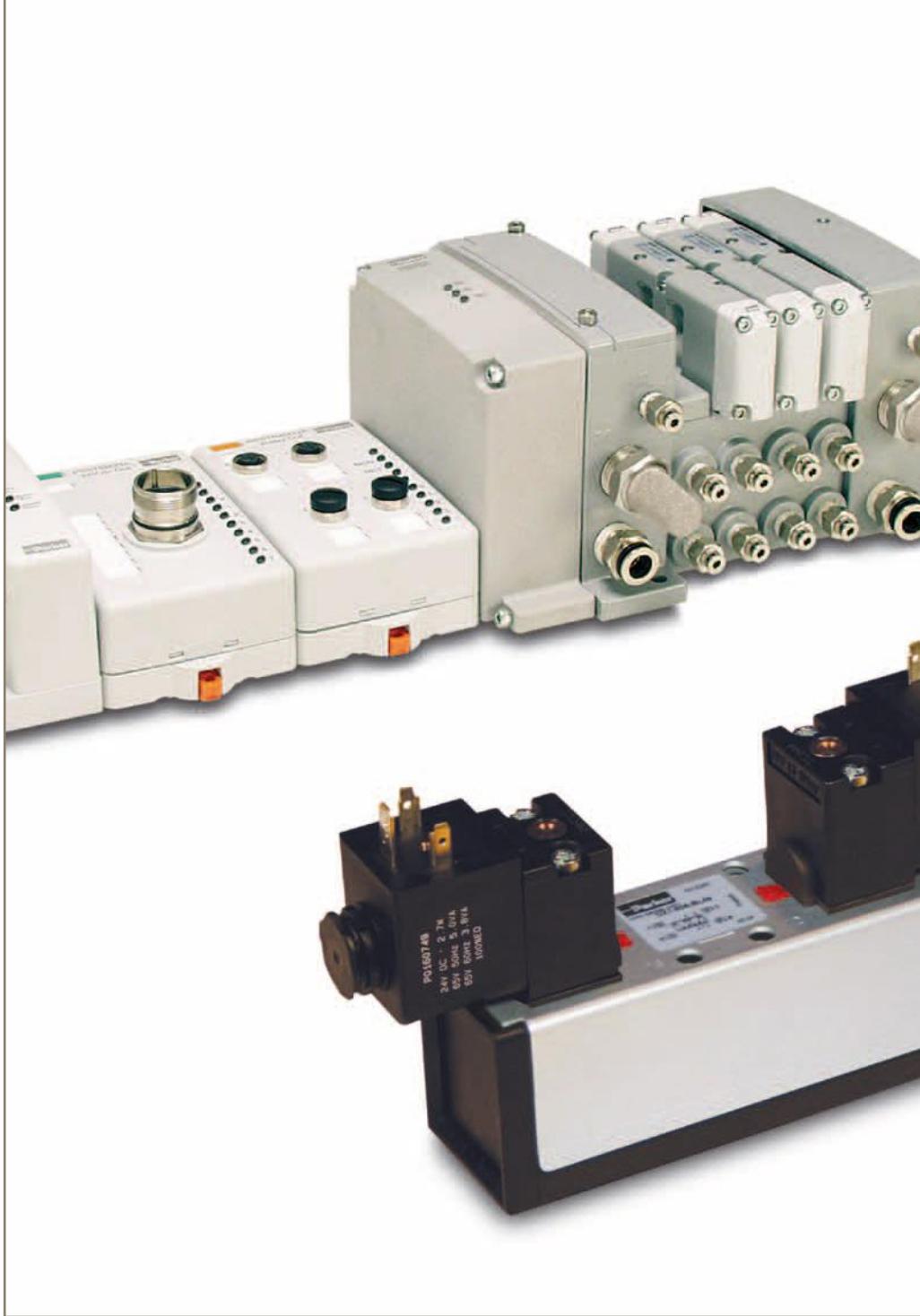




aerospace  
climate control  
electromechanical  
filtration  
fluid & gas handling  
hydraulics  
**pneumatics**  
process control  
sealing & shielding



# Global ISO Valves Platform

A complete range of pneumatic ISO valves

**ISYS** and **ISOMAX**

Catalogue PDE2589TCUK-ca. February 2009



ENGINEERING YOUR SUCCESS.

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**Isomax**

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**ISYS**

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**ISYS Net**

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**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.

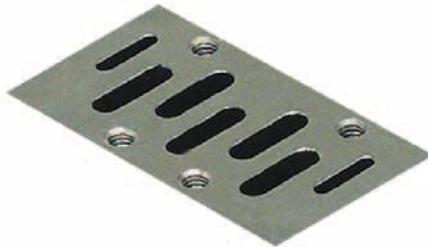
**WARNING**

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.

**SALE CONDITIONS**

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## ISO Specifications



5599-1

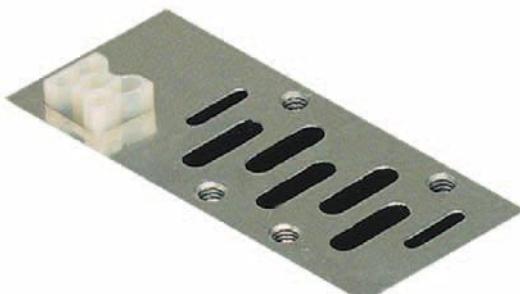


ISO 5599-1

**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

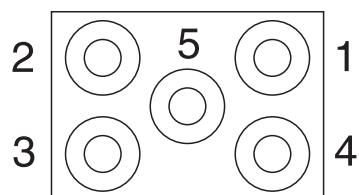


ISO 5599-2

**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

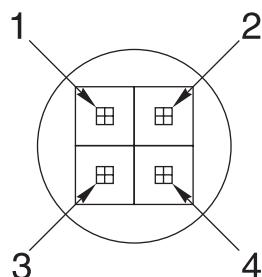


ISO 15407-2

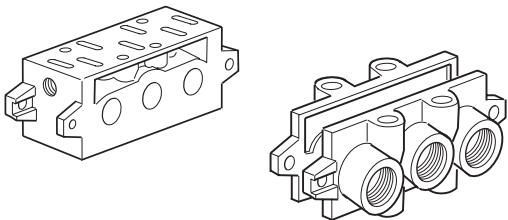
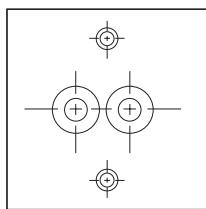
**Body-to-base plug-in subbase valves**

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 Anlagen-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.

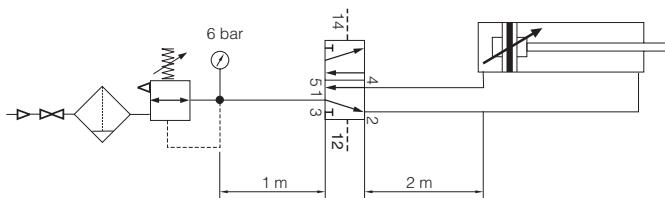
Following data is valid:

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		
Size 2	Isomax			G3/8	G3/8	G3/8	G3/8		
	ISYS			G3/8	G3/8	G3/8	G3/8		
	ISYS				G1/2	G1/2	G1/2	G1/2	G1/2
Size 3	Isomax				G1/2	G1/2	G1/2	G1/2	G1/2
	ISYS				G1/2	G1/2	G1/2	G1/2	G1/2
	ISYS					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****Cylinders from Ø 10 to 100****Size 02 / 01****ISO 15407-1****Individual Connection****DIN C**

Page 13

**M12**

Page 25

**Remote pilot**

Page 14



Page 25

**Subbase,  
Manifolds**

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**Flow Control,  
Regulator**

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**ISO 15407-2****Plug-in****Plug-in**

Page 27

**Subbase,  
Manifolds**

Page 36

**Flow Control,  
Regulator**

Page 42

**ISO 5599****Size 1 / 2 / 3****Cylinders from Ø 63 to 200**

<b>ISO 5599-1</b>  <b>Individual Connection</b>	DIN A, Industrial	<b>Isomax</b>  Page 16	<b>ISYS ISO</b>  Page 29
	M12, M23	<b>Isomax</b>  Page 18	<b>ISYS ISO</b>  Page 31
	Remote pilot	<b>Isomax</b>  Page 17	<b>ISYS ISO</b>  Page 31
	Subbase, Manifolds	 Page 38	
	Flow Control, Regulator	 Page 44	

<b>ISO 5599-2</b>  <b>Plug-in</b>	Plug-in	<b>ISYS ISO</b>  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 :

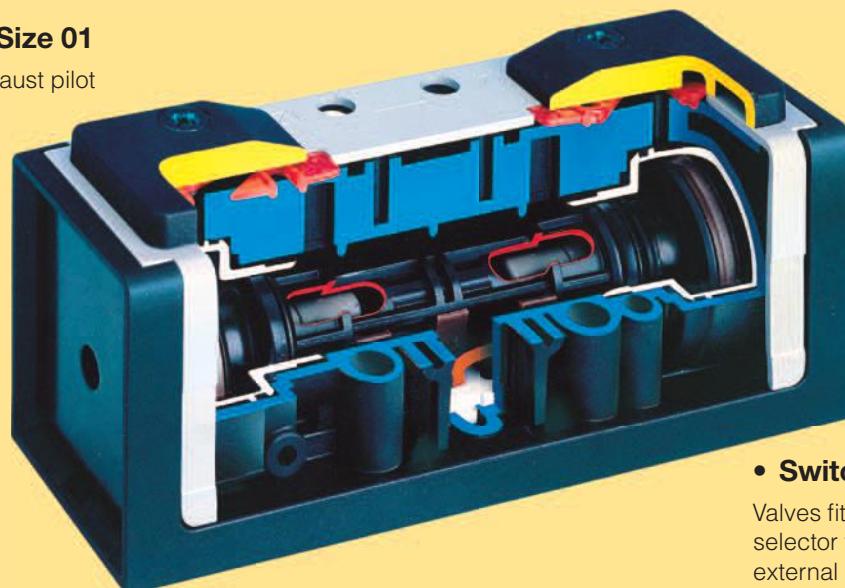
Long life in excess of 100 million operations\*.  
Operates with lubricated or non lubricated air.  
Low sensitivity to air quality changes ;  
switching without seal.  
Stiction free.

#### • 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



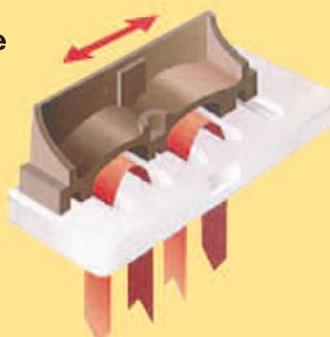
#### • Switchable selector

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

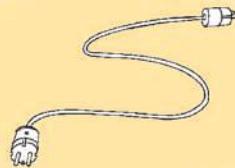


The standard valve is fitted with a 30mm solenoid having DIN 43650 Industrial form A connector for sizes 1, 2 and 3  
15mm solenoid for sizes 01 and 02.

### Low noise level

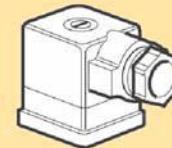
Size 01 and 02 valves fitted with the 15mm solenoid option use captured pilot exhaust which is channelled through the valve body and exhausts to atmosphere through channel 12

### 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

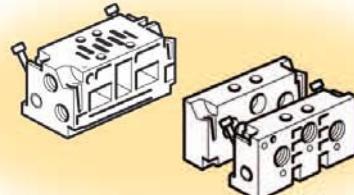


Solenoid connectors are available with or without LED and rectifier and may be selected fitted pre-wired with flying leads.

### Valves having ATEX approval

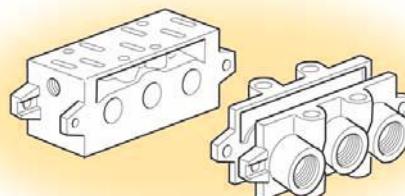
ATEX approved options are available for use in explosive atmospheres. Consult our Technical Sales Department for further information.

### 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

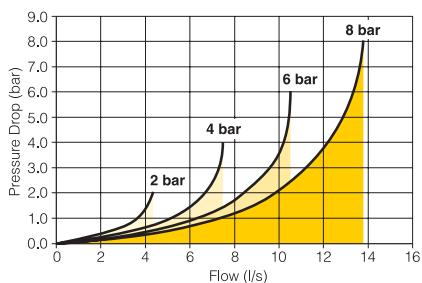


A large range of subbase, VDMA or not VDMA, bottom or side ported.

## Isomax Flow Characteristics

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

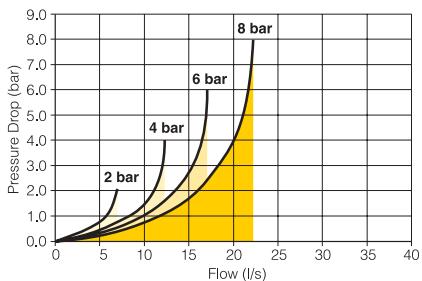
### Technical Data Isomax Size 02



Operating pressure.

5/2 Spring return	3,0 - 10 bar
5/2 Differential	2,0 - 10 bar
5/2 Double solenoid	1,5 - 10 bar
5/3 Double solenoid	3,5 - 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

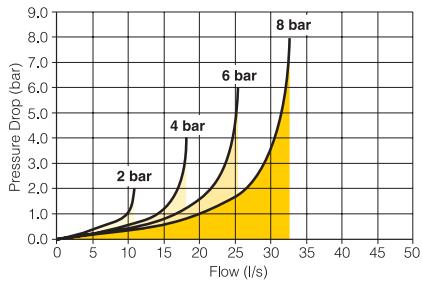
### Technical Data Isomax Size 01



Operating pressure.

5/2 Spring return	3,0 - 10 bar
5/2 Differential	2,0 - 10 bar
5/2 Double solenoid	1,5 - 10 bar
5/3 Double solenoid	3,5 - 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

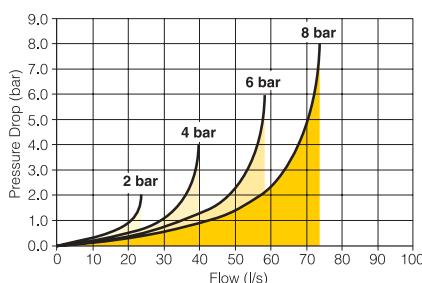
### Technical Data Isomax Size 1



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

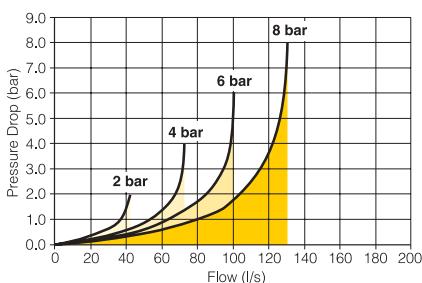
### Technical Data Isomax Size 2



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

### 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

### Characteristics

Fluid:	Air or inert gas filtered 40μ 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

Solenoid : please see page xx

### Characteristics

Fluid:	Air or inert gas filtered 40μ 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

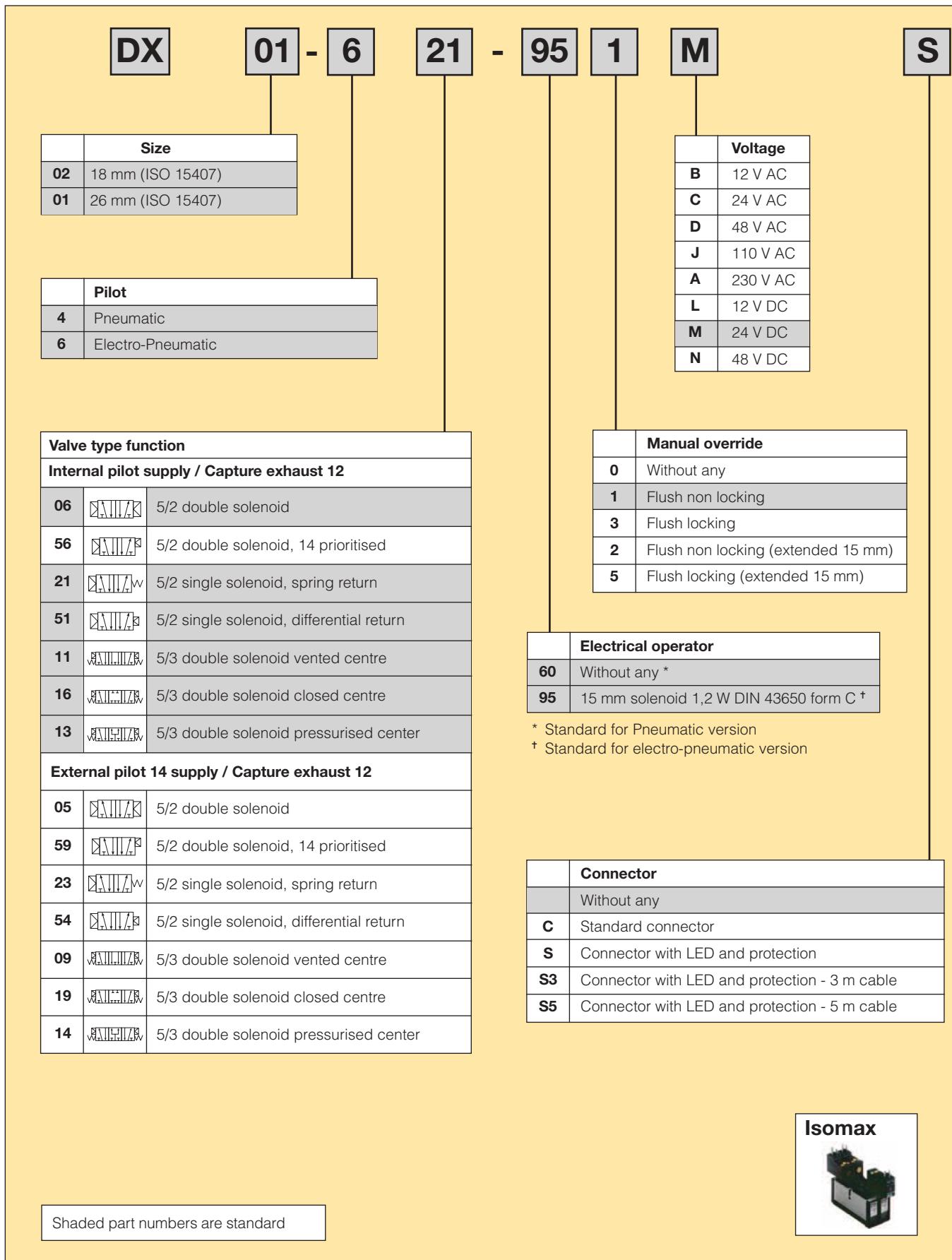
Solenoid : please see page xx

### Certification

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

### Certification

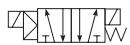
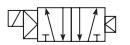
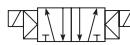
EMC / CE mark.	According to EN 61 000-6-2
Dust & water protection	IP65 according to EN 60529

**Isomax - ISO 15407 - 15mm Solenoid****Order chart**

Shaded part numbers are standard

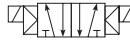
## Solenoid operated ISO valve fitted with 15 mm solenoid 24 VDC

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

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
<b>5/2 Valves</b>							
	02 - 18mm 01 - 26mm	Electrical signal Electrical signal	Spring Spring	4,0/2,0 4,3/2,3	15/25 25/35	0.13 0.17	<b>DX02-621-951M</b> <b>DX01-621-951M</b>
	02 - 18mm 01 - 26mm	Electrical signal Electrical signal	Differential Differential	3,9/1,6 3,8/1,7	15/30 20/40	0.13 0.17	<b>DX02-651-951M</b> <b>DX01-651-951M</b>
	02 - 18mm 01 - 26mm	Electrical signal Electrical signal	Electrical signal Electrical signal	1,3/1,3 1,0/1,0	12/12 15/15	0.17 0.21	<b>DX02-606-951M</b> <b>DX01-606-951M</b>
<b>5/3 Valves</b>							
	02 - 18mm 01 - 26mm	Electrical signal Closed center	Electrical signal Self centering	3,3 2,9	20/60 20/60	0.17 0.21	<b>DX02-616-951M</b> <b>DX01-616-951M</b>
	02 - 18mm 01 - 26mm	Electrical signal Vented center	Electrical signal Self centering	3,3 3	20/60 20/60	0.17 0.21	<b>DX02-611-951M</b> <b>DX01-611-951M</b>
	02 - 18mm 01 - 26mm	Electrical signal Press. center	Electrical signal Self centering	3,3 3	20/60 20/60	0.17 0.21	<b>DX02-613-951M</b> <b>DX01-613-951M</b>

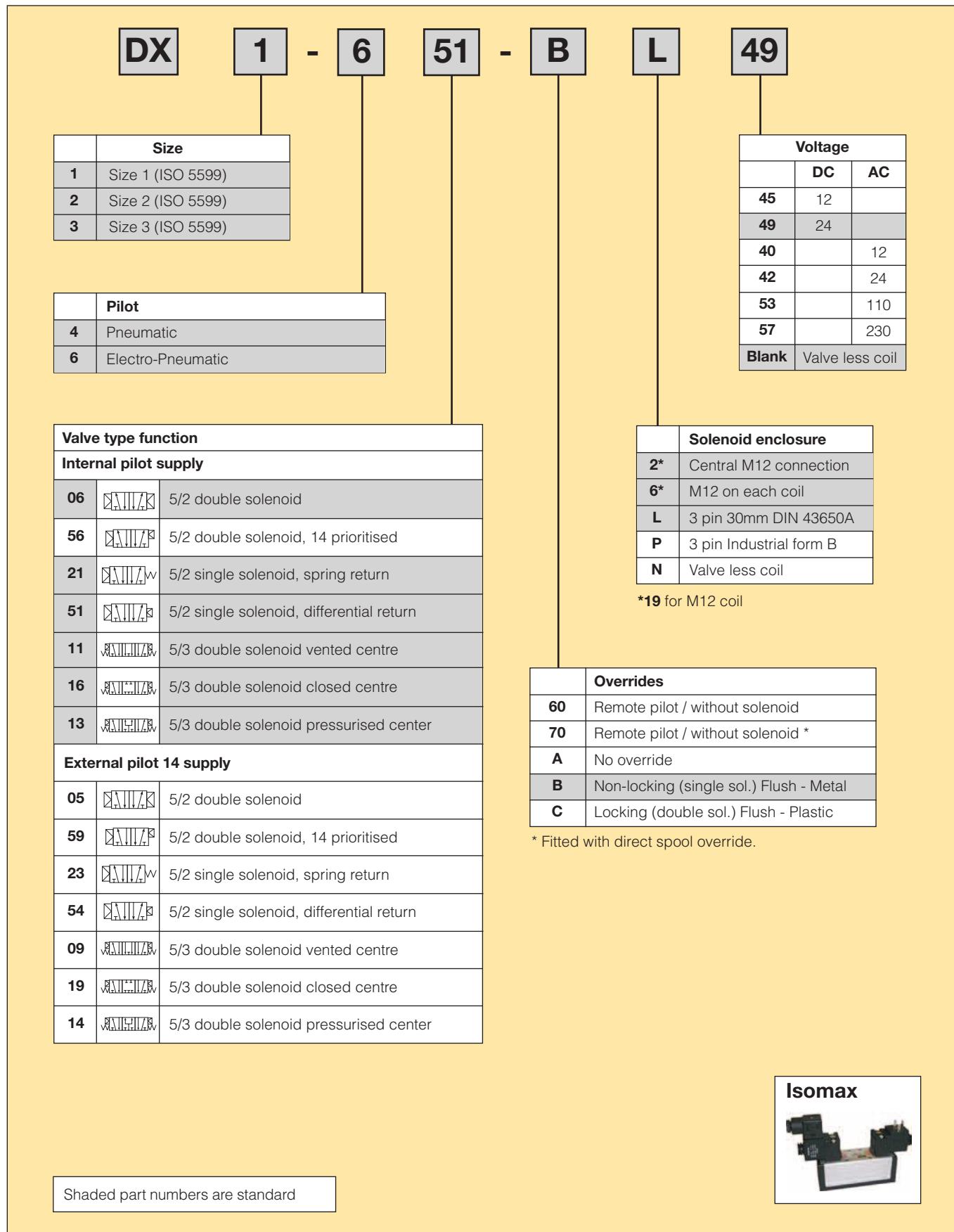
## Solenoid operated ISO valve fitted with adaptor to accept 15 mm solenoid

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

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
<b>5/2 Valves</b>							
	02 - 18mm 01 - 26mm	Electrical signal Electrical signal	Spring Spring	4,0/2,0 4,3/2,3	15/25 25/35	0.9 0.13	<b>DX02-621-60</b> <b>DX01-621-60</b>
	02 - 18mm 01 - 26mm	Electrical signal Electrical signal	Differential Differential	3,9/1,6 3,8/1,7	15/30 20/40	0.9 0.13	<b>DX02-651-60</b> <b>DX01-651-60</b>
	02 - 18mm 01 - 26mm	Electrical signal Electrical signal	Electrical signal Electrical signal	1,3/1,3 1,0/1,0	12/12 15/15	0.9 0.13	<b>DX02-606-60</b> <b>DX01-606-60</b>
<b>5/3 Valves</b>							
	02 - 18mm 01 - 26mm	Electrical signal Closed center	Electrical signal Self centering	3,3 2,9	20/60 20/60	0.9 0.13	<b>DX02-616-60</b> <b>DX01-616-60</b>
	02 - 18mm 01 - 26mm	Electrical signal Vented center	Electrical signal Self centering	3,3 3	20/60 20/60	0.9 0.13	<b>DX02-611-60</b> <b>DX01-611-60</b>
	02 - 18mm 01 - 26mm	Electrical signal Press. center	Electrical signal Self centering	3,3 3	20/60 20/60	0.9 0.13	<b>DX02-613-60</b> <b>DX01-613-60</b>

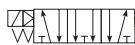
## Pneumatic operated ISO valve

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
<b>5/2 Valves</b>							
	02 - 18mm 01 - 26mm	Air signal Air signal	Spring Spring	4,0/2,0 4,3/2,3	15/25 25/35	0.9 0.13	<b>DX02-421-60</b> <b>DX01-421-60</b>
	02 - 18mm 01 - 26mm	Air signal Air signal	Differential Differential	3,9/1,6 3,8/1,7	15/30 20/40	0.9 0.13	<b>DX02-451-60</b> <b>DX01-451-60</b>
	02 - 18mm 01 - 26mm	Air signal Air signal	Air signal Air signal	1,3/1,3 1,0/1,0	12/12 14/14	0.9 0.13	<b>DX02-406-60</b> <b>DX01-406-60</b>
<b>5/3 Valves</b>							
	02 - 18mm 01 - 26mm	Air signal Closed center	Air signal Self centering	3,3 2,9	20/50 20/50	0.9 0.13	<b>DX02-416-60</b> <b>DX01-416-60</b>
	02 - 18mm 01 - 26mm	Air signal Vented center	Air signal Self centering	3,3 3	20/50 20/50	0.9 0.13	<b>DX02-411-60</b> <b>DX01-411-60</b>
	02 - 18mm 01 - 26mm	Air signal Press. center	Air signal Self centering	3,3 3	20/50 20/50	0.9 0.13	<b>DX02-413-60</b> <b>DX01-413-60</b>

**Isomax - ISO 5599 - Size 1 / 2 / 3 - CNOMO****Order chart**

**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	Signal pressure min. (bar) at 6 bar actua./return	Changover time (ms) at 6 bar actua./return	Weight Kg	Order code
<b>5/2 Valves</b>							
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Spring Spring Spring	3,9/2,5 3,6/2,4 3,6/2,3	40/55 60/105 85/160	0.5 0.75 1.25	<b>DX1-621-BL49</b> <b>DX2-621-BL49</b> <b>DX3-621-BL49</b>
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Differential Differential Differential	3,3/1,9 3,3/2,0 3,3/1,9	30/70 55/110 80/180	0.5 0.75 1.25	<b>DX1-651-BL49</b> <b>DX2-651-BL49</b> <b>DX3-651-BL49</b>
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Electrical signal Electrical signal Electrical signal	1,0/1,0 1,0/1,0 1,0/1,0	25/25 30/30 40/40	0.65 0.9 1.4	<b>DX1-606-BL49</b> <b>DX2-606-BL49</b> <b>DX3-606-BL49</b>
<b>5/3 Valves</b>							
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Closed center	Electrical signal Self centering	2,6 2,1 2,1	30/95 40/190 55/330	0.65 0.9 1.4	<b>DX1-616-BL49</b> <b>DX2-616-BL49</b> <b>DX3-616-BL49</b>
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Vented center	Electrical signal Self centering	2,8 2,2 2,1	25/70 40/140 60/270	0.65 0.9 1.4	<b>DX1-611-BL49</b> <b>DX2-611-BL49</b> <b>DX3-611-BL49</b>
	1 - 43mm 2 - 56mm	Electrical signal Press. center	Electrical signal Self centering	2,4 2,1	25/65 40/150	0.65 0.9	<b>DX1-613-BL49</b> <b>DX2-613-BL49</b>

**Solenoid operated ISO valve fitted with CNOMO operator without coil**

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

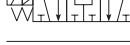
Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changover time (ms) at 6 bar actua./return	Weight Kg	Order code
<b>5/2 Valves</b>							
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Spring Spring Spring	3,9/2,5 3,6/2,4 3,6/2,3	40/55 60/105 85/160	0.4 0.65 1.15	<b>DX1-621-BN</b> <b>DX2-621-BN</b> <b>DX3-621-BN</b>
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Differential Differential Differential	3,3/1,9 3,3/2,0 3,3/1,9	30/70 55/110 80/180	0.4 0.65 1.15	<b>DX1-651-BN</b> <b>DX2-651-BN</b> <b>DX3-651-BN</b>
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Electrical signal Electrical signal Electrical signal	1,0/1,0 1,0/1,0 1,0/1,0	25/25 30/30 40/40	0.55 0.8 1.3	<b>DX1-606-BN</b> <b>DX2-606-BN</b> <b>DX3-606-BN</b>
<b>5/3 Valves</b>							
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Closed center	Electrical signal Self centering	2,6 2,1 2,1	30/95 40/190 55/330	0.55 0.8 1.3	<b>DX1-616-BN</b> <b>DX2-616-BN</b> <b>DX3-616-BN</b>
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Vented center	Electrical signal Self centering	2,8 2,2 2,1	25/70 40/140 60/270	0.55 0.8 1.3	<b>DX1-611-BN</b> <b>DX2-611-BN</b> <b>DX3-611-BN</b>
	1 - 43mm 2 - 56mm	Electrical signal Press. center	Electrical signal Self centering	2,4 2,1	25/65 40/150	0.55 0.8	<b>DX1-613-BN</b> <b>DX2-613-BN</b>

## Pneumatic operated ISO valve without valve spool override

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
<b>5/2 Valves</b>							
	1 - 43mm 2 - 56mm 3 - 71mm	Air signal Air signal Air signal	Spring Spring Spring	3,9/2,5 3,6/2,4 3,6/2,3	30/45 50/95 80/160	0.35 0.6 1.1	<b>DX1-421-60</b> <b>DX2-421-60</b> <b>DX3-421-60</b>
	1 - 43mm 2 - 56mm 3 - 71mm	Air signal Air signal Air signal	Differential Differential Differential	3,3/1,9 3,3/2,0 3,3/1,9	25/60 45/100 70/170	0.35 0.6 1.1	<b>DX1-451-60</b> <b>DX2-451-60</b> <b>DX3-451-60</b>
	1 - 43mm 2 - 56mm 3 - 71mm	Air signal Air signal Air signal	Air signal Air signal Air signal	1,0/1,0 1,0/1,0 1,0/1,0	20/20 25/25 35/35	0.35 0.6 1.1	<b>DX1-406-60</b> <b>DX2-406-60</b> <b>DX3-406-60</b>
<b>5/3 Valves</b>							
	1 - 43mm 2 - 56mm 3 - 71mm	Air signal Closed center	Air signal Self centering	2,6 2,1 2,1	20/80 30/170 45/330	0.35 0.6 1.1	<b>DX1-416-60</b> <b>DX2-416-60</b> <b>DX3-416-60</b>
	1 - 43mm 2 - 56mm 3 - 71mm	Air signal Vented center	Air signal Self centering	2,8 2,2 2,1	20/65 30/140 50/270	0.35 0.6 1.1	<b>DX1-411-60</b> <b>DX2-411-60</b> <b>DX3-411-60</b>
	1 - 43mm 2 - 56mm	Air signal Press. center	Air signal Self centering	2,4 2,1	20/60 25/140	0.35 0.6	<b>DX1-413-60</b> <b>DX2-413-60</b>

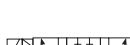
**Solenoid operated ISO valve, CNOMO, 24 VDC with M12 coil**

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

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
<b>5/2 Valves</b>							
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Spring Spring Spring	3,9/2,5 3,6/2,4 3,6/2,3	40/55 60/105 85/160	0.5 0.75 1.25	<b>DX1-621-B619</b> <b>DX2-621-B619</b> <b>DX3-621-B619</b>
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Differential Differential Differential	3,3/1,9 3,3/2,0 3,3/1,9	30/70 55/110 80/180	0.5 0.75 1.25	<b>DX1-651-B619</b> <b>DX2-651-B619</b> <b>DX3-651-B619</b>
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Electrical signal Electrical signal Electrical signal	1,0/1,0 1,0/1,0 1,0/1,0	25/25 30/30 40/40	0.65 0.9 1.4	<b>DX1-606-B619</b> <b>DX2-606-B619</b> <b>DX3-606-B619</b>
<b>5/3 Valves</b>							
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Closed center	Electrical signal Self centering	2,6 2,1 2,1	30/95 40/190 55/330	0.65 0.9 1.4	<b>DX1-616-B619</b> <b>DX2-616-B619</b> <b>DX3-616-B619</b>
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Vented center	Electrical signal Self centering	2,8 2,2 2,1	25/70 40/140 60/270	0.65 0.9 1.4	<b>DX1-611-B619</b> <b>DX2-611-B619</b> <b>DX3-611-B619</b>
	1 - 43mm 2 - 56mm	Electrical signal Press. center	Electrical signal Self centering	2,4 2,1	25/65 40/150	0.65 0.9	<b>DX1-613-B619</b> <b>DX2-613-B619</b>

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

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

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
<b>5/2 Valves</b>							
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Spring Spring Spring	3,9/2,5 3,6/2,4 3,6/2,3	40/55 60/105 85/160	0.65 0.9 1.4	<b>DX1-621-B219</b> <b>DX2-621-B219</b> <b>DX3-621-B219</b>
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Differential Differential Differential	3,3/1,9 3,3/2,0 3,3/1,9	30/70 55/110 80/180	0.65 0.9 1.4	<b>DX1-651-B219</b> <b>DX2-651-B219</b> <b>DX3-651-B219</b>
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Electrical signal Electrical signal Electrical signal	1,0/1,0 1,0/1,0 1,0/1,0	25/25 30/30 40/40	0.8 1.05 1.55	<b>DX1-606-B219</b> <b>DX2-606-B219</b> <b>DX3-606-B219</b>
<b>5/3 Valves</b>							
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Closed center	Electrical signal Self centering	2,6 2,1 2,1	30/95 40/190 55/330	0.8 1.05 1.55	<b>DX1-616-B219</b> <b>DX2-616-B219</b> <b>DX3-616-B219</b>
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Vented center	Electrical signal Self centering	2,8 2,2 2,1	25/70 40/140 60/270	0.8 1.05 1.55	<b>DX1-611-B219</b> <b>DX2-611-B219</b> <b>DX3-611-B219</b>
	1 - 43mm 2 - 56mm	Electrical signal Press. center	Electrical signal Self centering	2,4 2,1	25/65 40/150	0.8 1.05	<b>DX1-613-B219</b> <b>DX2-613-B219</b>

## ISYS ISO - Heavy Duty Applications

### Market Applications

- Automotive
- Machine tools
- Mobile



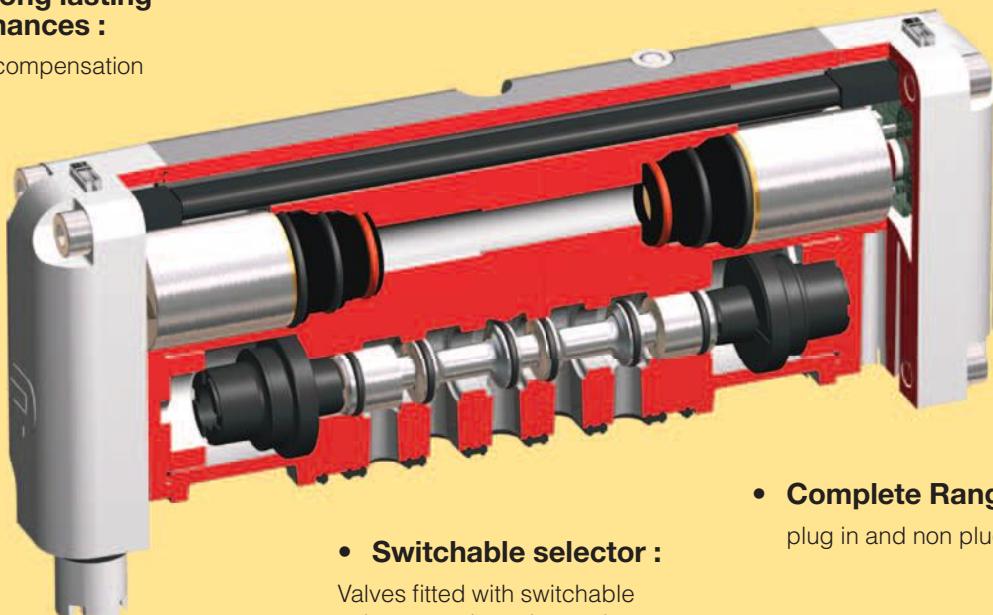
- **Excellent reliability :**

Long life in excess of 30 million operations.

- **Heavy Duty Metal Body**

- **Stable long lasting performances :**

due to wear compensation



- **Switchable selector :**

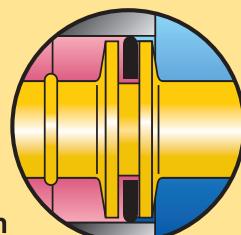
Valves fitted with switchable selector to give internal or external pilot supply

- **Complete Range :**

plug in and non plug in

- **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 enviromnent

### 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 applications

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.

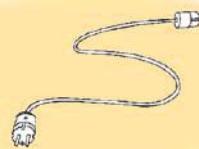
### Central M12 & M23 connection or M12 coil

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

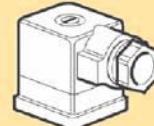
Sizes 01 & 02 have integrated Led and rectifier, for all connections. Sizes 1,2, 3 are available with integrated Led and rectifier in the coil or basic Din A coil.

### High electrical encapsulation class



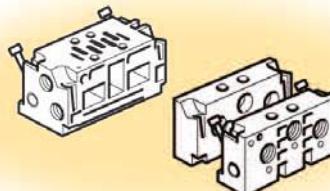
The solenoid valves are protected to IP65 with the standard cable plug. Available with DIN A or M12 connection.

### 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 protocol 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 standard, as well as 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, no load, 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. Circuit boards make all connections throughout 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 valves on the manifold, especially for sizes 2 & 3, hard wiring could be preferred. This method requires wiring each valve through 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.

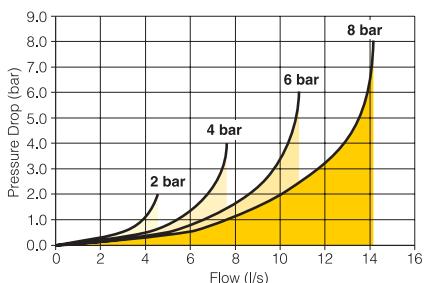
### Oversize ports for ISO 5599-2 manifolds

Due to the standardized size of bases and valve, the resulting flow is limited by port size. All manifold for sizes 1, 2, and 3 are available with oversize port to optimize the flow for size. As an example, size 1 valve and manifold, equipped with a 3/8 port is suitable with a 100mm diameter cylinder where a size 2 valve will have been chosen.

This is all the more true than the cylinder speed is limited with flow control and adjusted near 0.5m/s

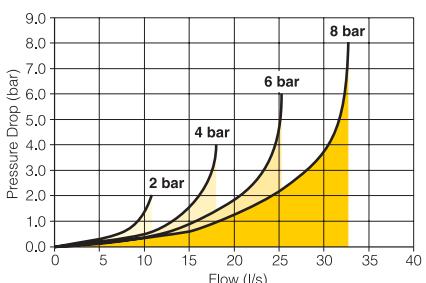
**ISYS ISO Flow Characteristics**

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**

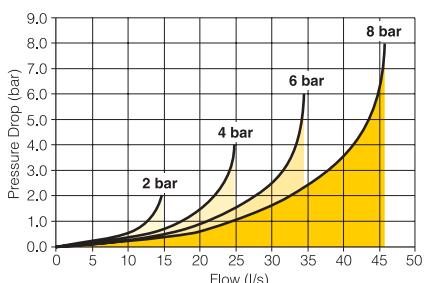
Operating pressure.

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°C to + 50°C
Flow (acc. to ISO 6358)	c = 1,5 NI/s x bar b = 0,25 Qn = 6,5 l/s Qmax = 10,8 l/s

**Technical Data ISYS ISO Size 01**

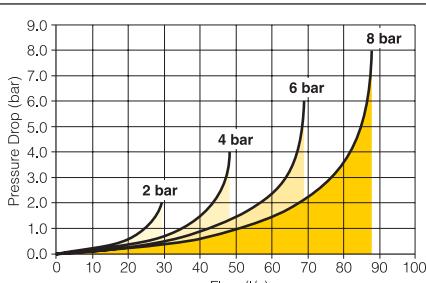
Operating pressure.

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°C to + 50°C
Flow (acc. to ISO 6358)	c = 3,6 NI/s x bar b = 0,30 Qn = 15,3 l/s Qmax = 25,3 l/s

**Technical Data ISYS ISO Size 1**

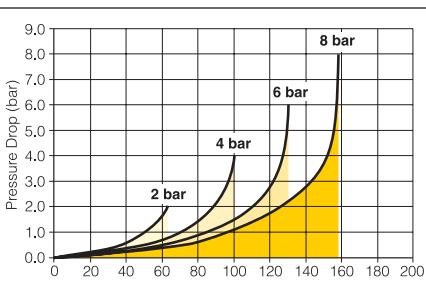
Operating pressure.

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°C to + 50°C
Flow (acc. to ISO 6358)	c = 5,0 NI/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°C to + 50°C
Flow (acc. to ISO 6358)	c = 9,7 NI/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°C to + 50°C
Flow (acc. to ISO 6358)	c = 18,7 NI/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

### 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

### 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 -20° to + 70°
Storage temperature	
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

### Plug-in Solenoids

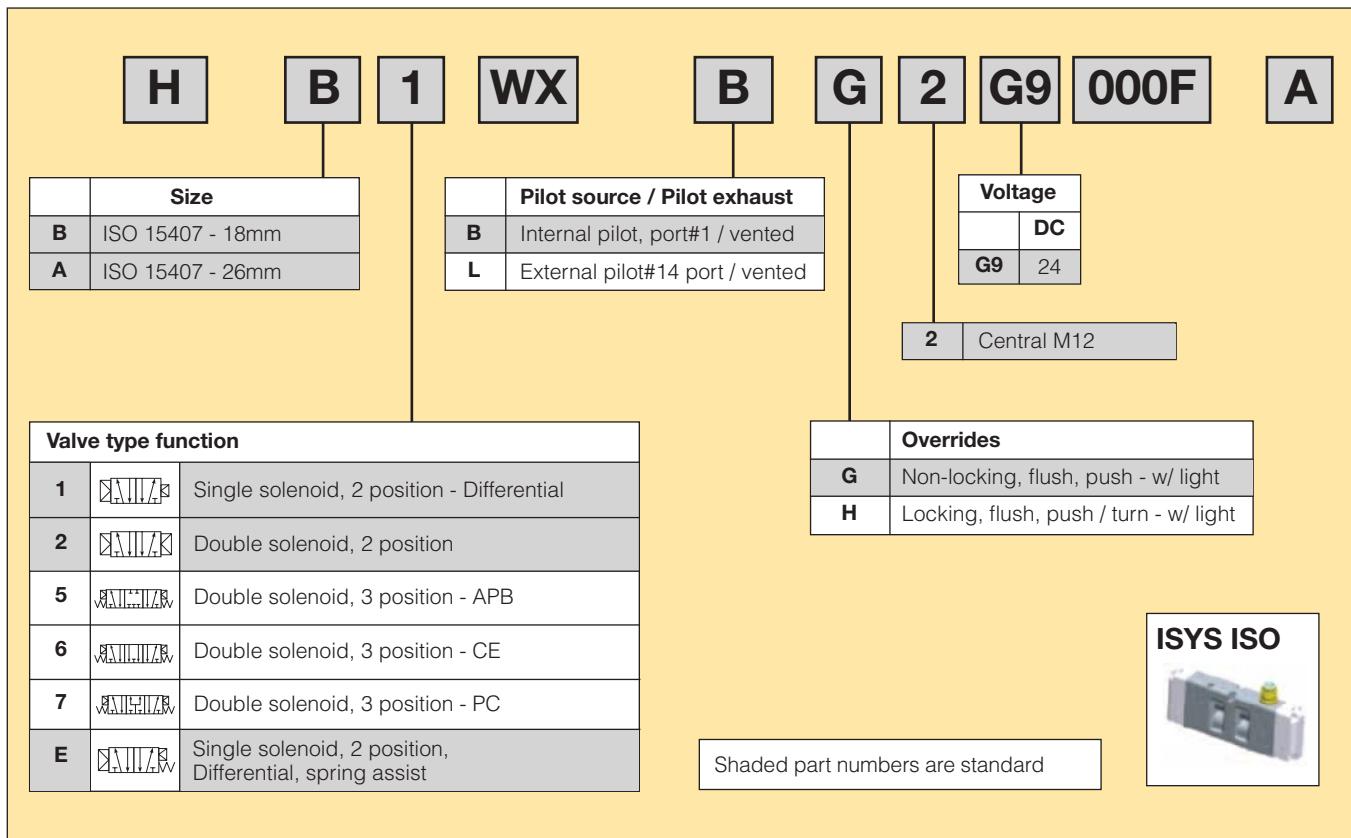
Minimum operating voltage:	DC 20,4 V, AC 102 V
Power:	DC 3W, AC 4,5VA
Bi polar:	
Surge suppressor:	On lighted coils
Light indicator:	Standard

### Certification

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

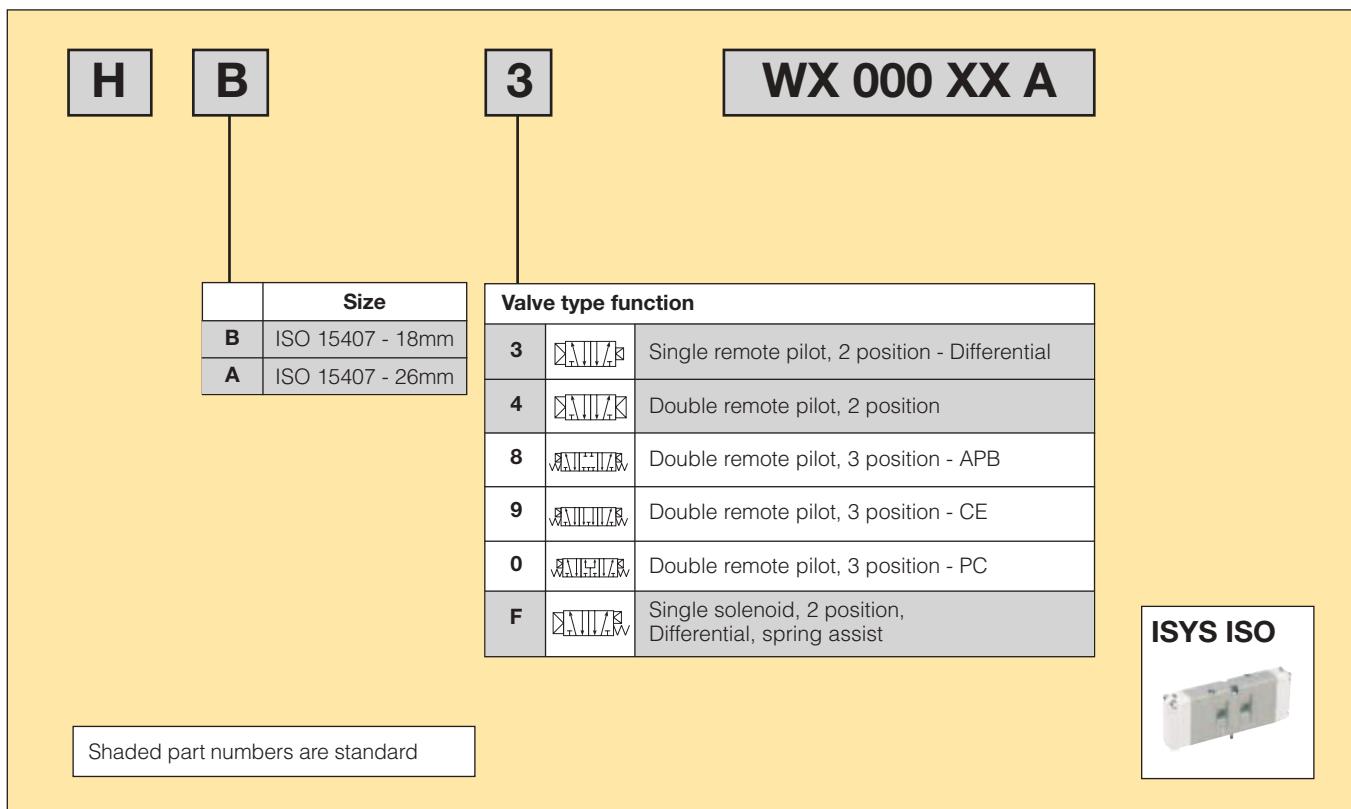
# ISYS ISO M12 and Pilot

## Order chart



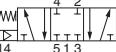
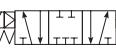
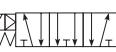
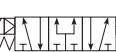
## ISYS ISO Remote Pilot

## Order chart

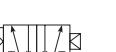
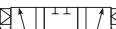


**Solenoid operated ISO valve, 24VDC, central M12 connection**

Oriented side 14, Led &amp; surge suppressor

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
<b>5/2 Valves</b>							
	02 - 18mm 01 - 26mm	Electrical signal Electrical signal	Spring & Diff. Spring & Diff.	3,1 3,1	20/40 20/45	0.15 0.25	<b>HBEWXBG2G9000FA</b> <b>HAEWXBG2G9000FA</b>
	02 - 18mm 01 - 26mm	Electrical signal Electrical signal	Differential Differential	2,7 2,7	15/40 15/50	0.15 0.25	<b>HB1WXBG2G9000FA</b> <b>HA1WXBG2G9000FA</b>
	02 - 18mm 01 - 26mm	Electrical signal Electrical signal	Electrical signal Electrical signal	1,7 1,7	10 10	0.165 0.265	<b>HB2WXBG2G9000FA</b> <b>HA2WXBG2G9000FA</b>
<b>5/3 Valves</b>							
	02 - 18mm 01 - 26mm	Electrical signal Closed center	Electrical signal Self centering	2,4 2,4	15/60 15/50	0.165 0.265	<b>HB5WXBG2G9000FA</b> <b>HA5WXBG2G9000FA</b>
	02 - 18mm 01 - 26mm	Electrical signal Vented center	Electrical signal Self centering	2,4 2,4	15/60 15/50	0.165 0.265	<b>HB6WXBG2G9000FA</b> <b>HA6WXBG2G9000FA</b>
	02 - 18mm 01 - 26mm	Electrical signal Press. center	Electrical signal Self centering	2,4 2,4	15/60 15/50	0.165 0.265	<b>HB7WXBG2G9000FA</b> <b>HA7WXBG2G9000FA</b>

**Pneumatic operated ISO valve**

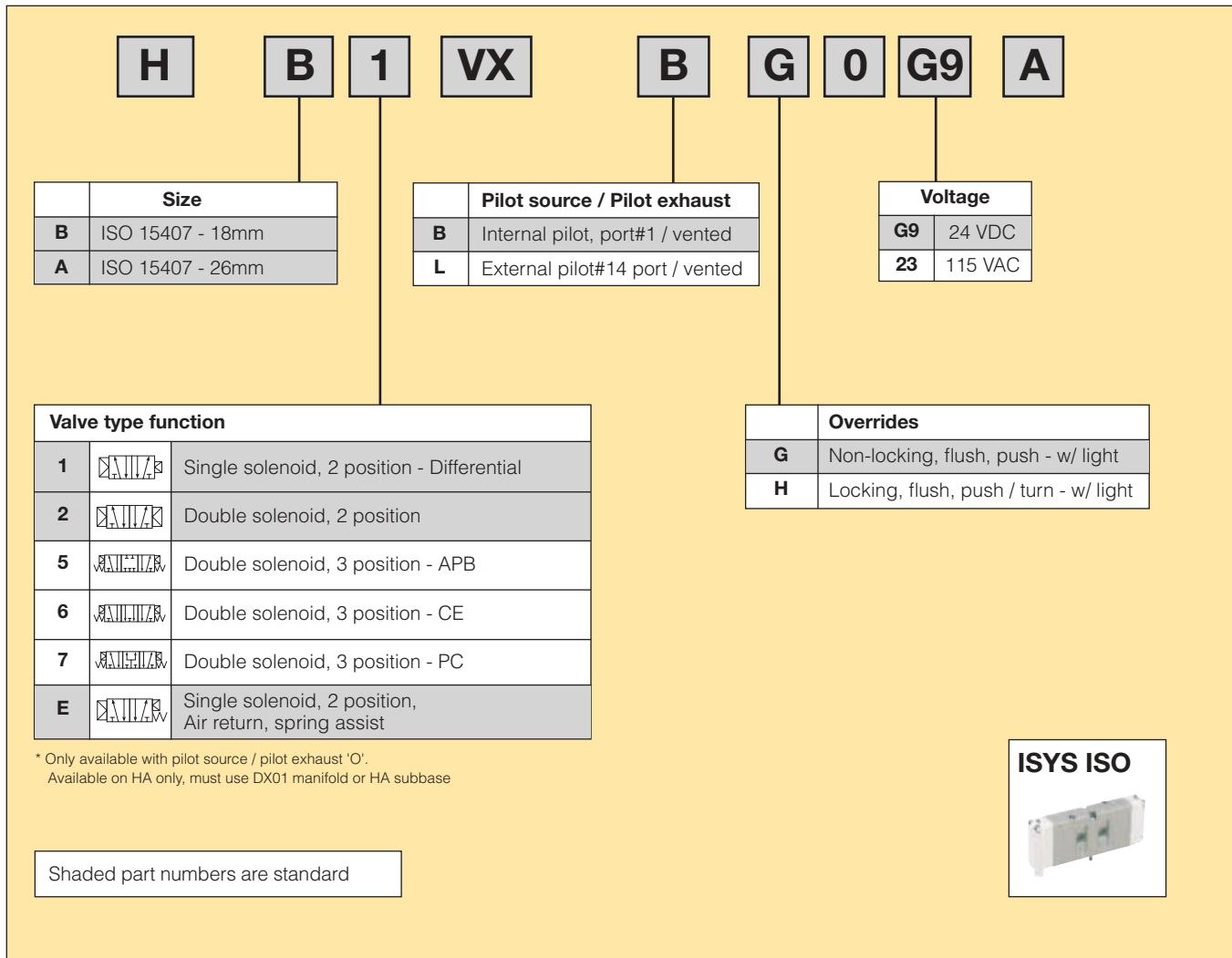
Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
<b>5/2 Valves</b>							
	02 - 18mm 01 - 26mm	Air signal Air signal	Spring & Diff. Spring & Diff.	3,1 3,1	15/30 15/40	0.115 0.215	<b>HBFWX000XXA</b> <b>HAFWX000XXA</b>
	02 - 18mm 01 - 26mm	Air signal Air signal	Differential Differential	2,7 2,7	10/30 15/35	0.115 0.215	<b>HB3WX000XXA</b> <b>HA3WX000XXA</b>
	02 - 18mm 01 - 26mm	Air signal Air signal	Air signal Air signal	1,7 1,7	8 10	0.115 0.215	<b>HB4WX000XXA</b> <b>HA4WX000XXA</b>
<b>5/3 Valves</b>							
	02 - 18mm 01 - 26mm	Air signal Closed center	Air signal Self centering	2,4 2,4	15/35 15/40	0.115 0.215	<b>HB8WX000XXA</b> <b>HA8WX000XXA</b>
	02 - 18mm 01 - 26mm	Air signal Vented center	Air signal Self centering	2,4 2,4	15/35 15/40	0.115 0.215	<b>HB9WX000XXA</b> <b>HA9WX000XXA</b>
	02 - 18mm 01 - 26mm	Air signal Press. center	Air signal Self centering	2,4 2,4	15/35 15/40	0.115 0.215	<b>HB0WX000XXA</b> <b>HA0WX000XXA</b>



Indicates stocked product.

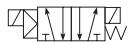
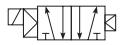
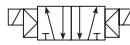
## ISYS ISO Plug in

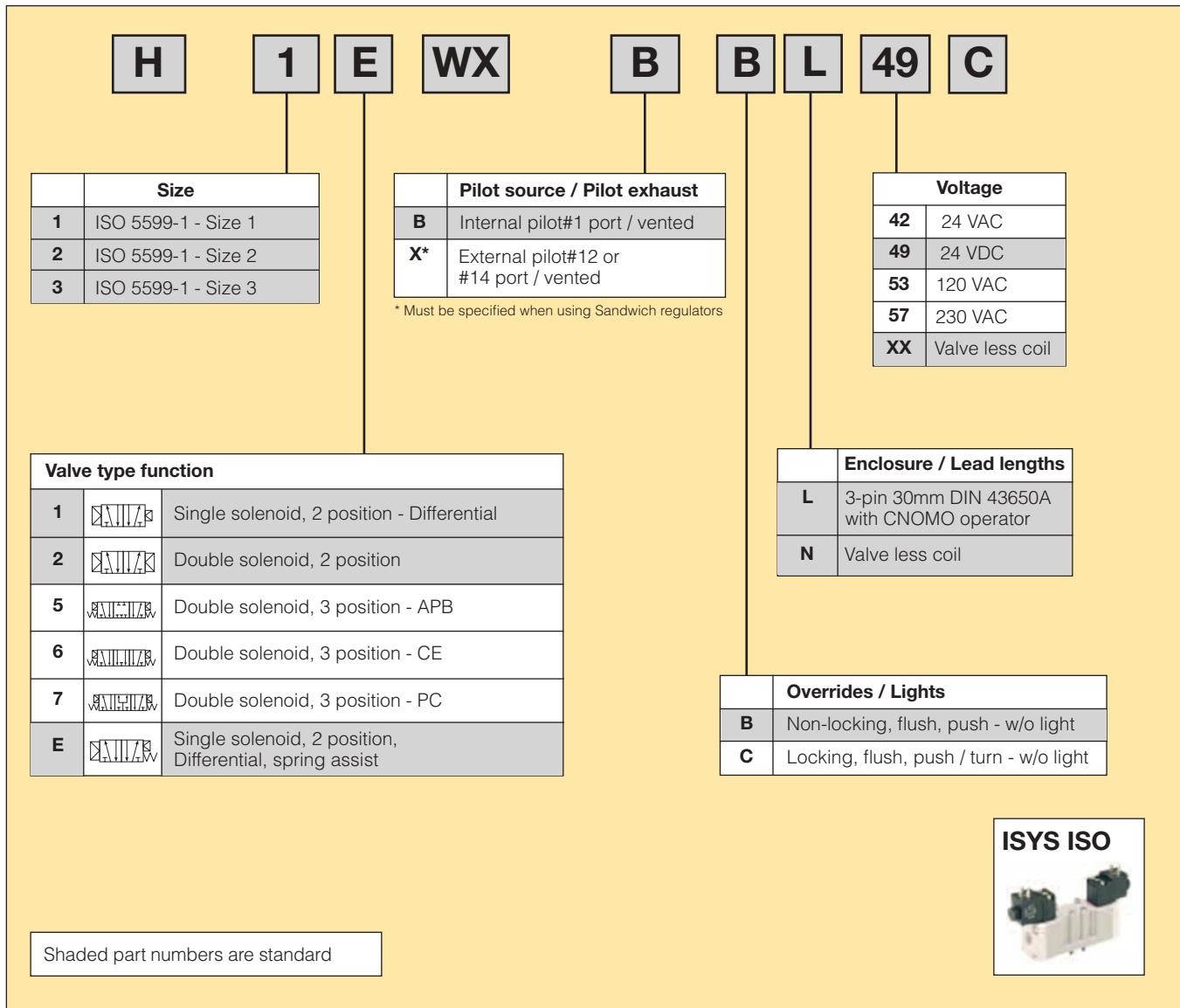
### Order chart



**Solenoid operated ISO plug-in valve, 24VDC**

Manual override non locking, Led &amp; surge suppressor

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
<b>5/2 Valves</b>							
	02 - 18mm 01 - 26mm	Electrical signal Electrical signal	Spring & Diff. Spring & Diff.	3,1 3,1	20/40 20/45	0.13 0.23	<b>HBEVXBG0G9A</b> <b>HAEVXBG0G9A</b>
	02 - 18mm 01 - 26mm	Electrical signal Electrical signal	Differential Differential	2,7 2,7	15/40 15/50	0.13 0.23	<b>HB1VXBG0G9A</b> <b>HA1VXBG0G9A</b>
	02 - 18mm 01 - 26mm	Electrical signal Electrical signal	Electrical signal Electrical signal	1,7 1,7	10 10	0.145 0.245	<b>HB2VXBG0G9A</b> <b>HA2VXBG0G9A</b>
<b>5/3 Valves</b>							
	02 - 18mm 01 - 26mm	Electrical signal Closed center	Electrical signal Self centering	2,4 2,4	15/60 15/50	0.145 0.245	<b>HB5VXBG0G9A</b> <b>HA5VXBG0G9A</b>
	02 - 18mm 01 - 26mm	Electrical signal Vented center	Electrical signal Self centering	2,4 2,4	15/60 15/50	0.145 0.245	<b>HB6VXBG0G9A</b> <b>HA6VXBG0G9A</b>
	02 - 18mm 01 - 26mm	Electrical signal Press. center	Electrical signal Self centering	2,4 2,4	15/60 15/50	0.145 0.245	<b>HB7VXBG0G9A</b> <b>HA7VXBG0G9A</b>

**ISYS ISO - ISO 5599-1 - CNOMO - Size 1 / 2 / 3****Order chart**

**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	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
<b>5/2 Valves</b>							
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Spring & Diff. Spring & Diff. Spring & Diff.	3,1/2,5 3,1/2,1 3,8/3,3	25/35 40/70 70/80	0.77 1.19 1.47	H1EWXBBL49C H2EWXBBL49C H3EWXBBL49C
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Differential Differential Differential	1,7/1,9 2,4/1,7 3,5/2,4	25/45 35/80 55/85	0.77 1.19 1.47	H11WXBBL49C H21WXBBL49C H31WXBBL49C
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Electrical signal Electrical signal Electrical signal	1,7 1,7 2,4	15 20 25	0.94 1.36 1.64	H12WXBBL49C H22WXBBL49C H32WXBBL49C
<b>5/3 Valves</b>							
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Closed center	Electrical signal Self centering	2,4 3,5 3,5	15/60 30/75 23/80	0.94 1.36 1.64	H15WXBBL49C H25WXBBL49C H35WXBBL49C
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Vented center	Electrical signal Self centering	2,4 3,5 3,5	15/60 30/75 23/80	0.94 1.36 1.64	H16WXBBL49C H26WXBBL49C H36WXBBL49C
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Press. center	Electrical signal Self centering	2,4 3,5 3,5	15/60 30/75 23/80	0.94 1.36 1.64	H17WXBBL49C H27WXBBL49C H37WXBBL49C

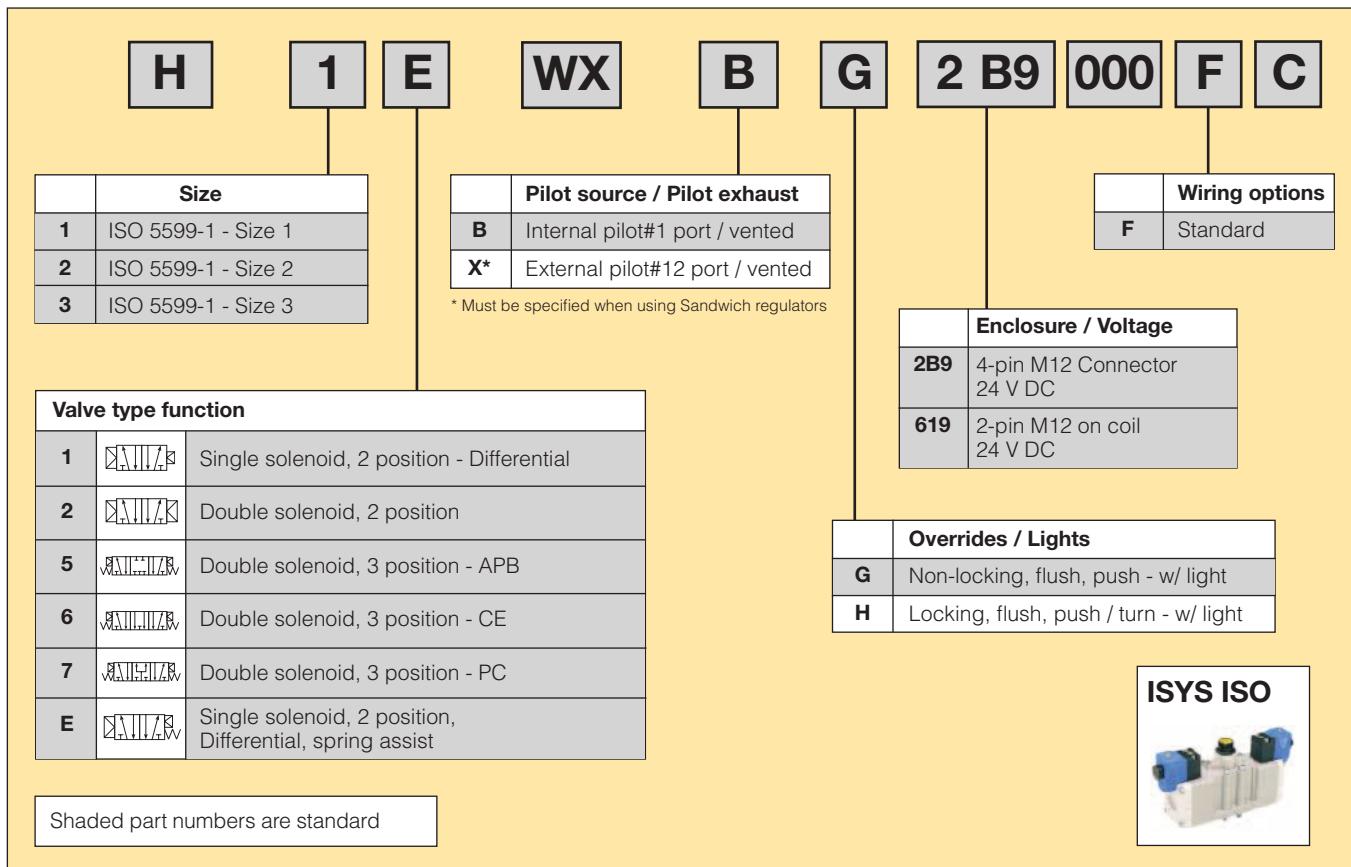
**Solenoid operated ISO valve fitted with CNOMO operator without coil**

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

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
<b>5/2 Valves</b>							
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Spring & Diff. Spring & Diff. Spring & Diff.	3,1/2,5 3,1/2,1 3,8/3,3	25/35 40/70 70/80	0.65 1.07 1.35	H1EWBBNXXC H2EWBBNXXC H3EWBBNXXC
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Differential Differential Differential	1,7/1,9 2,4/1,7 3,5/2,4	25/45 35/80 55/85	0.65 1.07 1.35	H11WXBBNXXC H21WXBBNXXC H31WXBBNXXC
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Electrical signal Electrical signal Electrical signal	1,7 1,7 2,4	15 20 25	0.7 1.12 1.4	H12WXBBNXXC H22WXBBNXXC H32WXBBNXXC
<b>5/3 Valves</b>							
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Closed center	Electrical signal Self centering	2,4 3,5 3,5	15/60 30/75 23/80	0.7 1.12 1.4	H15WXBBNXXC H25WXBBNXXC H35WXBBNXXC
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Vented center	Electrical signal Self centering	2,4 3,5 3,5	15/60 30/75 23/80	0.7 1.12 1.4	H16WXBBNXXC H26WXBBNXXC H36WXBBNXXC
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Press. center	Electrical signal Self centering	2,4 3,5 3,5	15/60 30/75 23/80	0.7 1.12 1.4	H17WXBBNXXC H27WXBBNXXC H37WXBBNXXC

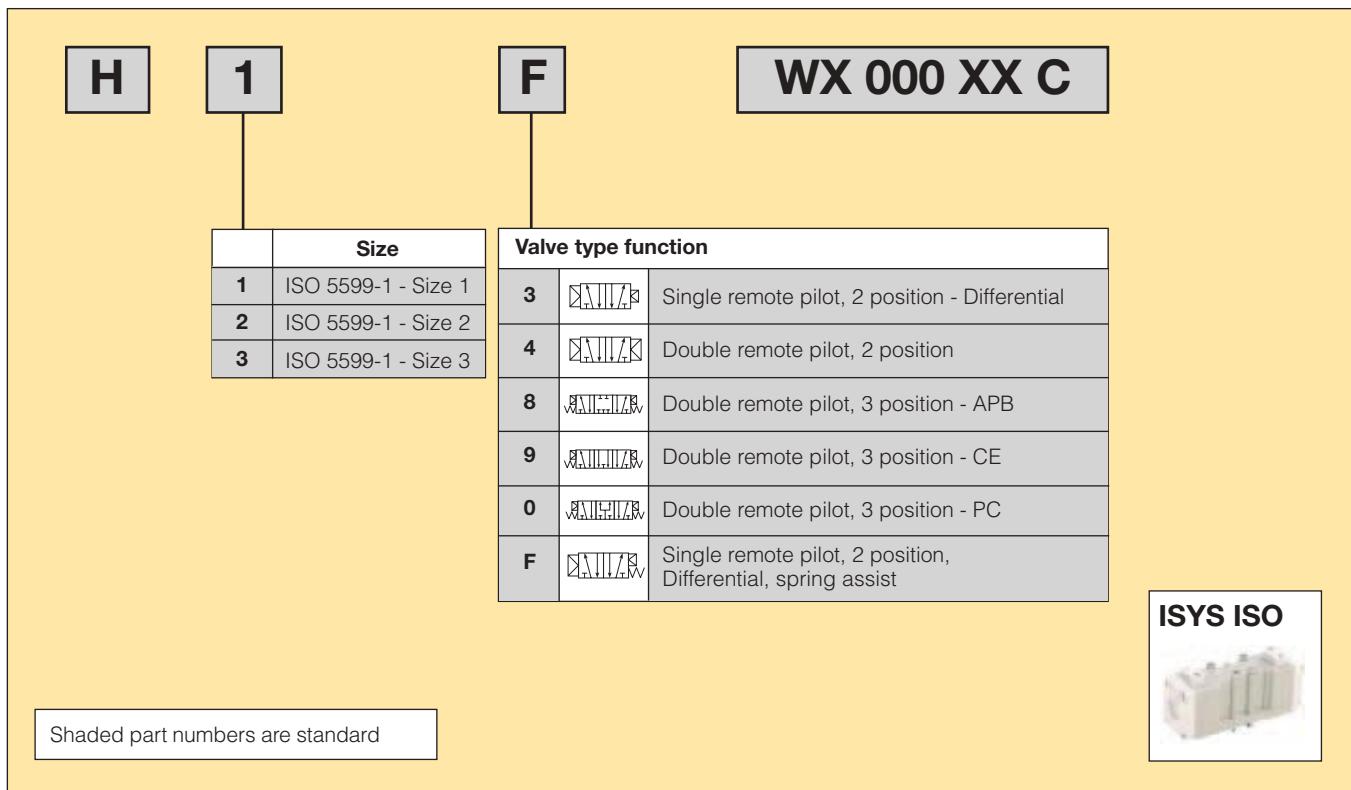
# **ISYS ISO 5599-1 Size 1 / 2 / 3 Central Connection**

## Order chart



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

## Order chart



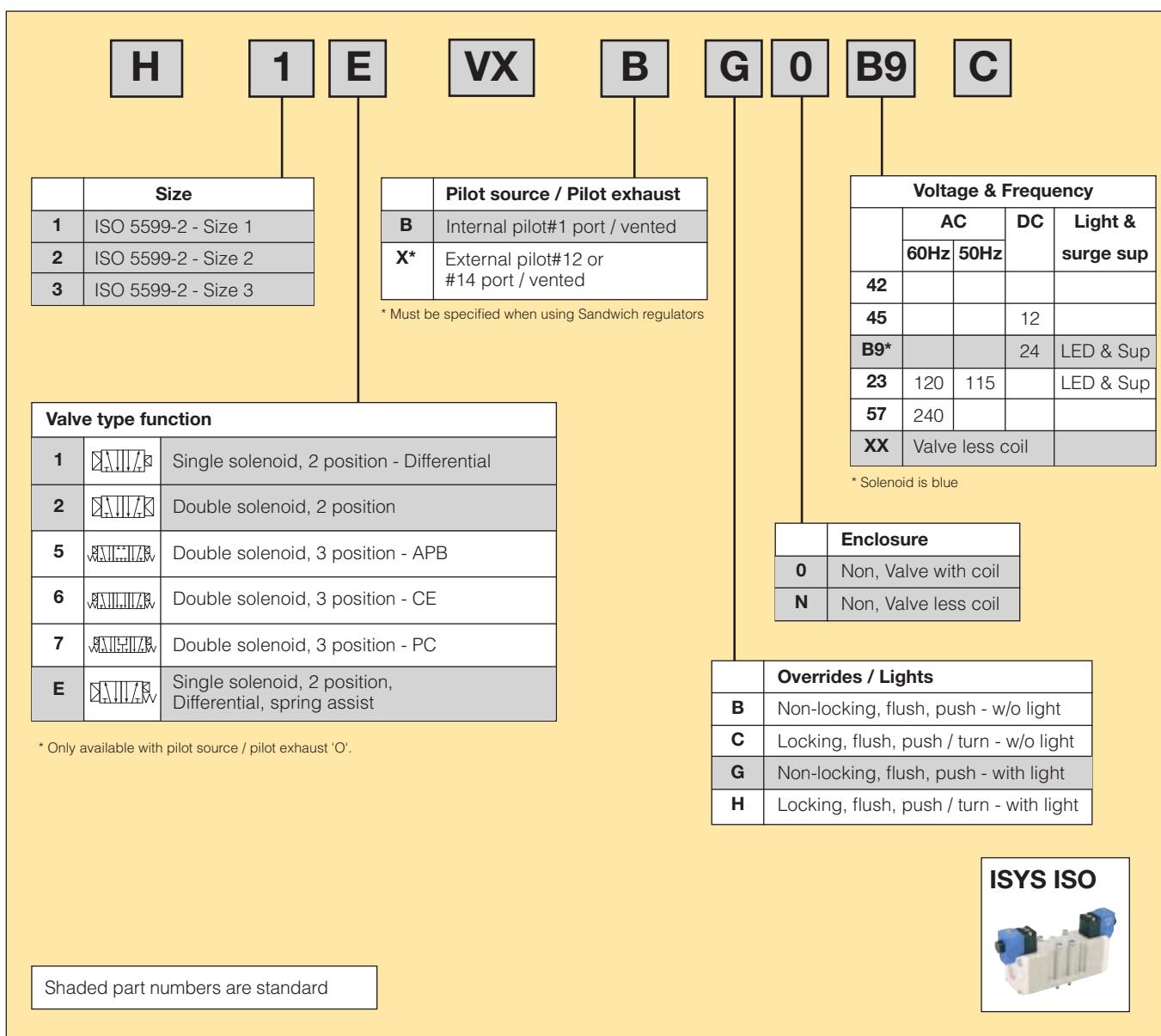
**Solenoid operated ISO valve, 24VDC, central M12 connection**

Oriented side 14, Led &amp; surge suppressor

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
<b>5/2 Valves</b>							
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Spring & Diff. Spring & Diff. Spring & Diff.	3,1/2,5 3,1/2,1 3,8/3,3	30/40 45/70 75/80	0.77 1.29 1.57	H1EWXBG2B9000FC H2EWXBG2B9000FC H3EWXBG2B9000FC
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Differential Differential Differential	1,7/1,9 2,4/1,7 3,5/2,4	30/50 40/80 60/85	0.77 1.29 1.57	H11WXBG2B9000FC H21WXBG2B9000FC H31WXBG2B9000FC
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Electrical signal Electrical signal Electrical signal	1,7 1,7 2,4	20 25 30	1.04 1.46 1.74	H12WXBG2B9000FC H22WXBG2B9000FC H32WXBG2B9000FC
<b>5/3 Valves</b>							
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Closed center	Electrical signal Self centering	2,4 3,5 3,5	20/65 35/80 40/85	1.04 1.46 1.74	H15WXBG2B9000FC H25WXBG2B9000FC H35WXBG2B9000FC
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Vented center	Electrical signal Self centering	2,4 3,5 3,5	20/65 35/80 40/85	1.04 1.46 1.74	H16WXBG2B9000FC H26WXBG2B9000FC H36WXBG2B9000FC
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Press. center	Electrical signal Self centering	2,4 3,5 3,5	20/65 35/80 40/85	1.04 1.46 1.74	H17WXBG2B9000FC H27WXBG2B9000FC H37WXBG2B9000FC

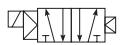
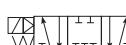
**Pneumatic operated ISO valve without manual override**

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
<b>5/2 Valves</b>							
	1 - 43mm 2 - 56mm 3 - 71mm	Air signal Air signal Air signal	Spring & Diff. Spring & Diff. Spring & Diff.	3,1/2,5 3,1/2,1 3,8/3,3	20/30 35/70 65/75	0.6 1.02 1.3	H1FWX000XXC H2FWX000XXC H3FWX000XXC
	1 - 43mm 2 - 56mm 3 - 71mm	Air signal Air signal Air signal	Differential Differential Differential	1,7/1,9 2,4/1,7 3,5/2,4	20/40 30/80 50/85	0.6 1.02 1.3	H13WX000XXC H23WX000XXC H33WX000XXC
	1 - 43mm 2 - 56mm 3 - 71mm	Air signal Air signal Air signal	Air signal Air signal Air signal	1,7 1,7 2,4	12 16 20	0.6 1.02 1.3	H14WX000XXC H24WX000XXC H34WX000XXC
<b>5/3 Valves</b>							
	1 - 43mm 2 - 56mm 3 - 71mm	Air signal Closed center	Air signal Self centering	2,4 3,5 3,5	15/55 20/70 30/80	0.6 1.12 1.3	H18WX000XXC H28WX000XXC H38WX000XXC
	1 - 43mm 2 - 56mm 3 - 71mm	Air signal Vented center	Air signal Self centering	2,4 3,5 3,5	15/55 20/70 30/80	0.6 1.02 1.3	H19WX000XXC H29WX000XXC H39WX000XXC
	1 - 43mm 2 - 56mm 3 - 71mm	Air signal Press. center	Air signal Self centering	2,4 3,5 3,5	15/55 20/70 30/80	0.6 1.02 1.3	H10WX000XXC H20WX000XXC H30WX000XXC

**ISYS ISO - 5599-2 - Size 1 / 2 / 3 - Plug in****Order chart****Subbase & Manifolds - See page \*\***

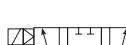
**Solenoid operated ISO valve, 24VDC, Plug-in**

Led &amp; surge suppressor

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
<b>5/2 Valves</b>							
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Spring & Diff. Spring & Diff. Spring & Diff.	3,1/2,5 3,1/2,1 3,8/3,3	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	1,7/1,9 2,4/1,7 3,5/2,4	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	1,7 1,7 2,4	20 25 30	0.94 1.36 1.64	H12VXBG0B9C H22VXBG0B9C H32VXBG0B9C
<b>5/3 Valves</b>							
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Closed center	Electrical signal Self centering	2,4 3,5 3,5	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	2,4 3,5 3,5	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	2,4 3,5 3,5	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**

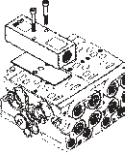
coil have to be ordered separately, see page 40

Symbol	Size	Actuation	Return	Signal pressure min. (bar) at 6 bar actua./return	Changeover time (ms) at 6 bar actua./return	Weight Kg	Order code
<b>5/2 Valves</b>							
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Electrical signal Electrical signal	Spring & Diff. Spring & Diff. Spring & Diff.	3,1/2,5 3,1/2,1 3,8/3,3	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	1,7/1,9 2,4/1,7 3,5/2,4	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	1,7 1,7 2,4	20 25 30	0.7 1.12 1.4	H12VXBGNXXC H22VXBGNXXC H32VXBGNXXC
<b>5/3 Valves</b>							
	1 - 43mm 2 - 56mm 3 - 71mm	Electrical signal Closed center	Electrical signal Self centering	2,4 3,5 3,5	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	2,4 3,5 3,5	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	2,4 3,5 3,5	20/65 35/80 40/85	0.7 1.12 1.4	H17VXBGNXXC H27VXBGNXXC H37VXBGNXXC

## Side ported subbase

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

## Side ported manifold

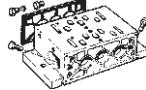
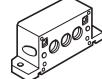
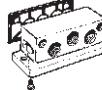
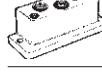
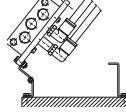
Description	Port size	Weight	Order code BSPP "G"	Order code NPT
				
<b>Two station manifold base with side ports</b> To suit valves with internal supply solenoid				
Size 02	G1/8	0.14	<b>PJLP02-201-70</b>	<b>PJLP02-201-80</b>
Size 01	G1/4	0.7	<b>PJLP01-202-70</b>	<b>PJLP01-202-80</b>
<b>Two station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

\* Use with PJLP02  
 \*\* Use with PJLP01 or PJL01  
 Gaskets and assembly hardware included.

## Accessories

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

## Bottom ported manifolds

Accessories	Designation	Weight (kg)	Order code (P2V-A, 18 mm)	Weight (kg)	Order code (P2V-B, 26 mm)
	<b>Multiple manifold</b> 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
	<b>Multiple manifold</b> 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
	<b>Intermediate manifold, 18 to 26 mm</b> 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
	<b>Connection block</b> G-side, including seal and fitting screws. For side connection.	0,18	P2V-AM512GS	0,21	P2V-BM513GS
	<b>Connection block</b> H-side. For side connection.	0,18	P2V-AM512HS	0,21	P2V-BM513HS
	<b>Connection block</b> G-side, including seal and fitting screws. For top connection.	0,18	P2V-AM512GT	0,21	P2V-BM513GT
	<b>Connection block</b> H-side. For top connection.	0,18	P2V-AM512HT	0,21	P2V-BM513HT
	<b>Connection block</b> G-side, including seal and fitting screws. For bottom connection.	0,18	P2V-AM512GB	0,22	P2V-BM513GB
	<b>Connection block</b> H-side. For bottom connection.	0,18	P2V-AM512HB	0,22	P2V-BM513HB
	<b>End cover</b> G-side, including seal and fitting screws.	0,19	P2V-AM500GO	0,24	P2V-BM500GO
	<b>End cover</b> H-side	0,19	P2V-AM500HO	0,24	P2V-BM500HO
	<b>Plug</b> For sealing supply and exhaust air ducts between multiple manifolds with different primary supply pressures.	0,004	P2V-AK0P	0,01	P2V-BK0P
	<b>Angle mounting set</b> 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
	<b>O-ring strip seal</b> 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
	G1/4	<b>PS551154CP</b>
<b>Manifold with two single solenoid valve positions with single address board</b> Size 02 - 18mm Size 01 - 26mm	G1/8 G1/4	<b>PS561152JP</b> <b>PS551154JP</b>
<b>Manifold with two valve positions with double address board</b> Size 02 - 18mm Size 01 - 26mm	G1/8 G1/4	<b>PS561152MP</b> <b>PS551154MP</b>
<b>Extension Manifold with two valve positions with single address board *</b> Size 02 - 18mm Size 01 - 26mm	G1/8 G1/4	<b>PS561152NP</b> <b>PS551154NP</b>
<b>Extension Manifold with two valve positions with double address board *</b> Size 02 Size 01	G1/8 G1/4	<b>PS561152PP</b> <b>PS551154PP</b>

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

## Side & bottom ported manifold

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

## Accessories

Description	Order code
	<b>PS5634P</b> <b>PS5534P</b>
<b>Manifold to Manifold gasket kit</b> HA & HB Gasket Standard HA & HB Gasket 1 Blocked HA & HB Gasket 1 2 3 Blocked	<b>PS561AP</b> <b>PS561BP</b> <b>PS561CP</b>



Indicates stocked product.

## Collective wiring end plate kits

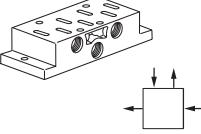
Description	Port size	Order code
		
<b>Left &amp; right ends modules with pressure &amp; exhaust port, auxiliary port , and non collective wiring (only for PS551154CP)</b> Size 02 / 01	G3/8	<b>PS5631011P</b>
		
<b>Left &amp; right ends modules with pressure &amp; exhaust port, auxiliary port , and SubD25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

## Accessories

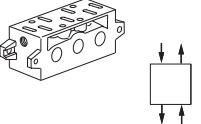
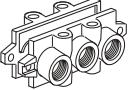
Description	Port size	Order code
		
<b>32 output driver module for spare part</b>		<b>PSSV32A</b>
		
<b>HA &amp; HB 24 Out Cable</b> Size 02 / 01	G3/8	<b>PS5624P</b>
		
<b>HA &amp; HB 32 Out cable</b> Size 02 / 01	G3/8	<b>PS5632P</b>
		
<b>25 pin female 25 pin SubD25 cable 3m</b>		<b>P8LMH25M3A</b>

## ISO 5599-1 Subbase & Manifolds

### VDMA Side Ported Subbases

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

### VDMA Bottom Ported Manifold

Description	Size	Port size	Weight	Order code
 <b>VDMA Form C</b> Bottom port according to VDMA	1 - 43mm	G1/4	0.24	<b>P2N-VM512MB</b>
Bottom port according to VDMA	2 - 56mm	G3/8	0.36	<b>P2N-WM513MB</b>
Bottom port according to VDMA	3 - 71mm	G1/2	0.70	<b>P2N-YM514MB</b>
<b>VDMA Transition plate</b> Size 1 to Size 3 <b>Kit includes:</b> Transition plate only	1 to 3	G1/4		<b>P2N-VM500AK</b>
 <b>VDMA Form D - End plate</b> According to VDMA According to VDMA	1 - 43mm 2 - 56mm According to VDMA3 - 71mm	G3/8 G1/2 G1	0.21 0.36 0.68	<b>P2N-VM513ES</b> <b>P2N-WM514ES</b> <b>0.68 P2N-YM518ES</b>
<b>VDMA Isolation - Main galley</b> According to VDMA According to VDMA According to VDMA <b>Kit includes:</b> (1) Isolator plug.	1 - 43mm 2 - 56mm 3 - 71mm			<b>P2N-VK0P</b> <b>P2N-WK0P</b> <b>P2N-YK0P</b>

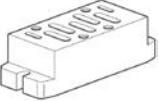
### Accessories

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

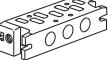
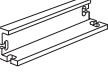
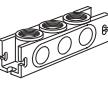
## Side ported subbases

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

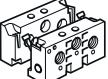
## Bottom ported subbases

Description	Size	Port size	Weight	Order code BSP	Order code NPT
					
<b>Single subbase</b> 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	<b>PD1-1/4-70</b> <b>PD2-3/8-70</b> <b>PD3-1/2-70</b>	<b>PD1-1/4-80</b> <b>PD2-3/8-80</b>

## Size 1 bottom ported manifold

Description	Size	Port size	Weight	Order code
 	<b>Manifold</b> with bottom ports low profile	1 - 43mm	G1/4	0.2
 	<b>Connecting block</b> Top or bottom ported connecting block for above manifold "low profile"	1 - 43mm	G3/8	0.15
 	<b>End</b> End piece for above manifold "low profile"	1 - 43mm	no	0.06
 	<b>Intermediate supply</b> Top or bottom ported intermediate supply for above manifold "low profile"	1 - 43mm	G3/8	0.14
 	<b>Isolation plugs</b> isolating seal for above manifold "low profile"	1 - 43mm		0.07

## Sizes 1 & 2 side ported manifold

Description	Size	Port size	Weight	Order code
 	<b>Manifold</b> Manifold with side port	1 - 43mm 2 - 56mm	G1/4 G3/8	0.24 0.21
 	<b>End</b> Side ported connecting kit for above manifold with side ports	1 - 43mm 2 - 56mm	G3/8 G1/2	0.36 0.29

## Side ported manifold

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

## Accessories

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

## Coils for plug in valve

Description	Order code
12 V DC	5599-2 coil <b>PS404145P</b>
24 V DC	5599-2 coil <b>PS4041B9P</b>
24 V AC	5599-2 coil <b>PS404142P</b>
120 V AC	5599-2 coil <b>PS404123P</b>
240 V AC	5599-2 coil <b>PS404157P</b>

## Collective wiring end plate kits

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

## Accessories

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

## 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.

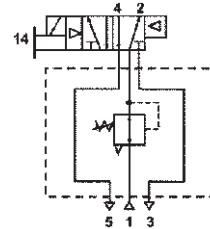


Description	Order code
Gauge kit	<b>PS5651160P</b>

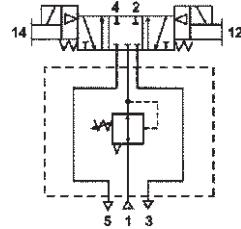
### HB & HA Common Port Regulation

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	<b>PS5638133P</b>	<b>PS5637133P</b>
Size 26mm	<b>PS5538133P</b>	<b>PS5537133P</b>

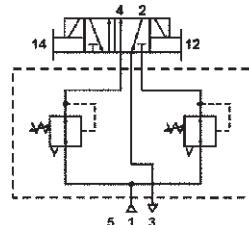
### HB & HA Independent Port Regulation

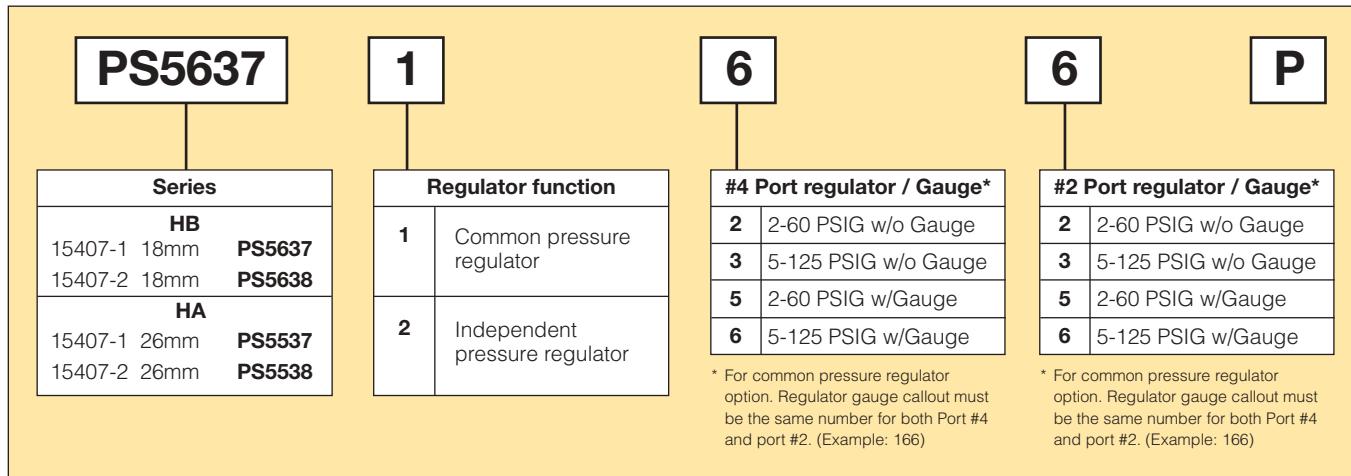
#### Dual Port Regulator

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)

**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	<b>15407-2</b>	<b>15407-1</b>
Size 18mm	<b>PS5635P</b>	<b>PS5642P</b>
Size 26mm	<b>PS5535P</b>	<b>PS5542P</b>

## 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.

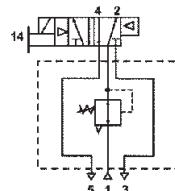


Description	Order code
Gauge kit	<b>PS5651160P</b>

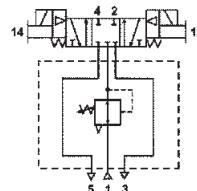
### ISYS ISO 1 / 2 / 3 Common Port Regulation

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
<b>PS4038133CP</b>	<b>PS4037133CP</b>

### ISYS ISO 1 / 2 / 3 Independent Port Regulation

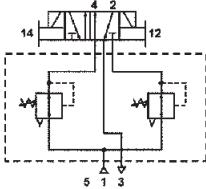
#### Dual Port Regulator or Single Port Regulator

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.

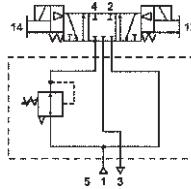


When using an independent Pressure Sandwich Regulator, the cylinder outlet ports are reversed. The 12 end energizes the #2 port. The 3-Position CE and PC functions are also reversed. (See schematics on right).

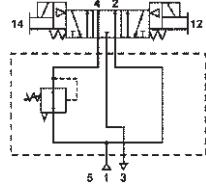
Independent dual port regulator with 4-way, 2-position double solenoid valve



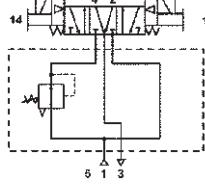
Independent port regulator with 4-way, 3-position all ports blocked valve



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



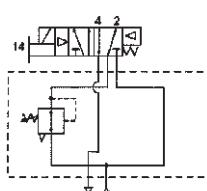
Independent port regulator with 4-way, 3-position cylinder to exhaust function



### 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)

<b>PS4037</b>	<b>1</b>	<b>6</b>	<b>6</b>	<b>C</b>	<b>P</b>
<b>Series</b>	<b>Regulator function</b>	<b>#4 Port regulator / Gauge*</b>	<b>#2 Port regulator / Gauge*</b>		
<b>ISYS ISO Size 1</b> 5599-1 <b>PS4037</b> 5599-2 <b>PS4038</b>	<b>1</b> Common pressure regulator	<b>0</b> Line By-Pass Plate** <b>1</b> 1-30 PSIG w/o Gauge <b>2</b> 2-60 PSIG w/o Gauge <b>3</b> 5-125 PSIG w/o Gauge <b>4</b> 1-30 PSIG w/Gauge <b>5</b> 2-60 PSIG w/Gauge <b>6</b> 5-125 PSIG w/Gauge <b>C</b> Air Pilot w/60 PSIG Gauge <b>D</b> Air Pilot w/60 PSIG Gauge	<b>0</b> Line By-Pass Plate** <b>1</b> 1-30 PSIG w/o Gauge <b>2</b> 2-60 PSIG w/o Gauge <b>3</b> 5-125 PSIG w/o Gauge <b>4</b> 1-30 PSIG w/Gauge <b>5</b> 2-60 PSIG w/Gauge <b>6</b> 5-125 PSIG w/Gauge <b>C</b> Air Pilot w/60 PSIG Gauge <b>D</b> Air Pilot w/60 PSIG Gauge		
<b>ISYS ISO Size 2</b> 5599-1 <b>PS4137</b> 5599-2 <b>PS4138</b>	<b>2</b> Independent pressure regulator				
<b>ISYS ISO Size 3</b> 5599-1 <b>PS4237</b> 5599-2 <b>PS4238</b>	<b>3</b> Selector Regulator				

\* 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).

\* 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**

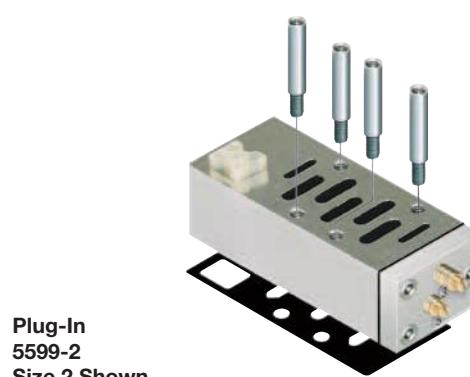
An External Pilot pressure in Port 12 or 14 of the base feeds thru the Sandwich Regulator 12 or 14 galley directly to the 12/14 pilot of the valve.

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**

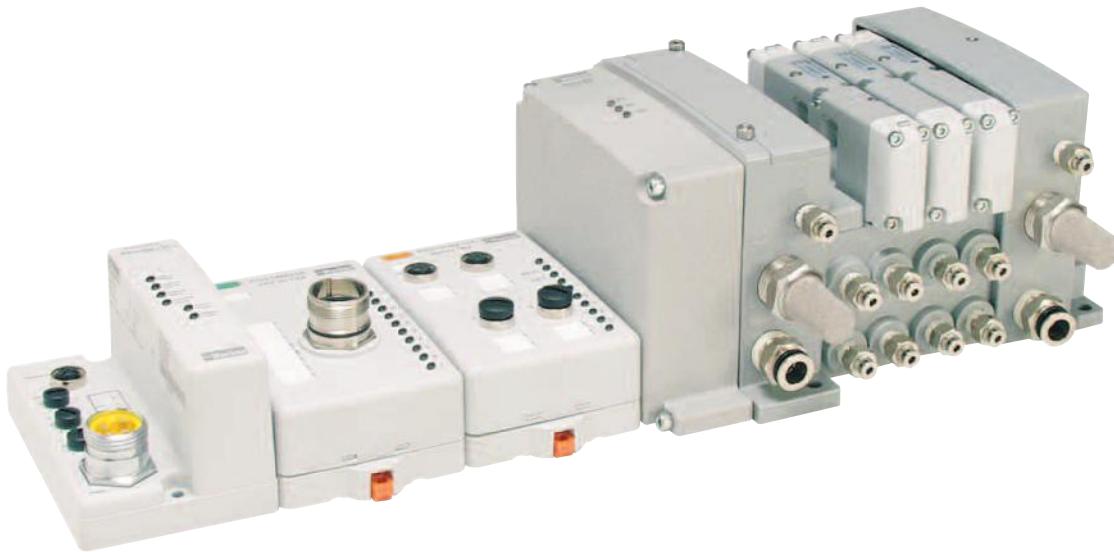
- Both adjustment screws are located on the 12 end of the unit.
- Sandwich Flow Control mounts with its own studs, which means the valve uses standard bolts for mounting.

Size	Order code	
	Plug-in	Non Plug-in
	<b>5599-2</b>	<b>5599-1</b>
Size 1	<b>PS4035CP</b>	<b>PS4042CP</b>
Size 2	<b>PS4135CP</b>	<b>PS4142CP</b>
Size 3	<b>PS4235CP</b>	<b>PS4242CP</b>



## 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™**

**PROFI**  
PROCESS FIELD BUS  
**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

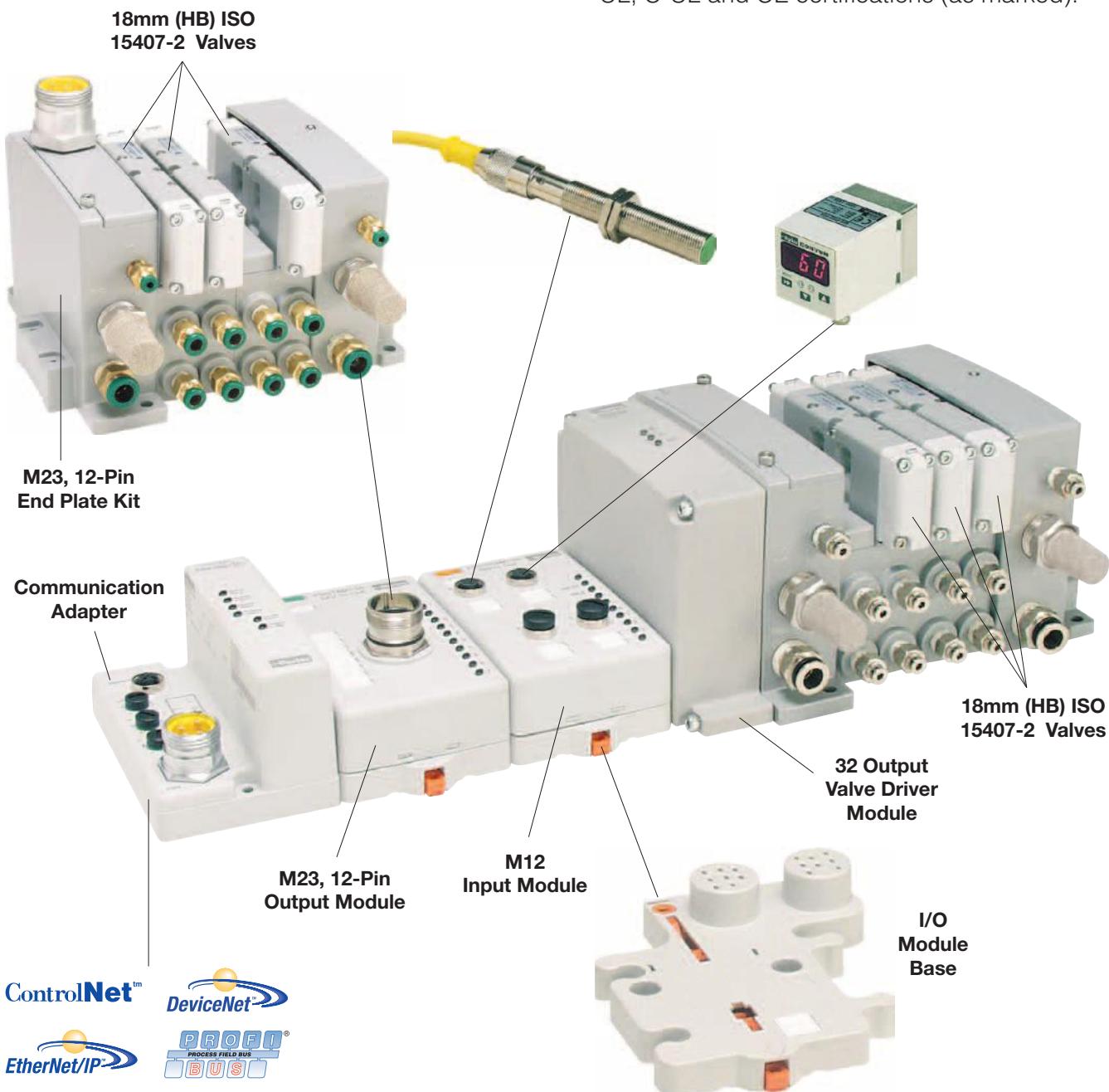
ISYSNET features are impacted by your network choice.

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).

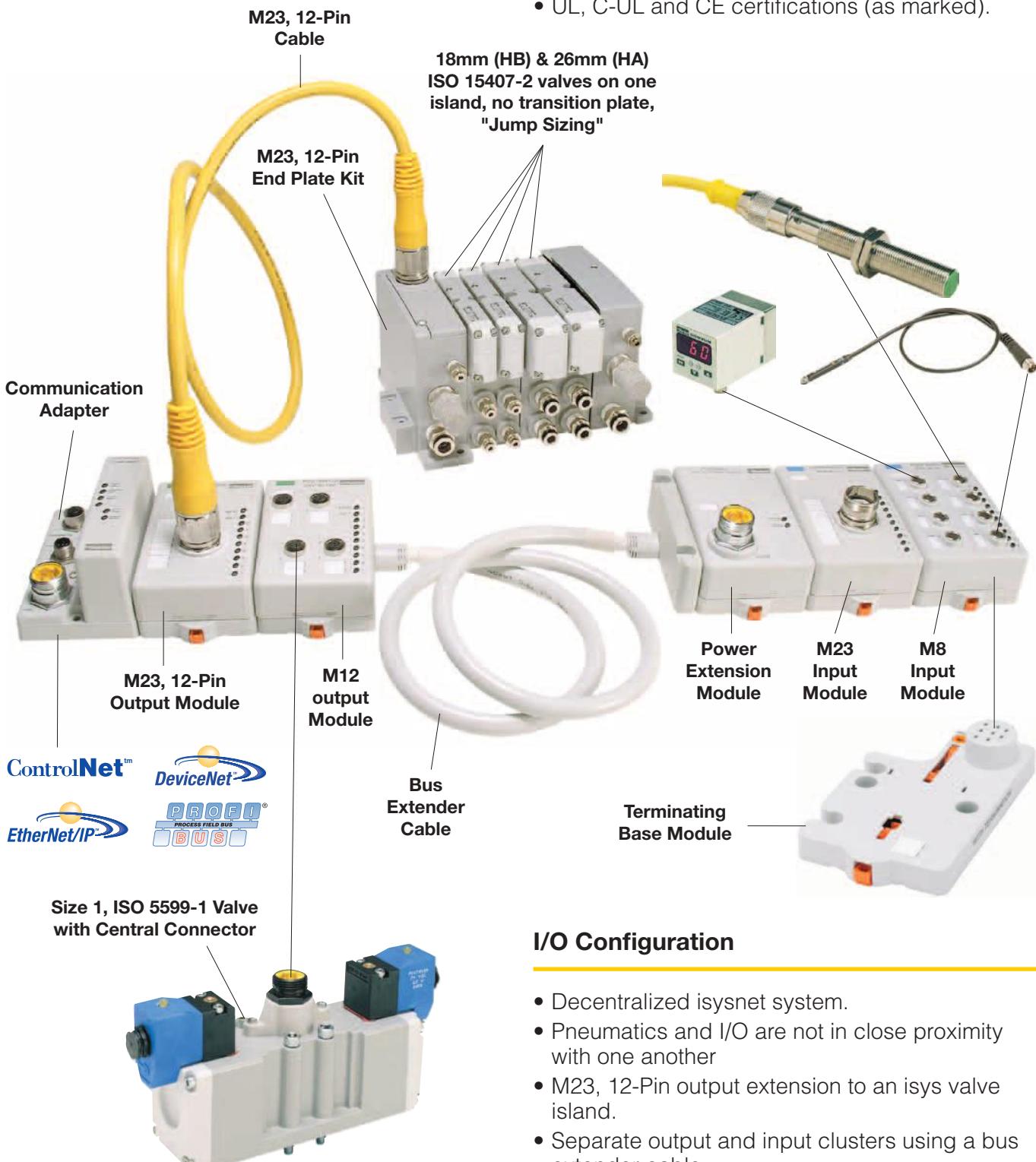


### I/O Configuration

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

\* 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](http://www.parker.com/pneu/isysnet)

## I/O Modules



PSST8M12A



PSST8M23A



PSSNACM12A



PSSTACM12A



PSSN8M8A

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

\* 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](http://www.parker.com/pneu/isysnet)

## Valve Driver Modules

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

\* Reference Document E100P for Installation Instructions.  
See [www.parker.com/pneu/isysnet](http://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**      24VDC

A Power Extender Module must be used on every 12th Module in an isysnet assembly. See [www.parker.com/pneu/isysnet](http://www.parker.com/pneu/isysnet)

Reference Document E105P and PSS-SG001 for configuration instructions. See [www.parker.com/pneu/isysnet](http://www.parker.com/pneu/isysnet)



**PSSSE24A**

## Bus Extender Cable

1 Meter Cable*	<b>PSSEXT1</b>	24VDC
3 Meter Cable*	<b>PSSEXT3</b>	24VDC

\* Requires a PSSSE24 Power Extender Module.

IP67 Certified

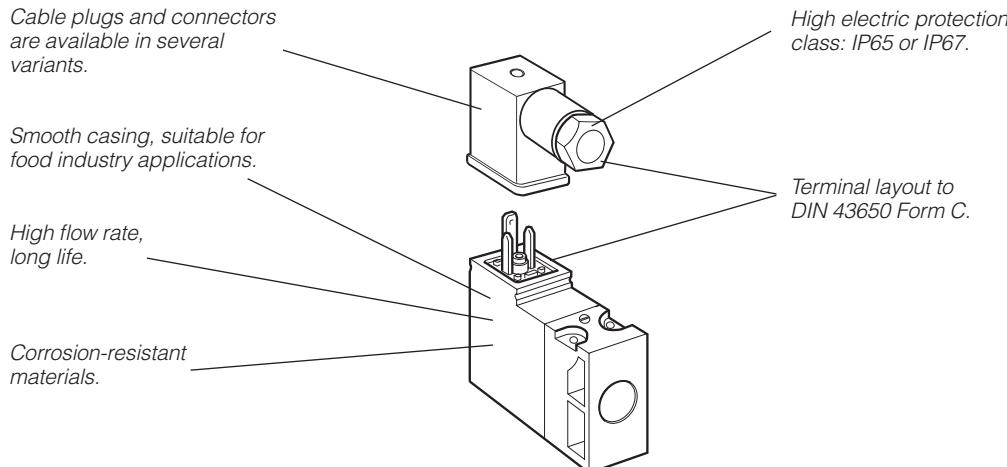
Reference the following Documents for Installation Instructions.  
E117P

See [www.parker.com/pneu/isysnet](http://www.parker.com/pneu/isysnet)



**PSSEXT1**

## Solenoid operators - 15mm



### 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 V DC and 1.6 VA at 24 V AC, 115 V AC and 230 V AC.

#### 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)

<b>P 2 E -</b>	<b>Q</b>	<b>V</b>	<b>3</b>	<b>2</b>	<b>C</b>	<b>3</b>	
<b>Valve family</b>							
<b>P2E</b> Solenoid operator							
<b>Subfamily</b>							
Solenoid operator, 15 mm wide Electric connection acc. to ISO 15217 Form C El/supply connection on opposite side							
<b>K</b>	Standard version						
<b>M</b>	Mobile version						
<b>Q</b>	Food industry version						
<b>Type of current</b>							
<b>1</b> AC 50 Hz							
<b>2</b> DC							
<b>4</b> AC 50/60 Hz							
<b>5</b> Mobile and wide band only							
<b>Valvetype/Function</b>							
<b>3</b>  3/2 valve, normally closed (NC)							
<b>Voltage</b>							
<b>B</b> 12 V							
<b>C</b> 24 V							
<b>D</b> 48 V							
<b>F</b> 115 V*							
<b>J</b> 230 V*							
<b>W</b> 37,5 V**							
<b>T</b> 72 V**							
<b>Y</b> 78 V**							
<b>V</b> 96 V**							
<b>E</b> 110 V**							

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

## Technical data

	<b>NC, Standard</b>	<b>NC, Food<sup>1)</sup></b>	<b>NC, Mobile<sup>2)</sup></b>
Working pressure	0 to 10 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 - IP 67, depending on type of cable plug		
Approval:	Standard solenoids are UL-approved 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

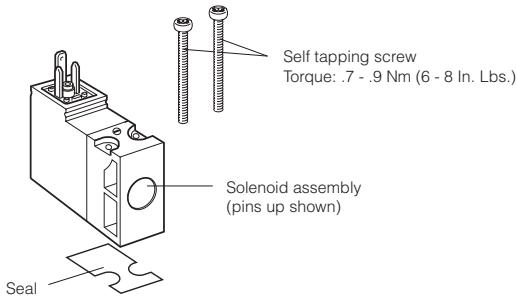
Body, coil casing	Thermoplastic
Internal metal parts	Steel
Screws	Stainless steel
Bottom plug	Thermoplastic
Sealing materials	FPM (Viton™) and nitrile rubber

### Cable head

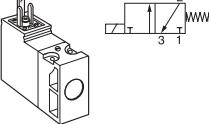
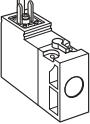
Sheath	Thermoplastic
Retaining screw	Stainless steel, zinc-plated steel

**Solenoid Operators - 15mm**

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

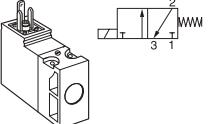
**Solenoids 15 mm NC, standard**

(Note! Mounting screws included in basic valve)

	Voltage	Weight	Order code	Weight	Order code	Weight	Order code
	Kg	Without manual override	Kg	Override, blue, non locking flush	Kg	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
	24 VDC	0,038	P2E-KV32C3	0,038	P2E-KV32C4	0,038	P2E-KV31C4
	24 VAC 50Hz	0,038	P2E-KV31C3	0,038	P2E-KV31C4	0,038	P2E-KV31C4

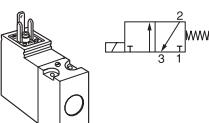
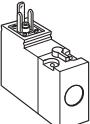
**Solenoids 15 mm NC, mobile**

(Note! Mounting screws included in basic valve)

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

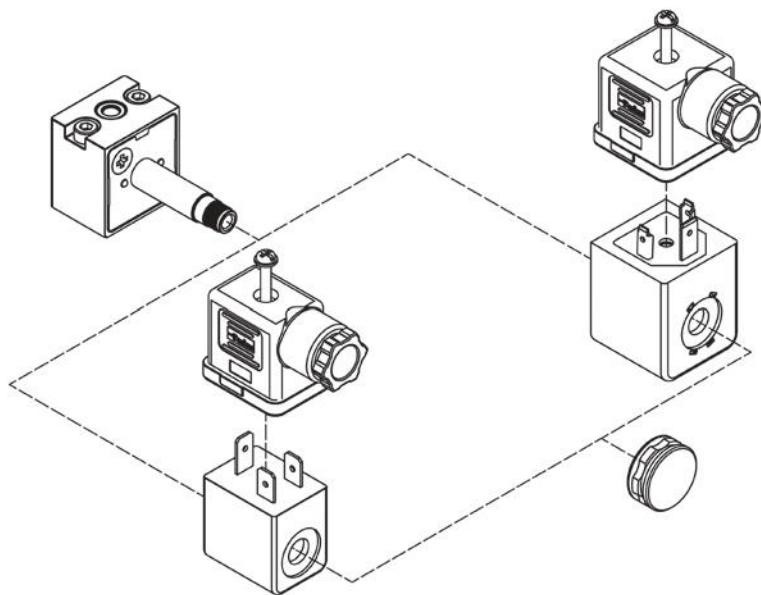
**Solenoids 15 mm NC, food industry version**

(Note! Mounting screws included in basic valve)

	Voltage	Weight	Order code	Weight	Order code	Weight	Order code
	Kg	Without manual override	Kg	Override, blue, non locking flush	Kg	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
	24 VDC	0,038	P2E-QV32C3	0,038	P2E-QV32C4	0,038	P2E-QV31C4
	24 VAC 50Hz	0,038	P2E-QV31C3	0,038	P2E-QV31C4	0,038	P2E-QV31C4
	115 VAC 50 Hz	0,038	P2E-QV31F3	0,038	P2E-QV31F4	0,038	P2E-QV31F4
	230 VAC 50 Hz	0,038	P2E-QV31J3	0,038	P2E-QV31J4	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. Alternative 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 operator, 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 tolerance.

### 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°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

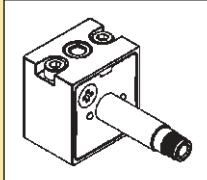
The pilot operators can be supplied with or without manual override. The standard manual override is the monostable (spring return) flush brass override. Alternatively the bistable (locking) override can be specified as an alternative for the Normal duty 10bar option.

### Spares

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

## Solenoid operators - CNOMO

### Order key

<b>P</b>	<b>2</b>	<b>F</b>	<b>P</b>	<b>2</b>	<b>3</b>	<b>N</b>	<b>4</b>	<b>C</b>	
<b>Operator Type</b>					<b>Pressure / Temp</b>				
<b>M</b>					10 bar / -25°C to +50°C				
<b>N</b>					10 bar / -10°C to +50°C				
<b>A</b>					Without manual override				
<b>B</b>					Non locking - monostable - Flush - Brass				
<b>C</b>					Locking - bistable - Flush - Plastic				
<b>Note:</b> 'C' only suitable for 'N' Pressure / Temp									

## Technical data - Solenoid operators, coil combinations

	<b>NC Normal Operator</b> with 30 x 30 standard coil	<b>NC Normal Operator</b> with 22 x 30 standard coil	<b>NC Mobile Metal Operator</b> with 30 x 30 Railway or mobile coil
Working pressure	0 to 10 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 <sup>3</sup> /s	0.84 dm <sup>3</sup> /s	0.7 dm <sup>3</sup> /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	CSA CUS		
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 P2FPF43M4A 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.

### Materials

<b>Pilot Valve</b>	<b>Standard</b>	<b>Mobile</b>
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
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### 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.

## 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	<b>P2FCA445</b>	0.105	<b>P2FCA447</b>	0.105	<b>P2FCB445</b>	0.093
24V DC	<b>P2FCA449</b>	0.105	<b>P2FCA448</b>	0.105	<b>P2FCB449</b>	0.093
48V DC	<b>P2FCA453*</b>	0.105	<b>P2FCA474</b>	0.105	<b>P2FCB451</b>	0.093
72V DC			<b>P2FCA470</b>	0.105		
96V DC			<b>P2FCA471</b>	0.105		
110V DC			<b>P2FCA472</b>	0.105		
Alternative current						
12V 50/60Hz	<b>P2FCA440</b>	0.105			<b>P2FCB440</b>	0.093
24V 50/60Hz	<b>P2FCA442</b>	0.105			<b>P2FCB442</b>	0.093
48V 50/60Hz	<b>P2FCA469#</b>	0.105				
110V 50Hz, 120V 60Hz	<b>P2FCA453</b>	0.105			<b>P2FCB453</b>	0.093
230V 50Hz, 230V 60Hz	<b>P2FCA457</b>	0.105			<b>P2FCB457</b>	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	<b>P2FC6419</b>	0.065	<b>P2FC7419</b>	0.065

## Spare Solenoid Nuts

Valves requiring captured exhaust should be fitted with plastic knurled nut

Order code
<b>P2FNP</b>

Valves with vented exhaust are fitted with diffuser plastic nut

Order Code
<b>P2FND</b>

## 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	<b>P2FP23N4A</b>	0.065	<b>P2FP23N4B</b>	0.065	<b>P2FP23N4C</b>	0.065
Mobile metal	<b>P2FP43M4A</b>	0.1				

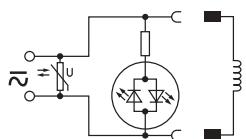
#### Note.

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.**

**Global ISO Series Valves****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	<b>P8C-C</b>		
	24V DC LED and protection IP65	<b>P8C-C26C</b>		
	110V AC LED and protection IP65	<b>P8C-C21E</b>		
With standard screw  	Standard IP65 without flying lead	<b>P8C-D</b>	<b>3EV10V10</b>	<b>3EV290V10</b>
	With LED and protection 24V AC/DC	<b>P8C-D26C</b>	<b>3EV10V20-24</b>	<b>3EV290V20-24</b>
	With LED and protection 110V AC	<b>P8C-D21E</b>	<b>3EV10V20-110</b>	<b>3EV290V20-110</b>
	With LED and protection 230V AC		<b>3EV10V20-230</b>	<b>3EV290V20-230</b>
With cable  	Standard with 2m cable IP65	<b>P8L-C2</b>		
	Standard with 5m cable IP65	<b>P8L-C5</b>		
	24V AC/DC, 2m cable LED and protection IP65	<b>P8L-C226C</b>		
	24V AC/DC, 5m cable LED and protection IP65	<b>P8L-C526C</b>	<b>3EV10V20-24L5</b>	<b>3EV290V20-24L5</b>
	24V AC/DC, 10m cable LED and protection IP65	<b>P8L-CA26C</b>		
	110V AC/DC, 2m cable LED and protection IP65	<b>P8L-C221E</b>		
	110V AC/DC, 5m cable LED and protection IP65	<b>P8L-C521E</b>	<b>3EV10V20-110L5</b>	<b>3EV290V20-110L5</b>
	230V AC, 5m cable LED and protection IP65		<b>3EV10V20-230L5</b>	<b>3EV290V20-230L5</b>



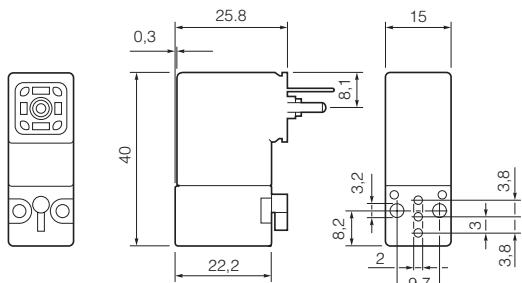
<b>P8C-C</b>
<b>P8C-D</b>
<b>P8L-C2</b>
<b>P8L-C5</b>
<b>3EV10V10</b>
<b>P8C-D26C</b>
<b>P8C-C26C</b>
<b>P8C-D21E</b>
<b>P8L-C526C</b>
<b>P8C-C26C</b>
<b>P8L-CA26C</b>
<b>P8C-C21E</b>
<b>P8L-C221E</b>
<b>3EV10V20-24</b>
<b>3EV10V20-24L5</b>
<b>3EV10V20-110</b>
<b>3EV10V20-110L5</b>
<b>3EV10V20-230</b>
<b>3EV10V20-230L5</b>

<b>P8C-C</b>	<b>P8C-D26C</b>	<b>P8L-C226C</b>
<b>P8C-D</b>	<b>P8C-C26C</b>	
<b>P8L-C2</b>	<b>P8L-CA26C</b>	
<b>P8L-C5</b>	<b>P8L-C221E</b>	
	<b>P8L-C521E</b>	
<b>3EV10V20-24</b>	<b>3EV10V20-24L5</b>	
<b>3EV10V20-110</b>	<b>3EV10V20-110L5</b>	
<b>3EV10V20-230</b>	<b>3EV10V20-230L5</b>	

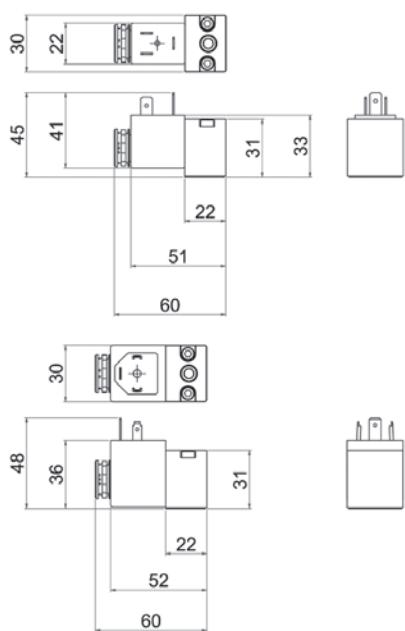
## Global ISO Series Valves

### Cable Plug Dimensions (mm)

#### Solenoid operators P2E - 15mm

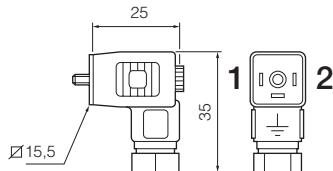


#### Solenoid operators P2F - CNOMO - 22 x 30mm



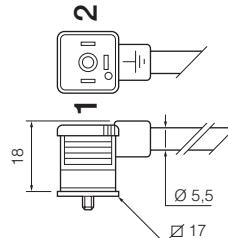
#### Cable plugs

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



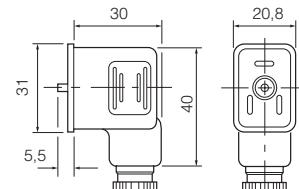
#### Cable plugs

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



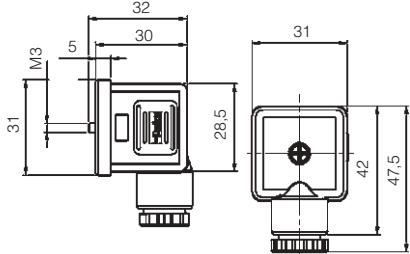
#### Cable plugs

**3EV10V10**



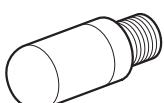
#### Cable plugs

**3EV290V10**

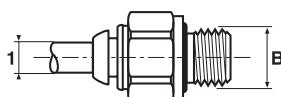


## Accessories

### Silencers



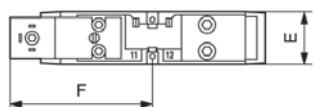
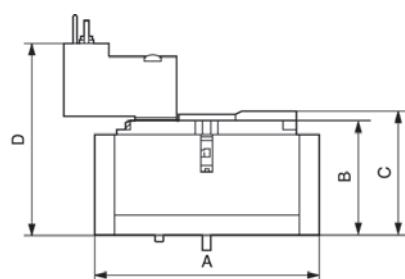
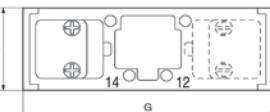
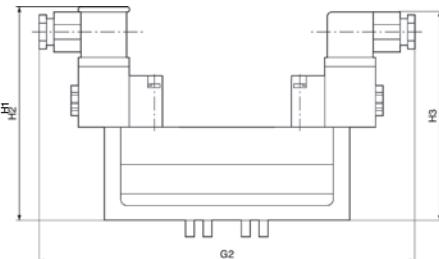
### Fittings



#### Male connector - BSPP

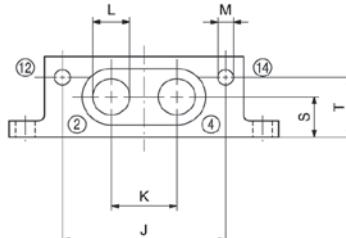
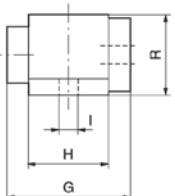
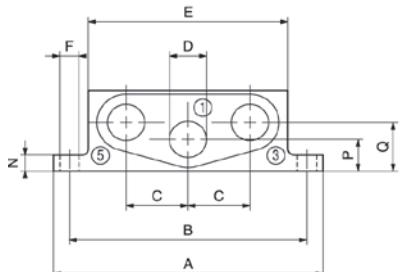
Port	Ordercode	Pack Qty
G1/8	<b>P6M-PAB1</b>	10
G1/4	<b>P6M-PAB2</b>	10
G3/8	<b>P6M-PAB3</b>	10
G1/2	<b>P6M-PAB4</b>	10

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

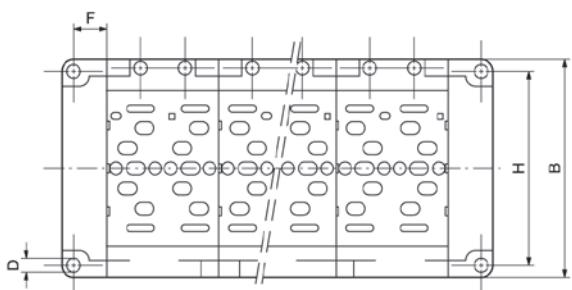
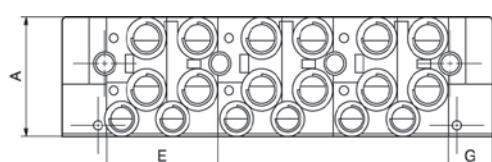
**Isomax - Dimensions (mm)****Pneumatically actuated****With P2F solenoids**

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

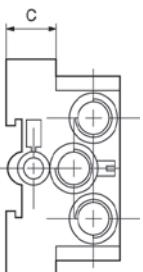
	<b>G</b>	<b>G1</b>	<b>G2</b>	<b>G3</b>	<b>H</b>	<b>H1</b>	<b>I</b>	<b>L</b>
<b>Size 1</b>	120	164	202,5	160	47	119	42	5
<b>Size 2</b>	140	179,5	218	175,5	58,5	130	54	5
<b>Size 3</b>	170	198	235,5	194	71	142,5	68	5

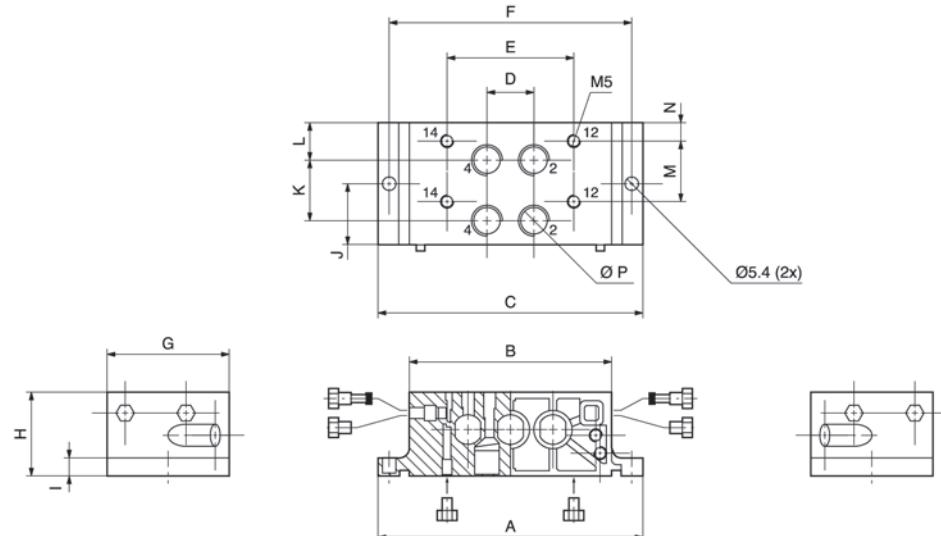
**Single subbases side ported**

	<b>Size</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>I</b>	<b>J</b>	<b>K</b>	<b>L</b>	<b>M</b>	<b>N</b>	<b>P</b>	<b>Q</b>	<b>R</b>	<b>S</b>	<b>T</b>
<b>PL02-01-70</b>	02	80	70	16	G1/8	52	8	27	19	5,5	40	17	G1/8	M5	8	8	8	22	13	6
<b>P2V-BS512SS</b>	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

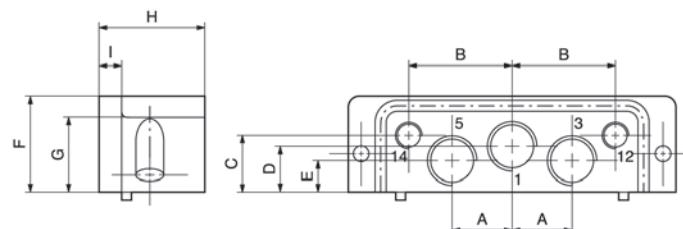
**Side ported manifolds for 2 valve positions**

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

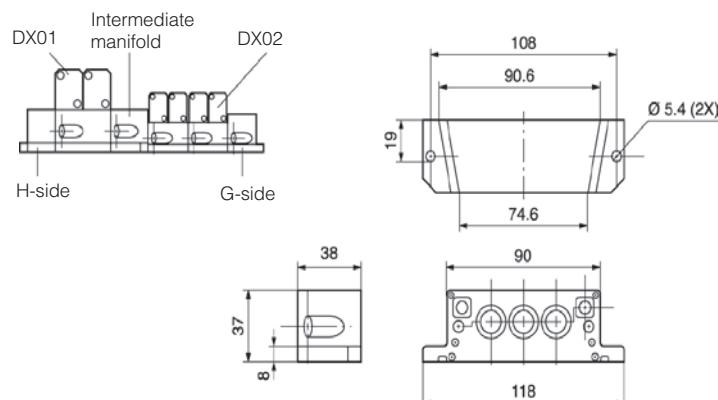


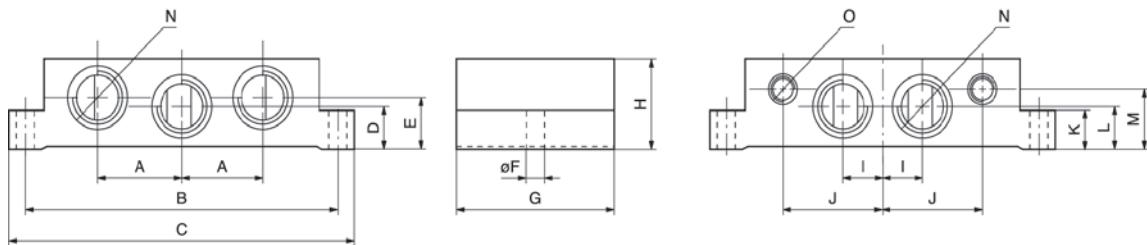
**Bottom ported manifolds for 2 valve positions**

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

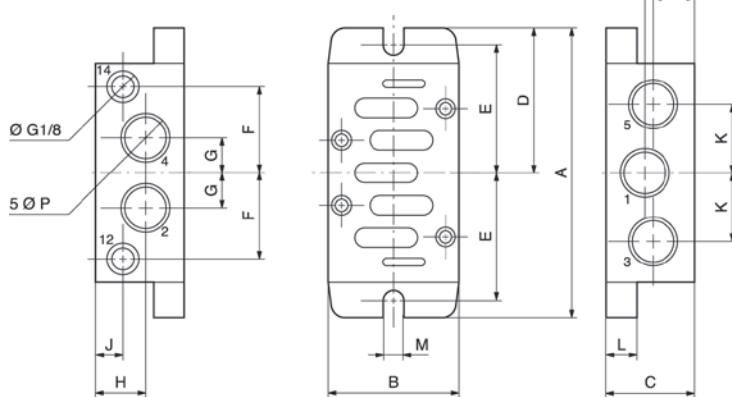
**G and H side end plate bottom ported for above bottom ported manifold**

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

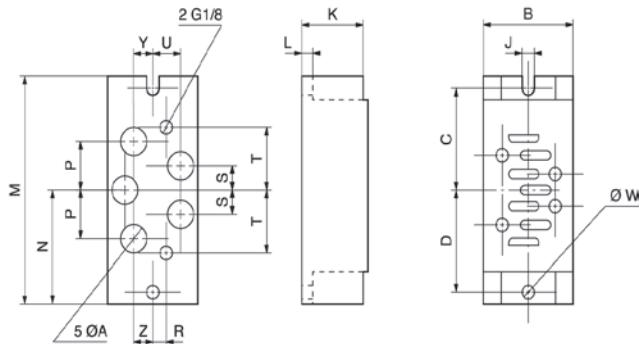
**Transfer plate size 01 to size 02 for above bottom ported manifold**

**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

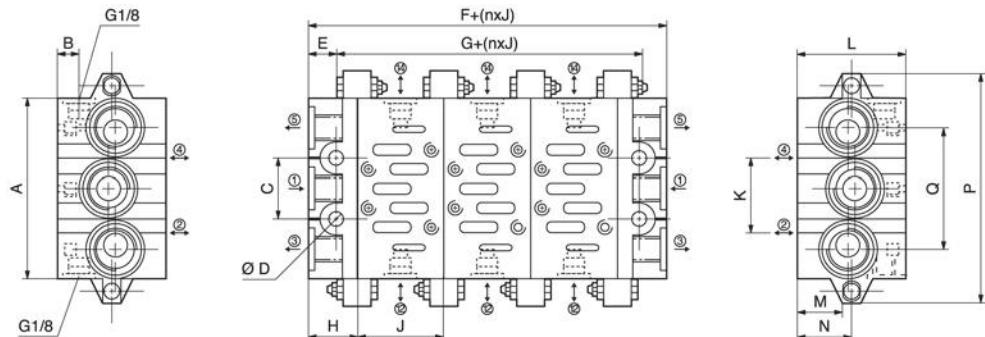
**Single subbase with side ports**

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
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
PD3-1/2-70		G1/2	77	68	68	6,6	32	18	149	74,5	34	10	17	45	17	6,5	17

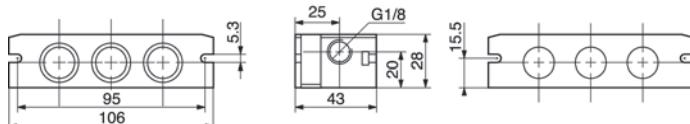
## Manifold and end plates according to VDMA (P2N-VM / WM / YM) - Dimensions



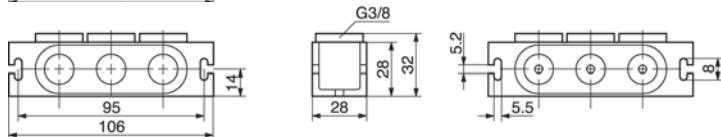
ISO Size	Port 1, 3, 5	Port 2, 4	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P
1	G3/8	G1/4	85	8,5	28	7	11	44	22	22	43	26	46	21	24	56	110
2	G1/2	G3/8	100	9	35	9	13	52	26	26	56	30	47	22	24	68	135
3	G1	G1/2	140	10	52	12	15	60	30	30	71	38	56	31	34	104	190

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

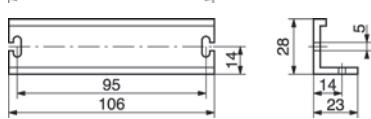
Manifold P2N-AM512MB



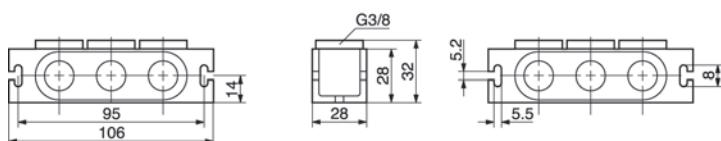
Connecting block P2N-AM513GT



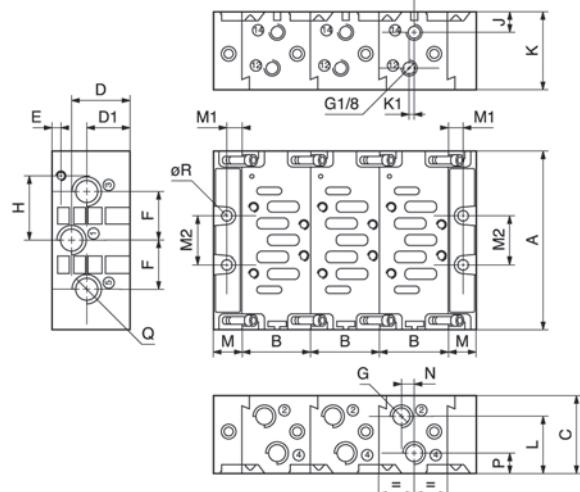
End piece P2N-AM500J



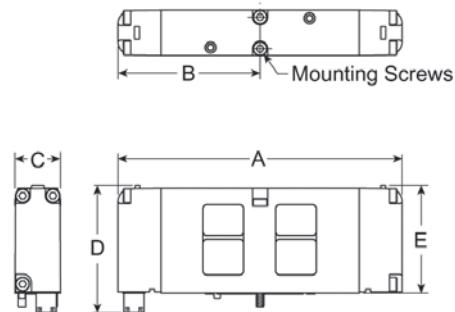
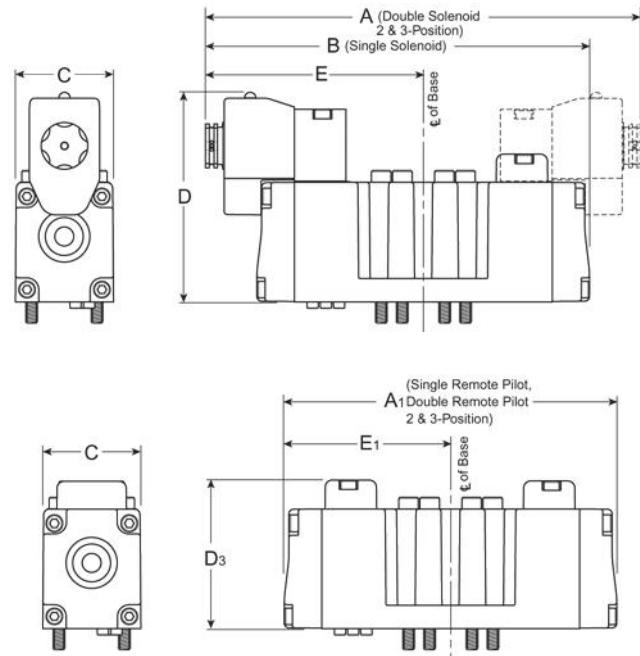
Intermediate supply P2N-AM513BT



## 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

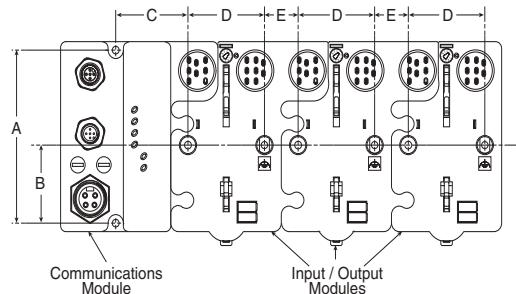
**Isysnet Field Bus System - Dimensions****15407-2 Series Valves****H1 / H2 / H3 Series Valves 5599-2**

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

	<b>A</b>	<b>A<sub>1</sub></b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>D<sub>1</sub></b>	<b>D<sub>2</sub></b>	<b>D<sub>3</sub></b>	<b>D<sub>4</sub></b>	<b>E</b>	<b>E<sub>1</sub></b> <b></b>
<b>H1</b>	186	142	164	42	90	109	109	63.5	63	93	71
<b>H2</b>	212	168	190	55	103	122	116	76		106	84
<b>H3</b>	241	177	209	55	103	122	116	76		121	89

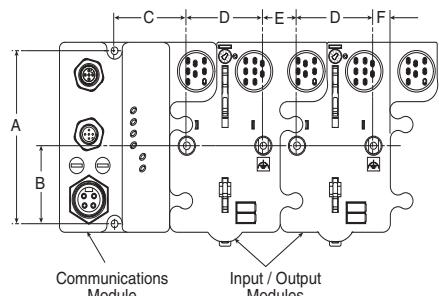
# Global ISO Series Valves

## Isysnet Field Bus System - Dimensions



### HB-HA Dimensions

A	B	C	D
102	46	48	51
E	F		



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

### 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

### H1 Dimensions

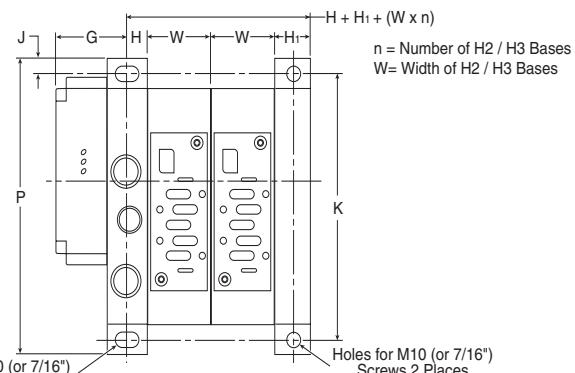
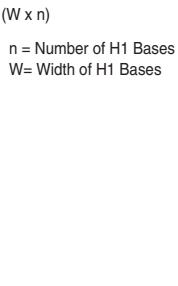
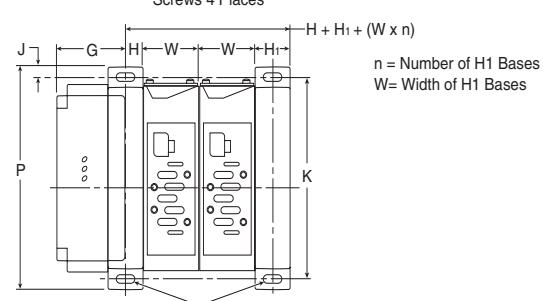
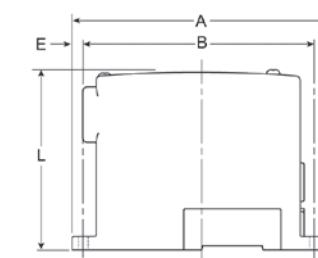
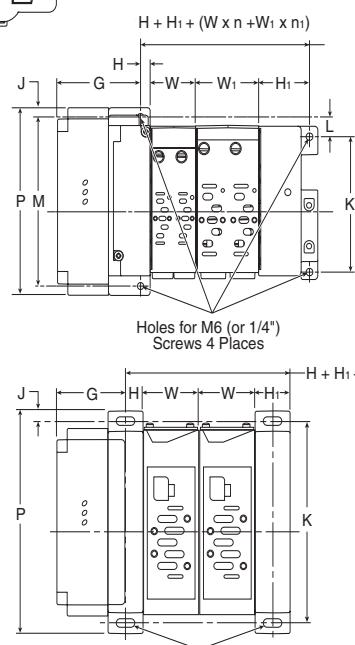
G	H	H1	J	K
56	15.9	15.9	8.5	165
P	W			
182	49			

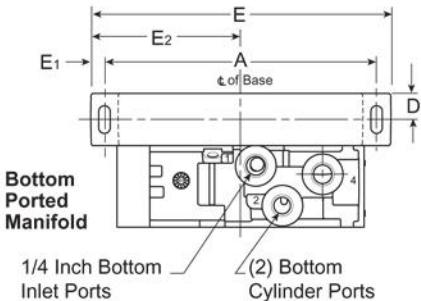
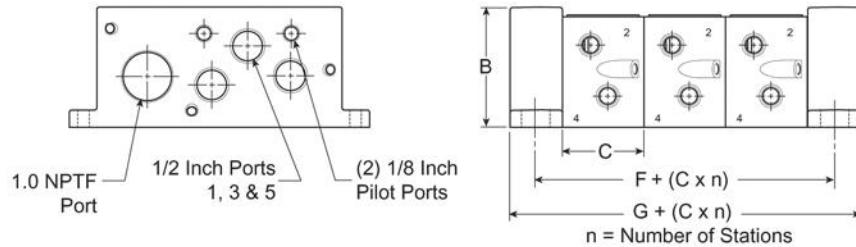
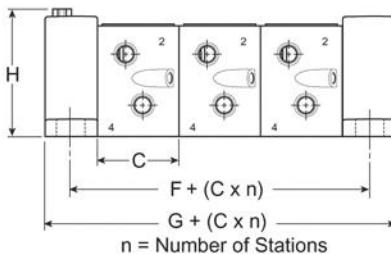
### H2 Dimensions

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

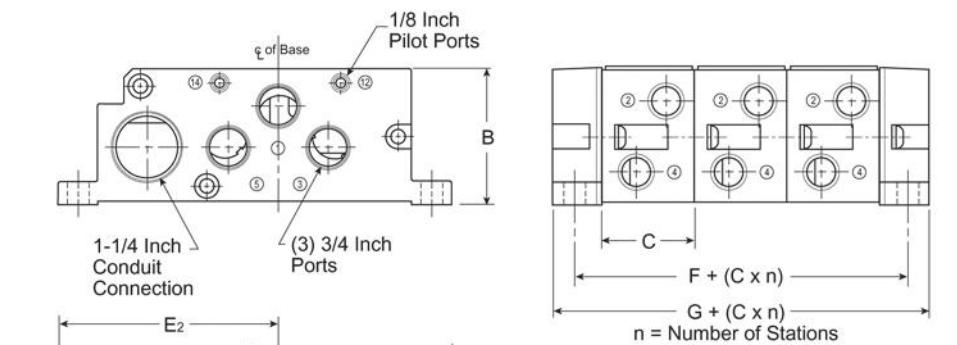
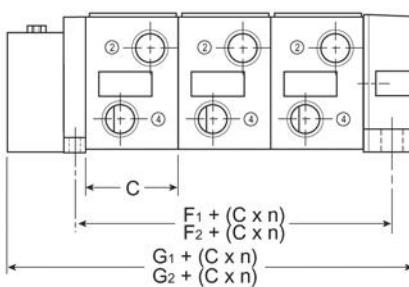
### H3 Dimensions

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



**Global ISO Series Valves****H1 5599-2 / 5599-1 Manifold****Manifold with Optional Collective Wiring System**

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>E<sub>1</sub></b>	<b>E<sub>2</sub></b>	<b>F</b>	<b>G</b>	<b>H</b>
<b>H1</b>	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**

n = Number of Stations  
 F<sub>1</sub>, G<sub>1</sub> = Blank End Plate  
 F<sub>2</sub>, G<sub>2</sub> = Top Port End Plate

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>E<sub>1</sub></b>	<b>E<sub>2</sub></b>	<b>F</b>	<b>F<sub>1</sub></b>	<b>F<sub>2</sub></b>	<b>G</b>	<b>G<sub>1</sub>*</b>	<b>G<sub>2</sub>*</b>
<b>H2</b>	215	85	56	15	239	12	134	30	27	33	60	87	99

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>E<sub>1</sub></b>	<b>E<sub>2</sub></b>	<b>F</b>	<b>F<sub>1</sub></b>	<b>F<sub>2</sub></b>	<b>G</b>	<b>G<sub>1</sub>*</b>	<b>G<sub>2</sub>*</b>
<b>H3</b>	265	105	71	17	295	15	159	33	29	41	63	90	114

## Global ISO Series Valves

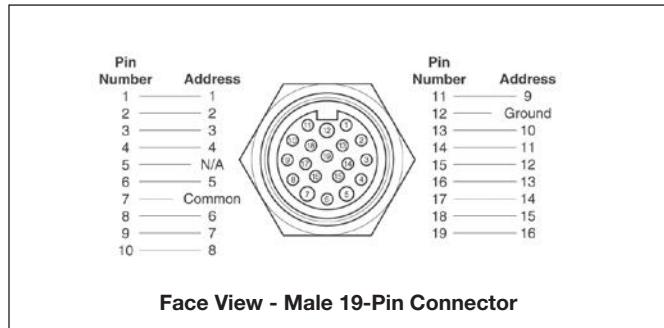
### Interconnect Circuit Boards

#### 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



#### 19-Pin Round Cable Specifications

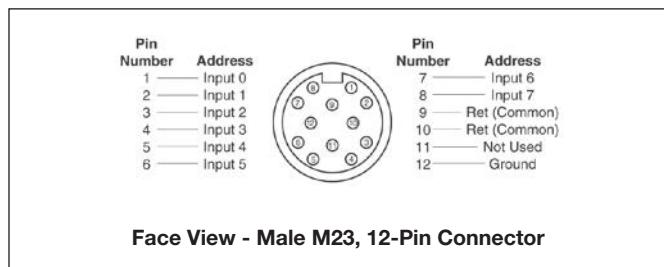
Common Pin "7" is rated for 8 amps. Cable common wire must be greater than total amperage of solenoids on Add-A-Fold assembly.

**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.

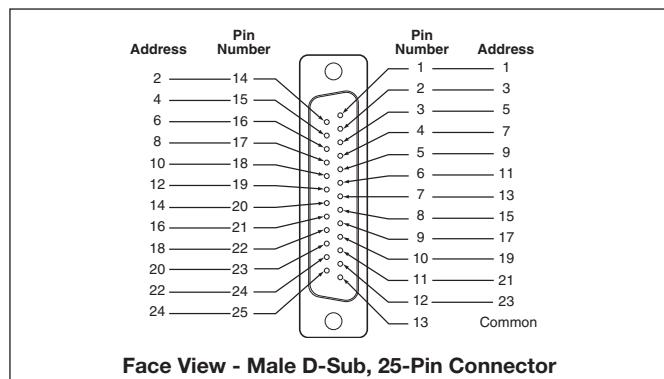
Brad Harrison #333030P80M050      16.40 ft. (Female to Male Cable)

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

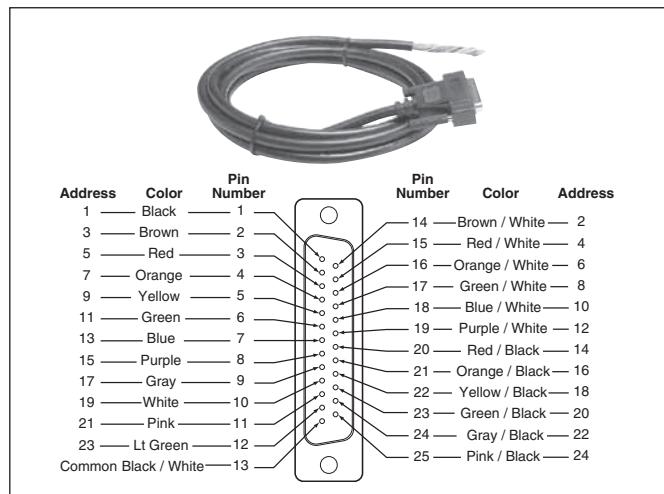
#### M23, 12-Pin Round Connector (Male)



#### 25-Pin, D-Sub Connector (Male)



#### 25-Pin, D-Sub Cable (Female)

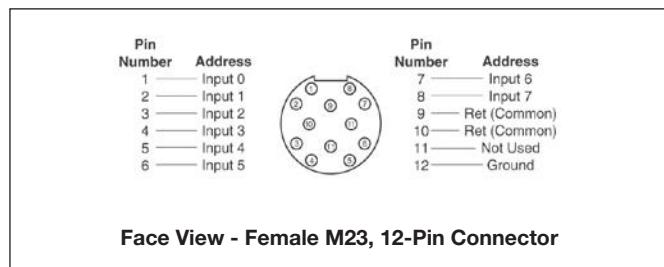


#### 25-Pin, D-Sub Cable Specifications

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 (Female)



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