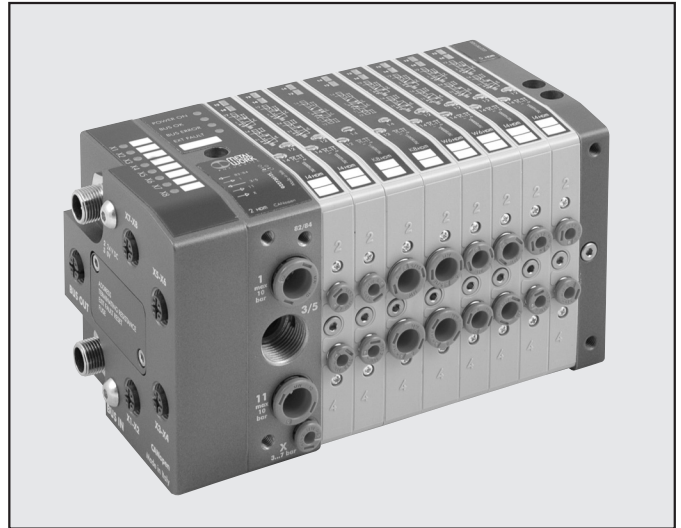


HDM + CANopen

The HDM+CANopen system has been designed in such a way that the pneumatic input terminal contains all the electronics, signals and connectors. It is a very compact and sturdy system where everything is housed in a thick casing aluminium to protect the delicate components against impact.

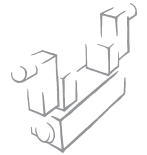
Two versions of end-plate are available: one can handle up to 16 controls (16 Out) and one up to 16 controls and 8 inputs (16 Out + 8 In). The input connectors are M12. Two inputs can be connected to each connector.

The functions are arranged to ensure the same optimisation as the HDMs. The user interface is all on one side to facilitate the work of the fitter and service engineer. All pneumatic connections are on one side; the electrical connectors and selectors are on top of the island.



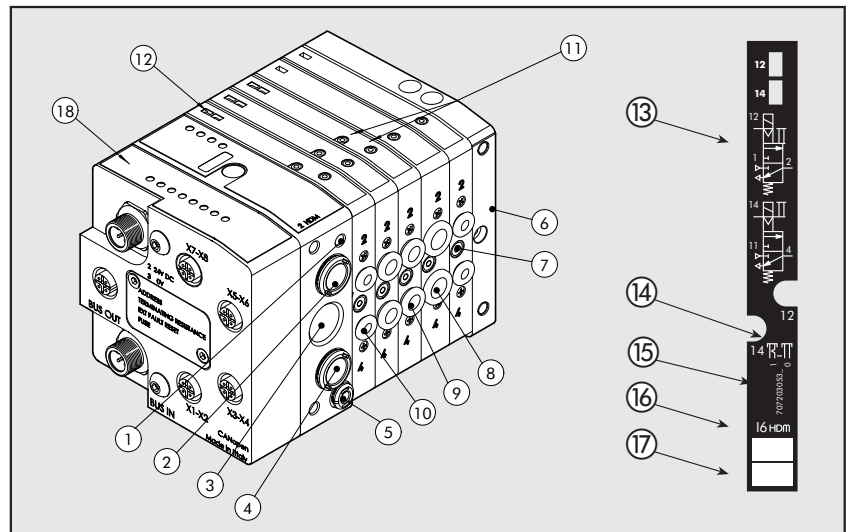
TECHNICAL DATA

Valve port connections	Ø 4,6,8 mm fitting for ports 2 and 4 / Ø 10 fitting for inlet port / thread 3/8 for exhaust port		
Connection on the end-plate 1-11 for the supply of pilots	Automatic fitting Ø 4 mm		
Maximum number of pilots	16		
Maximum number of valves	16 (same as the max. no. of pilots)		
Operating temperature range	-10 ÷ +60 °C		
Fluid	Filtered air without lubrication; lubrication, if used, must be continuous		
Flow rate at 6 bar ΔP 1bar	11mm Ø 4 = 200	11mm Ø 6 = 500	14mm Ø 8 = 700
Pressure range	X (pilot supply)		1-11 (valve supply)
	3 ÷ 7 bar		vacuum at 10 bar
		3 ÷ 7 bar	
Voltage range	24 VDC ±10% (slave protected against overload and reverse polarity)		
Power for each pilot	0,9 W		
Solenoid Pilot Insulation class	F155		
Degree of protection	IP65 (with conveyed exhausts and with not used connectors plugged)		
Solenoid rating	100% ED		
TRA/TRR 2X3/2 monostable at 6 bar	8 / 45 ms		
TRA/TRR 5/2 monostable at 6 bar	8 / 33 ms		
TRA/TRR 5/2 bistable at 6 bar	20 / 20 ms		
TRA/TRR 5/3 cc monostable at 6 bar	20 / 20 ms		
Note on use	Insert the pipes in the fittings, before passing air through the valves, otherwise the gasket may be pulled out of its seat by the flow of air.		
Compatibility with oils	see GENERAL CATALOGUE page 6.1/08 or webpage www.metalwork.it/eng/materiali_compatibilita.html		
CANopen module for HDM valves			
Protection	Outputs protected against overloads and shortcircuits		
Max input power (all valves ON)	~800 mA		
Addressing	By DIP SWITCH		
Highest settable address number	127		
Default address	1		
Peripheral defect diagnosis	Local LED indicator and relay to Master		
Defects reported	Output shortcircuit or overload. Auxiliary power supply failure. CANopen communication active.		
Module status in the event of peripheral defect	The "peripheral defect" bit is active and accessible at the master station.		
Data bit value	0 = not enabled 1 = enabled		
Output status in the absence of communication	Disabled		
INPUT module for HDM valves			
Sensor supply voltage	24 VDC ±10% (depending on the supply of the CANopen module)		
Max sensor power (distributed over eight connectors)	40 mA		
Type of input	PNP for sensor 2-3 wires according to EN 60947-5-2		
Protection	Protected inputs against overload and short-circuit		
Active INPUT signalling	One LED for each INPUT		

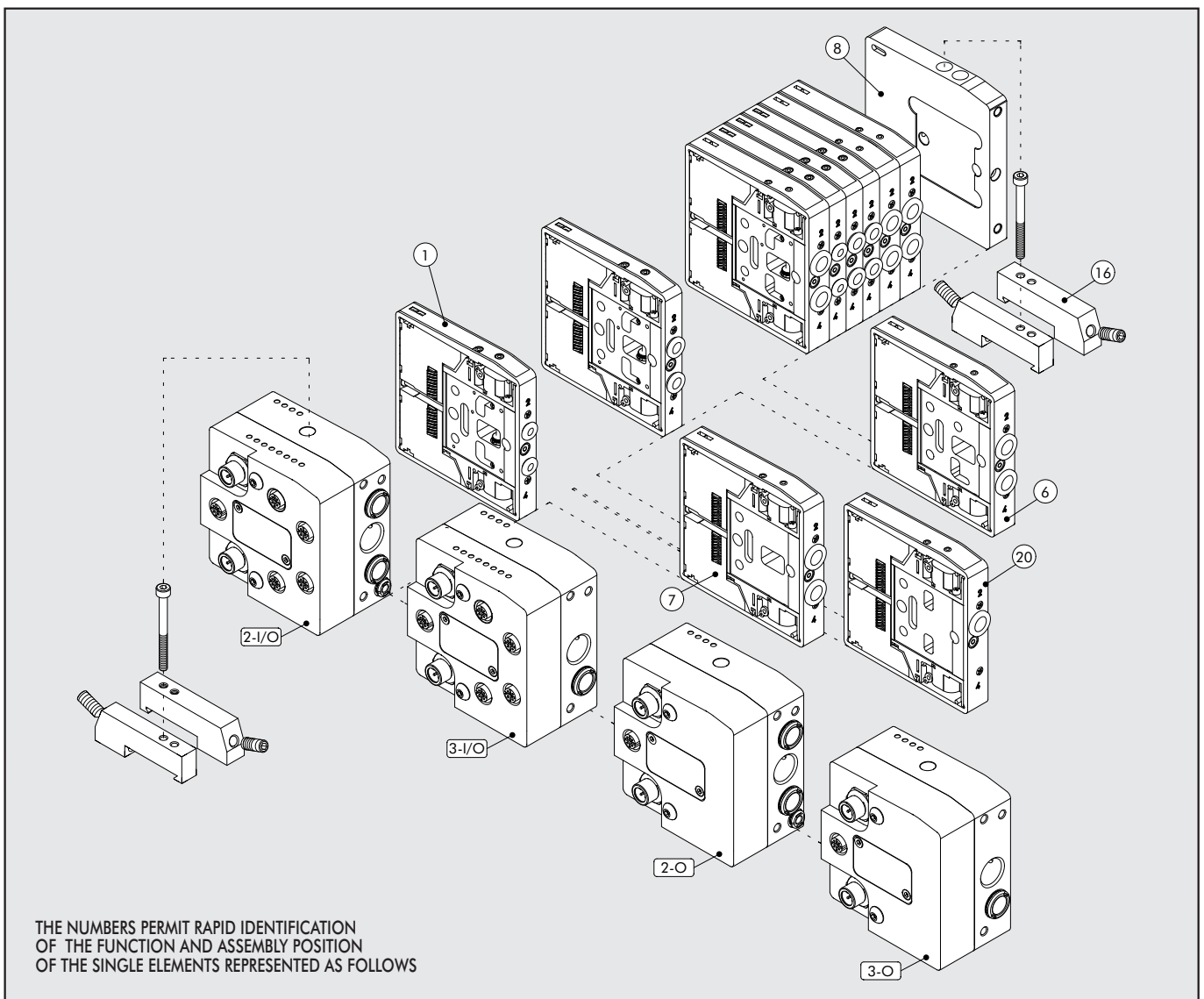


COMPONENTS

- ① Exhaust – Solenoid pilot 82/84
- ② Valve supply – port 1
- ③ Threaded connection of exhausts 3/5
- ④ Valve supply – port 11
- ⑤ Electrical control supply X
- ⑥ Blind end-plate
- ⑦ Screw for valve wall-mounting
- ⑧ Utility port for pipe Ø 8 mm
- ⑨ Utility port for pipe Ø 6 mm
- ⑩ Utility port for pipe Ø 4 mm
- ⑪ Manual control
- ⑫ LED (LED on, solenoid valve energised)
- ⑬ Pneumatic symbol
- ⑭ Identification of the monostable or bistable manual control
- ⑮ Valve ordering code
- ⑯ Valve identification code
- ⑰ Blank space for valve number
- ⑱ CANopen terminal

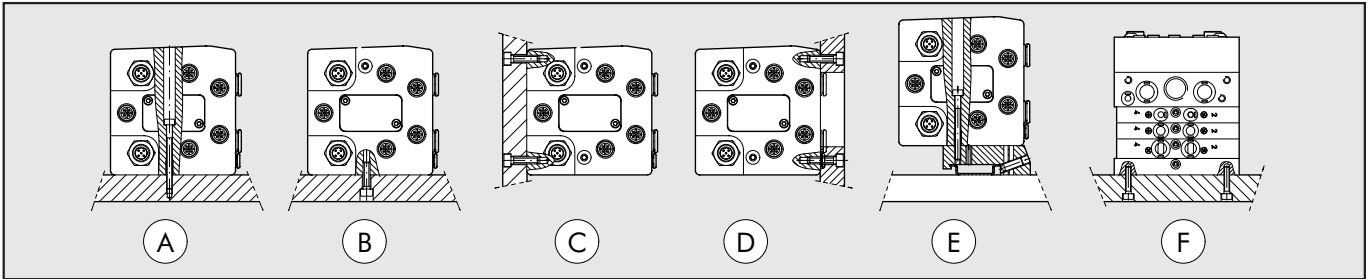


THE MULTIMACH WORLD: FLEXIBILITY



THE NUMBERS PERMIT RAPID IDENTIFICATION OF THE FUNCTION AND ASSEMBLY POSITION OF THE SINGLE ELEMENTS REPRESENTED AS FOLLOWS

FIXING THE BASE



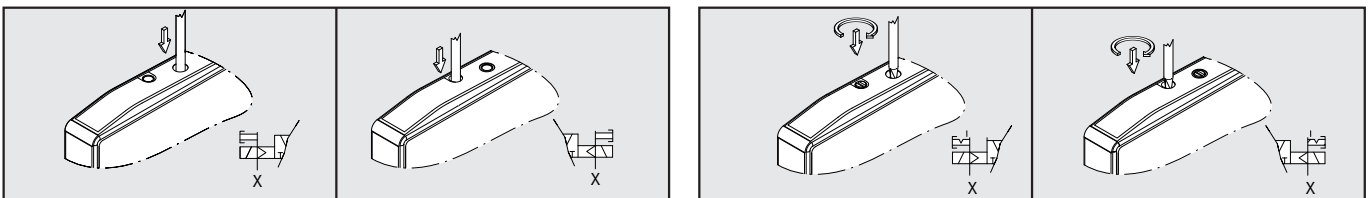
- A:** Fixing from above using the 1 or 1-1 input terminal and the blind terminal.
- B-C:** Fixing from above using the 1 or 1-1 input terminal and the blind terminal, using the M5 threads on the bottom and the rear of the terminals.
- D:** Fixing from above using the 1 or 1-1 input terminal and the blind terminal, using the M5 threads on the front of the terminals. An opening for the pipes is made in the plate.
- E:** Fixing on the DIN bar with end-plate 1 or 1-11 and blind and plate, using the push-in bracket code 0227301600.
- F:** Lateral fixing using the blind terminal, and its the M4 threads on the side lateral.
Note: The sole fixing admitted is the one showed.

KEY TO CODES – MULTIMACH-UNIT HDM + CANopen

H	D	M	2	CAN O	M	16-W8-W6-O4-L8-5	1	6
VALVE	INPUT END-PLATE	ELECTRICAL BASE	MANUAL TYPE	TYPE OF VALVE	FURTHER DETAILS			
Heavy duty Multimach IP65	2 End-plate 1-11 3 End-plate 1	CAN O CANopen 16 OUTPUT CAN I/O CANopen 8 INPUT and 16 OUTPUT	M Monostable manual control B Bistable manual control	I n° 2 3/2 NC W n° 2 3/2 NO L 3/2 NO + 3/2 NC V 5/2 monostable K 5/2 bistable O 5/3 monostable F* 5/2 monostable 5 blind end-plate 6 Passing-intermed. 7 Blind intermediate 20 exhaust section.	16 n° 2 brackets for DIN bar			
				4 cartridge 4 6 cartridge 6 8 cartridge 8				

* uses a single PIN (like the V) and occupies 2 signals

MANUAL CONTROLS



MONOSTABLE OVERRIDE PORT 2
servo-assisted

- Press and hold the manual control in position (not necessary for bistable type K valve)
- Release the manual control:
 - The manual control returns to the home position.
 - Valves type I, W, L, V, F, and O reposition.
 - The type K valve remains switched

N.B.: The pilot power supply X must be present.

MONOSTABLE OVERRIDE PORT 4
servo-assisted

- Press and hold the manual control in position (not necessary for bistable type K valve)
- Release the manual control:
 - The manual control returns to the home position.
 - Valves type I, W, L, V and F reposition.
 - The type K valve remains switched

With type F and V valves, this manual control is not present.

N.B.: The pilot power supply X must be present.

BISTABLE OVERRIDE PORT 2
servo-assisted

- Press the manual control right in then turn it clockwise 90 degrees and Leave it in position.
- Rotate the manual control 90 degrees anticlockwise, and then release it.
 - The manual control returns to the home position.
 - Valves type I, W, L, V, F, and O reposition.
 - The type K valve remains switched

N.B.: The pilot power supply X must be present.

BISTABLE OVERRIDE PORT 4
servo-assisted

- Press the manual control right in then turn it 90 degrees clockwise and Leave it in position.
- Rotate the manual control 90 degrees anticlockwise, and then release it:
 - The manual control returns to the home position.
 - Valves type I, W, L and O reposition.
 - The type K valve remains switched

With type F and V valves, this manual control is not present.

N.B.: The pilot power supply X must be present.

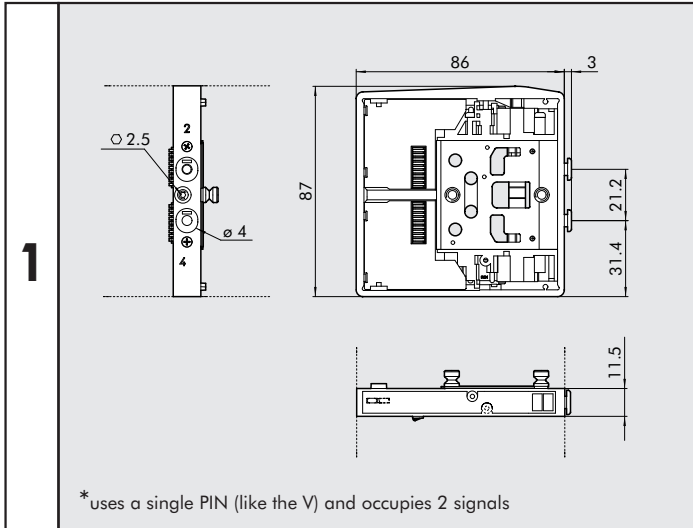
• The reference code for the monostable control ends in 0 (2 for type F).

Example: 707203053_1
0

• The reference code for the monostable control ends in 1 (3 for type F).

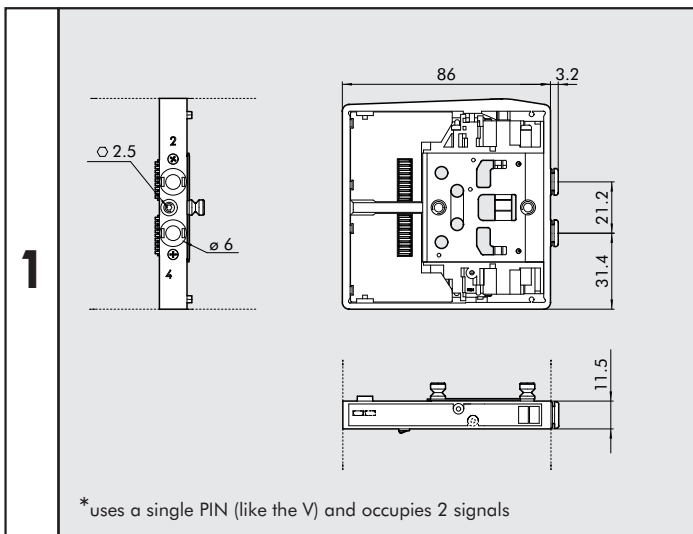
Example: 707203053_1
0

VALVE DIMENSIONS HDM Ø 4



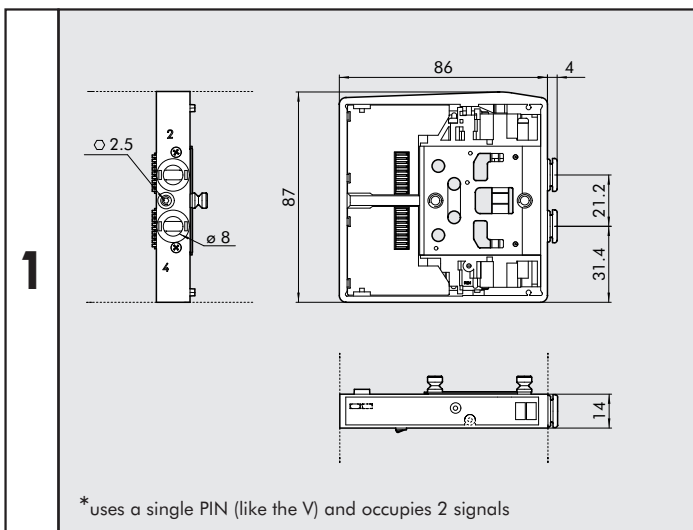
Symbol	Manual Control	Code	Weight [g]
I4 _{HDM}	monostable	7071030530	130
	bistable	7071030531	
W4 _{HDM}	monostable	7071030630	130
	bistable	7071030631	
L4 _{HDM}	monostable	7071030730	130
	bistable	7071030731	
V4 _{HDM}	monostable	7071030130	115
	bistable	7071030131	
*F4 _{HDM}	monostable	7071030132	115
	bistable	7071030133	
K4 _{HDM}	monostable	7071030110	130
	bistable	7071030111	
O4 _{HDM}	monostable	7071030210	130
	bistable	7071030211	

VALVE DIMENSIONS HDM Ø 6



Symbol	Manual Control	Code	Weight [g]
I6 _{HDM}	monostable	7072030530	130
	bistable	7072030531	
W6 _{HDM}	monostable	7072030630	130
	bistable	7072030631	
L6 _{HDM}	monostable	7072030730	130
	bistable	7072030731	
V6 _{HDM}	monostable	7072030130	115
	bistable	7072030131	
*F6 _{HDM}	monostable	7072030132	115
	bistable	7072030133	
K6 _{HDM}	monostable	7072030110	130
	bistable	7072030111	
O6 _{HDM}	monostable	7072030210	130
	bistable	7072030211	

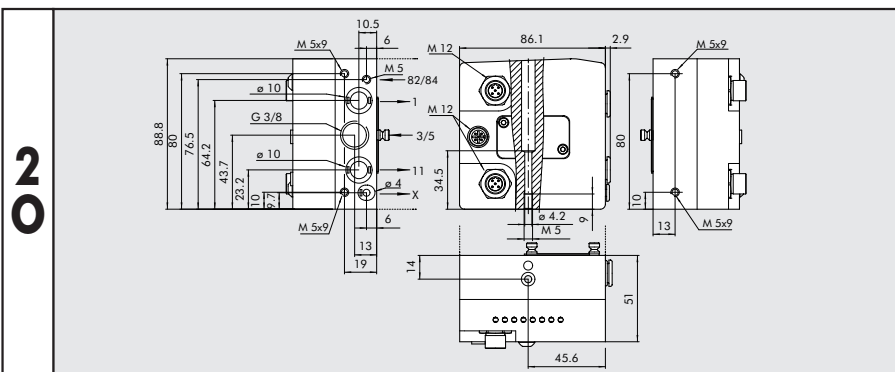
VALVE DIMENSIONS HDM Ø 8



Symbol	Manual Control	Code	Weight [g]
I8 _{HDM}	monostable	7073030530	140
	bistable	7073030531	
W8 _{HDM}	monostable	7073030630	140
	bistable	7073030631	
L8 _{HDM}	monostable	7073030730	140
	bistable	7073030731	
V8 _{HDM}	monostable	7073030130	130
	bistable	7073030131	
*F8 _{HDM}	monostable	7073030132	130
	bistable	7073030133	
K8 _{HDM}	monostable	7073030110	140
	bistable	7073030111	
O8 _{HDM}	monostable	7073030210	140
	bistable	7073030211	

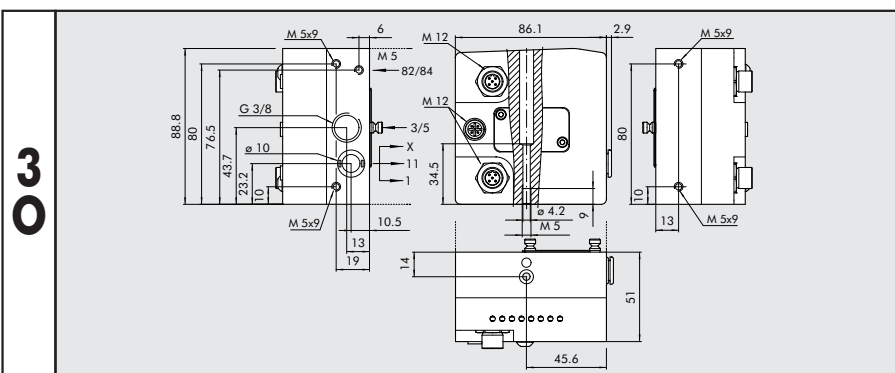


TERMINAL 1-11 CANopen O



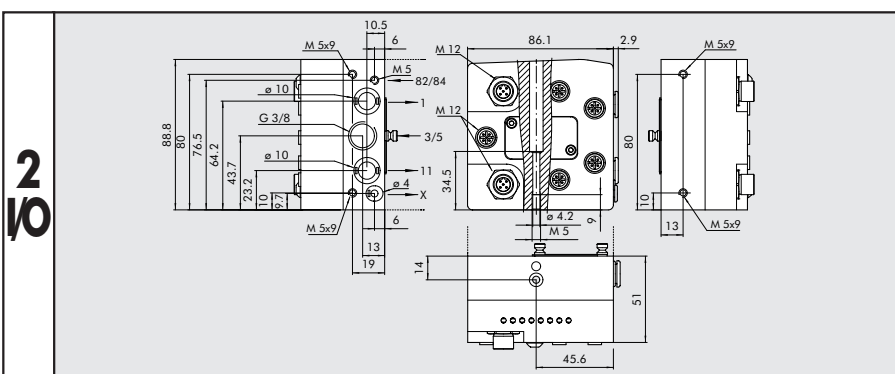
Code	Description	Weight [g]
0227301251	KIT TERMINAL 1-11 HDM CANopen OUTPUT	745

TERMINAL 1 CANopen O



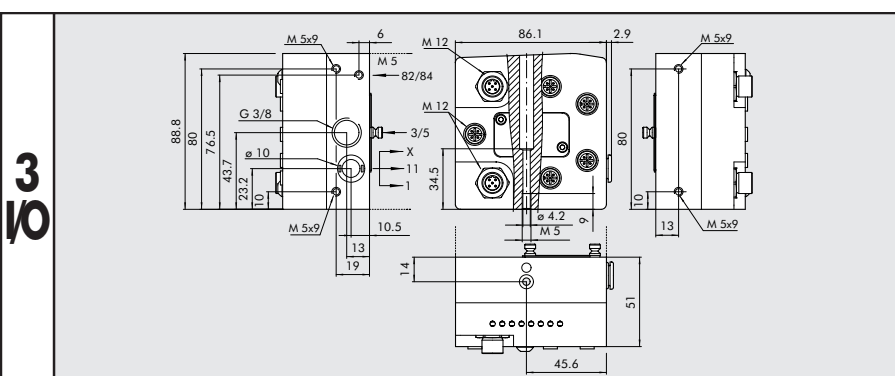
Code	Description	Weight [g]
0227301253	KIT TERMINAL 1 HDM CANopen OUTPUT	746

TERMINAL 1-11 CANopen I/O



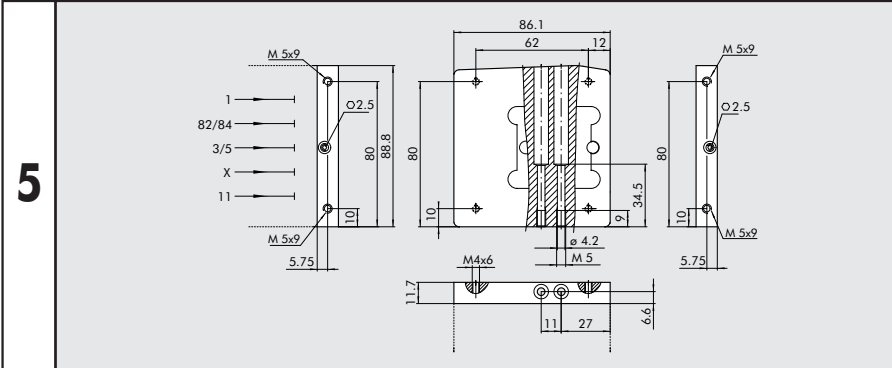
Code	Description	Weight [g]
0227301250	KIT TERMINAL 1-11 HDM CANopen IN-OUT	734

TERMINAL 1 CANopen I/O



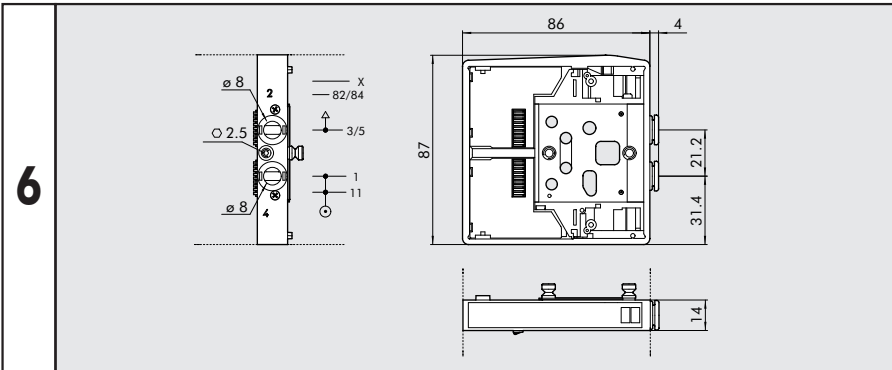
Code	Description	Weight [g]
0227301252	KIT TERMINAL 1 HDM CANopen IN-OUT	735

BLIND END-PLATE



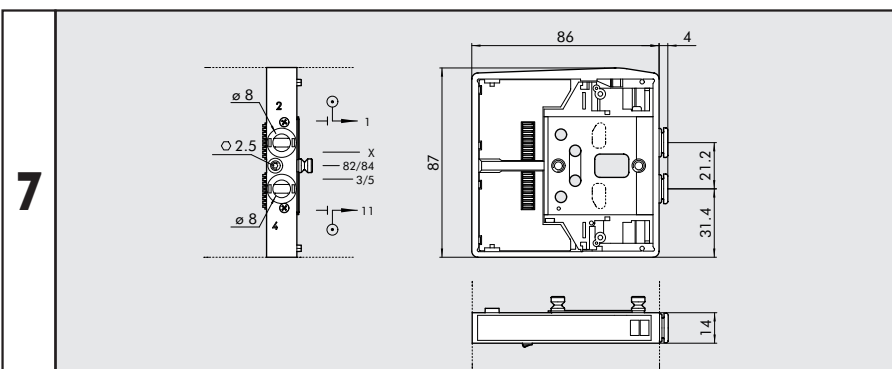
Code	Description	Weight [g]
0227301500	BLIND END-PLATE HDM	230

INTERMEDIATE THROUGH



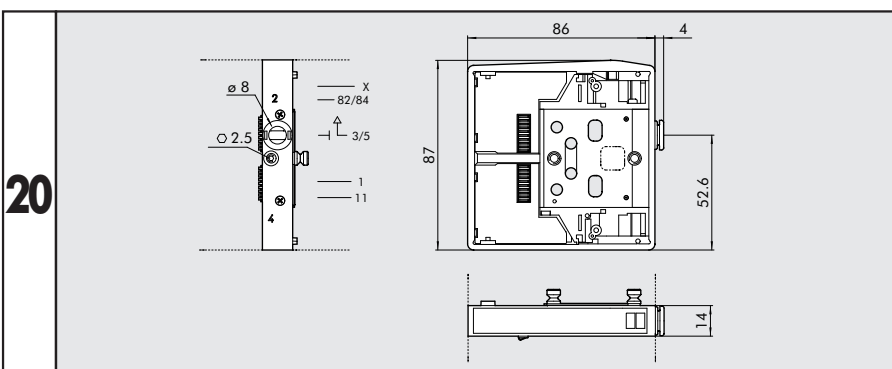
Code	Description	Weight [g]
0227301301	INTERMEDIATE THROUGH HDM	120

INTERMEDIATE BLIND

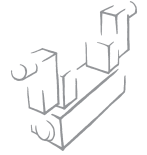


Code	Description	Weight [g]
0227301302	INTERMEDIATE BLIND HDM	117

INTERMEDIATE EXHAUST SWITCH

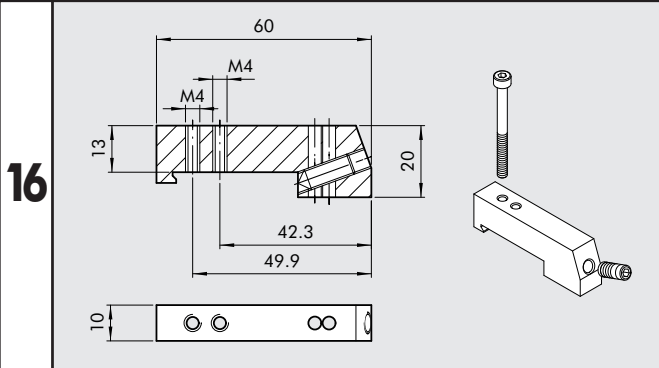


Code	Description	Weight [g]
0227301303	INTERMEDIATE EXHAUST SWITCH HDM	125



ACCESSORIES

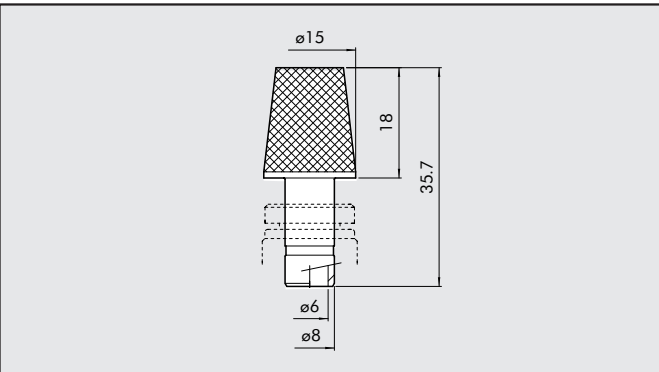
CONNECTION BRACKETS ON DIN BAR



Code	Description	Weight [g]
0227301600	CONNECTION BRACKETS ON DIN BAR HDM/CM	30

Supplied complete with one M4x45 screws and one M6 grub screw Individually packed

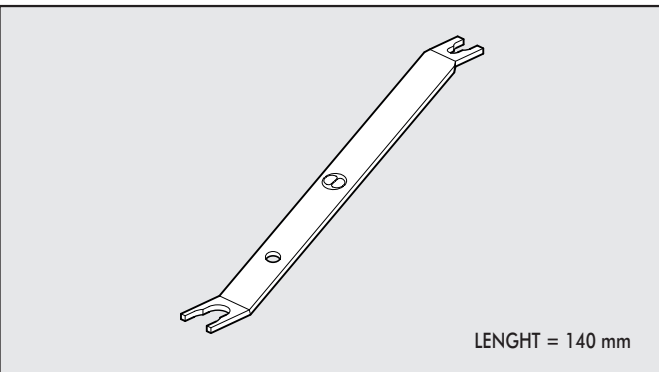
SILENCER FOR FITTING, Ø 8



Code	Description	Weight [g]
W0970530084	SILENCER FOR FITTING, Ø 8	15

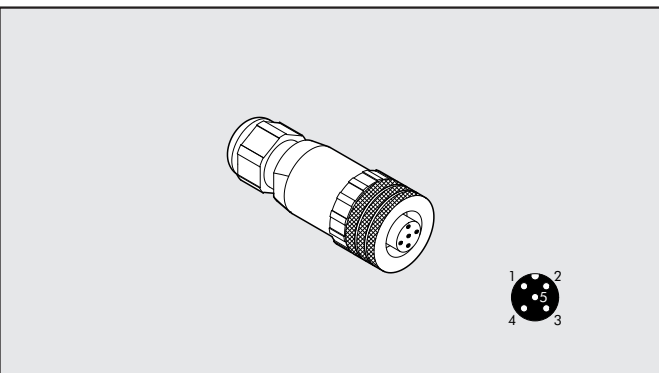
At the 3/5-exhaust port of the intermediate through reference 6 and of the exhaust switch reference 20

R17 - PIPE RELEASE SPANNER



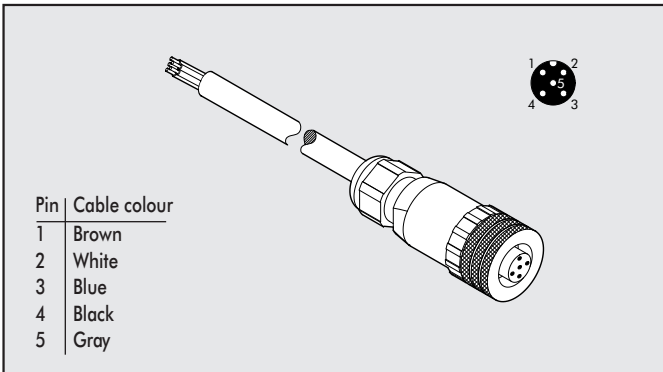
Code	Description	Ø Tube	Notes
2L17001	RL17	from Ø 3 to Ø 10	For R fitting and Fox fitting

STRAIGHT CONNECTOR FOR CANopen POWER SUPPLY



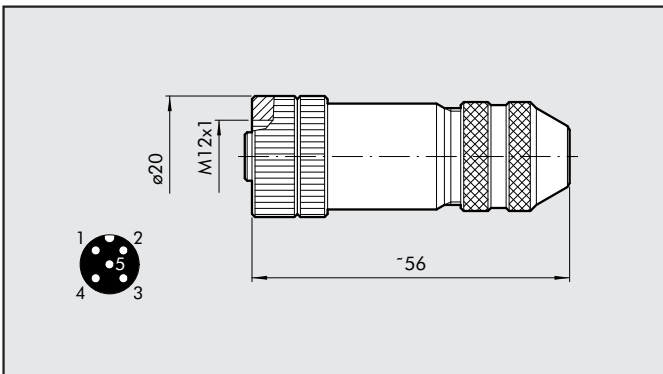
Code	Description
W0970513001	ACC. 5-PIN M12x1 STRAIGHT CONNECTOR

STRAIGHT CONNECTOR WITH CANopen POWER CABLE



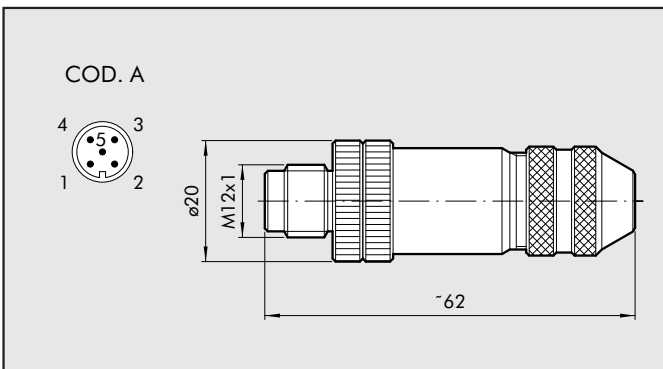
Code	Description
W0970513002	ACC. 5-PIN M12x1 STRAIGHT CONNECTOR WITH WIRE L=5m

FEMALE CONNECTOR FOR CANopen BUS-IN



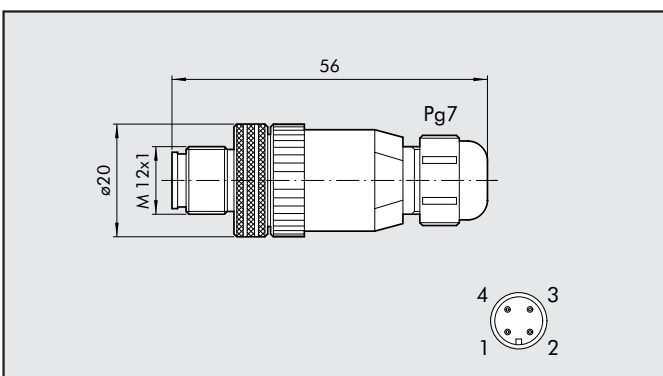
Code	Description
0240009055	M12 female connector, A coding

MALE CONNECTOR FOR CANopen BUS-OUT

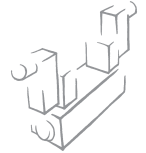


Code	Description
0240009038	Male connector Bus A coding

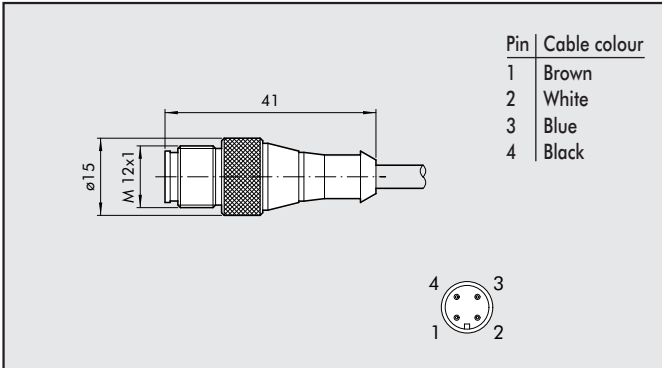
STRAIGHT CONNECTOR WITHOUT CABLE FOR CANopen INPUT



Code	Description
0240009021	Straight fitting without cable

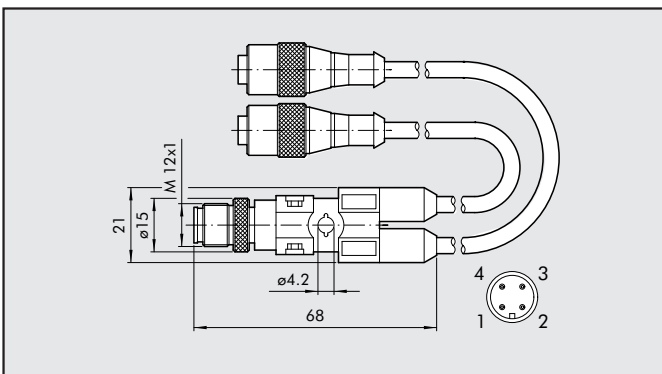


STRAIGHT CONNECTOR WITH CABLE FOR CANopen INPUT



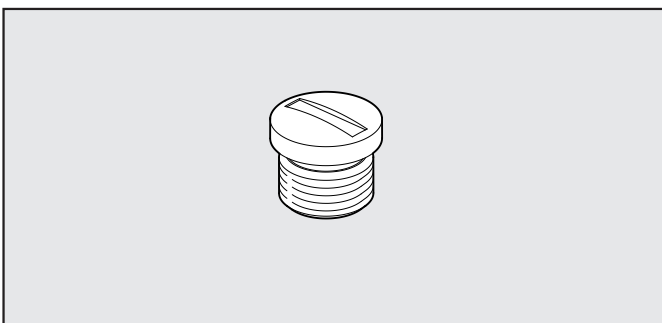
Code	Description
0240009002	Straight, with 1.5 m cable
0240009003	Straight, with 5 m cable

Y-DISTRIBUTOR WITH CABLE AND M12 STRAIGHT CONNECTORS FOR CANopen INPUT



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

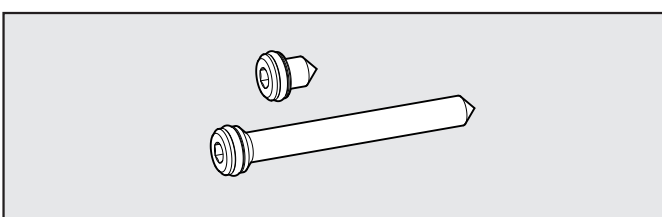
M12 PLUG FOR BUS OUT E INPUT CANopen



Code	Description
0240009040	PLUG M12

SPARES

GRUB SCREW KIT



Code	Description
0227301800	GRUB SCREW FOR MULTIMACH HDM/CM

Comes in 1 + 1 -pc. packs