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

# H Series Micro

## Plug-in valve island

PDE2597TCUK

Parker

ENGINEERING YOUR SUCCESS.

poster
e-configurator
catalogue

# The machine designer H Series 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 H Series Micro valve island **e-configurator** and **3D models** are available on website: **http://www.parker.com/pneu**

2 - The H Series 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.

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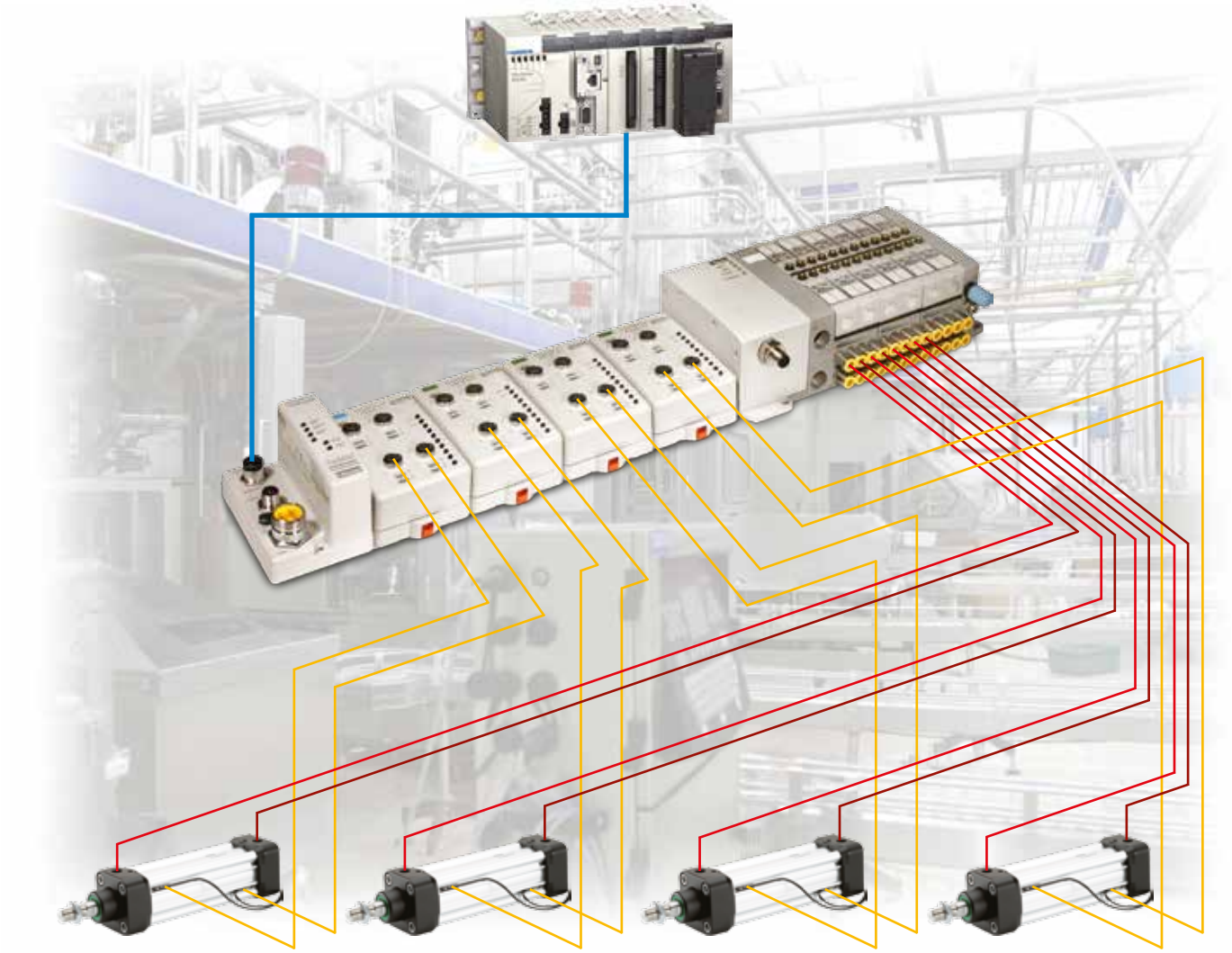
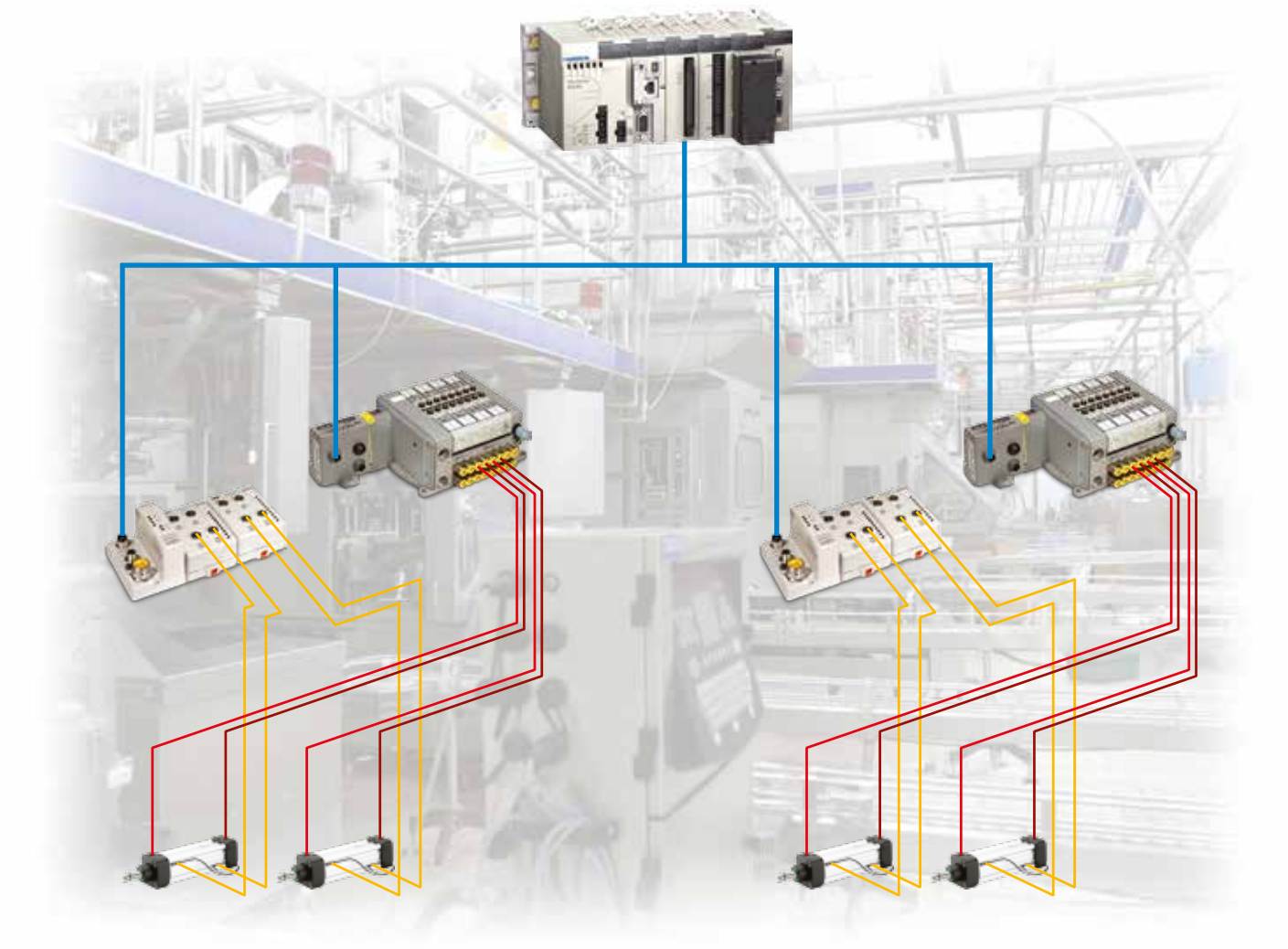
# Valve Islands for centralized application



## Valve islands for centralized application

Depending upon the machine configuration and design, all of the pneumatic actuators may be controlled form 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



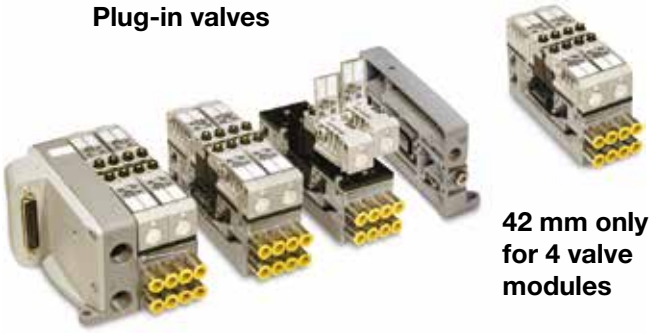
## Valve islands for decentralized application

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 H Series Micro valve redefines flexibility for pneumatic users. When either configured from basic components or ordered as pre-assembled and tested valve islands, H Series 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**

**Optimized flow for a 6 mm OD tube**

- 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.

**Qn = 282 Nl/mn** **Qmax = 510 Nl/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

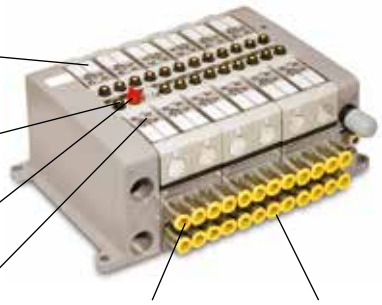
- **Multifunction manual override**

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



## H Series Fieldbus : A centralized Fieldbus and Industrial Ethernet system

### Integrated Solution

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

### Communication Modules

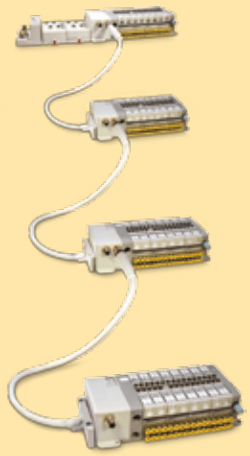
- A Communication Module supports up to 63 I/O modules and up to 256 Inputs and 256 Outputs.

### 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.

### 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 H Series 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.

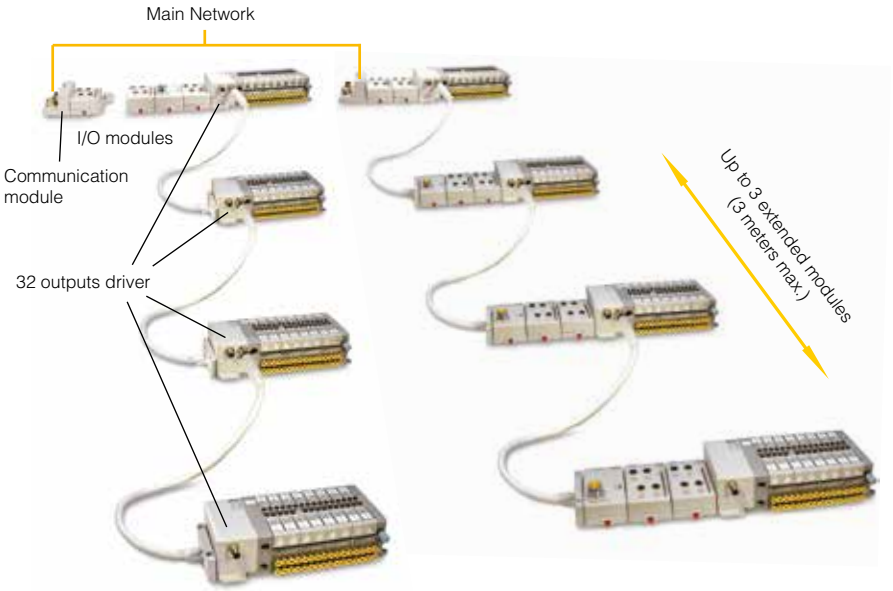
From a centralized application high complexity level to a basic configuration, with industrial communication or traditional multi-connection, an H Series Micro valve island can be designed.

## 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 H Series Micro valve islands to drive up to 512 I/O, including up to 128 solenoids splited 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.



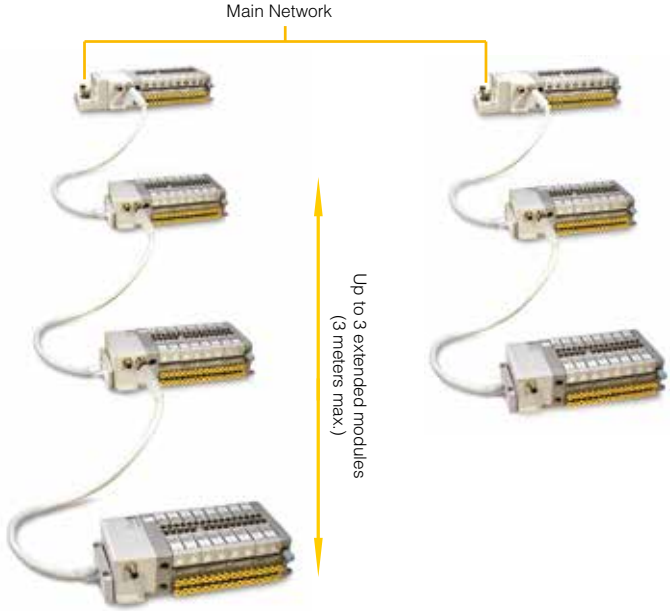

## Up to 128 solenoid valves configuration

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).

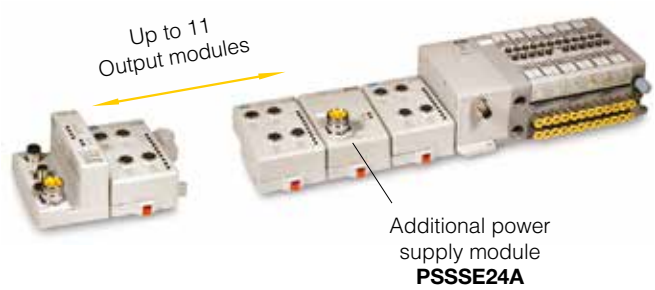
In this configuration, the 32 outputs driver module, on the main island and the extended island, have to be equiped with a "bus extention" M12 connector, excepted for the last extended island.

All 32 outputs driver modules need to be equiped 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

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 and IO-Link 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.

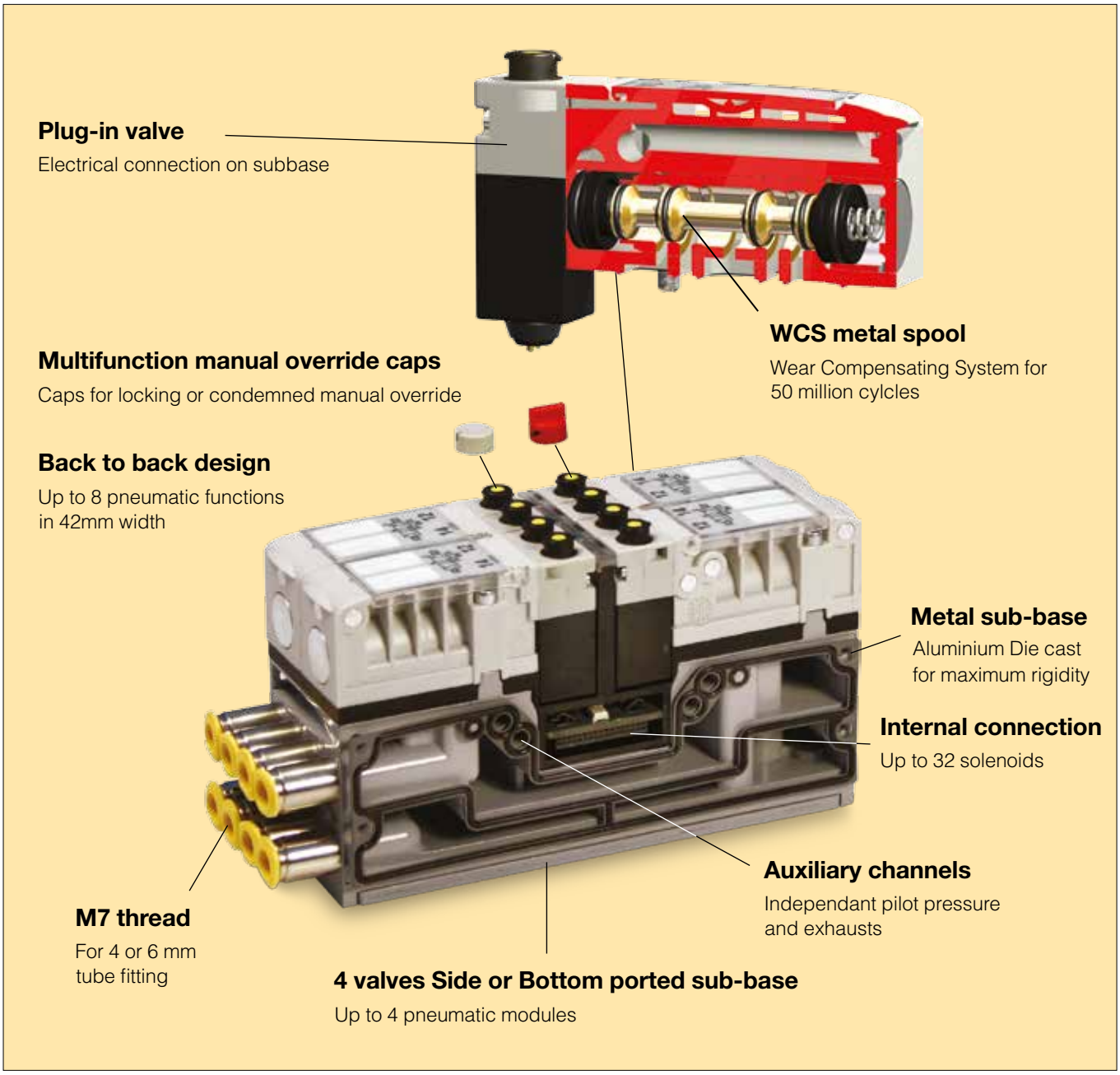
In that case, the valve island has to be equiped with a bus communication head module adaptor.

Depending on the protocol, the head module can pilot
- For fieldbus : Up to 16 solenoid valves
- For IO-Link : Up to 24 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 equiped with a standard Sub-D25 connector.

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




## Material Specification

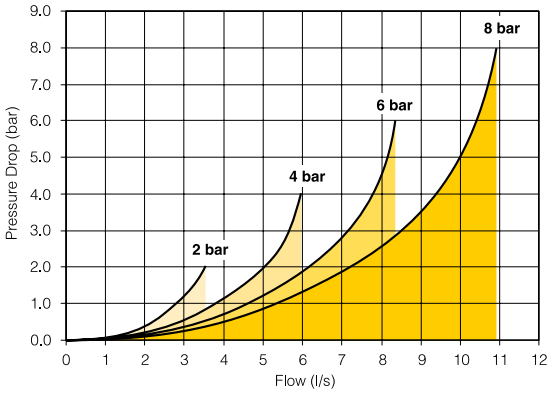
| | |
|---|---|
| Valve spool : | Brass |
| Valve spool enclosure : | Brass |
| Dynamic seals : | Nitrile |
| Valve body : | Polyamide reinforced fibreglass |
| Seals : | Nitrile |
| Springs : | Stainless steel |
| Top cover : | Polyester |
| Subbase - End plates : | Painted aluminium |

## Certification

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

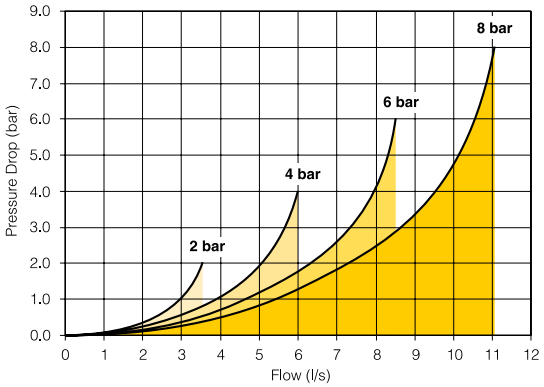
## Flow Characteristics

### Dual 3/2



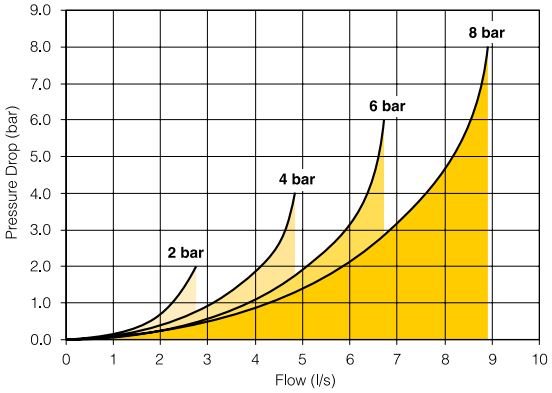

| | |
|---|---|
| Operating pressure : | 2,7 to 8,3 bar |
| Change-over time (side 14) | Actua. 15 ms<br>Return 20 ms P = 6b |
| Change-over time (side 12) | 15 ms / 25 ms P = 6b |
| Flow (acc. to ISO 6358) : | c = 1,2 Nl/s x bar<br>b = 0,13<br>Qn = 4,6 Nl/s<br>Qmax = 8,4 Nl/s |

### 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<br>Return 25 ms P = 6b |
| Change-over time double solenoid: | 13 ms / 13 ms P = 6b |
| Flow (acc. to ISO 6358) : | c = 1,2 Nl/s x bar<br>b = 0,13<br>Qn = 4,7 Nl/s<br>Qmax = 8,5 Nl/s |

### 5/3 all ports blocked




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

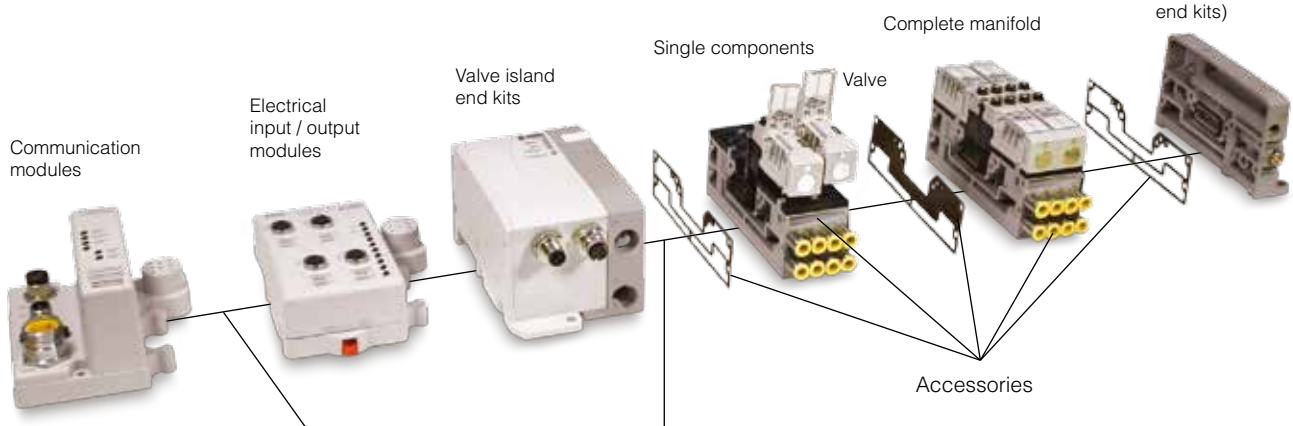
## Characteristics

| | |
|---|---|
| Fluid : | Air or inert gas<br>Filtered 40 µ<br>Class 5 (according to ISO 8573-1)<br><br>Dry class 4 (according to ISO 8573-1)<br>Non-lubricated or lubricated |
| Storage temperature : | -40 °C to + 70 °C |
| Working temperature | -15 °C to + 50°C |
| Vibration : | according to IEC 68-2-6<br>2G to 150 Hz |
| Shock : | according to IEC 68-2-27<br>15G 11 ms |

| | |
|---|---|
| Operating pressure : | -0.9 to 8,3 bar<br>with external pressure 6 bar |
| Piloting pressure : | 2.7 to 8.3 bar |
| Exhaust collection : | Independant exhaust collection |
| Rated coil voltage : | 24 VDC -15 % / +10 % |
| Electrical connection: | Not polarised |
| 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



**H Series Fieldbus System**
Fieldbus and Industrial Ethernet

Up to 128 solenoid valves
on 4 interconnected islands

**Electro-mechanical interface to the TURCK - BL67 series**

Up to 16 or 32 solenoid valves

Connected to the BL67 series
from TURCK, offering :
- a wide choice of Fieldbus and industrial ethernet protocols
- a complete range of digital or analogic I/O modules with a large choice of connectivity

**Moduflex communication module**

Fieldbus: Up to 16 solenoid valves
protocols

IO-Link: Up to 24 solenoid valves

**Multi-pole connection sub-D25**

Up to 24 solenoid valves

## Valve island components

### Manifold components:

Pages 14 & 15

Valve

Sub-base

Complete manifold

### Fittings and accessories:

Pages 16 & 17

Fittings

Multi-pressure manifold seals

## H Series Fieldbus components

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

Pages 18 to 21

32 outputs drivers

Industrial communication modules

Bus extender

I/O modules

Accessories

## Valve Driver Module to TURCK BL67 adaptor

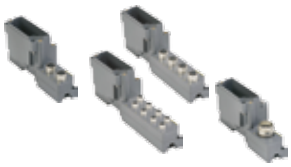
### Valve island end kits, 16 outputs & Blank modules:

Pages 22 to 27

16 or 32 Outputs drivers

Industrial communication gateway

Electronic and Power feeding modules


Base modules

## Moduflex Bus components

### Valve island end kits, Fieldbus modules and accessories:

Pages 28 & 29

Communication module

Fieldbus adaptor

Accessories

## Multi-pole connection components

### Sub-D25 end kits and cables:

Pages 30 & 31

Sub-D25 end kits

Cables

## Valve ordering chart

**HMEVX2049A**

| Pneumatic function | |
|---|---|
| E | 5/2 Single solenoid - Spring return |
| 2 | 5/2 Double solenoid |
| 5 | 5/3 All ports blocked (APB) |
| N | Double 3/2 NC |
| P | Double 3/2 NO |
| Q | Double 3/2 NC + NO |

| Manual override | |
|---|---|
| 0 | None, (no solenoid *) |
| 2 | Non locking, Flush, Multi-functional |

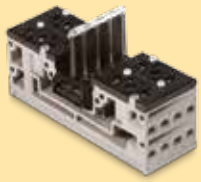
| Solenoid pilot | |
|---|---|
| 49 | 24 VDC standard |

| | |
|---|---|
| B | Blanking plate |
| C | Pressure module |

| | |
|---|---|
| XX | No solenoid pilot * |

* Only available with B & C

## Manifold ordering chart (without valve module and fitting)



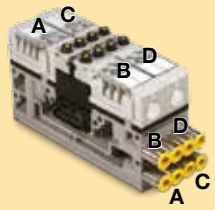
**PSM21JAP**

| Manifold design | | Thread type |
|---|---|---|
| 1 | Side ported | M7 |
| 2 | Bottom ported | M7 |

| Electronic circuit board | |
|---|---|
| J | Single address * |
| M | Double adress |

Single address sub-bases are only used with 5/2 single solenoid for saving the address

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




| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | A 9 | 10 | B 11 | 12 | C 13 | 14 | D 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | S | M | 3 | 1 | J | A | P | N | 6 | N | 6 | 2 | 4 | 5 | 6 |

| Manifold design | | Thread type |
|---|---|---|
| 1 | Side ported | M7 |
| 2 | Bottom ported | M7 |

| Electronic circuit board | |
|---|---|
| J | Single address |
| M | Double adress |

Digits 9, 11, 13 & 15

| Pneumatic function | |
|---|---|
| X | Without valve module - fittings only |
| E | 5/2 Single solenoid - Spring return |
| 2* | 5/2 Double solenoid |
| 5* | 5/3 All ports blocked (APB) |
| N* | Double 3/2 NC |
| P* | Double 3/2 NO |
| Q* | Double 3/2 NC + NO |

| | |
|---|---|
| C | Pressure module |
| B | Blanking plate |

Digits 10, 12, 14 & 16

| Straight fittings | |
|---|---|
| 0 | Without fitting |
| 4 | 4 mm OD |
| 6 | 6 mm OD |
| 7 | 1/4" OD |

| | |
|---|---|
| P | Plug (for blanking plate) |

* Double address electronic circuit board (type M) required

## 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** |

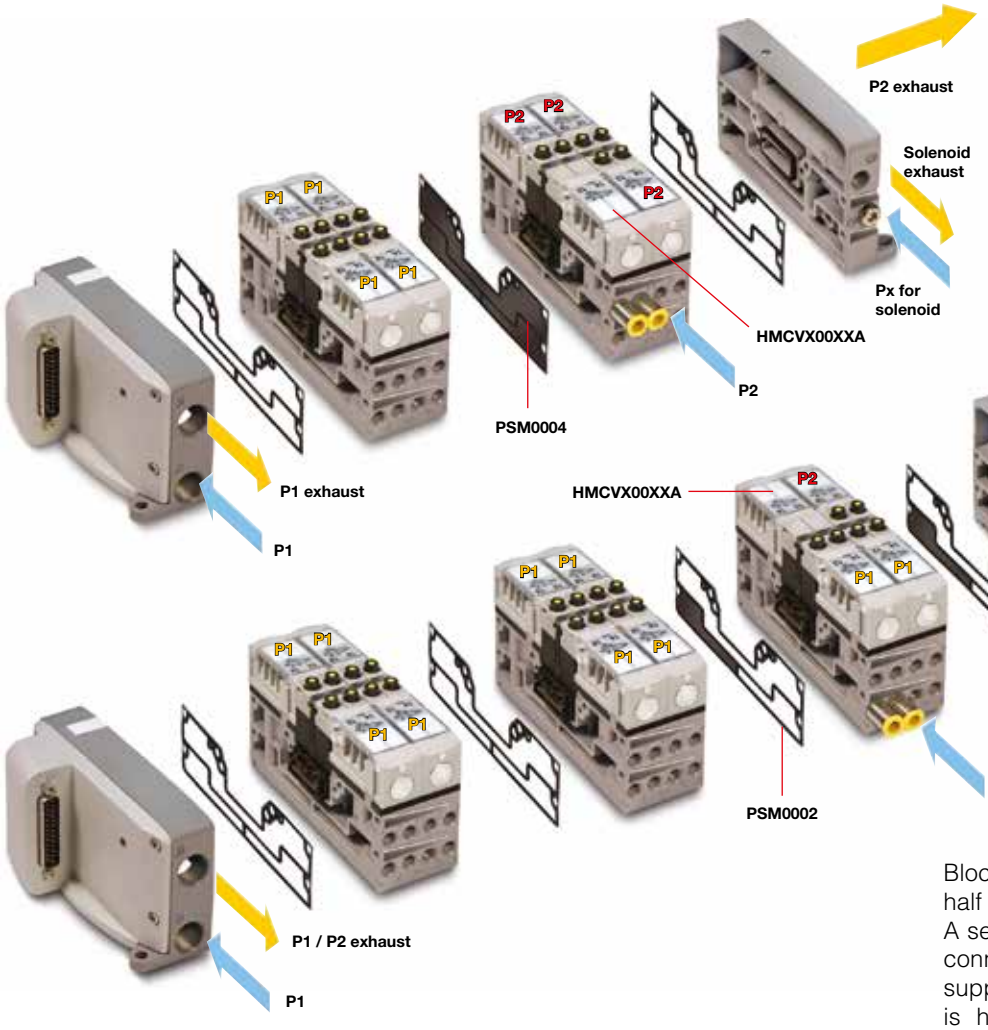
## Metal manifold for 4 valves (M7 threaded)

| | 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



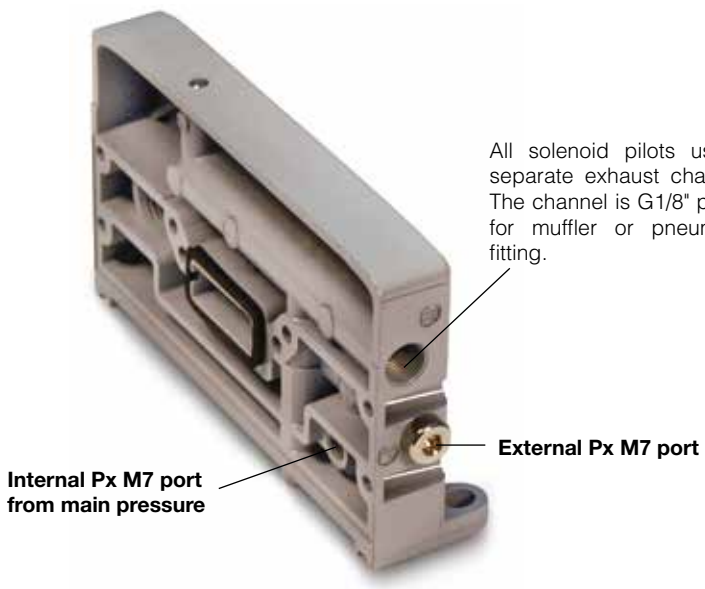

Blocking plate PSM0004 is used in the multi-pressure valve island, pressure and exhaust are isolated. Px for external solenoids power supply must be connected and the pressure must be equal to the minimum operating pressure. Cannot be made with bottom ported sub- bases.

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 |
|---|---|---|---|---|---|
| | Straight pneumatic connector for sub-base and **Px** | M7 | 4 mm | Metal | **F28PMB4M7MD** |
| | | M7 | 6 mm | Metal | **F28PMB6M7MD** |
| | Straight pneumatic connector for **Ex** | 1/8" | 6 mm | Metal | **F4PMB6-1/8** |
| | Straight pneumatic connector for Pressure and Exhaust ports | 3/8" | 8 mm | Metal | **F4PB8-3/8** |
| | | 3/8" | 10 mm | Metal | **F4PB10-3/8** |
| | | 3/8" | 12 mm | Metal | **F4PB12-3/8** |
| | Muffler for **Ex** | 1/8" | | Metal | **ESB12MC** |
| | | 1/8" | | Plastic | **P6M-PAB1** |
| | Muffler for exhaust port | 3/8" | | Sintered metal | **9090050900** |

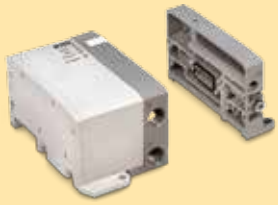
## Multi-pressure inter-manifold seal plate

| | Description | Pressure port | Exhaust port | Weight (g) | Order code |
|---|---|---|---|---|---|
| | Inter-manifold seal plate | 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** |

## H Series Fieldbus 32 output driver end modules ordering chart



**P S M L 6 1 A P**

| H Series Fieldbus 32 Output driver end modules | 24 VDC power supply connector | Extender bus connector |
|---|---|---|
| **L6** | NO | NO |
| **M5** | NO | YES |
| **M6** | YES | NO |
| **M7** | YES | YES |

| | 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 |

## 32 outputs driver selection guide :

### L6 type

- H Series Fieldbus 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

- H Series Fieldbus 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

- H Series Fieldbus 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

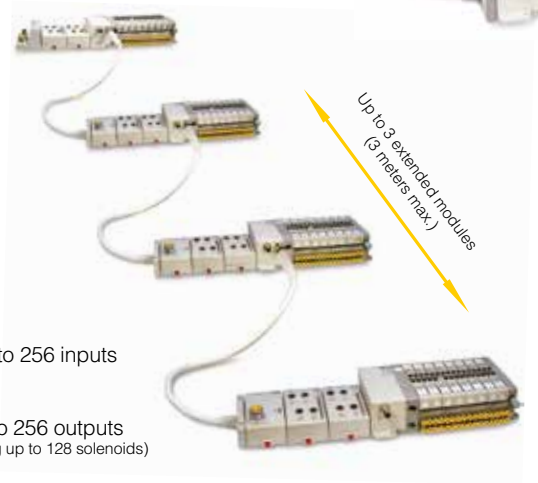
- H Series Fieldbus 32 outputs driver with internal solenoids power supply from the communication head module
- Extended Bus link connection for additional valve islands by separate M12 female connector

Up to 32 solenoid valves per island

## H Series Fieldbus bus extender

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

Every extended island has to be separately power supplied




Up to 256 inputs

Up to 256 outputs
(including up to 128 solenoids)

## Technical data

### H Series Fieldbus 32 Outputs driver modules

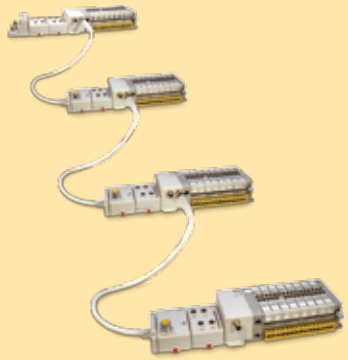
| | |
|---|---|
| Number of Outputs : | 32 |
| Operating Voltage Range : | 20,4 to 26.4 VDC |
| Output current rating Nom. : | 50 mA per chanel (100 mA Max) |
| | 3.2A per module |
| Pointbus current : | 200 mA |
| Working temperature : | -15°C to 50°C |
| Dust and water protection : | IP65 |

## H Series Fieldbus 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** |

## H Series Fieldbus bus extender

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



Communication modules :
- Fieldbus
- Industrial Ethernet

Digital and Analogical I/O modules
Extended power supply module
IP67 modules

## H Series Fieldbus Communication and I/O modules

### H Series Fieldbus Communication modules

H Series Fieldbus communication modules are available in :

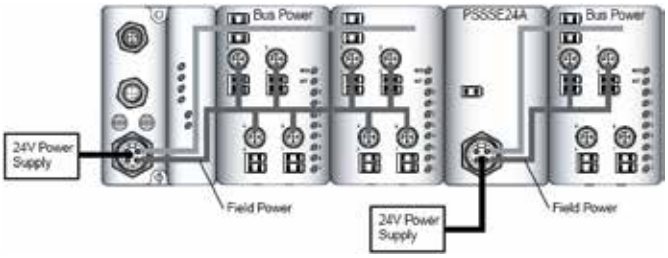
- DeviceNet
- Profibus DP
- Ethernet I/P
- ControlNet

### Digital or Analogical electrical I/O modules

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

## H Series Fieldbus 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

### H Series Fieldbus 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 |

### H Series Fieldbus Analogue Input modules

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

### H Series Fieldbus Analogue Output modules

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

### H Series Fieldbus 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 |

### H Series Fieldbus Digital Ouput modules

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

### H Series Fieldbus 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<br>8 A per module |
| Pointbus current : | 90 mA |

## H Series Fieldbus Communication Modules

| Description | Fieldbus connection | Power supply connector | Weight (g) | Order code |
|---|---|---|---|---|
| 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** |

## H Series Fieldbus Electrical I/O Modules

**PSSN8M8A**

**PSST8M12A**

**PSST8M23A**

**PSSNACM12A**

**PSSTACM12A**

| Description | Polarity | Connector type | Weight (g) | Order code |
|---|---|---|---|---|
| 8 Digital Inputs | PNP | 8 x M8 | 400 | **PSSN8M8A** |
| | | 4 x M12 | 380 | **PSSN8M12A** |
| | NPN | 4 x M12 | 380 | **PSSP8M12A** |
| 8 Digital Ouputs | PNP | 8 x M8 | 400 | **PSST8M8A** |
| | | 4 x M12 | 380 | **PSST8M12A** |
| | | 1 x M23 | 400 | **PSST8M23A** |
| 4 Digital Ouputs | Relay | 4 x M12 | 410 | **PSSTR4M12A** |
| 2 Analogue Inputs | 0 - 10 V | 2 x M12 | 400 | **PSSNAVM12A** |
| | 4 - 20 mA | 2 x M12 | 400 | **PSSNACM12A** |
| 2 Analogue Outputs | 0 - 10 V | 2x M12 | 400 | **PSSTAVM12A** |
| | 4 - 20 mA | 2 x M12 | 400 | **PSSTACM12A** |

## H Series Fieldbus Auxiliary Electrical Modules

**PSSSE24A**

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

## H Series Fieldbus Bus Extender

**PSSEXT1**

**PSSTERM**

| Description | Length | Weight (g) | Order code |
|---|---|---|---|
| Bus extender cable | 1 meter | 380 | **PSSEXT1** |
| for H Series Fieldbus module interconnection | 3 meters | 760 | **PSSEXT3** |
| H Series Fieldbus termination module | | 200 | **PSSTERM** |

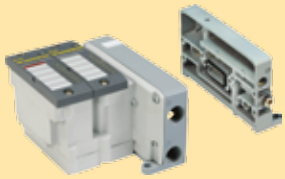
## H Series Fieldbus Accessories

**P8CS0803J**

**P8CSY1212A**

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

## H Series Micro end plates with Turck BL67 Adaptor



**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 :**
Thanks to its modularity, the H Series Micro Valve Driver Module to Turck BL67 Remote I/O System adaptor can be configure up to either a 16 or 32 solenoid valves configuration :

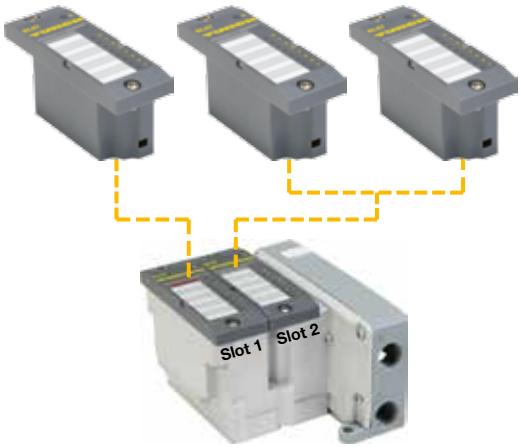
For a light configuration up to 16 solenoid valves (2 double address or 4 single address manifolds), the Valve Driver Module can be optimized being populated with:

- 1 Standard Turck 16 DO module BL67-16DO-0.1A-P in slot 1
- 1 blank module BL67-E in slot 2

For a full configuration up to 32 solenoid valves (4 double address or 8 single address manifolds), the Valve Driver Module must be fully populated with 1 Standard Turck 16 DO module BL67-16DO-0.1A-P in each slot.

**BL67-16DO-0.1A-P**
16 DO module for Solenoids
0 to 15 16 to 31

**BL67-E**
blank module
for configuration
up to 16 solenoid valves




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

| | |
|---|---|
| Number of channels | 16 |
| Nominal voltage $V_O$ | 24 VDC |
| Rated current from field supply | ≤ 100 mA |
| Rated current from module bus | ≤ 30 mA |
| Power loss, typical | ≤ 1.5 W |
| Output type | PNP |
| Output voltage | 24 VDC |
| Output current per channel | 140 mA rated current (with VN 01-05 or higher) |
| Output delay | 3 ms |
| Load type | resistive, inductive |
| Short-circuit protection | yes |
| Simultaneity factor | 1 |
| Electrical isolation | electronics for the field level |

| | |
|---|---|
| Dimensions (W x L x H) | 32 x 91 x 59 mm |
| Approvals | CE, cULus |
| Operating temperature | Refer to solenoid valve |
| Storage temperature | -40°C to +70°C |
| Vibration | According to IEC68-2-6 : 2g to 150 Hz |
| Shock test | According to IEC68-2-27 : 15g to 11 ms |
| Electro-magnetic compatibility | acc. to EN61131-2 |
| Protection class | IP 65 |
| Tightening torque fixing screws | 0.9 ... 1.2 Nm |

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

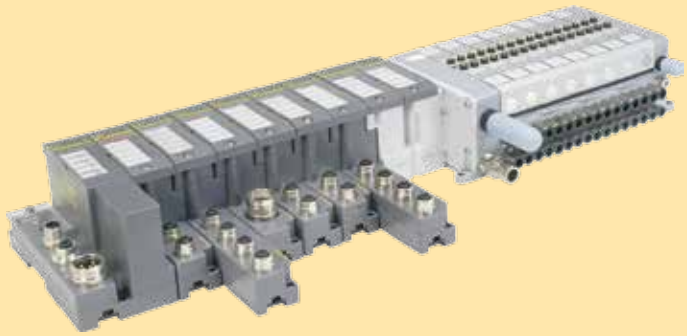
## Valve Driver Module - TURCK BL67 adaptor

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

## TURCK BL67 Remote I/O System

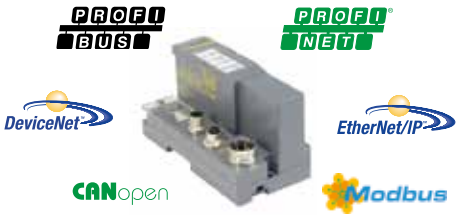


Using the Turck BL67 Valve Driver Adaptor, it's very easy to connect an H Series Micro Plug-in Valve Island to the industrial network, getting all the power and the flexibility offered by the TURCK BL67 Remote I/O System.

## 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 Fieldbus or Industrial Ethernet protocols.

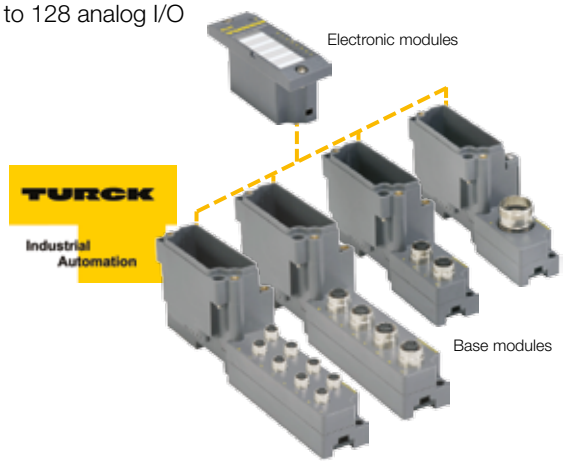



## TURCK BL67 I/O and Base modules

The separation between electronic and base module for connectivity 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)

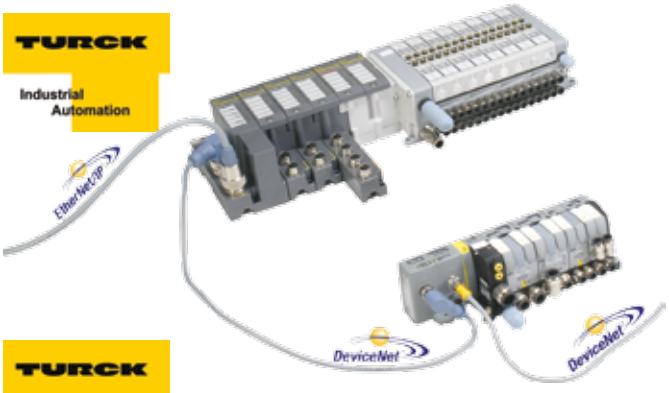
The complete resulting configuration can handle :

- Up to 32 electrical modules (up to 2 in the Valve Driver Module)
- Up to 512 digital I/O (up to 32 outputs in the Valve Driver Module)
- Up to 128 analog I/O



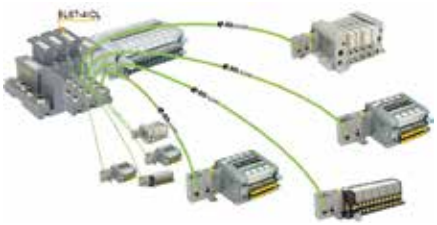

## BL67 EtherNet/IP™ gateway to DeviceNet ™

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 "SET-Button".




## BL67 4 IO-Link Class A master

The 4 IO-Link master offers a very easy and cost efficient way to extend the capacity of a H Micro configuration



## Other Turck BL67 Electronic modules

Other electronic modules, as CANopen gateway alowing a sub-network connectivity with other CANopen slaves, RFID System or counting modules complet the full TURCK BL67 Remote I/O System.

TURCK Industrial Automation

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

## TURCK BL67 Communication Gateway

| Protocol | Network connection | Power Sup. Connection | Weight (g) | Order code |
|---|---|---|---|---|
| CANopen (Bus IN & OUT) | M12 - A coding | 7/8" - 5 Pin's | 375 | **BL67-GW-CO** |
| DeviceNet™ | 7/8" - 5 Pin's | 7/8" - 5 Pin's | 360 | **BL67-GW-DN** |
| Profibus-DP (DPV0/DPV1) | M12 - B coding | 7/8" - 5 Pin's | 370 | **BL67-GW-DPV1** |
| Multiprotocol Ethernet: Modbus TCP, EtherNet/IP™ and PROFINET | M12 - D coding | 7/8" - 5 Pin's | 375 | **BL67-GW-EN** |
| Modbus TCP scan DeviceNet™ | M12 - D coding | 7/8" - 5 Pin's | 375 | **BL67-GW-EN-DN** |
| Ethernet/IP™ scan DeviceNet™ | M12 - D coding | 7/8" - 5 Pin's | 375 | **BL67-GW-EN-IP-DN** |

All TURCK BL67 System Modules can be ordered directly from TURCK under the same part number

## TURCK BL67 Programmable CODESYS Communication Gateway

| CODESYS | Protocol | Network connection | Power Sup. Connection | Weight (g) | Order code |
|---|---|---|---|---|---|
| CODESYS 2 | Slave Profibus-DP | M12 - B coding | 7/8" - 5 Pin's | 380 | **BL67-PG-DP** |
| | Slave EtherNet/IP™ | M12 - D coding | 7/8" - 5 Pin's | 375 | **BL67-PG-EN-IP** |
| | Slave Modbus TCP | M12 - D coding | 7/8" - 5 Pin's | 375 | **BL67-PG-EN** |
| CODESYS 3 | Multiprotocol Slave<br>- Profinet<br>- EtherNet/IP<br>- Modbus TCP | M12 - D coding | 7/8" - 5 Pin's | 375 | **BL67-PG-EN-V3** |

All TURCK BL67 System Modules can be ordered directly from TURCK under the same part number

## TURCK BL67 Electronic Modules

| Decription | Characteristic | Polarity | Weight (g) | Order code |
|---|---|---|---|---|
| 4 Digital Inputs | | PNP | 55 | **BL67-4DI-P** |
| | | NPN | 55 | **BL67-4DI-N** |
| | Channel diagnostics | PNP | 55 | **BL67-4DI-PD** |
| 8 Digital Inputs | | PNP | 55 | **BL67-8DI-P** |
| | | NPN | 55 | **BL67-8DI-N** |
| | Channel diagnostics | PNP | 55 | **BL67-8DI-PD** |
| 16 Digital Inputs | | PNP | 55 | **BL67-16DI-P** |
| 4 Digital Ouputs | 0.5 A | PNP | 55 | **BL67-4DO-0.5A-P** |
| | 2.0 A | PNP | 55 | **BL67-4DO-2A-P** |
| | | NPN | 55 | **BL67-4DO-2A-N** |
| | 4.0 A | PNP | 55 | **BL67-4DO-4A-P** |
| 8 Digital Ouputs | 0.5 A | PNP | 55 | **BL67-8DO-0.5A-P** |
| | | NPN | 55 | **BL67-8DO-0.5A-N** |
| 16 Digital Ouputs | 0.1 A | PNP | 55 | **BL67-16DO-0.1A-P** |
| 4 Digital Inputs & Ouputs | 0.5 A - Channel Diagnostic | PNP | 55 | **BL67-4DI4DO-PD** |
| 8 Configurable Digital Channels | 0.5 A | PNP | 55 | **BL67-8XSG-P** |
| | 0.5 A - Channel Diagnostics | PNP | 55 | **BL67-8XSG-PD** |
| 8 Isolated Relay Ouputs | Normally open | | 55 | **BL67-8DO-R-NO** |
| 2 analogue Inputs | 16 bit resolution | Current | 55 | **BL67-2AI-I** |
| | | Voltage | 55 | **BL67-2AI-V** |
| | For Pt and Ni sensors | | 55 | **BL67-2AI-PT** |
| | For thermoelements | | 55 | **BL67-2AI-TC** |
| 4 analogue Inputs | 16 bit resolution | Current / Voltage | 55 | **BL67-4AI-V/I** |
| | For thermoelements | | 55 | **BL67-4AI-TC** |
| 2 analogue Outputs | 16 bit resolution | Current | 55 | **BL67-2AO-I** |
| | | Voltage | 55 | **BL67-2AO-V** |
| 4 analogue Outputs | 16 bit resolution | Voltage | 55 | **BL67-4AO-V** |

All TURCK BL67 System Modules can be ordered directly from TURCK under the same part number
The complete TURCK BL67 Remote I/O System range on http://www.turck/com and http:// www.parker,com/pneu/fieldbus

# TURCK BL67 Base modules for Digital and Analog I/O Modules

| Description | Connector Type | Con. Number | Weight (g) | Order code |
|---|---|---|---|---|
| Base Modules | M8, 3-pole, female | 4 | 160 | **BL67-B-4M8** |
| | | 8 | 215 | **BL67-B-8M8** |
| | M8, 4-pole, female | 8 | 215 | **BL67-B-8M8-4** |
| | M12, 5-pole, female, A-coded | 2 | 185 | **BL67-B-2M12** |
| | M12, 5-pole, female, A-coded, paired | 2 | 185 | **BL67-B-2M12-P** |
| | M12, 5-pole, female, A-coded | 4 | 245 | **BL67-B-4M12** |
| | M12, 5-pole, female, A-coded, paired | 4 | 245 | **BL67-B-4M12-P** |
| | M23, 12-pole, female | 1 | 190 | **BL67-B-1M23** |
| | M23, 19-pole, female | 1 | 190 | **BL67-B-1M23-19** |

All TURCK BL67 System Modules can be ordered directly from TURCK under the same part number

# Electronic and Base Module Combinations

| | BL67-B-4M8 | BL67-B-8M8 | BL67-B-2M12 | BL67-B-2M12-P | BL67-B-4M12 | BL67-B-4M12-P | BL67-B-1M23 | BL67-B-1M23-19 | BL67-B-8M8-4 |
|---|---|---|---|---|---|---|---|---|---|
| **Digital Input Modules** | | | | | | | | | |
| **BL67-4DI-P** | ✓ | | ✓ | ✓ | ✓ | | ✓ | | |
| **BL67-4DI-N** | ✓ | | ✓ | ✓ | ✓ | | ✓ | | |
| **BL67-4DI-PD** | ✓ | | ✓ | ✓ | ✓ | | | | |
| **BL67-8DI-P** | | ✓ | | | ✓ | ✓ | ✓ | | |
| **BL67-8DI-N** | | ✓ | | | ✓ | ✓ | ✓ | | |
| **BL67-8DI-PD** | | ✓ | | | ✓ | ✓ | | | |
| **BL67-16DI-P** | | | | | | | | ✓ | ✓ |
| **Digital Output Modules** | | | | | | | | | |
| **BL67-4DO-0.5A-P** | ✓ | | ✓ | ✓ | ✓ | | ✓ | | |
| **BL67-4DO-2A-P** | ✓ | | ✓ | ✓ | ✓ | | ✓ | | |
| **BL67-4DO-2A-N** | ✓ | | ✓ | ✓ | ✓ | | ✓ | | |
| **BL67-4DO-4A-P** | ✓ | | ✓ | ✓ | ✓ | | ✓ | | |
| **BL67-8DO-0.5A-P** | | ✓ | | | ✓ | ✓ | ✓ | | |
| **BL67-8DO-0.5A-N** | | ✓ | | | ✓ | ✓ | ✓ | | |
| **BL67-16DO-0.1A-P** | | | | | | | | ✓ | ✓ |
| **BL67-4DI4DO-PD** | | ✓ | | | ✓ | ✓ | | | |
| **Configurable Digital Input/Output Modules** | | | | | | | | | |
| **BL67-8XSG-P** | | ✓ | | | ✓ | ✓ | | | |
| **BL67-8XSG-PD** | | ✓ | | | ✓ | ✓ | | | |
| **Relay Output Module** | | | | | | | | | |
| **BL67-8DO-R-NO** | | | | | | ✓ | | | |
| **Analogue Input Module** | | | | | | | | | |
| **BL67-2AI-I** | | | ✓ | | | | | | |
| **BL67-2AI-V** | | | ✓ | | | | | | |
| **BL67-2AI-PT** | | | ✓ | | | | | | |
| **BL67-2AI-TC** | | | ✓ | | | | | | |
| **BL67-4AI-V/I** | | | | | ✓ | | | | |
| **BL67-4AI-TC** | | | | | ✓ | | | | |
| **Analogue Output Module** | | | | | | | | | |
| **BL67-2AO-I** | | | ✓ | | | | | | |
| **BL67-2AO-V** | | | ✓ | | | | | | |
| **BL67-4AO-V** | | | | | ✓ | | | | |

The complete TURCK BL67 Remote I/O System range on http://www.turck/com

## TURCK BL67 Power Feeding and Base Modules

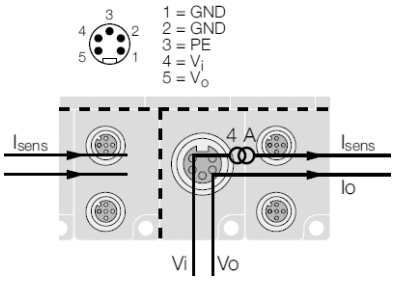
| Description | Connector Type | | Weight (g) | Order code |
|---|---|---|---|---|
| Power Feeding Module for 24 VDC additional sourcing | | | 55 | **BL67-PF-24VDC** |
| Base Modules | 1 x 7/8", 5-pole, male | VI / VO Sourcing | 55 | **BL67-B-1RSM** |
| | | VO Sourcing | 55 | **BL67-B-1RSM-VO** |
| | 1 x 7/8", 4-pole, male | | 55 | **BL67-B-1RSM-4** |

All TURCK BL67 System Modules can be ordered directly from TURCK under the same part number

## Power Feeding Base Modules Connection

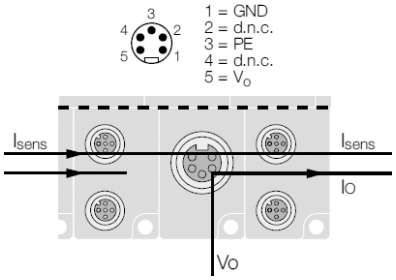
### Standard version

#### BL67-B-1RSM

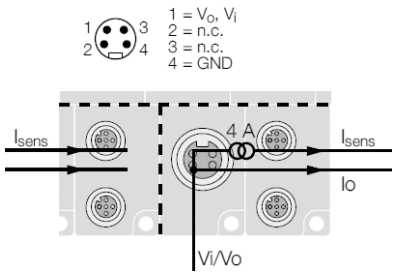



### Other possible versions

#### BL67-B-1RSM-VO




#### BL67-B-1RSM-4



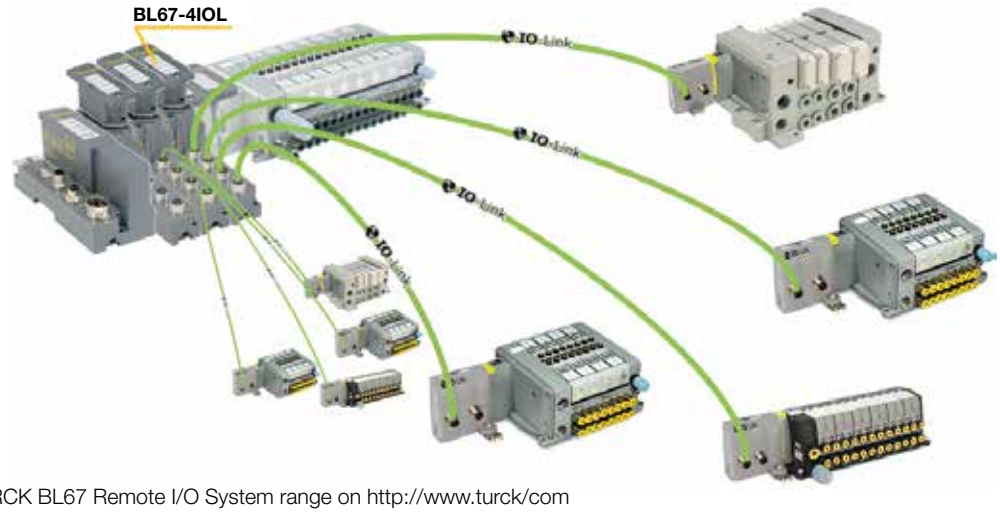

## TURCK BL67 4 IO-Link Master and Base Module

| Description | Connector Type | Weight (g) | Order code |
|---|---|---|---|
| 4 IO-Link Class A Master | | 55 | **BL67-4IOL** |
| Base Modules | 4 x M12, 4-pole, female, A-coded | 170 | **BL67-B-4M12** |

All TURCK BL67 System Modules can be ordered directly from TURCK under the same part number

### BL67-4IOL electronic module with BL67-B-4M12

=> Up to 32 pilot valves in the main configuration
=> Up to 88 (3 x 24 + 16) remote pilot valves per BL67 IO-Link master
=> Up to 15 BL67 IO-Link Class A masters




The complete TURCK BL67 Remote I/O System range on http://www.turck/com

## 16 Outputs Moduflex Bus ends module adaptator

| P | S | M | M | C | 1 | A | P | A13 |
|---|---|---|---|---|---|---|---|---|

| Valve adaptor ends kit | |
|---|---|
| **M4** | Adaptor without bus module |
| **ML** | Adaptor with IO-Link 24 DO module |
| **MC** | Adaptor with CANopen 16 DO module |
| **MD** | Adaptor with DeviceNet 16 DO module |
| **MP** | Adaptor with Profibus 16 DO module |

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

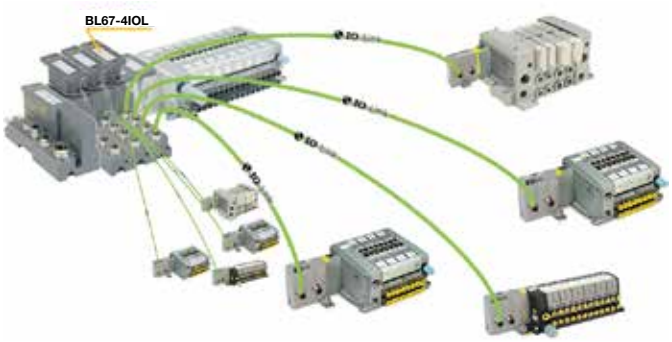
| For adaptor with IO-Link module only (digit 4-5 = ML | |
|---|---|
| **A13** | IO-Link Class A module - Aux wiring 1 - 3 (standard) |
| **A42** | IO-Link Class A module - Aux wiring 4 - 2 (Turck, Rockwell) |
| **A43** | IO-Link Class A module - Aux wiring 4 - 3 (Siemens) |
| **B25** | IO-Link Class B module - Aux wiring 2 - 5 (standard) |

| | 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 |

## Moduflex IO-Link 24 Outputs Valves

24 solenoids can be handeled with the IO-Link module, available in both Class A & Class B connection

**IO-Link**

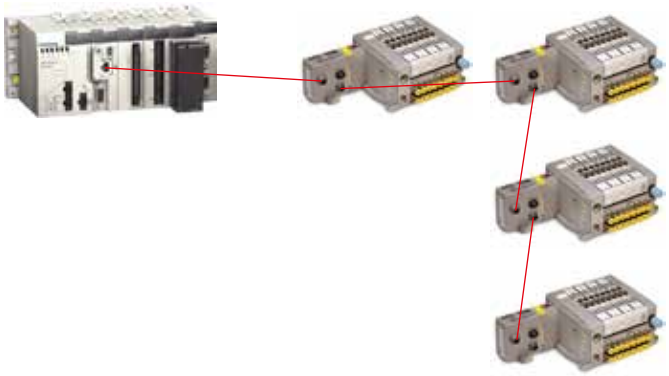



## Moduflex Bus 16 Outputs

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 |

## Ends Kit for Moduflex Bus communication

| | 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.

## Ends Kit for IO-Link module

Electrical module for 24 outputs (H Micro Pilot Valves)

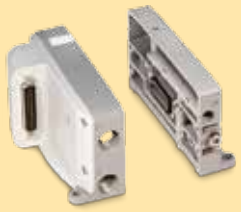
| | Description | IO-Link Class | M12 A coded Connector connection IO-Link | Aux Power | Aux Power Pinout | Weight (g) | Order code |
|---|---|---|---|---|---|---|---|
| **Class A module** | Front ported end kit with Moduflex IO-Link Communication Module | Class A | 3 Pin's | 3 Pin's | 1 & 3 | 250 | **PSMML1APA13** |
| | | | 3 Pin's | 3 Pin's | 4 & 3 | 250 | **PSMML1APA43** |
| | | | 3 Pin's | 5 Pin's | 4 & 2 | 250 | **PSMML1APA42** |
| | | Class B | 5 Pin's | Included in IO-Link connector | 2 & 5 | 240 | **PSMML1APB25** |
| **Class B module** | Bottom ported end kit with Moduflex IO-Link Communication Module | Class A | 3 Pin's | 3 Pin's | 1 & 3 | 250 | **PSMML2APA13** |
| | | | 3 Pin's | 3 Pin's | 4 & 3 | 250 | **PSMML2APA43** |
| | | | 3 Pin's | 5 Pin's | 4 & 2 | 250 | **PSMML2APA42** |
| | | Class B | 5 Pin's | Included in IO-Link connector | 2 & 5 | 240 | **PSMML2APB25** |

IODD file can be downloaded from IODD Finder or the Moduflex web site:
https://ioddfinder.io-link.com
www.parker.com/pde/io-link

## Decentralized Device bus accessories

| | Description | Bus protocol | Connector type | Weight (g) | Order code |
|---|---|---|---|---|---|
| | Power supply female | All | M12 - A coding | 25 | **P8CS1205AA** |
| **P8CS0803J** | Line termination straight connector | DeviceNet CANopen | M12 - A coding | 25 | **P8BPA00MA** |
| | | Profibus DP | M12 - B coding | 25 | **P8BPA00MB** |
| | Bus IN female connector | DeviceNet CANopen | M12 - A coding | 25 | **P8CS1205AA** |
| | | Profibus DP | M12 - B coding | 25 | **P8CS1205AB** |
| | Bus OUT male connector | DeviceNet CANopen | 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 - A coding | 25 | **P8CSY1212A** |

## Multi-connection head module



**P S M L 2 1 A P**

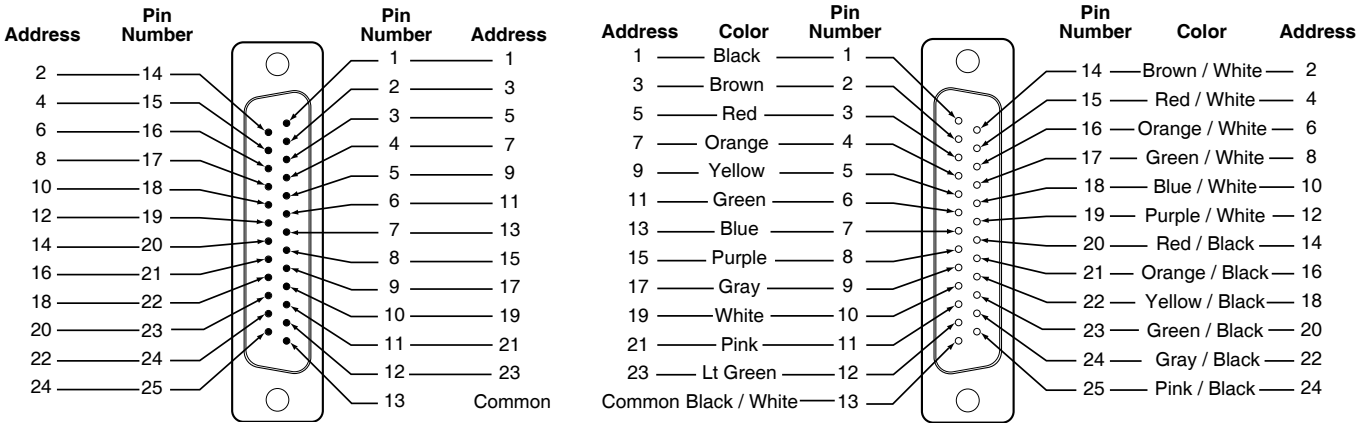
| Multi-wire connection | |
|---|---|
| **L2** | Sub-D25 connector |

| | 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 |

## 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 |

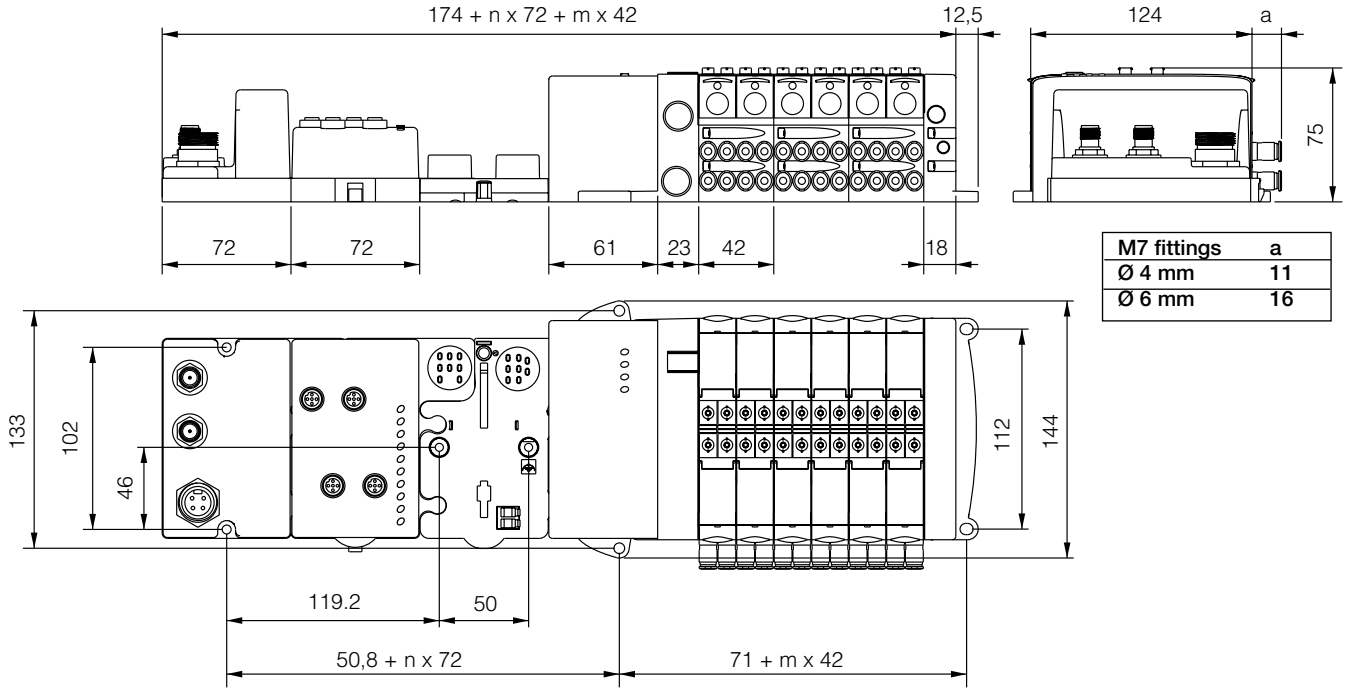
## Electrical multi-pole end modules

| | Description | Sub-base design | Thread type | Weight (g) | Order code |
|---|---|---|---|---|---|
| | Sub-D25 ends module | Side ported | 3/8" BSPP | 250 | **PSML21AP** |
| | | Bottom ported | 3/8" BSPP | 250 | **PSML22AP** |

## Electrical accessories

| | Description | Cable length | Weight (g) | Order code |
|---|---|---|---|---|
| **P8LMH25M3A** | Sub-D25 connector IP40 with flying leads multi-cable | 3 m | 380 | **P8LMH25M3A** |
| | | 9 m | 780 | **P8LMH25M9A** |
| | Sub-D25 connector IP65 with flying leads multi-cable | 9 m | 790 | **P8LMH25B9A** |

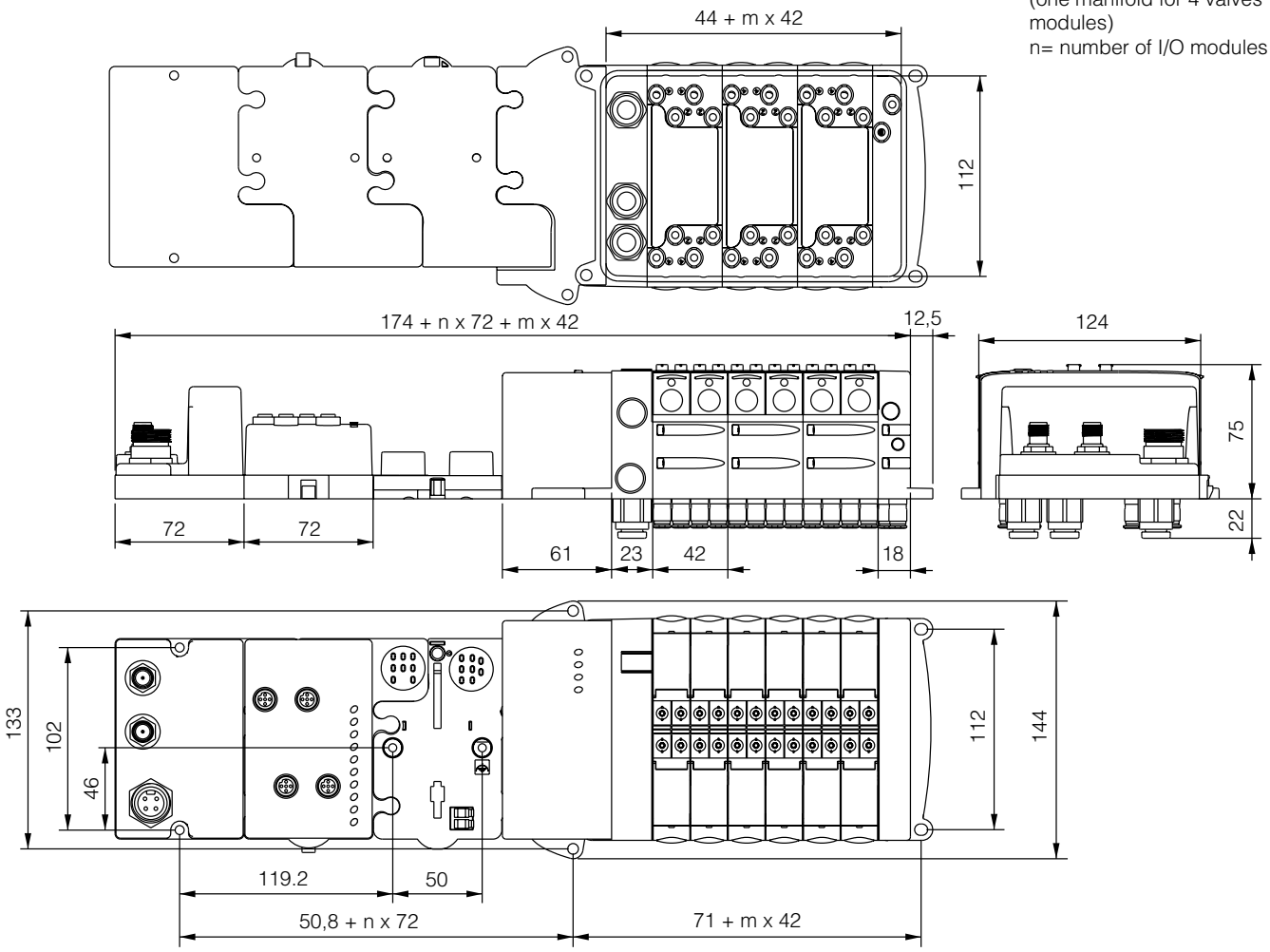
## Centralized bus - Side ported



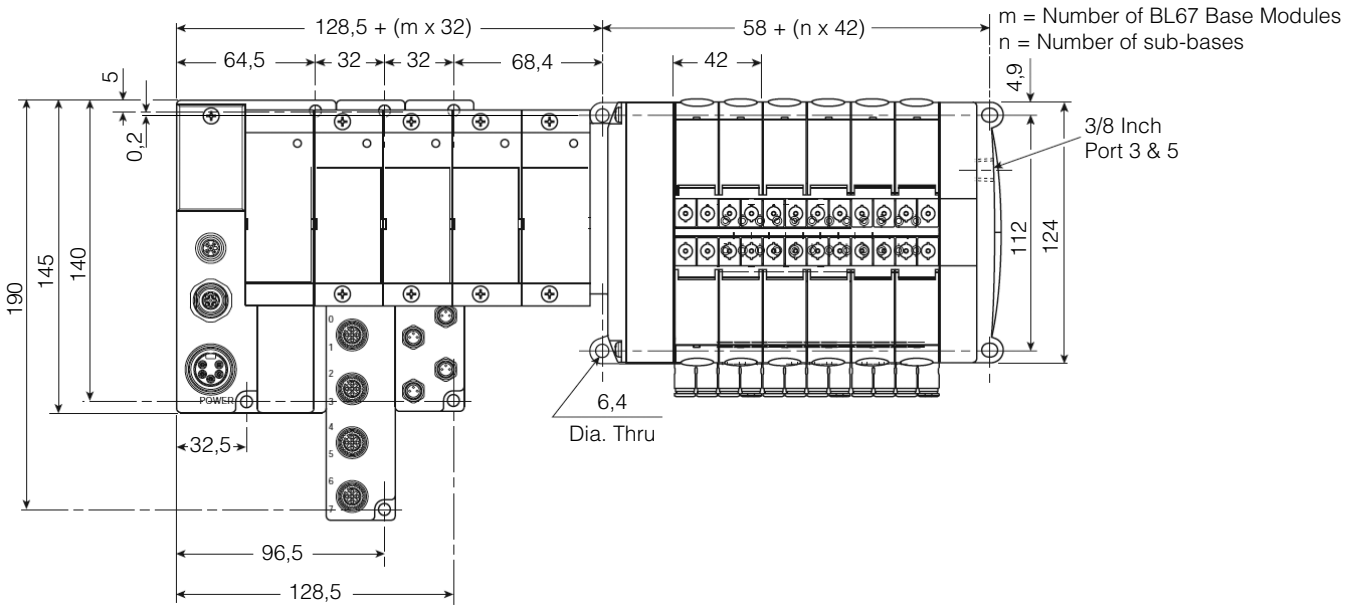

| M7 fittings | a |
|---|---|
| Ø 4 mm | 11 |
| Ø 6 mm | 16 |

**Note:**
m = number of manifolds (one manifold for 4 valves modules)
n= number of I/O modules

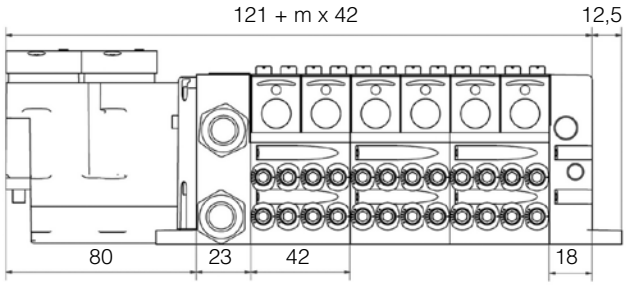
## Centralized bus - Bottom ported



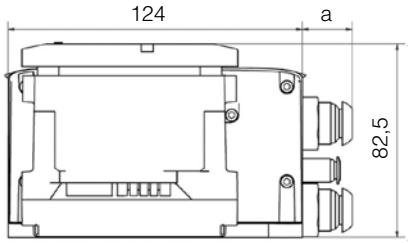
## H Series Micro with TURCK BL67 Remote I/O System



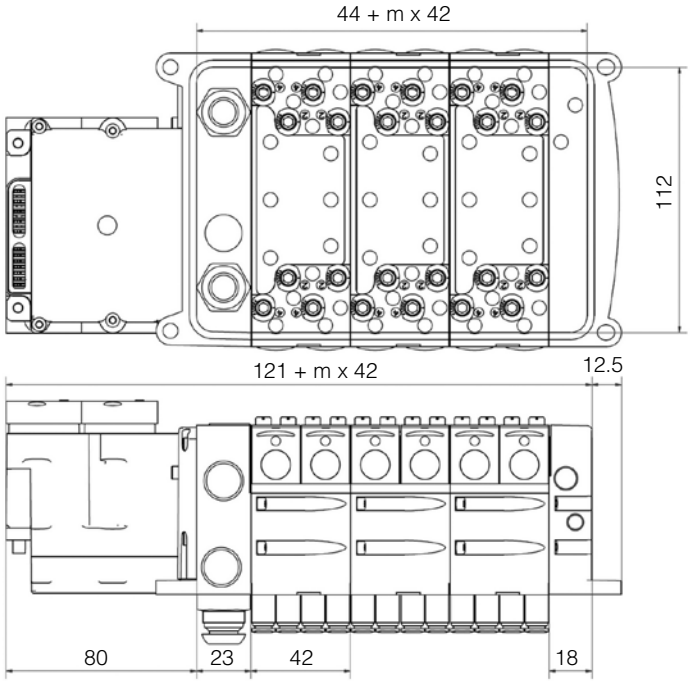

## H Series Micro with TURCK BL67 adaptor - Side ported



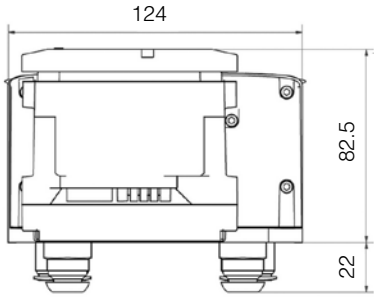

| M7 fittings | a |
|---|---|
| Ø 4 mm | 11 |
| Ø 6 mm | 16 |



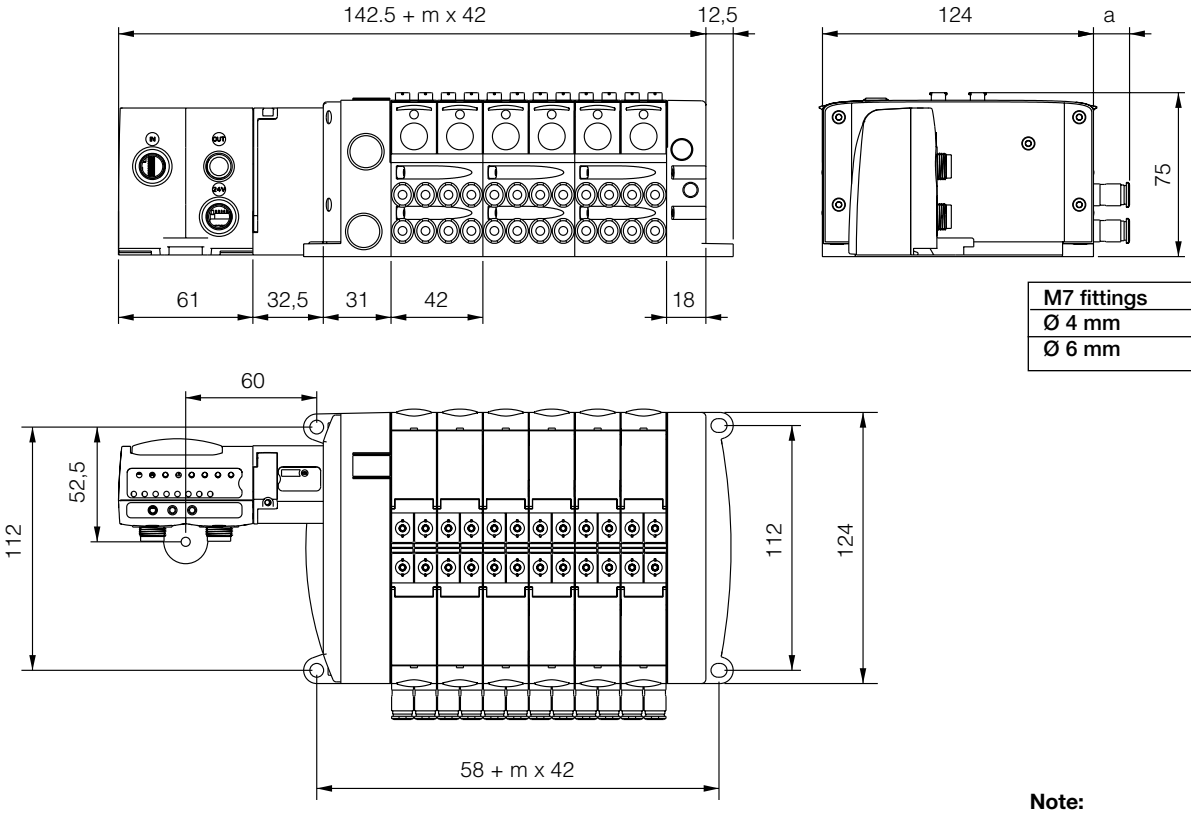

## H Series Micro with TURCK BL67 adaptor - Bottom ported




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



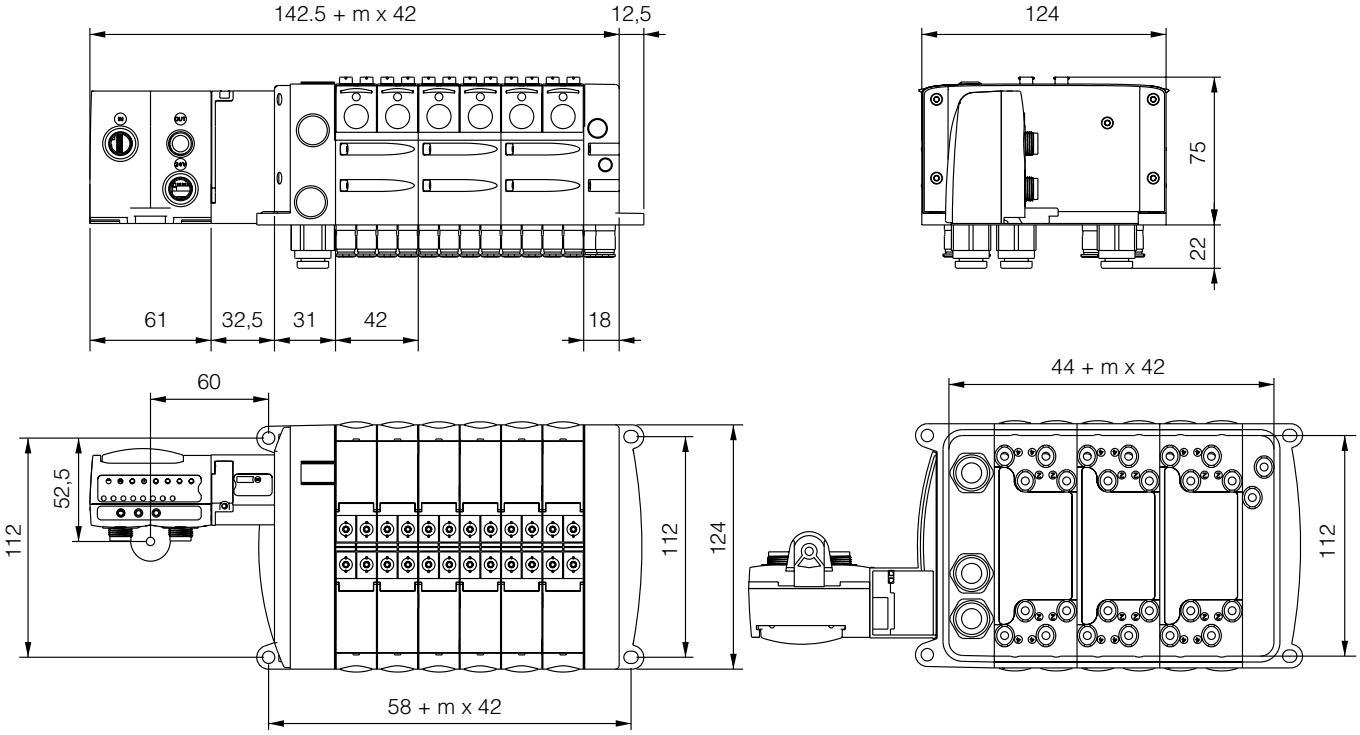
## Fieldbus - Side ported



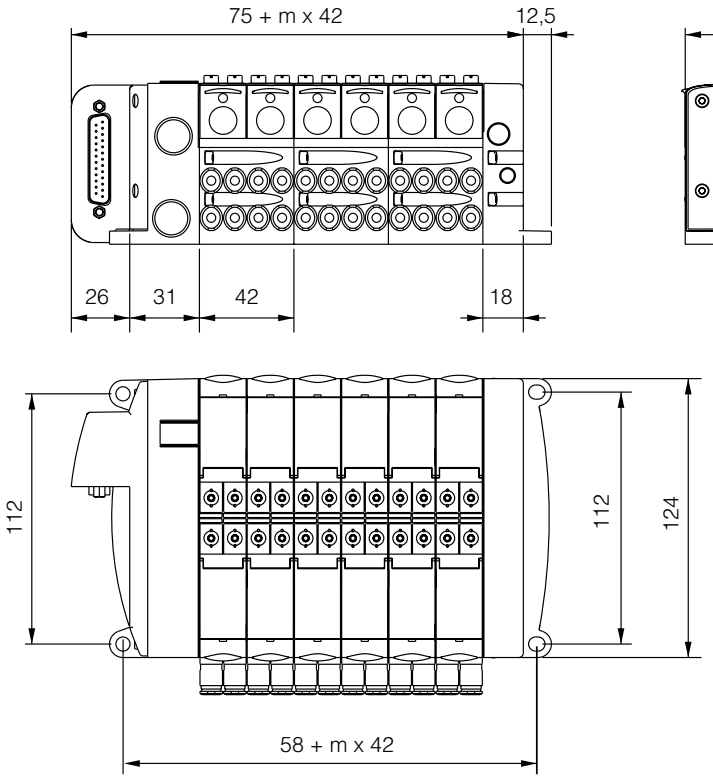

| M7 fittings | a |
|---|---|
| Ø 4 mm | 11 |
| Ø 6 mm | 16 |

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

## Fieldbus - Bottom ported



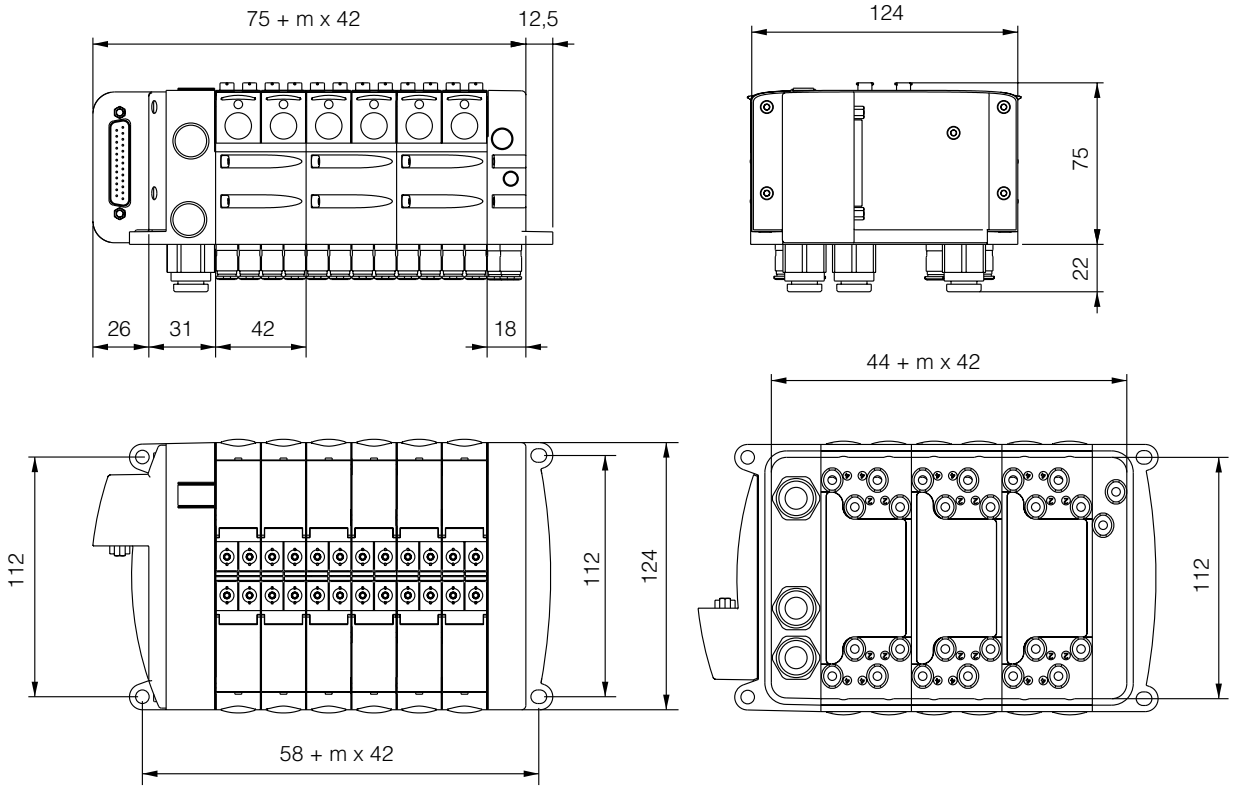
## SubD25 - Side ported

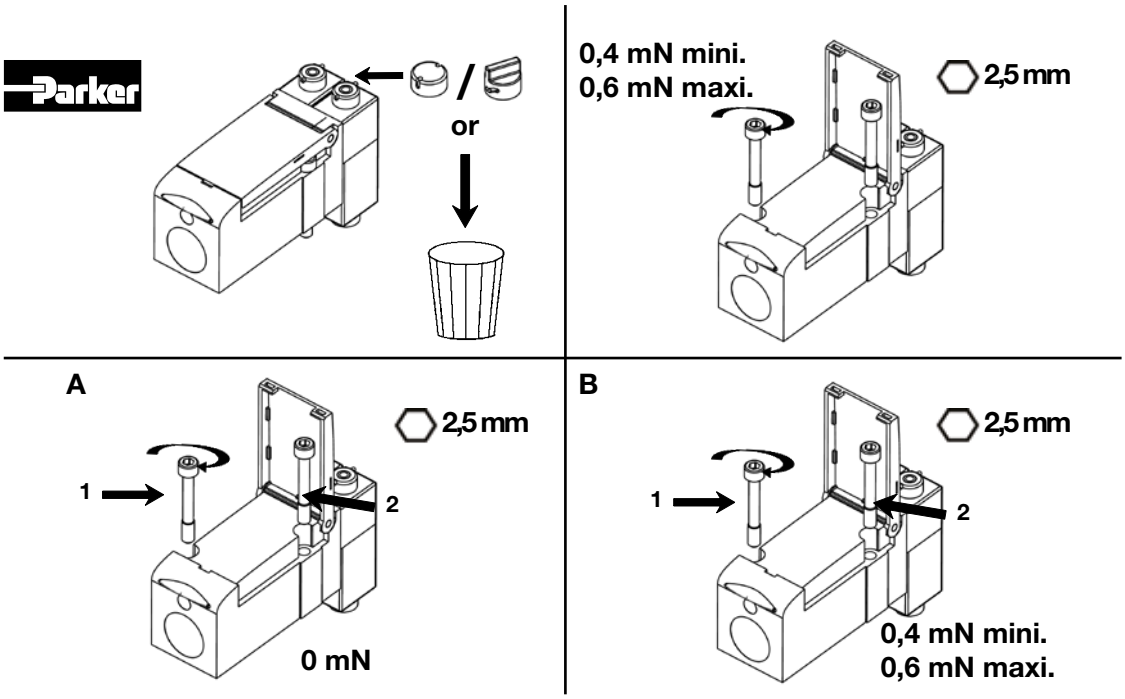



| M7 fittings | a |
|---|---|
| Ø 4 mm | 11 |
| Ø 6 mm | 16 |

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

## SubD25 - Bottom ported



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**H Series 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.*

**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.*

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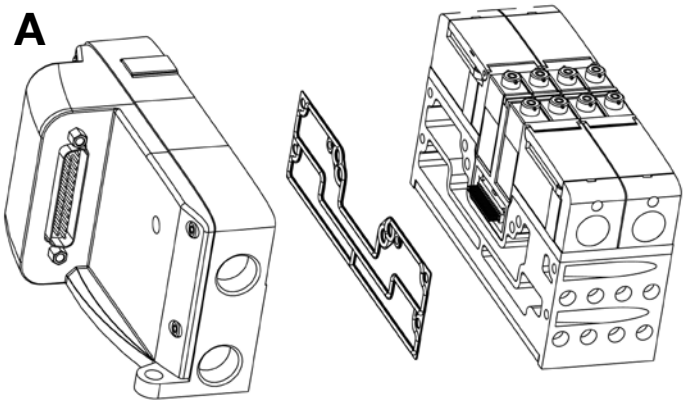
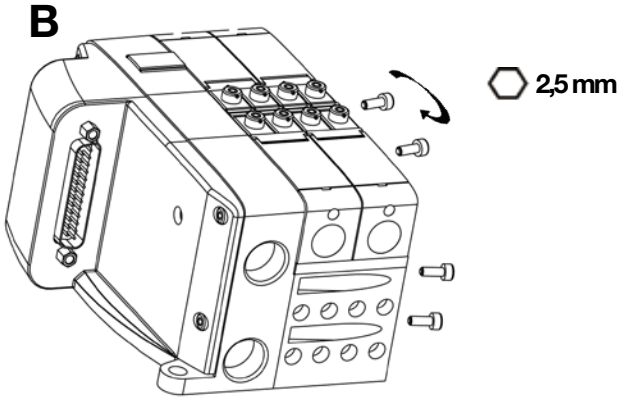
# PSM . . AP

A

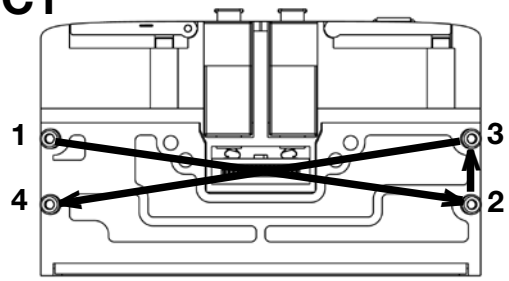


B



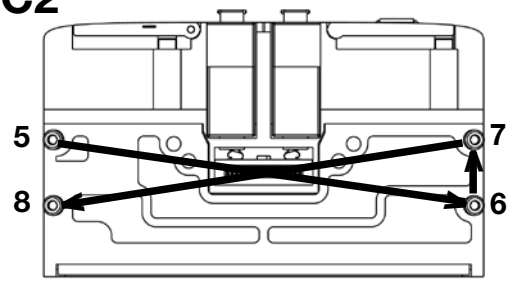

C

C1



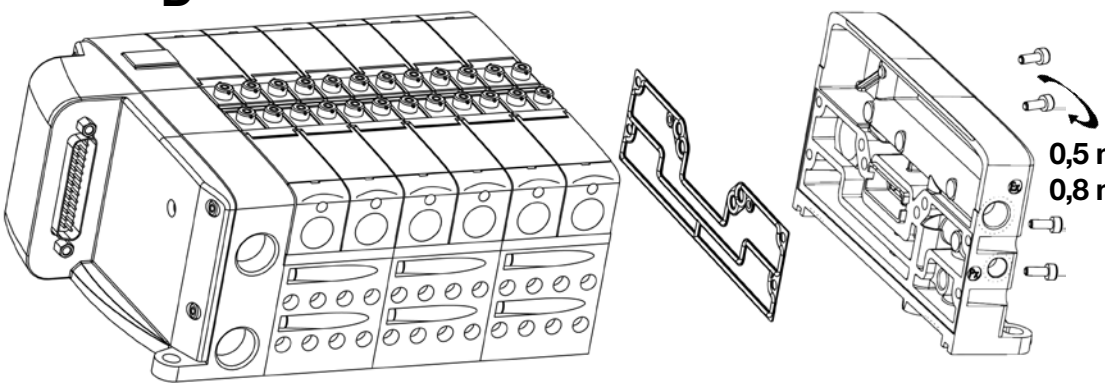

1, 2, 3, → 4 0 mN

C2




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

D

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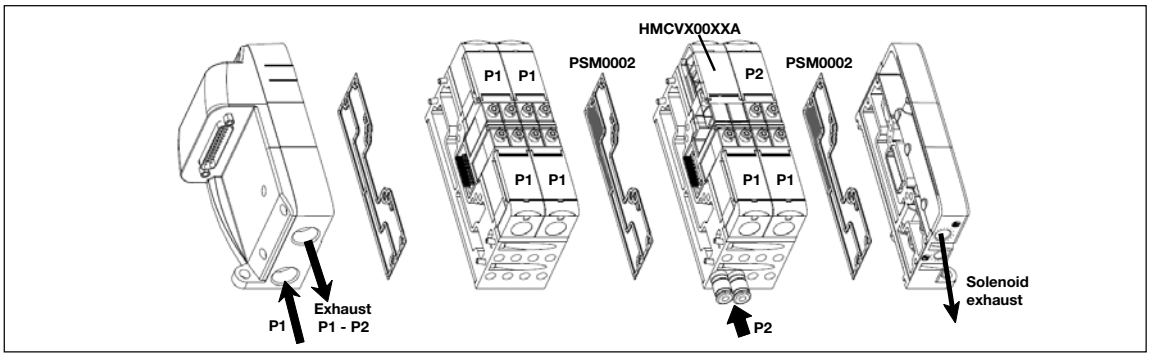
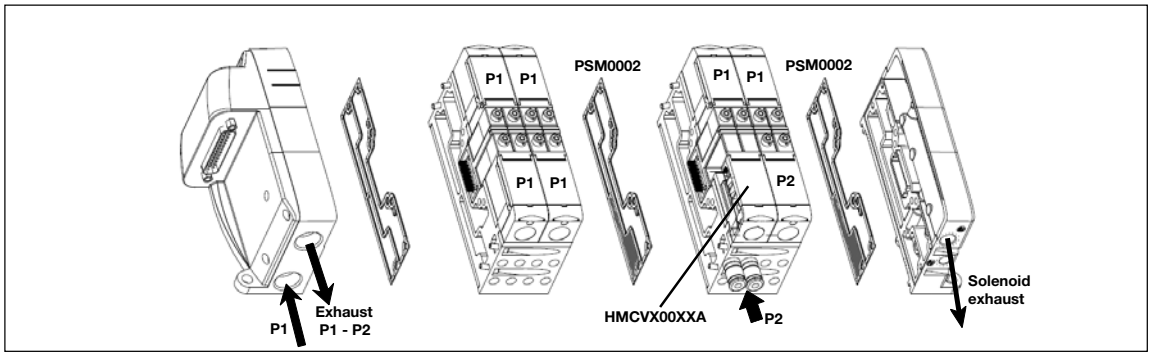
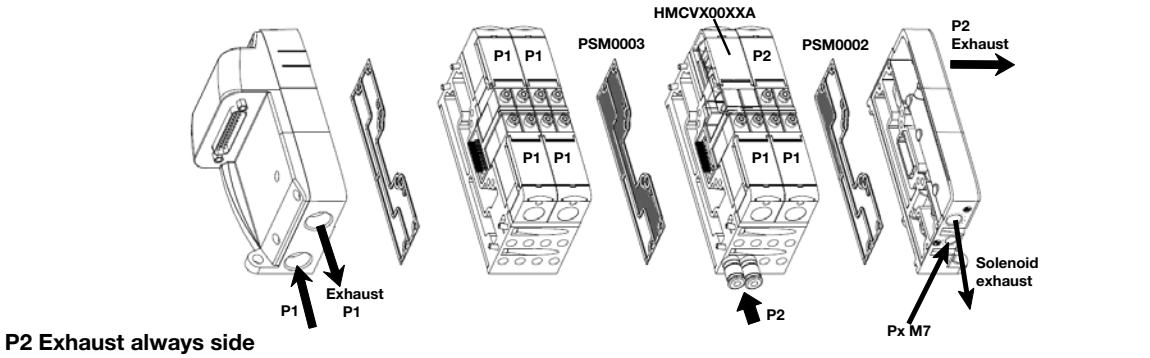
# Inter-manifold seal plate

## PSM0002



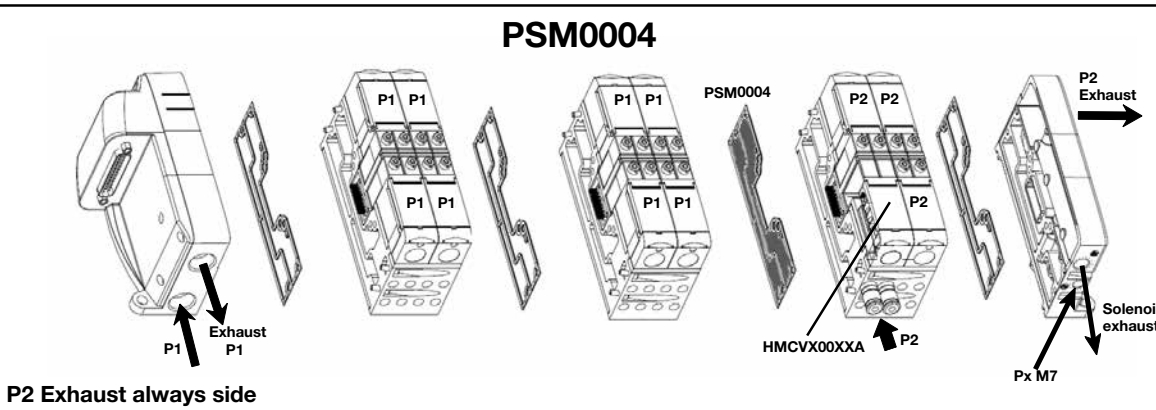




## PSM0003




P2 Exhaust always side

## PSM0004




P2 Exhaust always side

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

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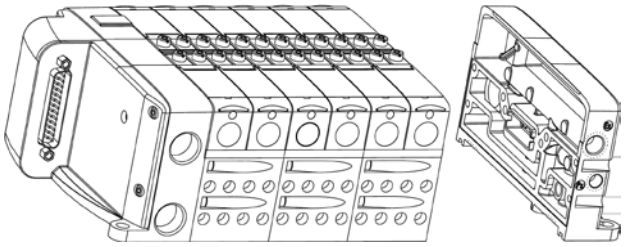
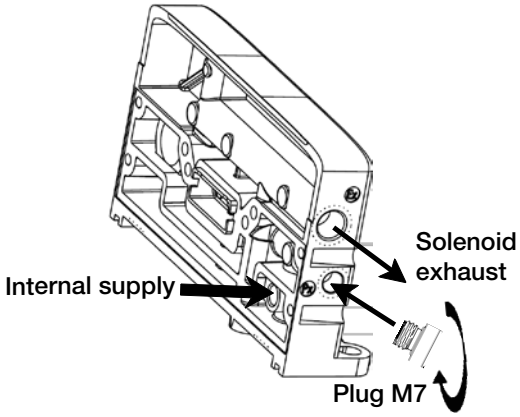
# PSM...AP

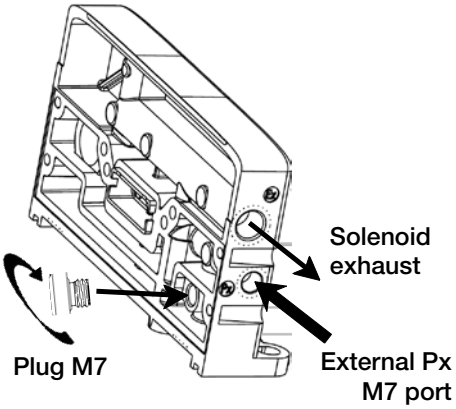
## Side ported



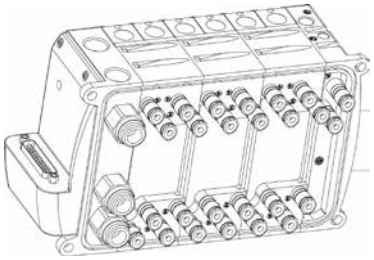
### Internal solenoids pilot supply



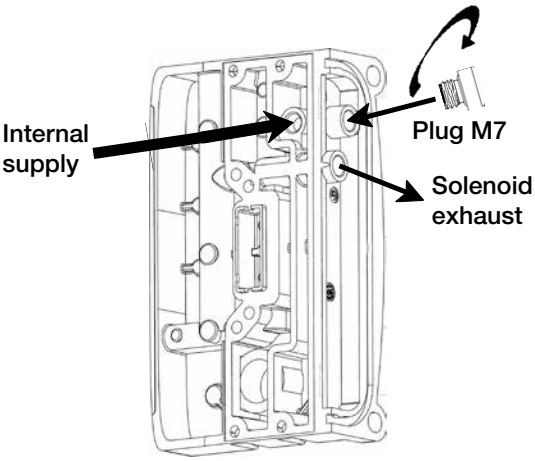

### External solenoids pilot supply



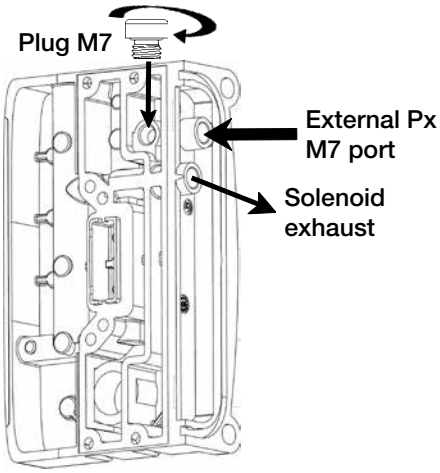

## Bottom ported



### 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

**H Series Micro**
**Installation & Service Instructions**
**Sheet B**

**Supersedes: None**

⚠**AVERTISS Danger :** *Le non-respect des précautions, mises en garde, instructions et informations décrites dans le présent document ou sur le site Parker peut provoquer des dommages matériels et des blessures graves même mortelles. Des précisions complémentaires en plusieurs langues peuvent être obtenues en visitant le site web Parker: www.parker.com ou appeler le 00 800 27 27 53 74 en Europe.*

**CONSIGNES GENERALES DE SECURITE**

- *Débrancher toujours les alimentations électrique et pneumatique du distributeur avant réglage.*
- *Couper toujours l'énergie de l'équipement avant réglage.*
- *Garder les mains et les vêtements hors de portée des points de pincement des pièces en mouvement.*
- *Ne jamais démonter les distributeurs sans les instructions ou manuels appropriés. Ces derniers peuvent être obtenus chez nos distributeurs ou sur le site web.*

**CONSIGNES GENERALES D'INSTALLATION**

- S'assurer du bon positionnement des connecteurs pneumatiques dans leur logement.
- Fixer l'îlot sur un bâti à l'aide des logements.
- Utiliser des tubes Parker. Ils doivent être propres, coupés droits, sans résidu, et enfoncés complètement.
- Connecter électriquement les distributeurs ou îlots hors tension.
- *Tester les fonctions et fuites du système. Ne jamais mettre en service sans s'assurer préalablement du bon fonctionnement et de l'absence de fuites.*

⚠ **A C H T U N G** *: Nichtbeachten der hier und auf der Parker Website aufgezeigten Vorsichtsmassregeln, Hinweise, Anleitungen und Informationen kann zu Tod, Personenschäden und/oder Zerstörung der Einrichtungen führen. Genauere Informationen -in verschiedenen Sprachen- können von der Parker Website : www.parker.com abgerufen werden. T : 00 800 27 27 53 74.*

**Allgemeine Sicherheitsrichtlinien**

- *Vor jeglicher Einstellarbeit an den Ventilen bzw. der Ventilinseln sind die Druckluftleitungen zu trennen.*
- *Vor jeglicher Einstellarbeit an den Ventilen bzw. der Ventilinseln ist der entsprechende Anlagenteil energie- und spannungslos zu machen.*
- *Halten Sie Abstand mit Händen und Kleidung von Klemmstellen (z.B. von Zylindern).*
- *Bauen Sie niemals Komponenten auseinander ohne entsprechend geeignete Anleitungen. Sie können diese erhalten von unseren Fachhändlern , eigenen Niederlassungen oder von der Webseite abrufen.*

**Allgemeine Installationsrichtlinien**

- *Drücken Sie die Einsteck-Schnellverbinder fest und sicher in die Basismodule wie gezeigt.*
- *Sichern Sie die Ventilinsel durch Befestigungsschrauben an auf einer Montagefläche.*
- *Benutzen Sie nur Parker Kunststoffrohr in Verbindung mit den Schnellsteckverbindern.*
  *Das Rohr muss sauber, rechteckig abgeschnitten, ohne lose Partikel und komplett in die Verbinder gesteckt sein.*
- *Stellen Sie die elektrische Verbindung in spannungslosem Zustand her.*
- *Testen Sie das System auf Funktion und Leckagen. Nehmen Sie das System erst in Betrieb wenn die Funktionen wie geplant ablaufen und keine Leckagen vorhanden sind.*

⚠**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.*

**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.*

⚠ **ADVERTÊNCIA:** O não cumprimento de todas as advertências, instruções e informações contidas nesta, pode causar morte, danos pessoais e/ou danos materiais. Maiores detalhes, em outras línguas, podem ser obtidos do website Parker : www.parker.com
T : 00 800 27 27 53 74 (Europe).

**INSTRUÇÕES GERAIS PARA SEGURANÇA**

- Sempre desconecte a eletricidade e suprimento de ar da válvula antes da regulagem ou instalação das unidades.
- *Sempre desconecte a válvula de qualquer máquina/equipamento antes da regulagem ou instalação.*
- Mantenha as mãos e vestuário longe de pontos onde há riscos de agarramentos ou movimentos de cilindros para evitar acidentes.
- Nunca desmonte as válvulas sem manuais e instruções apropriados. Estes podem ser obtidos da fábrica ou do website descrito anteriormente.

**INSTRUÇÕES GERAIS PARA INSTALAÇÃO**

- **Pressione os conectores especiais dentro das unidades de válvulas como mostrado**
- **Instale o conjunto do manifold na superfície utilizando parafusos nos furos de montagem.**
- **Conecte somente tubos Parker. Estes devem estar limpos, com corte das extremidade no esquadro, sem partículas soltas, e pressionadas completamente dentro das conexões.**
- **Faça as conexões elétricas com a linha desernegizada.**
- *Teste o sistema para checar o funcionamento e vazamentos. Não coloque o sistema em operação antes de checar se o funcionamento está adequado e não há vazamentos.*

⚠**WAARSCHUWING:** *Verzuimen tot het volgen van alle voorzorgsmaatregelen, en informaties zoals hier samengevat en op de Parker website, kan persoonlijk letsel, eigendomsschade, of zelfs de dood tot gevolg hebben. Meer detail informatie, zie www.parker.com T : 00 800 27 27 53 74 (Europe).*

**Algemene veiligheidsrichtlijnen**

- *Altijd de lucht- en stroomtoevoer naar het ventiel afsluiten voor men gaat afstellen.*
- *Altijd de energie naar de machine waar het ventiel op gemonteerd zit afsluiten voor men gaat afstellen.*
- *Handen en kleding weghouden van de klempunten en bewegende cilinders.*
- *Nooit ventielen demonteren zonder de juiste instructie en handleidingen.*

**Algemene installatie voorschrift**

- *Bevestig speciale koppelingen precies zoals hierboven wordt getoond.*
- *Bevestig de ventielunit op ondergrond door schroeven te plaatsen.*
- *Alleen Parker leidingen in de koppelingen bevestigen. Deze moeten schoon en recht afgesneden zijn, zodat ze goed in de koppeling passen.*
- *Elektrische aansluitingen plaatsen, alleen als de voeding uit staat.*
- *Systeem testen op werking en lekkage, en niet in gebruik nemen voordat aan beide eisen voldaan is.*

⚠**PRECAUCION:** *La Negligencia a los avisos de precaución, instrucciones e información contenida aquí y en el sitio Web de Parker pueden causar la muerte, daños personales y/o daño a la propiedad. Mas información detallada en diferentes idiomas pueden ser obtenidos del sitio Web de Parker: www.parker.com o llamando al teléfono 1-800-C PARKER en los Estados Unidos de América o 00 800 27 27 53 74 en Europa.*

**NORMAS GENERALES DE SEGURIDAD.**

- *Siempre desconecte el suministro de energía eléctrica y aire comprimido a la válvula antes de ajustar o instalar unidades.*
- *Siempre baje el interruptor de energía eléctrica de la maquinaria en la que la válvula esta instalada antes de ajustarla.*
- *Mantenga las manos y ropa fuera de cualquier punto apriete o partes móviles de los cilindros.*
- Nunca desensamble válvulas sin los manuales o instrucciones adecuados. Estos pueden ser obtenidos de un distribuidor o del sitio Web descrito arriba.

**NORMAS GENERALES DE INTALACION**

- *Presione los conectores especiales asegúrelos contra las bases como se muestra.*
- Asegure el ensamble de manifold a la superficie usando conectores rápidos.
- Conecte solamente tubing Parker a las conexiones. Estos deberán de estar limpios, cortados en escuadra, sin partículas sueltas, y presionados completamente dentro de las conexiones.
- *Realice las conexiones eléctricas con el interruptor de energía en apagado (OFF).*
- *Pruebe la operación del sistema verificando funcionamiento y fugas. No lo ponga en operación hasta que cumpla con la operación requerida y que no haya fugas.*

⚠**VARNING:** *Instruktioner, varningar och information i denna handling, och på Parkers websida, skall åtlydas noggrant. Följden av att bortse från dessa kan medföra dödsfall, personskador och/eller skador på egendom. Detaljerad information, på flera språk kan hämtas från Parkers websida www.parker.com eller ring 00 800 27 27 53 74 (Europe).*

**GENERELLA SÄKERHETSANVISNINGAR**

- *Stäng alltid av både el och luftförsörjningen innan justeringar på ventilen genomförs.*
- *Bryt alltid huvudströmmen till maskinen som ventilen betjänar.*
- *Se till att hålla undan händer och kläder från klämrisker.*
- *Plocka aldrig isär en ventil utan att ha först hämtat underlag för detta från websidan eller leverantörn..*

**GENERELLA INSTALLATIONSANVISNINGAR**

- *Tryck de speciella anslutningarna ordentligt fast i underdelen, se bilden.*
- Sätt fast ventilbas ordentligt på ett stabilt underlag.
- Montera enbart Parker slang i insticksskopplingarna. Dessa måste skäras av rakt och vara utan s.k.skägg eller lösa partiklar samt tryckas helt in i kopplingen.
- *Koppla in elen med huvudbrytaren i frånläge.*
- *Test systemet sedan för funktion and läckage. Starta ej maskin förrän fullgod funktion och täthet uppnåtts.*

⚠**ATTENZIONE!** *Il mancato rispetto delle precauzioni, avvertenze, istruzioni, ed informazioni contenute di seguito e nel sito web Parker, può provocare danni a cose o persone, anche con conseguenze letali. Per informazioni più dettagliate nelle varie lingue, consultare sito web Parker: www.parker.com o, negli Stati Uniti, chiamare il 00 800 27 27 53 74 (Europe).*

**ISTRUZIONI DI SICUREZZA**

- *Scollegare sempre la valvola dall'alimentazione elettrica e pneumatica prima di regolare le periferiche.*
- *Interrompere sempre l'alimentazione elettrica ai macchinari cui la valvola è collegata prima di procedere alla regolazione.*
- *Tenere le mani e gli abiti lontano dai cilindri in movimento in modo che non rimangano impigliati o intrappolate.*
- *Non smontare mai le valvole senza aver prima seguito scrupolosamente i manuali di istruzioni che si possono richiedere al distributore, o scaricare dal sito web sopra citato.*

**ISTRUZIONI GENERALI D'INSTALLAZIONE**

- *Inserire e fissare i raccordi speciali nelle basi come indicato nel disegno.*
- Fissare il manifold ad un piano mediante i dispositivi di fissaggio indicati.
- Collegare ai raccordi esclusivamente tubi Parker. I tubi devono essere puliti con le estremità tagliate a squadra, senza parti libere e inseriti nel raccordo fino in fondo.
- *Attaccare le connessioni elettriche ad apparecchio spento.*
- *Collaudare il sistema per controllarne il funzionamento ed individuare eventuali perdite. Non utilizzare finché il funzionamento non risulta corretto e senza perdite.*

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