**Connection block** G-side, including seal and fitting screws. For side connection.	0,18	**P2V-AM512GS**	0,21	**P2V-BM513GS**
 	**Connection block** H-side. For side connection.	0,18	**P2V-AM512HS**	0,21	**P2V-BM513HS**
 	**Connection block** G-side, including seal and fitting screws. For top connection.	0,18	**P2V-AM512GT**	0,21	**P2V-BM513GT**
 	**Connection block** H-side. For top connection.	0,18	**P2V-AM512HT**	0,21	**P2V-BM513HT**
 	**Connection block** G-side, including seal and fitting screws. For bottom connection.	0,18	**P2V-AM512GB**	0,22	**P2V-BM513GB**
 	**Connection block** H-side. For bottom connection.	0,18	**P2V-AM512HB**	0,22	**P2V-BM513HB**
 	**End cover** G-side, including seal and fitting screws.	0,19	**P2V-AM500G0**	0,24	**P2V-BM500G0**
 	**End cover** H-side	0,19	**P2V-AM500H0**	0,24	**P2V-BM500H0**
	**Plug** For sealing supply and exhaust air ducts between multiple manifolds with different primary supply pressures.	0,004	**P2V-AK0P**	0,01	**P2V-BK0P**
	**Angle mounting set** For raising multiple manifolds so that angle connections can be fitted to the underside. The parts are designed so that the entire manifold can be angled to simplify connection of the pipes. The set consists of four mounts, complete with all necessary screws and nuts.	0,14	**P2V-AK0M**	0,14	**P2V-AK0M**
	**O-ring strip seal** For sealing between bases and multiple manifolds. 3.53 mm diameter, Supplied in 5 m lengths.	0,07	**9304331543**	0,07	**9304331543**

Side ported manifold

Description	Port size	Order code
Manifold with two valve positions with terminal Strip (Non collective wiring)		
Size 01 - 26mm	G1/4	**PS551154CP**
Manifold with two single solenoid valve positions with single address board		
Size 02 - 18mm	G1/8	**PS561152JP**
Size 01 - 26mm	G1/4	**PS551154JP**
Manifold with two valve positions with double address board		
Size 02 - 18mm	G1/8	**PS561152MP**
Size 01 - 26mm	G1/4	**PS551154MP**
Extension Manifold with two valve positions with single address board *		
Size 02 - 18mm	G1/8	**PS561152NP**
Size 01 - 26mm	G1/4	**PS551154NP**
Extension Manifold with two valve positions with double address board *		
Size 02	G1/8	**PS561152PP**
Size 01	G1/4	**PS551154PP**

* Use only one per manifold assembly to address more 24 solenoid

Side & bottom ported manifold

Description	Port size	Order code
Manifold with two valve positions with terminal Strip		
Size 01 - 26mm	G1/4	**PS551164CP**
Manifold with two valve positions with single address board		
Size 02 - 18mm	G1/8	**PS561162JP**
Size 01 - 26mm	G1/4	**PS551164JP**
Manifold with two valve positions with double address board		
Size 02 - 18mm	G1/8	**PS561162MP**
Size 01 - 26mm	G1/4	**PS551164MP**
Extension Manifold with two valve positions with single address board		
Size 02 - 18mm	G1/8	**PS561162NP**
Size 01 - 26mm	G1/4	**PS551164NP**
Extension Manifold with two valve positions with double address board		
Size 02	G1/8	**PS561162PP**
Size 01	G1/4	**PS551164PP**

Accessories

Description	Order code
Blanking plate	
Size 02 - 18mm	**PS5634P**
Size 01 - 26mm	**PS5534P**
Manifold to Manifold gasket kit	
HA & HB Gasket Standard	**PS561AP**
HA & HB Gasket 1 Blocked	**PS561BP**
HA & HB Gasket 1 2 3 Blocked	**PS561CP**

Indicates stocked product.

Collective wiring end plate kits

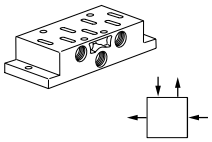
	Description	Port size	Order code
	**Left & right ends modules with pressure & exhaust port, auxiliary port , and non collective wiring (only for PS551154CP)** Size 02 / 01	G3/8	**PS5631011P**
	**Left & right ends modules with pressure & exhaust port, auxiliary port , and SubD25 connection** Size 02 / 01	G3/8	**PS5620L21P**
	Left & right ends modules with pressure & exhaust port, auxiliary port , and 19pin Brad Harrison connection Size 02 / 01	G3/8	**PS5620L31P**
	Left & right ends modules with pressure & exhaust port, auxiliary port , and 12pin M23 connection Size 02 / 01	G3/8	**PS5620L41P**
	Left & right ends modules with pressure & exhaust port, auxiliary port , and 16 point terminal strip Size 02 / 01	G3/8	**PS5620L51P**
	Left & right ends modules with pressure & exhaust port, auxiliary port , and ISYSNET (32 output driver is included) Size 02 / 01	G3/8	**PS5620L61P**

Accessories

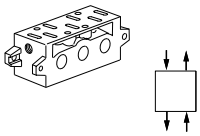
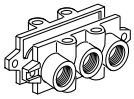
	Description	Port size	Order code
	**32 output driver module for spare part**		**PSSV32A**
	HA & HB 24 Out Cable Size 02 / 01	G3/8	**PS5624P**
	HA & HB 32 Out cable Size 02 / 01	G3/8	**PS5632P**
	25 pin female 25 pin SubD25 cable 3m		**P8LMH25M3A**

ISO 5599-1 Subbase & Manifolds

VDMA Side Ported Subbases

	Description	Size	Port size	Weight (kg)	Order code
	**Subbases VDMA**				
	Side port according to VDMA	1 - 43mm	G1/4	0.16	**P2N-VS512SD**
	Side port according to VDMA	2 - 56mm	G3/8	0.28	**P2N-WS513SD**
	Side port according to VDMA	3 - 71mm	G1/2	0.35	**P2N-YS514SD**

VDMA Bottom Ported Manifold

	Description	Size	Port size	Weight (kg)	Order code
	**VDMA Form C**				
	Bottom port according to VDMA	1 - 43mm	G1/4	0.24	**P2N-VM512MB**
	Bottom port according to VDMA	2 - 56mm	G3/8	0.36	**P2N-WM513MB**
	Bottom port according to VDMA	3 - 71mm	G1/2	0.70	**P2N-YM514MB**
	VDMA Transition plate				
	Size 1 to Size 3	1 to 3	G1/4		**P2N-VM500AK**
	Kit includes: Transition plate only				
	**VDMA Form D -** End plate				
	According to VDMA	1 - 43mm	G3/8	0.21	**P2N-VM513ES**
	According to VDMA	2 - 56mm	G1/2	0.36	**P2N-WM514ES**
	According to VDMA	3 - 71mm	G1	0.68	**P2N-YM518ES**
	VDMA Isolation - Main galley				
	According to VDMA	1 - 43mm			**P2N-VK0P**
	According to VDMA	2 - 56mm			**P2N-WK0P**
	According to VDMA	3 - 71mm			**P2N-YK0P**
	Kit includes: (1) Isolator plug.				

Accessories

	Description	Size	Port size	Weight (kg)	Order code
	**Blanking plate**				
		1 - 43mm	G1/4	0.10	**P2N-AA5B**
	Kit includes: (1) Blanking plate, (1) Gasket	2 - 56mm	G3/8	0.15	**P2N-BA5B**
	and (4) Mounting bolts	3 - 71mm	G1/2	0.20	**P2N-CA5B**

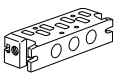
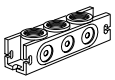
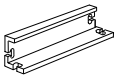
Side ported subbases

	Description	Size	Port size	Weight (kg)	Order code BSP	Order code NPT
	**Single subbase** 1 3 5 2 4 ports & 12 14	1 - 43mm 1 - 43mm	G1/4 G3/8	0.16 0.16	**PL1-1/4-70** **PL1-3/8-70**	**PL1-1/4-80**
		2 - 56mm 2 - 56mm	G3/8 G1/2	0.28	**PL2-3/8-70** **P2N-HS514SS**	**PL2-3/8-80**
		3 - 71mm 3 - 71mm	G1/2 G3/4		**PL3-1/2-70** **P2N-JS516SD**	**PL3-1/2-80**

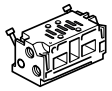
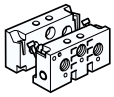
Bottom ported subbases

	Description	Size	Port size	Weight (kg)	Order code BSP	Order code NPT
	**Single subbase** 1 3 5 2 4 ports & 12 14	1 - 43mm 2 - 56mm 3 - 71mm	G1/4 G3/8 G1/2	0.37 0.59 0.59	**PD1-1/4-70** **PD2-3/8-70** **PD3-1/2-70**	**PD1-1/4-80** **PD2-3/8-80**

Size 1 bottom ported manifold

	Description	Size	Port size	Weight (kg)	Order code
 	**Manifold** with bottom ports low profile	1 - 43mm	G1/4	0.2	**P2N-AM512MB**
 	**Connecting block** Top or bottom ported connecting block for above manifold "low profile"	1 - 43mm	G3/8	0.15	**P2N-AM513GT**
 	**End** End piece for above manifold "low profile"	1 - 43mm	no	0.06	**P2N-AM500J**
 	**Intermediate supply** Top or bottom ported intermediate supply for above manifold "low profile"	1 - 43mm	G3/8	0.14	**P2N-AM513BT**
	**Isolation plugs** isolating seal for above manifold "low profile"	1 - 43mm		0.07	**P2N-AK0P**

Sizes 1 & 2 side ported manifold

	Description	Size	Port size	Weight (kg)	Order code
 	**Manifold** Manifold with side port	1 - 43mm 2 - 56mm	G1/4 G3/8	0.24 0.21	**P2N-EM512MD** **P2N-FM513MD**
 	**End** Side ported connecting kit for above manifold with side ports	1 - 43mm 2 - 56mm	G3/8 G1/2	0.36 0.29	**P2N-EM513ES** **P2N-FM514ES**

Side ported manifold

Description	Size	Port size	Order code
Manifold with terminal Strip (non collective wiring)	1 - 43mm 2 - 56mm 3 - 71mm	G3/8 G1/2 G3/4	**PS401156CCP** **PS411158CCP** **PS421150CCP**
Manifold with single address board (single solenoid)	1 - 43mm	G3/8	**PS401156JCP**
Manifold with double address board	1 - 43mm	G3/8	**PS401156MCP**

Accessories

Description			Order code
Blanking plate	1 - 43mm 2 - 56mm 3 - 71mm	G3/8 G1/2 G3/4	**PS4034CP** **PS4134CP** **PS4234CP**
Insulation plug	1 - 43mm 2 - 56mm 3 - 71mm	G3/8 G1/2 G3/4	**PS4032CP** **PS4132CP** **PS4232CP**
Manifold to Manifold gasket kit	1 - 43mm	G3/8	**PS4013P**

Coils for plug in valve

Description		Order code
12 V DC	5599-2 coil	**PS404145P**
24 V DC	5599-2 coil	**PS4041B9P**
24 V AC	5599-2 coil	**PS404142P**
120 V AC	5599-2 coil	**PS404123P**
240 V AC	5599-2 coil	**PS404157P**

Collective wiring end plate kits

	Description	Port size	Order code
	**Left & right ends modules with pressure & exhaust port, auxiliary port , and non collective wiring**		
	Size 1	G1/2	**PS4031011CP**
	Size 2	G3/4	**PS4131011CP**
	Size 3	G3/4	**PS4231011CP**
	**Left & right ends modules with pressure & exhaust port, auxiliary port , and SubD25 connection**		
	Size 1	G1/2	**PS4020L21CP**
	Left & right ends modules with pressure & exhaust port, auxiliary port , and 19pin Brad Harrison connection		
	Size 1	G1/2	**PS4020L31CP**
	Left & right ends modules with pressure & exhaust port, auxiliary port , and 12pin M23 connection		
	Size 1	G1/2	**PS4020L41CP**
	Left & right ends modules with pressure & exhaust port, auxiliary port , and ISYSNET		
	Size 1	G3/8	**PS4020L61CP**

Accessories

	Description	Order code
	**32 output driver module for spare part**	**PSSV32A**
	HA & HB 24 Out Cable	**PS4024P**
	25 pin female 25 pin SubD25 cable 3m	**P8LMH25M3A**
	H1 H2 H3 Pilot Gasket	**PS4007P**
	Valve to base gasket	**PS4005CP**

Regulators - HA & HB - 15407

Accessories - Sandwich Regulator

Features

- Remote air pilot operated for hard-to-reach pressure control.
- Unregulated pilot pressure to valve for consistent valve shifting regardless of pressure adjustment.

Gauge adaptor kit

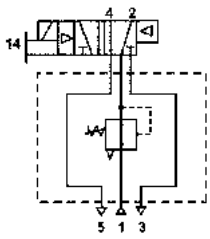
Included with all HB Regulators. Both kits are required on all HA & HB Regulators when the Regulator is on the last station on the right (14) end.

Description	Order code
Gauge kit	**PS5651160P**

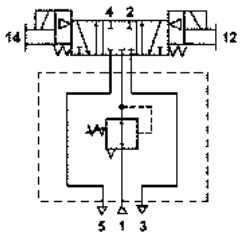
HB & HA Common Port Regulation

Provides adjustable regulated air pressure to the valves #1 port which gives the same pressure to both the #2 and #4 port of the manifold or subbase. The regulator is always on the 14 end of the valve.

Common port regulator with 4-way, 2-position single solenoid valve



Common port regulator with 4-way, 3-position APB valve



HA - 26mm
(Common Port Regulator shown)

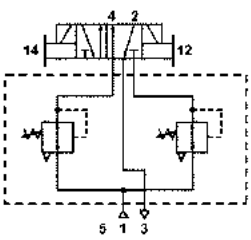
8 bar	Order code	
	Plug-in	Non Plug-in
Size 18mm	**PS5638133P**	**PS5637133P**
Size 26mm	**PS5538133P**	**PS5537133P**

HB & HA Independent Port Regulation

Dual Port Regulator

Provides regulated pressure to both ports. Pressure regulation can occur out of the #2 or #4 port of the valve. In this case #2 and #4 have to be cross wired.
3 position CP have to be used as a COE
3 position COE have to be used as a CP

Independent dual port regulator with 4-way, 2-position double solenoid valve



Order chart - Sandwich Regulator (please contact Parker Sales Office)

PS5637 **1** **6** **6** **P**

Series	
HB	
15407-1 18mm	**PS5637**
15407-2 18mm	**PS5638**
HA	
15407-1 26mm	**PS5537**
15407-2 26mm	**PS5538**

Regulator function	
1	Common pressure regulator
2	Independent pressure regulator

#4 Port regulator / Gauge*	
2	2-60 PSIG w/o Gauge
3	5-125 PSIG w/o Gauge
5	2-60 PSIG w/Gauge
6	5-125 PSIG w/Gauge

* For common pressure regulator option. Regulator gauge callout must be the same number for both Port #4 and port #2. (Example: 166)

#2 Port regulator / Gauge*	
2	2-60 PSIG w/o Gauge
3	5-125 PSIG w/o Gauge
5	2-60 PSIG w/Gauge
6	5-125 PSIG w/Gauge

* For common pressure regulator option. Regulator gauge callout must be the same number for both Port #4 and port #2. (Example: 166)

How to Configure Sandwich Regulator / Valve Combinations

Ordering Components

- Manifold or Subbase Kit required.
- Sandwich Regulator Kit configured for Internal Pilot as standard.
- Order valve as External Pilot.

Internal Pilot Configuration -

Pressure in Base Port 1 feeds regulator configured for Internal Pilot which feeds valve configured for External Pilot.

Flow control - ISO 15407 - Sandwich flow controls features

- Both adjustment screws are located on the 12 end of the unit.
- Sandwich Flow Control mounts with its own studs, which means the valve uses standard bolts for mounting.
- Sandwich Flow Control is not to be used as a shut off device and is not bubble tight when needles are fully turned down.

Size	Order code	
	Plug-in	Non Plug-in
	15407-2	**15407-1**
Size 18mm	**PS5635P**	**PS5642P**
Size 26mm	**PS5535P**	**PS5542P**

Plug-In
15407-2
18mm Shown

Regulators - Size 1 / 2 / 3 - ISO 5599

Accessories - Sandwich Regulator

Features

- Remote air pilot operated for hard-to-reach pressure control.
- Unregulated pilot pressure to valve for consistent valve shifting regardless of pressure adjustment.

Gauge adaptor kit

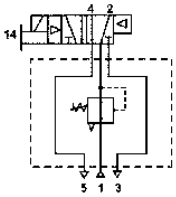
Included with all HB Regulators. Both kits are required on all HA & HB Regulators when the Regulator is on the last station on the right (14) end.

Description	Order code
Gauge kit	**PS5651160P**

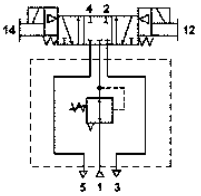
ISYS ISO 1 / 2 / 3 Common Port Regulation

Provides adjustable regulated air pressure to the valves #1 port which gives the same regulated pressure to both the #2 and #4 port of the manifold or subbase. The regulator is always on the 14 end of the valve.

Common port regulator with 4-way, 2-position single solenoid valve



Common port regulator with 4-way, 3-position APB valve



		Order code	
		Plug-in	Non Plug-in
Size 1	8 bar	**PS4038133CP**	**PS4037133CP**

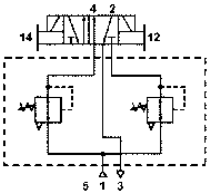
ISYS ISO 1 / 2 / 3 Independent Port Regulation

Dual Port Regulator or Single Port Regulator

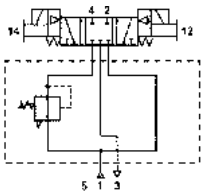
Provides regulated pressure to both ports. Pressure regulation can occur out of the #2 or #4 port of the valve. Full line pressure would be provided with a pass plate.

When using an independent Pressure Sandwich Regulator, the cylinder outlet ports are reversed. The 12 end energizes the #2 port. The 3-Position CE and PC functions are also reversed. (See schematics on right).

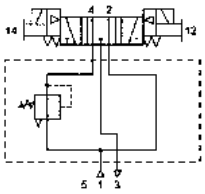
Independent dual port regulator with 4-way, 2-position double solenoid valve



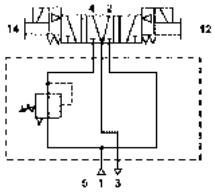
Independent port regulator with 4-way, 3-position all ports blocked valve



Independent port regulator with 4-way, 3-position inlet to cylinder function



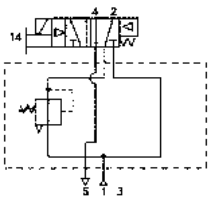
Independent port regulator with 4-way, 3-position cylinder to exhaust function



ISYS ISO 1 / 2 / 3 Selector Regulation

Supplies two different pressures to the valves #1 and #3 flow paths. Shifting the valve "selects" one or the other of these two pressures to flow out port #2. A Selector Regulator can: 1) Provide regulated pressure to one flow path and full line pressure to the other by use of the Line Pressure By-Pass Plate.

Selector regulator with 4-way, 2-position single solenoid valve



Order chart - Sandwich Regulator (please contact Parker Sales Office)

PS4037	1	6	6	C	P

Series

ISYS ISO Size 1	
5599-1	**PS4037**
5599-2	**PS4038**
ISYS ISO Size 2	
5599-1	**PS4137**
5599-2	**PS4138**
ISYS ISO Size 3	
5599-1	**PS4237**
5599-2	**PS4238**

Regulator function

1	Common pressure regulator
2	Independent pressure regulator
3	Selector Regulator

#4 Port regulator / Gauge*

0	Line By-Pass Plate**
1	1-30 PSIG w/o Gauge
2	2-60 PSIG w/o Gauge
3	5-125 PSIG w/o Gauge
4	1-30 PSIG w/Gauge
5	2-60 PSIG w/Gauge
6	5-125 PSIG w/Gauge
C	Air Pilot w/60 PSIG Gauge
D	Air Pilot w/60 PSIG Gauge

* For common pressure regulator option. Regulator gauge callout must be the same number for both Port #4 and port #2. (Example: 166)

** Pressure Line By-Pass Option can only be used with independent and Selector Regulators (Option 2 & 3 in Sandwich Block Function).

#2 Port regulator / Gauge*

0	Line By-Pass Plate**
1	1-30 PSIG w/o Gauge
2	2-60 PSIG w/o Gauge
3	5-125 PSIG w/o Gauge
4	1-30 PSIG w/Gauge
5	2-60 PSIG w/Gauge
6	5-125 PSIG w/Gauge
C	Air Pilot w/60 PSIG Gauge
D	Air Pilot w/60 PSIG Gauge

* For common pressure regulator option. Regulator gauge callout must be the same number for both Port #4 and port #2. (Example: 166)

** Pressure Line By-Pass Option can only be used with independent and Selector Regulators (Option 2 & 3 in Sandwich Block Function).

How to Configure Sandwich Regulator / Valve Combinations

Ordering Components

- Manifold or Subbase Kit required.
- Sandwich Regulator Kit configured for Internal Pilot as standard.
- Order valve as External Pilot.

Internal Pilot Configuration -

Pressure in Base Port 1 feeds regulator configured for Internal Pilot which feeds valve configured for External Pilot.

External Pilot Configuration - H1, H2, H3

An External Pilot pressure in Port 12 or 14 of the base feeds thru the Sandwich Regulator 12 or 14 galley directly to the 12/14 pilot of the valve.
This configuration takes an External Pilot from the 12 port of the base and passes it thru the regulator to feed the 12 galley of the valve.

Flow Control - Size 1 / 2 / 3 - ISO 5599 - Sandwich flow controls features

- Both adjustment screws are located on the 12 end of the unit.
- Sandwich Flow Control mounts with its own studs, which means the valve uses standard bolts for mounting.

Size	Order code	
	Plug-in	Non Plug-in
	5599-2	**5599-1**
Size 1	**PS4035CP**	**PS4042CP**
Size 2	**PS4135CP**	**PS4142CP**
Size 3	**PS4235CP**	**PS4242CP**

Plug-In
5599-2
Size 2 Shown

ISYSNET Field Bus System

Field Bus System

Integrated Solution

- A complete field bus communication offering for all ISO valves.
- Extremely fast I/O backplane uses change-of-state (COS) connections to maximize performance.
- UL, C-UL and CE certifications (as marked).

I/O Modules

- Accepts signals from sensors, photo eyes, limits and other field input devices.
- Provides signals to remotely operating solenoid valves and other field operating output devices.
- Choice of digital, analog, high watt I/O Modules.
- Choose from a broad range of color coded I/O types with connector choices of 8mm, 12mm or M23.
- Built-in miswiring, short circuit, open circuit detection with electronic feedback.

Modularity

- Ease of module replacement with unique latching mechanisms eliminating the need for screws.
- Auto Device Replacement allows OEMs to add I/O modules without making changes to the control software.
- Built-in panel grounding.
- Electronic and mechanical keying prevents users from placing I/O modules in the wrong sequence.

Communication Modules

- A Communication Module supports up to a maximum of 63 I/O modules and up to 264 Inputs and 264 Outputs.

ControlNet™ DeviceNet™ EtherNet/IP™ PROFIBUS PROCESS FIELD BUS

Steps for Specifying an ISYSNET System

1. Select a Communication Module
2. Select I/O Modules
3. Select Appropriate Power Unit
4. Select Cables and Cordsets
5. Determine Mounting Requirements for your isysnet Configuration.

ISYSNET Product Compatibility

	DeviceNet Adapter PSSCDM	ControlNet Adapter PSSCCNA	EtherNet Adapter PSSCENA	PROFIBUS Adapter PSSCPBA
PLC-5™ with Network Port	IOD	NS	NS	NA
SLC 500™ with Network Port	IOD	NS	NS	NA
PLC-5 Processor via Network Module	IOD	NS	NS	3
1756 Logix™ Communication Interface	IOD	IOD	IOD	3
PanelView™ Terminal	NA	NA	NA	NA
RSLinx™ Software	NA	NA	NA	NA
1769-L20, -L30 Controller with 1761- NET Interface	NA	NS	NS	NA
1769-L32E, -35E	NA	NA	IOD	NA
1769-L32C, -35CR	NA	IOD	NA	NA
1769 CompactLogix™ Communication Interface	IOD	NA	NA	3*
SoftLogix5800™ Communication Interface	IOD	IOD	IOD	3*
PC with RSLinx Only	NS	NS	NS	NA
FlexLogic™ Communication Interface	IOD	IOD	IOD	3

IOD = I/O Data
NS = Not Supported
NA = Not Applicable
3 = Requires third party scanner module
* Hilscher North America

Communication Considerations

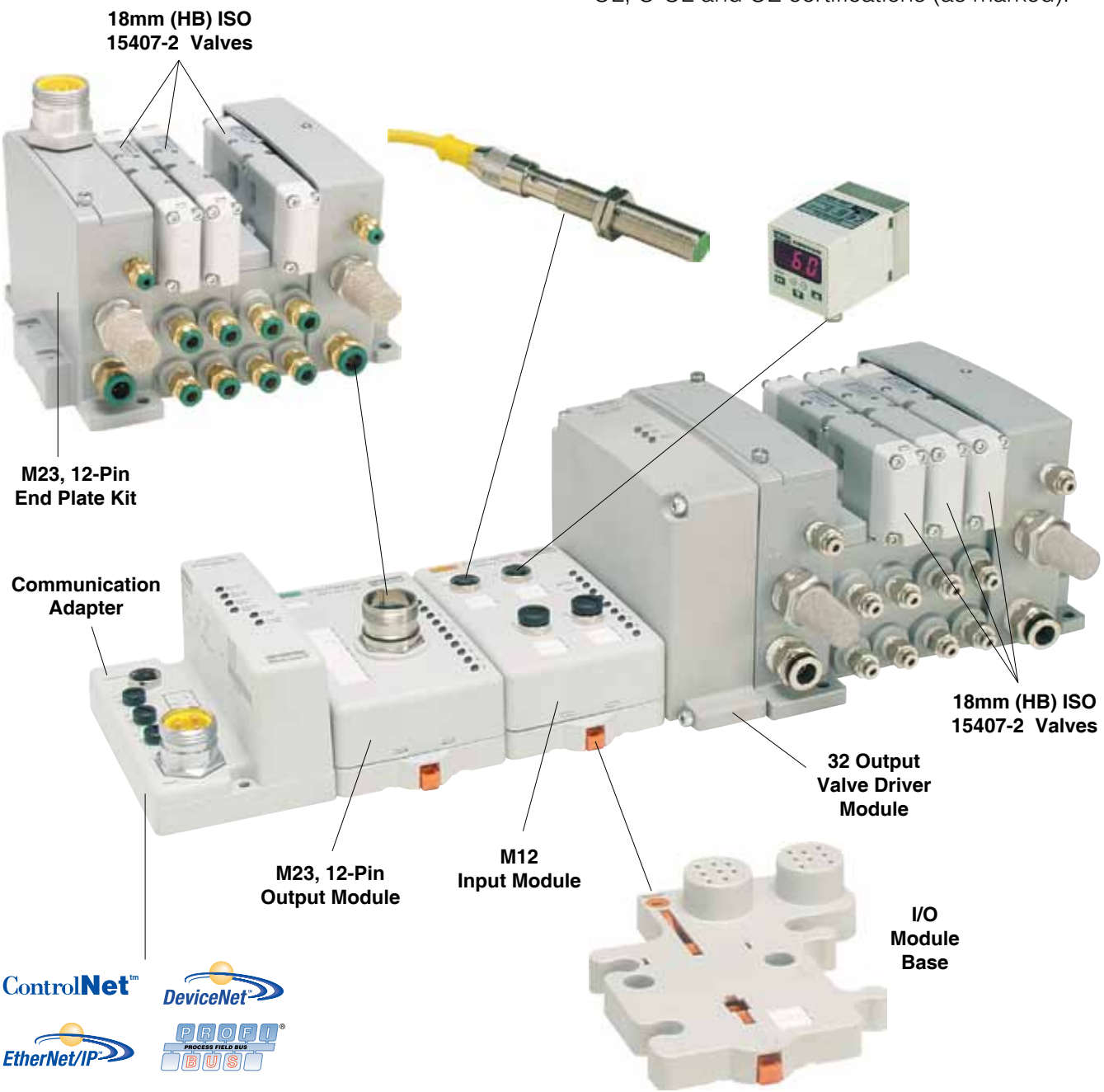
ISYSNET features are impacted by your network choice.

Network	Impact
DeviceNet PSSCDM12A and PSSCDM18PA	The PSSCDM12A and PSSCDM18PA provide two means of connecting a node of I/O to DeviceNet. A total of 63 isysnet modules can be assembled on a single DeviceNet node. Expansion power supplies may be used to provide additional PointBus backplane current.
ControlNet™ PSSCCNA	A total of 63 isysnet modules can be assembled on a single ControlNet node. Expansion power supplies may be used to provide additional PointBus backplane current. Up to 25 direct connections and 5 rack connections are allowed.
EtherNet/IP™ PSSCENA	A total of 63 isysnet modules can be assembled on a single EtherNet / IP node. Expansion power supplies may be used to provide additional PointBus backplane current. Refer to the User Manual, publication PSS-UM004 to determine the ratings for direct and rack connections allowed.
PROFIBUS DP™ PSSCPBA	A total of 63 isysnet modules can be assembled on a single PROFIBUS node. Expansion power supplies may be used to provide additional PointBus backplane current.

ISYSNET Field Bus System

Centralised Solution

- A complete field bus communication offering for all ISO valves.
- UL, C-UL and CE certifications (as marked).



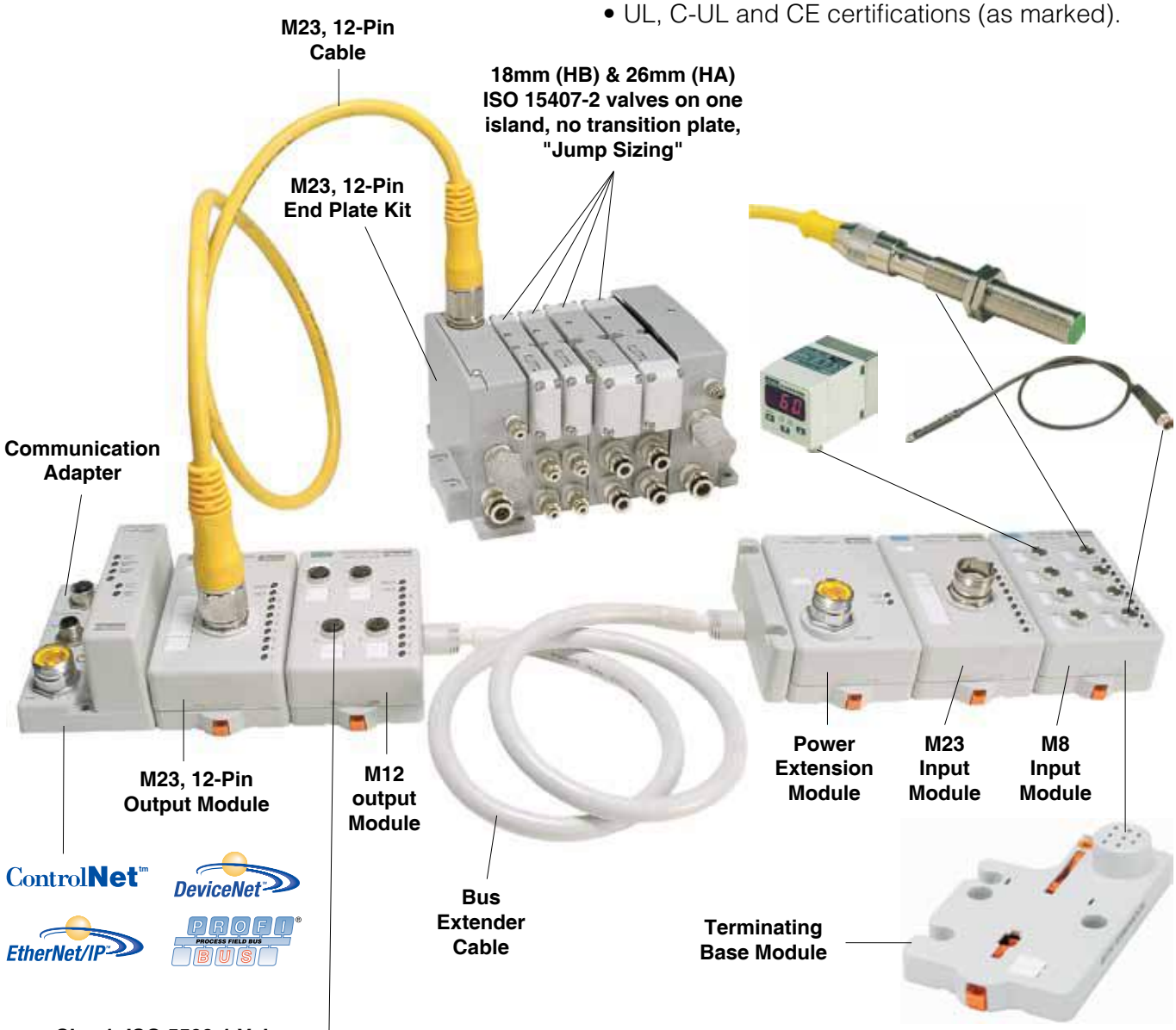
I/O Configuration

- Centralized isysnet system.
- Pneumatics and I/O are in close proximity to one another
- I/O density per module = 8.

ISYSNET Field Bus System

Distributed Solution

- A complete field bus communication offering for all ISO valves.
- UL, C-UL and CE certifications (as marked).



I/O Configuration

- Decentralized isysnet system.
- Pneumatics and I/O are not in close proximity with one another
- M23, 12-Pin output extension to an isys valve island.
- Separate output and input clusters using a bus extender cable.
- Separate output and input power using a power extension module.
- I/O density per module = 8.

Communication Modules

PSSCENA

PSSCCNA

†§ DeviceNet™ (M18 or M12)	**PSSCDM18PA** (M18) or **PSSCDM12A** (M12)	10 to 28.8 VDC
†§ ControlNet™	**PSSCCNA**	10 to 28.8 VDC
†§ Ethernet I/P™	**PSSCENA**	10 to 28.8 VDC
†§ Profibus-DP®	**PSSCPBA**	10 to 28.8 VDC

* IP67 Certified

† Reference the following Documents for Installation Instructions.
DeviceNet - E101P, PSS-UM001A; ControlNet - E103P
Ethernet I/P - E104P; Profibus-DP - E102P

§ Requires a PSST8M23A or PSSV32A in all manifold assemblies. PSSV32A is included in factory assembled manifolds and isysnet End Plate Kits.

EDS and GSD files located at www.parker.com/pneu/isysnet

I/O Modules

PSST8M12A

PSST8M23A

PSSNACM12A

PSSTACM12A

PSSN8M8A

† 8 Digital Inputs M12 on 4 M12 connectors for PNP Sensors	**PSSN8M12A**	10 to 28.8 VDC
† 8 Digital Inputs M12 on 4 M12 connectors for NPN Sensors	**PSSP8M12A**	10 to 28.8 VDC
† 8 Digital Inputs M8 for PNP Sensors	**PSSN8M8A**	10 to 28.8 VDC
† 8 Digital Inputs M8 for NPN Sensors	**PSSP8M8A**	10 to 28.8 VDC
+ 8 Digital Outputs M12 (PNP Sourcing)	**PSST8M12A**	10 to 28.8 VDC
+ 8 Digital Outputs M8 (PNP Sourcing)	**PSST8M8A**	10 to 28.8 VDC
§ 4 Digital Output, High Watt Relay M12 (PNP Sourcing) (2 Amp)	**PSSTR4M12A**	24 VDC
+# 8 Digital Outputs M23 (PNP Sourcing)	**PSST8M23A**	10 to 28.8 VDC
‡ 2 Analog Inputs Voltage (M12)	**PSSNAVM12A**	0 to 10V ± 10V
‡ 2 Analog Inputs Current (M12)	**PSSNACM12A**	4 to 20 mA or 0 to 20 mA
** 2 Analog Outputs Voltage (M12)	**PSSTAVM12A**	0 to 10 V ± 10 V
** 2 Analog Outputs Current (M12)	**PSSTACM12A**	4 to 20 mA or 0 to 20 mA

* IP67 Certified

Reference the following Documents for Installation Instructions.
† E106P § E109P **E111P
+ E107P **E111P
#Can be used with PSSTERM.
See www.parker.com/pneu/isysnet

Valve Driver Modules

32 Point Module – HB, HA, H1, H2, H3	**PSSV32A*†**
24 Output Cable – HB, HA	**PS5624P †**
25 - 32 Output Cable – HB, HA	**PS5632P †**
24 Output Cable – H1, H2, H3	**PS4024P †**

* Reference Document E100P for Installation Instructions. See www.parker.com/pneu/isysnet

† Isysnet Add-A-Folds assemblies and end plate kits include a valve driver module (PSSV32A) and cable.

HB / HA 24 output manifolds require a PS5624P.

HB / HA 32 output manifolds require a PS5624P + PS5632P.

H1, H2, H3 manifolds require a PS4024P, allowing 21 outputs.

Included in Kits:- **PS5620L61P**
PS4020L61CP

PSSV32A

Terminating Module	**PSSTERM**

Used as the last Terminating Module for a Stand Alone isysnet Assembly.

A PSST8M23A must be located in the isysnet assembly.

PSSTERM

Power Extender Module

24VDC Field Power Module	**PSSSE24A**	24 VDC

A Power Extender Module must be used on every 12th Module in an isysnet assembly. See www.parker.com/pneu/isysnet

Reference Document E105P and PSS-SG001 for configuration instructions. See www.parker.com/pneu/isysnet

PSSSE24A

Bus Extender Cable

1 Meter Cable*	**PSSEXT1**	24 VDC
3 Meter Cable*	**PSSEXT3**	24 VDC

* Requires a PSSSE24 Power Extender Module.

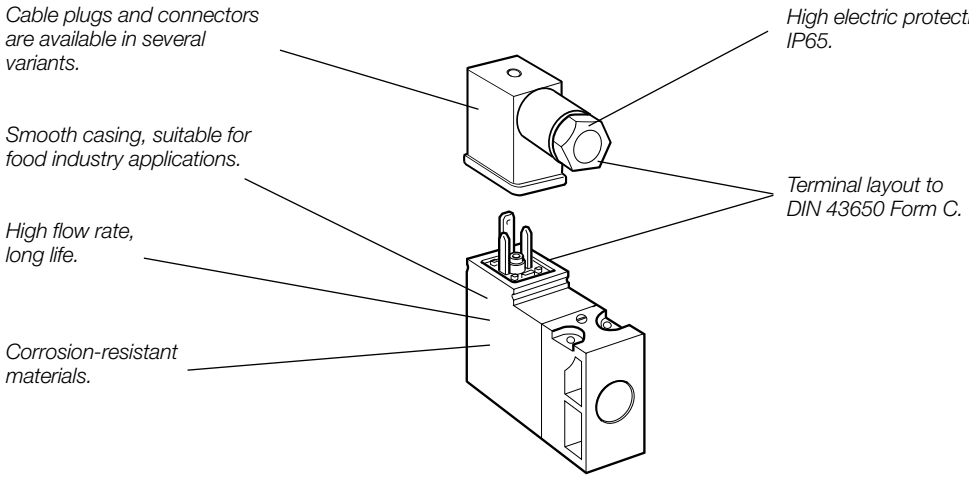
IP67 Certified

Reference the following Documents for Installation Instructions.
E117P

See www.parker.com/pneu/isysnet

PSSEXT1

Solenoid operators - 15 mm



The P2E-•V solenoid operator range

The P2E-•V range of operators are normally closed (NC) 3/2 solenoid valves, with exceedingly compact dimensions in relation to their capacity.

International standard

The port connection pattern complies with a new French CNOMO standard (in process of drafting), with cable plug connections in accordance with DIN 43650 Form C.

Compact design

Overall dimensions of the P2E-•V operators are substantially less than those of earlier generations of solenoid operators.

High flow capacity

High flow capacity relative to the electrical operating power as a result of optimised internal flow paths.

Corrosion-resistant design

The valve is made of thermoplastic material and stainless steel, with Viton™ and nitrile rubber seals for excellent corrosion resistance.

Clean lines suitable for food industry applications, P2E-QV

The valve has been designed in conjunction with several machine manufacturers and organisations in the food processing industry, with corrosion-resistant materials and smooth lines being important starting points. The valve and its accessories have been designed so that there are no gaps or crevices in which dirt could collect.

High reliability

Few moving parts result in high reliability, rapid changeover and very long life.

Low power demand

The solenoids have a power demand of 1.2 W at 24 VDC and 1.6 VA at 24 VAC, 115 V AC and 230 VAC.

High protection class

When using the standard cable plug for fitting by the user, the protection class is IP65, the
valve, with Fast-on connectors, has an encapsulation class of IP 20.

Insensitive to dirty air

The use of generously sized flow paths (1.0 mm diameter) means that the valve can be used in normal industrial environments without problems of blocking.

Manual override as option

The operators can be supplied with our without manual override. The manual override device is available as a screwdriver groove or with a control arm, and is either spring return (blue) or lockable (yellow).

Order key, solenoid operators (15mm)

P 2 E - Q V 3 2 C 3

	Valve family
P2E	Solenoid operator

	Subfamily
	Solenoid operator, 15 mm wide Electric connection acc. to ISO 15217 Form C El/supply connection on opposite side
K	Standard version
M	Mobile version
Q	Food industry version

	Valve type/Function
1	3/2 valve, normally open (NO)
3	3/2 valve, normallyclosed (NC)

	Type of current
1	AC 50 Hz
2	DC
4	AC 50/60 Hz
5	Mobile and wide band only

	Voltage
B	12 V
C	24 V
D	48 V
F	115 V*
J	230 V*
W	37,5 V**
T	72 V**
Y	78 V**
V	96 V**
E	110 V**

	Overriders
0	Without
1	Non locking (blue)
2	Locking (yellow)
3	Extended non locking (blue)
4	Extended locking (yellow)

* For standard and food type only
** For mobile "M" version only

Technical data

	NC, Standard	NC, Food[1)]	NC, Mobile[2)]
Working pressure	0 to10 bar	0 to 10 bar	0 to 10 bar
Working temperature	-15 °C to +60 °C	-15 °C to +60 °C	-40 °C to +70 °C
Orifice	1,0 mm	1,0 mm	1,0 mm
Flow Qmax	33 Nl/min	33 Nl/min	22 Nl/min
Power, hold	DC 1,2 W / AC 1,6 VA	DC 1,2 W / AC 1,6 VA	DC 1,4 W
Power, surge	DC 1,2 W / AC 3,5 VA	DC 1,2 W / AC 3,5 VA	DC 1,4 W
Connection time	100%	100%	100%
Voltage tolerance	+10%/–15%	+10%/–15%	+25%/–30%
Electric connection:	DIN 43650 Form C		
Port pattern:	To future CNOMO standard		
Protection:	IP 65		
Approval:	Standard solenoids are UL 429 regognized and marked with the following symbol		
Working media:	All neutral media, such as compressed air, water, hydraulic oil and many gases.		
1) Design:	Completely smooth exterior, suitable for food industry.		
2) Mobile standard	According to European standard EN 50 155.		

Transients

Interrupting the current through the solenoid coil produces momentary voltage peaks which, under unfavourable conditions, can amount to several hundred times the rated operating voltage. Normally, these transients do not cause problems, but to achieve the maximum life of relays in the circuit (and particularly of transistors, thyristors and integrated circuits) it is desirable to provide protection by means of voltage-dependent resistors (varistors). All cable plugs with a yellow LED also incorporate such protection.

Service life

With compressed air at 6 bar, 20 °C and complying with the requirements for compressed air quality as set out in ISO8573-1 norm (class 4 for dry and class 5 for filtered air), the valves should have a life of at least 50 million cycles.

Materials

Operator

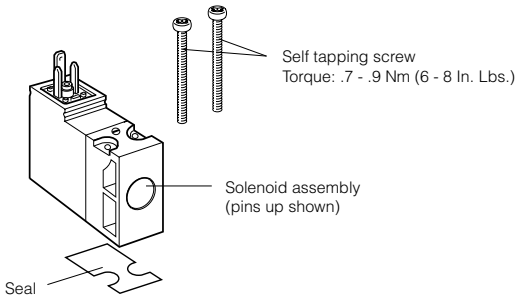
Body, coil casing	Thermoplastic
Internal metal parts	Steel
Screws	Stainless steel
Bottom plug	Thermoplastic
Sealing materials	FPM (Viton™) and nitrile rubber

Cable head

Sheath	Thermoplastic
Retaining screw	Stainless steel, zinc-plated steel

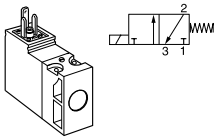
Solenoid Operators - 15mm

Electrical connection EN175301-803 C/ISO15217 (Ex DIN 43650C)

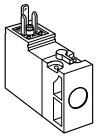


Solenoids 15 mm NC, standard (Note! Mounting screws included in basic valve

)

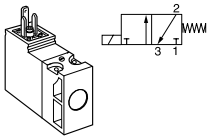


Voltage	Weight kg	Order code Without manual override	Weight kg	Order code Override, blue, non locking flush	Weight kg	Order code Override, yellow, locking flush
12 VDC	0,038	**P2E-KV32B0**	0,038	**P2E-KV32B1**	0,038	**P2E-KV32B2**
24 VDC	0,038	**P2E-KV32C0**	0,038	**P2E-KV32C1**	0,038	**P2E-KV32C2**
48 VDC	0,038	**P2E-KV32D0**	0,038	**P2E-KV32D1**	0,038	**P2E-KV32D2**
24 VAC 50Hz	0,038	**P2E-KV31C0**	0,038	**P2E-KV31C1**	0,038	**P2E-KV31C2**
48 VAC 50/60Hz	0,038	**P2E-KV34D0**	0,038	**P2E-KV34D1**	0,038	**P2E-KV34D2**
115 VAC 50Hz/ 120 VAC 60Hz	0,038	**P2E-KV31F0**	0,038	**P2E-KV31F1**	0,038	**P2E-KV31F2**
230 VAC 50Hz/ 240 VAC 60Hz	0,038	**P2E-KV31J0**	0,038	**P2E-KV31J1**	0,038	**P2E-KV31J2**



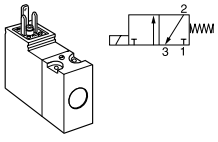
Voltage	Weight kg	Order code Override extended, blue, non locking flush	Weight kg	Order code Override extended, yellow, locking flush
24 VDC	0,038	**P2E-KV32C3**	0,038	**P2E-KV32C4**
24 VAC 50Hz	0,038	**P2E-KV31C3**	0,038	**P2E-KV31C4**

Solenoids 15 mm NC, mobile (Note! Mounting screws included in basic valve)

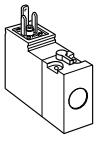


Voltage	Weight kg	Order code Without manual override	Weight kg	Order code Override, blue, non locking flush
12 VDC	0,038	**P2E-MV35B0**	0,038	**P2E-MV35B1**
24 VDC	0,038	**P2E-MV35C0**	0,038	**P2E-MV35C1**
37,5 VDC	0,038	**P2E-MV35W0**	0,038	**P2E-MV35W1**
48 VDC	0,038	**P2E-MV35D0**	0,038	**P2E-MV35D1**
72 VDC	0,038	**P2E-MV35T0**	0,038	**P2E-MV35T1**
78 VDC	0,038	**P2E-MV35Y0**	0,038	**P2E-MV35Y1**
96 VDC	0,038	**P2E-MV35V0**	0,038	**P2E-MV35V1**
110 VDC	0,038	**P2E-MV35E0**	0,038	**P2E-MV35E1**

Solenoids 15 mm NC, food industry version (Note! Mounting screws included in basic valve)



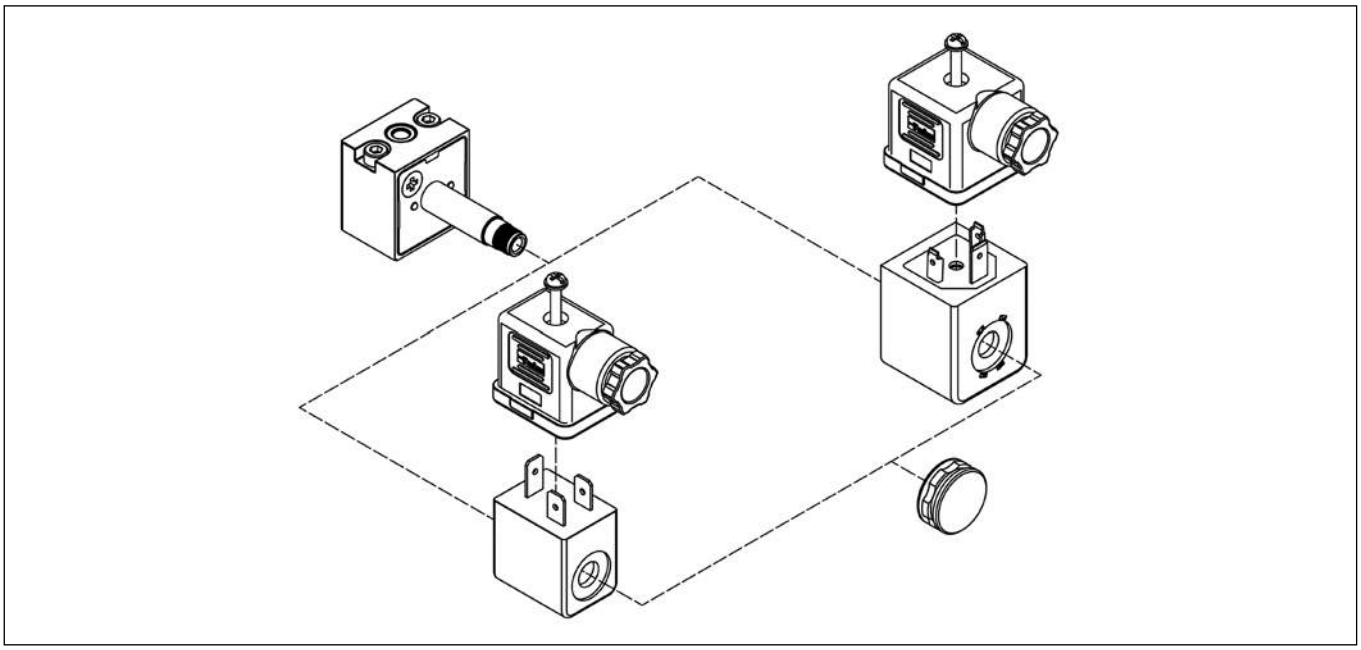
Voltage	Weight kg	Order code Without manual override	Weight kg	Order code Override, blue, non locking flush	Weight kg	Order code Override, yellow, locking flush
24 VDC	0,038	**P2E-QV32C0**	0,038	**P2E-QV32C1**	0,038	**P2E-QV32C2**
48 VDC	0,038	**P2E-QV32D0**	0,038	**P2E-QV32D1**	0,038	**P2E-QV32D2**
24 VAC 50Hz	0,038	**P2E-QV31C0**	0,038	**P2E-QV31C1**	0,038	**P2E-QV31C2**
48 VAC 50/60Hz	0,038	**P2E-QV34D0**	0,038	**P2E-QV34D1**	0,038	**P2E-QV34D2**
115 V 50Hz/ 120 V 60Hz	0,038	**P2E-QV31F0**	0,038	**P2E-QV31F1**	0,038	**P2E-QV31F2**
230 VAC 50Hz/ 240 VAC 60Hz	0,038	**P2E-QV31J0**	0,038	**P2E-QV31J1**	0,038	**P2E-QV31J2**



Voltage	Weight kg	Order code Override extended, blue, non locking flush	Weight kg	Order code Override extended, yellow, locking flush
24 VDC	0,038	**P2E-QV32C3**	0,038	**P2E-QV32C4**
24 VAC 50Hz	0,038	**P2E-QV31C3**	0,038	**P2E-QV31C4**
115 VAC 50 Hz	0,038	**P2E-QV31F3**	0,038	**P2E-QV31F4**
230 VAC 50 Hz	0,038	**P2E-QV31J3**	0,038	**P2E-QV31J4**

In accordance with the EU Machine Directive, EN 983, solenoid valves with manual override should have spring-return operating arms for safety.

Solenoid operators - CNOMO



CNOMO Solenoid pilot options

The P2F P23*** (NC) 3/2 solenoid pilot operators are designed for piloting pneumatic control valves with compressed air or inert gases.
The P2F P operator is available for operating pressures up to 10 bar having an outlet orifice 1,3 mm and exhaust orifice 1,5 mm. Altenative operator are also available for an operating pressure up to 16 bar, or for a wide band voltage tolerance requires for mobile application.

Metal CNOMO Solenoid pilot for railway

An alternative oprerator, metal casting is also available for heavy duty or railway applications.
This P2F P operator is available for operating pressures up to 10 bar having an outlet orifice 1,3 mm and exhaust orifice 1,5 mm, and compatible with a wide range of coil, having a wide band voltage tollerance.

Corrosion resistant design

The pilot operator body is manufactured in thermoplastic PA 6.6 material and the core tube brass/stainless steel. The plunger/core is made from stainless steel and the valve seats from FKM.

Coils

Coils are wound with enameled copper wire, class H temperature class F insulation (155^{0}C) and are encapsulated in Thermoplastic. When fitted with suitable connector and correct gasket they give protection to IP65.

Solenoid Pilot Exhaust

These operators all exhaust out of the top of the core tube which is tapped M5. The standard solenoid nut fitted to the core tube is the Diffuser nut which allows the exhaust to escape to atmosphere. This nut also minimises ingress of dirt into the valve through this port. The alternative plastic knurled nut can be specified (refer to part number system) if the exhaust air needs to be captured and piped away using the M5 tapped port.

Mobile Applications

ISO valves are tested to +5g shock and vibration.
Solenoid operated valves are designed to operate with extended voltage tolerance bands within the ambient temperature ranges stated in the technical section.

Manual Override options

The pilot operators can be supplied with or without manual override. The standard manual override is the monostable (spring return) flush brass override. Alternatively the bistable (locking) override can be specified as an alternative for the Normal duty 10bar option.

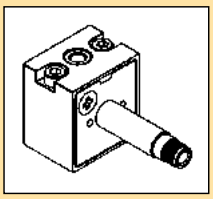
Spares

Solenoid operators are available as spares complete with mounting screws. Coils and connectors should be ordered separately.

Solenoid operators - CNOMO

Order key

P 2 F P 2 3 N 4 C



	Operator Type
2	CNOMO 22 x 30 Plastic
4	CNOMO 22 x 30 Metal

	Pressure / Temp
M	10 bar / -25°C to +50°C
N	10 bar / -10°C to +50°C

	Manual / Override
A	Without manual override
B	Non locking - monostable - Flush - Brass
C	Locking - bistable - Flush - Plastic

Note: 'C' only suitable for 'N' Pressure / Temp

Technical data - Solenoid operators, coil combinations

	NC Normal Operator with 30 x 30 standard coil	**NC Normal Operator** with 22 x 30 standard coil	**NC Mobile Metal Operator** with 30 x 30 Railway or mobile coil
Working pressure	0 to10 bar	0 to 10 bar	0 to 10 bar
Ambient temperature	-10 °C to 60 °C (1)	-10 °C to 60 °C (1)	-25 °C to 60 °C (1)
Orifice	1.3/1.5mm	1.3/1.5mm	1.2/1.3mm
Flow Qn	0.84 dm^3/s	0.84 dm^3/s	0.7 dm^3/s
Power (DC)	2.7W	4.8W	6.8W
Power (AC)	4.9VA	8.5VA	10.5VA
Voltage tolerance	+/- 10%	+/- 10%	+/- 30%
Pull in voltage			According to VDE 0580 July 2000
Duty cycle	100%	100%	100%
Insulation class	F	F	F
Electric connection	Din A	Industrial	Din A
Protection	IP65	IP65	IP65
Shock & Vibration			IEC 61373 Cat 1 Class B
Approval	UL coil version is available on request.		
Working media	All neutral media such as compressed air and inert gases.		

(1) limited to 50°C if use with 100% duty cycle and max voltage.

Mobile applications

Solenoid operated ISO valves for Mobile applications are fitted with the P2FP43M4A solenoid pilot operator. It has a 22x30 footprint with 1.2/1.3 orifice and will accept 22mm or 30mm coil options. The choice of coil option will depend on the voltage tolerance. Use the technical data in the table above before selecting the coil type required, or contact our technical department.

Transients

Interrupting the current through the solenoid coil produces momentary voltage peaks which, under unfavourable conditions, can amount to several hundred times the rated operating voltage. Normally, these transients do not cause problems, but to achieve the maximum life of relays in the circuit (and particularly of transistors, thyristors and integrated circuits) it is desirable to provide protection by means of voltage-dependent resistors (varistors). All connectors/cable plugs EN175301-803 with LED's include this type of circuit protection.

Materials

Pilot Valve	**Standard**	**Mobile**
Body:	Polyamide	Aluminium
Armature tube:	Brass	Stainless steel
Plunger & core:	Corrosion resistant Cr-Ni steel	
Seals:	FKM (Viton™)	Low temp FKM
Screws:	Zinc plated	Stainless steel

Coil

Encapsulation material:	Thermoplastic as standard thermoset resin for M12 connection

Solenoid coils with Din A or Industrial connection

Voltage	Order code Din A Standard 30 x 30	Weight (kg)	Order code Din A Mobile 30 x 30	Weight (kg)	Order code Industrial standard 22 x 30	Weight (kg)
Direct current						
12V DC	**P2FCA445**	0.105	**P2FCA447**	0.105	**P2FCB445**	0.093
24V DC	**P2FCA449**	0.105	**P2FCA448**	0.105	**P2FCB449**	0.093
48V DC	**P2FCA453***	0.105	**P2FCA474**	0.105	**P2FCB451**	0.093
72V DC			**P2FCA470**	0.105		
96V DC			**P2FCA471**	0.105		
110V DC			**P2FCA472**	0.105		
Alternative current						
12V 50/60Hz	**P2FCA440**	0.105			**P2FCB440**	0.093
24V 50/60Hz	**P2FCA442**	0.105			**P2FCB442**	0.093
48V 50/60Hz	**P2FCA469#**	0.105				
110V 50Hz, 120V 60Hz	**P2FCA453**	0.105			**P2FCB453**	0.093
230V 50Hz, 230V 60Hz	**P2FCA457**	0.105			**P2FCB457**	0.093

* P2FCA453 is compatible with 110 V AC and 48 V DC

\# P2FCA469 is 24 V DC 6.8W or 48 V 50Hz 9.9 VA

Solenoid coils with M12 connection

Voltage	Order code 30 x 30	Weight (kg)	Order code 22 x 30	Weight (kg))
Direct current				
24V DC	**P2FC6419**	0.065	**P2FC7419**	0.065

Spare Solenoid Nuts

Valves requiring captured exhaust should be fitted with plastic knurled nut

Order code
P2FNP

Valves with vented exhaust are fitted with diffuser plastic nut

Order Code
P2FND

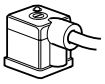
Spare Solenoid Operators

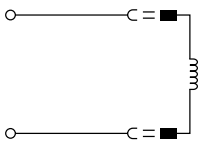
Solenoid pilot operator CNOMO NC

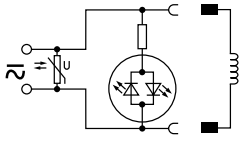
Description	Order code No manual override	Weight (kg)	Order code Non-lock manual override	Weight (kg)	Order code Locking manual override	Weight (kg)
Standard duty	**P2FP23N4A**	0.065	**P2FP23N4B**	0.065	**P2FP23N4C**	0.065
Mobile metal	**P2FP43M4A**	0.1				

Note.
Solenoid pilot operators are fitted to the Viking valve range. Order the above part numbers for spares. The operators are supplied with mounting screws and interface 'O' rings.
Coils and connectors must be ordered separately.

Solenoid Connectors / Cable Plugs EN175301-803

	Description	Order code 15mm Form C/ISO15217	Order code 22mm Industrial Form B	Order code 30mm Form A/ISO4400
With large headed screw suitable for mounting in inaccessible or recess position 	Standard IP65	**P8C-C**		
	24 VDC LED and protection IP65	**P8C-C26C**		
	110 VAC LED and protection IP65	**P8C-C21E**		
With standard screw 	Standard IP65 without flying lead	**P8C-D**	**3EV10V10**	**3EV290V10**
	With LED and protection 24V AC/DC	**P8C-D26C**	**3EV10V20-24**	**3EV290V20-24**
	With LED and protection 110 VAC	**P8C-D21E**	**3EV10V20-110**	**3EV290V20-110**
	With LED and protection 230 VAC		**3EV10V20-230**	**3EV290V20-230**
With cable 	Standard with 2m cable IP65	**P8L-C2**		
	Standard with 5m cable IP65	**P8L-C5**		
	24V AC/DC, 2m cable LED and protection IP65	**P8L-C226C**		
	24V AC/DC, 5m cable LED and protection IP65	**P8L-C526C**	**3EV10V20-24L5**	**3EV290V20-24L5**
	24V AC/DC, 10m cable LED and protection IP65	**P8L-CA26C**		
	110V AC/DC, 2m cable LED and protection IP65	**P8L-C221E**		
	110V AC/DC, 5m cable LED and protection IP65	**P8L-C521E**	**3EV10V20-110L5**	**3EV290V20-110L5**
	230 VAC, 5m cable LED and protection IP65		**3EV10V20-230L5**	**3EV290V20-230L5**



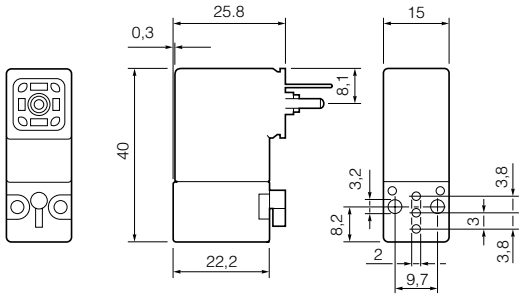


P8C-C
P8C-D
P8L-C2
P8L-C5
3EV10V10

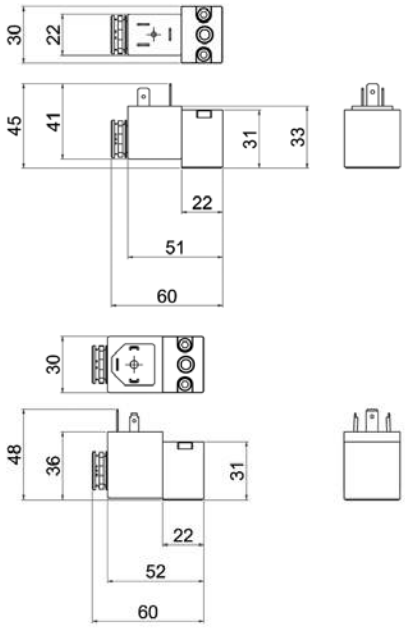
P8C-D26C	**P8L-C226C**
P8C-D21E	**P8L-C526C**
P8C-C26C	**P8L-CA26C**
P8C-C21E	**P8L-C221E**
	P8L-C521E
3EV10V20-24	**3EV10V20-24L5**
3EV10V20-110	**3EV10V20-110L5**
3EV10V20-230	**3EV10V20-230L5**

Cable Plug Dimensions (mm)

Solenoid operators P2E - 15mm

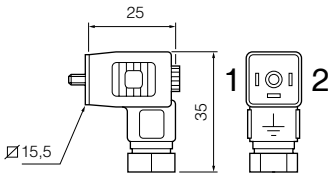


Solenoid operators P2F - CNOMO - 22 x 30mm



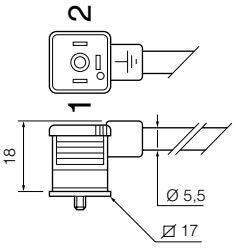
Cable plugs

P8L-C2
P8LC5
P8L-C226C
P8L-C526C
P8L-CA26C
P8L-C221E
P8L-C521E



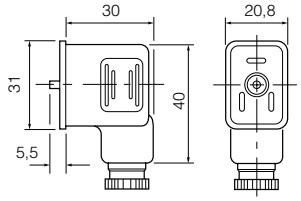
Cable plugs

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



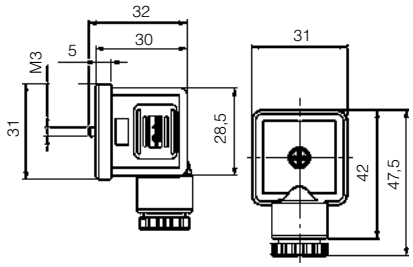
Cable plugs

3EV10V10



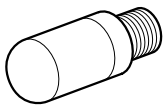
Cable plugs

3EV290V10



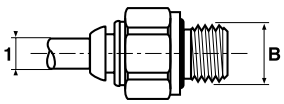
Accessories

Silencers



Port	Ordercode	Pack Qty
G1/8	P6M-PAB1	10
G1/4	P6M-PAB2	10
G3/8	P6M-PAB3	10
G1/2	P6M-PAB4	10

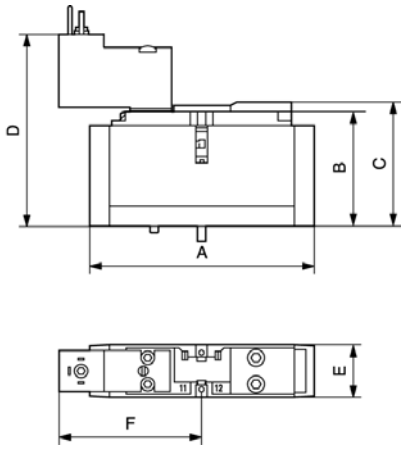
Fittings



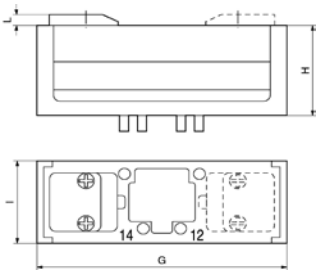
Male connector - BSPP

Tube dia 1	Thread B	Order code	Box Qty
4	1/8	F4PMB4-1/8	20
4	1/8	F4PMB4-1/8	20
6	1/8	F4PMB6-1/8	30
8	1/8	F4PB8-1/8	40
6	1/4	F4PMB6-1/4	30
8	1/4	F4PB8-1/4	30
10	1/4	F4PB10-1/4	20
12	1/4	F4PB12-1/4	10
8	3/8	F4PB8-3/8	20
10	3/8	F4PB10-3/8	20
12	3/8	F4PB12-3/8	10
14	3/8	F4PB14-3/8	10
10	1/2	F4PB10-1/2	10
12	1/2	F4PB12-1/2	10
14	1/2	F4PB14-1/2	10

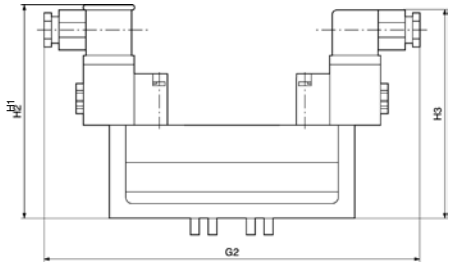
Isomax - Dimensions (mm)



Pneumatically actuated



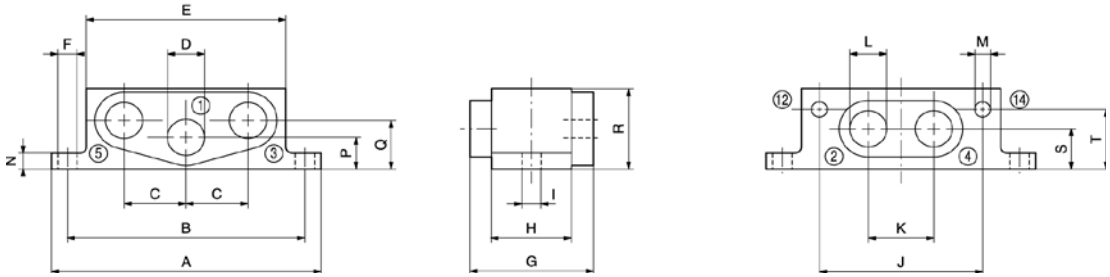
With P2F solenoids



	A	B	C	D	E	F
Isomax 02	80	41	44,5	67,8	18	51,2
Isomax 01	100	42	45,5	68,8	26	51,2

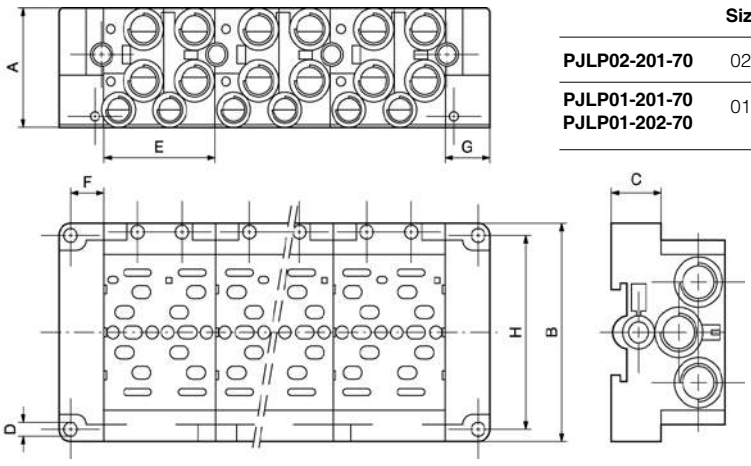
	G	G1	G2	G3	H	H1	I	L
Size 1	120	164	202,5	160	47	119	42	5
Size 2	140	179,5	218	175,5	58,5	130	54	5
Size 3	170	198	235,5	194	71	142,5	68	5

Single subbases side ported



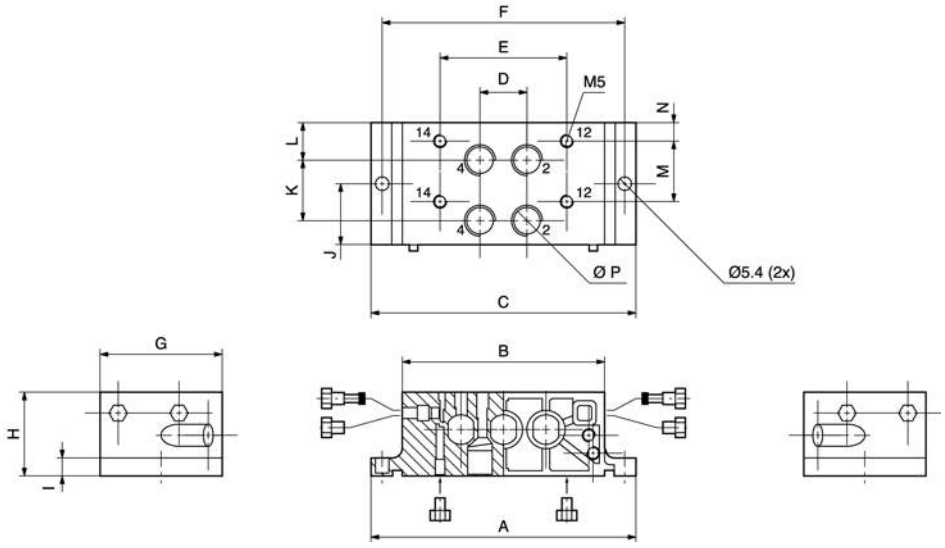
	Size	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R	S	T
PL02-01-70	02	80	70	16	G1/8	52	8	27	19	5,5	40	17	G1/8	M5	8	8	8	22	13	6
P2V-BS512SS	01	92	80	21,2	G1/8	68	6,5	42	27	5,5	55	22	G1/8	M5	6	11	17	28	14	21

Side ported manifolds for 2 valve positions



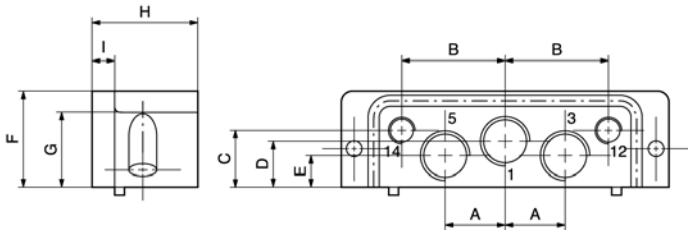
	Size	A	B	C	D	E	F	G	H
PJLP02-201-70	02	38,5	80	12	Ø 4,2	38	14	18	72
PJLP01-201-70 **PJLP01-202-70**	01	55	100	24	Ø 5,5	54	17	22	90

Bottom ported manifolds for 2 valve positions



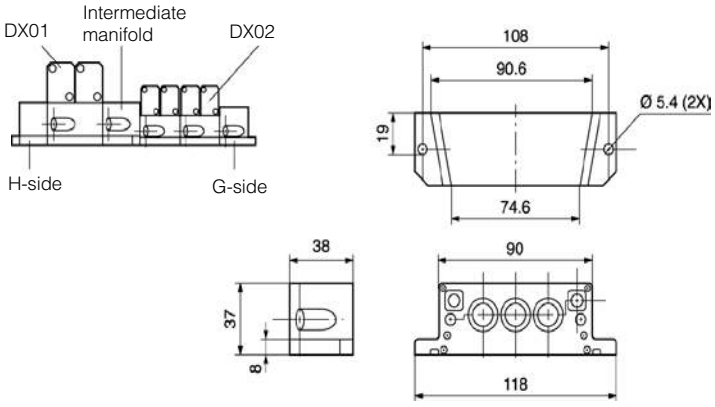
	Size	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P
P2V-AM511PB	02	102	74	74,6	16	43	92	38	26	7	19	19	11	19	5	G1/8
P2V-BM512PB	01	118	90	90,6	21	56,5	108	54	37	8	27	27	16,5	27	8	G1/4

G and H side end plate bottom ported for above bottom ported manifold

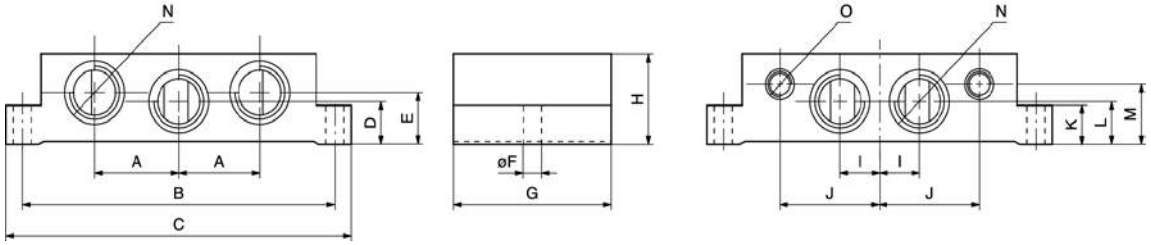


	Size	Port size 1,2,3	Port size 12, 14	A	B	C	D	E	F	G	H	I
P2V-AM512GB and P2V-AM512HB	02	G1/4	G1/8	17	29	21	18,5	9,5	35,5	28	33	7
P2V-BM513GB and P2V-BM513HB	01	G3/8	G1/8	21,5	37	20	16	11	34,5	28	38	8

Transfer plate size 01 to size 02 for above bottom ported manifold

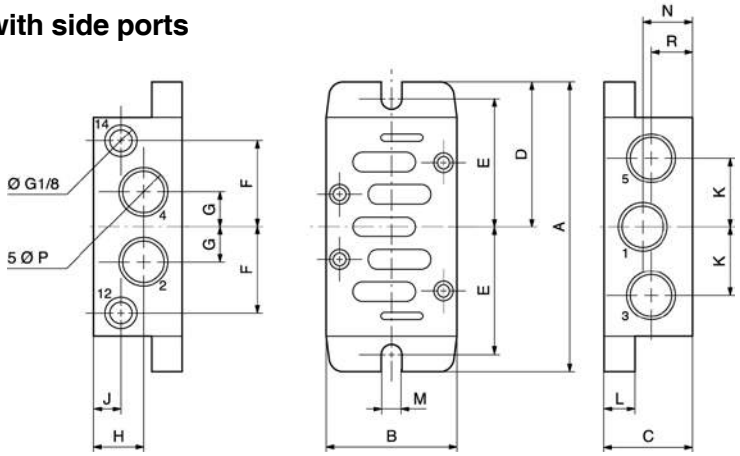


Single subbase with side ports according to VDMA - Dimensions



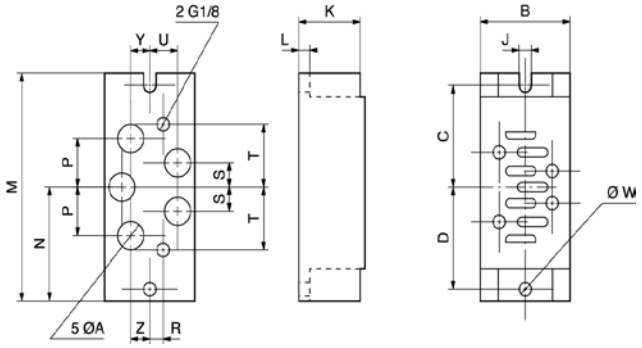
Order code	Size ISO	Port Size	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
P2N-VS512SD	1	G1/4	21,5	98	110	11	20	5,5	48	32	12	29	10	11	23	G1/4	G1/8
P2N-WS513S	2	G3/8	28	112	124	14	26	6,6	56	40	15	37	13	14	30	G3/8	G1/8
P2N-YS514SD	3	G1/2	34	136	149	17	17	6,6	71	32	16	45	18	17	22	G1/2	G1/8

Single subbase with side ports



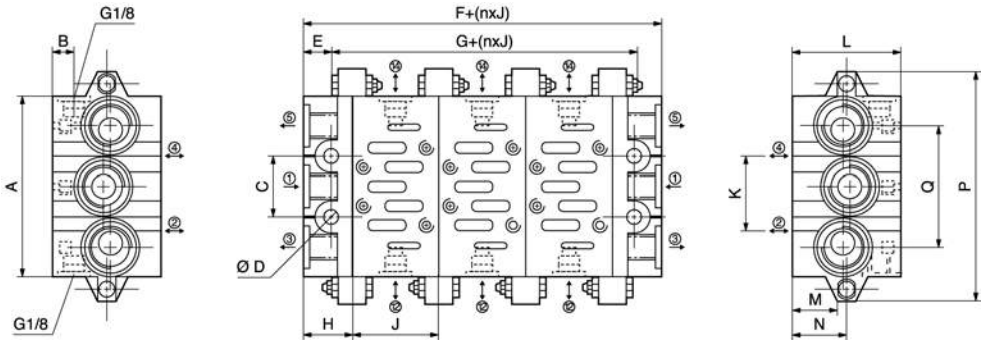
Order code	ISO Size	ØP	A	B	C	D	E	F	G	H	J	K	L	M	N	R
PL1-1/4-70	1	G1/4	110	46	29	55	49	30	11	17,75	17,75	22	6	5,5	17,75	17,75
PL2-3/8-70	2	G3/8	124	56	37	62	55	37	14,5	22,5	14	28	6	5,5	22,5	14,5
P2N-JS516SD	3	G3/4	149	71	60	74,5	68	45	21	33	10	40	18	6,6	37,5	22,5

Single subbase with bottom ports



Order code	A	B	C	D	J	K	L	M	N	P	R	S	T	U	W	Y	Z
PD1-1/4-70	G1/4	46	49	49	5,5	29	6	110	55	22	10	11	30	10	5,5	10	10
PD2-3/8-70	G3/8	56	55	55	5,5	37	6	124	62	29	10	14,5	37	12,5	5,5	12,5	12,5
PD3-1/2-70	G1/2	77	68	68	6,6	32	18	149	74,5	34	10	17	45	17	6,5	17	17

Manifold and end plates according to VDMA (P2N-VM / WM / YM) - Dimensions



ISO Size	Port 1, 3, 5	Port 2, 4	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P
1	G3/8	G1/4	85	8,5	28	7	11	44	22	22	43	26	46	21	24	56	110
2	G1/2	G3/8	100	9	35	9	13	52	26	26	56	30	47	22	24	68	135
3	G1	G1/2	140	10	52	12	15	60	30	30	71	38	56	31	34	104	190

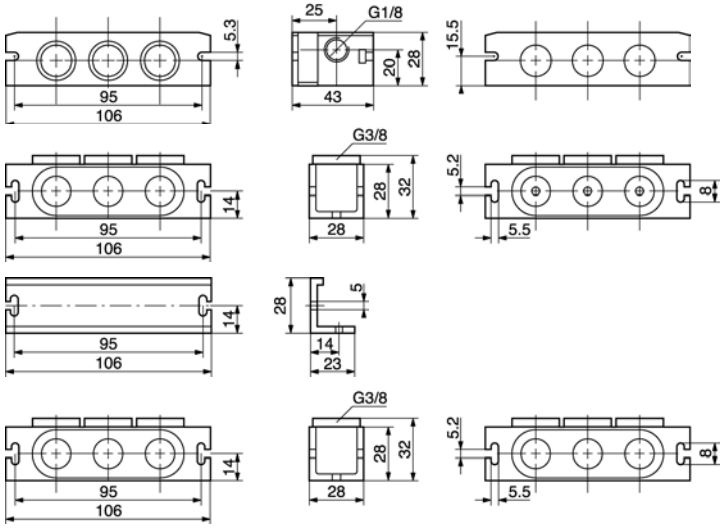
Manifold and end plates with bottom ports "low profile" (P2N-AM..)

Manifold P2N-AM512MB

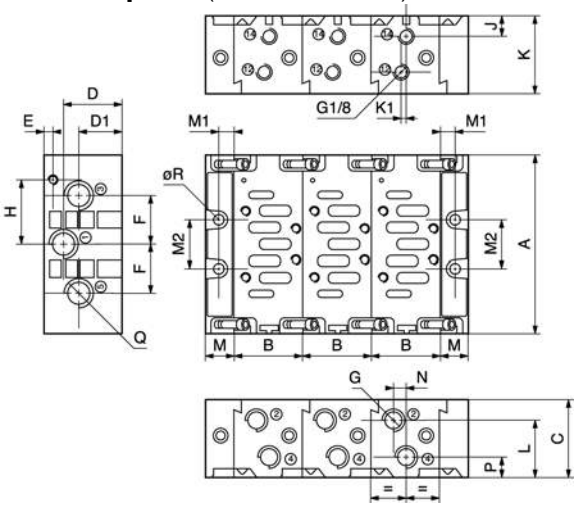
Connecting block P2N-AM513GT

End piece P2N-AM500J

Intermediate supply P2N-AM513BT



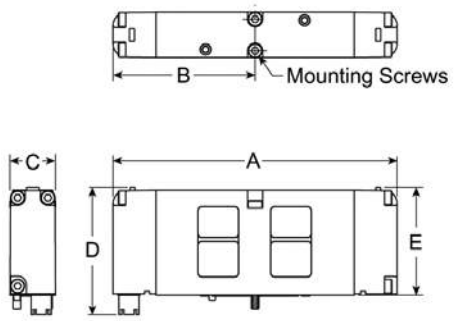
Manifold and end plates with side ports (P2N-EM / FM..)



Order code	A	B	C	D	D1	E	F	G	H	J	K	K1	L	M	M1	M2	N	P	Q	R
P2N-EM . . .	110	43	48	35,5	26,5	5,5	28	G1/4	36	15,5	35	3	32	20	11	28	12	12,5	G3/8	6
P2N-FM . . .	129	56	60	44,5	35,5	6	34,5	G3/8	45	16	41,5	3	41	24	13	35	12,5	16	G1/2	8

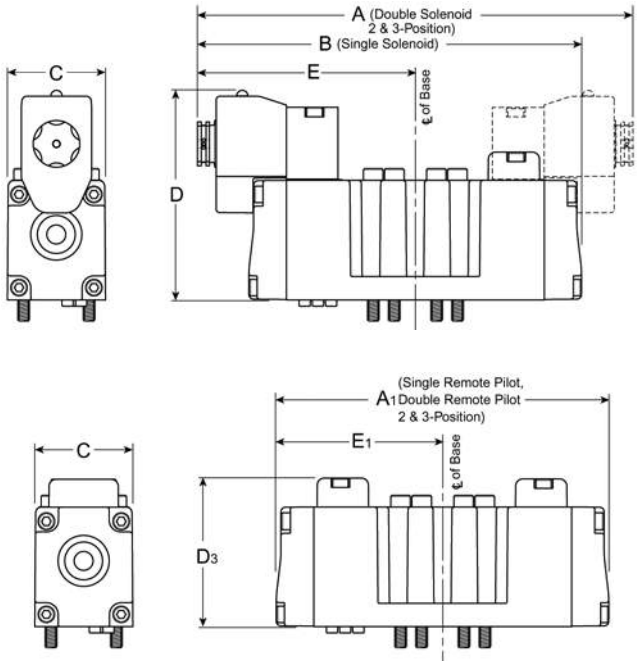
Isysnet Field Bus System - Dimensions

15407-2 Series Valves



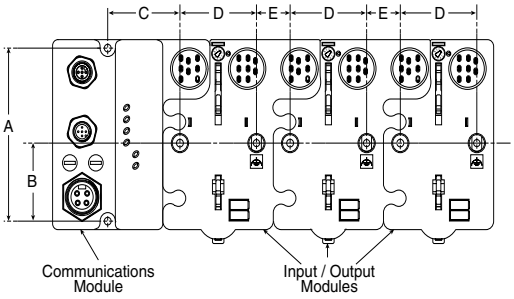
	A	B	C	D	E
HB	113	56	18	50	43
HA	130	65	26	50	42

H1 / H2 / H3 Series Valves 5599-2



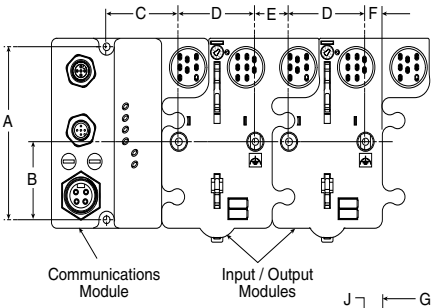
	A	A1	B	C	D	D1	D2	D3	D4	E	E1
H1	186	142	164	42	90	109	109	63.5	63	93	71
H2	212	168	190	55	103	122	116	76		106	84
H3	241	177	209	55	103	122	116	76		121	89

Isysnet Field Bus System - Dimensions



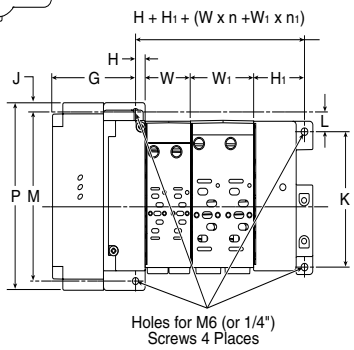
HB-HA Dimensions

A	B	C	D
102	46	48	51
E	**F**		
22	11		

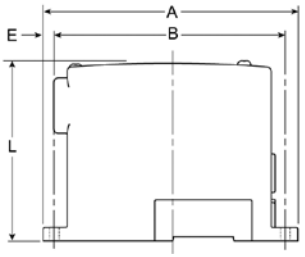


HB-HA Dimensions

A	B	E	L	G
152	137	7.5	106	68
H	**H1**	**J**	**K**	**L**
8.4	45.8	4	110	16
M	**P**	**W**	**W1**	
137	152	40.8	56.8	

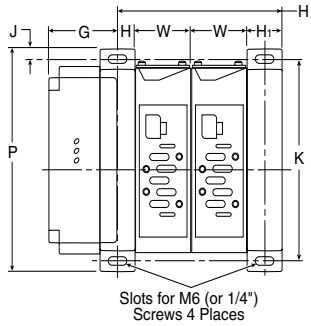


n = Number of 18mm HB Bases
n1 = Number of 26mm HA Bases
W= Width of 18mm HB Bases
W1 = Width of 26mm HA Bases



H1 Dimensions

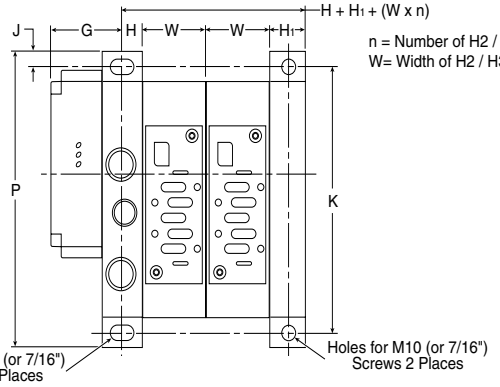
G	H	H1	J	K
56	15.9	15.9	8.5	165
P	**W**			
182	49			



n = Number of H1 Bases
W= Width of H1 Bases

H2 Dimensions

G	H	H1	J	K
58	8.418	15	12	215
P	**W**			
239	56			

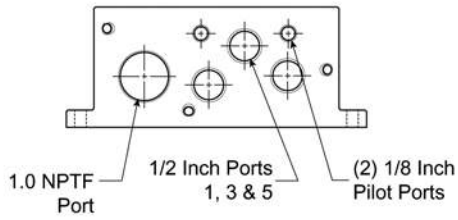


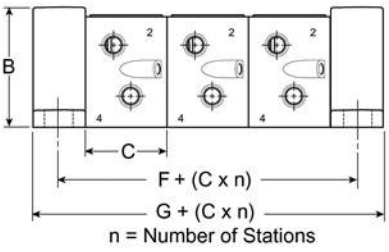
n = Number of H2 / H3 Bases
W= Width of H2 / H3 Bases

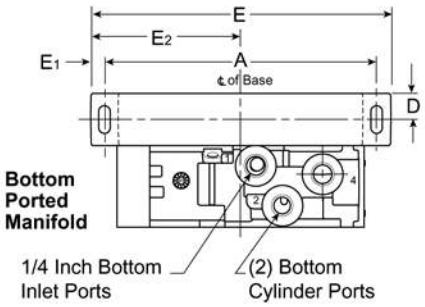
H3 Dimensions

G	H	H1	J	K
64	24	16.5	15	265
P	**W**			
295	71			

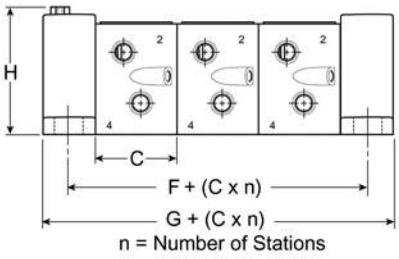
H1 5599-2 / 5599-1 Manifold





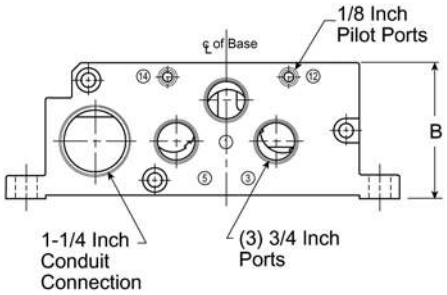


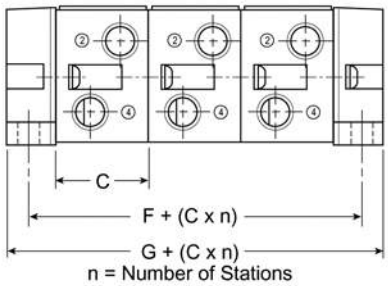
Manifold with Optional Collective Wiring System

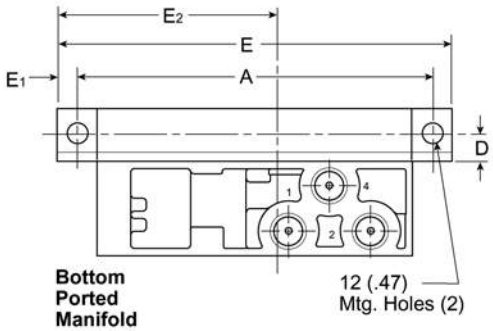


	A	B	C	D	E	E1	E2	F	G	H
H1	165	73	49	15.9	182	.84	91	31.8	63.5	76

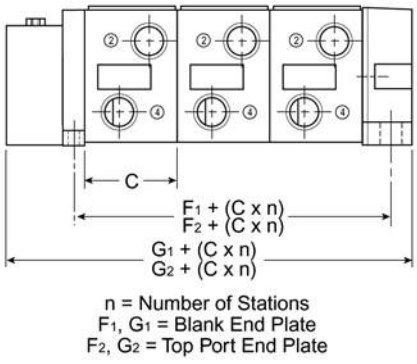
H2 / H3 5599-2 / 5599-1 Manifold







Manifold with Optional Collective Wiring System



	A	B	C	D	E	E1	E2	F	F1	F2	G	G1*	G2*
H2	215	85	56	15	239	12	134	30	27	33	60	87	99

	A	B	C	D	E	E1	E2	F	F1	F2	G	G1*	G2*
H3	265	105	71	17	295	15	159	33	29	41	63	90	114

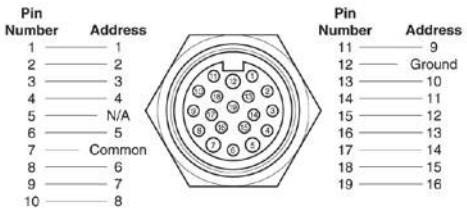
Interconnect Circuit Boards

Maximum Solenoids Energized Simultaneously

HA HB	Voltage code	25-pin D-Sub	19-pin round	Single 12-pin M23	Isysnet	
24 V DC	B9 / G9	24	16	8	32	
120 V AC*	23	24	16	8	32	
H1 H2 H3	Voltage code	25-pin D-Sub	19-pin round	Single 12-pin M23	Isysnet	SAM 3.0
12 V DC	45	13	13	8	N/A	N/A
24 V AC*	42	24	16	8	N/A	N/A
24 V DC	B9	20	16	8	21	4
120 V AC*	23	24	16	8	N/A	N/A

* Not CSA certified for 25-pin, D-Sub option.

19-Pin Round Brad Harrison



Face View - Male 19-Pin Connector

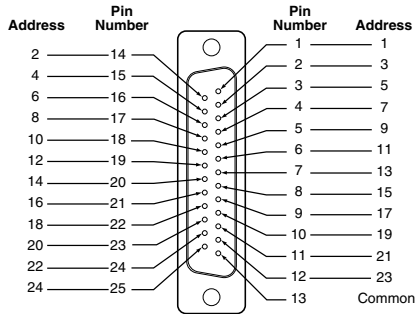
19-Pin Round Cable Specifications

Common Pin "7" is rated for 8 amps. Cable common wire must be greater than total amperage of solenoids on Add-A-Fold assembly.

Example:- 8 station manifold, 16 solenoids,
120VAC - 16 x .039 amps = .63 total amp rating.
NEMA 4 rated with properly assembled NEMA 4 rated cable.

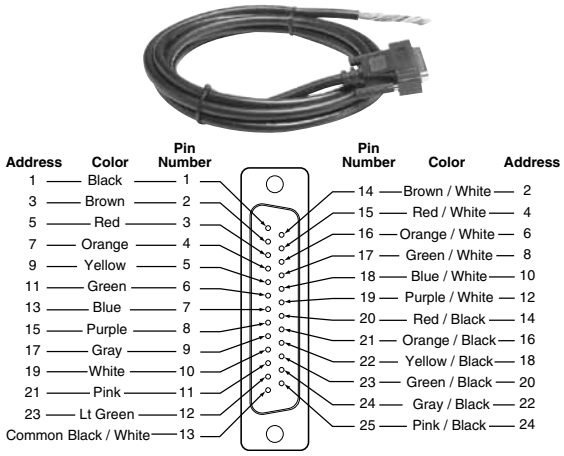
Brad Harrison #333030P80M050	16.40 ft. (Female to Male Cable)
Brad Harrison #333030P80M0100	32.80 ft. (Female to Male Cable)

25-Pin, D-Sub Connector (Male)



Face View - Male D-Sub, 25-Pin Connector

25-Pin, D-Sub Cable (Female)

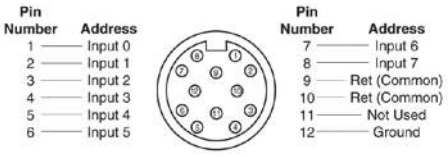


25-Pin, D-Sub Cable Specifications

Common Pin “13” is rated for 3 amps. Common wire rating must be greater than total amperage of all solenoids on a Add-A-Fold assembly.

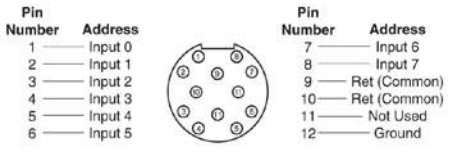
IP65 rated with properly assembled IP65 rated cable.

M23, 12-Pin Round Connector (Male)



Face View - Male M23, 12-Pin Connector

M23, 12-Pin Round Connector (Female)



Face View - Female M23, 12-Pin Connector

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