Valve islands, Size 5, Multipole and Fieldbus Series D



Fieldbus connection with the most common communication protocols PROFIBUS-DP, PROFINET, CANopen, EtherNET/IP, EtherCAT and IO-Link Multipole connection with 25 or 44 pins



Valve functions: 2x2/2, 2x3/2; 5/2; 5/3 CC, CO, CP



In this configuration, Series D1 and D2 valves (size 10 and 16 mm) can be combined into one unique Island. Some benefits of this version are the small dimensions, only one Multipole or Serial connection point, easy installation and the possibility to have different flow rates.

All size D2 components of this configuration remain unvaried, while for size D1 a longer subbase is used. All electric and pneumatic components and characteristics of the single versions remain unvaried.

The COILVISION function is included also in this version.

Manuals, instruction sheets and configuration files are available on http://shop.camozzi. com or through the QR code you can find on the product label.

- » A single island with a mix of Series D1 and D2 solenoid valves (size 10,5 and 16 mm)
- » Combination of flow rates from 250 to 950 Nl/min
- » One Multipole or Serial connection point
- » Common positional fixing
- » Individual modular subbases in technopolymer
- » Highly expandable electrically and pneumatically
- » Flexibility in connecting and exchanging I/O modules
- » COILVISION technology to monitor performance parameters
- » Same subbase for monostable and bistable valves
- » Possibility to transmit operational data through WLAN
- » Blinking LEDs indicating different types of operating faults

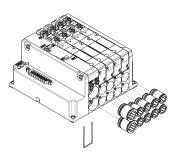
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PNEUMATIC SECTION	
Valve construction	spool with seals
Valve functions	5/2 monostable and bistable 5/3 CC; CO; CP 2x3/2 NC 2x3/2 NO 1x3/2 NC + 1x3/2 NO 2x2/2 NC + 1x2/2 NC 1x2/2 NO
Materials	spool: AL spool seals: HNBR other seals: NBR body: AL end caps: polymer subbase size 1: polymer
Connections	size 10,5: tube Ø 4, tube Ø 6 size 16: tube Ø 6, tube Ø 8, tube Ø 10 supply 1: tube Ø 10, tube Ø 12, tube Ø 14
	supply 12/14: tube Ø 4 exhaust 3 and 5: tube Ø 10, tube Ø 12, tube Ø 14 exhaust 82/84: tube Ø 4
Temperature	0 ÷ 50°C
Air characteristics	compressed, filtered and non-lubricated air in class [7:4:4] according to ISO 8573-1:2010. In case lubrication should be necessary, only use oils with a maximum viscosity of 32 Cst and the version with external servo-pilo supply. The air quality of the servo-pilot supply must be of class [7:4:4] according to ISO 8573-1:2010 (do not lubricate).
Valve sizes	5 = 10.5 and 16 mm
Operating pressure	-0,9 ÷ 10 bar (-0,7 -10 bar for 2x3/2 and 2x2/2 versions)
Internal pilot pressure	3 ÷ 7 bar for 2x3/2 and 2x2/2 versions, see pilot pressure graph
External pilot pressure	SEE GRAPHS
Flow rate	10,5 mm = 250 NI/min 16 mm = 950 NI/min
Mounting position	any position
Protection class	IP 65
ELECTRICAL SECTION	
MULTIPOLE VERSION	2F as 66 pins
Type of Sub-D connector Max. absorption	25 or 44 pins 0,8 A (with Sub-D connector 25 pins)
Supply voltage	1,5 A (with Sub-D connector 44 pins) 24 V DC +/- 10%
Max. number of coils to operate	22 on 11 valve positions (with Sub-D connector 25 pins) 38 on 19 valve positions (with Sub-D connector 44 pins)
Signalling LED	Multipole: green LED - presence of power red LED - anomaly Valve: yellow LED - presence of power blinking yellow LED - operating fault
ELECTRICAL SECTION FIELDBUS VERSION	
General data	see Multi-serial Modules section on the next pages
Max. absorption	2,5 A
Supply voltage	24 V DC +/-10% logic supply 24 V DC +/-10% power supply
Max. number of coils to operate	128 on 64 valve positions
Max. number of digital inputs Max. number of analog inputs Max. number of digital outputs Max. number of analog outputs	128 16 128 16
IO-Link version Max n° of coils to operate	64 on 32 valve positions
Input and Output	No .
Type of port IODD Configuration file	Class B up to 12, 24 or 32 valve positions per island
(The IO-Link module on the valve island is auto-configured to operate with the right IODD	
More information can be found at http://shop.camozzi.com Series D "Instructions for use and maintenance"	

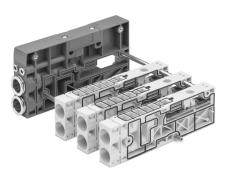
PNEUMATIC CONNECTION

The subbases, in their different configurations, include tube connection cartridges. Through the removal of fixing clips it is possible to replace these cartridges and adapt them to the necessary dimension. The pneumatic part is the same for both the Multipole and Serial version. The tie rods with different fixed lengths that unite the subbases, can be extended individually through additional tie rods for odd positions.



INTERMEDIATE SUBBASES

Intermediate subbases with a diaphragm or additional supply function allow to create diversified pressure and/or exhaust zones, add an incoming air flow and increase the exhaust flow. Furthermore there are subbases available that, besides the aforementioned functions, can interrupt the pneumatic actuation to the coils. This prevents, independently of the electric signal being present or not, to actuate the monostable and bistable valves. The intermediate subbases do not need to be calculated in the number of valve positions.



SERVOPILOT

The initial supply and exhaust base can be changed through rotating the upper device of the selected type of servo-pilot. The change from internal to external servo-pilot is obtained without replacing the initial base, this allows for example to include or section the island, adapting its operation also after its installation, for example with valves that operate with vacuum or reduced pressures. The arrow indicates the selected type of servo-pilot.

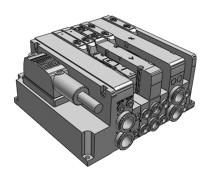




CONFIGURATOR

The island configuration is of minimum three positions including the possible base for additional supply and/or exhaust. The maximum number of positions depends on the selected type of electrical connection.

To correctly compose the commercial code and to download drawings, please use the configurator present at http://catalogue.camozzi.com in the sections "Configurators" or "Camozzi Partcommunity".



MULTIPOLE VERSION

The multipole version can be connected quickly and safely through the connecting cable with angled outlet of 25 or 44 pins to the electric Sub-D connector integrated in the island. The single modularity of the subbases allows to create islands with up to a maximum of 11 or 19 valve positions according to the type of connecting cable used.



FIELDBUS and IO-LINK VERSION

The new CX4 fieldbus module integrated in the Series D valve island enables to interface with the most common fieldbus protocols. Besides managing the pneumatic part (the same as the Multipole version) different kinds of electric modules can be managed. With this configuration it is possible to enlarge the pneumatic part up to a maximum of 64 valve positions with double command and the electric part up to 128 digital inputs and 128 digital outputs, besides 16 analog inputs and 16 analog outputs. Besides the standard voltage and current versions, the analog modules are also available in 2-channel Bridge, RTD and TC versions.

Also in the IO-Link version, the interface module is part of the Series CX4.

In this configuration, the I/O Modules cannot be integrated in the island, a maximum of 64 coils can be managed on 32 valve positions.



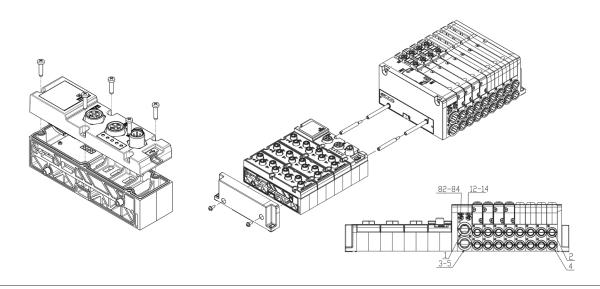


ELECTRICAL MODULE

The electric modules are composed of two parts: the base to connect the different modules, which is the same for all types, and different covers on which the connectors are positioned.

This solution enables to easily change the connection points with the sensors or functions of the machine.

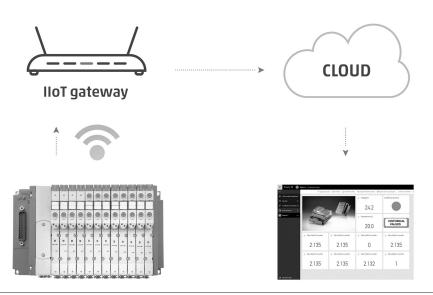
Also the electric modules, like the subbases in the pneumatic part, can be added or removed thanks to the modular connection system.



COILVISION

This is a standard function in all our valve islands with Multipole and Serial connection. Its purpose is to monitor the proper function of each solenoid valve individually, particularly the solenoid. The electronics installed in the subbase allows to constantly monitor the efficiency of the driving coil of the solenoid valve. Possible variations with respect to the ideal operating conditions, like for example a higher power consumption, different response times or an increased temperature, are reported by means of a blinking yellow LED of the interested solenoid. Besides the blinking of this LED, also a general red LED blinks located on the Sub-D module.

These indications are combined with an alert message sent to the PLC. By selecting code W from the "Interface" menu of the encryption code, besides the described signals, it is possible to gather all operational data of the islands and send them through WLAN to the corporate net or onto the Cloud to be analysed.



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CODING EXAMPLE - MULTIPOLE VERSION

DM	MODULAR ISLAND		
С	VALVE C = VC model		
5	SIZE 5 = 10,5mm (D1) + 16 mm (D2)		
М	ELECTRICAL CONNECTION M = multipole 25 pin PNP Q = multipole 44 pin PNP		
W	INTERFACE 0 = without interface	W = WLAN	
R	MANUAL OVERRIDE P = push button R = with push and turn device		
Α	SERVO-PILOT SUPPLY A = internal	B = external	
15R	CONNECTOR 0 = without connector CONNECTOR R WITH CABLE 03R = 3 mt 05R = 5 mt 10R = 10 mt 15R = 15 mt 20R = 20 mt 25R = 25 mt		
2CD2NSHDN	XT = additional supply (1) and exhaus FOR POWER SUPPLY # K = separation of power supply - supp Z = separation of power supply - diap	2/14 external external 14 external LENCER # ith integrated silencer LOW WITH EXTERNAL SERVO-PILOT SUPPLY # ts (3, 5) oly (1) and exhausts (3, 5)	lenoid valve (E;F) *
2MBLC2B	VALVES M = 5/2 monostable B = 5/2 bistable C = 2x3/2 NC A = 2x3/2 NO G = 1x3/2 NC + 1x3/2 NO V = 5/3 CC K = 5/3 CO N = 5/3 CP L = free position W = position without valve	E = 3/2 NC for internal servo-pilot control (Line 1) * F = 3/2 NC for external servo-pilot control ** D = 2x2/2 NC H = 2x2/2 NO R = 1x2/2 NC + 1x2/2 NO	*
F	D = cartridge tube Ø10 DS = ca	rtridge tube Ø8 and external silencer (2939-8) rtridge tube Ø10 and external silencer (2939-10) rtridge tube Ø12 and external silencer (2939-12)	Inches: C = cartridge tube Ø8, 5/16" CS = cartridge tube Ø8 (5/16"); and external silencer (2939-8) P = cartridge tube Ø3/8" R = cartridge tube Ø1/2"
R	FIXING TYPE = direct R = DIN rail		

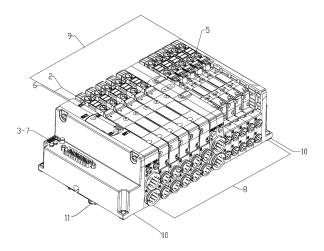
* = The subbase is equipped with a cartridge Ø4 (Ø5/32").

** = Solenoid valve for subbase model J.

The choice of the cartridge made in the Terminal Plates section is also valid for the diaphragm and additional subbases.

QT, RT, ST, XT models have a 12/14 cartridge tube Ø4 (Ø5/32").

CODING MULTIPOLE VERSION



123456	7	8	9	10 11
D M C 5 M W R A -	15R	- 5DX5N -	4B3C3V] - E R

L)	VALVE MODEL VC			ELECTRICAL CONNECTION	(4)	INTERFACE	(5)	MAN OVER		(6)	SERVO-PILO	
	DMC		5		М		0		F			A
7)	CONNECTION			(0)	Q Q	24.544 (0)	W	(10)	FERM		(2.2)	В
7)	CONNECTION			(8)	SUBBASES WITH DIAPHR	RAGM (9)	VALVES	(10)	TERM PLA		(11)	MOUNTING
	0			,	METRIC INCHES		М		METRIC INCHES			R
	03R				N N		В		С	С		
	10R				M G		А		CS	CS		
	15R				B L		G		D	Р		
	20R				C P		V		DS	R		
	25R				D C		К		E			
					SUBBASES DIAPHRAG	iM	N		E	S		
					Q		L		F	:		
					R		W					
			S		E							
	AND EXTE			WITH DIAPHRAGM AND EXTERNAL SERVO-PILOT SUPPL	Y	F						
		ŢĢ				D						
					RT		Н					
					TZ		R					
					WITH DIAPHRAGM AN INTEGRATED SILENCE							
				,	QН							
					RH							
					SH							
					SUBBASE FOR ADDITIONAL FLOW							
					Х							
					ХН							
					INTERFACE SUBBASE F ADDITIONAL FLOW WI EXTERNAL SERVO-PILOT S	TH						
					XT							
					FOR POWER SUPPLY	/						
					К							
					Z							
					SUBBASE FOR SERVO-PILOT	CONTROL						
					J							





DM	ISOLA MODULARE		
C	VALVOLE C = modello VC		
5	PASSI 5 = 10,5 mm (D1) + 16 mm (D2)		
01	PROTOCOLLO 00 = Base senza cover Fieldbus *** 01 = PROFIBUS 03 = CANopen 04 = Ethernet/IP	05 = Ethercat 06 = PROFINET 07 = IO-LINK (non configurabile con modul	li di ingressi e uscite)
W	INTERFACCIA 0 = nessuna	W = WLAN	
R	AZIONAMENTO MANUALE P = azionamento a pressione	R = azionamento a pressione	
Α	SERVOPILOTAGGIO A = interno	B = esterno	
2A2Q	E = 2 input BRIDGE M12 F = 2 input BRIDGE connessione a moi G = 2 input RTD M12 (PT100, PT200, P' H = 2 input RTD connessione a morset L = 2 input TC M12 (TERMOCOPPIE) M = 2 input TC connessione a morsetti Q = 8 output Digitali M8 R = 16 output digitali connessione a r T = 2 output analogici (config. 0-10V, a	LOV,O-20mA,4-20mA,±20mA) M12 10V,O-20mA,4-20mA,±20mA) a Morsettiera rsettiera (Push-in) 1500, PT1000) ttiera (Push-in) (PT100, PT200, PT500, PT1000) lera (Push-in) (TERMOCOPPIE) morsettiera (Push-in) 10V,O-20mA, 4-20mA,±20mA) M12 ±10V,O-20mA,4-20mA,±20mA) a morsettiera (Pul) 12)	ush-in)
2CD2NSHDN	XT = alimentazione (1) e scarichi (3, 5 PER ALIMENTAZIONE ELETTRICA #	14 Esterno sterno Esterno TORE INTEGRATO # RE #	opilotaggio tramite Ev (E;F) *
2MBLC2B	VALVOLE M = 5/2 monostabile B = 5/2 bistabile C = 2x3/2 NC A = 2x3/2 NO G = 1x3/2 NC + 1x3/2 NO V = 5/3 CC K = 5/3 CO N = 5/3 CP	L = posizione libera W = posizione senza valvola E = 3/2 NC per il controllo del servopilotag F = 3/2 NC per il controllo del servopilotag D = 2x2/2 NC H = 2x2/2 NO R = 1x2/2 NC + 1x2/2 NO	
F	D = boccole tubo Ø10 DS = bocco	le tubo Ø8 e silenziatore esterno 2939-8) le tubo Ø10 e silenziatore esterno (2939-10) la tubo Ø12 e silenziatore esterno (2939-12)	Pollici: C = boccole tubo Ø8, 5/16" CS = boccole tubo Ø8 (5/16"); e silenziatore esterno (2939-8) P = boccole tubo Ø3/8" R = boccola tubo Ø1/2"
R	FISSAGGIO = diretto R = attacco per guida DIN		

I modelli QT, RT, ST, XT hanno la boccola 12/14 tubo Ø4 (Ø5/32")

^{* =} La sottobase è corredata di boccola Ø4 (5/32").

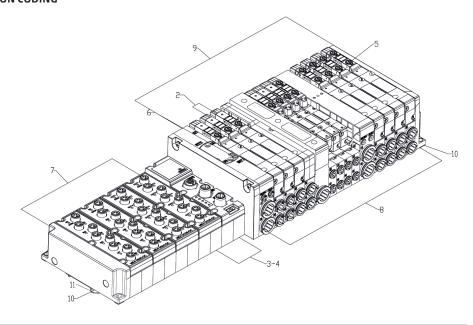
** = Ev. per sottobase modello J.

*** = Con il protocollo 00 l'interfaccia possibile è 0 es: DMC5000RA-...

**** = La base chiusa senza cover di I/O va messa sempre dopo gli altri moduli se presenti es: DMC501WRA-ZAZQW...

La scelta della boccola fatta nella sezione Piastre Terminali è valida anche per le sottobasi diaframma e supplementare.

FIELDBUS VERSION CODING

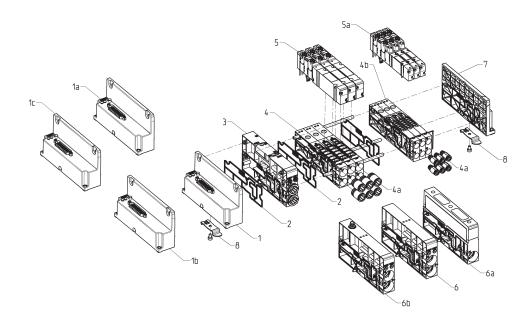


1 2 3 4 5 6	7	8	9		10	11
D M C 5 01 W R A - [2A2Q -	2C2DQH3MBX4D	- 3ML3M3C2V] - [С	R

(1)	VALVE MODEL VC	(2)	SIZE	(3)	PROTOCOL	(4)	INTERFACE	(5)	MANUAL OVERRIDE	(6)	SERVO-PILOT
	DMC		5		00		0		Р		A
					01		W		R		В
					03						
					04						
					05						
					06						
					07						
(7)	INPUT AND OUTPUT MODULES			(8)	SUBBASES	(9)	VALVES	(10)	TERMINAL PLATES	(11)	FIXING
	Α				METRIC INCHES		М		METRIC INCHES		R
	В				N N		В		СС		
	С				M G		С		CS CS		
	D				B L		Α		D P		
	E				C P		G		DS R		
	F				D C		V		E P		
	G				SUBBASE WITH DIAPHRAGM		K		ES Y		
	Н				Q		N		F	_	
	L				R		L				
	М			-	S						
	Q				SUBBASE WITH DIAPHRAGM AND EXTERNAL SERVO-PILOT SUPPLY						
	R				QТ						
	T				RT						
	U				TZ						
	W				SUBBASE WITH DIAPHRAGM AND SILENCER						
					QН						
					RH						
					SH						
					SUBBASE FOR ADDITIONAL FLOW						
					Х						
					XH						
					INTERFACE SUBBASE FOR ADDITIONAL FLOW WITH EXTERNAL SERVO-PILOT SUPPLY						
					XT						
					FOR POWER SUPPLY						
					K						
					Z						
					SUBBASE FOR SERVO-PILOT CONTROL						
					J						



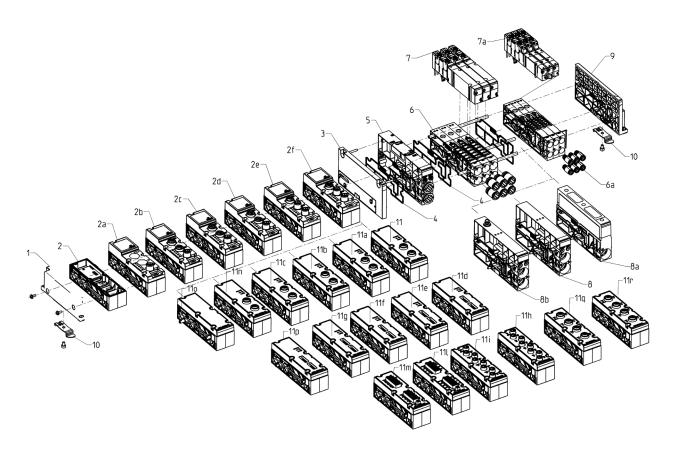
The tie rod kit DA5K-XX indicated between position 4-5, is used to prepare islands with "n" valve subbases that must be in the version "without tie rods".



COMPONENTS	
1	Electric interface group - multipole 25 pins
1a	Electric interface group – multipole 25 pins WLAN interface
1b	Electric interface group - multipole 44 pins
10	Electric interface group - multipole 44 pins WLAN interface
2	Interface seals
3	Initial pneumatic supply module
4	Modular subbase size 2
4a	Interchangeable quick-release couplings
4b	Subbases for valve size 1 (code N or M)
5	Solenoid valve size 2
5a	Solenoid valve size 1
6	Additional module to convey supply and exhaust channels
6a	Module to supply and to silence the exhaust channel
6b	Module to separate power supply
7	Terminal plate
8	Mounting bracket for DIN rail

FIELDBUS version COMPONENTS

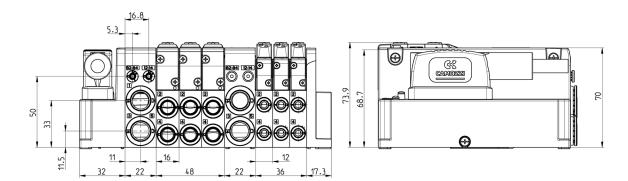
The tie rod kit DA5K-XX indicated between position 6-7, is used to prepare islands with "n" valve subbases that must be in the version "without tie rods".

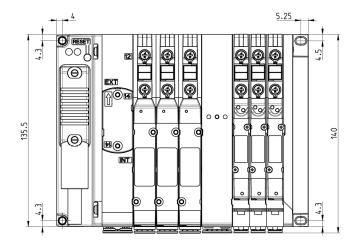


COMPONEN	ITS		
1	Terminal module	10	Mounting bracket for DIN rail
2	Base without fieldbus cover	100	Closed base without I/O cover
2a	IO-Link module	11	2 Analog voltage/current Inputs, M12
2b	PROFINET module	11a	2 Analog load cell Inputs, M12
2c	EtherCAT module	11b	2 Analog thermocouple Inputs, M12
2d	EtherNet/IP module	11c	2 Analog RTD Inputs, M12
2e	CANopen	11d	2 analog outputs, M12
2f	PROFIBUS module	11e	2 Analog voltage/current Inputs, terminal block
3	Fieldbus module interface	11f	2 Analog load cells Inputs, terminal block
4	Interface seal	11g	2 Analog thermocouple Inputs, terminal block
5	Initial pneumatic supply module	11h	2 Analog RTD Inputs, terminal block
6	Modular subbase size 2	11i	2 analog outputs, terminal block
6a	Interchangeable quick-release couplings	11l	8 Digital Inputs
7	Solenoid valve size 2	11m	8 Digital Outputs
8	Additional module to convey supply and exhaust channels	11n	16 Digital Inputs
8a	Module to supply and to silence the exhaust channel	110	16 Digital Outputs
8b	Module to separate power supply	11q	8 Digital Inputs (4 M12 connectors)
9	Terminal module	11r	8 Digital Outputs (4 M12 connectors)

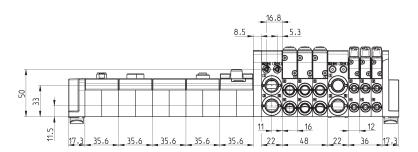
MULTIPOLE version 25 and 44 pin DIMENSIONS

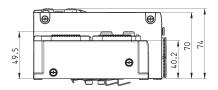


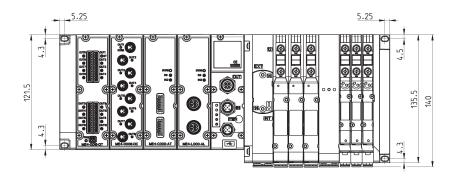




FIELDBUS version DIMENSIONS



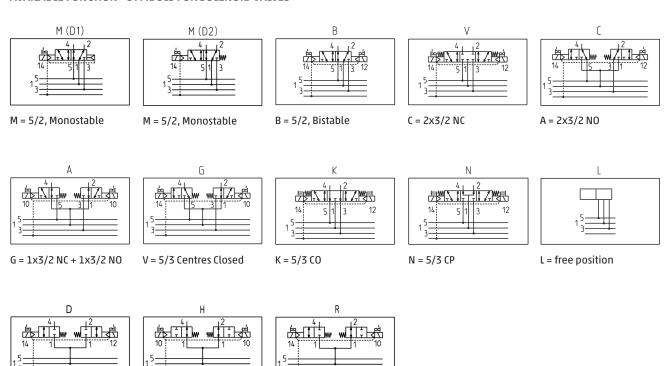




CODING EXAMPLE

D	2	E	VC	_	M	P
D	SERIES					
2	SIZE 1 = 10,5 mm 2 = 16 mm					
Ε	VERSION E = solenoid valve					
VC	COMPONENT VC = plugin valve					
M	TYPE OF SOLENOID VALVE M = 5/2 monostable B = 5/2 bistable C = 2x3/2 NC A = 2x3/2 NC A = 2x3/2 NC V = 5/3 CC K = 5/3 CC N = 5/3 CO D = 2x2/2 NC H = 2x2/2 NC R = 1x2/2 NO R = 1x2/2 NO					
P	MANUAL OVERRIDE P = push button R = with push and turn dev	vice				

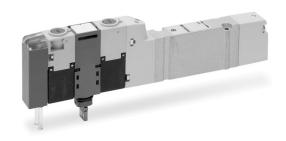
AVAILABLE FUNCTION - SYMBOLS FOR SOLENOID VALVES



R = 1x2/2 NC + 1x2/2 NO



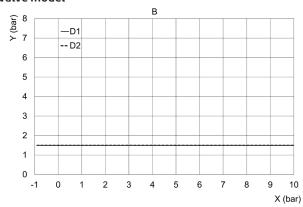
H = 2x2/2 NO



D = 2x2/2 NC

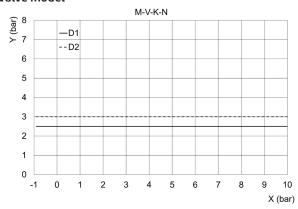
EXTERNAL PILOT PRESSURE GRAPHS

Valve model



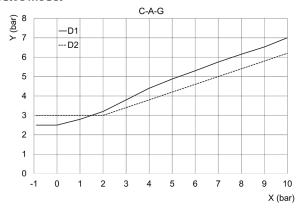
x = Supply pressure y = Pilot pressure

Valve model



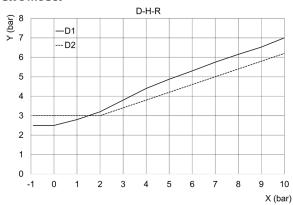
x = Supply pressure y = Pilot pressure

Valve model



x = Supply pressure y = Pilot pressure

Valve model



x = Supply pressure y = Pilot pressure

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Free valve position L-10,5

The supply includes: 1x fake valve 2x fixing screws

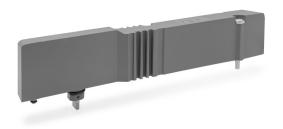


Mod.

D1EVC-L

Free valve position L-16

The supply includes: 1x fake valve 2x fixing screws



Mod.

D2EVC-L

INTERMEDIATE SUBBASES CODING EXAMPLE

D	AM	2	S	-	QH	_	D	T
D	SERIES							
AM	ACCESSORIES AM = modular access	ories						
2	SIZE 2 = 16 mm							
S	COMPONENT S = modular subbase	2						
QН	INTERMEDIATE DIAPH Q = diaphragm on ch R = diaphragm on ch S = diaphragm on ch DIAPHRAGM WITH EX QT = diaphragm on c RT = diaphragm on c DIAPHRAGM WITH IN QH = diaphragm on c SH = diaphragm on c	nannels 1, 3, 5 nannels 1, 3, 5 TERNAL SERVO-PILOT: hannels 1, 3, 5; 12/1: channels 3, 5; 12/14 ex hannels 3, 5; 12/14 ex TEGRATED SILENCER channels 1, 3, 5	4 external ternal	X = suppl XH = suppl INTERFAC XT = addi FOR POW K = separ	FOR ADDITIONAL FLOW y (1) and exhausts (3, 5) sly (1) and exhausts (3, 5) ly (1) and exhausts (3, 5) E SUBBASE FOR ADDITIONAtional supply (1) and exhaust SUPPLY ation of power supply - action of power supply - di	AL FLOW WITH EXTERN austs (3, 5)	AL SERVO-PILOT SUPPLY	
D	VERSION T = Without cartridge C = cartridge tube ØS D = cartridge tube ØS E = cartridge tube ØS F = cartridge tube ØS	3 10 12		dge tube Ø5/16" dge tube Ø3/8" dge tube Ø1/2"				
T	TIE RODS = without tie rods T = with tie rods							

The supply of intermediate subbases includes: circuit board and connector, side seal. The presence of single position tie rods (DA2K-MF) and the cartridges depend on the code.

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MODULE K;Z TO SEPARATE POWER SUPPLY

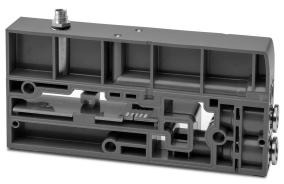
This module allows to interrupt and provide a separate power supply to the subsequent solenoid valves besides additional supply and exhaust.

The Z version also allows to separate the pneumatic supply channel.

You only need to connect the +24V to one of the three pins

- 1 = +24V 3 = +24V 4 = +24V





CTUTO 41 D 474		
GENERAL DATA		
Connection	M8 3 pins	
Dimensions	135,5 x 22 mm	
Signalling	None	
Supply	24 V DC (+/- 10%)	
Protection class	IP 65	
Temperature	0°C ÷ 50°C	
Material	technopolymer	
Weight	340 g	

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AVAILABLE FUNCTIONS - SUBBASE TYPES









R



S

Х









RT

QT

ST

XT









RH

QH

Ζ

SH

XH





K

R = diaphragm on channel 1

Q = diaphragm on channels 1, 3, 5

S = diaphragm on channels 3, 5

X = additional supply channel 1 and exhaust channels 3, 5

RT = diaphragm on channels with external supply 12/14

QT = diaphragm on channels with external supply 12/14

ST = diaphragm on channels with external supply 12/14

XT = additional supply channel 1, 12/14 and exhausts channels 3, 5

RH = diaphragm on channel 1 with integrated silencer

QH = diaphragm on channels 1, 3, 5 with integrated silencer

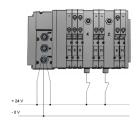
SH = diaphragm on channels 3, 5 with integrated silencer

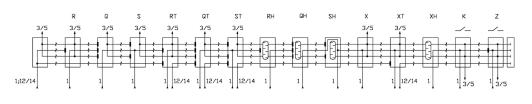
XH = additional supply channel 1 and exhaust channels 3, 5 with integrated silencer

K = separation of electrical supply - supply (1) and exhausts (3, 5)

Z = separation of electrical supply - diaphragm on channel 1

The electrical supply separation modules (K, Z) allow the valves in the positions subsequent to the modules to be excluded. The Z version also allows a differentiated pneumatic supply.

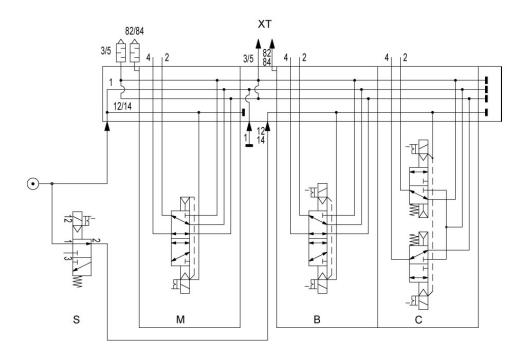




SEPARATE SERVO-PILOT SUPPLY WITH EXTERNAL VALVE / SOLENOID VALVE (OUTSIDE THE ISLAND)

The XT, QT, RT and ST intermediate subbases are always closed on pilot supply channel 12/14, and must therefore be supplied by an external source. In the example the solenoid valve M is supplied both by channel 1 and by channel 12/14, the next solenoid valve B is supplied by the same channel 1, while channel 12/14 is closed by intermediate subbase XT. The pneumatic supply of this channel depends on the position of the external solenoid valve S.

Solenoid valve S, under normal operating conditions is always activated (like in the example), allowing a regular operation of all solenoid valves after subbase XT. In case of anomalies, removing the signal of solenoid valve S, it returns to its position, cutting off the air from channel 12/14 and thus avoiding the switching of the solenoid valves in the following positions.

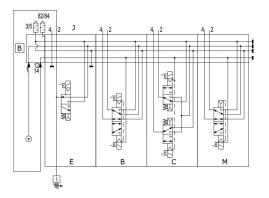


SEPARATE SERVO-PILOT SUPPLY WITH SOLENOID VALVE INTEGRATED IN THE ISLAND

Solenoid valves E and F with their special subbase J manage the servo-pilot supply of the entire island, or of parts of it. They must be positioned next to one another or next to a separation module XT-ST-QT-RT or after the supply/servo-pilot supply module. Subbase J with solenoid valve E (shown in the ON status) can be installed in the first position of the island, using the initial module B only (Figure 1).

If installed in any of the subsequent positions, it is possible to have either initial module A or B, but immediately before subbase J there must be any of the separation modules XT, QT, RT or ST (Figure 2).

Outlet 2 of subbase J must be connected to either channel 12/14 of the supply/servo-pilot supply module or to the channel of one of the aforementioned separation modules.



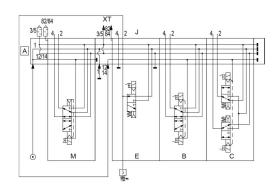


Figure 1 Figure 2

In case vacuum, different pressures than standard (3-7 bar), or other requirements are needed in the valve island, it is necessary to use initial module B (external servo-pilot supply) and subbase J with solenoid valve F (shown in the ON status). Subbase J must be connected to an external pressure supply ranging from 3-7 bar through channel 4 (Figure 3). Channel 2 must be connected either to channel 12/14 of the supply/servo-pilot supply module or to the channel of one of the aforementioned separation modules.

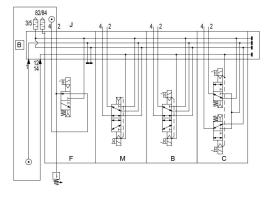


Figure 3



PILOT PRESSURE SEPARATION MODULES E AND F

Solenoid valves E and F provide an external electric signal to the island through an M8 connection. Subbase J does not affect the maximum number of valve positions.

D 1 VC SERIES D SIZE 1 = 10,5 1 VERSION Ε E = solenoid valve VC COMPONENT
VC = plug-in valve TYPE OF SOLENOID VALVE E E = 3/2 NC working line servo pump 1 F = 3/2 NC servo transmission from external line MANUAL OPERATION P = pressure drive



PRESSURE SWITCH FOR VALVES E, F

SWMN	-	AP	-	T	-	2		
SWMN	SERIES SWMN SWMS							
AP		GNAL (SWMN) output - pressur	e	OUTPUT SIGNAL (SWMS) NO = normally open NC = normally closed				
М	TYPE OF CO M = M5 th	ONNECTION read						
2	2 = cable	ONNECTION of 2 meters oin connector						



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Serial, multipole island with module E, F





DAM5S-JT

The supply includes: pass-through board, covering label, seals, single position tie-rods, cartridges Ø4 (5/32") and connection tube.



Mod.

DAM1S-JT



VALVE SUBBASES CODING EXAMPLE

D	AM	2	S	-	N	T					
D	SERIES	SERIES									
AM	ACCESSORIES AM = modula	ACCESSORIES AM = modular accessories									
2	SIZE 5 = 10,5 mm										
S	COMPONENT S = modular s	ubbase									
N	B = Cartridge C = Cartridge	tube Ø4 (D1) tube Ø6 (D1) tube Ø6 (D2) tube Ø8 (D2))	G = Ca L = Ca P = Ca	rtridge tube Ø rtridge tube Ø: rtridge tube Ø: rtridge tube Ø: cartridge	1/4" (D1) 5/16" (D2)					
Т	TIE RODS = without tie	D = Cartridge tube Ø10 (D2) T = No cartridge TIE RODS = without tie rods T = with tie rods									

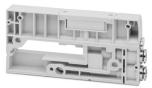


The supply includes:

valve subbase complete with circuit boards, connectors and seals; with and without tie rods (DA5K-1) and cartridges. N.B.: The subbase with tie rods has to be used when expanding the island.

SUPPLY MODULE/SERVOPILOT CODING EXAMPLE

D	AM	2	0	-	KC						
D	SERIES										
AM	ACCESSORIES AM = modular a	ACCESSORIES AM = modular accessories									
2	SIZE 2 = 16 mm										
0		SERVO-PILOT SUPPLY 0 = internal / external									
KC	INITIAL PNEUMA KC = Cartridge t KD = Cartridge t KE = Cartridge t KF = Cartridge t	tube Ø10 rube Ø12	ATE	C = Cartridge to P = Cartridge to R = Cartridge to	ube Ø3/8"						



The supply includes:

module with cartridges, servo-pilot selector and seals.

N.B. This module does not need tie-rods. Its tie rod value is included in the relative number of valve positions.

CODING EXAMPLE

D	AM 2	T	-	Q	0					
D	SERIES									
AM	ACCESSORIES AM = modular accessories									
2	SIZE 2 = 16 mm									
T	COMPONENT T = electrical terminal plate									
Q	TYPE OF TERMINAL PLATE M = multipole 25 pins		Q = mı	ultipole 44 pi	ns					
0	INTERFACE 0 = without interface W = WLAN									



The supply includes:

module with circuit boards, screws and seals.

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Pneumatic terminal plate

The supply includes: 1x terminal plate 3x fixing screws



Mod.

DAM20-RT

Connection interface between electrical section and valves

The supply includes:

1x terminal plate

3x fixing screws for valve section 2x fixing screws for serial section

1x interface



Mod.

ME4-00D2-DI

Closing terminal of Fieldbus electrical section

The supply includes: 1x terminal plate 2x fixing screws



Mod.

CX4AP-L

Multi-serial modules



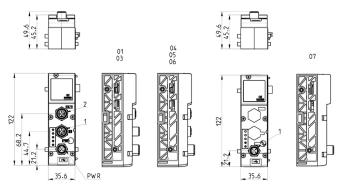
The supply includes:

On this module there are three connectors, one for supply on which it is possible to separate logic supply from power supply and two connectors for the inlet and outlet of the protocol.

A Micro-USB port enables to interface with a PC and by means of the UVIX configuration software it is possible to monitor and configure both the Multi-serial Module and the I/O Modules. Connectable on the left side. These can be configured as PNP or NPN for the Digital Inputs, while for the Analog Inputs, both voltage and current is possible.

The configuration of the Multi-serial Module and the components connected to it is also possible through different communication protocols.

In the event of malfunction or breakage, even without power supply, a NFC function enables to download the configuration data, by means of a special App, on an external device to transmit them to a new Multi-serial Module.



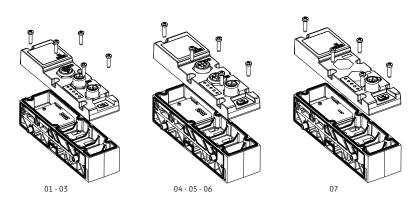
NO WLAN / WITH WLAN	Mod.	Fieldbus Protocol	1	2	Bus-IN connector	Bus-OUT connector
CX4010-0/CX401W-0	01	PROFIBUS	Bus-OUT	Bus-IN	M12 B 5 pin male	M12 B 5 pin female
CX4030-0/CX403W-0	03	CANopen	Bus-OUT	Bus-IN	M12 A 4-pin male	M12 A 4-pin female
CX4040-0/CX404W-0	04	EtherNet/IP	Bus-IN	Bus-OUT	M12 D 4-pin female	M12 D 4-pin female
CX4050-0/CX405W-0	05	EtherCAT	Bus-IN	Bus-OUT	M12 D 4-pin female	M12 D 4-pin female
CX4060-0/CX406W-0	06	PROFINET	Bus-IN	Bus-OUT	M12 D 4-pin female	M12 D 4-pin female
CX4070-0/CX407W-0	07	IO-link	Bus	-	M12 B 5-pin male	-

Multi-serial modules Cover



It is possible to configure a valve island using only the housing base of the Fieldbus cover, this allows to use the island with different Fieldbus types simply by integrating the relative cover.

It is not possible to assemble an I/O-link cover on a Fieldbus base or a Fieldbus cover on an I/O-link base. The position of the fixing screws on the front of the cover allows a quick installation or replacement.



NO WLAN / WITH WLAN	Mod.	
CX4510-0/CX451W-0	01	PROFIBUS
CX4530-0/CX453W-0	03	CANopen
CX4540-0/CX454W-0	04	EtherNet/IP
CX4550-0/CX455W-0	05	EtherCAT
CX4560-0/CX456W-0	06	PROFINET
CX4570-0/CX457W-0	07	I/O LINK

Digital Input Module Mod. ME4-0800-DC, ME4-0800-DL and ME4-1600-DT



The Digital Input Module can be connected at the left of the Multi-serial module and can be placed in any order with other, both digital and analog Input/Output modules.

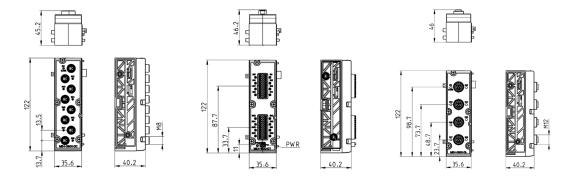
The module integrates diagnostic functions and is available in versions with:

- 8 M8 3-pin connectors
- 4 M12 connectors
- terminal block (Push-in) for the connection of 16 inputs

In the terminal block version, power supply is normally provided by the valve island directly.

In case of loads exceeding 800mA, power supply is provided by an external power supply to be connected to a 2-pin terminal block connector (PWR).

The supply includes: 2x tie-rods



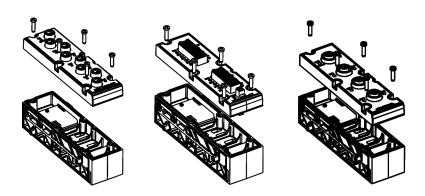
Mod.	Coding reference	Number of digital inputs	Connection	Number of connectors	f Dimensions s	Signalling Sensor supply	Overvoltage protection	Absorption	n Type of F signal	rotectior class	Operating temperature	
ME4-0800-DC	А	8	M8 3 pin female	8	122 x 35,6 mm	8 yellow led 24 V DC 1 red led	400 mA for 4 sensors	10 mA	PNP	IP65	0 ÷ 50°C	110 g
ME4-0800-DL	Р	8	M12 5 pin female	4	122 x 35,6 mm	4 yellow led 24 V DC 1 red led	400 mA for 4 sensors	10 mA	PNP	IP65	0 ÷ 50°C	110 g
ME4-1600-DT	В	16	2 terminal blocks 24 pin (push-in)	-	122 x 35,6 mm	8 yellow led 24 V DC 1 red led	Internal: 800 mA for 16 sensors External: 2 A for 16 sensors	10 mA	PNP	IP20	0 ÷ 50°C	110 g

Digital Input Module Cover Mod. ME4-0800-DC, ME4-0800-DL and ME4-1600-DT



It is possible to configure a valve island with free electric positions.

You can integrate further electrical signals in a valve island by replacing the cover plate with the relative I/O cover.



Mod.	Connection
ME4-0800-DC-C	M8 3-pin female
ME4-0800-DL-C	M12 5-pin female
ME4-1600-DT-C	2 terminal blocks 24-pin (Push-in)

Digital Output Module Mod. ME4-0008-DC, ME4-0008-DL and ME4-0016-DT

desired with other both Digital and Analog I/O devices.



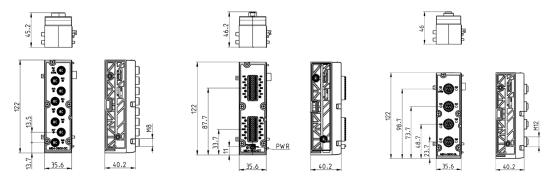
Available in three versions:

- -8 M8 3 pin connectors
- 4 M12 connectors
- (Push-In) Terminal block for the connection of 16 outputs (8+8). The wire connection part is removable from the module.

The Digital Output Module is connected on the left side of the Multi-serial module and can be positioned as

For all versions, the outputs can be configured as PNP or NPN by means of a software UVIX. (the standard version is configured as PNP). The 8 output version can supply 24W and is supplied directly by the valve island. In the terminal block version, the power supply must always be supplied externally with 12-32V voltages, on the 2-pole connector. A maximum absorption of 48 W is possible. The module is equipped with diagnostics (Status).

The supply includes: 2x tie-rods



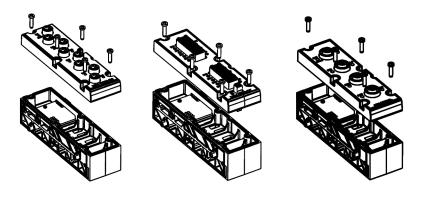
Mod.	Coding reference	N° of digital outputs	Connection	Number of connectors	Dimensions	Signalling	Supply outputs	Max current per module		Type of signal	Protection class	Operating temperature	Weight
ME4-0008-DC	Q	8	M83-pin female	8	122 x 35,6 mm	8 yellow led 1 red led	24 V DC	24 W	3 W	NPN/ PNP	IP65	0 ÷ 50°C	100 g
ME4-0008-DL	Υ	8	M12 5-pin female	4	122 x 35,6 mm	4 yellow led 1 red led	24 V DC	24 W	3 W	NPN/ PNP	IP65	0 ÷ 50°C	100 g
ME4-0016-DT	R	16	2 terminal blocks 24-pin (Push-in)	-	122 x 35,6 mm	8 yellow led 1 red led	12-32 V DC	48 W	3 W	NPN/ PNP	IP20	0 ÷ 50°C	100 g

Digital Output Module Cover Mod. ME4-0008-DC, ME4-0008-DL and ME4-0016-DT



It is possible to configure a valve island with free electric positions.

You can integrate further electrical signals in a valve island by replacing the cover plate with the relative I/O cover.



Mod.	Connection	
ME4-0008-DC-C	M8 3-pin female	
ME4-0008-DL-C	M12 5-pin female	
ME4-0016-DT-C	2 terminal blocks 24-pin (Push-in)	

Analog input module Mod. ME4-C000-AL and ME4-C000-AT



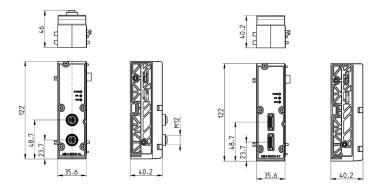
The Analog Input Module can be connected at the left of the CPU module and can be placed in any order with other Input/Output devices.

It is possible to configure every analog input as differential input 0-10V, ± 10 V, 0-20mA, 4-20mA, ± 20 mA with a resolution up to 16 bit.

External voltage of 24 V is available to supply the sensor connected (max 0,25A/channel). The output is protected against short-circuit.

The module is equipped with diagnostics (Status) and is available both in the version with two M12 connectors with 5 contacts, and in terminal block version with Push-in spring connection.

The supply includes: 2x tie-rods



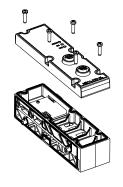
Mod.	Coding reference	Number of analog inputs	Connection	Number of connectors	Dimension	Signalling	Sensor supply	Overvoltage protection	Absorption	Protection class	Operating temperature	Weight
ME4-C000-AL	С	2 (Config. 0-10V,±10V,0- 20mA,4-20mA,±20mA)	M12 A 5-pin female	2	122 x 35,6 mm	2 yellow led 1 red led	24 V DC	500 mA shared between the two channels	max 20 mA	IP65	0 ÷ 50°C	110 g
ME4-C000-AT	D	2 (Config. 0-10V,±10V,0- 20mA,4-20mA,±20mA)			122 x 35,6 mm	2 yellow led 1 red led	24 V DC	500 mA shared between the two channels	max 20 mA	IP20	0 ÷ 50°C	110 g

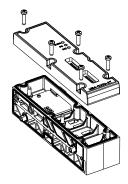
Analog Input Module Cover Mod. ME4-C000-AL and ME4-C000-AT



It is possible to configure a valve island with free electric positions.

You can integrate further electrical signals in a valve island by replacing the cover plate with the relative I/O cover.





Mod.	Connection
ME4-C000-AL-C	M12 A 5-pin female
ME4-C000-AT-C	Terminal block 5-pin (Push-in)

Analog Output Module Mod. ME4-T000-AL and ME4-T000-AT



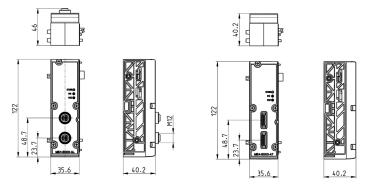
The Analog Output module can be connected at the left of the Multi serial module and can be placed in any order with other Input/Output devices.

It is possible to configure every analog output as 0-10V, 0-5V, 4-20mA, 0-20mA output with a resolution up to 16 bit.

External voltage of 24 V is available to supply the device connected (max 0,25A/channel). The output is protected against short-circuit.

The module is equipped with diagnostics (Status) and is available both in the version with two M12 connectors with 5 contacts, and in terminal block version with Push-in spring connection.

The supply includes: 2x tie-rods



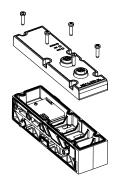
Mod.	Coding reference	Number of analog outputs	Connection	Number of connectors		Signalling	Supplied externally	Overvoltage protection	Absorption	Protection class	Operating temperature	Weight
ME4-T000-AL	T	2 (Config. 0-10V,0- 5V,0-20mA,4-20mA)	M12 A 5-pin female	2	122 x 35,6 mm	2 yellow led 1 red led	24 V DC	500 mA shared between the two channels	max 6 mA	IP65	0 ÷ 50°C	110 g
ME4-T000-AT	U	2 (Config. 0-10V,0- 5V,0-20mA,4-20mA)			122 x 35,6 mm	2 yellow led 1 red led	24 V DC	500 mA shared between the two channels	max 6 mA	IP20	0 ÷ 50°C	110 g

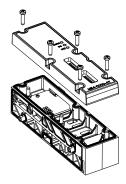
Analog Output Module Cover Mod. ME4-T000-AL and ME4-T000-AT



It is possible to configure a valve island with free electric positions.

You can integrate further electrical signals in a valve island by replacing the cover plate with the relative I/O cover.





Mod.	Connection
ME4-T000-AL-C	M12 A 5-pin female
ME4-T000-AT-C	Terminal block 5-pin (Push-in)

Analog Input Module Mod. ME4-E000-A*, ME4-G000-A* and ME4-L000-A*



The supply includes: 2x tie-rods

The Analog Input Module can be connected at the left of the CPU module and can be placed in any order with other, both digital and analog Input/Output devices.

Analog, 2-channel Bridge module (ME4-E000-A*):

Sensor data acquisition module with Resistor Bridge-type (4-wire) output, like strain gauge, non isolated.

The module is able to process the two channel inputs with gain factor from $% \left\{ 1\right\} =\left\{ 1\right\}$

1mV/V to 255mV/V, with a resolution of up to 24bit.

Supply voltage of the sensor +5V (max 0,05A/channel). The output is protected against short-circuit.

Analog, 2-channel RTD module (ME4-G000-A*):

RTD Temperature sensor data acquisition module, in 2/3/4-wire configuration, non isolated.

The module is able to process the following sensor types:

PT100, PT200, PT500, PT1000, Ni100, Ni120, Ni1000, with a resolution of up to 16bit. Typical measuring fields range from -200 \div +850 °C (PT sensors) and -60 \div +250 °C (Ni sensors)

Analog, 2-channel TC (thermocouples) module (ME4-L000-A*):

TC temperature sensor data acquisition module in 2-wire configuration, non isolated.

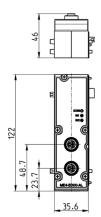
The module is able to process the following sensor types:

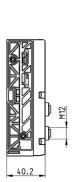
J, K, B, E, N, R, S, T, with a resolution of up to 16bit.

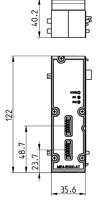
All modules are equipped with diagnostics (Status).

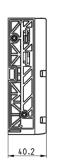
The characteristics of the single input can be configured by a software for all analog module types.

The modules are available both in the version with two M12 connectors with 5 contacts, and in the terminal block version with Push-in spring connection.









Mod.	Coding reference	Numbers of analog inputs	Connection	Number of connectors	Dimension	Signalling	Absorption	Protection class	Operating temperature	Weight
ME4-E000-AL	E	2 M12 bridge inputs	M12 A 5-pin female	2	122 x 35,6 mm	2 yellow led 1 red led	max 20 mA	IP65	0 ÷ 50°C	110 g
ME4-E000-AT	F	2 bridge inputs with terminal block (Push-in)	Terminal block (Push-in) 5-pin	2	122 x 35,6 mm	2 yellow led 1 red led	max 20 mA	IP20	0 ÷ 50°C	110 g
ME4-G000-AL	G	2 RTD M12 inputs	M12 A 5-pin female	2	122 x 35,6 mm	2 yellow led 1 red led	max 20 mA	IP65	0 ÷ 50°C	110 g
ME4-G000-AT	Н	2 RTD inputs with terminal block (Push-in)	Terminal block (Push-in) 5-pin	2	122 x 35,6 mm	2 yellow led 1 red led	max 20 mA	IP20	0 ÷ 50°C	110 g
ME4-L000-AL	L	2 TC M12 inputs	M12 A 5-pin female	2	122 x 35,6 mm	2 yellow led 1 red led	max 20 mA	IP65	0 ÷ 50°C	110 g
ME4-L000-AT	М	2 TC inputs with terminal block (Push-in)	Terminal block (Push-in) 5-pin	2	122 x 35,6 mm	2 yellow led 1 red led	max 20 mA	IP20	0 ÷ 50°C	110 g

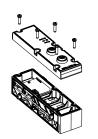
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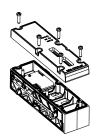
Analog Input Module Cover Mod. ME4-E000-A*, ME4-G000-A* and ME4-L000-A*



It is possible to configure a valve island with free electric positions. You can integrate further electrical signals in a valve island by replacing the cover plate with the relative I/O cover.

The supply includes: 1x cover 5x fixing screws



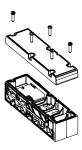


Mod.	Connection	
ME4-E000-AL-C	M12 A 5-pin female	
ME4-E000-AT-C	Terminal block (Push-in) 5-pin	
ME4-G000-AL-C	M12 A 5-pin female	
ME4-G000-AT-C	Terminal block (Push-in) 5-pin	
ME4-L000-AL-C	M12 A 5-pin female	
ME4-L000-AT-C	Terminal block (Push-in) 5-pin	

Closed base without I/O cover



The supply includes: 2x tie-rods



Mod.

ME4-0000-FP

Base without Fieldbus cover

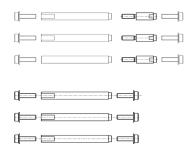


The supply includes: 2x tie-rods



Mod.

CX4000-0

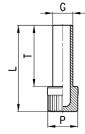


DA2K-MF** FOR INTERMEDIATE SUBBASES (example: Q...,QT...,QH...,K,Z)

Accessory Mod. 6900



Plastic Male Plug

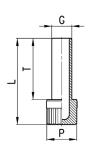


METRIC					
Mod.	G	L	Р	T	Weight (g)
6900 4	4	29	8	20	1
69006	6	31.5	8	22.5	1
69008	8	34.5	12	24.5	2
6900 10	10	37	12	27	2
6900 12	12	40.5	16	28.5	3
6900 14	14	42.5	16	30.5	3

Accessory Mod. 6900



Plastic Male Plug



INCHES				
Mod.	G	L	Р	T
6900 53-00	5/32	1.141	.315	.787
6900 04-00	1/4	1.240	.315	.885
6900 05-00	5/16	1.358	.472	.964
6900 3/8	3/8	1.456	.472	1.063
6900 1/2	1/2	1.594	.630	1.122

Interchangeable cartridges for subbases and terminal plates/diaphragms





TABLE LEGEND:

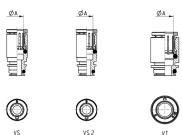
x = compatible with

VS = subbase version D5

VS 2 = subbase version D2

VT = terminal plate/diaphragm version

Mod.	_g A	VS	VT
6700 4-D1	4	Х	
6700 6-D1	6	Х	
6700 6-D2	6	Х	
6700 8-D2	8	Х	
6700 10-D2/1	10	Х	
6700 8-D2/1	8		Х
6700 10-D2	10		Х
6700 12-D2	12		Х
6700 14-D2	14		Х
6700 4-D1	5/32"	Х	
6700 04-D1	1/4"	Х	
6700 04-D2	1/4"	Х	
6700 8-D2	5/16"	Х	
6700 8-D2/1	5/16"		Х
6700 06-D2/1	3/8"	Х	
6700 06-D2	3/8"		Х
6700 08-D2	1/2"		Х



Mounting brackets for DIN rail



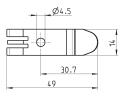
DIN EN 50022 (mm 7,5 x 35 - width 1)

Supplied with:

2x plates

2x screws M4x8 UNI 5931





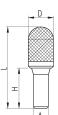
Mod. PCF-D1 PCF-D2

New

D5 VALVE ISLAND

Silencers Series 2929





DIMENSIONS									
Mod.	Α	D	Н	L	Max. Oper. Pressure	Flow rate Nl/Min	Noise db (A)		
2929 4	4	7	15,5	31,5	10	380	66		
29296	6	12,5	20,5	45	10	660	80		
29298	8	13,5	21,5	43,5	10	1300	83		
2929 10	10	15,5	26,5	57,5	10	2800	92		
2929 12	12	18,5	29	83	10	4200	94		

SIL1 — □ □ □ □

Operating temperature: - 40 / + 80 °C