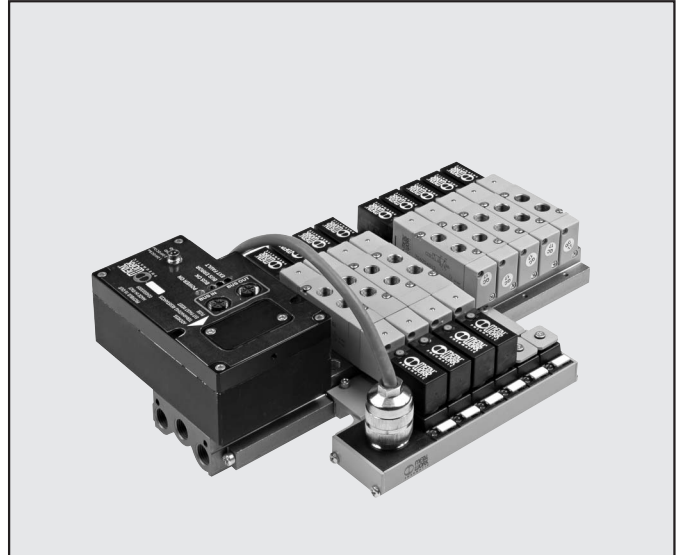


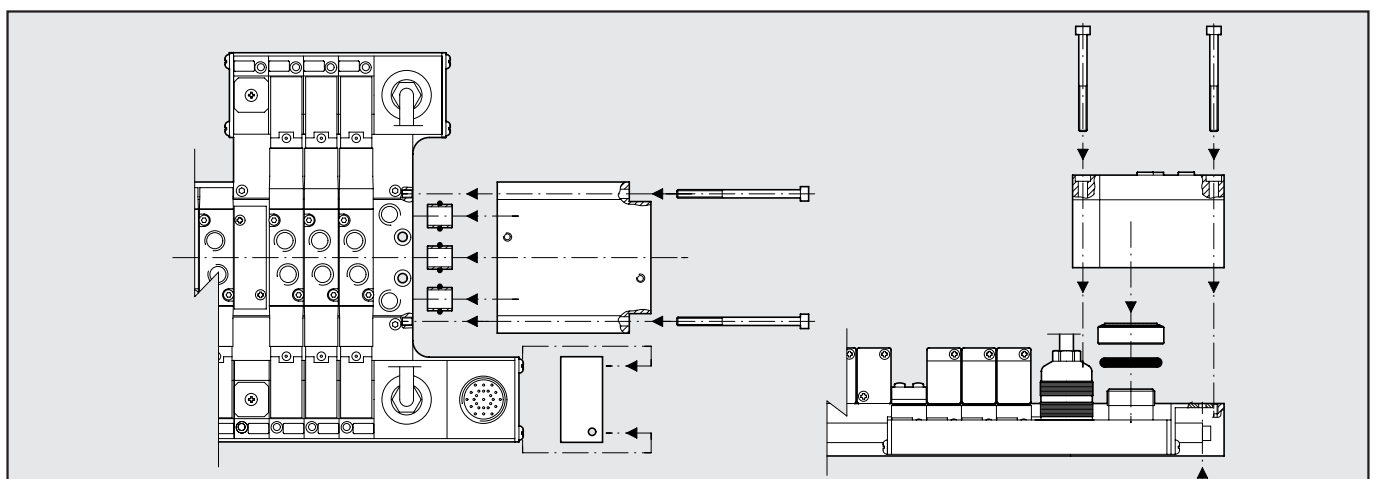
IP 65 PROFIBUS-DP MACH 16-DEDICATED

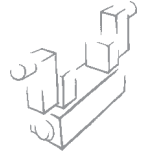
A high-integration robust system for Mach 16 batteries. The slave is fixed directly on the multiple connector so a valve island with multiple connection can be converted into an island with slaves. The slave is protected from polar inversion and overloads by a replaceable fuse, and the output drivers protect each valve against shortcircuiting. In the case of a short-circuit, which is indicated by the EXT FAULT red LED coming on, only the faulty valve is disconnected. The fuse and output restart button are situated below the rectangular cover, where the revolving switches for addressing and the dip switches for activating termination resistances are also located. Two versions of slave are available: the first one has a single power supply for bus and output, with a DIN-C connector; the second, is characterised by improved protection against electric disturbance, particularly harmful if the transfer rate is high. In this version, an M8 connector is used for the power supply; the power supply is separate from that of the bus, which means that when an alarm is generated, the power supply can be disconnected whereas the bus line remains active. A few important precautions must be borne in mind: the slave must be earthed through a threaded hole at the back of the slave; the M2 connectors of the bus must be the metal type to ensure electric insulation.



TECHNICAL DATA		PROFIBUS DP
Versions		16 outputs
Supply voltage		24 Vdc ± 10%, approx. 100 mA
Degree of protection		IP65
Temperature		-20 ÷ 55°C (-4 ÷ 131° F)
Field Bus Data	Transmission protocol	Profibus-DP DIN E 19245
	Transmission mode	synchronous or Freeze-Mode
	Transmission speed	12 MBit/s
	Addresses	rotating switches BCD, 0.....99
Output Technical Data	Voltage	24 VDC (from 18 to 30V)
	Maximum current for each actuator	350mA
	Maximum current contemporary	450mA OUT 1÷8 + 450mA OUT 9÷16
	Maximum signal exchange frequency	100 Hz, Ohm 1 Hz induction
	Indicator LED	One LED for each output
Autotest	Protections	by short-circuit or overload of each single outel
	Field Bus	RUN-LED
	Bus error	LED + alarm signal to master
	Switch-on signal	Power LED
Protections	Peripheral failure	LED + alarm signal to master
		polar inversion, short-circuit or overload

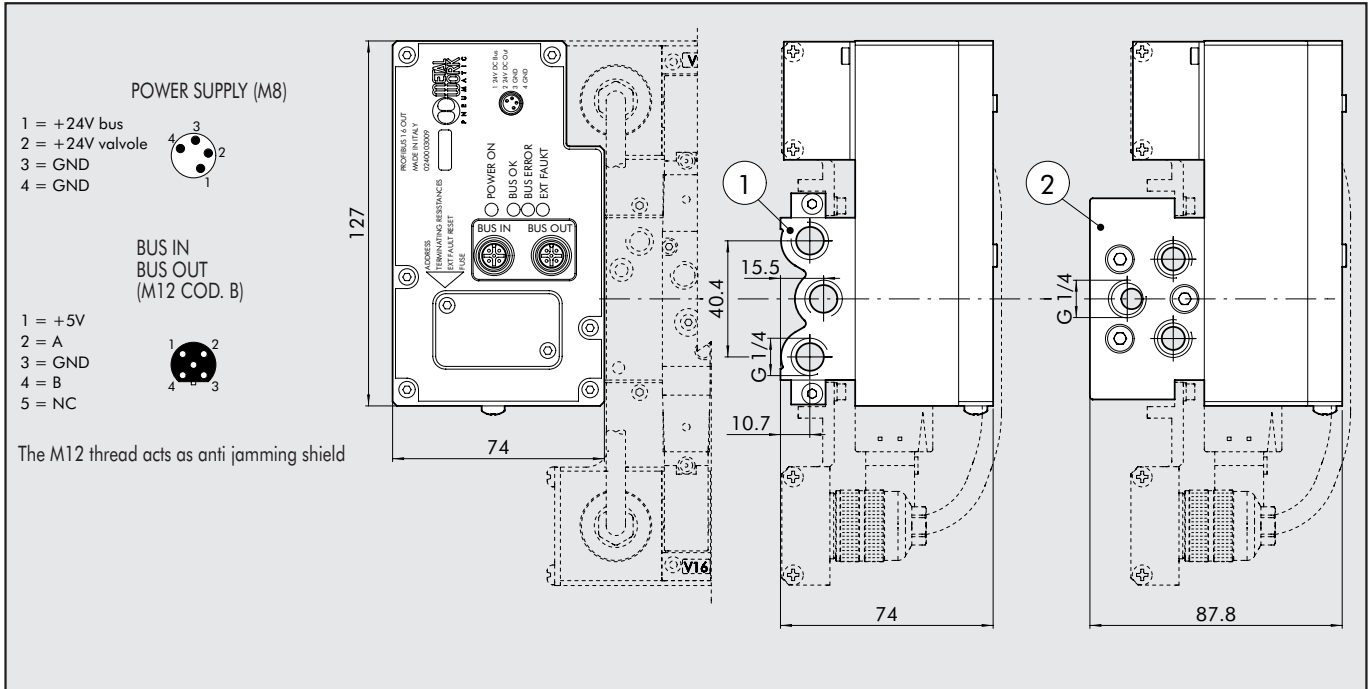
SLAVE ASSEMBLY, MACH 16 DEDICATED





PROFIBUS-DP

16-OUTPUT SLAVE "NEW"

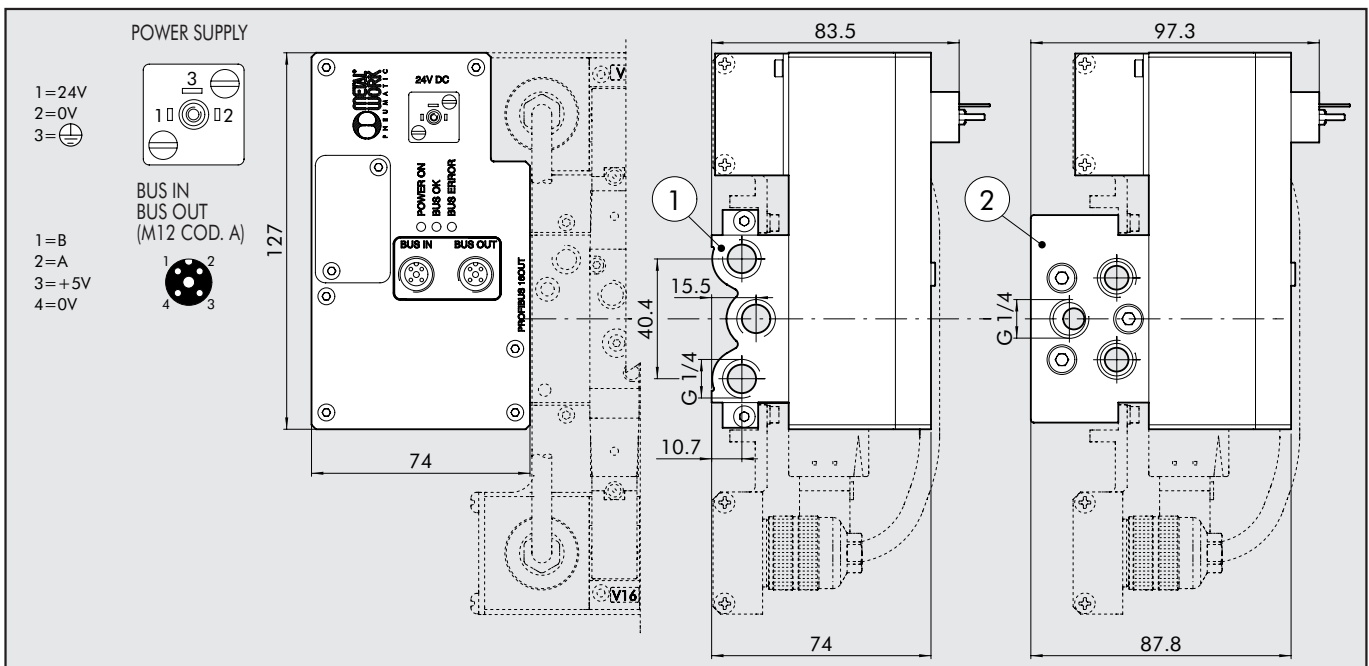


2

Code	Slave kit
① 0240003073	PROFIBUS-DP SLAVE 16 OUT FOR MULTIPLE BASE
② 0240003077	PROFIBUS-DP SLAVE 16 OUT FOR MODULAR BASE
0240003070	SLAVE PROFIBUS-DP 16 OUT WITHOUT BASE

The slave kit includes the slave, the fixing screws and the adapter base.

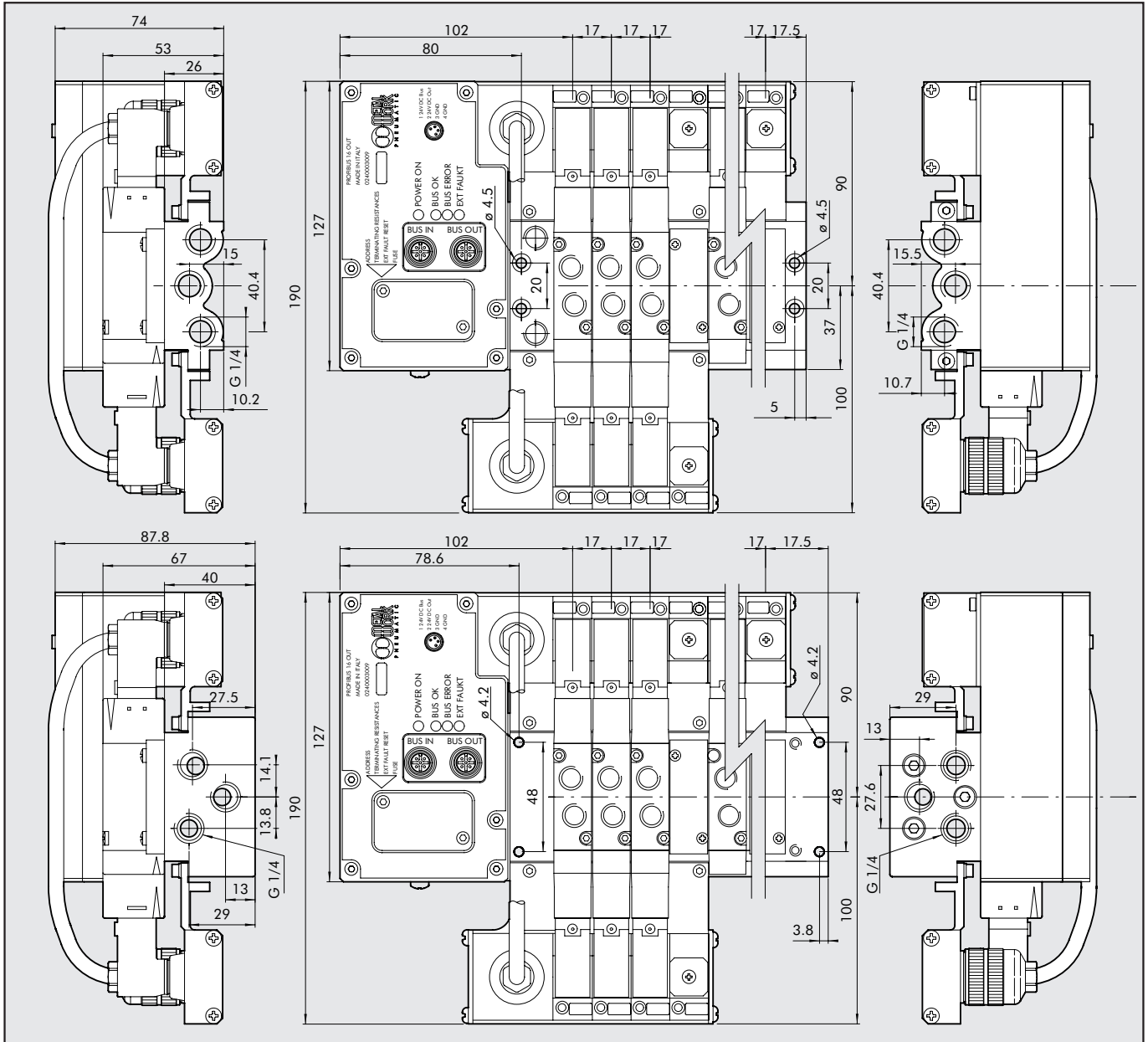
16-OUTPUT SLAVE "OLD"



Code	Slave kit
① 0240003001	PROFIBUS-DP SLAVE 16 OUT FOR MULTIPLE BASE
② 0240003007	PROFIBUS-DP SLAVE 16 OUT FOR MODULAR BASE

The slave kit includes the slave, the fixing screws and the adapter base.

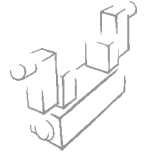
16-OUTPUT SLAVE, COMPLETE WITH VALVES



KEY TO CODES

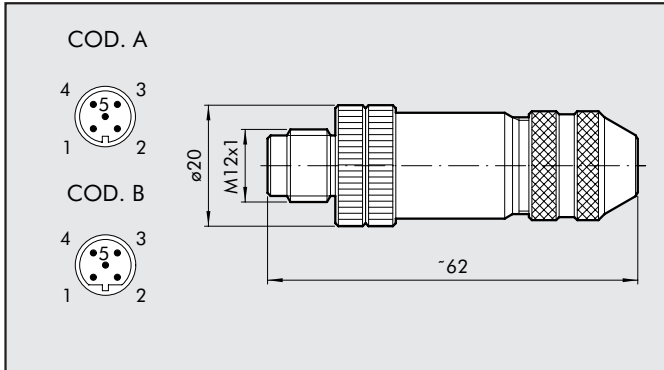
BUS	P	V	1 6 O	A	MCN	0 4	M	M	6	V	L
	P Profibus I Interbus	V IP 65	16 OUT 16 IN+16 OUT	A Mach 16 Multiple base B Mach 16 Modular base	MCN electrical connector	04 4 posit. 06 6 posit. 08 8 posit. 10 10 posit. 12 12 posit.	M MSV 25 SMS 00 M6 MSV G5 SMS 00 M8 MSV H5 SMS 00 V MSV 25 SCS 00 L MSV 25 SMP 00 L6 SMV G5 SMP 00 L8 MSV H5 SMP 00 J MSV 25 SMB 00 J6 MSV G5 SMB 00 J8 MSV H5 SMB 00 K MSV 25 SCB 00 G MSV 26 SMS CC G6 MSV G6 SMS CC	G8 MSV H8 SMS CC O MSV 26 SCS CC E MSV 26 SMS OC E6 MSV G6 SMS OC E8 MSV H8 SMS OC F MSV 26 SCS OC B MSV 26 SMS PC B6 MSV G6 SMS PC B8 MSV H8 SMS PC C MSV 26 SCS PC A BLANKING PLATE D INTERMEDIATE DIAPHRAGM			

N.B. The valve connection order in the diagram above is as follows - from left to right, starting from the slave. The first left figure corresponds to the valve close to the slave on the base. There are 12 figures. When ordering a bottom base with less than 12 positions, complete the code entering 0 in the other boxes.



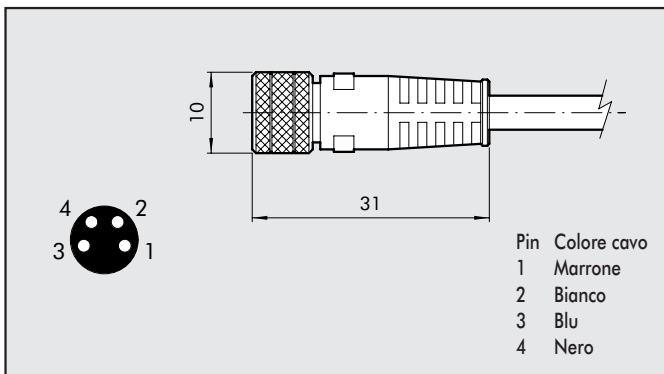
ACCESSORI

M12 MALE CONNECTOR IN-OUT BUS



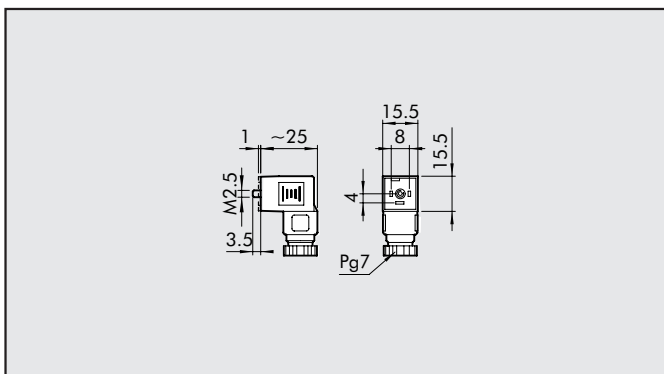
Code	Description
0240009038	Male connector IN-OUT Bus A coding
0240009035	Male connector IN-OUT Bus B coding

M8 CONNECTOR FOR FEEDING



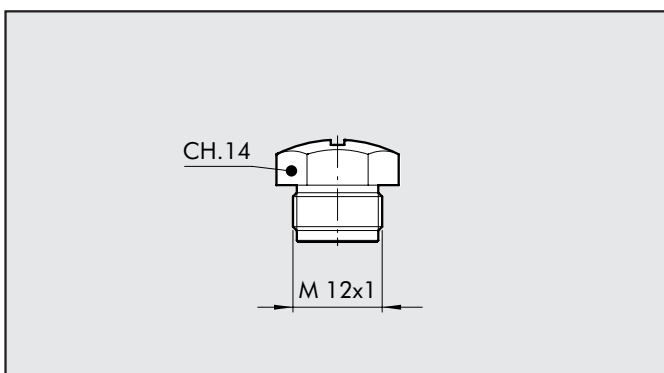
Code	Description
0240009037	M8 connector for feeding wire 5 m

SUPPLY CONNECTOR



Code	Description
W0970501021	CONNECTOR 15mm shape C DIN 43650

PLUG M12

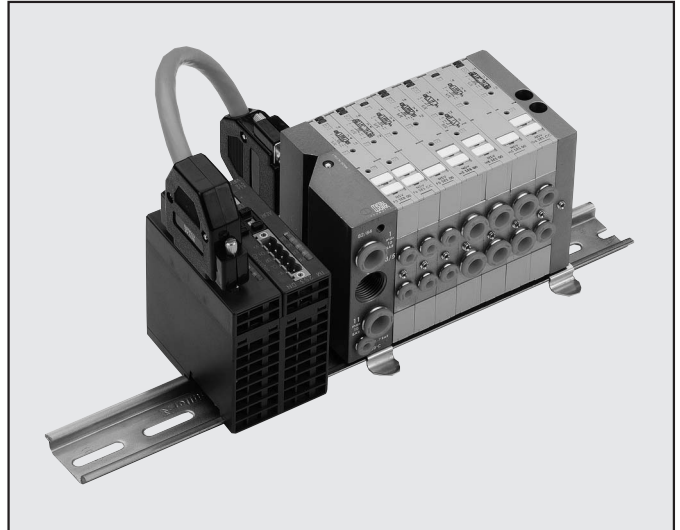


Code	Description
0240009040	M12 plug

PROFIBUS-DP / INTERBUS-S / CAN-OPEN DEVICE-NET FOR MULTIMACH

The expandable modular slaves for Multimach follow the same application philosophy of total modularity common to the Multimach system. With full freedom, the slave can be configured by fitting the various modules offered:

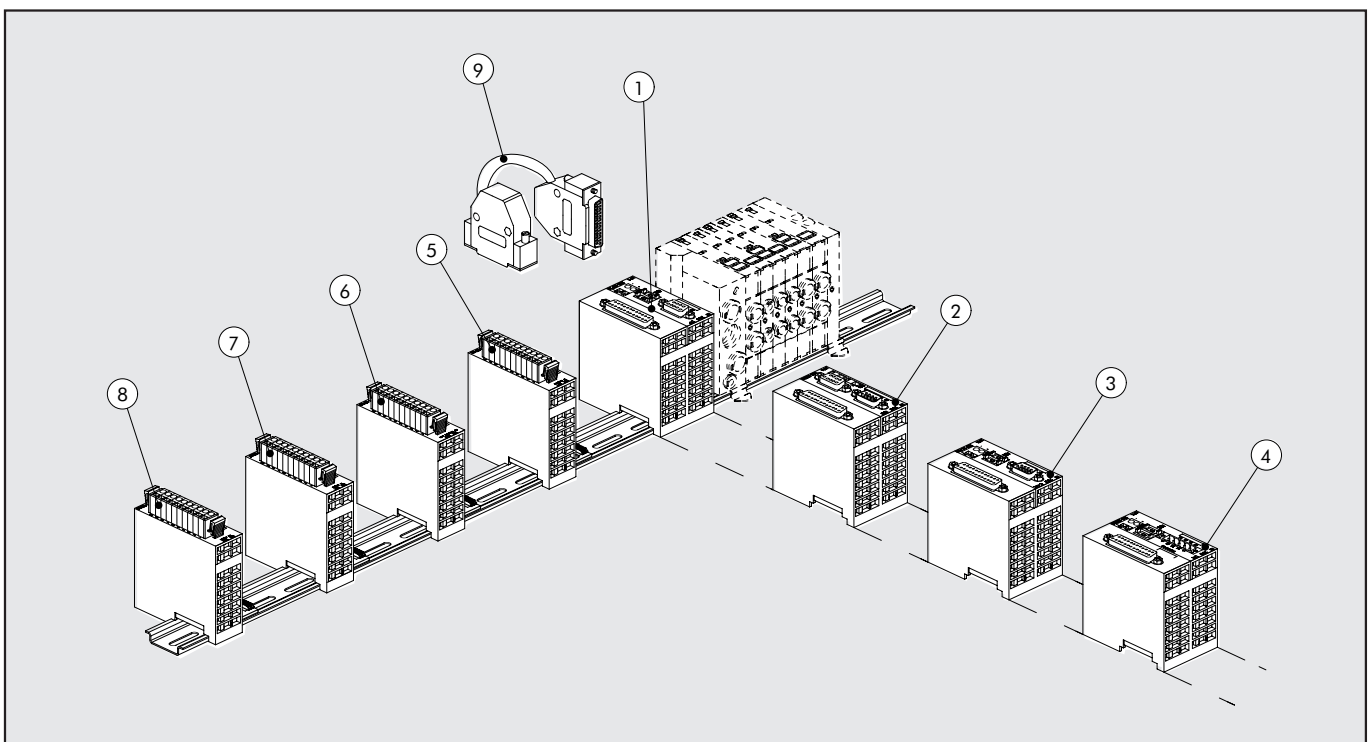
- Slaves are available for 4 alternate bus systems: PROFIBUS-DP, INTERBUS-S, CAN-OPEN, DEVICE NET. Each of these can manage 24 outputs.
- The slaves are mounted on a 35 mm DIN bar, next to the Multimach unit.
- The electric connection between the slave and the unit is simply obtained with a kit comprised of pre-wired, 25-pin Sub-D connectors with a 25-core cable.
- Other modules – up to a maximum of 15 (31 for DeviceNet) can be fitted alongside the slaves to manage other inputs and outputs. These modules are electrically connected together, using a small plate-connector (housed under the modules, inside the DIN bar).
- There are 4 other types of modules available: for 8 digital inputs; for 8 digital outputs; for 4 analogue inputs and for 4 analogue outputs.
- With this system, a maximum of 144 Inputs/Outputs can be managed with just one slave!

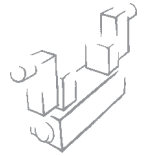


TECHNICAL DATA

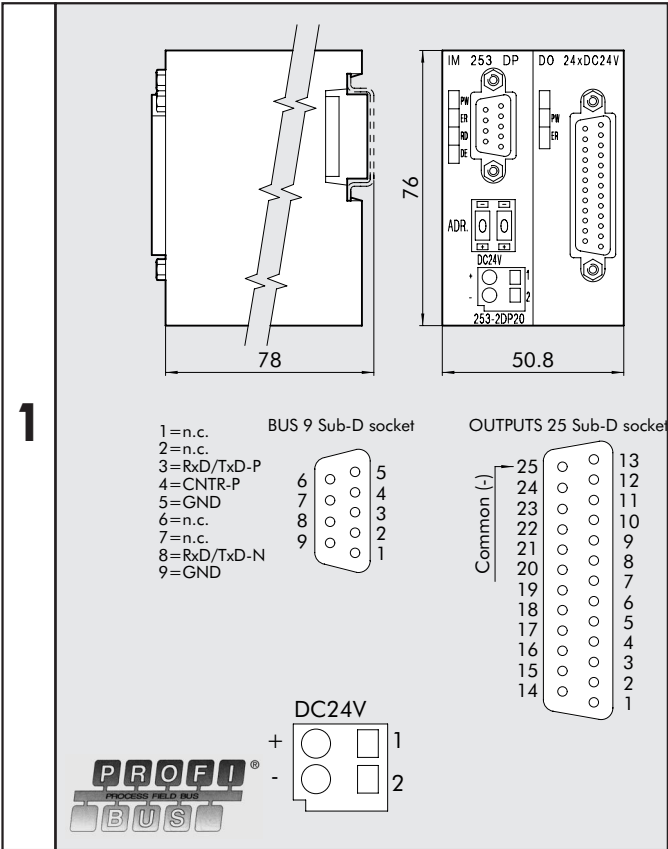
Supply voltage	24 V DC + 20% - 15%
EMC and ESD test	in compliance with IEC 801-2/IEC 801/4 (up to level 3: 8kV/2kV)
Resistance to vibration and impacts test	secondo IEC68-2-6/IEC 68-2-27 (1g/12g)
Operating temperature range	0 °C ÷ 60 °C
Storage temperature	-40 °C ÷ +85 °C
Admitted relative humidity	95%
Assembly	35 mm DIN bar

THE MULTIMACH WORLD: SLAVES, INPUTS AND OUTPUTS





SLAVE PROFIBUS-DP 24 OUTPUT



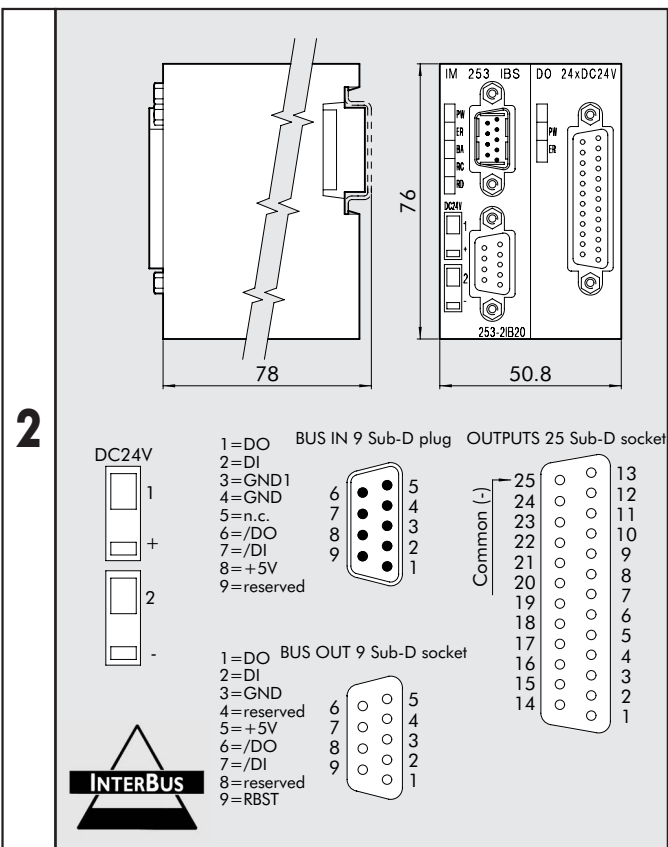
Code Slave kit
024000402 SLAVE PROFIBUS+DO24xDC24V

Technical Data

PROFIBUS-Interface	RS485: 9 pins SubD
Transmission speed	9.6 kBaud up to 12 Mbaud
Maximum number of modules which can be connected	31 (depending on the maximum current)
Output interface	25 pins SubD
Number of outputs	24
Output data	4 Byte (3used +1)
Nominal supply voltage	24 VDC
Maximum current for each output	1A, max total 4A
Absorption 24V (out excluded)	800mA

2

SLAVE INTERBUS-S 24 OUTPUT

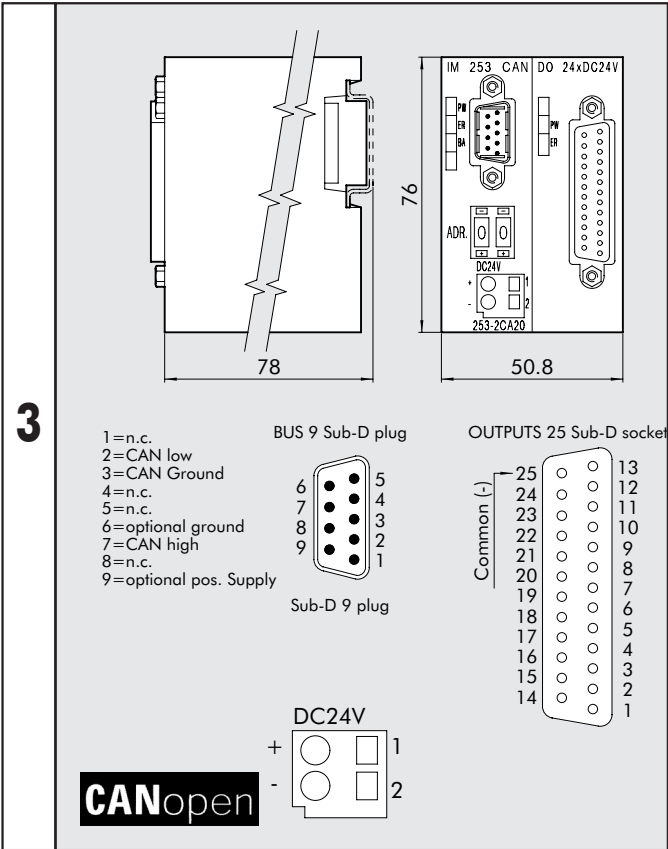


Code Slave kit
0240004012 SLAVE INTERBUS-S+DO24xDC24V

Technical Data

INTERBUS-Interface	9 pins SubD
Transmission speed	500k Baud
Maximum number of modules which can be connected	15
Output interface	25 pins SubD
Number of outputs	24
Nominal supply voltage	24VDC
Maximum current for each output	1A, max total 4A
Absorption 24V (out excluded)	800mA

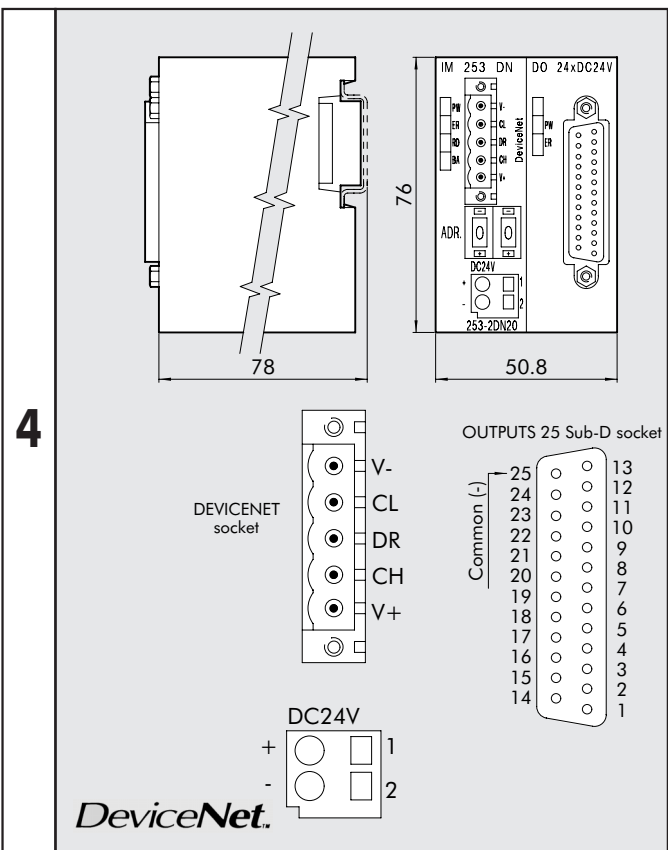
CAN-OPEN SLAVE, 24 OUTPUTS



Code	Slave kit
0240004022	SLAVE CAN-OPEN+DO24xDC24V

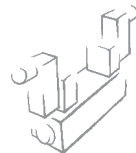
Technical Data	
CANopen-Interface	9 pins SubD
Transmission speed	10kbaud up to 1 Mbaud
Maximum number of modules which can be connected	31 (depending on the maximum current)
Output interface	25 pins SubD
Number of outputs	24
Nominal supply voltage	24 VDC
Maximum current for each output	1A, max total 4A
Absorption 24 V (out excluded)	700mA

DEVICE NET SLAVE, 24 OUTPUTS



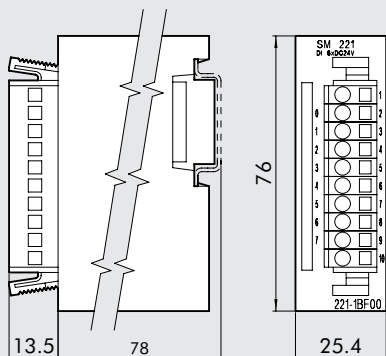
Code	Slave kit
0240004032	SLAVE DEVICE-NET+DO24xDC24V

Technical Data	
DEVICE-NET-Interface	DeviceNet Open Style
Transmission speed	125, 250, 500k Baud
Maximum number of modules which can be connected	31 (depending on the maximum current)
Output interface	25 pins SubD
Number of outputs	24
Nominal supply voltage	24 VDC
Maximum current for each output	1A, max total 4A
Absorption 24 V (out excluded)	800mA



8-DIGITAL INPUT MODULE

5

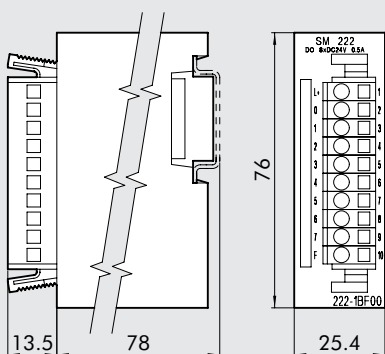


Code	Description
0240004053	DI 8XDC24V UNIT

Technical Data	
Nominal input voltage	DC 24V
Number of inputs	8
Input data	1 Byte
Input voltage at "1"	15...30V
Output voltage at "0"	0...5V
Response time	3 ms
Internal Bus voltage	5V
Absorption 5V BUS	20 mA

8-DIGITAL OUTPUT MODULE

6

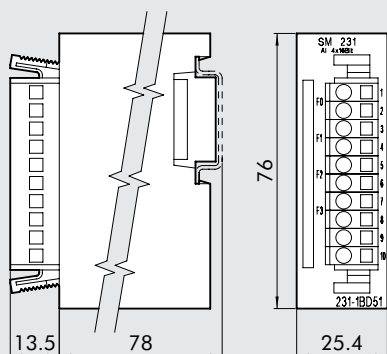


Code	Description
0240004051	DO 8XDC24V 0.5A UNIT

Technical Data	
Nominal voltage	DC 24V
Number of outputs	8
Output data	1 Byte
Absorption for each channel	1A (max 8A)
Internal Bus voltage	5V
Absorption 5V BUS	50 mA

4-ANALOG INPUT MODULE

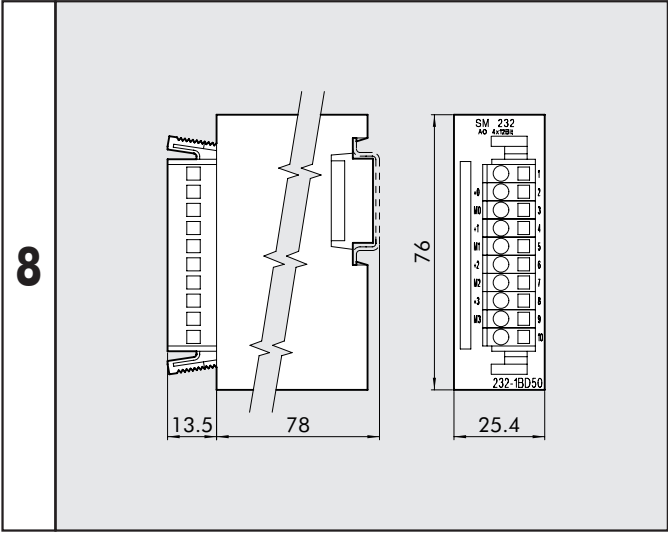
7



Code	Description
0240004054	AI 4X16 BIT UNIT

Technical Data	
Number of Inputs	4 o 2
Input data	8 Byte
Input range	Voltage 0÷50 mV, 0...10V, ±4mV, ±4V, ±10V, Current 0/4...20mA, +/-20mA
	Temperature Pt100, Pt1000, Ni100, Ni1000
	Resistance 60Ω, 600Ω, 3000Ω
	Thermoelements J, K, N, R, T, S
Resolution	12/16 Bit
Input resistance	2MΩ voltage, 50Ω current
Time	5...70ms
Internal Bus voltage	5 V
Absorption 5V BUS	280 mA

4-ANALOG OUTPUT MODULE

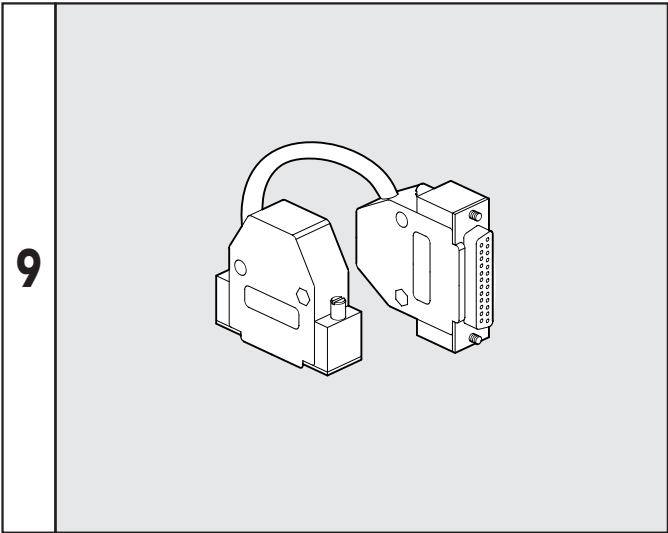


Code	Description
0240004055	AO 4X12 BIT UNIT

Technical Data

Number of outputs	4
Output data	8 Byte
Output range	Voltage 0...10V, ±10V, 1...5V Current 0...20mA, 4...20 mA, ±20 mA
Resolution	12 Bit
Output resistance	Minimum voltage 500Ω, Maximum current 500Ω
Conversion time	3 ms
Internal Bus voltage	5 V
Absorption 5V BUS	20 mA

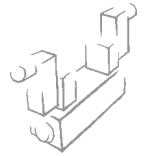
SLAVE/MULTIMACH CONNECTION KIT



Code	Description
0226940000	SLAVE/MULTIMACH CONNECTION KIT

NOTES

Blank area for notes.



PROFIBUS-DP IP 67

The Profibus DP IP 67 is a robust slave that can be connected flexibly using M12 connectors to outputs and solenoid valves and/or inputs.

Each connector can be used freely for:

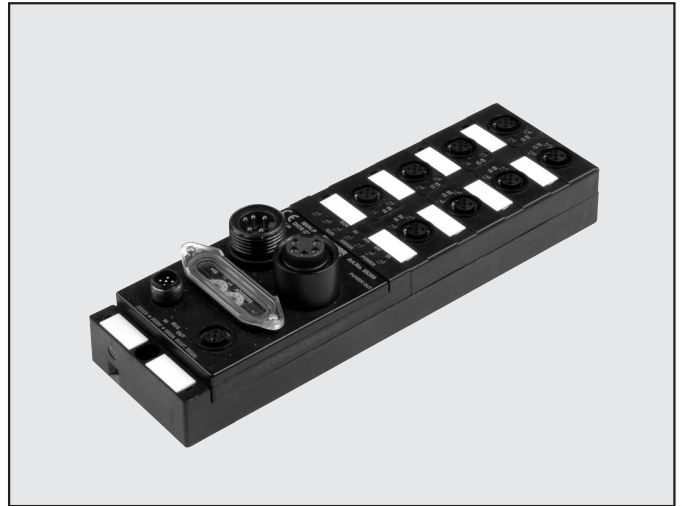
- 1 Output + 1 diagnostic Input
- 2 Outputs
- 1 Output + 1 Input
- 2 Inputs
- 1 Input + 1 diagnostic Input

Each slave can handle a total of 16 signals, each according to one of the above combinations.

Diagnostics provides information on the type and location of the error of each channel with:

- de-activation of the coupling point "involved" and not the complete module;
- signal to the controller;
- display with local LEDs.

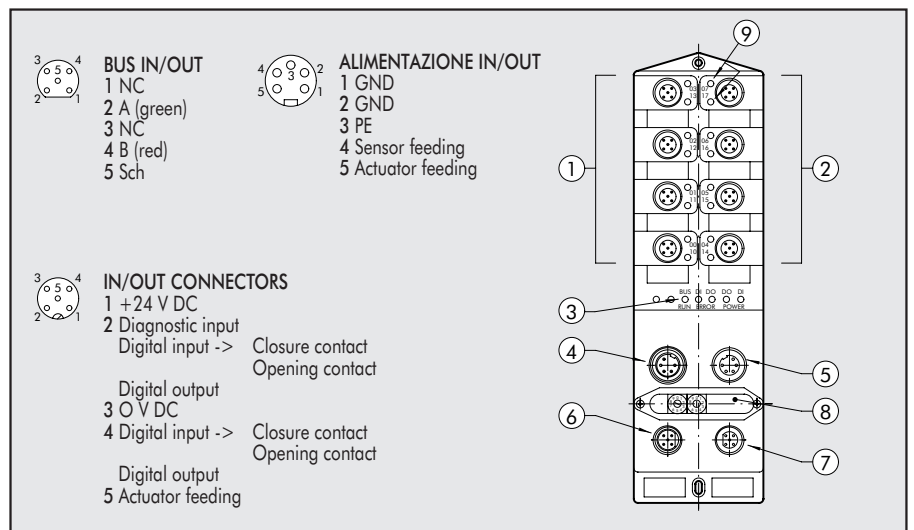
One single slave or an island of solenoid valves complete with slave and connectors can be ordered. The catalogue shows the 1/8"



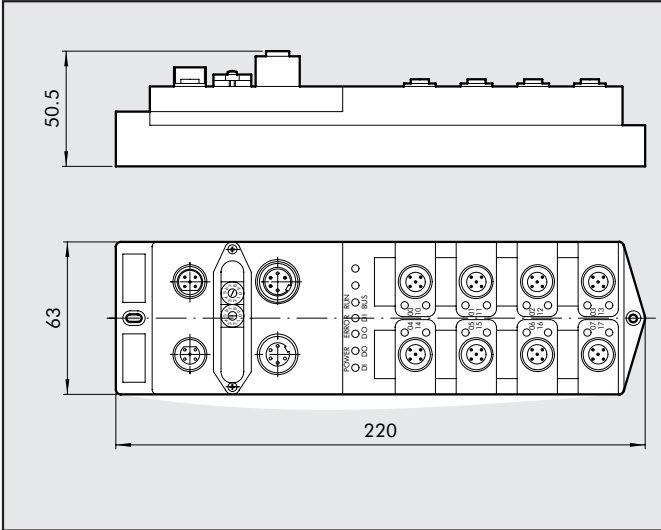
TECHNICAL DATA	
Utilizzo	8 inputs or outputs + 8 inputs or outputs or diagnostic
Supply voltage	24 VDC (18V.....30,2V), a norma EN 61131-2
Degree of protection	IP67
Temperature	0 ÷ 55°C (32 ÷ 131° F)
Field Bus Data	Transmission protocol Profibus-DP EN 50170
	Transmission mode synchronous or Freeze-Mode
	Transmission speed 12MBit/s
	Addresses rotating switches BCD, 3.....99
Inputs Output Technical Data	Type pnp proximity sensors or IEE 1131-2 compatible mechanical limit switch
	Supply 24VDC (da 18 a 30,2V), a norma EN 61131-2 ; ≤ 200 mA per punto d'innesto M12
	Indicator One LED for each output
Output Technical Data	Voltage 24VDC (da 18 a 30,2V), a norma EN 61131-2; l cumulativa ≤9A
	Maximum current for each actuator 1.6 A, system protected by fuse in case of short-circuit
	Maximum current contemporary 10W
	Maximum signal exchange frequency 20 Hz Ohm, 20 Hz induction
	Indicator LED One LED for each output
Autotest	Field bus RUN-LED
	Insufficient voltage signal Red LED for channel on M12 coupling point
	Short-circuit sensor INPUT or OUTPUTS PIN 2 diagnostic with red LED for M12 coupling point and signal to master
Autotest	Desina® (pin 2)
N.B.: for the disposition of the contact, please look at the connectors at the following pages	

COMPONENTS

- ① ② IN-OUT diagnostic connectors
- ③ Led Power, Error, Run
- ④ IN feeding connector
- ⑤ OUT feeding connector
- ⑥ IN BUS connector
- ⑦ OUT BUS connector
- ⑧ Rotaring switches for addressing
- ⑨ Diagnostic LED for single channel

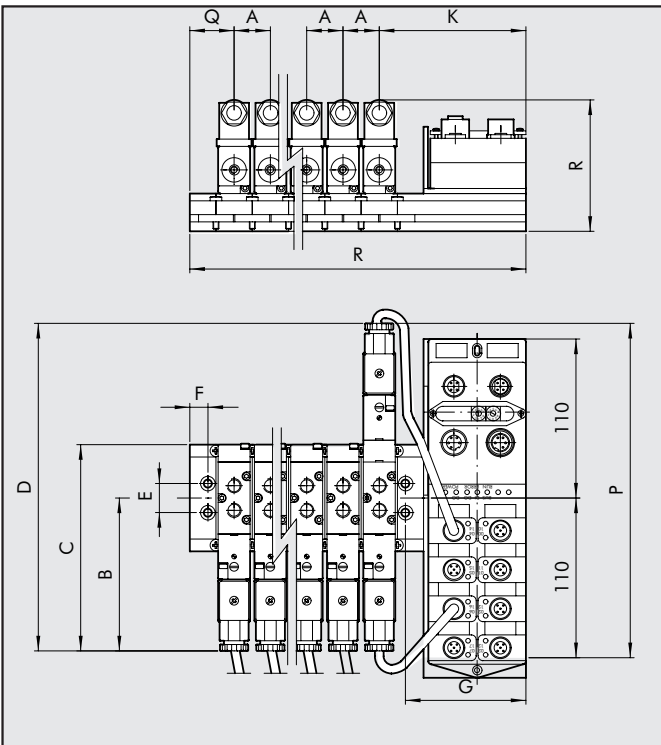


SLAVE IP67



Cod.	Descrizione
0240008001	8 I/O + 8 I/O/DIAGNOSI IP67 PROFIBUS

IP65 SLAVE, COMPLETE WITH SERIES 70 VALVES



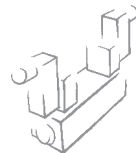
	A	B	C	D	E	F	G	K	P	Q	R
1/8" Manifold	25	105	142	225	20	12.5	85.8	103.5	230	305	Q+K+(A x *n ² -1)
1/8" Multiple	25	105	142	225	20	7	98	115	230	24	Q+K+(A x *n ² -1)
1/4" Manifold	27	112	156	239	25	10	85.5	104.5	237	31.5	Q+K+(A x *n ² -1)
1/4" Multiple	27	112	156	239	25	7	98	118	237	27	Q+K+(A x *n ² -1)

*n= number of mounted valves

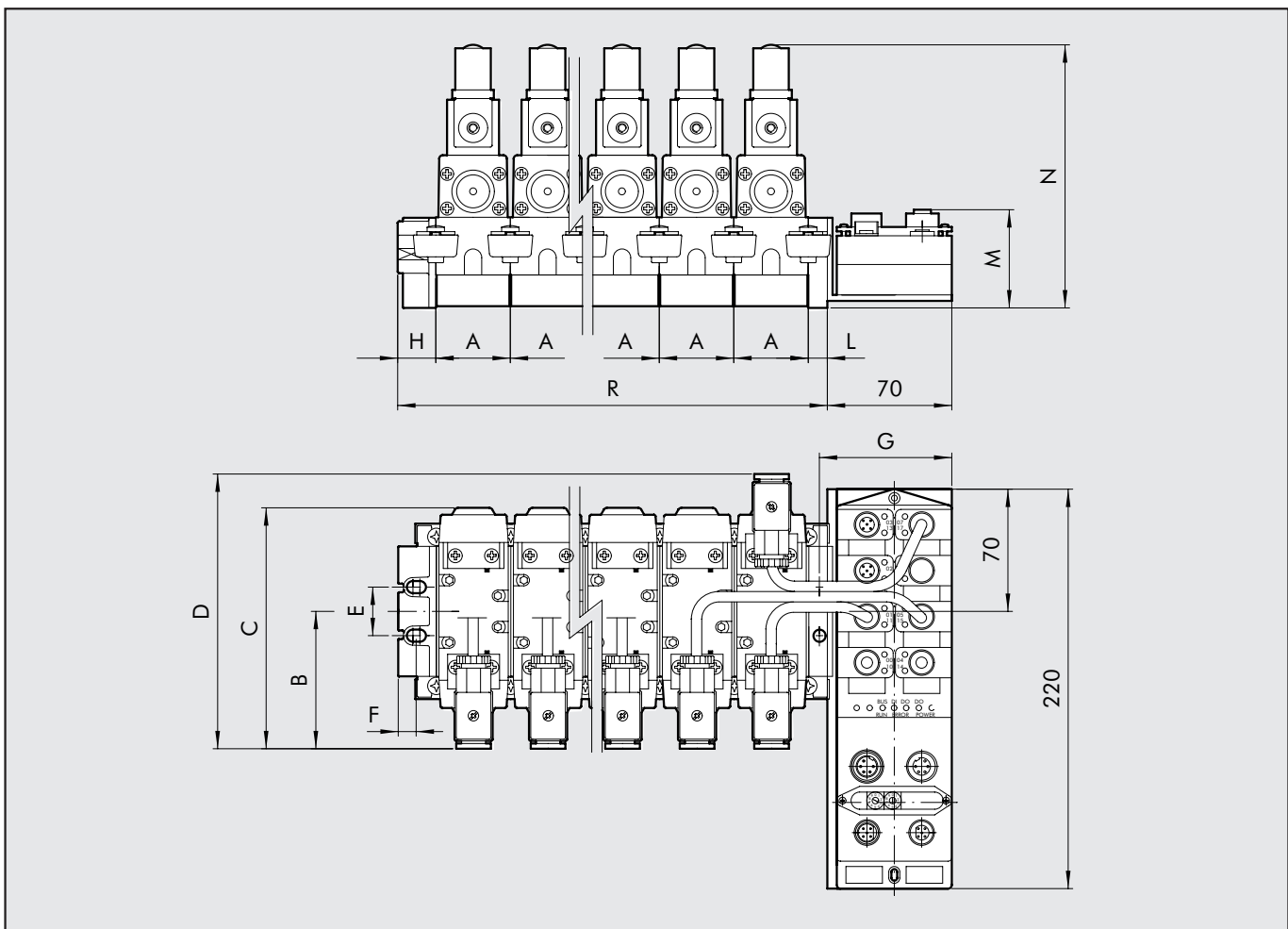
N.B.: the unit is supplied complete with cables for valves

KEY TO CODES

B	U	S	P	V	B	0	0	2	
			P Profibus	V IP 67	B 70 1/8" C 70 1/4"	0 multiple base	02	2 posit.	D SOV 23 SOS NO - SOV 33 SOS NO
							04	4 posit.	H SOV 23 SOS NC - SOV 33 SOS NC
							06	6 posit.	Z SOV 23 SOB 00 - SOV 33 SOB 00
							08	8 posit.	M SOV 25 SOS 0 - SOV 35 SOS 00
									J SOV 25 SOS 00 - SOV 35 SOS 00
									G SOV 26 SOS CC - SOV 36 SOS CC
									E SOV 26 SOS OC - SOV 36 SOS OC
									B SOV 26 SOS PC - SOV 36 SOS PC
									A BLANKING PLATE



IP65 SLAVE, COMPLETE WITH ISO VALVES



	A	B	C	D	E	F	G	H	L	M	N	P	R
ISO1	43	80	140	158	28	10.5	76.4	22	11	58.5	150	230	H+L+(A x *n°)
ISO2	56	90	165	180	35	12.5	77.5	26	14	72.5	178	240	H+L+(A x *n°)

*n= number of mounted valves

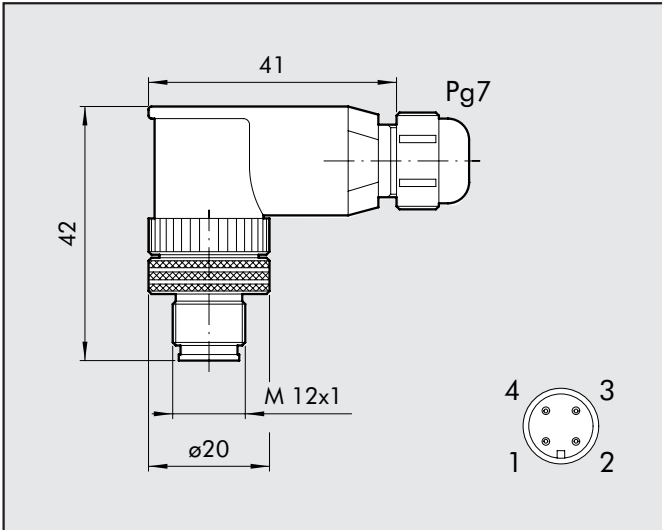
N.B.: the unit is supplied complete with cables for valves

KEY TO CODES

BUS	P	V	D	1	0	2	
	P Profibus	V IP 67	D ISO1 E ISO2	1 manifold base side	02 04 06 08	2 posit. 4 posit. 6 posit. 8 posit.	M ISV 55 SOS 00 - ISV 65 SOS 00 J ISV 55 SOB 00 - ISV 65 SOB 00 G ISV 56 SOS CC - ISV 66 SOS CC E ISV 56 SOS OC - ISV 66 SOS OC B ISV 56 SOS PC - ISV 66 SOS PC A BLANKING PLATE

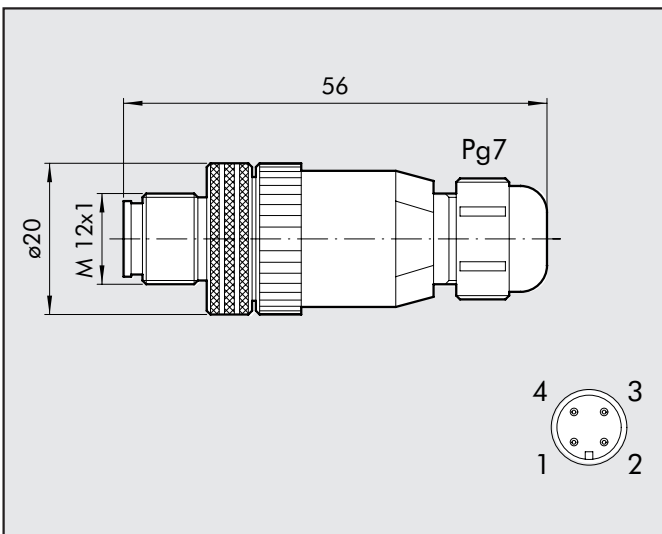
FIELD BUS ACCESSORIES

90° ELBOW WITHOUT CABLE



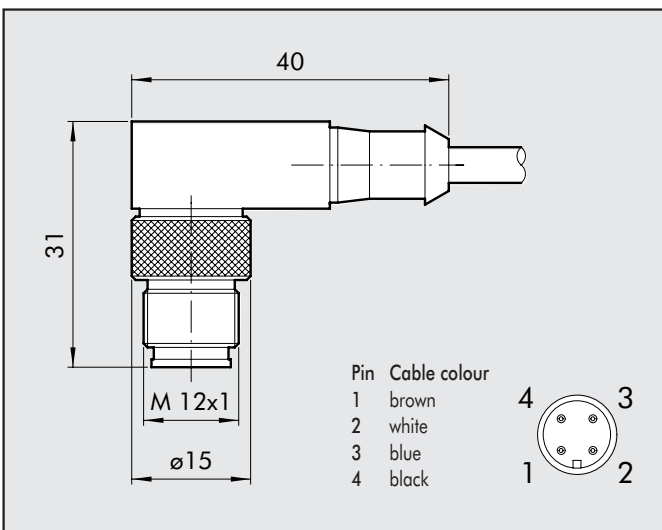
Code	Description
0240009001	90° Elbow without cable

STRAIGHT FITTING WITHOUT CABLE

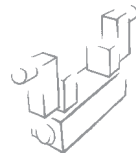


Code	Description
0240009021	Straight fitting without cable

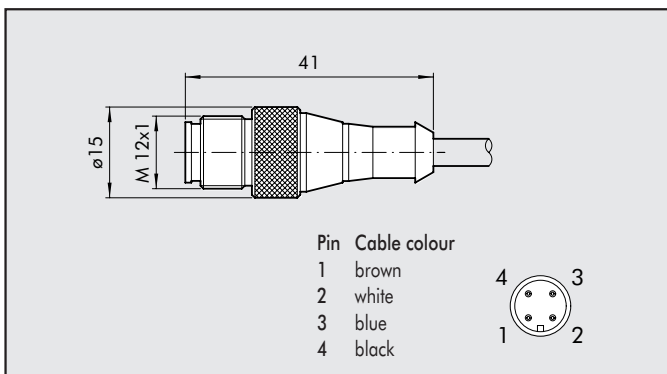
90° ELBOW WITH CABLE



Code	Description
0240009022	90° curve with cable 1.5 m
0240009023	90° curve with cable 5m

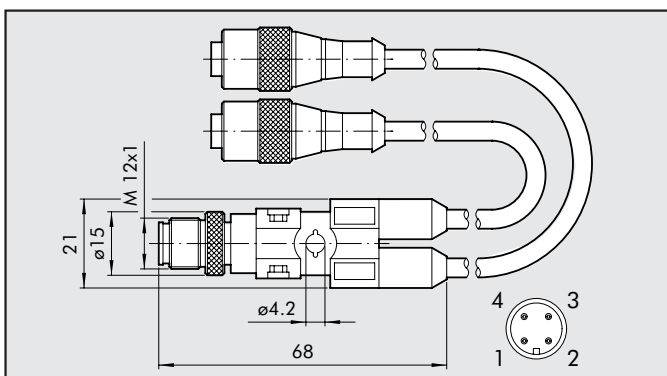


STRAIGHT FITTING WITH CABLE



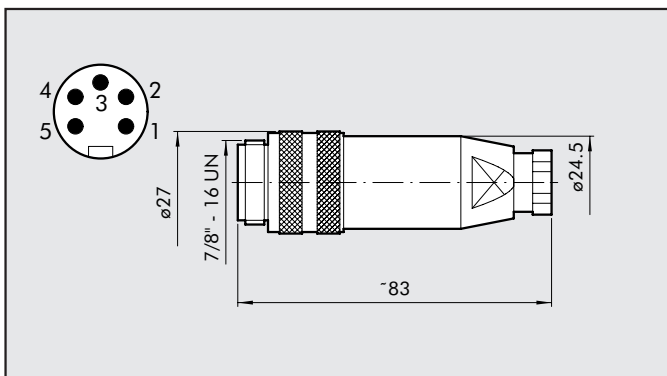
Code	Description
0240009002	Straight, with 1.5 m cable
0240009003	Straight, with 5m cable

Y-DISTRIBUTOR WITH CABLE AND M12 STRAIGHT CONNECTORS



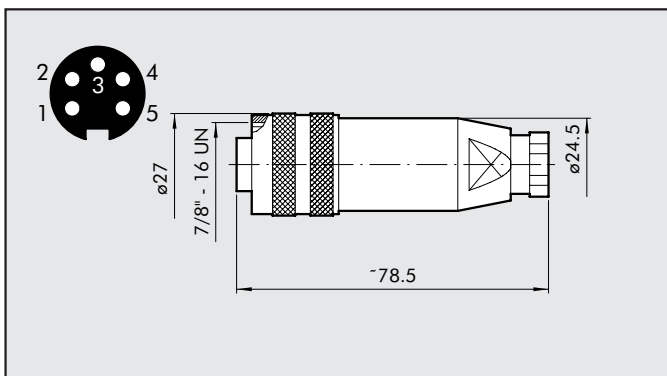
Code	Description
0240009031	Y-Distributor cable 1.5 m
0240009032	Y-Distributor cable 0.6m

MALE CONNECTOR FOR FEEDING "IN"



Code	Description
0240009033	Male connector "IN" feeding

FEMALE CONNECTOR FOR FEEDING "OUT"



Code	Description
0240009034	Female connector "OUT" feeding

