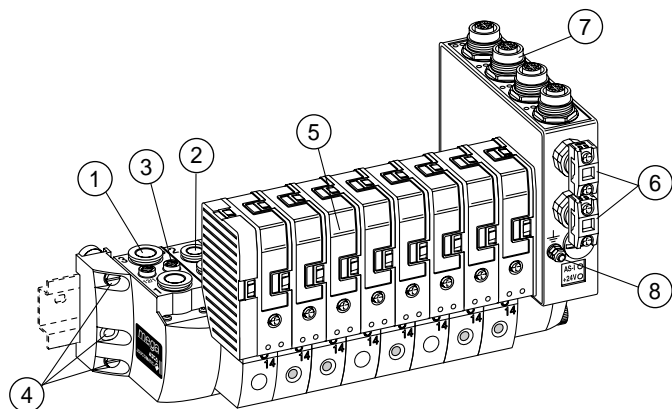
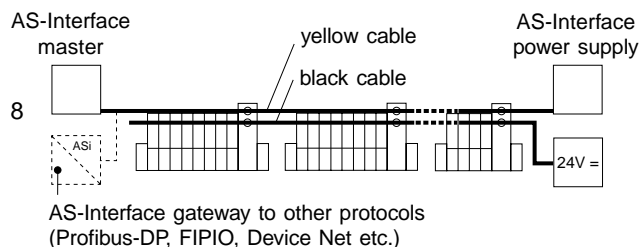


- Pneumatic spool valve island for data exchange via field bus and standardised AS interface protocol.
 - Up to 8 spool valves can be linked to one AS interface.
 - Easy cabling with instant vampire-type connectors and flat profiled 2-wire cables.
 - Connection of 4 to 8 inputs for sensor status readback.
 - IP65 protection allowing for direct mounting on machines, close to the actuators.
 - High performance, modular, easy-to-install unit with LED indicators for easy diagnostic analysis and maintenance.
 - The MEGA AS-Interface island is provided with individual AS-Interface connectors for direct installation and piloting of spool valves with 3-pin solenoid coils to DIN 46244 or ISO 4400 (max. 7.2W). Pneumatically operated spool valves and general purpose valves can be installed on one AS-Interface network.
- Individual AS-Interface connectors: see page P939.



COMBINATIONS

- MEGA-AS-Interface islands can be grouped as follows:
 - 1 AS-Interface unit with 1 or 2 nodes and 4 bistable or max. 8 monostable MEGA spool valves (see following page).
 - 2 or 3 AS-Interface units with max. 14 or 12 spool valves.
- Spool valve island with or without inputs for data readback.
- Frame or DIN EN 50022 rail mounting.
- Optional mixing of:
 - all spool valve functions,
 - 6 or 8 mm O.D. instant fittings.
 - Different types of manual override: impulse-type or locking push/turn type.
 - Internal and external pilot pressure supply.
 - Pressure separation plate and intermediate pressure supply module.



- ① Ports 1 - 3/5 : with instant fittings for flexible hose O.D. 10 mm or G1/4 thread
- ② Ports 2 - 4 : with instant fittings for flexible hose O.D. 6 or 8 mm
- ③ Ports 12/14 - 82/84 : with instant fittings for flexible hose O.D. 4 mm or ØM5 thread
- ④ Frame (2 Ø4.2) or DIN rail mounting
- ⑤ Interconnection modules
- ⑥ Electrical vampire-type connector for AS-Interface cable and power supply cable.
- ⑦ Input connectors ØM12 (on request)
(1 connector for 2 inputs)
- ⑧ Ground terminal (AS-Interface module with inputs)

ELECTRICAL CHARACTERISTICS (see following page)

PNEUMATIC CHARACTERISTICS (see page 6)

ORDERING INFORMATION

MEGA spool valve islands with AS interface control are delivered pre-assembled, tested and ready for installation

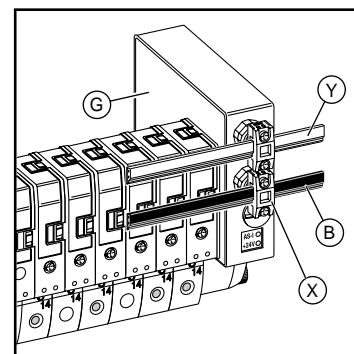
To order:

- Specify the MEGA AS-Interface spool valve island in the 2 or 3 reference lines according to the desired assembly.
- Wiring accessories must be ordered separately as required (see following pages).
- Mounting and pneumatic accessories must be ordered separately as required (see page 10).
- Supply of installation manual, code : **88157877**

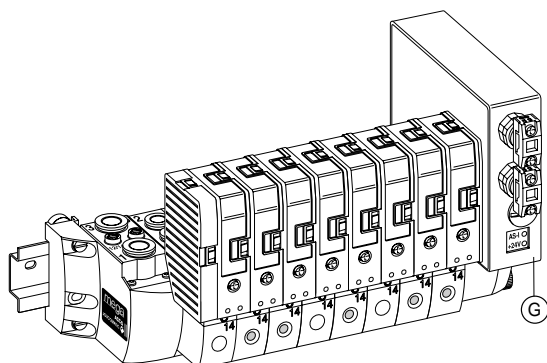
NOTE: For an easy ordering of a spool valve island, use the configurator available at www.ascojoucomatic.com which will help you to completely fill in the reference lines for an island in accordance with the desired application and automatically specify the list of all the necessary components.

AS INTERFACE ISLAND ASSEMBLY

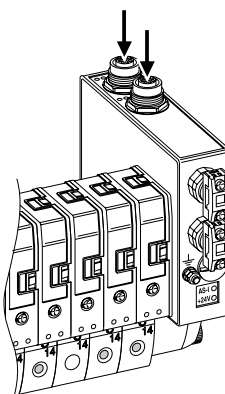
The components are connected to a control system (PLC) with a AS-Interface bus cable (yellow flat cable "Y") to pilot the spool valves. A second adapter (X) is used to supply the spool valves with 24V DC power (black flat cable "B"). Upon request, the AS-Interface connection module (G) can be equipped with 5-pin ØM12 connectors for the inputs to transmit status information from the sensors.



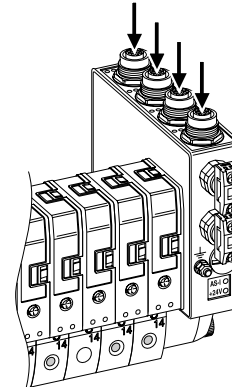
MEGA-AS-Interface ISLAND without inputs
(types A1 - A2 - A5 - A6)



with 4 inputs (*)
(types A3 - A4)



with 8 inputs (*)
(types A7 - A8)



(*) 2 inputs per ØM12 connector

MAXIMUM CAPACITY OF THE SPOOL VALVE ISLAND

According to the configuration you choose, the islands can be equipped with a maximum of 8 inputs and 8 outputs (1 output = 1 spool valve pilot).

The maximum capacity of the island depends on the number of nodes (see table below).

NOTE:

- Maximum configuration for 1 node: 4 outputs / 4 inputs
- Maximum configuration for 2 nodes: 8 outputs / 8 inputs
- 1 output = 1 monostable spool valve
- 2 outputs = 2 monostable spool valves or 1 bistable spool valve

Example for maximum configuration:

number of nodes	max. number of spool valves	max. number of inputs
1	4 monostable or 2 bistable or 2 twin 3/2 NC	4
2	8 monostable or 4 bistable or 4 twin 3/2 NC or 4 monostable + 2 bistable (1)	8

COMMUNICATION CHARACTERISTICS

Communication protocol	: AS interface (bidirectional mode, S-7.F profile)
Transmission	: flat AS-Interface cable (yellow, 2 wires)
Bus structure	: any structure according to AS-Interface standards
Max. number of spool valve islands	: 31 nodes (1 valve island can have 2 nodes)
Max. number of valves per interface	: 4 to 8
Max. number of inputs	: 8
Max. bus cable length	: 100 m (300 m with repeater)
Island addressing (participants)	: AS-Interface master
Compatibility with control system	: no modification of current programs
Compatible equipment	: various options

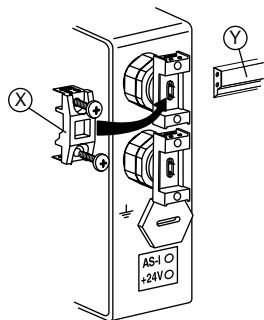
ELECTRICAL CHARACTERISTICS

Supply voltage	: 24 V DC, ±10% at the island (max. ripple ratio: 10 %). Supply to the valves with an additional flat AS-Interface cable, (black, 2 wires) class 3 (PELV).
Max. consumption	: 75 mA per coil on power supply (black cable) <300mA per node on AS-Interface bus cable (yellow cable)
Max. consumption for the sensors	: 40mA per node
Protection	: IP65 (coil insulation class: F)
Electrical insulation	: optocouplers
Peak voltage suppression	: integrated in the island for each coil
Bus connection (IN/OUT) and 24 V supply	: vampire-type panel connector for yellow and black cable
Input connection	: 5-pin female panel connector M12
Earth connection	: earthing screw on the connection module with inputs
Electromagnetic compatibility	: in accordance with EU directive EMC 89/336/EEC CE mark

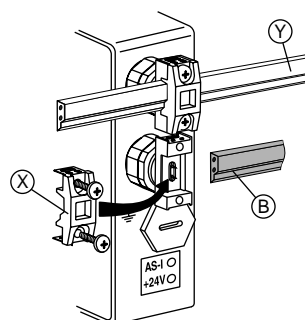
CONNECTION OF AS-INTERFACE BUS

The front side of the MEGA spool valve island for AS-Interface is equipped with vampire-type adapters for instant connection without having to strip the flat yellow (bus cable) or black (power cable) profiled cables. The yellow cable is for data transmission and power supply to the sensor inputs. The black cable is for power supply to the spool valves.

■ Connection of AS-Interface bus



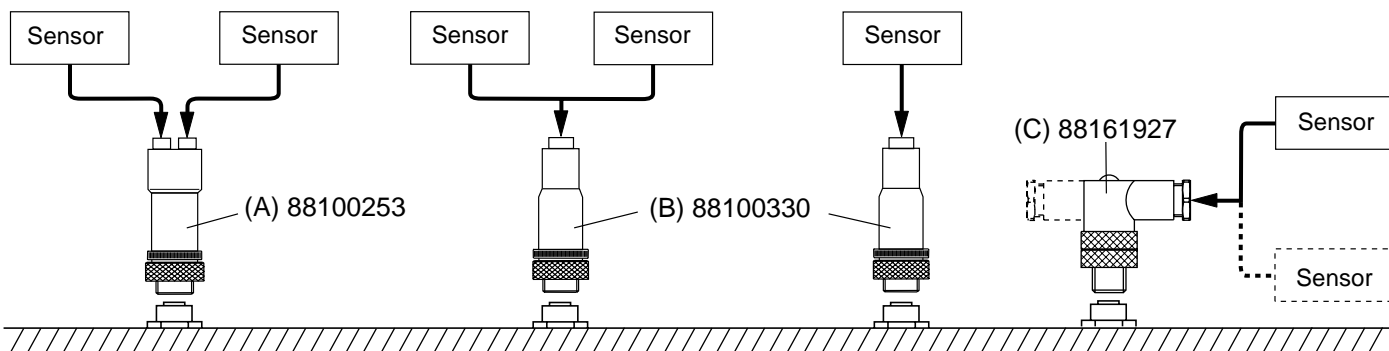
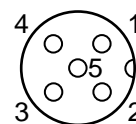
■ Connection of power supply for spool valves



ELECTRICAL CONNECTION OF INPUTS WITH M12 CONNECTOR

The three following types of M12 connectors are recommended:
 - Strait duo connector (A) for the connection of 2 separate cables (one for each sensor).
 - Straight mono connector (B) for the connection of a sensor or cable bundle.
 - Right-angle mono connector (C) for the connection of a sensor or cable bundle.
*Right-angle connectors are space saving (approx. -65mm).
 2-wire or 3-wire sensors can be connected to all modules.*

View on female pin side of outlet
 ØM12



ACCESSORIES FOR AS-INTERFACE

accessory	description	catalogue number
	Black profiled cable for 24V power supply, length: 25 m 50 m 100 m	88157940 88157941 88157928
	1 set of 10 heat-shrinkable end caps for profiled cable ends to ensure IP65 protection	88157927
	1 set of 10 self-adhesive flat cable mounting clips	88157856
	Straight duo connector M12 with 5 male pins for 2 inputs Ø3 - 5 mm	88100253
	Straight mono connector M12 (1 cable Ø4-6 mm) with 5 male pins for inputs	88100330
	Right-angle mono connector M12 (1 cable Ø4 - 6 mm) with 5 male pins for inputs (rotatable by 180°)	88161927

CODE OF MEGA ISLAND WITH **ONE** AS-INTERFACE UNIT (8 spool valves at maximum)

For island assembly with 2 or 3 AS-Interface units see following page.

MEGA island with
1 x AS-Interface

MEGA ISLAND

Island versions		Type
1 node AS-Interface:		
Without input	One pressure inlet on left-hand side	A1
	With pressure inlet on left-hand and right-hand side	A2
With inputs (ØM12)	One pressure inlet on left-hand side	A3
	With pressure inlet on left-hand and right-hand side	A4
2 node AS-Interface:		
Without input	One pressure inlet on left-hand side	A5
	With pressure inlet on left-hand and right-hand side	A6
With inputs (ØM12)	One pressure inlet on left-hand side	A7
	With pressure inlet on left-hand and right-hand side	A8

Spool valve versions	Port connections: 2 - 4		Type
	Instant fittings Ø8mm O.D.	E	
	Instant fittings Ø6mm O.D.	S	
	Mixed (E & S) on island ⁽¹⁾	P	
	Auxiliary manual override		Type
	(▼) impulse	1	
	(●) locking	2	
	Mixed (1 & 2) on island ⁽¹⁾	P	
	Pilots supply 12/14		Type
	Internal	I	
External	E		
Mixed (I & E) on island ⁽¹⁾	P		

Port connections: 1 - 3 / 5		Type
Instant fittings 10 mm O.D.	Q	
G1/4	G	

Option		
without option	00	
other options	.. 99	

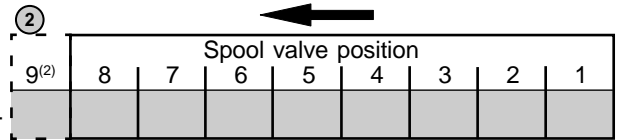
Island mounting	Island delivery	Type
On frame (2 x Ø4.2)	Assembled	A
On rail EN 50022 - DIN	Assembled	C

- (1) Different spool valve versions can be mixed on an island. In this case:
- indicate type "P" in the bAS-Interface reference (1)
 - fill in reference line (3)

ORDERING EXAMPLE : (1) 678A7E1IG00C
(2) JJMMMM

MEGA island with AS-interface protocol, two nodes, with 8 inputs over 4 M12 connectors, one pressure inlet on left-hand side, G1/4 thread. Unit designed for mounting on DIN rail, supplied assembled, including six spool valves with 8 mm OD instant hose fittings, impulse-type manual override, internal pilot. Spool valve types:

- four monostable 5/2 spool valves, type M, in positions 1 to 4
- two bistable 5/2 spool valves, type J, in positions 5 and 6



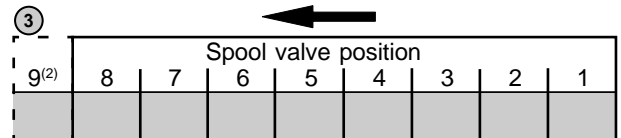
Please indicate the type of spool valve or accessory required (2)

Spool valves (functions)	Type
2 x 3/2 NC-NC	K
5/2 - Solenoid air operated pilot, spring return (monostable)	S
5/2 - Solenoid air operated pilot, differential return (monostable)	M
5/2 - Solenoid air operated pilot and return (bistable)	J
5/3 - Pressure held (W1)	G
5/3 - Pressure applied (W2)	B
5/3 - Exhaust released (W3)	E
Reserve module (to be placed at the left end of the island)	A

For detailed information on spool valves see page 6

(2) Max. configuration of AS-Interface island: 8 monostable spool valves for 2-node AS-Interface island: 8 monostable spool valves for 2-node AS-Interface to be mounted in 9 positions if a pressure separation plate is used.

Accessories	Type
Pressure separation plate (see page 37) :	
• Total blocking of 1, 3 and 5 (no connection)	X
• Blocking of 1 (ports 3 and 5 connections maintained) ..	W
• Blocking of 3 and 5 (port 1 connection maintained)	Y
• Blocking of 5 (ports 1 and 3 connections maintained) ..	T
• Blocking of 3 (ports 1 and 5 connections maintained) ..	R

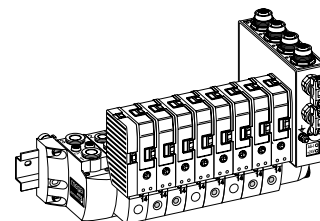


Spool valve versions (with mixed connections)			
Port connections 2 - 4	Manual override	Pilots 12/14	Type
Instant fittings 8 mm O.D.	(▼) impulse	Internal	1
	(●) locking	External	2
		Internal	3
	Instant fittings 6 mm O.D.	(▼) impulse	External
Internal			5
(●) locking		External	6
		Internal	7
		External	8



How to fill in reference line (3) :

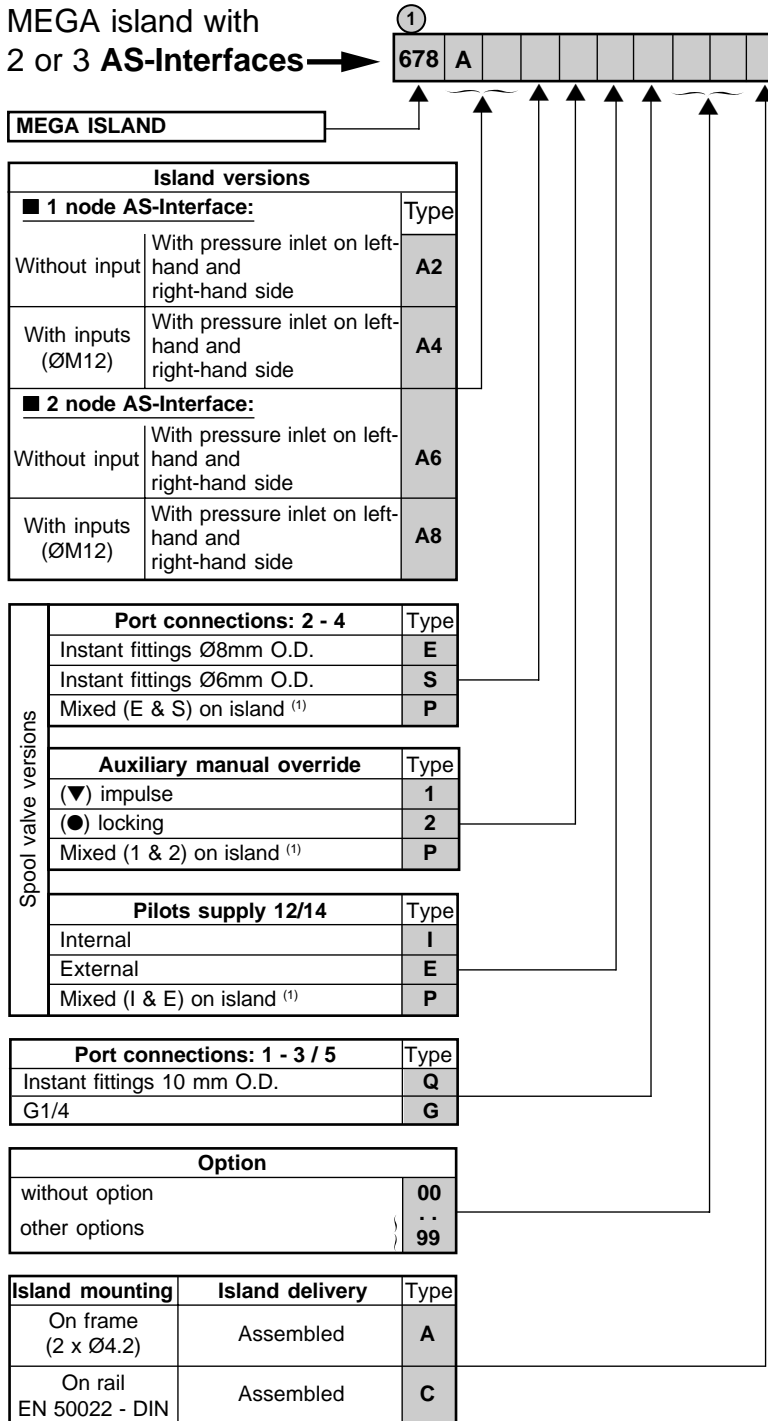
- Fill in **only** if different spool valve versions are to be mixed on an island.
- Use the spool valve position numbers specified in reference (2).
- Repeat the type of accessory in the same position number as specified in reference (2).



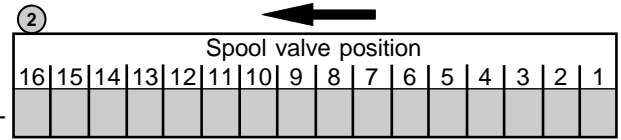
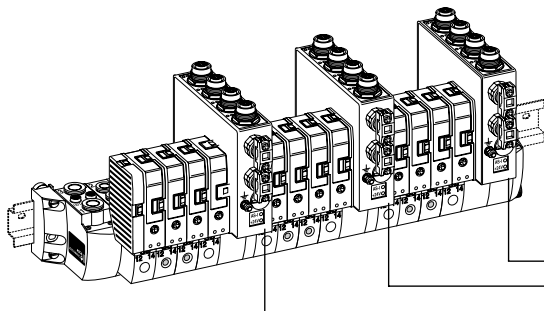
MEGA ISLAND CODE WITH 2 or 3 AS-INTERFACE UNITS

It is possible to assemble islands in all specified combinations up to a maximum of 2 AS-Interface units and 14 spool valves or 3 AS-Interface units and 12 spool valves.

MEGA island with 2 or 3 AS-Interfaces



(1) Different spool valve versions can be mixed on an island. In this case:
 - indicate type "P" in the bAS-Interface reference (1)
 - fill in reference line (3)



Please indicate the type of spool valve, accessory or AS-Interface module required (2)

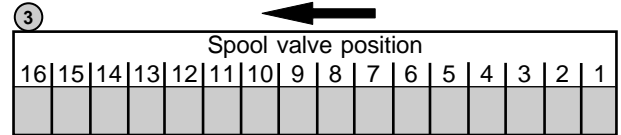
Spool valves (functions)	Type
2 x 3/2 NC-NC	K
5/2 - Solenoid air operated pilot, spring return (monostable)	S
5/2 - Solenoid air operated pilot, differential return (monostable)	M
5/2 - Solenoid air operated pilot and return (bistable)	J
5/3 - Pressure held (W1)	G
5/3 - Pressure applied (W2)	B
5/3 - Exhaust released (W3)	E
Reserve module (to be placed at the left end of the island)	A

For detailed information on spool valves see page 6
 (2) For max. configuration of AS-Interface island see page 32

Accessories	Type
Pressure separation plate (see page 37) :	
• Total blocking of 1, 3 and 5 (no connection)	X
• Blocking of 1 (ports 3 and 5 connections maintained) ..	W
• Blocking of 3 and 5 (port 1 connection maintained)	Y
• Blocking of 5 (ports 1 and 3 connections maintained) ..	T
• Blocking of 3 (ports 1 and 5 connections maintained) ..	R

Intermediate AS-Interface modules (3)	Type	
1 node module	without input	2V
	with inputs ØM12	4V
2 node module	without input	6V
	with inputs ØM12	8V

(3) Specify the type of intermediate AS-Interface module (2 digits per module to be written in 2 positions as 1 intermediate AS-Interface module occupies the place of 2 spool valves).
 The 1st AS-Interface module at the right-hand side of the island is specified in the bAS-Interface reference (1) (A2 to A8). It is not to be written in reference line (2) and must not be included in the number of positions available.



Spool valve versions (with mixed connections)			
Port connections 2 - 4	Manual override	Pilots 12/14	Type
Instant fittings 8 mm O.D.	(▼) impulse	Internal	1
		External	2
	(●) locking	Internal	3
		External	4
Instant fittings 6 mm O.D.	(▼) impulse	Internal	5
		External	6
	(●) locking	Internal	7
		External	8



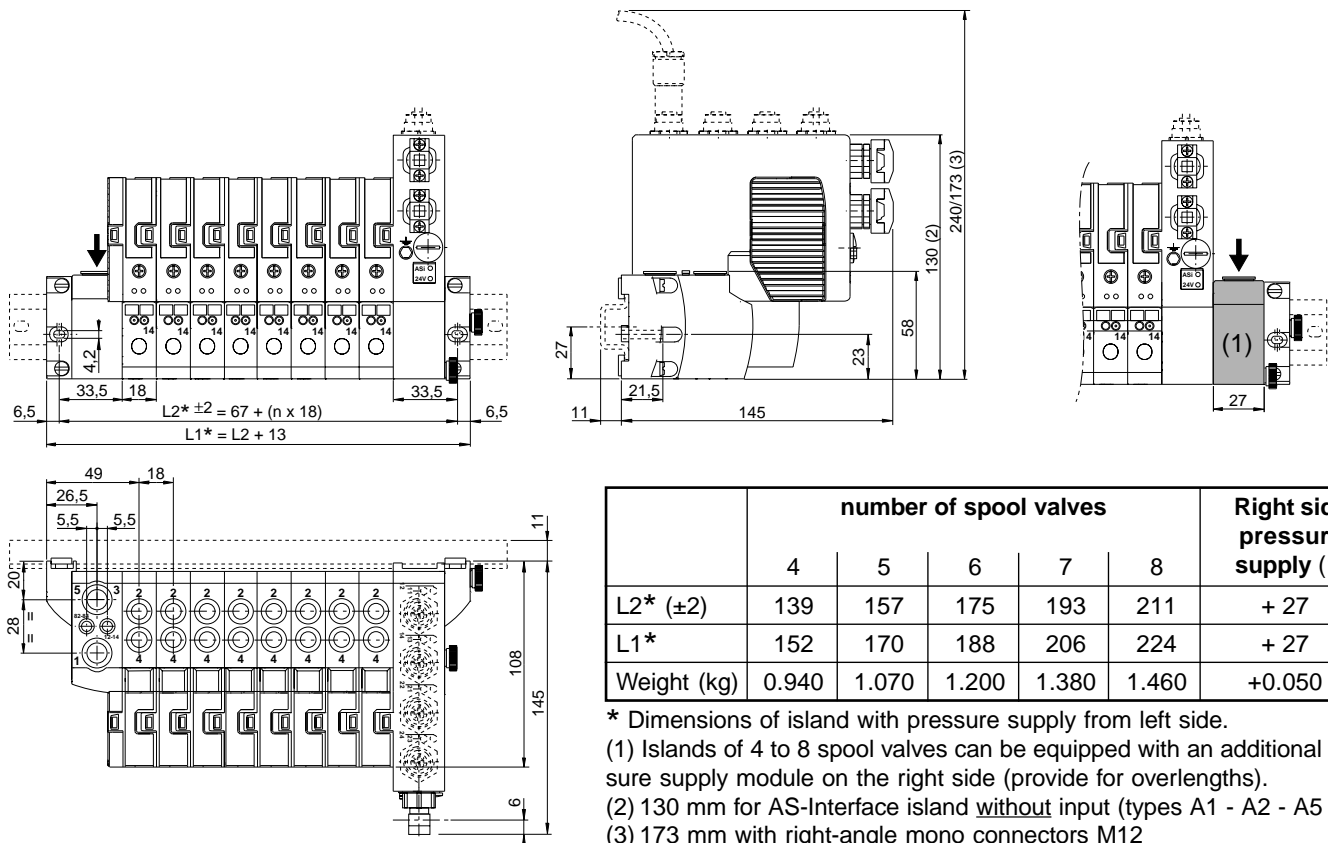
How to fill in reference line (3) :
 - Fill in **only** if different spool valve versions are to be mixed on an island.
 - Use the spool valve position numbers specified in reference (2).
 - Repeat the type of accessory in the same position number as specified in reference (2).

head module defined in reference (1)
 Intermediate AS-Interface modules defined in reference (2)

DIMENSIONS AND WEIGHTS

■ **AS-Interface island with up to 8 spool valves**
(pressure supply from left side)

■ Version with pressure supply from left **and/or** right side



	number of spool valves					Right side pressure supply (1)
	4	5	6	7	8	
L2* (±2)	139	157	175	193	211	+ 27
L1*	152	170	188	206	224	+ 27
Weight (kg)	0.940	1.070	1.200	1.380	1.460	+0.050

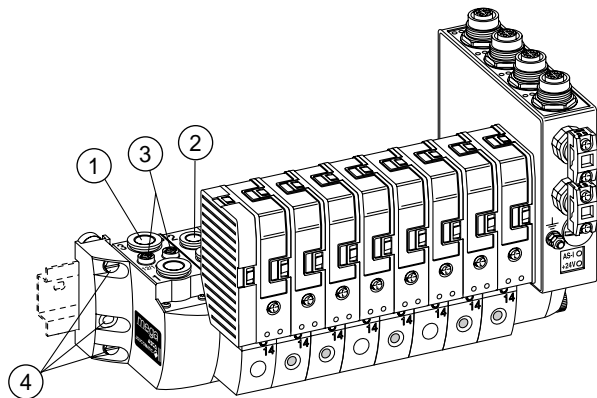
* Dimensions of island with pressure supply from left side.

(1) Islands of 4 to 8 spool valves can be equipped with an additional pressure supply module on the right side (provide for overlengths).

(2) 130 mm for AS-Interface island without input (types A1 - A2 - A5 - A6)

(3) 173 mm with right-angle mono connectors M12

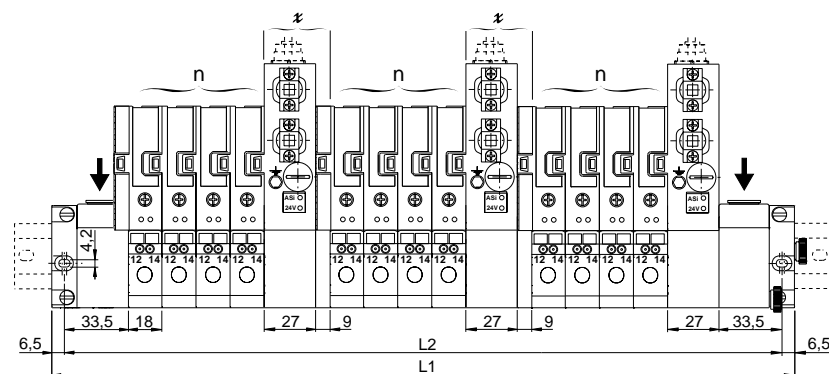
240 mm with straight mono or duo connectors M12



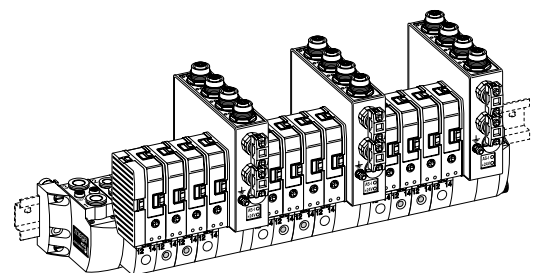
- ① Ports 1 - 3/5 : with instant fittings for flexible hose O.D. 10 mm or G1/4 thread
- ② Ports 2 - 4 : with instant fittings for flexible hose O.D. 6 or 8 mm
- ③ Ports 12/14 - 82/84 : with instant fittings for flexible hose O.D. 4 mm or ØM5 thread
- ④ Frame (2 Ø4.2) or DIN rail mounting

■ **Islands consisting of several AS-Interface units**

It is possible to assemble islands in all specified combinations up to a maximum of **3 AS-Interface units** and **12 spool valves**.



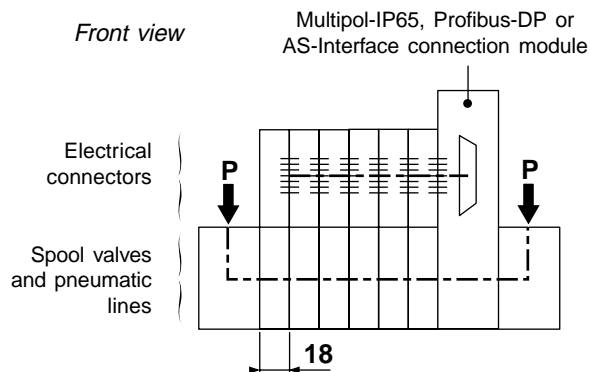
Definition of lengths: $L2 (\pm 2) = 94 + (n \times 18) + (X \times 36)$
 $L1 = L2 + 13$



n = Number of spool valves
 X = Number of AS-Interface modules - 1

SUPPLY OF MEGA MULTIPOL-IP65, PROFIBUS-DP OR AS-INTERFACE SPOOL VALVE ISLANDS WITH 1 OR 2 DIFFERENT PRESSURES

All MEGA spool valve islands can be supplied with more than one pressure level or equipped with an intermediate pressure supply module (see pages 8 and 9) but the **Multipol-IP65, Profibus-DP and AS-Interface islands require special versions** of pressure separation plates and intermediate pressure supply modules. The nominal width of a MEGA spool valve is 18 mm and both island versions are provided with interchangeable connectors of the same size for the electrical connection to the principal connection module on the left side of the island (see opposite). All pneumatic accessories to be mounted between the spool valves require a nominal width of 18 mm or 36 mm (2x18) + 1 or 2 additional interconnection modules to ensure proper electrical connection.



MULTIPOL IP65
BUSLINK

■ **Supply with 2 different pressures (P1-P2)**

Use a special type X or W pressure separation plate for Multipol-IP65 or BUSLINK = Profibus-DP or AS-Interface (overall width: 18 mm)

- Type **X** (ports 1 - 3 - 5 - 12 - 14 blocked) code : **88157847**
- Type **W** (ports 1 - 12 - 14 blocked, flow path 3 - 5 connected) code : **88157848**

For construction details of pressure separation plate see page 9.

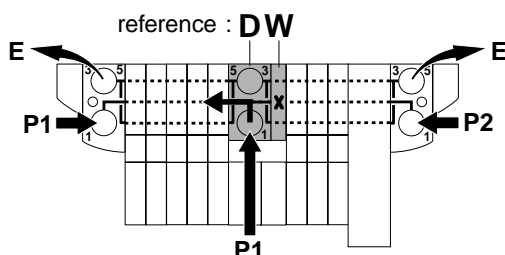
■ **Supply with 2 different pressures (P1-P2) with intermediate pressure supply (on Multipol-IP65 or Profibus-DP)**

Use a special unit 36mm wide (27+9mm), consisting of 1 intermediate pressure supply module, type D, with instant fittings or threaded connections (width: 27mm) + 1 pressure separation plate, type W or X (width: 9mm) + 2 interconnection modules.

Mounting direction

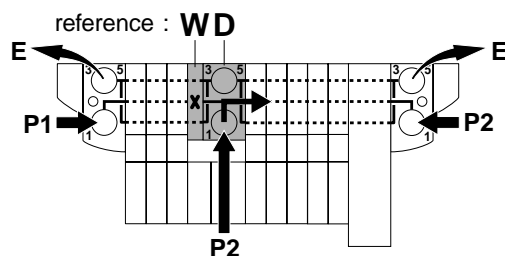
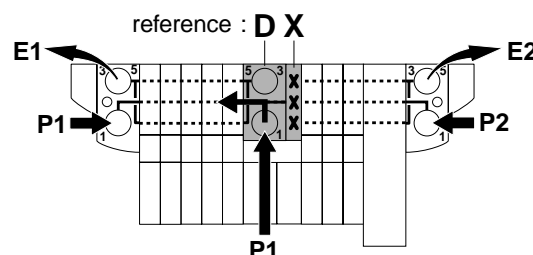
The accessories, intermediate pressure supply module and pressure separation plate must be fitted together and mounted in the order defined in the following configurations (view on top side of island):

Spool valve island with intermediate pressure supply and common exhausts

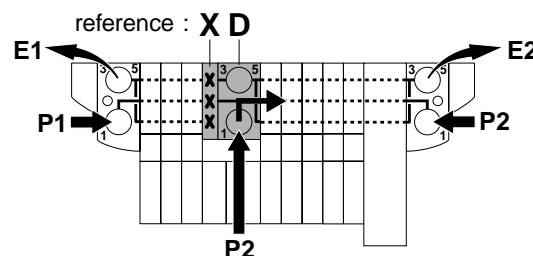


Island with intermediate pressure supply P1 to the spool valves placed on the left side.

Spool valve island with intermediate pressure supply and separate exhausts



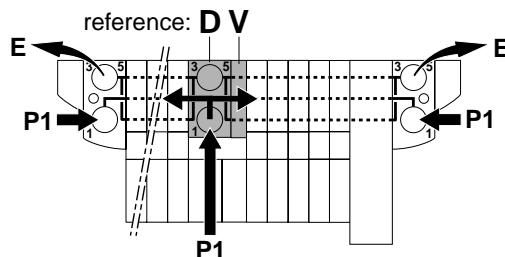
Island with intermediate pressure supply P2 to the spool valves placed on the right side.



■ **Mounting of an intermediate pressure supply (on Multipol-IP65 or Profibus-DP)**

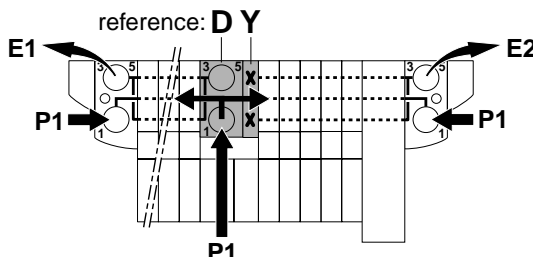
An island with more than 12 spool valves must be supplied with pressure from three different sides using a special unit consisting of an intermediate pressure supply module and a pressure separation plate to be specified according to the following configurations:

Spool valve island with intermediate pressure supply and common exhausts



Island with intermediate pressure supply P1

Spool valve island with intermediate pressure supply and separate exhausts



NOTE: The references X, W, DW, WD, etc. must be written in the appropriate position in reference line ② of the Multipol-IP65 spool valve islands (see page 21), Profibus-DP (see page 25) or AS-Interface spool valve islands (see pages 38/39)

ASCOJOUCOMATIC reserves the right to alter the availability and specifications without notice.

MULTIPOL IP65 or PROFIBUS-DP

