

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



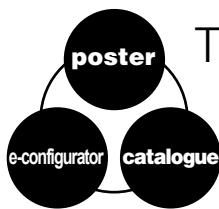
Isys Micro

Plug-in valve island

PDE2597TCUK July 2011



ENGINEERING YOUR SUCCESS.



The machine designer Isys Micro workshop

Valves are the centre of electro-pneumatic automation. They are now designed into compact islands that are easily configured to each application.

For full efficiency in this enhanced automation practice, machine designers are helped by 3 complementary design tools :

- 1 - The Isys Micro valve island **e-configureur** and **3D models** are available on website:
<http://www.parker.com/pneu/isysmicro>
- 2 - The Isys Micro functional **poster**
- 3 - This **catalogue**, including technical data and ordering guide



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

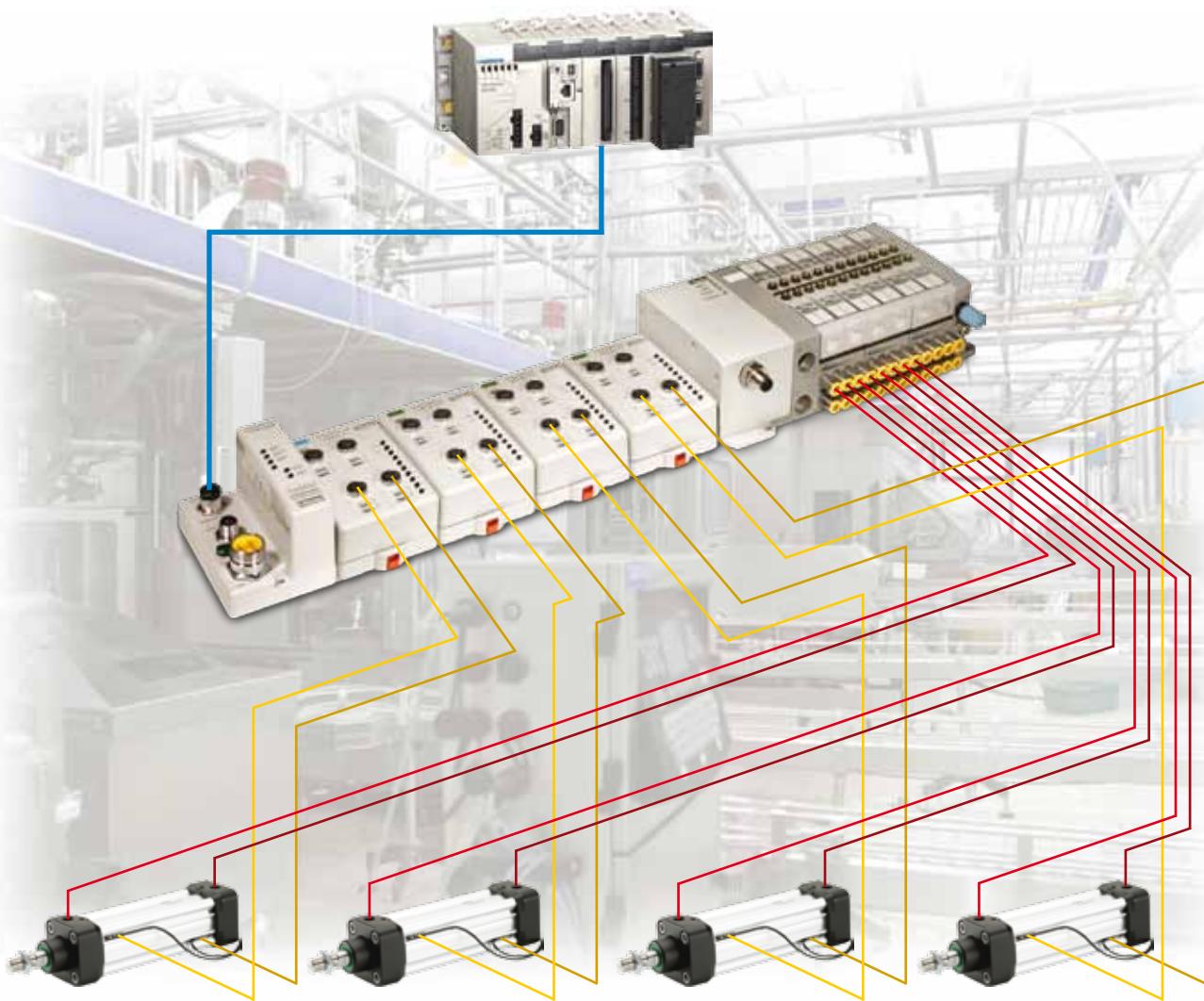
FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.
This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or 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

The items described in this document are available for sale by Parker Hannifin Corporation, its subsidiaries or its authorized distributors. Any sale contract entered into by Parker will be governed by the provisions stated in Parker's standard terms and conditions of sale (copy available upon request).

	Pages
Introduction	4 to 11
Product presentation	
Ordering guide	12 to 25
Valve island components	
Manifold components	14 & 15
Fittings and accessories	16 & 17
Isysnet components	
Valve island end kits	18 & 19
Fieldbus & Industrial Ethernet modules, I/O modules and accessories	20 & 21
Valve Driver Module to TURCK BL67 adaptor	
Valve Island end kits, 16 Outputs & Blank modules	22 & 23
Moduflex Bus components	
Valve island, end kits, Fieldbus modules and accessories	24 & 25
Multi-pole connection components	
Sub-D25 end kits and cables	26 & 27
Dimensions	28 to 31
Installation and Service	32 to 36

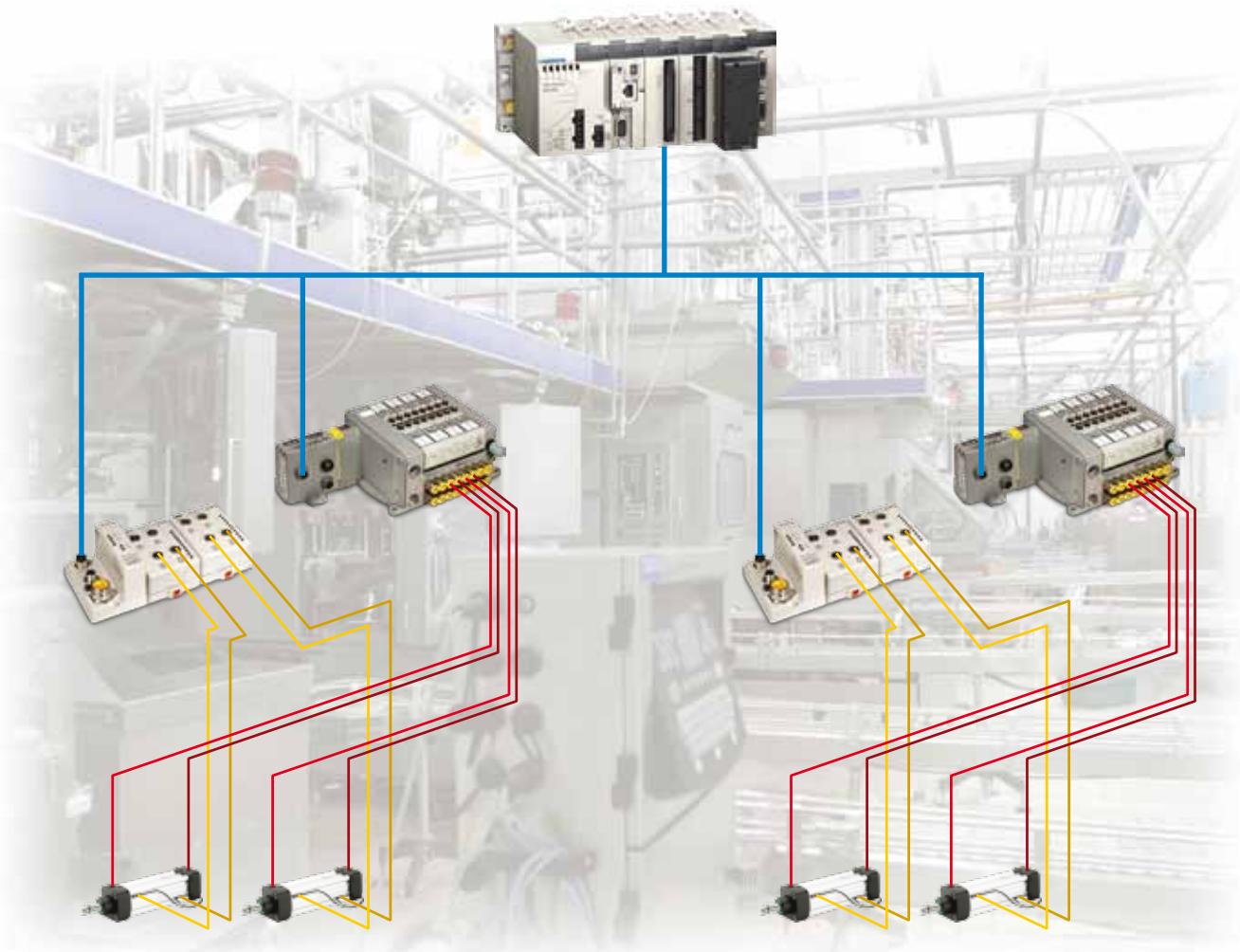
Valve Islands for centralized application



Valve islands for centralized application

Depending upon the machine configuration and design, all of the pneumatic actuators may be controlled from a centralized control panel complete with all the necessary pneumatic valves. The control valves would normally be grouped together into a 'valve island' enabling the solenoids to be electrically interconnected and in turn linked to a PLC via an industrial network. In this configuration all the sensors can be connected to either remote devices positioned around the machine or back to the centralized panel and signals transmitted to the PLC via the valve island and industrial network. Other digital or analogue I/O can be connected if required.

Valve Islands for decentralized application



Valve islands for decentralized application

On larger machines where pneumatic actuators are distributed around the machine, a better solution may be to position smaller 'valve islands' closer to groups of actuators. This enables shorter runs of pneumatic tubing and can result in reduced air consumption and improved cycle times. Other digital or analogue I/O can be connected to the remote devices or directly to the PLC. All devices can be connected to the PLC using traditional wiring, multi-pole connection or an industrial network.

The Isys Micro valve redefines flexibility for pneumatic users. When either configured from basic components or ordered as pre-assembled and tested valve islands, Isys Micro valves are the answer to all your needs.



Solenoid operated Valve fitted with 24 VDC solenoids

Plug-in valves



**42 mm only
for 4 valve
modules**

- Up to **8 pneumatic functions** on a **42 mm width** metal sub-base manifold.
- 4 valve modules **back to back** mounted for a compact design.
- Optimized flow with 6 mm OD tube allows 0,5 m/s speed on a 50 mm diameter cylinder with 1/4 fittings.

Optimized flow for a 6 mm OD tube

$Q_n = 282 \text{ NI/mn}$ **$Q_{\max} = 510 \text{ NI/mn}$**

Side ported manifold design



- Manifold with common ducts for ports 1, 3 and 5, outlet port 2 and 4, and supply port for 12 and 14 are available side ported.

Bottom ported manifold design



- A bottom ported design for an easy integration into an enclosure.

An easy man-machine dialogue

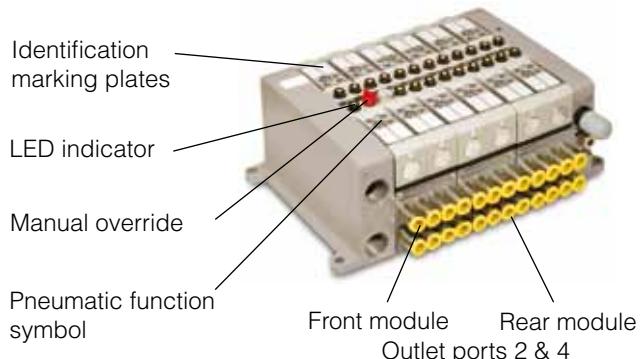
• Multifunction manual override

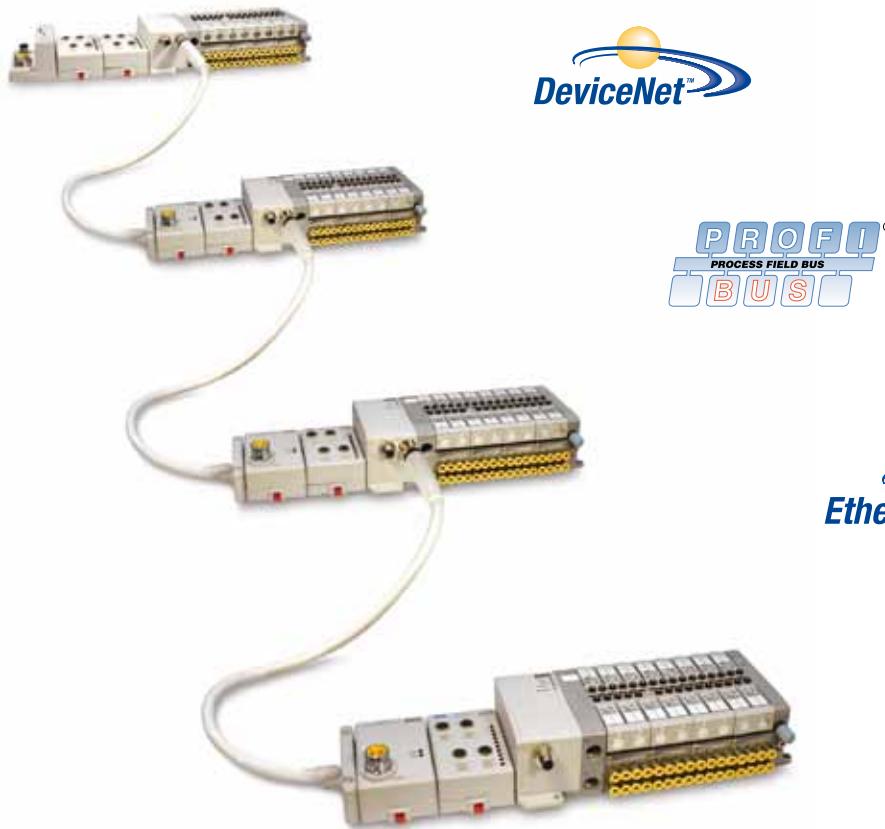
Standard non-locking manual overrides can be easily changed to locking or blocked with accessories available with valves.

• Customer identification

Have your own identification on the product protected with a transparent flip-up cover.

A quick visual diagnostic face



Isysnet : A centralized Fieldbus and Industrial Ethernet system**Integrated Solution**

- A large Fieldbus and Industrial Ethernet communication offering for all Isys Micro range.
- Extremely fast I/O backplane uses change-of-state (COS) connections to maximise performance.
- UL, C-UL and CE certifications (as marked).

Modularity

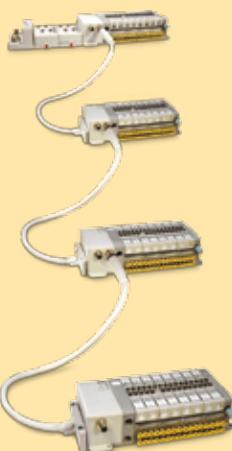
- Ease of module replacement with unique latching mechanisms eliminating the need for screws.
- Auto Device Replacement allows OEMs to add I/O modules without making changes to the control software.
- Built-in panel grounding.
- Electronic and mechanical keying prevents users from placing I/O modules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

Communication Modules

- A Communication Module supports up to 63 I/O modules and up to 256 Inputs and 256 Outputs.

I/O Modules

- Accepts signals from sensors, photo eyes, limit switches and other field input devices.
- Provides signals to remotely operating solenoid valves and other field operating output devices.
- Choice of digital, analogue, high watt I/O Modules.
- Choose from a broad range of colour coded I/O types with connector choices of M8, M12 or M23.
- Built-in miswiring, short circuit, open circuit detection with electronic feedback.

**Flexible in use**

The Isys Micro range is fully dedicated to centralized applications where a high quantity of valves have to be concentrated in a single location.

Solenoid valve island can also be implemented with digital or analogical electrical I/O.

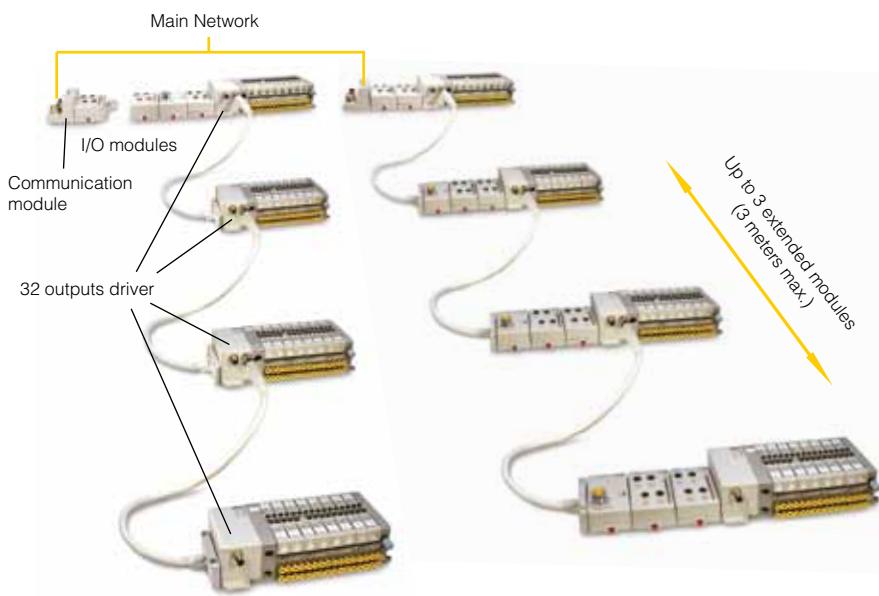
From a centralized application high complexity level to a basic configuration, with industrial communication or traditional multi-connection, an Isys Micro valve island can be designed.

One communication module for 256 Inputs and 256 Outputs

The combination of 32 output drivers and electrical I/O modules linked to the main communication module allows Isys Micro valve islands to drive up to 512 I/O, including up to 128 solenoids splitted between 4 interconnected devices.

Both electrical inputs and outputs modules can also be assembled either on the main or extended islands.

Expansion power supply may be used to provide additional Pointbus backplane current.

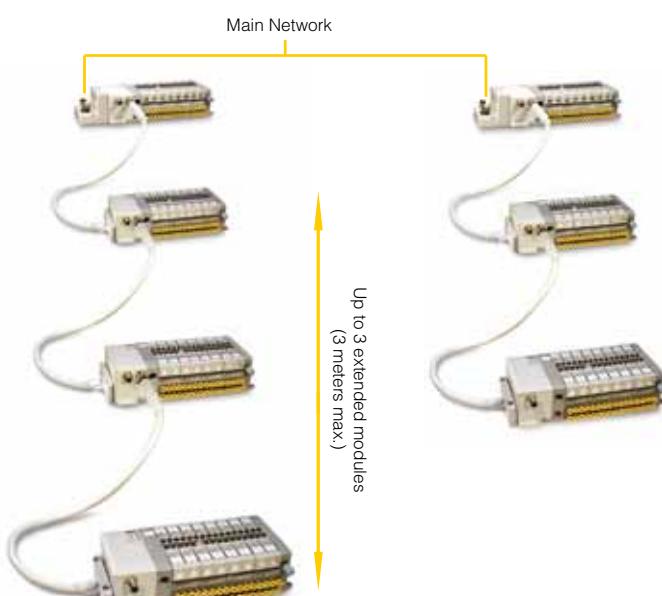
**Up to 128 solenoid valves configuration**

If a high quantity of valves is required in a centralized application, up to 3 extended islands can be connected to the main device communication module.

All extended islands are connected through a bus extension cable PSSVEXT1 (including 1 m cable and head plate).

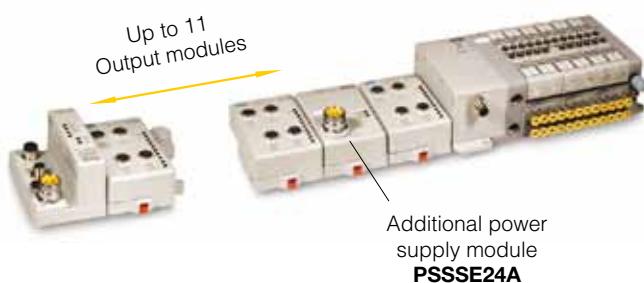
In this configuration, the 32 outputs driver module, on the main island and the extended island, have to be equipped with a "bus extention" M12 connector, excepted for the last extended island.

All 32 outputs driver modules need to be equipped with a M12 solenoids power supply connector.



Up to 256 electrical outputs including 32 solenoid valves

Communication modules include a main 24 VDC power supply for the Bus and up to 10 digital or analogical output modules. Additional power supply is only requested if there are more than 11 output modules.



Up to 32 solenoid valves

Communication modules include a main 24 VDC power supply for the bus and the 32 output driver modules. All solenoids can be energized at the same time.



Island up to 16 or 32 solenoid valves linked to the Turck BL67 remote I/O device series

TURCK
Industrial Automation

This electro-mechanical interface allows, with its modularity up to 16 or 32 solenoid valves, an inter-connection to the TURCK BL67 Series, offering a wide choice of industrial communication with Field bus and Industrial Ethernet protocols and a complete range of electrical I/O modules.



Island for fieldbus communication in decentralized application

In a decentralized application where a serial communication is required and only a few valves are necessary, different fieldbus protocol modules are also available.

In that case, the valve island has to be equipped with a bus communication head module adaptor.

Depending on the protocol, the head module can pilot up to 16 solenoid valves.

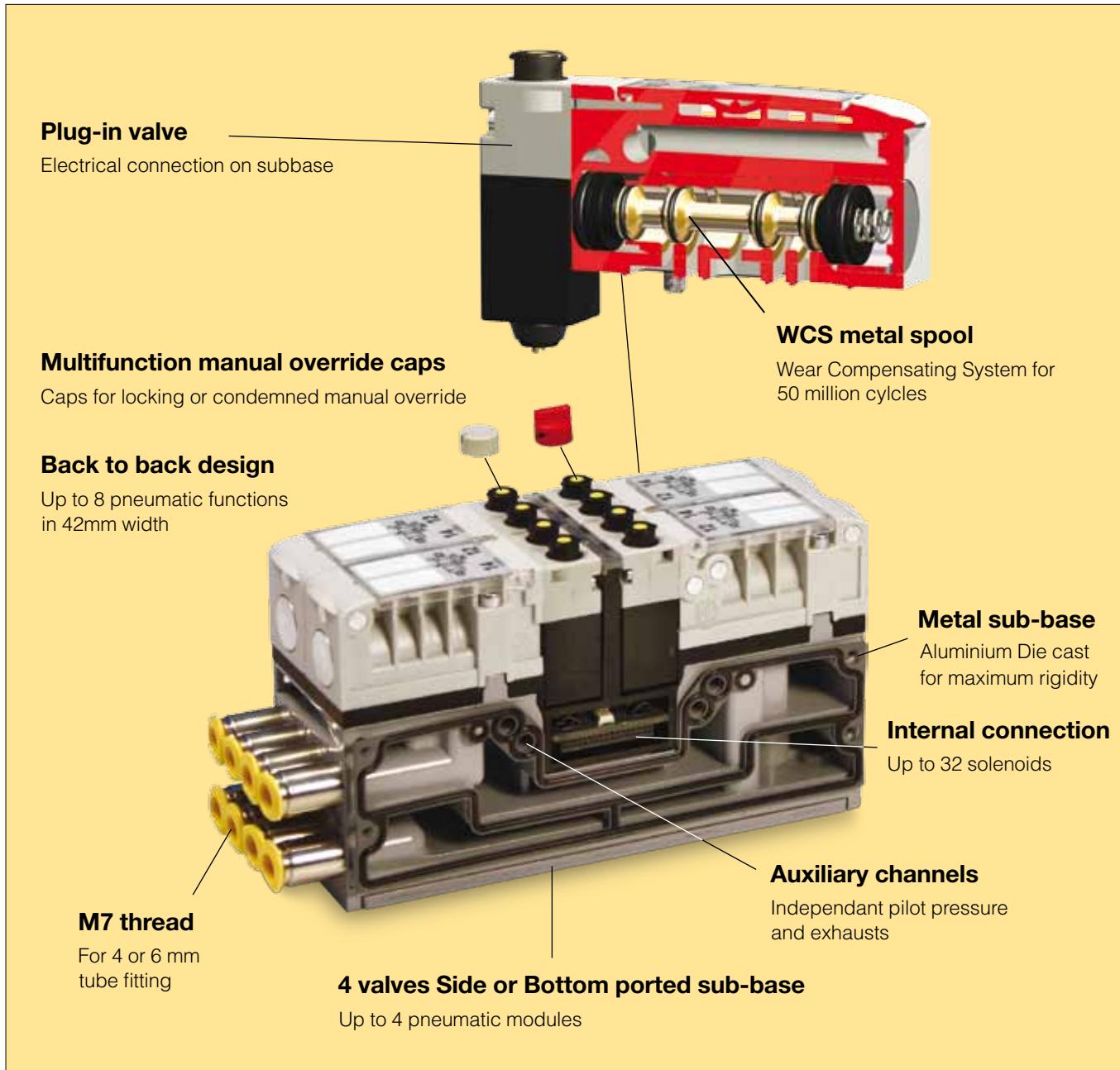


Island with multi-pole connection

In a decentralized application, when a multi-pole connection is required, the valve island head module can be equipped with a standard Sub-D25 connector.

With this Sub-D25 connection, up to 24 solenoid valves can be piloted.





Material Specification

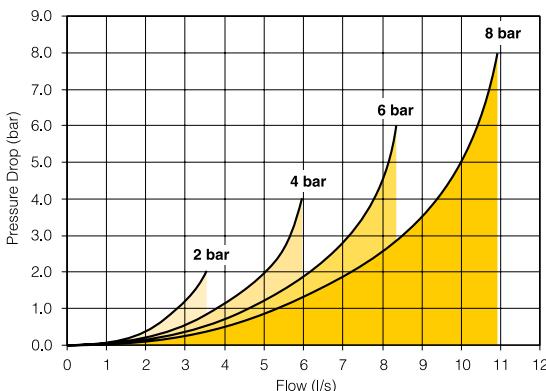
Valve spool :	Brass
Valve spool enclosure :	Brass
Dynamic seals :	Nitrile
Valve body :	Polyamide reinforced fibreglass
Seals :	Nitrile
Springs :	Stainless steel
Top cover :	Polyester
Subbase - End plates :	Painted aluminium

Certification

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

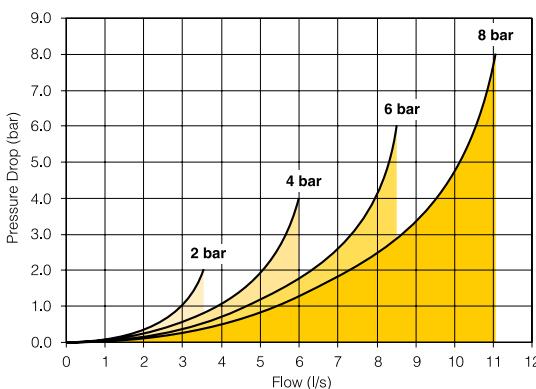
Flow Characteristics

Dual 3/2



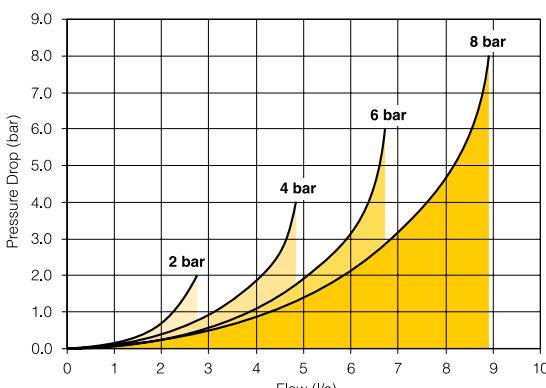
Operating pressure :	2,7 to 8,3 bar
Change-over time (side 14)	Actua. 15 ms Return 20 ms P = 6b
Change-over time (side 12)	15 ms / 25 ms P = 6b
Flow (acc. to ISO 6358) :	c = 1,2 NI/s x bar b = 0,13 Qn = 4,6 NI/s Qmax = 8,4 NI/s

5/2 single and double solenoid



Operating pressure single solenoid:	2,7 to 8,3 bar
Operating pressure double solenoid:	1,7 to 8,3 bar
Change-over time single solenoid:	Actua. 15 ms Return 25 ms P = 6b
Change-over time double solenoid:	13 ms / 13 ms P = 6b
Flow (acc. to ISO 6358) :	c = 1,2 NI/s x bar b = 0,13 Qn = 4,7 NI/s Qmax = 8,5 NI/s

5/3 all ports blocked



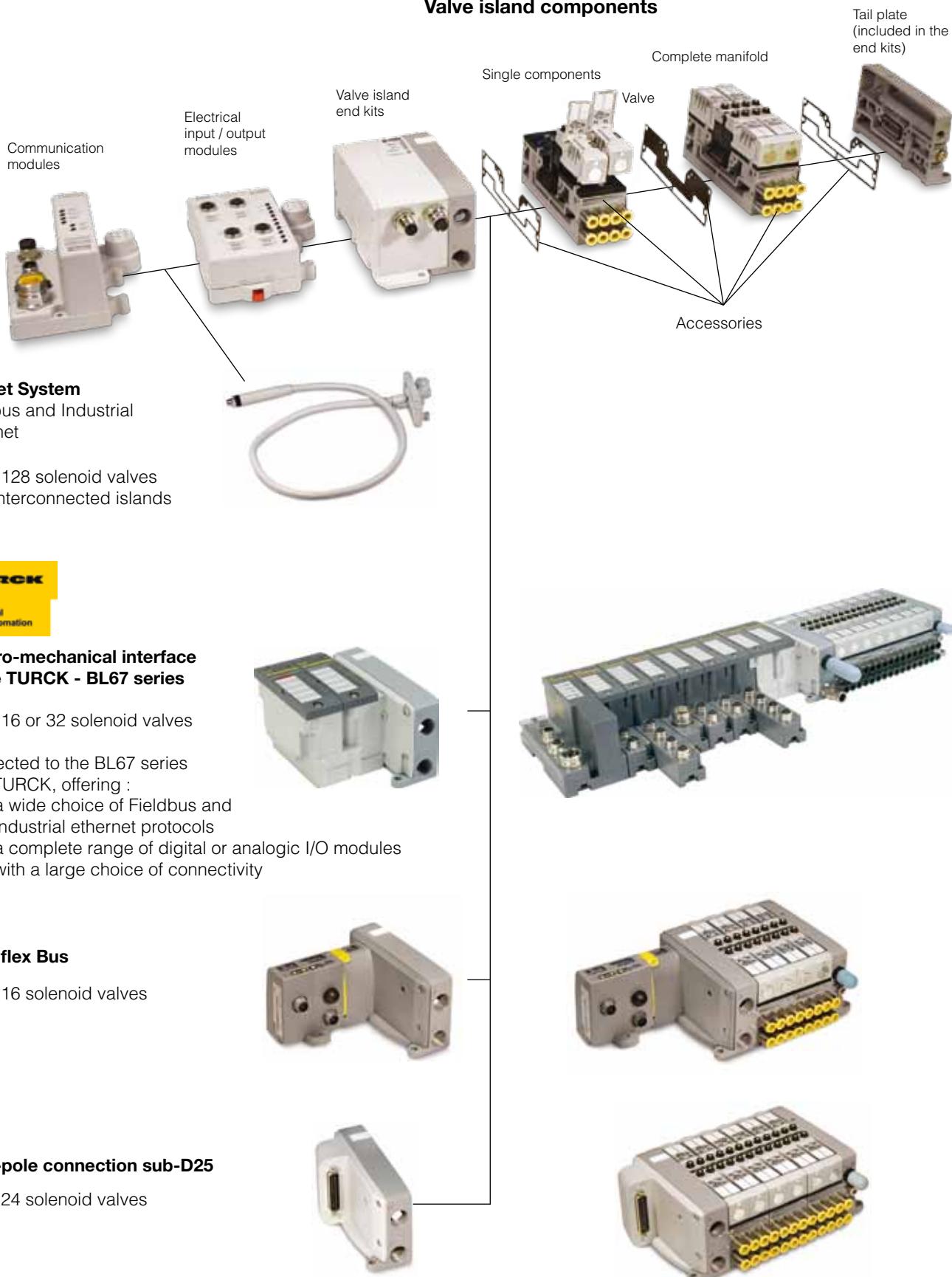
Operating pressure :	2,7 to 8,3 bar
Change-over time	Actua. 20 ms Return 20 ms P = 6b
Flow (acc. to ISO 6358) :	c = 1 NI/s x bar b = 0,14 Qn = 3,8 NI/s Qmax = 6,7 NI/s

Characteristics

Fluid :	Air or inert gas Filtered 40 µ Class 5 (according to ISO 8573-1)	Operating pressure :	-0.9 to 8,3 bar with external pressure 6 bar
	Dry class 4 (according to ISO 8573-1) Non-lubricated or lubricated	Piloting pressure :	2.7 to 8.3 bar
Storage temperature :	-40 °C to + 70 °C	Exhaust collection :	Independant exhaust collection
Working temperature	-15 °C to + 50°C	Rated coil voltage :	24 VDC -15 % / +10 %
Vibration :	according to IEC 68-2-6 2G to 150 Hz	Electrical connection:	Not polarised
Shock :	according to IEC 68-2-27 15G 11 ms	Coil insulation :	Class B
		Power consumption :	1 W (42 mA) with LED
		Duty factor :	100 % at 20°C

Build your device configuration

Valve island components



Valve island components**Manifold components:**

Pages 14 & 15



Valve



Sub-base



Complete manifold

Fittings and accessories:

Pages 16 & 17



Fittings



Multi-pressure manifold seals

Isysnet components**Valve island end kits, Fieldbus & Industrial Ethernet modules, I/O modules and accessories:**

Pages 18 & 21



32 outputs drivers



Industrial communication modules



Bus extender



I/O modules



Accessories

Valve Driver Module to TURCK BL67 adaptor**Valve island end kits, 16 outputs & Blank modules:**

Pages 22 & 23



16 or 32 Outputs drivers



16 Output or Blank modules

Moduflex Bus components**Valve island end kits, Fieldbus modules and accessories:**

Pages 24 & 25



Fieldbus module



Fieldbus adaptor



Accessories

Multi-pole connection components**Sub-D25 end kits and cables:**

Pages 26 & 27

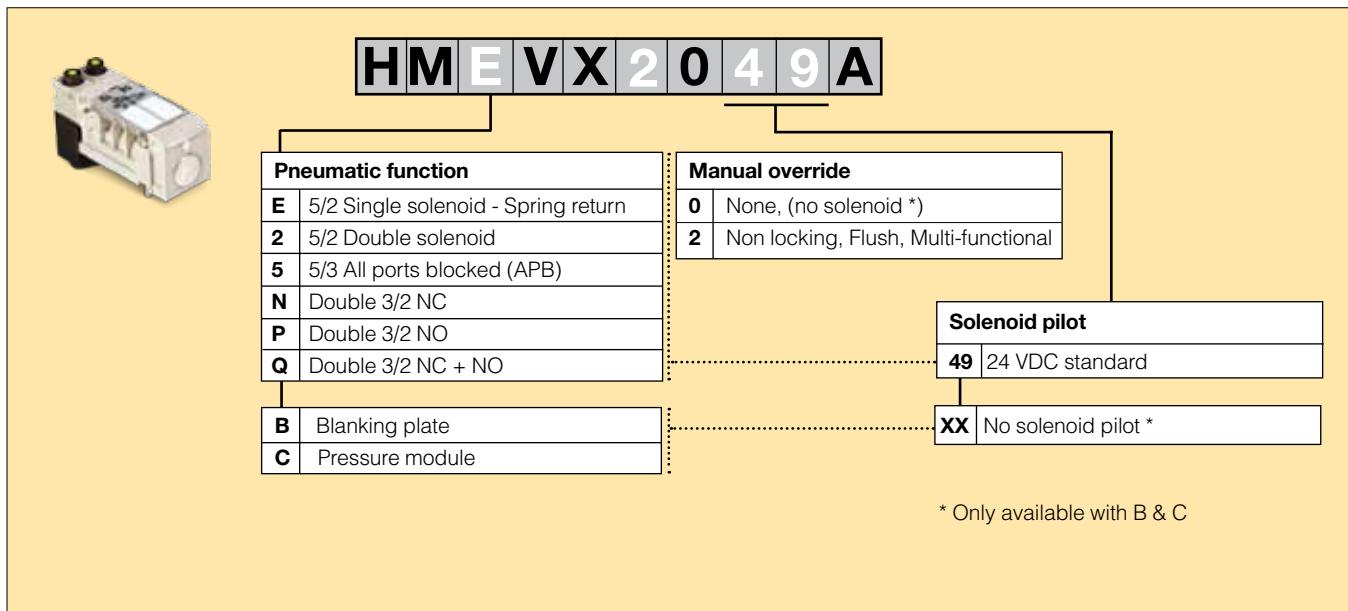


Sub-D25 end kits

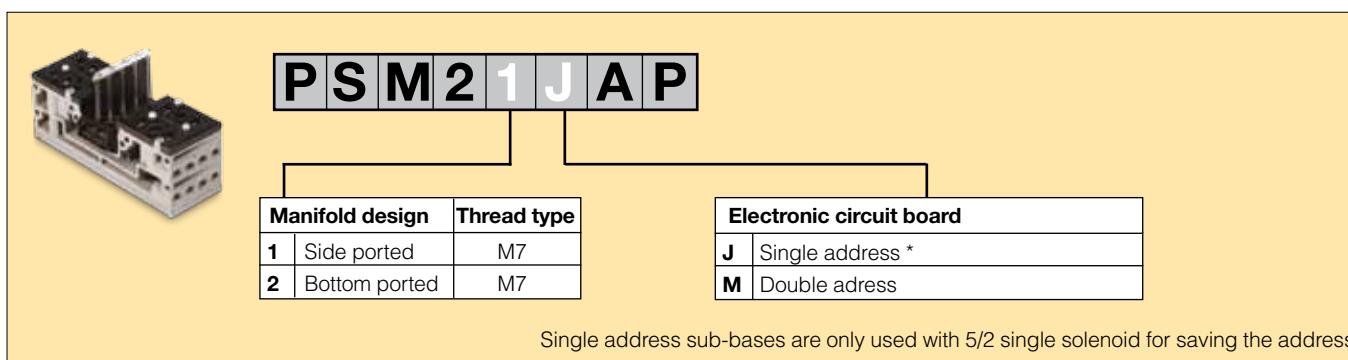


Cables

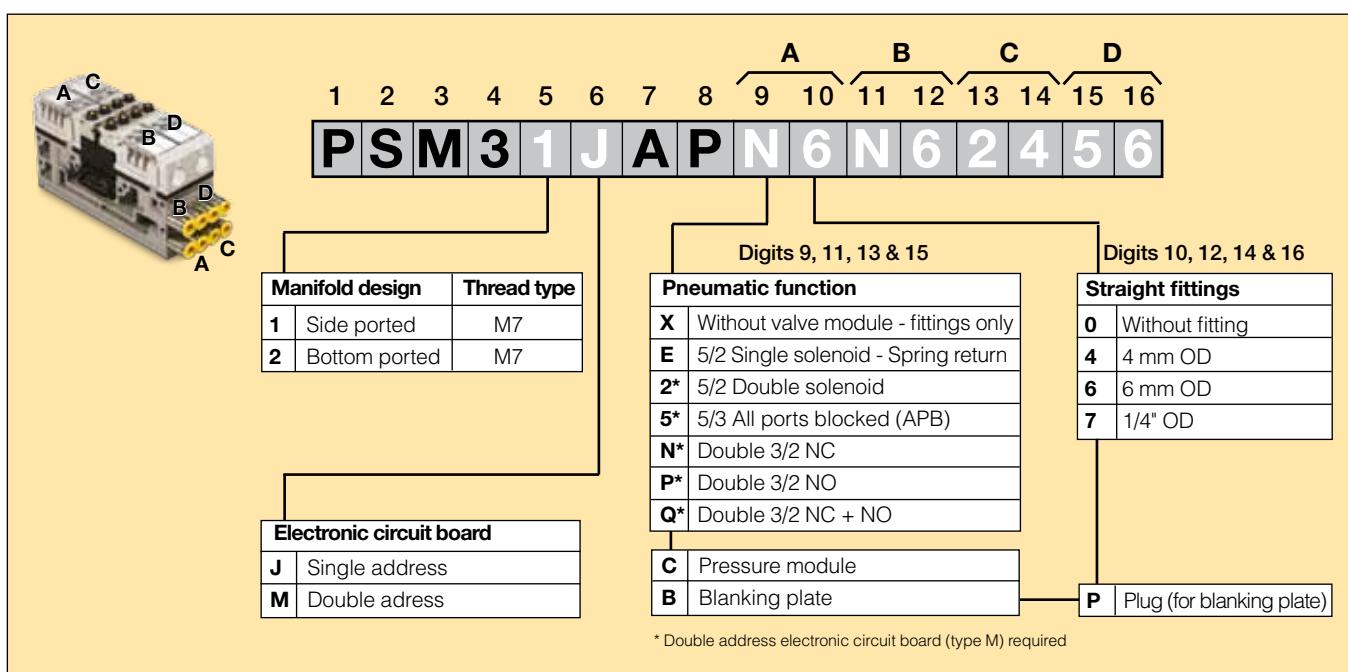
Valve ordering chart



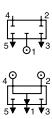
Manifold ordering chart (without valve module and fitting)



Manifold ordering chart (complete with valve modules and/or fittings)



Solenoid operated valve fitted with 24 VDC solenoid

Symbol	Description	Weight (g)	Order code
	Double 3/2 NC + NC	60	HMNVX2049A
	Double 3/2 NO + NO	60	HMPVX2049A
	Double 3/2 NC + NO	60	HMQVX2049A
	5/2 single solenoid - Spring return	49	HMEVX2049A
	5/2 double solenoid	60	HM2VX2049A
	5/3 all ports blocked (APB)	65	HM5VX2049A
	Blanking module kit (including two M7 plugs for manifold)	30	HMBVX00XXA
	Additional pressure module	30	HMCVX00XXA

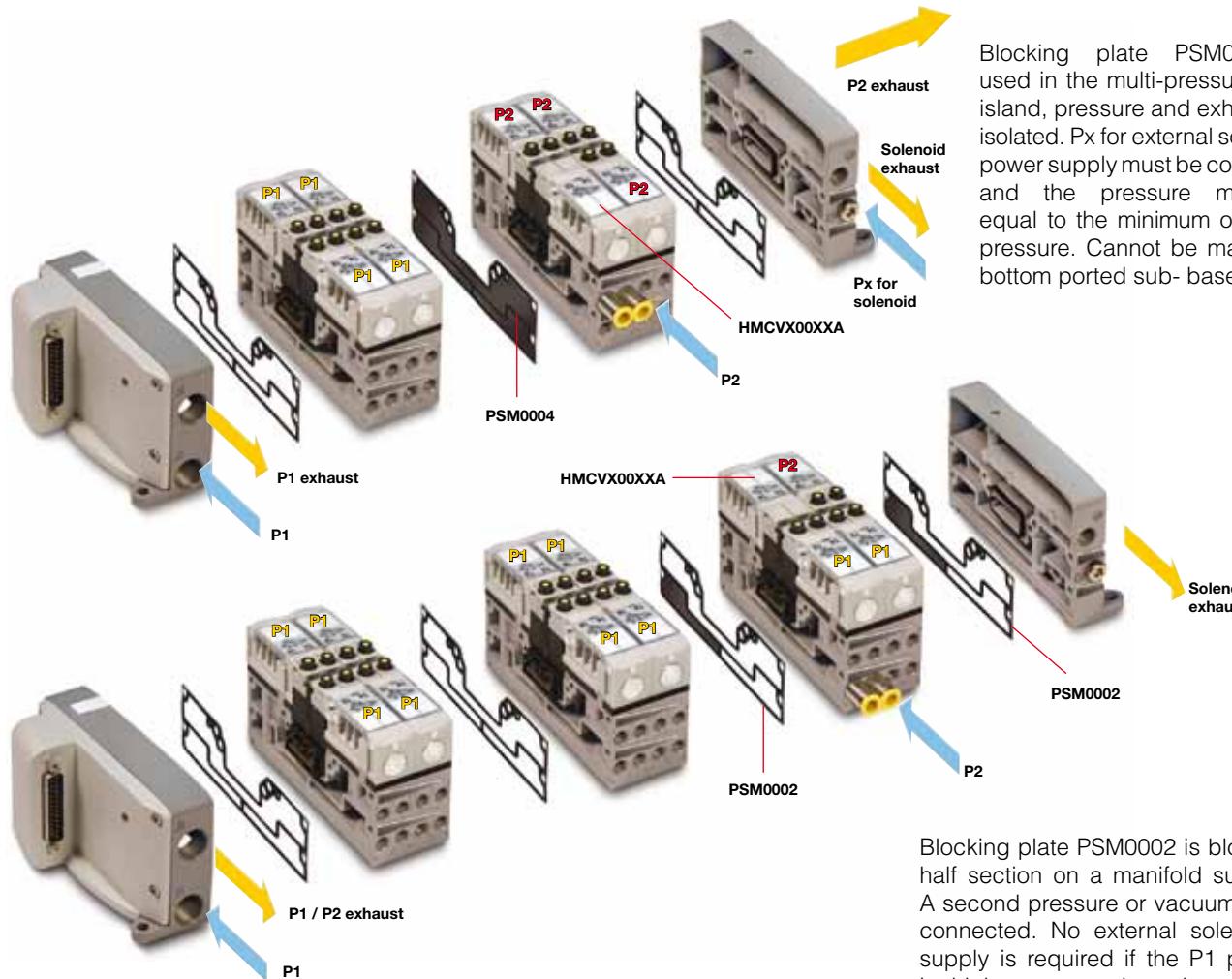
Metal manifold for 4 valves (M7 threaded)

	Description	Weight (g)	Order code
Side ported	4 position manifold single electrical address	332	PSM21JAP
	4 position manifold double electrical address	332	PSM21MAP
Bottom ported	4 position manifold single electrical address	310	PSM22JAP
	4 position manifold double electrical address	310	PSM22MAP

Complete manifold without fitting (M7 threaded)

	Symbol	Description	Weight (g)	Order code
Side ported		4 x Double 3/2 NC + NC	572	PSM31MAPN0N0N0N0
		4 x 5/2 single solenoid - Spring return	528	PSM31JAPE0E0E0E0
		4 x 5/2 double solenoid	572	PSM31MAP20202020
		4 x 5/3 all ports blocked (APB)	592	PSM31MAP50505050
Bottom ported		4 x Double 3/2 NC + NC	550	PSM32MAPN0N0N0N0
		4 x 5/2 single solenoid - Spring return	506	PSM32JAPE0E0E0E0
		4 x 5/2 double solenoid	550	PSM32MAP20202020
		4 x 5/3 all ports blocked (APB)	570	PSM32MAP50505050

Multi-pressure Manifold with blocking plates



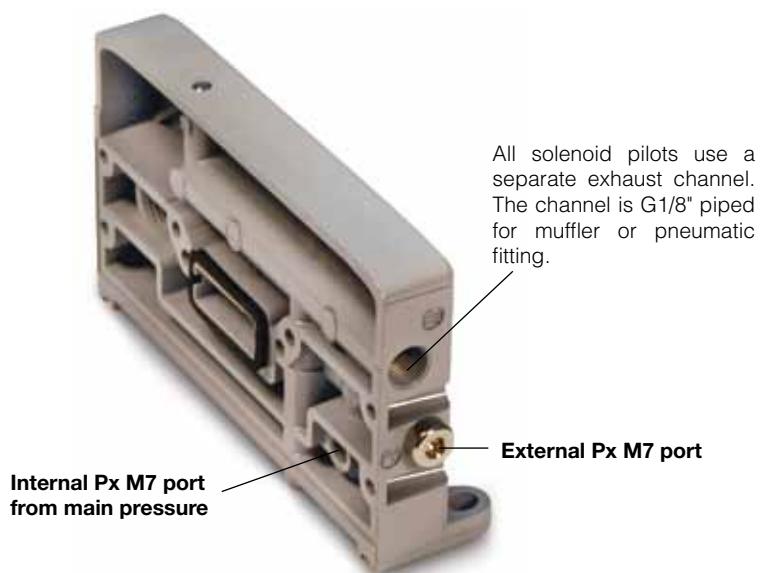
Blocking plate PSM0004 is used in the multi-pressure valve island, pressure and exhaust are isolated. Px for external solenoids power supply must be connected and the pressure must be equal to the minimum operating pressure. Cannot be made with bottom ported sub- bases.

Blocking plate PSM0002 is blocking a half section on a manifold sub-base. A second pressure or vacuum can be connected. No external solenoid air supply is required if the P1 pressure is higher or equal to the minimum operating pressure.

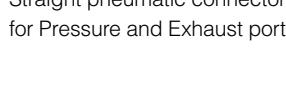
Auxiliary pressure for solenoid pilots and Exhaust channel

All end plates are delivered with an internal solenoid power supply version and can be easily changed to external solenoid power supply by simply moving a plug, if the main pressure is below the minimum operating pressure.

Auxiliary pressure supply port for solenoid pilot : This is a M7 port. The internal pilot supply end plate version includes an M7 plug. To change from internal supply to external supply mode, remove the plug and screw it into the internal Px port.



Pneumatic accessories

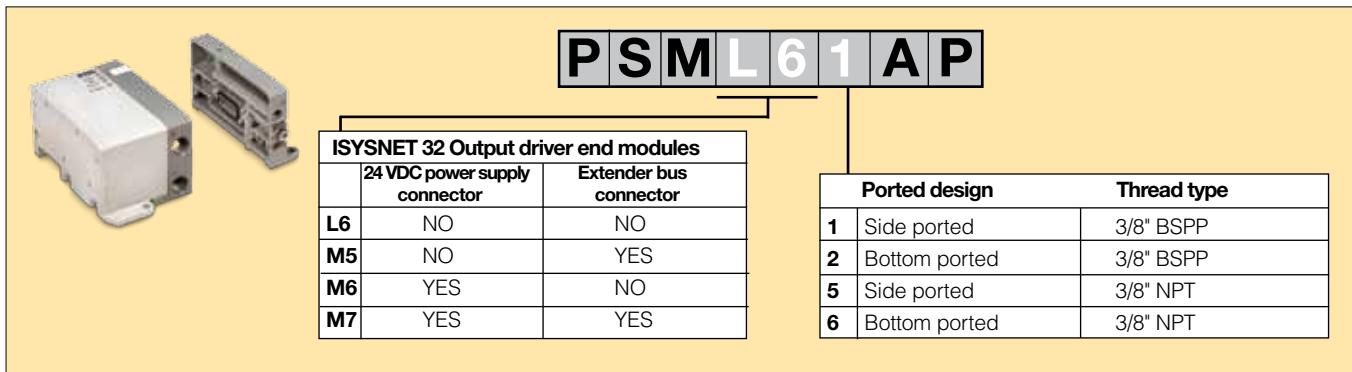
Description	Size	Tube OD	Material	Order code
	M7	4 mm	Metal	F28PMB4M7MD
	M7	6 mm	Metal	F28PMB6M7MD
	1/8"	6 mm	Metal	F4PMB6-1/8
	3/8"	8 mm	Metal	F4PB8-3/8
	3/8"	10 mm	Metal	F4PB10-3/8
	3/8"	12 mm	Metal	F4PB12-3/8
	1/8"		Metal	ESB12MC
	1/8"		Plastic	P6M-PAB1
Muffler for exhaust port	3/8"		Sintered metal	9090050900

Multi-pressure inter-manifold seal plate

Description	Pressure port	Exhaust port	Weight (g)	Order code
	Passing / Passing	Passing	16	PSM0001
	Passing / Block	Passing	20	PSM0002
	Passing / Block	Block	30	PSM0003
	Block / Block	Block	40	PSM0004

Spare parts

Description	Weight (g)	Order code
24 VDC Pilot solenoid with screws	11	PSM0010
Set of 10 multifunction manual override caps	15	PSM0011
Set of 5 valve manifold gaskets and 10 screws	25	PSM0012
Set of 10 M7 plugs for auxiliary pressure selection	30	PSM0013
Set of 10 labels (in the P/N, x has to be replaced with the valve function letter, see page 14)	5	PSM002x
Set of 10 manifold to manifold M3 screws	20	PSM0014

Isysnet 32 output driver end modules ordering chart**32 outputs driver selection guide :****L6 type**

- Isysnet 32 outputs driver with internal solenoids power supply from the communication head module
- Extended valve island not possible



Up to 32 solenoid valves per island

M6 type

- Isysnet 32 outputs driver with external solenoids power supply by M12 male connector
- Extended valve island not possible



Up to 32 solenoid valves per island

M7 type

- Isysnet 32 outputs driver with external solenoids power supply by separated M12 male connector
- Extended Bus link connection for additional valve islands by separate M12 female connector



Up to 32 solenoid valves per island

M5 type

- Isysnet 32 outputs driver with internal solenoids power supply from the communication head module
- Extended Bus link connection for additional valve islands by separate M12 female connector



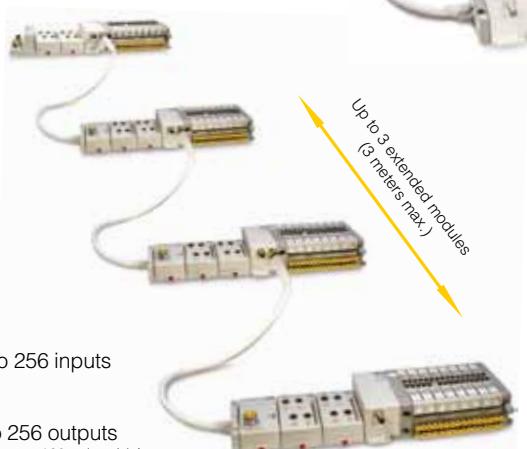
Up to 32 solenoid valves per island

Isysnet bus extender

Isysnet bus extender communication 1 meter cable for instant valve island plug-in by M12 male connector and direct head connection plate on Isysnet device



Every extended island has to be separately power supplied

**Technical data****Isysnet 32 Outputs driver modules**

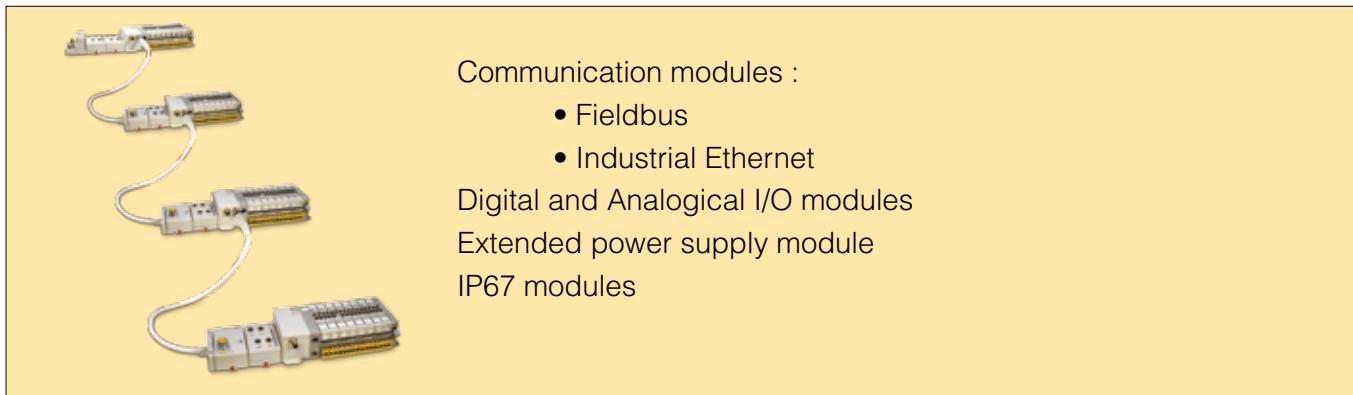
Number of Outputs :	32
Operating Voltage Range :	20,4 to 26,4 VDC
Output current rating Nom. :	50 mA per channel (100 mA Max) 3,2A per module
Pointbus current :	200 mA
Working temperature :	-15°C to 50°C
Dust and water protection :	IP65

Isysnet 32 outputs driver modules

	Sub-base design	Thread type	24 VDC power supply	Extender bus	Weight (g)	Order code
	Side ported	3/8" BSPP	NO	NO	400	PSML61AP
	Bottom ported	3/8" BSPP	NO	NO	400	PSML62AP
	Side ported	3/8" BSPP	YES	NO	400	PSMM61AP
	Bottom ported	3/8" BSPP	YES	NO	400	PSMM62AP
	Side ported	3/8" BSPP	NO	YES	400	PSMM51AP
	Bottom ported	3/8" BSPP	NO	YES	400	PSMM52AP
	Side ported	3/8" BSPP	YES	YES	400	PSMM71AP
	Bottom ported	3/8" BSPP	YES	YES	400	PSMM72AP

Isysnet bus extender

Description	Weight (g)	Order code
 Head plate 1 meter cable / M12 male connector for extended island inter-connection	380	PSSVEXT1



Isysnet Communication and I/O modules

Isysnet Communication modules

Isysnet communication modules are available in :

- DeviceNet
- Profibus DP
- Ethernet I/P
- ControlNet



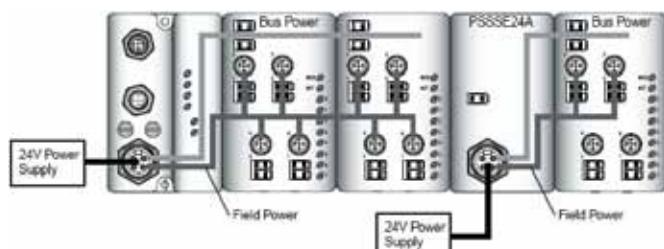
Digital or Analogical electrical I/O modules

Some modules have diagnostic features, electronic fusing, or individually isolated inputs/outputs. The Isysnet family provides a wide range of input and output modules to span many applications, from highspeed discrete to process control. Isysnet supports producer/consumer technology, which allows input information and output status to be shared among multiple Logix controllers.



Isysnet Extension Power Unit

The auxiliary power supports up to 10 I/O modules and 32 output driver with a maximum of 10 A field power.
The 24 VDC extension power unit (PSSSE24A) extends the backplane bus power to support up to 10 more I/O modules. Connect additional extension power units to expand the I/O assembly up to 63 I/O modules



Technical data

Isysnet Communication modules & Extension power unit

Bus power supply : 24 VDC at 400 mA
Power supply input voltage : 24 VDC
Operative voltage range : 10 to 28.8 VDC
Input overvoltage protection : Reverse polarity protected

Isysnet Digital Input modules

Number of Outputs : 8 – PNP or NPN
Operating Voltage Range : 10 to 28.8 VDC
Input current on-state : 2 to 5 mA
Input current off-state : 1,5 mA
Pointbus current : 75 mA

Isysnet Analogue Input modules

Number of Outputs : 2
Input signal Range : 4 to 20 mA / 0 to 10 VDC
Pointbus current : 75 mA

Isysnet Digital Ouput modules

Number of Outputs : 8
Operating Voltage Range : 10 to 28.8 VDC
Output current rating Max. : 1 A per channel
3 A per module
Pointbus current : 75 mA

Isysnet Analogue Output modules

Number of Outputs : 2
Input signal Range : 4 to 20 mA / 0 to 10 VDC
Pointbus current : 75 mA

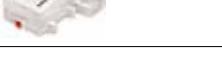
Isysnet Relay Output modules

Number of Outputs : 4 – NO contacts
Operating Voltage Range : 5 to 28.8 VDC
Output current rating Max. : 2 A per channel
8 A per module
Pointbus current : 90 mA

Isysnet communication modules

	Description	Fieldbus connection	Power supply connector	Weight (g)	Order code
 PSSCENA PSSCCNA	DeviceNet	M18	7/8" - 4 pins	400	PSSCDM18PA
		M12 - A coding	7/8" - 4 pins	400	PSSCDM12A
	Profibus DP	M12 - B coding	7/8" - 5 pins	380	PSSCPBA
	Ethernet I/P	M12 - D coding	7/8" - 4 pins	380	PSSCENA
	ControlNet	M12 - D coding	7/8" - 4 pins	380	PSSCCNA

Isysnet electrical I/O modules

	Description	Polarity	Connector type	Weight (g)	Order code
 PSSN8M8A	8 Digital Inputs	PNP	8 x M8	400	PSSN8M8A
			4 x M12	380	PSSN8M12A
 PSST8M12A	8 Digital Outputs	NPN	8 x M8	400	PSSP8M8A
			4 x M12	380	PSSP8M12A
 PSST8M23A	4 Digital Outputs	Relay	1 x M23	400	PSST8M23A
			4 x M12	410	PSSTR4M12A
 PSSNACM12A	2 Analogue Inputs	0 - 10 V 4 - 20 mA	2 x M12	400	PSSNAVM12A
			2 x M12	400	PSSNACM12A
 PSSTACM12A	2 Analogue Outputs	0 - 10 V 4 - 20 mA	2x M12	400	PSSTAVM12A
			2 x M12	400	PSSTACM12A

Isysnet auxiliary electrical modules

	Description	Connector type	Weight (g)	Order code
 PSSSE24A	24 VDC expansion power unit	7/8" - 4 pins	420	PSSSE24A

Isysnet bus extender

	Description	Length	Weight (g)	Order code
 PSSEXT1	Bus extender cable for Isysnet module interconnection	1 meter	380	PSSEXT1
		3 meters	760	PSSEXT3
 PSSTERM	Isysnet termination module		200	PSSTERM

Isysnet accessories

	Description	Bus protocol	Connector type	Weight (g)	Order code
 P8CS0803J	Power supply connector	DeviceNet, ControlNet & Ethernet	7/8" - 4 pins	40	P8CS7804AA
		Profibus DP	7/8" - 5 pins	40	P8CS7805AA
	Line termination	DeviceNet	M12 - A coding	25	P8BPA00MA
		Profibus DP	M12 - B coding	25	P8BPA00MB
 P8CSY1212A	Bus IN female connector	DeviceNet	M12 - A coding	25	P8CS1205AA
		Profibus DP	M12 - B coding	25	P8CS1205AB
	Bus OUT male connector	DeviceNet	M12 - A coding	25	P8CS1205BA
		Profibus DP	M12 - B coding	25	P8CS1205BB
 P8CSY1212A	Cable quick connect connector		M8	25	P8CS0803J
			M12 - A coding	25	P8CS1204J
	"Y" shape, thread to thread		M12 - 2 x M12	25	P8CSY1212A

16 Outputs Moduflex Bus ends module adaptator



P | S | M | T | 2 | 1 | A | P

TURCK BL67 Series adaptor	
T0	Valve Driver Module without output module
T1	Valve Driver Module for 16 Outputs
T2	Valve Driver Module for 32 Outputs

For T0 version, 16 output module and blank module can be ordered separately from the next page or directly from TURCK under the same part number.

Ported design	Thread type
1 Side ported	3/8" BSPP
2 Bottom ported	3/8" BSPP
5 Side ported	3/8" NPT
6 Bottom ported	3/8" NPT

Valve driver Module for 16 or 32 Outputs

Modularity up to 16 or 32 Outputs :

- Populated with 1 or 2 standard TURCK 16 Output modules BL67-16DO-0. 1A-P, the Valve Driver Module can handle up to 16 or 32 solenoid valves.
- For a 16 Outputs configuration, the second slot has to be populated with 1 standard TURCK blank module BL67-E.



TURCK BL67 communication gateway

Industrial Communication :

- Linked to a TURCK BL67 communication module (programmable or not programmable), the device can be connected to a wide choice of Field Bus or Industrial Ethernet protocols.



TURCK BL67 I/O and Base modules

The 2 piece design allows to complete the device with a choice through a full digital or analogue **I/O modules** range populating the **base module** existing with a multiple choice of electrical connection (M8, M12, M23, 7/8")

The complete resulting configuration can handle :

- Up to 32 electrical modules (up to 2 in the Valve Driver Module)
- Up to 256 digital I/O (up to 32 outputs in the Valve Driver Module)
- Up to 64 analog I/O



BL67 Ethernet IP gateway to DeviceNet

Using the TURCK BL67 Ethernet/IP gateway with DeviceNet master BL67-GW-EN-IP-DN, you can easily connect and configure a DeviceNet subnetwork thanks to the "Magic Black Button".



Full description of TURCK BL67 Series on <http://www.turck.com>



Valve Driver Module - TURCK BL67 adaptor

	Description	Solenoid Valves	Sub-base design	Thread type	Weight (g)	Order code
	Valve Driver Module	0	Side ported	3/8" BSPP	200	PSMT01AP
	Without 16 O module		Bottom ported	3/8" BSPP	200	PSMT02AP
	16 Outputs or blank module to be ordered separately (see below)					
	16 Including : - 1 x 16 O module - 1 blank module		Side ported	3/8" BSPP	270	PSMT11AP
	32 Including : - 2 x 16 O modules		Bottom ported	3/8" BSPP	270	PSMT12AP
			Side ported	3/8" BSPP	310	PSMT21AP
			Bottom ported	3/8" BSPP	310	PSMT22AP

Standard TURCK BL67 module

	Description	Weight (g)	Order code
	16 Outputs module for 16 or 32 solenoid valves configuration	55	BL67-16DO-0.1A-P
	Blank module for 16 solenoid valves configuration	15	BL67-E

Both standard TURCK BL67 Outputs module and Blank module can be ordered directly from TURCK under the same part number.

16 Outputs module BL67-16DO-0.1A-P technical specifications

Number of channels	16	Dimensions (W x L x H)	32 x 91 x 59 mm
Nominal voltage V_O	24 VDC	Approvals	CE, cULus
Rated current from field supply	≤ 100 mA	Operating temperature	Refer to solenoid valve
Rated current from module bus	≤ 30 mA	Storage temperature	-40°C to +70°C
Power loss, typical	≤ 1.5 W	Vibration	According to IEC68-2-6 : 2g to 150 Hz
		Shock test	According to IEC68-2-27 : 15g to 11 ms acc. to EN61131-2
Output type	PNP	Electro-magnetic compatibility	IP 65
Output voltage	24 VDC	Protection class	IP 65
Output current per channel	140 mA rated current (with VN 01-05 or higher)	Tightening torque fixing screws	0.9 ... 1.2 Nm
Output delay	3 ms		
Load type	resistive, inductive		
Short-circuit protection	yes		
Simultaneity factor	1		
Electrical isolation	electronics for the field level		

16 Outputs Moduflex Bus ends module adaptator



P | S | M | M | C | 1 | A | P

Moduflex 16 Outputs adaptator		Ported design		Thread type	
M4	Adaptor without bus module	1	Side ported	3/8"	BSPP
MC	Adaptor with CANopen module	2	Bottom ported	3/8"	BSPP
MD	Adaptor with DeviceNet module	5	Side ported	3/8"	NPT
MP	Adaptor with Profibus DP module	6	Bottom ported	3/8"	NPT

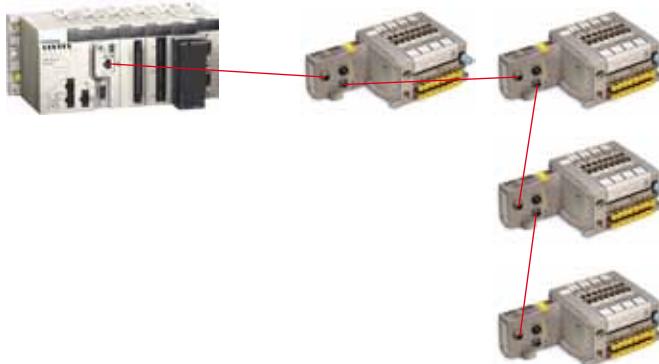
For AS-i communication, use M4 and see Moduflex Valve catalogue for AS-i module part number.

Moduflex Bus 16 Outputs

16 solenoids fieldbus modules available in DeviceNet, CANopen, and Profibus DP protocols.

Closer to the cylinder

Decentralized application when solenoid valves have to be closer to the pneumatic actuators.



Technical data

Moduflex Bus communication modules

Bus power supply : 20 to 30 VDC

Power supply output voltage : 24 VDC

Module consumption :

- DeviceNet : 1,5 W
- CANopen : 1,5 W
- Profibus DP : 1,5 W

Water and dust Protection : IP65

Output protection : overload protected

Moduflex Bus modules

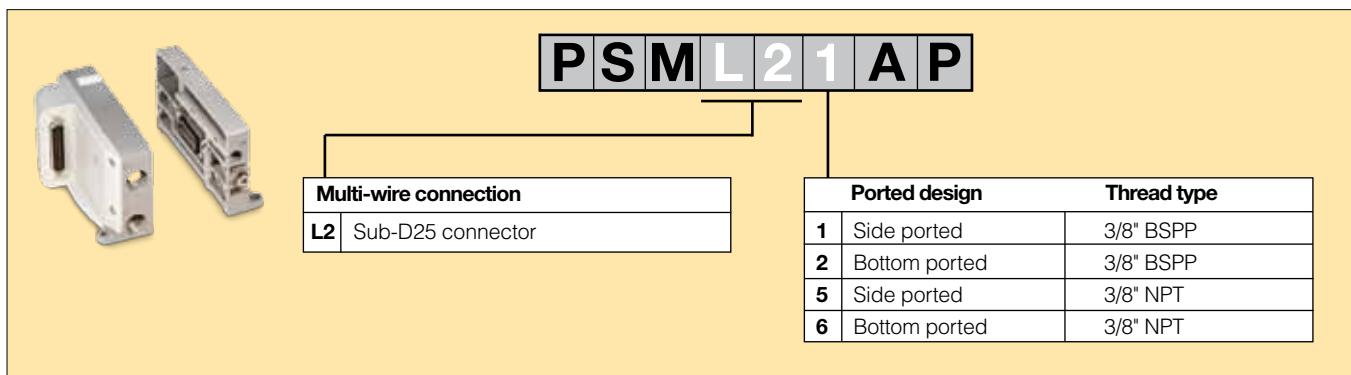
Description	Bus protocol	Sub-base design	Thread type	Weight (g)	Order code	
Moduflex Bus module	CANopen	Side ported	3/8" BSPP	250	PSMMC1AP	
		Bottom ported	3/8" BSPP	250	PSMMC2AP	
	DeviceNet	Side ported	3/8" BSPP	250	PSMMD1AP	
		Bottom ported	3/8" BSPP	250	PSMMD2AP	
	Profibus DP	Side ported	3/8" BSPP	250	PSMMP1AP	
		Bottom ported	3/8" BSPP	250	PSMMP2AP	
Also available, AS-i interface protocol, standard version or extended version (A - B coded). See Moduflex Valve catalogue.						
	End modules adaptator without Moduflex Bus module	All	Side ported	3/8" BSPP	200 PSMM41AP	
			Bottom ported	3/8" BSPP	200 PSMM42AP	

For configuration files, go to : <http://www.parker.com/pneu/moduflex>.

Decentralized Device bus accessories

	Description	Bus protocol	Connector type	Weight (g)	Order code
	Power supply female straight connector	All	M12 - A coding	25	P8CS1205AA
	Line termination	DeviceNet CANopen	M12 - A coding	25	P8BPA00MA
			Profibus DP	25	P8BPA00MB
	P8CS0803J	Bus IN female connector	DeviceNet CANopen	25	P8CS1205AA
		Profibus DP	M12 - B coding	25	P8CS1205AB
			DeviceNet CANopen	25	P8CS1205BA
	Bus OUT male connector	Profibus DP	M12 - B coding	25	P8CS1205BB
	DeviceNet CANopen		25	P8CS1205BA	
	Cable quick connect connector		M8	25	P8CS0803J
			M12 - A coding	25	P8CS1204J
	"Y" shape, thread to thread		M12 - 2 x M12 - A coding	25	P8CSY1212A

Multi-connection head module

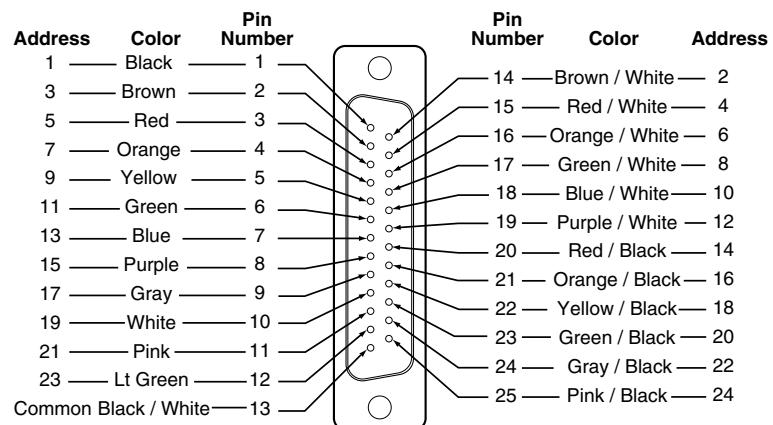
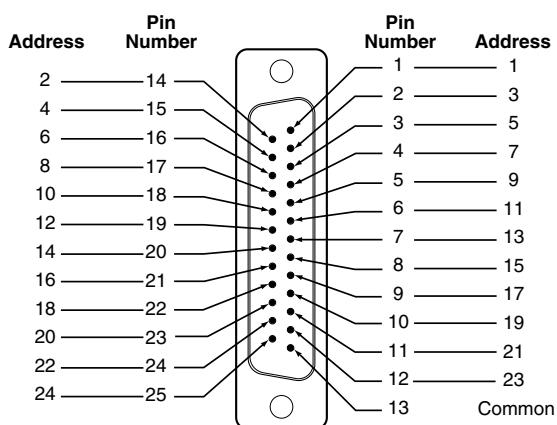


Sub-D25 connection

Up to 24 solenoids on standard Sub-D25 connector.



Technical data



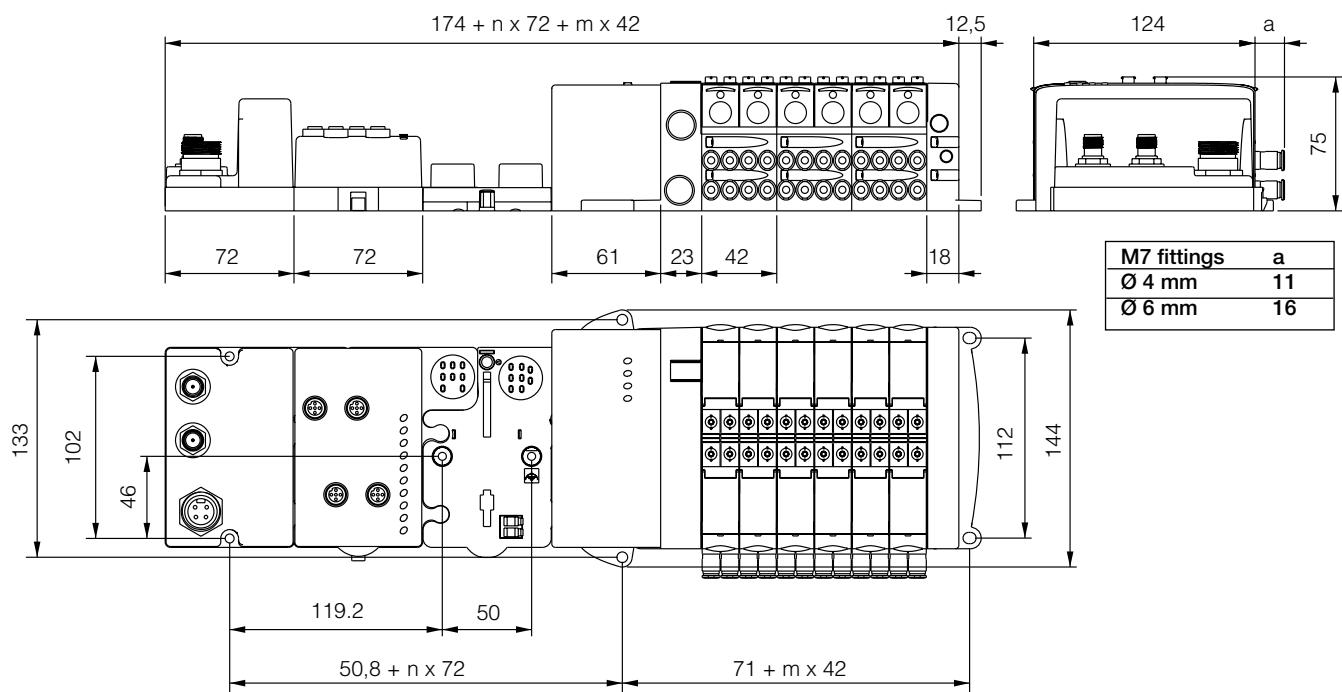
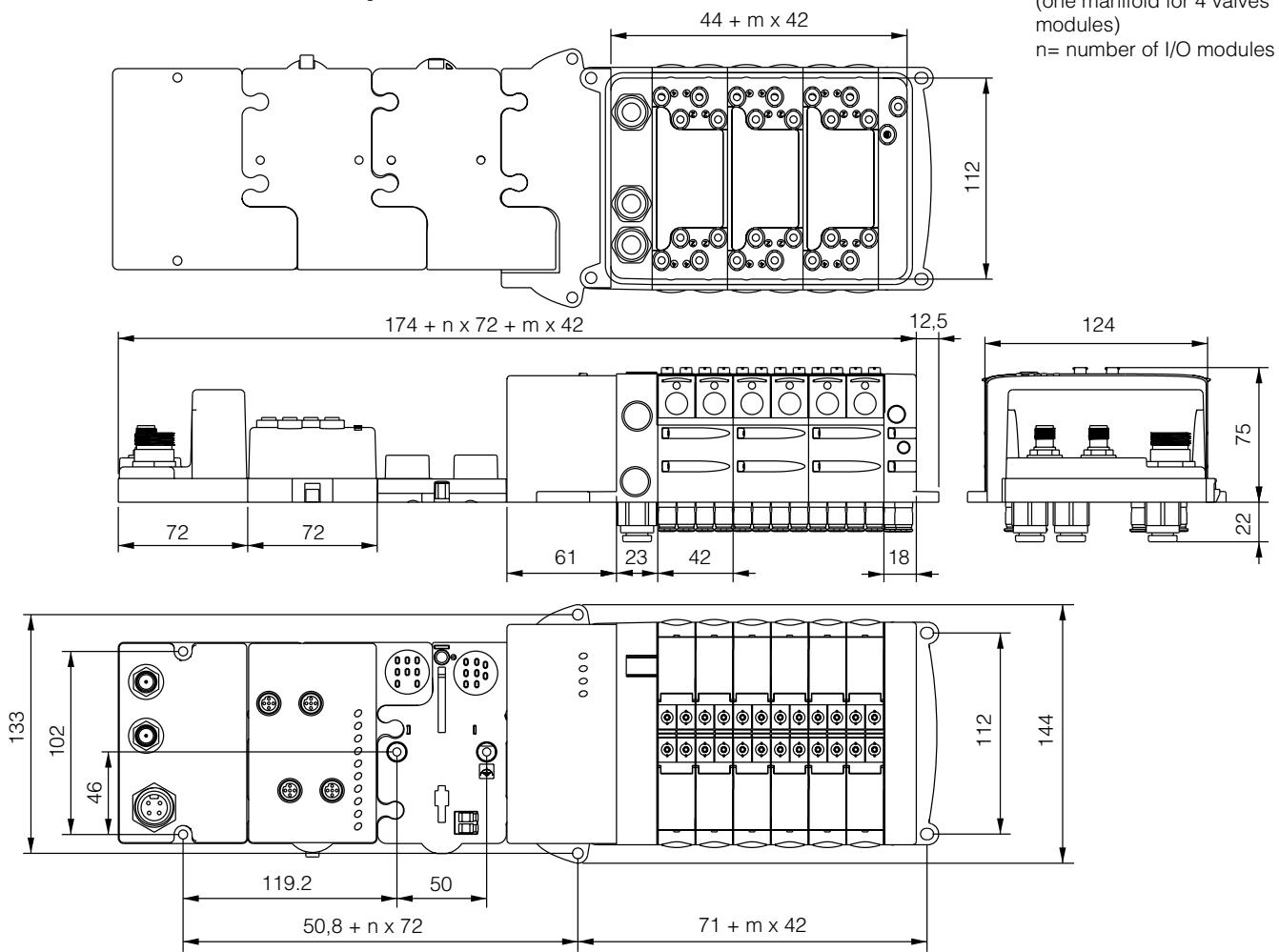
Rated voltage :	24 VDC
Maximum addresses :	24
Maximum energised simultaneously :	24
Electrical connection :	Sub-D25 pin DIN 41652, MIL-C-24308, NFC93425 type HE5
Polarity :	PNP and NPN compatible (solenoids not polarized)
Dust and water protection :	IP65 rated with properly assembled IP65 rated cable

Electrical multi-pole end modules

Description	Sub-base design	Thread type	Weight (g)	Order code
	Side ported	3/8" BSPP	250	PSML21AP
	Bottom ported	3/8" BSPP	250	PSML22AP

Electrical accessories

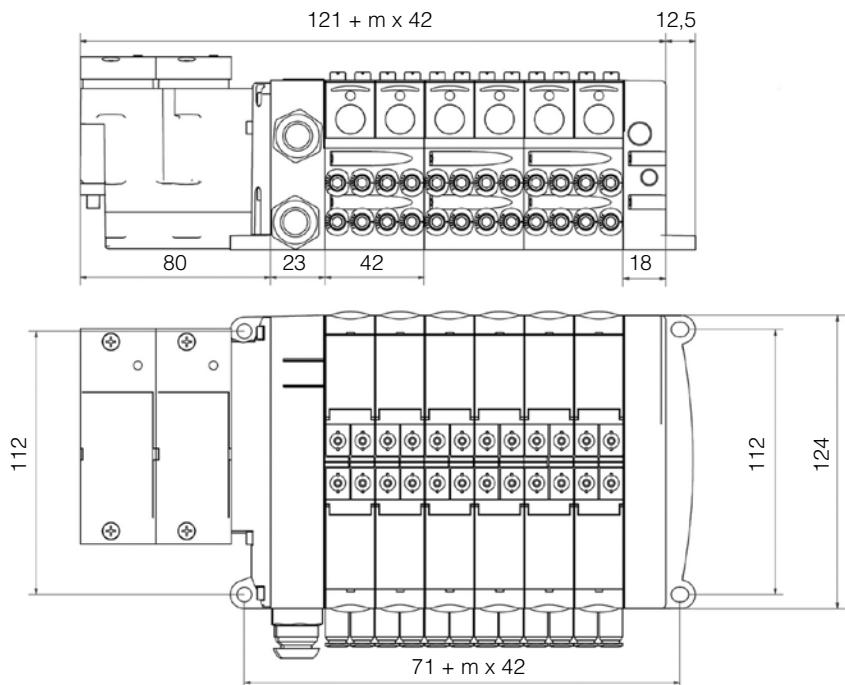
Description	Cable length	Weight (g)	Order code
	3 m	380	P8LMH25M3A
	9 m	780	P8LMH25M9A
P8LMH25B9A	9 m	790	P8LMH25B9A

Centralized bus - Side ported**Centralized bus - Bottom ported****Note:**

m = number of manifolds
(one manifold for 4 valves modules)

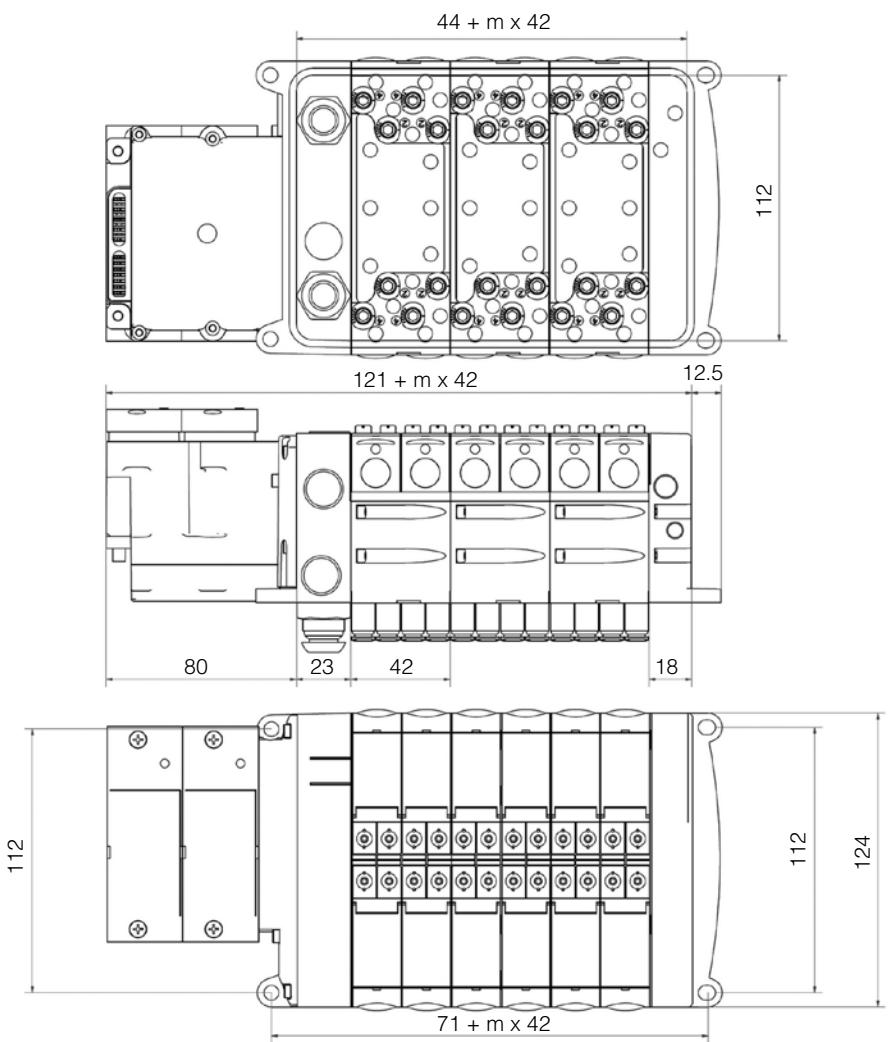
n= number of I/O modules

Isys Micro with TURCK BL67 adaptor - Side ported



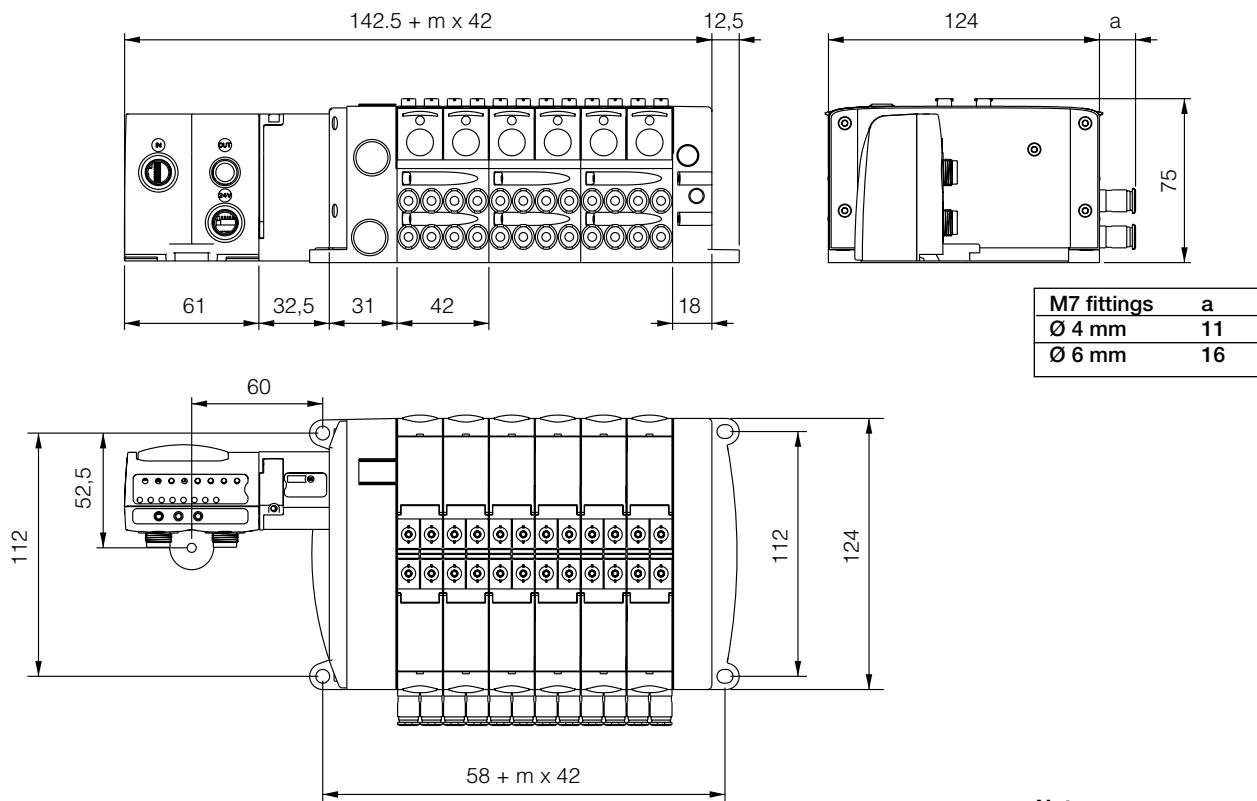
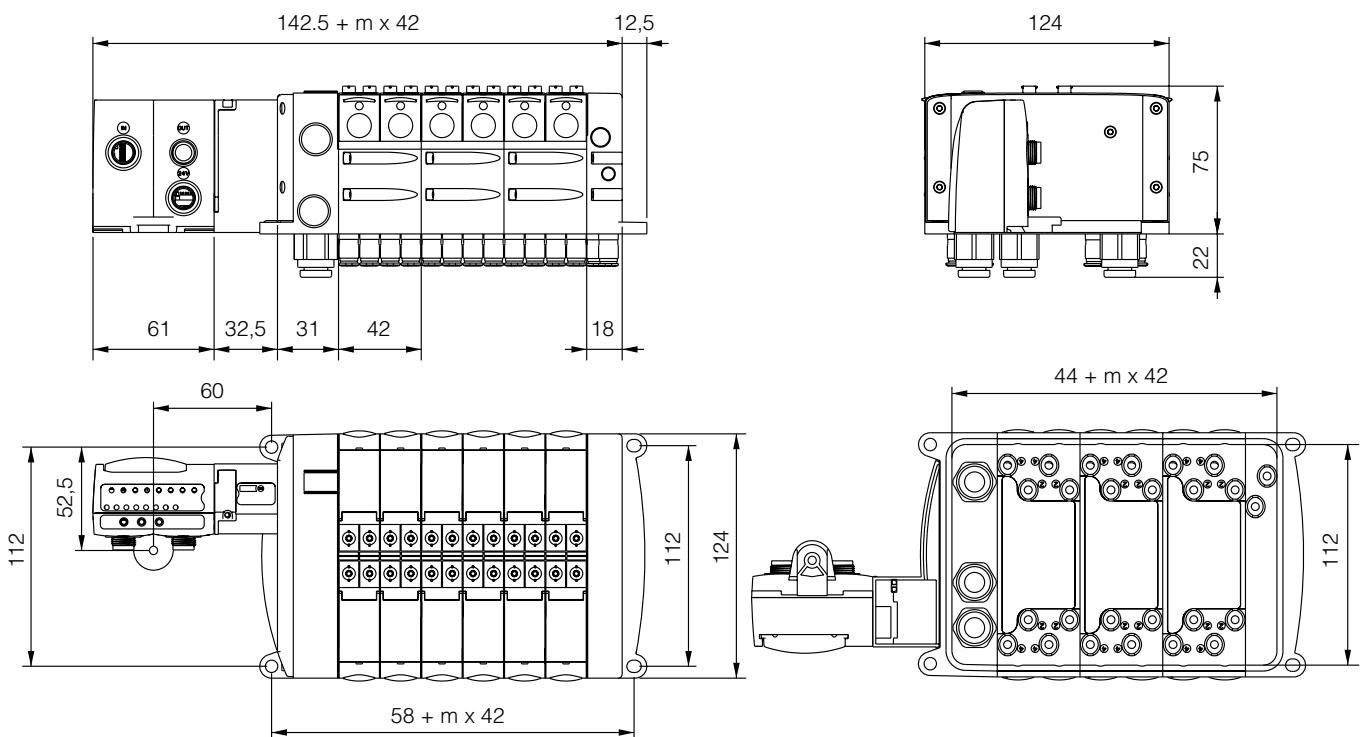
M7 fittings	a
Ø 4 mm	11
Ø 6 mm	16

Isys Micro with TURCK BL67 adaptor - Bottom ported

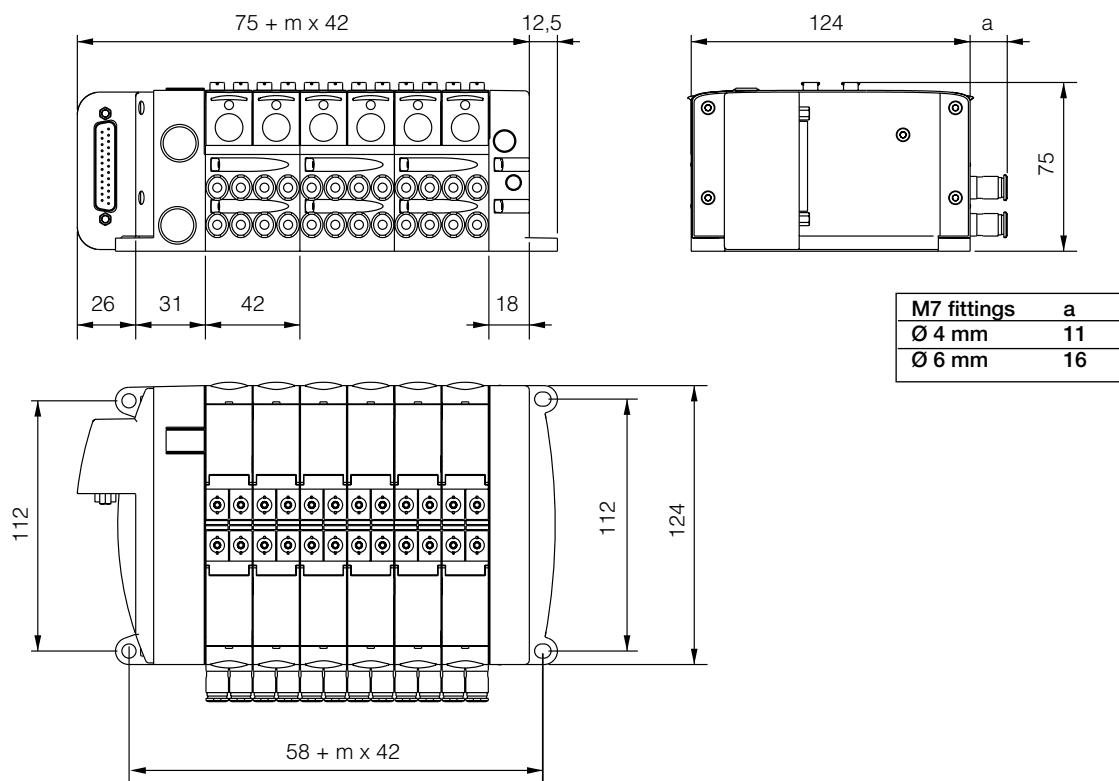


Note:

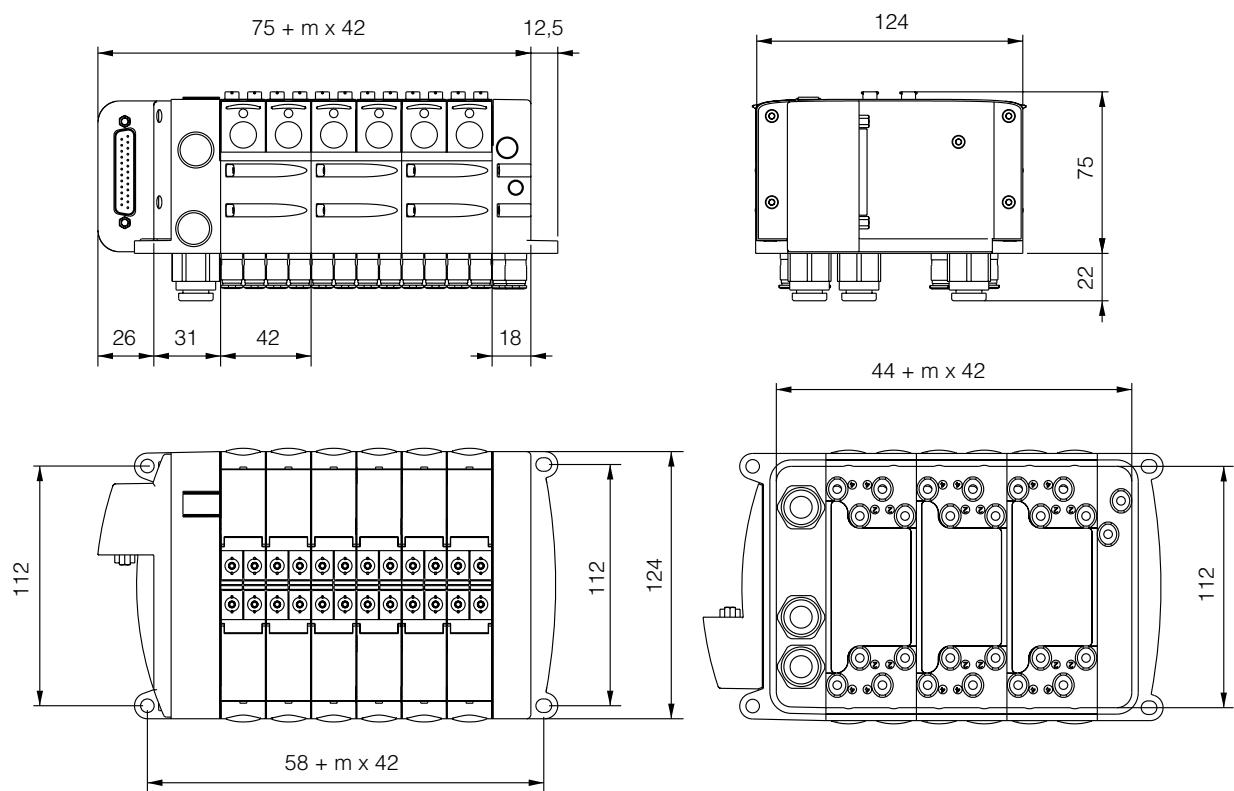
m = number of manifolds
(one manifold for 4 valves modules)

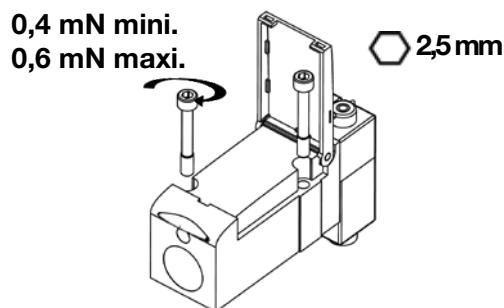
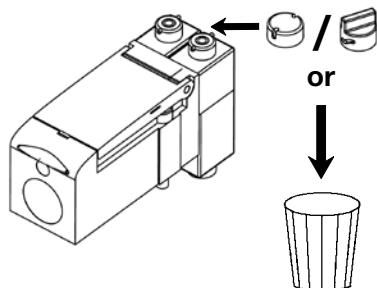
Fieldbus - Side ported**Fieldbus - Bottom ported****Note:**

m = number of manifolds
(one manifold for 4 valves modules)

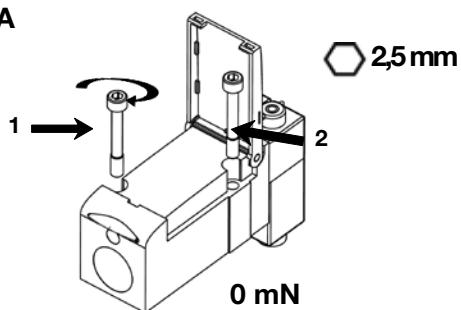
SubD25 - Side ported**Note:**

m = number of manifolds
(one manifold for 4 valves modules)

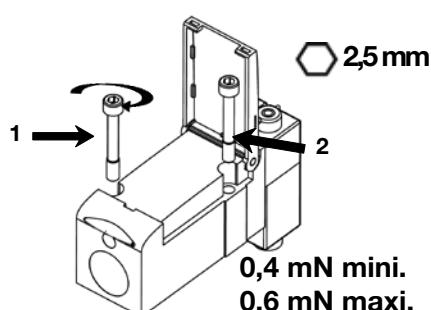
SubD25 - Bottom ported



A



B



W930019620111

<http://www.parker.com/Pneumatic>

300196201W05 02



**Isys Micro
Installation & Service Instructions
Sheet B**

**ISSUED: 06 2008
Supersedes: None**

WARNING: Failure to follow all precautions, warnings, instructions, and information contained herein, and from the Parker website, may cause death, personal injury, and/or property damage. More detailed information, in several languages, may be obtained from the Parker website:

www.parker.com or call 1-800-C PARKER in the USA or
00 800 27 27 53 74 in Europe.

W930019620111

<http://www.parker.com/Pneumatic>

300196201W05 02

GENERAL SAFETY GUIDELINES

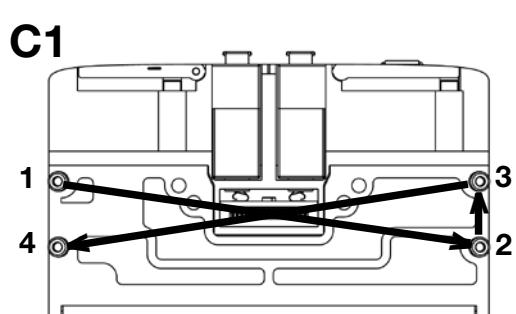
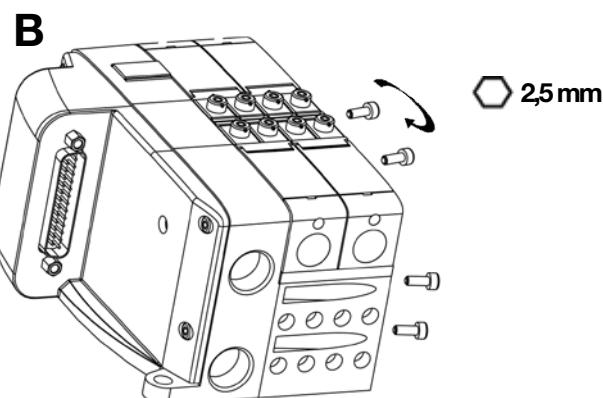
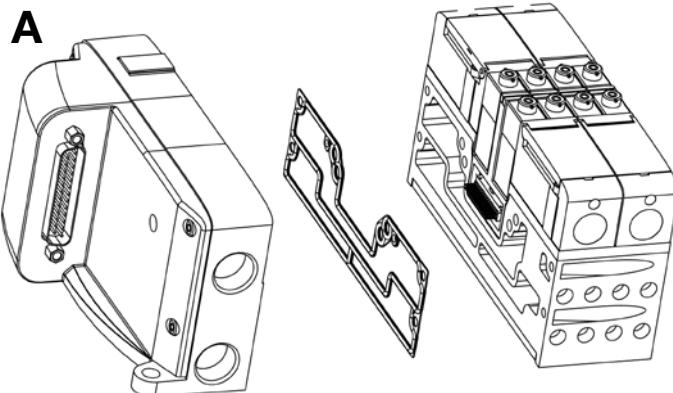
- Always disconnect the electric and air supply to the valve before adjusting.
- Always lockout power to machinery that the valve is attached to before adjusting.
- Keep hands and clothing away from any pinch points & paths of moving cylinders.
- Never disassemble valves without proper instruction and manuals. This may be obtained from a distributor or the website described above.

GENERAL INSTALLATION GUIDELINES

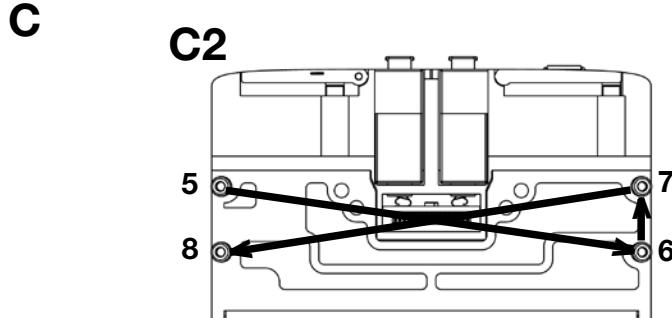
- Push plug-in pneumatic connectors securely into the modules and assemble the valve islands as shown on reverse side.
- Secure the valve or valve island using the din-rail fasteners or the mounting holes.
- Attach Parker tubing to the pneumatic connectors. Completely push clean, square-cut precision tubing into the pneumatic connectors.
- Attach electrical connections with power off.
- Test the system operation for function and leakage. Do not put into operation until the function is as intended and there is no leakage.



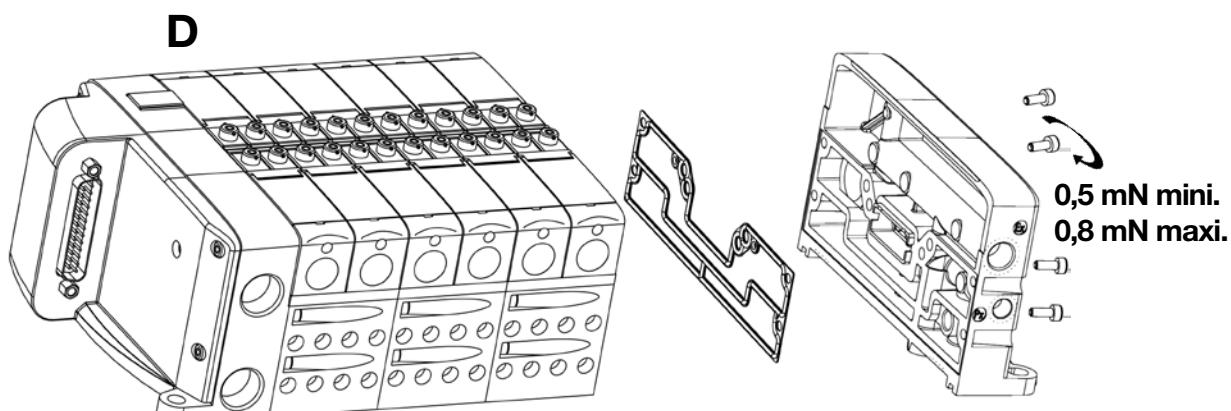
PSM . . AP



1, 2, 3, → 4 ↘ 0 mN



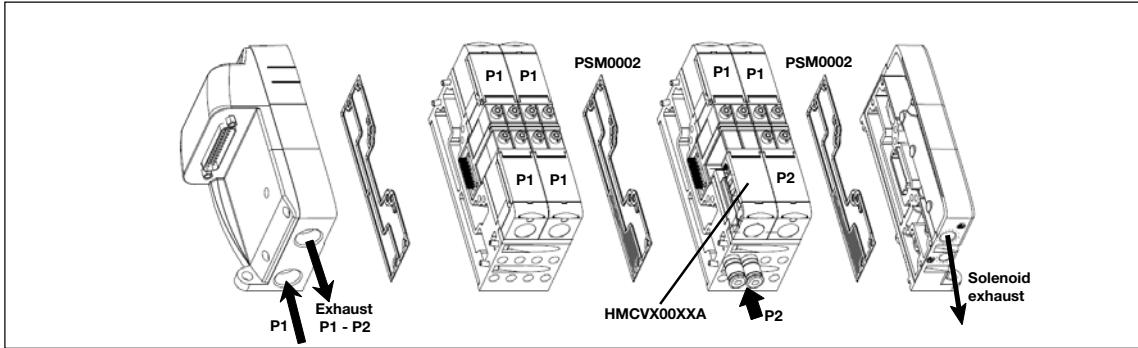
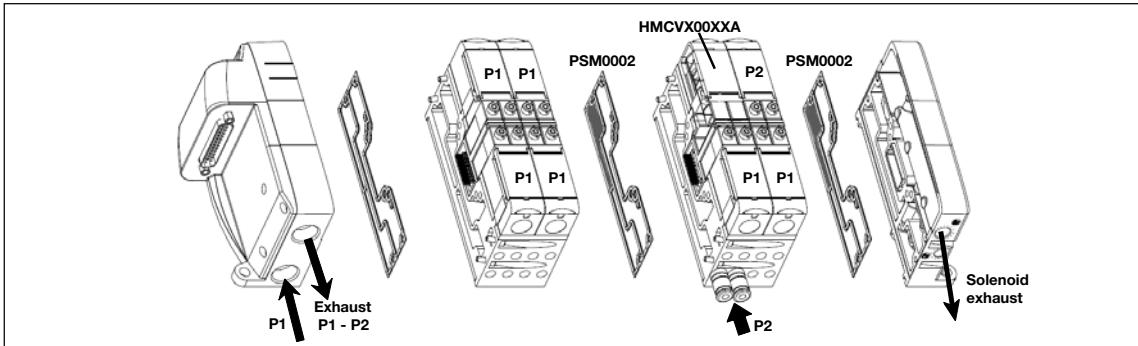
5, 6, 7, → 8 ↘ 0,5 mN mini.
0,8 mN maxi.



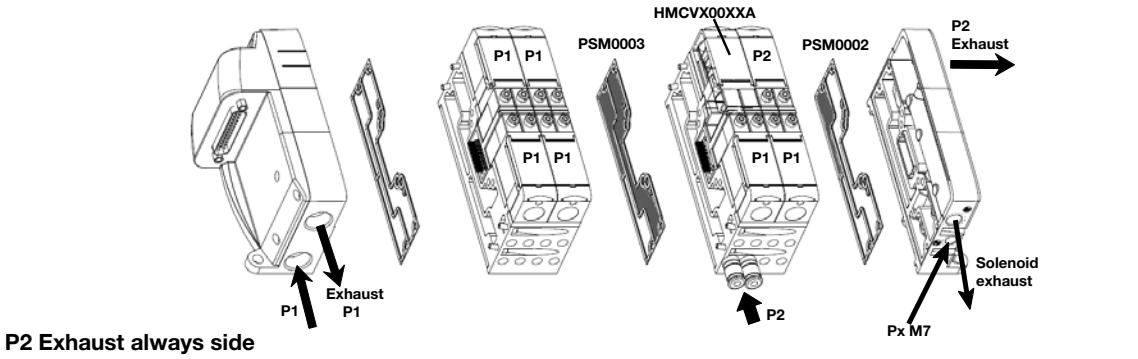


Inter-manifold seal plate

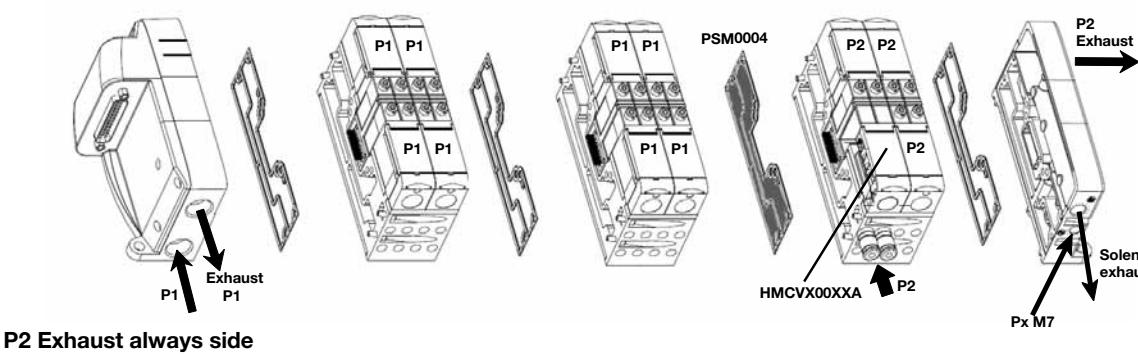
PSM0002



PSM0003



PSM0004

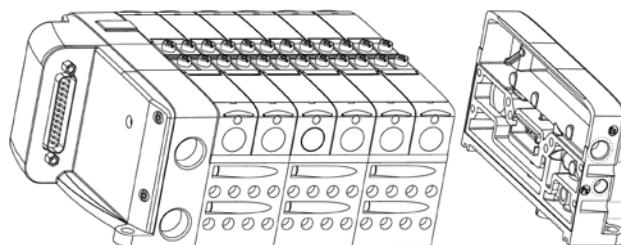


Operating pressure -0.9 to 8.3 bar, with external pilot pressure 6 bar. Solenoid pressure supply 2.7 to 8.3 bar

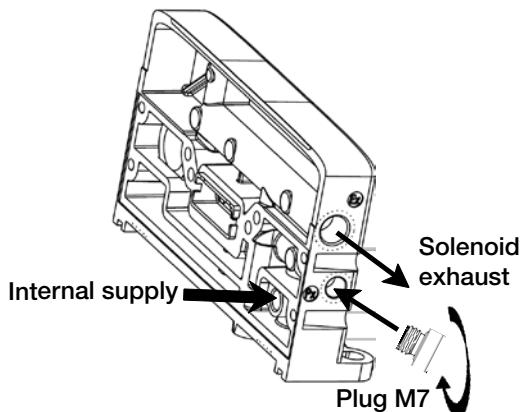


PSM...AP

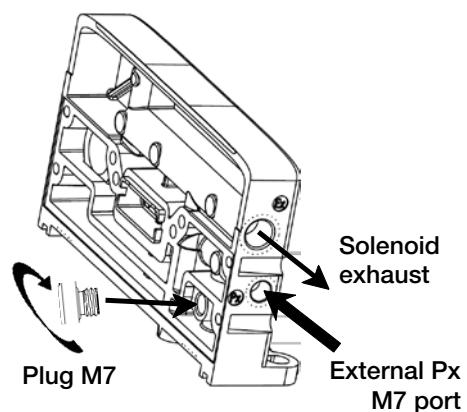
Side ported



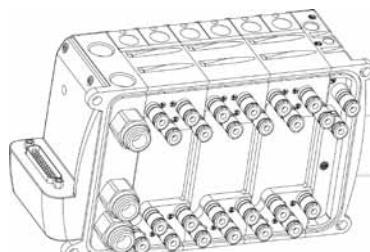
Internal solenoids pilot supply



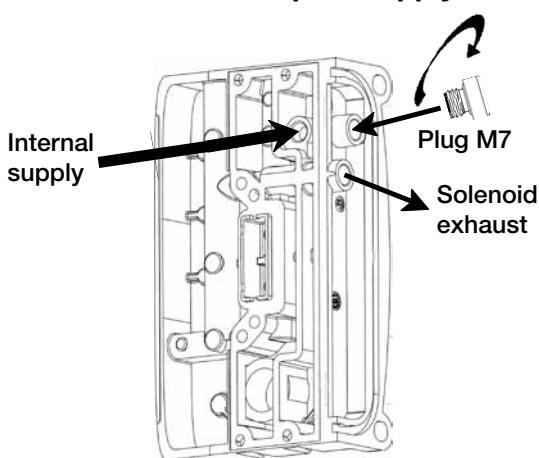
External solenoids pilot supply



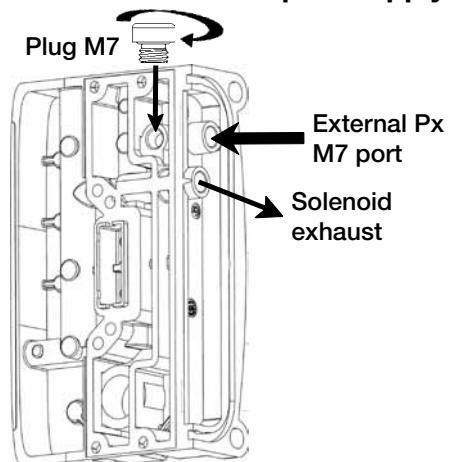
Bottom ported



Internal solenoids pilot supply



External solenoids pilot supply



Operating pressure -0.9 to 8.3 bar, with external pilot pressure 6 bar. Solenoid pressure supply 2.7 to 8.3 bar

Parker Worldwide

Europe, Middle East, Africa

AE – United Arab Emirates, Dubai
Tel: +971 4 8127100
parker.me@parker.com

AT – Austria, Wiener Neustadt
Tel: +43 (0)2622 23501-0
parker.austria@parker.com

AT – Eastern Europe, Wiener Neustadt
Tel: +43 (0)2622 23501 900
parker.easteurope@parker.com

AZ – Azerbaijan, Baku
Tel: +994 50 2233 458
parker.azerbaijan@parker.com

BE/LU – Belgium, Nivelles
Tel: +32 (0)67 280 900
parker.belgium@parker.com

BY – Belarus, Minsk
Tel: +375 17 209 9399
parker.belarus@parker.com

CH – Switzerland, Etoy
Tel: +41 (0)21 821 87 00
parker.switzerland@parker.com

CZ – Czech Republic, Klicany
Tel: +420 284 083 111
parker.czechrepublic@parker.com

DE – Germany, Kaarst
Tel: +49 (0)2131 4016 0
parker.germany@parker.com

DK – Denmark, Ballerup
Tel: +45 43 56 04 00
parker.denmark@parker.com

ES – Spain, Madrid
Tel: +34 902 330 001
parker.spain@parker.com

FI – Finland, Vantaa
Tel: +358 (0)20 753 2500
parker.finland@parker.com

FR – France, Contamine s/Arve
Tel: +33 (0)4 50 25 80 25
parker.france@parker.com

GR – Greece, Athens
Tel: +30 210 933 6450
parker.greece@parker.com

HU – Hungary, Budapest
Tel: +36 1 220 4155
parker.hungary@parker.com

IE – Ireland, Dublin
Tel: +353 (0)1 466 6370
parker.ireland@parker.com

IT – Italy, Corsico (MI)
Tel: +39 02 45 19 21
parker.italy@parker.com

KZ – Kazakhstan, Almaty
Tel: +7 7272 505 800
parker.easteurope@parker.com

NL – The Netherlands, Oldenzaal
Tel: +31 (0)541 585 000
parker.nl@parker.com

NO – Norway, Asker
Tel: +47 66 75 34 00
parker.norway@parker.com

PL – Poland, Warsaw
Tel: +48 (0)22 573 24 00
parker.poland@parker.com

PT – Portugal, Leca da Palmeira
Tel: +351 22 999 7360
parker.portugal@parker.com

RO – Romania, Bucharest
Tel: +40 21 252 1382
parker.romania@parker.com

RU – Russia, Moscow
Tel: +7 495 645-2156
parker.russia@parker.com

SE – Sweden, Spånga
Tel: +46 (0)8 59 79 50 00
parker.sweden@parker.com

SK – Slovakia, Banská Bystrica
Tel: +421 484 162 252
parker.slovakia@parker.com

SL – Slovenia, Novo Mesto
Tel: +386 7 337 6650
parker.slovenia@parker.com

TR – Turkey, Istanbul
Tel: +90 216 4997081
parker.turkey@parker.com

UA – Ukraine, Kiev
Tel +380 44 494 2731
parker.ukraine@parker.com

UK – United Kingdom, Warwick
Tel: +44 (0)1926 317 878
parker.uk@parker.com

ZA – South Africa, Kempton Park
Tel: +27 (0)11 961 0700
parker.southafrica@parker.com

North America

CA – Canada, Milton, Ontario
Tel: +1 905 693 3000

US – USA, Cleveland
Tel: +1 216 896 3000

Asia Pacific

AU – Australia, Castle Hill
Tel: +61 (0)2-9634 7777

CN – China, Shanghai
Tel: +86 21 2899 5000

HK – Hong Kong
Tel: +852 2428 8008

IN – India, Mumbai
Tel: +91 22 6513 7081-85

JP – Japan, Tokyo
Tel: +81 (0)3 6408 3901

KR – South Korea, Seoul
Tel: +82 2 559 0400

MY – Malaysia, Shah Alam
Tel: +60 3 7849 0800

NZ – New Zealand, Mt Wellington
Tel: +64 9 574 1744

SG – Singapore
Tel: +65 6887 6300

TH – Thailand, Bangkok
Tel: +662 186 7000 99

TW – Taiwan, Taipei
Tel: +886 2 2298 8987

South America

AR – Argentina, Buenos Aires
Tel: +54 3327 44 4129

BR – Brazil, São José dos Campos
Tel: +55 800 727 5374

CL – Chile, Santiago
Tel: +56 2 623 1216

MX – Mexico, Apodaca
Tel: +52 81 8156 6000

European Product Information Centre
Free phone: 00 800 27 27 5374
(from AT, BE, CH, CZ, DE, DK, EE, ES, FI,
FR, IE, IL, IS, IT, LU, MT, NL, NO, PL, PT, RU,
SE, SK, UK, ZA)

