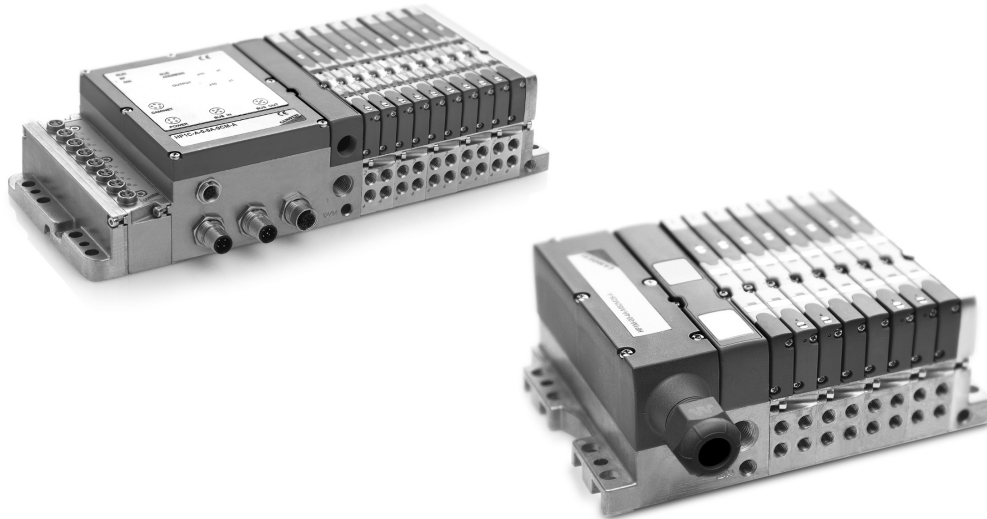


Valve Islands Series H

Valve Island with Pneumatics and Electronics integrated. Available versions: Multipole (PNP and NPN) and Fieldbus (Profibus-DP, DeviceNet, CANopen). Valve functions: 2x2/2; 2x3/2; 5/2; 5/3 CC



Series H valve island always offers the best solution for each application thanks to the high technology, the wide range of options and the total flexibility both in pneumatic and electrical components. Series H has been designed to be used in many industrial fields, especially in automated systems.

Compact design, flexibility during assembly, as well as a wide range of pneumatic and electrical accessories and the possibility to improve the initial lay-out makes Series H valve island an innovative product, particularly suitable for a number of applications and requirements.

To check the suitable connectors see the section 2/3.25.

- » Dimension 10,5 mm (modularity 2)
- » Dimension 21 mm (modularity 1)

GENERAL DATA AND ELECTRICAL CHARACTERISTICS
PNEUMATIC SECTION

Valve construction	spool with seals
Valve functions	5/2 monostable and bistable 5/3 CC 2 x 2/2 NO 2 x 2/2 NC 1 x 2/2 NC+ 1 x NO 2 x 3/2 NC 2 x 3/2 NO 1 x 3/2 NC+ 1 x 3/2 NO
Materials	spool in aluminium spool seals in HNBR other seals in NBR cartridges in brass body and end covers in technopolymer subbases in aluminium
Connections	Inlets 2 and 4, size 1 = M7 or tube ø4 or tube ø6 Inlets 2 and 4, size 2 = G1/8 or tube ø6 or tube ø8 Supply, size 1 = G1/4 or tube ø8 Supply, size 2 = G1/4 or tube ø10 Pilot, size 1 and 2 = M7 Exhausts 3 and 5, size 1 and 2 = G1/4 or with silencer Exhausts 82 e 84, size 1 and 2 = M7 or with silencer
Temperature	0 + 50°C
Air specifications	Filtered air class 5.4.4 according to ISO 8573.1 If lubrication is necessary, use only oils with maximum viscosity 32 Cst.
Valve sizes	10,5 mm (modularity 2) 21 mm (modularity 1)
Working pressure	- 0,9 + 10 bar
Pilot pressure	3 + 7 bar
Flow rate	400 NI/min (10,5 mm) 700 NI/min (21 mm)
Mounting position	any position

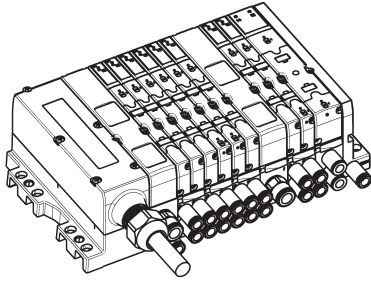
INPUTS SECTION

Supply voltage	24 V DC *
	* the voltage range can vary according to the range necessary to the connected external elements.
Protection class	IP 65
Max. number of connecting inputs	64

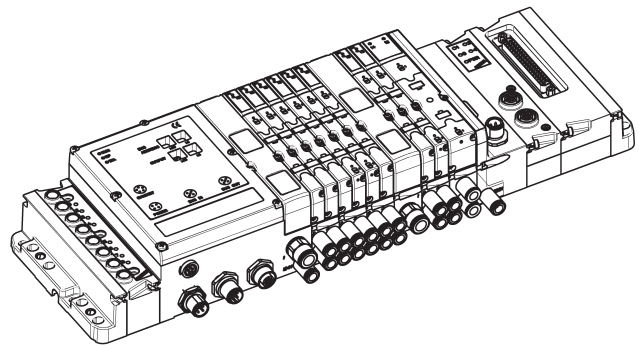
ELECTRIC SECTION

Protection class	IP65
Max. number of coils - Multipole version	32
Max. number of coils - Fieldbus version	64

Valve Islands Series H - Multipole and Expandable Fieldbus versions



Multipole version:
it can be connected quickly and safely thanks to the electrical connection through a wired cable of different lengths.



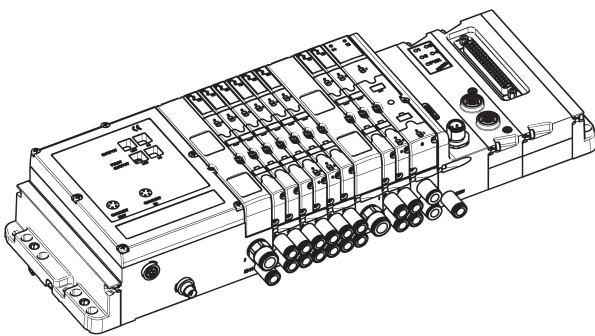
Expandable Fieldbus version:
This version enables a direct interface to fieldbus systems such as: Profibus-DP, DeviceNet * and CANopen. The wide range of electrical and pneumatic elements that can be connected, as well as the possibility to decentralise the signals on expansion Islands makes this version extremely flexible.

* The DeviceNet version doesn't allow to handle the inlets.

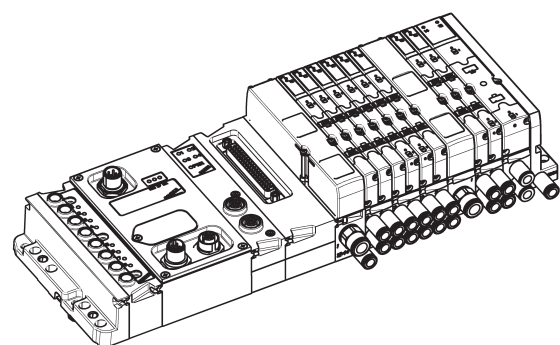
2

CONTROL

Valve Islands Series H - Expansion and Individual Fieldbus versions



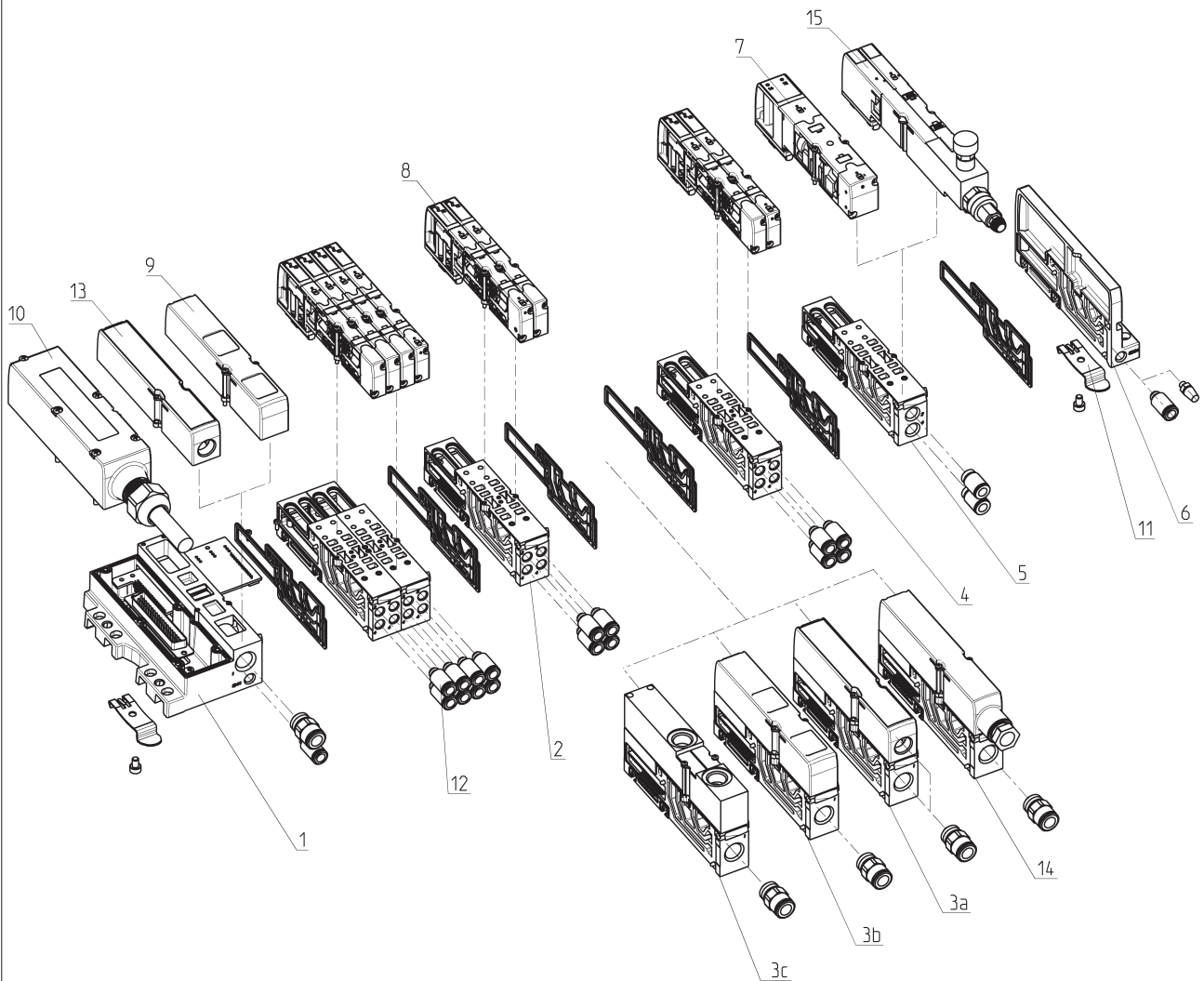
Fieldbus Expansion version:
This version can handle electrical and pneumatic outlets. It can be subdivided into 15 units at most that can be placed up to a 50 m distance from the expandable fieldbus Island. The expandable fieldbus Island and the expansions communicate with each other through an internal local fieldbus (Cam.I.Net) that can be connected through pre-wired cables of different lengths.



Individual Fieldbus version:
This version enables a direct interface to fieldbus systems such as: Profibus-DP, DeviceNet * and CANopen. A wide range of electrical and pneumatic modules can be connected to this version.

* The DeviceNet version doesn't allow to handle the inlets.

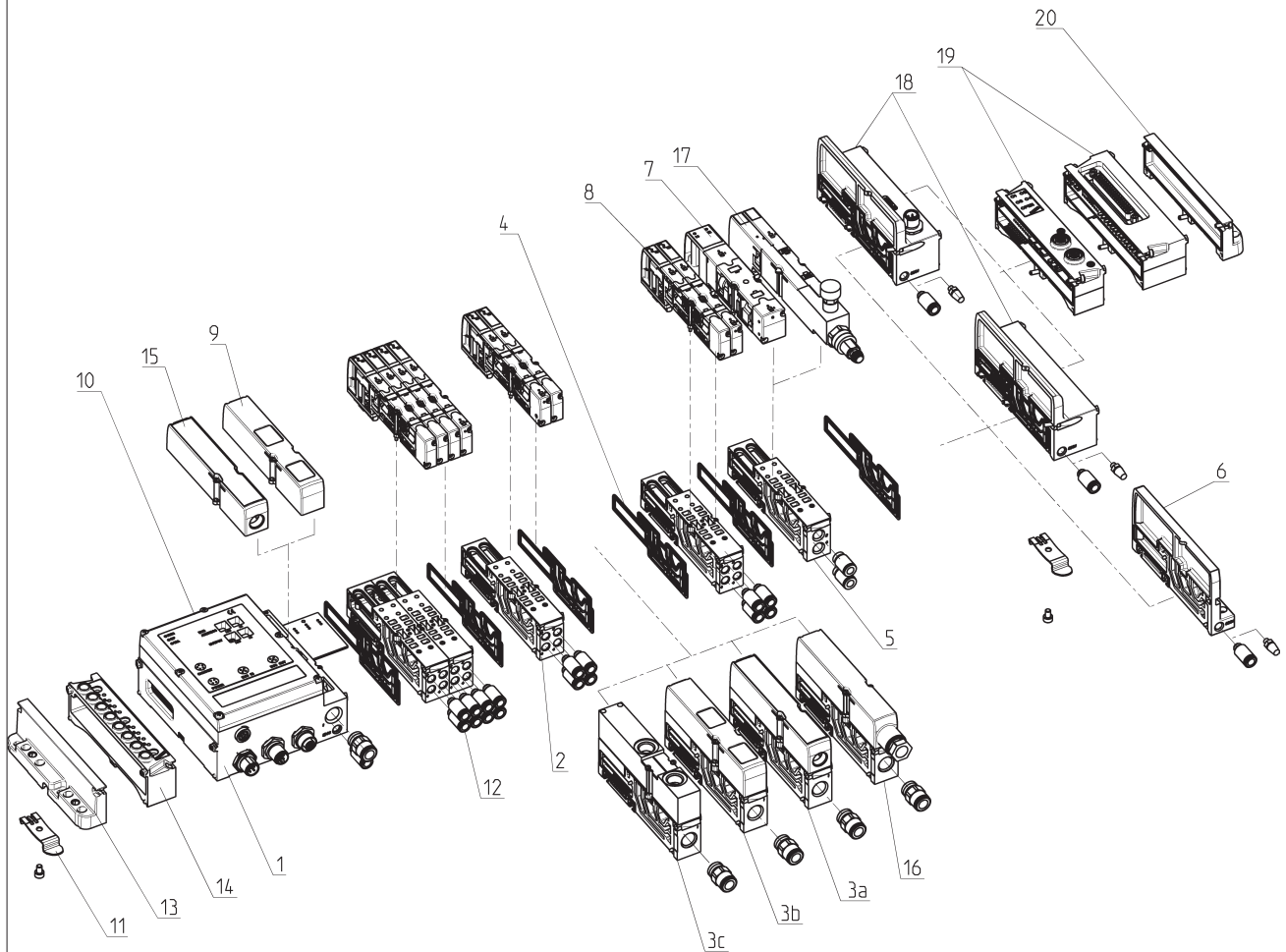
Multipole version - components



COMPONENTS

1	Electrical and pneumatic group of interface
2	Threaded sub-base, size 10,5 - modularity 2
3	Conveyable plate for supply and supplementary exhaust Plate for supply and exhaust with silencer Plate for supply from exhausts
4	Interface seals
5	Threaded sub-base, size 21 - modularity 1
6	Terminal
7	Solenoid valve, size 2
8	Solenoid valve, size 1
9	Silencer
10	Electrical connection plug with 25 or 37 pin cable
11	Mounting bracket for DIN rail
12	Quick-release fittings
13	Cover to convey exhausts 3 and 5
14	Module to separate electrical supply and supplementary pneumatic supply
15	Valve size 10,5 with incorporated pressure regulator

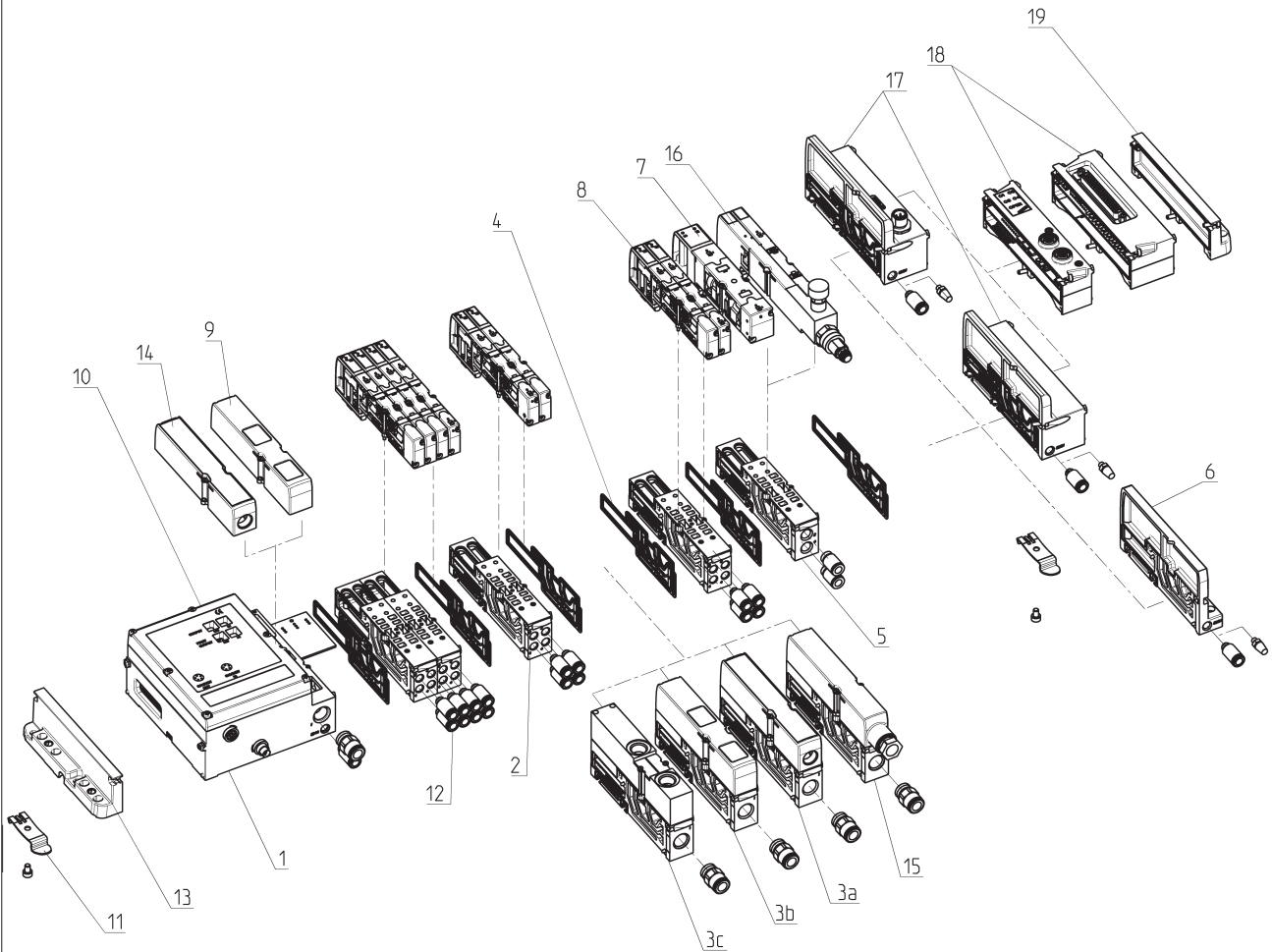
Expandable Fieldbus version - components



COMPONENTS

1	Module for the electrical part management and for the Individual Fieldbus connection	11	Mounting bracket for DIN rail
2	Threaded sub- base size 10,5 modularity 2	12	Quick-release fittings
3a	Conveyed plate for supply and supplementary exhaust	13	Electric terminal
3b	Plate for supply and exhaust with silencer		
3c	Plate for supply from exhausts		
4	Interface seals	14	Electrical Inputs module
5	Threaded sub- base size 21 modularity 1	15	Cover to convey outlets 3 and 5
6	Pneumatic terminal	16	Module to separate electrical supply and supplementary pneumatic supply
7	Solenoid valve size 2	17	Valve size 10,5 with incorporated pressure regulator
8	Solenoid valve size 1	18	Pneumatic/electrical interface
9	Silencer	19	Electrical outputs module
10	Cover for the access to rotary switch	20	Electronical terminal

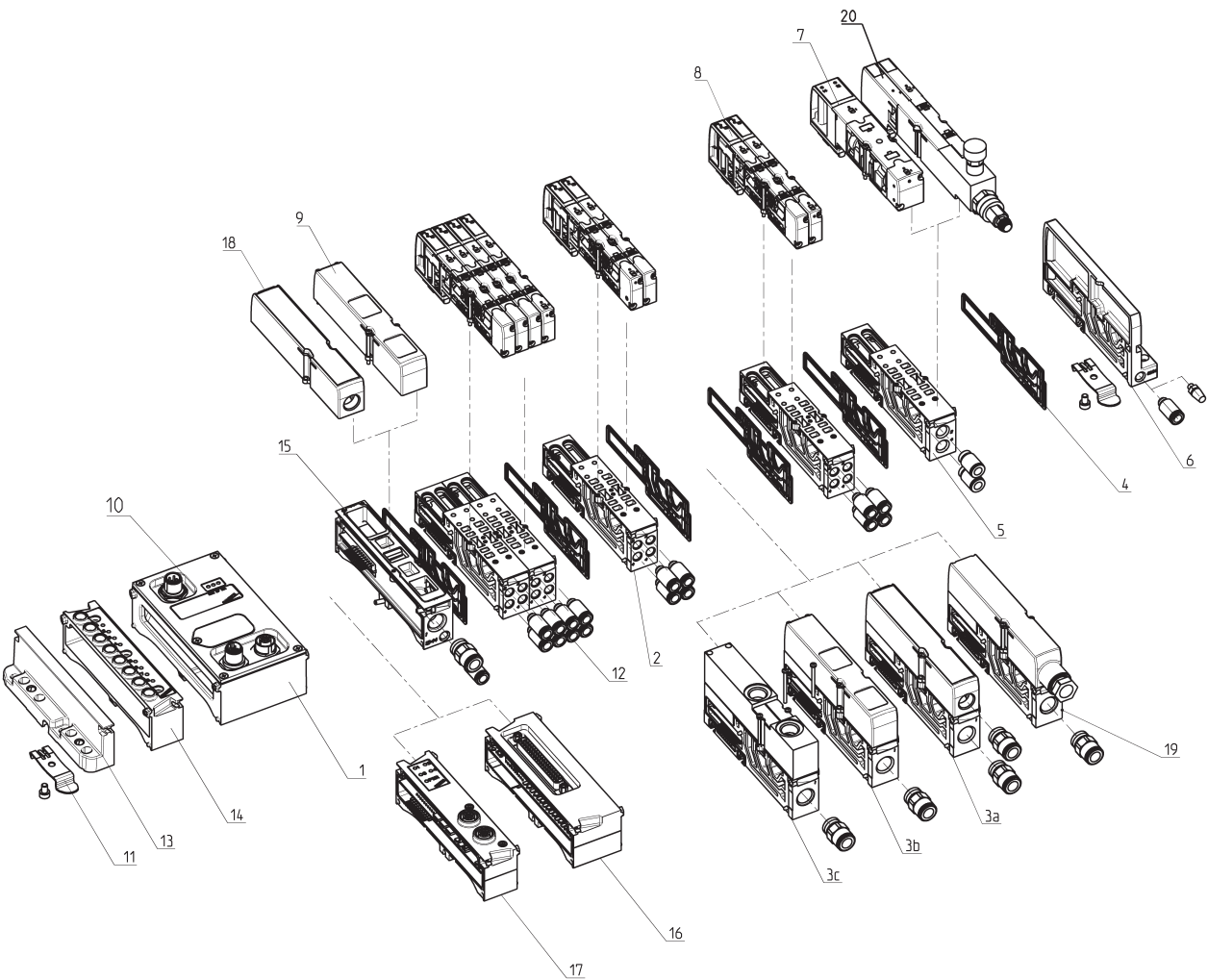
Fieldbus expansion version - components



COMPONENTS

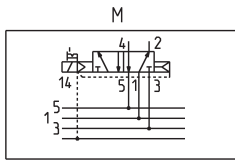
1	Module for the electrical part management and for the Individual Fieldbus connection	11	Mounting bracket for DIN rail
2	Threaded sub- base size 10,5 modularity 2	12	Quick - release fittings
3a	Conveyed plate for supply and supplementary exhaust	13	Electric terminal
3b	Plate for supply and exhaust with silencer		
3c	Plate for supply from exhausts		
4	Interface seals	14	Cover to convey outlets 3 and 5
5	Threaded sub- base size 21 modularity 1	15	Module to separate electrical supply and supplementary pneumatic supply
6	Pneumatic terminal	16	Valve size 10,5 with incorporated pressure regulator
7	Solenoid valve size 2	17	Pneumatic/electrical interface
8	Solenoid valve size 1	18	Electrical outputs module
9	Silencer	19	Electronical terminal
10	Cover for the access to rotary switch		

Individual Fieldbus version - components

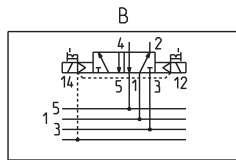


COMPONENTS

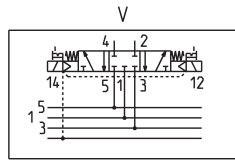
1	Module for the electrical part management and for the Individual Fieldbus connection	11	Mounting bracket for DIN rail
2	Threaded sub-base size 10,5 modularity 2	12	Quick-release fittings
3a	Conveyed plate for supply and supplementary exhaust	13	Electric terminal
3b	Plate for supply and exhaust with silencer		
3c	Plate for supply from exhausts		
4	Interface seals	14	Electrical Inputs module
5	Threaded sub-base size 21 modularity 1	15	Electrical/pneumatic interface module for individual fieldbus connection
6	Pneumatic terminal	16	Digital outputs electric module with D-SUB - 37 pin connection
7	Solenoid valve size 2	17	Digital outputs electric module with M12 connection
8	Solenoid valve size 1	18	Cover to convey exhausts 3 and 5
9	Silencer	19	Module to separate electrical supply and supplementary pneumatic supply
10	Cover for the access to rotary switch	20	Valve size 10,5 with integrated pressure regulator

AVAILABLE FUNCTION - SYMBOLS FOR SOLENOID VALVES


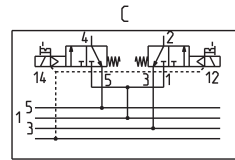
M = 5/2-way, Monostable



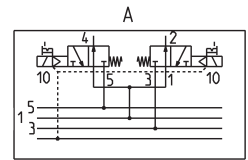
B = 5/2-way, Bistable



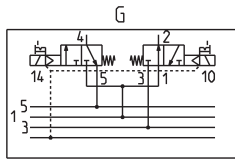
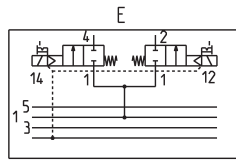
V = 5/3-way Centres Closed



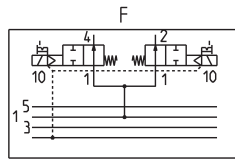
C = 2 x 3/2-way NC



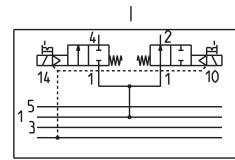
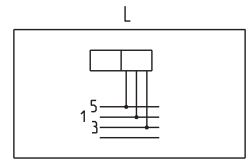
A = 2 x 3/2-way NO


 G = 1 x 3/2-way NC +
1 x 3/2-way NO


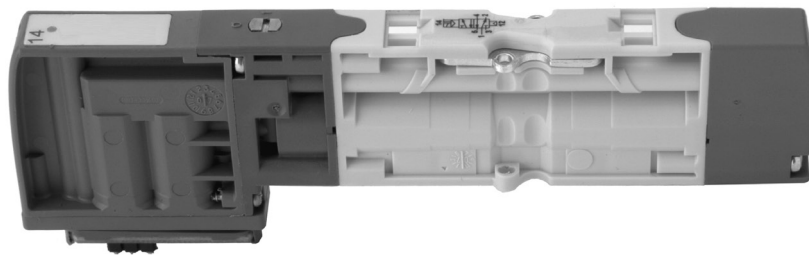
E = 2 x 2/2-way NC



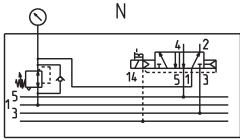
F = 2 x 2/2-way NO


 I = 1 x 2/2-way NC +
1 x 2/2-way NO


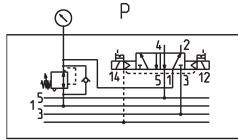
L = free position



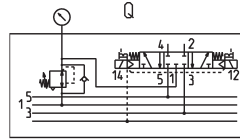
AVAILABLE FUNCTIONS - SYMBOLS FOR SOLENOID VALVES WITH PRESSURE REGULATOR



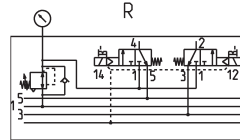
N = 5/2-way, Monostable



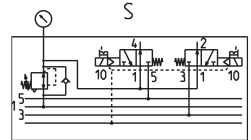
P = 5/2-way, Bistable



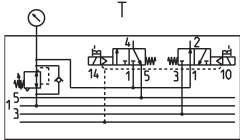
Q = 5/3-way Centres Closed



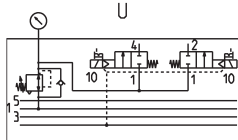
R = 2 x 3/2-way NC



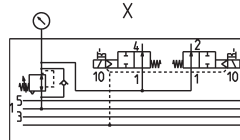
S = 2 x 3/2-way NO



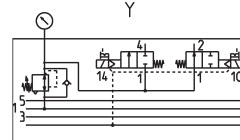
T = 1 x 3/2-way NC +
1 x 3/2-way NO



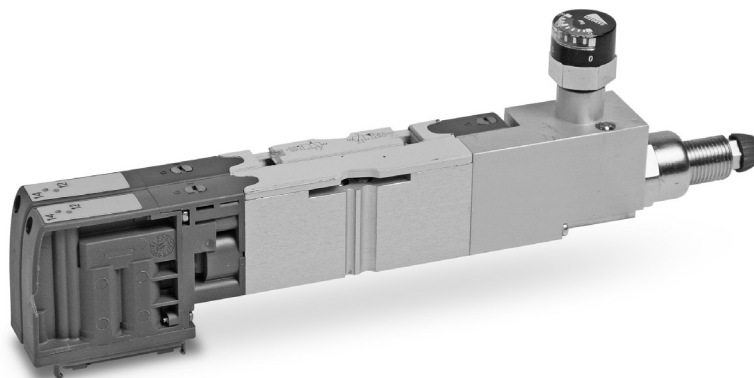
U = 2 x 2/2-way NC



X = 2 x 2/2-way NO



Y = 1 x 2/2-way NC +
1 x 2/2-way NO



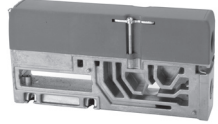
AVAILABLE FUNCTIONS - SUB-BASES TYPES

 Through subb. size 10,5
 A=M7; B=Ø4; C=Ø6

 Subb. diaphr. lines 1-3-5
 D=M7; E=Ø4; F=Ø6

 Subb. diaphr. line 1
 L=M7; M=Ø4; N=Ø6

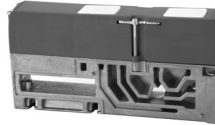
 Subb. diaphr. lines 3-5
 G=M7; H=Ø4; I=Ø6

 Through subb. size 21
 Q=1/8; R=Ø6; S=Ø8


X = suppl. supply and exhaust



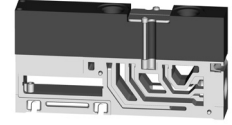
K = interm. plate to sep. elec. and suppl. supply



Y = suppl. supply + exhaust with silencer



Z = electro-pneum. interface for HP...F/G/R



W = plate for supply from exhausts



U = Diaphragm seal - Line 1



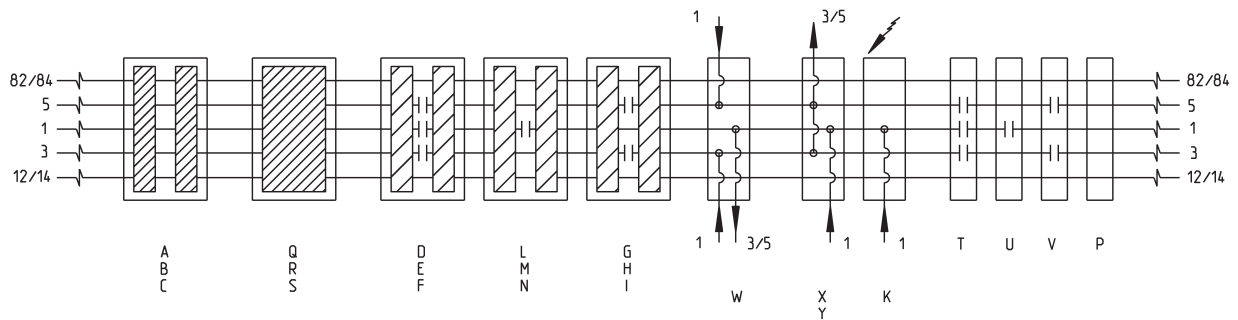
V = Diaphragm seal - Lines 3; 5.



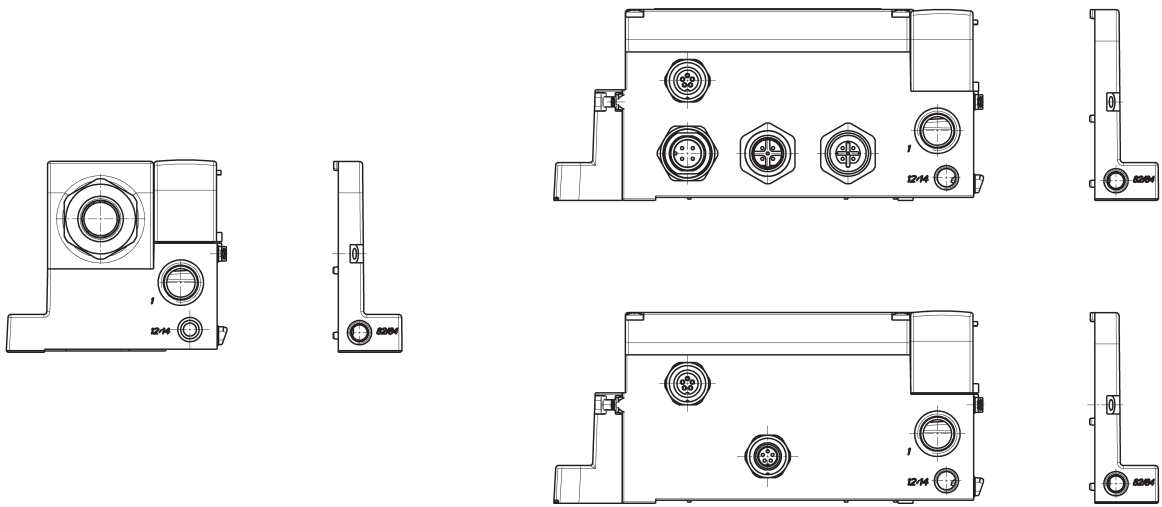
P = Through seal



T = Diaphragm seal - Lines 1-3-5



Terminal plates



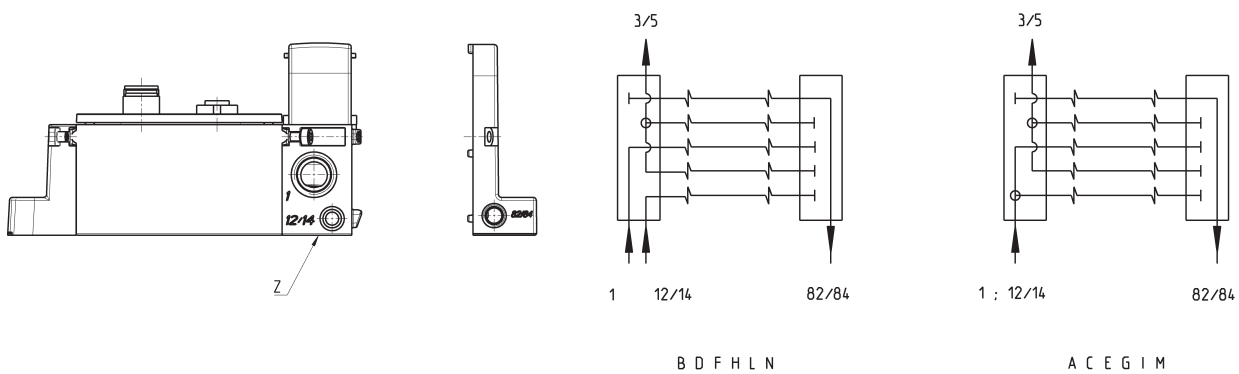
for Multipole version HP...M

for Expandable Fieldbus HP...P/C/D and Expansion HP...E

2

CONTROL

Terminal plates



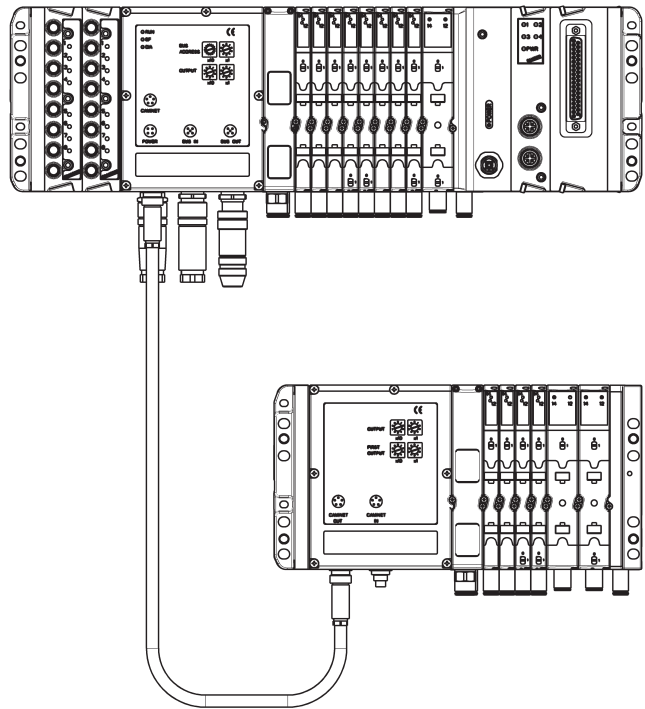
for Individual Fieldbus version HP...F/G/R

Code "Z" is part of the code HP...F/G/R

For the description of the above mentioned codes see the code tables from page 2/3.15.22 onwards.

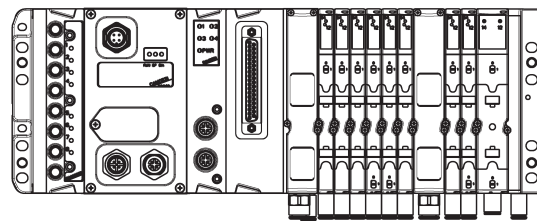
Expandable Fieldbus version and Expansion - Characteristics

- it can be equipped with solenoid valves size 1, 2 or mixed;
- possible creation of zones with differentiated electrical supply;
- possible creation of zones with differentiated pressure/ exhaust;
- electrical and pneumatic connections on the same side;
- Bus-In Bus-out system for the Fieldbus connection;
- addressing through Rotary Switch;
- valve island functioning signalled by Leds;
- double electrical supply (for logics and for power);
- Cam.I.Net. outlet to transfer to the Expansion modules [E.M.] signals which are not used by the Initial module [I.M.];
- connection of a maximum of 15 E.M. up to a maximum distance of 50 m;
- internal connections on boards with connector to make future modifications/maintenance easier;
- 64 outputs (pneumatic/electrical) on the right side allow the creation of valve islands with up to 32 bistable valve positions;
- customized solutions enable the creation of valve islands with up to 60 monostable valves;
- electrical modules with different features can be integrated;
- outlets which are not used on the I.M. can be transferred to the expansion modules;
- 64 outputs can be managed on the left side;
- the connection among the modules can be done with pre-wired 5 poles cables in different lengths;
- the use of E.M. instead of I.M. allows a cost reduction;
- the E.M. allows a quicker wiring (no specific electrical supply and no direct connection to Fieldbus are required), thus resulting in further cost optimization;
- the E.M. improves the use of less powerful Control Logics.



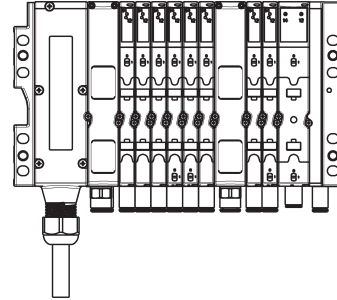
Individual Fieldbus version - Characteristics

- it can be equipped with solenoid valves size 1, 2, or mixed;
- possible creation of zones with differentiated electrical supply;
- possible creation of zones with differentiated pressure/ exhaust;
- electrical/pneumatic connections on the same side;
- Bus-In Bus-out system for the Fieldbus connection;
- addressing through rotary switch;
- valve island functioning signalled by Leds;
- double electrical supply (for logics and for power);
- internal connections on boards with connector to make future modifications/maintenance easier;
- 64 outputs (pneumatic/electrical) on the right side allow the creation of valve islands with up to 32 bistable valve positions;
- customized solutions enable the creation of valve islands with up to 64 monostable valves;
- electrical modules with different features can be integrated;
- 64 outputs can be managed on the left side;
- every Individual Fieldbus Module [I.F.M.] takes part to the Fieldbus network (as it has no Cam.I.Net outlet it is suitable for use in single applications or in applications with a small number of participants);
- cost reduction with the same number of choices of the Inlet/ Outlet modules of the Expandable Fieldbus version.

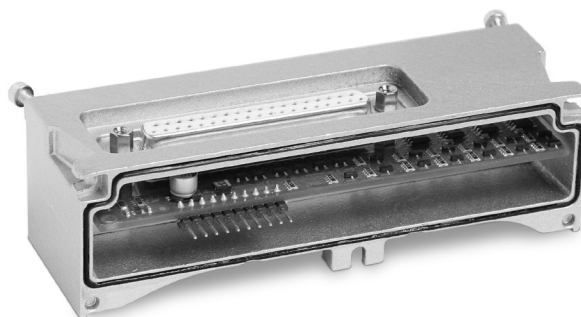


Multipole version - Characteristics

- it can be equipped with solenoid valves size 1, 2 or mixed;
- possible creation of zones with differentiated electrical supply;
- possible creation of zones with differentiated pressure/exhaust;
- available with PNP or NPN logic connection;
- pre-wired 25 or 37 pins cables with different lengths (valve islands with a max number of 6 sub-bases with 25 pin cable, valve islands with a max number of 8 sub-bases with 37 pin cable);
- customized solutions enable the creation of valve islands with up to 28 monostable valves.



Digital outputs module with connector 37 poles Mod. ME-xxxx-DD



GENERAL DATA

	ME-0032-DD	ME-0024-DD	ME-0016-DD	ME-0008-DD
Number of digital outputs	32	24	16	8
Connection	female D-SUB 37 poles	female D-SUB 37 poles	female D-SUB 37 poles	female D-SUB 37 poles
Number of connectors	1	1	1	1
Dimensions	130 x 38 mm	130 x 38 mm	130 x 38 mm	130 x 38 mm
Type of signal	24 V DC PNP	24 V DC PNP	24 V DC PNP	24 V DC PNP
Overload protection	1 A every 8 outputs	1 A every 8 outputs	1 A every 8 outputs	1 A every 8 outputs
Power consumption without load	5 mA	5 mA	5 mA	5 mA
Protection class	IP65	IP65	IP65	IP65
Operating temperature	0°C + 50 °C	0°C + 50 °C	0°C + 50 °C	0°C + 50 °C
Material	Aluminium	Aluminium	Aluminium	Aluminium
Weight	100 g	100 g	100 g	100 g

Digital outputs module with connector M12 DUO Mod. ME-0004-DL

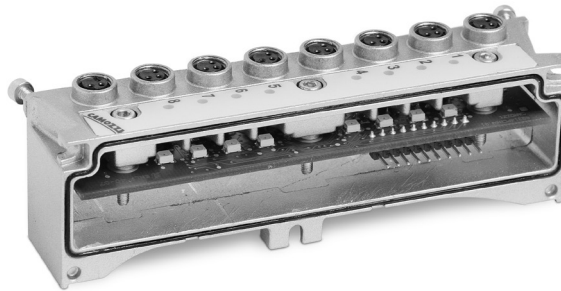


GENERAL DATA

	ME-0004-DL
Number of digital outputs	4
Connection	female M12 5 poles Duo
Number of connectors	2
Dimensions	130 x 25 mm
Signalling	1 Yellow Led for each single outlet 1 Green Led for power supply presence on the module
Outlet voltage	24 V DC
Type of signal	24 V DC PNP
Overload protection - Supply voltage	total 900 mA
Power consumption without load	10 mA
Protection class	IP65
Temperature	0°C + 50 °C
Material	Aluminium
Weight	100 g

Digital inputs Module Mod. ME-0800-DC*

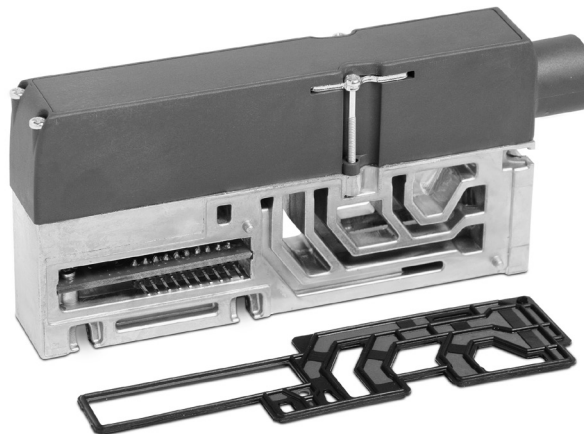
* Not for DeviceNet



GENERAL DATA

Number of digital inputs	8
Connection	female M8 3 poles
Number of connectors	8
Dimensions	130 x 25 mm
Signal	1 yellow Led for each inlet
Sensors supply	24 V DC
Overloaded protection	400 mA every 4 sensors
Power consumption	10 mA
Type of signal	PNP
Protection class	IP65
Operating temperature	0°C + 50°C
Material	Aluminium
Weight	110 g

Module for the electrical and pneumatic supply separation Mod. HA0S-K

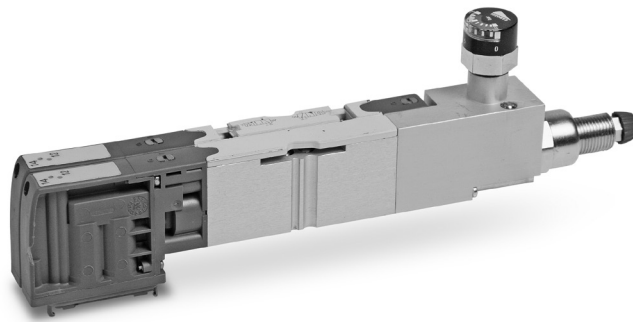


GENERAL DATA

Connection	3 poles terminal block to be wired
Dimensions	130 x 20 mm
Signalling	None
Supply	24 V dc (+/- 10%)
Electrical protection	Fuse 2 A
Protection class	IP 65
Temperature	0°C + 50°C
Material	Plastics - Aluminium
Weight	100 g

Valve with integrated pressure regulator Mod. HP2V

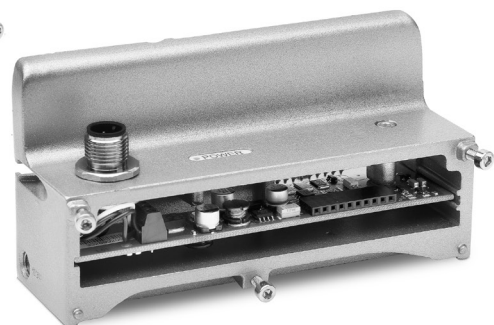
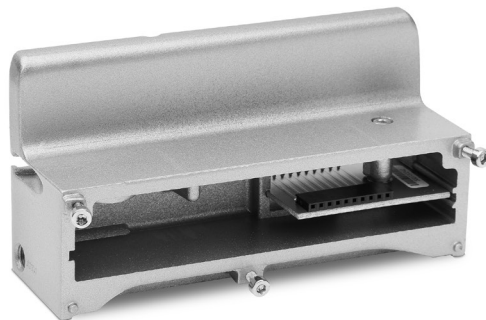
This solution has the advantage of reducing the valve island's overall height compared to traditional "sandwich" solutions. The pressure regulator allows to set the supply pressure of the lateral valve.



Modules Mod. HA0X-0 and HA0Y-0

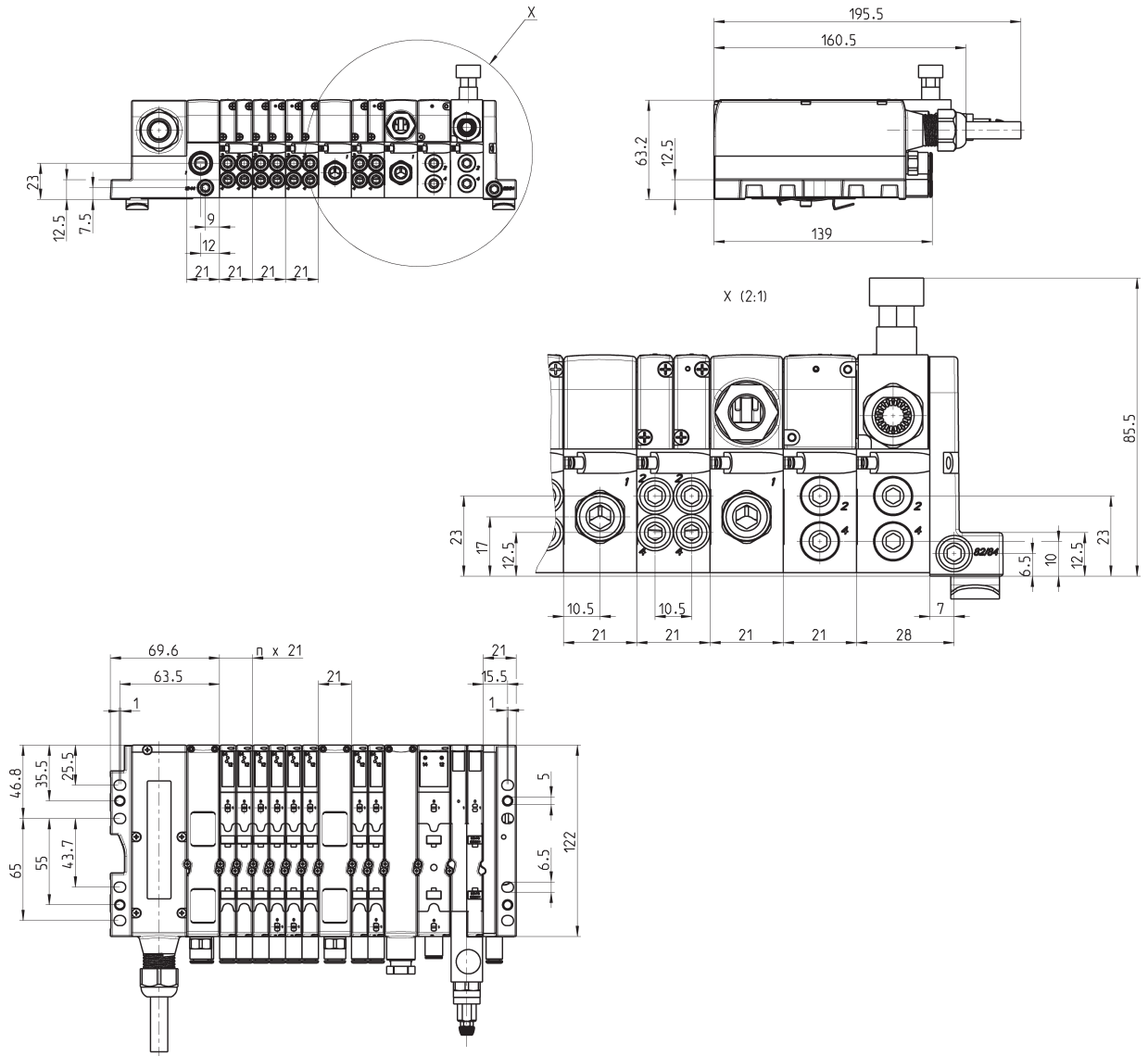
The HA0X-0 module enables the closure of the pneumatic circuit and allows to connect other electrical outputs.

The HA0Y-0 module places a male connector M12, 4 pin at your disposal for the separated supply of the electrical part.

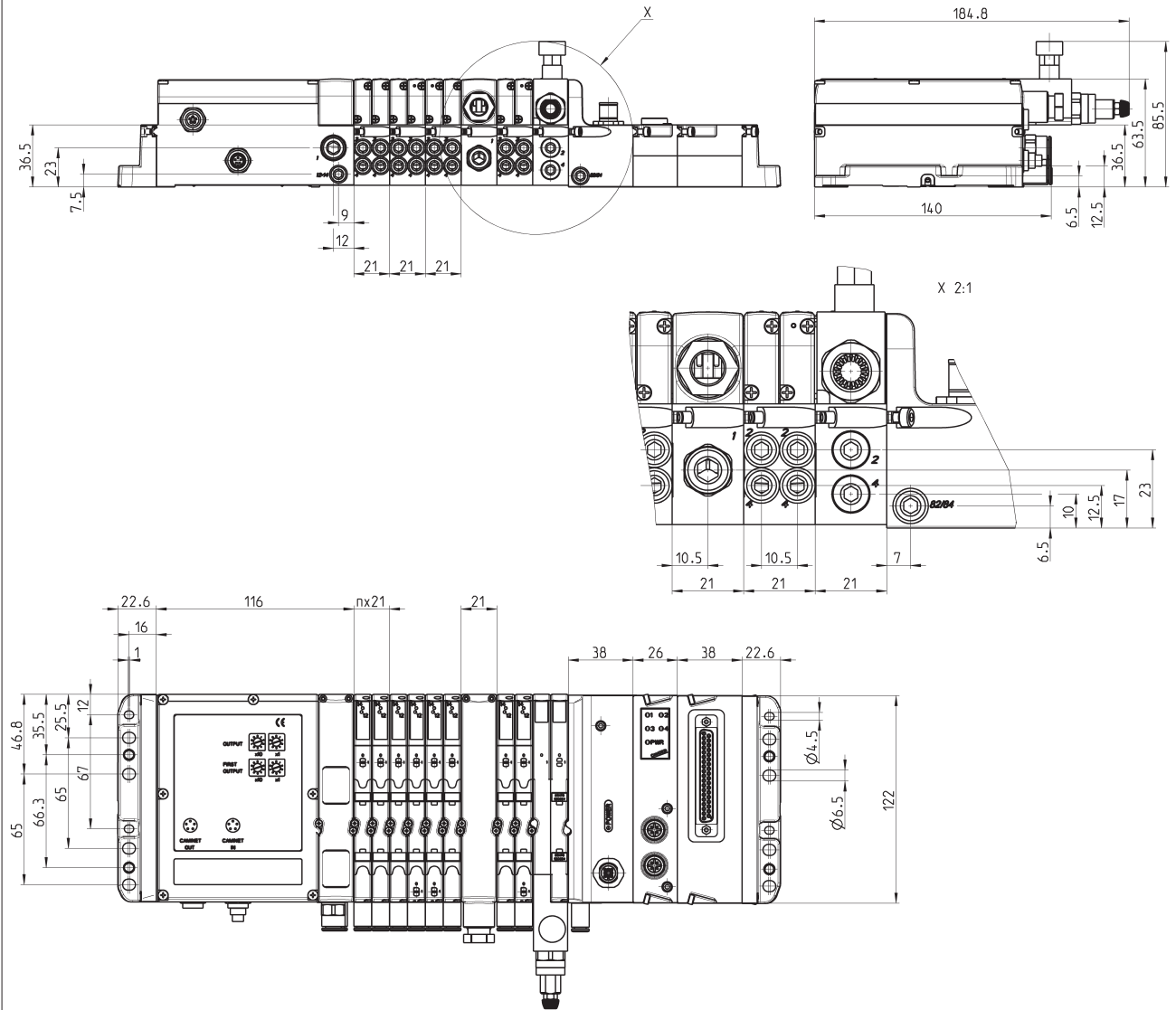


	HA0X-0	HA0Y-0
Electrical connection	-	male M12, 4 poles connector
Dimensions	122 x 40 mm	122 x 40 mm
Signalling	-	green led for supply presence
Supply	-	24 V DC (+/- 10 %)
Electrical protection	-	3 A electronic limit
Protection class	IP65	IP65
Working temperature	0°C + 50°C	0°C + 50°C
Material	Aluminium	Aluminium
Weight	250 g	270 g

Multipole version - dimensions



Expansion of the Fieldbus version - dimensions



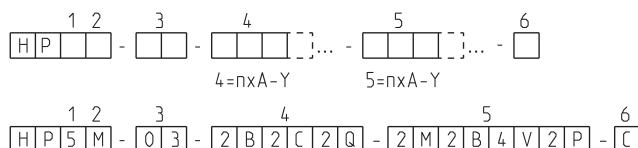
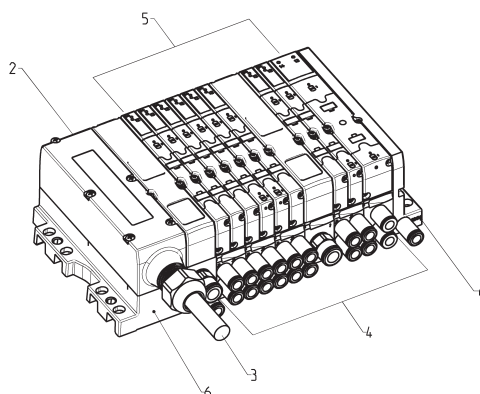
CODING EXAMPLE - MULTIPOLE VERSION

H	P	5	M	-	03	-	ABCS	-	MMCCBBB	-	A
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H	Series		
P	Type: P = Pneumatic A = Accessories		
5	Size: 1 = 10,5 2 = 21 5 = Mixed		
M	Electrical connection: M = Multipole 25 pin PNP N = Multipole 25 pin NPN H = Multipole 37 pin PNP L = Multipole 37 pin NPN		
03	Cable length of the multipole plug: 03 = 3 mt 05 = 5 mt 10 = 10 mt 15 = 15 mt 20 = 20 mt 25 = 25 mt 30 = 30 mt x = length to be defined in meters		
ABCS	Type of sub-bases for solenoid valves Sub-bases for two solenoid valves size 1: A = M7 threads B = 4 fittings for tube Ø4 C = 4 fittings for tube Ø6 D = channel 1; 3 ; 5 closed - M7 threads E = channel 1; 3 ; 5 closed - cartridges tube Ø4 F = channel 1; 3 ; 5 closed - cartridges tube Ø6 G = channel 3 ; 5 closed - M7 threads H = channel 3 ; 5 closed - cartridges tube Ø4 I = channel 3 ; 5 closed - cartridges tube Ø6 L = channel 1 closed - M7 threads M = channel 1 closed - cartridges tube Ø4 N = channel 1 closed - cartridges tube Ø6 Sub-bases for solenoid valves size 2: Q = G 1/8 threads R = cartridges tube Ø6 S = cartridges tube Ø8	Type of sub-bases for supply Sub-bases for pneumatic supply: X = supplementary supply and exhaust Y = supplementary supply and exhaust with integrated silencer W = supply from the exhausts Sub-bases for electrical supply: K = separation of electrical supply	Type of seals: T = diaphragm seal - channel 1;3;5 U = diaphragm seal - channel 1 V = diaphragm seal - channel 3; 5
MMCCBBB	Type of solenoid valve Size 1 and 2: M = 5/2 Monostable B = 5/2 Bistable V = 5/3 Centres Closed C = 2 x 3/2 NC A = 2 x 3/2 NO G = 1 x 3/2 NC + 1 x 3/2 NO E = 2 x 2/2 NC F = 2 x 2/2 NO I = 1 x 2/2 NC + 1 x 2/2 NO L = Free position	Solenoid valve + Pressure regulator on channel 1 (size 2 only): N = 5/2 Monostable P = 5/2 Bistable Q = 5/3 Centres Closed R = 2 x 3/2 NC S = 2 x 3/2 NO T = 1 x 3/2 NC + 1 x 3/2 NO U = 2 x 2/2 NC X = 2 x 2/2 NO Y = 1 x 2/2 NC + 1 x 2/2 NO	
A	Type of terminal plates Threaded: A = 1; 12/14 in common 3/5; 82/84 threaded ports B = 1; 12/14 separated 3/5; 82/84 threaded ports C = 1; 12/14 in common 3/5; 82/84 with integrated silencer D = 1; 12/14 separated 3/5; 82/84 with integrated silencer	Type of terminal plates With cartridges Ø 8 : E = 1; 12/14 in common 3/5; 82/84 conveyable F = 1; 12/14 separated 3/5; 82/84 conveyable G = 1; 12/14 in common 3/5; 82/84 with integrated silencer H = 1; 12/14 separated 3/5; 82/84 with integrated silencer	Type of terminal plates With cartridges Ø 10 : I = 1; 12/14 in common 3/5; 82/84 conveyable L = 1; 12/14 separate 3/5; 82/84 conveyable M = 1; 12/14 in common 3/5; 82/84 with integrated silencer N = 1; 12/14 separate 3/5; 82/84 with integrated silencer

In presence of identical consequent codes both for the sub bases as for the valves you need to substitute the letter with the number. Ex: HP5M-03-ABCS-MMCCBBB-A is converted to Ex: HP5M-03-ABCS-2M2C3B-A.

CODING - MULTIPOLE VERSION



CODE										
HP (1)	(2)	(3)	(4)		(5)		(6)			
	Electrical connection	Cable length of the plug	Type of sub-bases and seals		Type of solenoid valve Size 1 and 2		Type of threaded terminal plates			
1	10 M	Multipole 25 pin PNP	03	03 m	A	M7 threads	M	5/2 Monostable	A	1; 12/14 in common 3/5; 82/84 threaded ports
2	21 N	Multipole 25 pin NPN	05	05 m	B	fittings tube Ø4	B	5/2 Bistable	B	1; 12/14 separate 3/5; 82/84 threaded ports
5	Mixed H	Multipole 37 pin PNP	10	10 m	C	fittings tube Ø6	V	5/3 Centres Closed	C	1; 12/14 in common 3/5; 82/84 w. integr. silencer
	L	Multipole 37 pin NPN	15	15 m	D	channel 1; 3; 5 closed - M7 threads	C	2 x 3/2 NC	D	1; 12/14 separate 3/5; 82/84 w. integr. silencer
			20	20 m	E	channel 1; 3; 5 closed - cartridge Ø4	A	2 x 3/2 NO		FITTINGS TUBE Ø8 ON PORT 1
			25	25 m	F	channel 1; 3; 5 closed - cartridge Ø6	G	1 x 3/2 NC + 1 x 3/2 NO	E	1; 12/14 in common 3/5; 82/84 conveyable
			30	30 m	G	channel 3; 5 closed - M7 threads	E	2 x 2/2 NC	F	1; 12/14 separate 3/5; 82/84 conveyable
		X	length to be defined (m)		H	channel 3; 5 closed - cartridge Ø4	F	2 x 2/2 NO	G	1; 12/14 in common 3/5; 82/84 w. integr. silencer
					I	channel 3; 5 closed - cartridge Ø6	I	1 x 2/2 NC + 1 x 2/2 NO	H	1; 12/14 separate 3/5; 82/84 w. integr. silencer
					L	channel 1 closed - M7 threads	L	Free position		FITTINGS TUBE Ø10 ON PORT 1
					M	channel 1 closed - cartridge Ø4		SOL. VALVE + PRESS. REG. LINE 1 - SIZE 2 ONLY	I	1; 12/14 in common 3/5; 82/84 conveyable
					N	channel 1 closed - cartridge Ø6	N	5/2 Monostable	L	1; 12/14 separate 3/5; 82/84 conveyable
						SUB-BASE FOR VALVES SIZE 2	P	5/2 Bistable	M	1; 12/14 in common 3/5; 82/84 with integrated silencer
						G1/8 thread	Q	5/3 Centres Closed	N	1; 12/14 separate 3/5; 82/84 w. integr. silencer
						fittings tube Ø6	R	2 x 3/2 NC		
						fittings tube Ø8	S	2 x 3/2 NO		
						SUPPLEMENTARY SUPPLY AND EXHAUST	T	1 x 3/2 NC 1 x 3/2 NO		
					X	Supplem. supply and exhaust	U	2 x 2/2 NC		
					Y	Supplem. supply and exhaust with silencer	X	2 x 2/2 NO		
					W	Supply from exhausts				
						ELECTRICAL SEP. AND SUPPLEMENTARY PNEUMATIC SUPPLY	Y	1 x 2/2 NC 1 x 2/2 NO		
					K	Electrical supply separation and supplem. pneumatic supply				
						SEALS				
					T	Diaphr. seal - channel 1; 3; 5				
					U	Diaphr. seal - channel 1				
					V	Diaphr. seal - channel 3; 5				

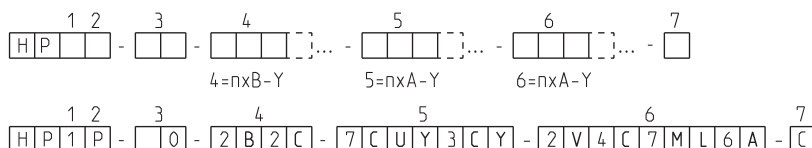
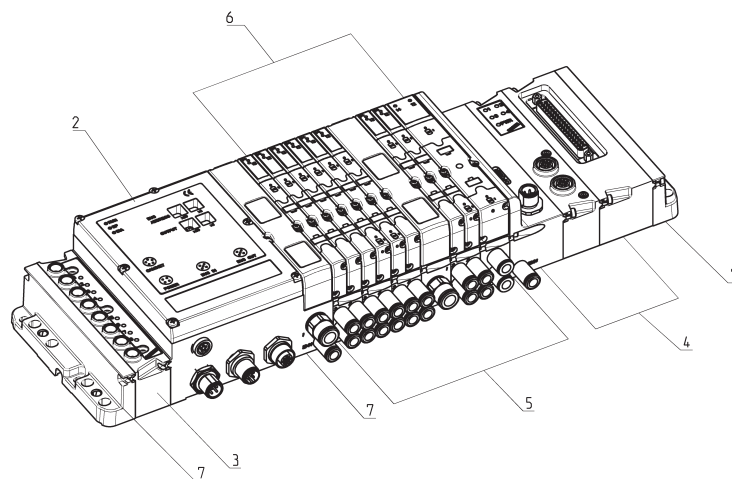
CODING EXAMPLE - EXPANDABLE FIELDBUS VERSION

H | P | 5 | P | - | 3A | - | XC | - | ABCS | - | MMCCBBB | - | A

H	Series		
P	Type: P = Pneumatic A = Accessories		
5	Size: 1 = 10,5 2 = 21 5 = Mixed		
P	Electrical Connection: P = Profibus-DP C = CANopen D = DeviceNet E = Expansion for P-C-D only		
3A	Input Modules: 0 = Without inputs A = 8 Input M8 * * not for DeviceNet version		
XC	Output Modules: 0 = no module B = 4 OutputM12 DUO C = 8 Output Sub-D 37 pin D = 16 Output Sub-D 37 pin E = 24 Output Sub-D 37 pin F = 32 Output Sub-D 37 pin X = Pneum. Electr. Interface for outlets Y = Pneum. Electr. Interface + external power supply		
ABCS	<p>Type of sub-bases for solenoid valves</p> <p>Sub-bases for two solenoid valves size 1: A = M7 threads B = 4 fittings for tube Ø4 C = 4 fittings for tube Ø6 D = channel 1; 3 ; 5 closed - M7 threads E = channel 1; 3 ; 5 closed - cartridges tube Ø4 F = channel 1; 3 ; 5 closed - cartridges tube Ø6 G = channel 3 ; 5 closed - M7 threads H = channel 3 ; 5 closed - cartridges tube Ø4 I = channel 3 ; 5 closed - cartridges tube Ø6 L = channel 1 closed - M7 threads M = channel 1 closed - cartridges tube Ø4 N = channel 1 closed - cartridges tube Ø6</p> <p>Sub-bases for solenoid valves size 2: Q = G 1/8 threads R = cartridges tube Ø6 S = cartridges tube Ø8</p>	<p>Type of sub-bases for supply</p> <p>Sub-bases for pneumatic supply: X = supplementary supply and exhaust Y = supplementary supply and exhaust with integrated silencer W = supply from the exhausts</p> <p>Sub-bases for electrical supply: K = separation of electrical supply</p>	<p>Type of seals:</p> <p>T = diaphragm seal - channel 1,3;5 U = diaphragm seal - channel 1 V = diaphragm seal - channel 3; 5</p>
MMCCBBB	<p>Type of Solenoid valve Size 1 and Size 2: M = 5/2 Monostable B = 5/2 Bistable V = 5/3 Centres Closed C = 2 x 3/2 NC A = 2 x 3/2 NO G = 1 x 3/2 NC + 1 x 3/2 NO E = 2 x 2/2 NC F = 2 x 2/2 NO I = 1 x 2/2 NC + 1 x 2/2 NO L = free position</p>	<p>Solenoid valve + Pressure regulator on channel 1 - Size 2 ONLY: N = 5/2 Monostable P = 5/2 Bistable Q = 5/3 Centres Closed R = 2 x 3/2 NC S = 2 x 3/2 NO T = 1 x 3/2 NC + 1 x 3/2 NO U = 2 x 2/2 NC X = 2 x 2/2 NO Y = 1 x 2/2 NC + 1 x 2/2 NO</p>	
A	<p>Type of terminal plates</p> <p>Threaded: A = 1; 12/14 in common 3/5; 82/84 threaded ports B = 1; 12/14 separated 3/5; 82/84 threaded ports C = 1; 12/14 in common 3/5; 82/84 with integrated silencer D = 1; 12/14 separated 3/5; 82/84 with integrated silencer</p>	<p>Type of terminal plates</p> <p>With cartridges Ø 8 : E = 1; 12/14 in common 3/5; 82/84 conveyable F = 1; 12/14 separated 3/5; 82/84 conveyable G = 1; 12/14 in common 3/5; 82/84 with integrated silencer H = 1; 12/14 separated 3/5; 82/84 with integrated silencer</p>	<p>Type of terminal plates</p> <p>With cartridges Ø 10 : I = 1; 12/14 in common 3/5; 82/84 conveyable L = 1; 12/14 separated 3/5; 82/84 conveyable M = 1; 12/14 in common 3/5; 82/84 with integrated silencer N = 1; 12/14 separated 3/5; 82/84 with integrated silencer</p>

X, Y and K sub-bases will be equipped with threads or cartridges of the same size of port 1, see the choice "Type of terminal plates". In presence of identical consequent codes both for sub-bases and for valves, you need to substitute the letter with the number. Ex: HP5P-AAA-XC-ABCS-MMCCBBB-A is converted to Ex: HP5P-3A-XC-2M2C3B-A.

CODING - EXPANDABLE FIELDBUS VERSION [Unused input modules with electrical connections type D]



CODE										
HP (1)	(2)	(3)	(4)	(5)	(6)	(7)				
Size	Electrical connection	Input modules	Output modules	Type of sub-bases and seals	Type of Solenoid valve Size 1 and 2	Type of threaded terminal plates				
1	10,5 P	0 no module	0 no module	A M7 threads	M 5/2 Monostable	A 1; 12/14 in common 3/5; 82/84 threaded				
2	21 C	A 8 Input M8	X Outputs Interface	B fittings tube Ø4	B 5/2 Bistable	B 1; 12/14 separate 3/5; 82/84 threaded				
5	Mixed D	DeviceNet	Y Outputs Interface with electrical sep.	C fittings tube Ø6	V 5/3 Centres Closed	C 1; 12/14 in common 3/5; 82/84 w. silencer				
	E Expansion for P-C-D only	B 4 outputs M12 duo	D 4 outputs M12 duo	D channel 1; 3; 5 closed - M7 threads	C 2 x 3/2 NC	D 1; 12/14 separate 3/5; 82/84 w. silencer				
		C 8 outputs SUB-D 37 pin	E 8 outputs SUB-D 37 pin	E channel 1; 3; 5 closed - cartridge Ø4	A 2 x 3/2 NO	FITTINGS TUBE Ø8 ON PORT 1				
		D 16 outputs SUB-D 37 pin	F 16 outputs SUB-D 37 pin	F channel 1; 3; 5 closed - cartridge Ø6	G 1 x 3/2 NC + 1 x 3/2 NO	E 1; 12/14 in common 3/5; 82/84 conveyable				
		E 24 outputs SUB-D 37 pin	G 24 outputs SUB-D 37 pin	G channel 3; 5 closed - M7 threads	E 2 x 3/2 NC	F 1; 12/14 in common 3/5; 82/84 conveyable				
		F 32 outputs SUB-D 37 pin	H 32 outputs SUB-D 37 pin	H channel 3; 5 closed - cartridge Ø4	F 2 x 3/2 NO	G 1; 12/14 in common 3/5; 82/84 w. silencer				
			I	I channel 3; 5 closed - cartridge Ø6	I 1 x 2/2 NC + 1 x 2/2 NO	H 1; 12/14 separate 3/5; 82/84 w. silencer				
			L	L channel 1 closed - M7 threads	L Free position	FITTINGS TUBE Ø10 ON PORT 1				
			M	M channel 1 closed - cartridge Ø4	SOL. VALVE+PR. REG. LINE 1, SIZE 2 ONLY	I 1; 12/14 in common 3/5; 82/84 conveyable				
			N	N channel 1 closed - cartridge Ø6	N 5/2 Monostable	L 1; 12/14 in common 3/5; 82/84 conveyable				
				P SUB-BASE FOR VALVES SIZE 2	P 5/2 Bistable	M 1; 12/14 in common 3/5; 82/84 w. silencer				
				Q G1/8 thread	Q 5/3 Centres Closed	N 1; 12/14 separate 3/5; 82/84 w. silencer				
				R fittings tube Ø6	R 2 x 3/2 NC					
				S fittings tube Ø8	S 2 x 3/2 NO					
				T SUPPLEM. SUPPLY AND EXHAUST	T 1 x 3/2 NC + 1 x 3/2 NO					
				X Supplem. supply and exhaust	U 2 x 2/2 NC					
				Y Supplem. supply and exhaust with silencer	X 2 x 2/2 NO					
				W Supply from the exhausts						
				Y ELECT. SEP. AND SUPPLEM. PNEUM. SUPPLY	Y 1 x 2/2 NC + 1 x 2/2 NO					
				K Electr. supply sep. and supplem. pneum. supply						
				SEALS						
				T Diaphr. channel 1; 3; 5						
				U Diaphr. channel 1						
				V Diaphr. channel 3; 5						

CODING EXAMPLE - INDIVIDUAL FIELDBUS VERSION

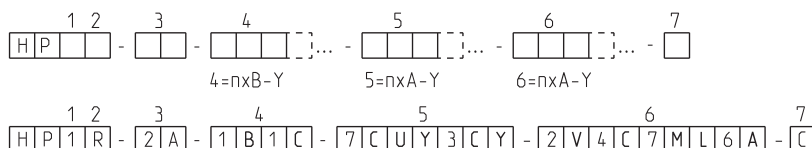
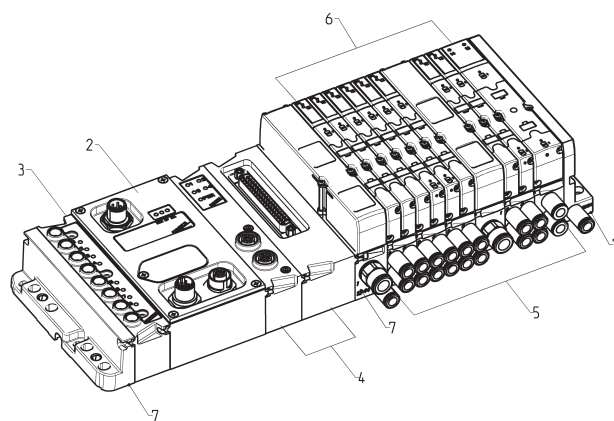
H | P | 5 | F | - | 3A | - | C | - | ABCS | - | MMCCBBB | - | A

H	Series		
P	Type: P = Pneumatic A = Accessories		
5	Size: 1 = 10,5 2 = 21 5 = Mixed		
F	Electrical connection: F = Profibus-DP G = CANopen R = DeviceNet		
3A	Input Modules: 0 = no module A = 8 Input M8		
C	Output Modules: 0 = no module B = 4 Output M12 DUO C = 8 Output Sub-D 37 pin D = 16 Output Sub-D 37 pin E = 24 Output Sub-D 37 pin F = 32 Output Sub-D 37 pin		
ABCS	Type of sub-bases for solenoid valves Sub-bases for two solenoid valves size 1: A = M7 threads B = 4 fittings tube Ø 4 C = 4 fittings tube Ø 6 D = channel 1; 3; 5 closed - M7 threads E = channel 1; 3; 5 closed - cartridge tube Ø 4 F = channel 1; 3; 5 closed - cartridge tube Ø 6 G = channel 3; 5 closed - M7 threads H = channel 3; 5 closed - cartridge tube Ø 4 I = channel 3; 5 closed - cartridge tube Ø 6 L = channel 1 closed - M7 threads M = channel 1 closed - cartridge tube Ø 4 N = channel 1 closed - cartridge tube Ø 6 Sub-bases for solenoid valves size 2: Q = G 1/8 threads R = cartridges tube Ø6 S = cartridges tube Ø8	Type of sub-bases for supply Sub-bases for pneumatic supply: X = supplementary supply and exhaust Y = supplementary supply and exhaust with integrated silencer W = supply from the exhausts Sub-bases for electrical supply: K = separation of electrical supply and supplementary pneumatic supply	Type of seals: T = diaphragm seal - channel 1;3;5 U = diaphragm seal - channel 1 V = diaphragm seal - channel 3; 5
MMCCBBB	Type of Solenoid valve Size 1 and Size 2: M = 5/2 Monostable B = 5/2 Bistable V = 5/3 Centres Closed C = 2 x 3/2 NC A = 2 x 3/2 NO G = 1 x 3/2 NC + 1 x 3/2 NO E = 2 x 2/2 NC F = 2 x 2/2 NO I = 1 x 2/2 NC + 1 x 2/2 NO L = free position	Solenoid valve + Pressure regulator on channel 1 - Size 2 ONLY: N = 5/2 Monostable P = 5/2 Bistable Q = 5/3 CC R = 2 x 3/2 NC S = 2 x 3/2 NO T = 1 x 3/2 NC + 1 x 3/2 NO U = 2 x 2/2 NC X = 2 x 2/2 NO Y = 1 x 2/2 NC + 1 x 2/2 NO	
A	Type of terminal plates Threaded: A = 1; 12/14 in common 3/5; 82/84 threaded ports B = 1; 12/14 separated 3/5; 82/84 threaded ports C = 1; 12/14 in common 3/5; 82/84 with integrated silencer D = 1; 12/14 separated 3/5; 82/84 with integrated silencer	Type of terminal plates With cartridges Ø 8 : E = 1; 12/14 in common 3/5; 82/84 conveyable F = 1; 12/14 separated 3/5; 82/84 conveyable G = 1; 12/14 in common 3/5; 82/84 with integrated silencer H = 1; 12/14 separated 3/5; 82/84 with integrated silencer	Type of terminal plates With cartridges Ø 10 : I = 1; 12/14 in common 3/5; 82/84 conveyable L = 1; 12/14 separated 3/5; 82/84 conveyable M = 1; 12/14 in common 3/5; 82/84 with integrated silencer N = 1; 12/14 separated 3/5; 82/84 with integrated silencer

X, Y and K sub-bases will be equipped with threads or cartridges of the same size of port 1, see the choice "Type of terminal plates". In presence of identical consequent codes both for sub-bases and for valves, you need to substitute the letter with the number. Ex: HP5P-AAA-XC-ABCS-MMCCBBB-A is converted to Ex: HP5P-3A-XC-2M2C3B-A.

CODING - INDIVIDUAL FIELDBUS VERSION

[Unused input modules with electrical connections type R]



CODE													
HP (1)	(2)	(3)	(4)	(5)	(6)	(7)							
Size	Electrical Connection	Input Modules	Output Modules	Type of sub-bases and seals	Type of solenoid valve Size 1 and 2	Type of threaded terminal plates							
1	10,5 F	Profibus-DP	0 no module	0 no module	A M7 threads	M 5/2 Monostable	A	1; 12/14 in common 3/5; 82/84 threaded					
2	21 G	CANopen	A 8 Input M8	B 4 outputs M12 duo	B fittings tube Ø4	B 5/3 Bistable	B	1; 12/14 separate; 3/5; 82/84 threaded					
5	Mixed R	DeviceNet	C	8 outputs SUB-D 37 pin	C fittings tube Ø6	V 5/3 Centres Closed	C	1; 12/14 in common; 3/5; 82/84 w. silencer					
			D	16 outputs SUB-D 37 pin	D channel 1; 3; 5 closed M7 threads	C 2 x 3/2 NC	D	1; 12/14 separate; 3/5; 82/84 w. silencer					
			E	24 outputs SUB-D 37 pin	E channel 1; 3; 5 closed cartridge Ø4	A 2 x 3/2 NO	FITTINGS TUBE Ø8 ON PORT 1						
			F	32 outputs SUB-D 37 pin	F channel 1; 3; 5 closed cartridge Ø6	G 1 x 3/2 NC + 1 x 3/2 NO	E	1; 12/14 in common 3/5; 82/84 conveyable					
			G	channel 3; 5 closed M7 threads	E 2 x 2/2 NC	F	1; 12/14 separate 3/5; 82/84 conveyable						
			H	channel 3; 5 closed cartridge Ø4	F 2 x 2/2 NO	G	1; 12/14 in common 3/5; 82/84 w. silencer						
			I	channel 3; 5 closed cartridge Ø6	I 1 x 2/2 NC + 1 x 2/2 NO	H	1; 12/14 separate 3/5; 82/84 w. silencer						
			L	channel 1 closed threaded M7	L Free position	FITTINGS TUBE Ø10 ON PORT 1							
			M	channel 1 closed cartridge Ø4	SOL. VALVE+PR. REG. LINE 1, SIZE 2 ONLY	I	1; 12/14 in common 3/5; 82/84 conveyable						
			N	channel 1 closed cartridge Ø6	N 5/2 Monostable	L	1; 12/14 separate 3/5; 82/84 conveyable						
		SUB-BASE FOR VALVES SIZE 2	P 5/3 Bistable	M	1; 12/14 in common 3/5; 82/84 w. silencer								
Q	G1/8 thread	Q 5/3 Centres Closed	N	1; 12/14 separate 3/5; 82/84 w. silencer									
R	fittings tube Ø6	R 2 x 3/2 NC											
S	fittings tube Ø8	S 2 x 3/2 NO											
		SUPPLEM. SUPPLY AND EXHAUST	T 1 x 3/2 NC + 1 x 3/2 NO										
X	Supplem. supply and exhaust	U 2 x 2/2 NC											
Y	Supplem. supply and exhaust with silencer	X 2 x 2/2 NO											
W	Supply from exhausts	Y 1 x 2/2 NC + 1 x 2/2 NO											
		ELECT. SEP. + SUPPL. PNEUM. SUPPLY											
K	Electr. supply sep. and supplem. pneum. supply												
SEALS													
T	Diaphr. channel 1; 3; 5												
U	Diaphr. channel 1												
V	Diaphr. channel 3; 5												

CODING EXAMPLE OF SINGLE VALVE (Spare part)

H	P	1	V	-	M
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H	Series		
P	Type: P = Pneumatic		
1	Size: 1 = 10,5 2 = 21		
V	Type of accessory: V = Solenoid valve		
-			
M	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;"> Type of Solenoid Valve: M = 5/2 Monostable B = 5/2 Bistable V = 5/3 Centres Closed C = 2 x 3/2 NC A = 2 x 3/2 NO G = 1 x 3/2 NC + 1 x 3/2 NO E = 2 x 2/2 NC F = 2 x 2/2 NO I = 1 x 2/2 NC + 1 x 2/2 NO L = Free position </td> <td style="width: 50%;"> Solenoid valve +regulator + sub base N = 5/2 Monostable P = 5/2 Bistable Q = 5/3 Centres Closed R = 2 x 3/2 NC S = 2 x 3/2 NO T = 1 x 3/2 NC + 1 x 3/2 NO U = 2 x 2/2 NC X = 2 x 2/2 NO Y = 1 x 2/2 NC + 1 x 2/2 NO </td> </tr> </table>	Type of Solenoid Valve: M = 5/2 Monostable B = 5/2 Bistable V = 5/3 Centres Closed C = 2 x 3/2 NC A = 2 x 3/2 NO G = 1 x 3/2 NC + 1 x 3/2 NO E = 2 x 2/2 NC F = 2 x 2/2 NO I = 1 x 2/2 NC + 1 x 2/2 NO L = Free position	Solenoid valve +regulator + sub base N = 5/2 Monostable P = 5/2 Bistable Q = 5/3 Centres Closed R = 2 x 3/2 NC S = 2 x 3/2 NO T = 1 x 3/2 NC + 1 x 3/2 NO U = 2 x 2/2 NC X = 2 x 2/2 NO Y = 1 x 2/2 NC + 1 x 2/2 NO
Type of Solenoid Valve: M = 5/2 Monostable B = 5/2 Bistable V = 5/3 Centres Closed C = 2 x 3/2 NC A = 2 x 3/2 NO G = 1 x 3/2 NC + 1 x 3/2 NO E = 2 x 2/2 NC F = 2 x 2/2 NO I = 1 x 2/2 NC + 1 x 2/2 NO L = Free position	Solenoid valve +regulator + sub base N = 5/2 Monostable P = 5/2 Bistable Q = 5/3 Centres Closed R = 2 x 3/2 NC S = 2 x 3/2 NO T = 1 x 3/2 NC + 1 x 3/2 NO U = 2 x 2/2 NC X = 2 x 2/2 NO Y = 1 x 2/2 NC + 1 x 2/2 NO		

CODING EXAMPLE OF SUB-BASES - Accessories

H	A	1	S	-	A
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H	Series		
A	Type: A = Accessories		
1	Size: 0 = For X-Y-K-T-U-V-Z 1 = 10,5 2 = 21		
S	Type of accessory: R = Sub base Multipole S = Sub base Fieldbus G = Seals W = Sub base without electronic board		
-			
A	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;"> Type of sub-base: A = Through - threaded M7 D = channel 1; 3; 5 closed - threaded M7 G = channel 3; 5 closed - threaded M7 L = channel 1 closed - threaded M7 Q = Threaded G1/8 (ports 2 and 4) X = supplementary pressure supply and exhaust Y = supplementary pressure supply and exhaust (with integrated silencer) W = supply from the exhausts K = Module for electrical power supply separation + supplementary inlet pressure Z = electrical pneumatic interface for HP...F/G/R </td> <td style="width: 50%;"> Type of seal: T = diaphragm seal - channel 1;3;5 U = diaphragm seal - channel 1 V = diaphragm seal - channel 3;5 P = Through </td> </tr> </table>	Type of sub-base: A = Through - threaded M7 D = channel 1; 3; 5 closed - threaded M7 G = channel 3; 5 closed - threaded M7 L = channel 1 closed - threaded M7 Q = Threaded G1/8 (ports 2 and 4) X = supplementary pressure supply and exhaust Y = supplementary pressure supply and exhaust (with integrated silencer) W = supply from the exhausts K = Module for electrical power supply separation + supplementary inlet pressure Z = electrical pneumatic interface for HP...F/G/R	Type of seal: T = diaphragm seal - channel 1;3;5 U = diaphragm seal - channel 1 V = diaphragm seal - channel 3;5 P = Through
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TERMINALS CODING EXAMPLE - Accessories

H	A	0	M	-	A
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H	Series
A	Type: A = Accessories
0	Size: 0 = Not defined
M	Electrical connection: M = Multipole PNP N = Multipole NPN P = Profibus-DP C = CANopen D = DeviceNet E = Expansion T = Right terminal X = Electrical pneumatic interface Y = Electrical pneumatic interface with external electrical supply NOTE: for the spare parts of versions HP..F / HP..G / HP..R see page 2/3.20.02
-	
A	Terminals: A = 1 - 12/14 common 3/5 threaded B = 1 - 12/14 separated 3/5 threaded C = 1 - 12/14 common 3/5 with integrated silencer D = 1 - 12/14 separated 3/5 with integrated silencer

CODING EXAMPLE - MULTIPOLE PLUGS - Accessories

G4X1	-	H	-	3
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G4X1	TYPE: G4X1 = Multipole Plug, 25 poles, IP65, 90° G9X1 = Multipole Plug, 37 poles, IP65, 90°
-	
H	Series H
-	
3	LENGTH OF THE CABLE: 3 = 3 m 5 = 5 m NOTE: other lengths available. For further information, please contact our technicians.