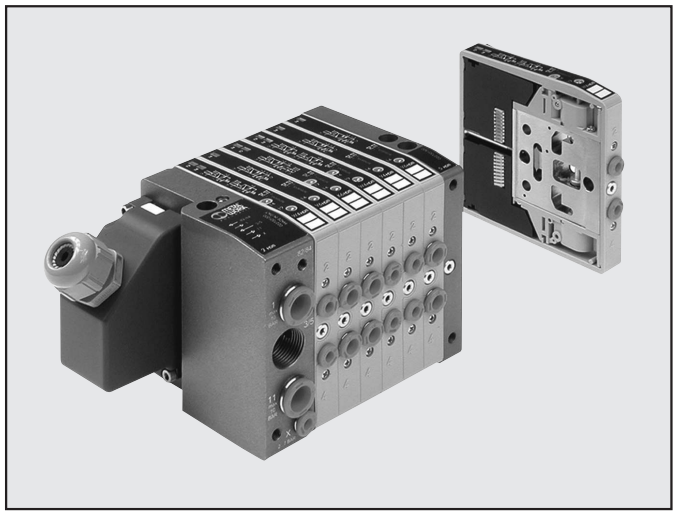
HDM
HEAVY DUTY MULTIMACH

HDMs are the ideal solution for those requiring the unbeatable performance, flexibility and modularity of Multimach valves combined with sturdy mechanics and a high degree of protection against external agents. Each valve is enclosed in a reinforced technopolymer protective shell that acts as a shock-absorber and prevents the infiltration of dirt. The class of protection is IP65. The smooth, rounded design makes HDMs ideal for applications requiring frequent washing without the deposit of residues. All the pneumatic connections are on one side, with built-in push-in fittings. The user interface is on another side so that the fitter and the service engineer have everything at hand.
Flexibility is total: there are 1-16 valves, input and output terminals for pipes of different sizes and intermediate modules for separate inputs and outputs. One very important new feature is that valves of different capacities can be mounted as required. Three different valve sizes can be combined at will. This means a valve can be replaced at any time by another one offering a different performance. It only takes a few seconds to replace or add a valve. To do this, merely loosen the two grub screws fixing the valve to the adjacent ones. Since the electrical signal is relayed from one valve to the next by means of gold-plated contacts connected to an electronic board, the electrical connections are entirely automatic.
The ratio of the HDM's flow rate to its dimensions is unrivalled – miniaturisation and efficiency have reached a peak.

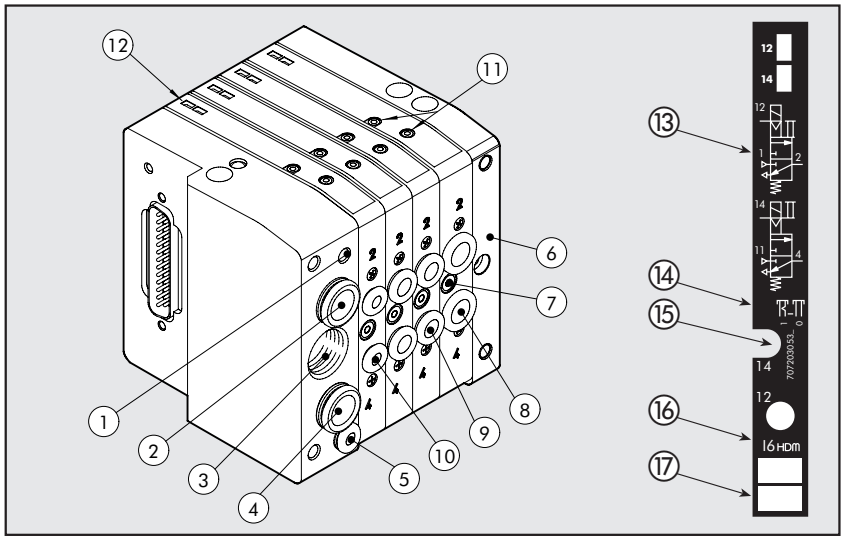


TECHNICAL DATA

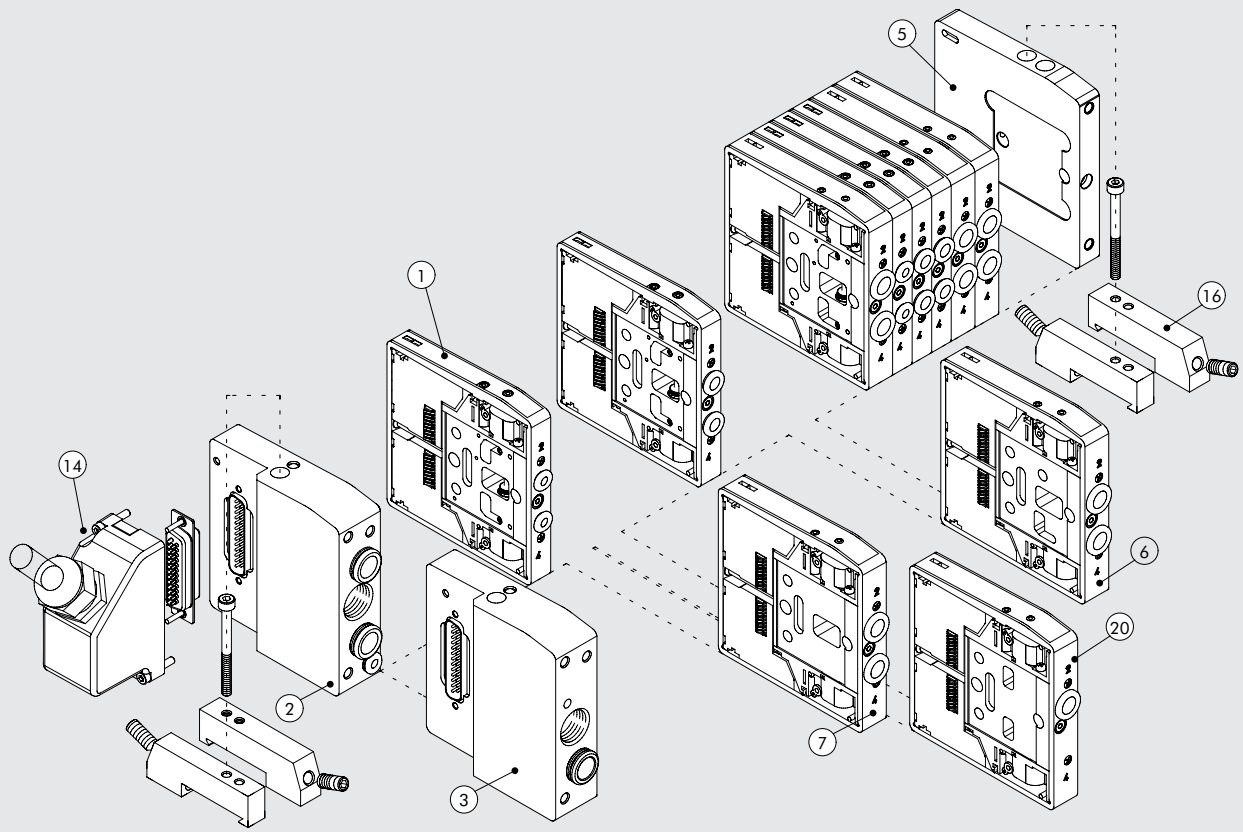
Valve port connections		quick-connection ports 2 and 4, Ø 4,6,8 mm		threaded exhaust port 3/8 or fitting Ø8 mm
Connection on the end-plate for the supply of pilots		Automatic fitting Ø 4 mm		
Maximum number of pilots		16		
Maximum number of valves		16 (same as the max. no. of pilots)		
Operating temperature range	°C	-10 ÷ +60		
Fluid		Filtered air without lubrication; lubrication, if used, must be continuous		
Flow rate at 6 bar ΔP 1bar	Nl/min	11mm Ø 4 = 200	11mm Ø 6 = 500	14mm Ø 8 = 800
Pressure range		X (pilot supply)		1-11 (valve supply)
- terminal 1-11		3 ÷ 7 bar		vacuum at 10 bar
- terminal 1		3 ÷ 7 bar		
Voltage range		24 VDC ±10%		
Power	W	0,6		
Control		PNP o NPN		
Insulation class		F155		
Degree of protection		IP65 with common outlets		
Solenoid rating		100% ED		
TRA/TRR 2X3/2 monostable at 6 bar	ms	8 / 45		
TRA/TRR 5/2 monostable at 6 bar	ms	8 / 33		
TRA/TRR 5/2 bistable at 6 bar	ms	20 / 20		
TRA/TRR 5/3 cc monostable at 6 bar	ms	20 / 20		
Note on use		Insert the pipes in the fittings, before passing air through the valves, otherwise the basket may be pulled out of its seat by the flow of air.		

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

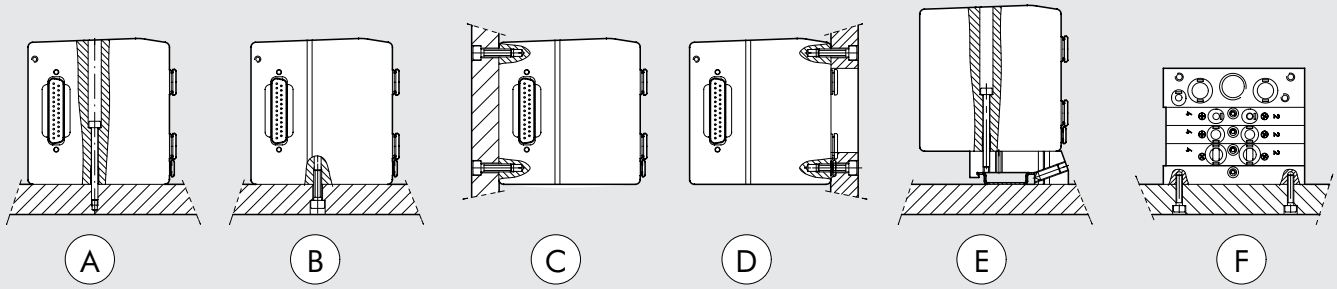


THE MULTIMACH WORLD: FLEXIBILITY



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

FIXING THE BASE



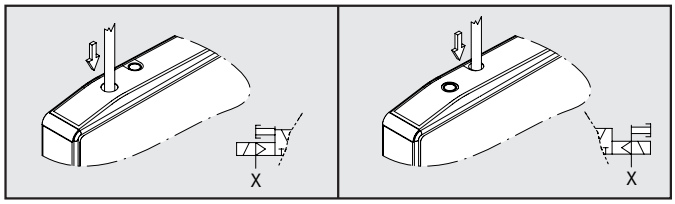
A: Fixing from above using the 1 or 1-1 input terminal and the blind terminal.
B-C: Fixing from above using the 1 or 1-1 input terminal and the blind terminal, using the M5 threads on the bottom and the rear of the terminals.
D: Fixing from above using the 1 or 1-1 input terminal and the blind terminal, 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.

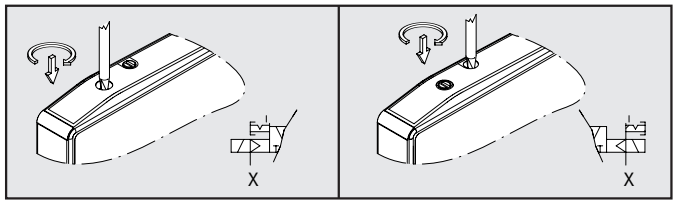
KEY TO CODES – MULTIMACH-UNIT HDM

H D M	2	8	M	I6-W8-W6-O4-L8-5	1 4 - 1 6
VALVE	INPUT END-PLATE	ELECTRICAL BASE	MANUAL TYPE	TYPE OF VALVE	FURTHER DETAILS
Heavy duty Multimach IP65	2 End-plate1-11 3 End-plate1	8 D-Sub 25-wire	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. 4 cartridge 4 6 cartridge 6 8 cartridge 8	14 IP65 25-wire shell 16 n° 2 brackets for DIN bar

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

MANUAL CONTROLS





MONOSTABLE OVERRIDE PORT 2
with direct actuation on the spool

- Press and hold the manual control in position (not necessary for bistable type K valve)
- Release the manual control:
  - With valves type I, W, L, V and F, the manual control returns to the home position, and the valve repositions.
  - With type K valves, the manual control remains in position and the valve remains switched.
  - With type O valves, the manual control does not return completely to the home position but the valve does reposition.

N.B.: The pilot power supply X need not 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
with direct actuation on the spool

- Press the manual control right in then turn it fully clockwise and Leave it in position.
- Rotate the manual control fully anticlockwise, and then release it.
  - With valves type I, W, L, V and F, the manual control returns to the home position, and the valve repositions.
  - With type K valves, the manual control remains in position and the valve remains switched.
  - With type O valves, the manual control does not return completely to the home position but the valve does reposition.

N.B.: The pilot power supply X need not be present.

BISTABLE OVERRIDE PORT 4
servo-assisted

- Press the manual control right in then turn it fully clockwise and Leave it in position.
- Rotate the manual control fully 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.

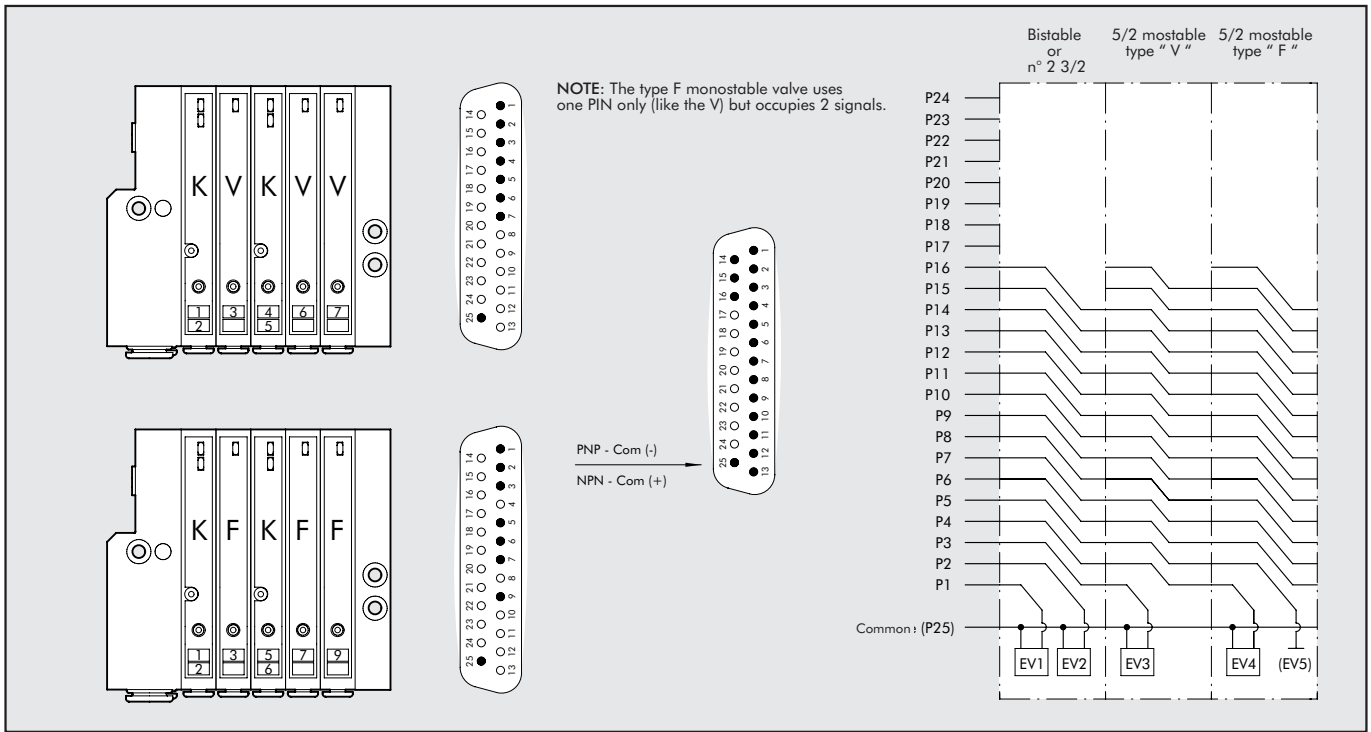
- The reference code for the monostable control ends in 0 (2 for type F).

Example: 707203053_ 1 0

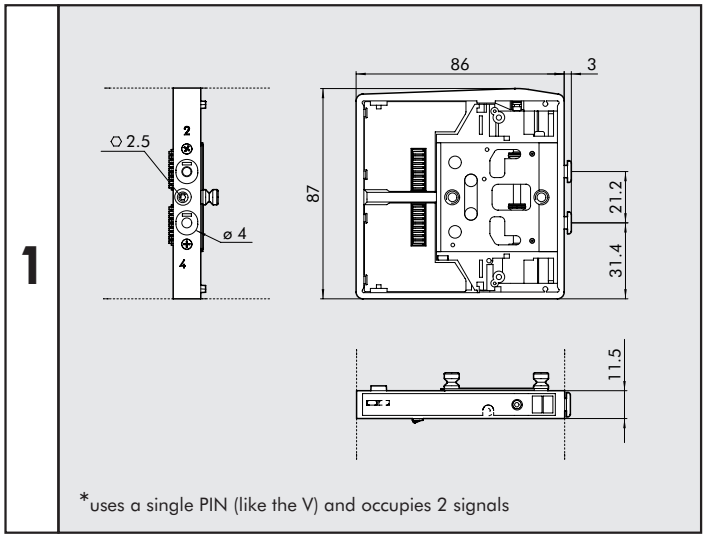
- The reference code for the monostable control ends in 1 (3 for type F).

Example: 707203053_ 1 0

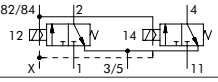
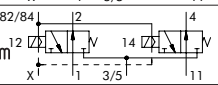
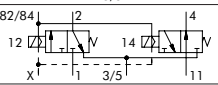
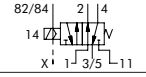
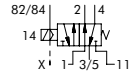
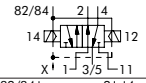
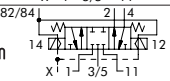
WIRING DIAGRAM



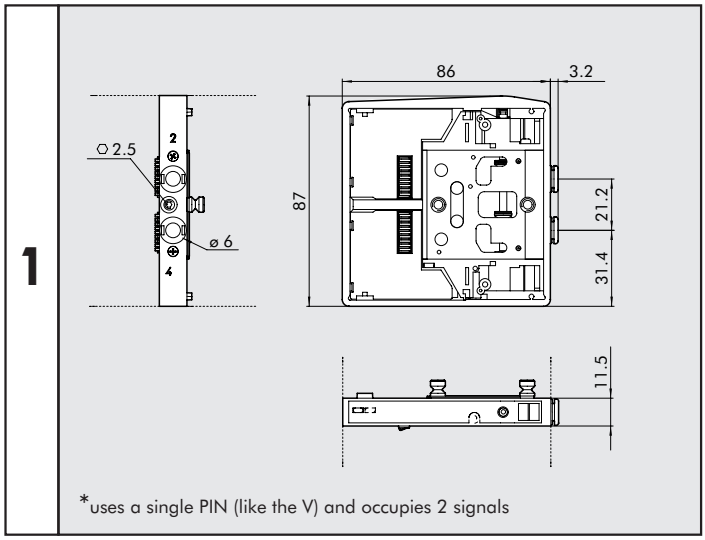
VALVE DIMENSIONS HDM Ø 4



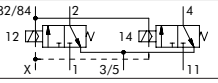
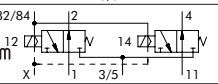
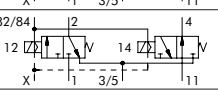
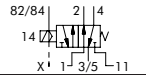
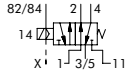
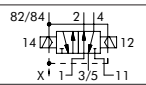
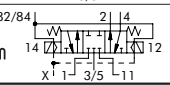
*uses a single PIN (like the V) and occupies 2 signals

	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	

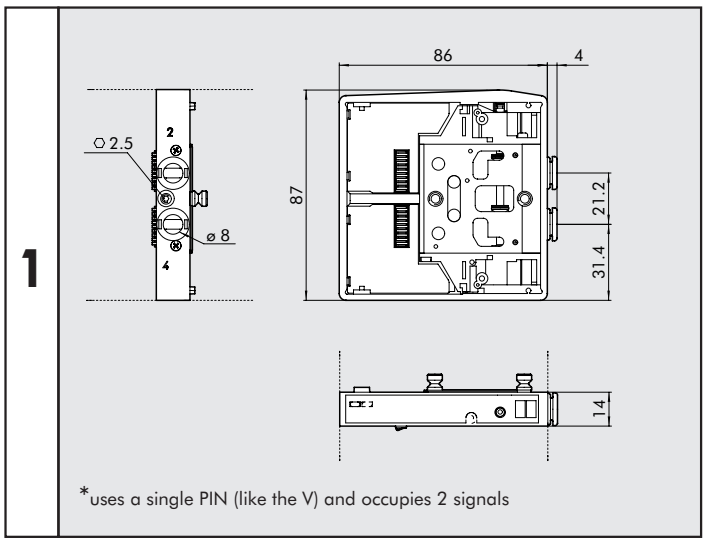
VALVE DIMENSIONS HDM Ø 6



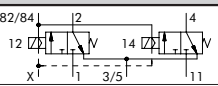
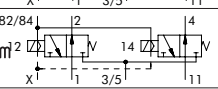
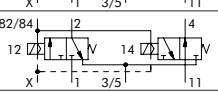
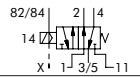
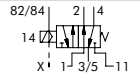
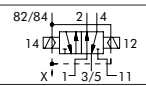
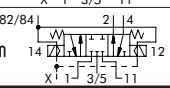
*uses a single PIN (like the V) and occupies 2 signals

	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



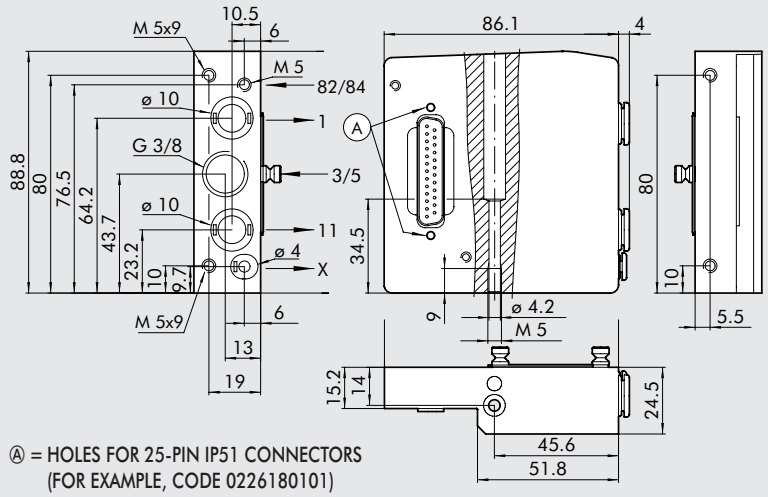
*uses a single PIN (like the V) and occupies 2 signals

	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	

ACCESSORIES

END-PLATE 1-11-25D

2

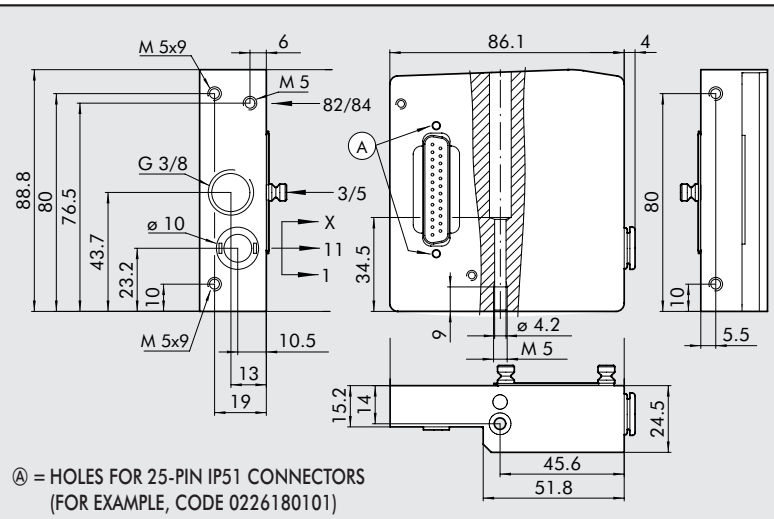


Code	Description	Weight [g]
0227301200	END-PLATE HDM KIT 1-11-25D	370

This end-plate allows for supplies to be differentiated
- port 2
- port 4
- pilot supply

END-PLATE 1-25D

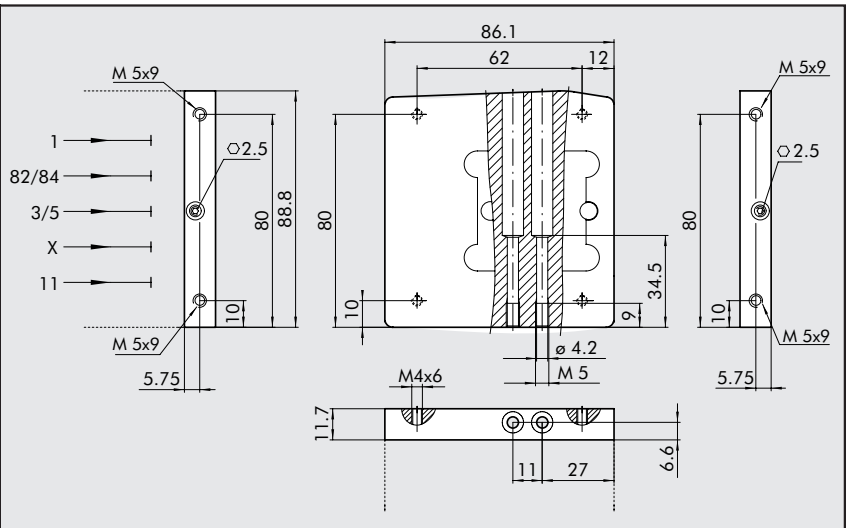
3



Code	Description	Weight [g]
0227301201	END-PLATE HDM KIT 1-25D	370

BLIND END-PLATE

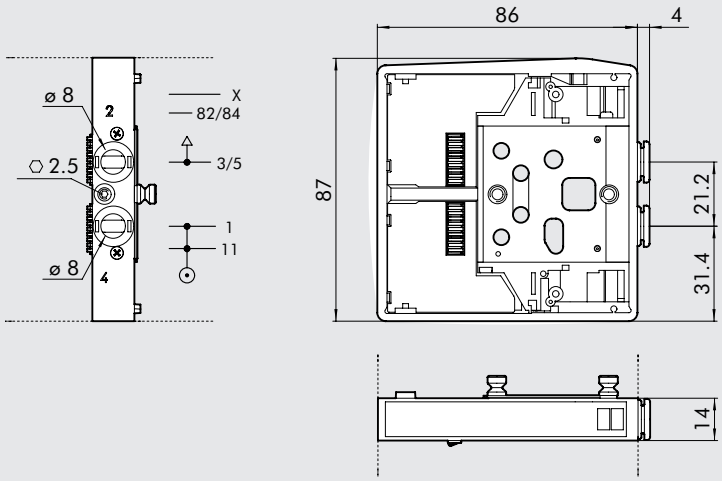
5



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

INTERMEDIATE THROUGH

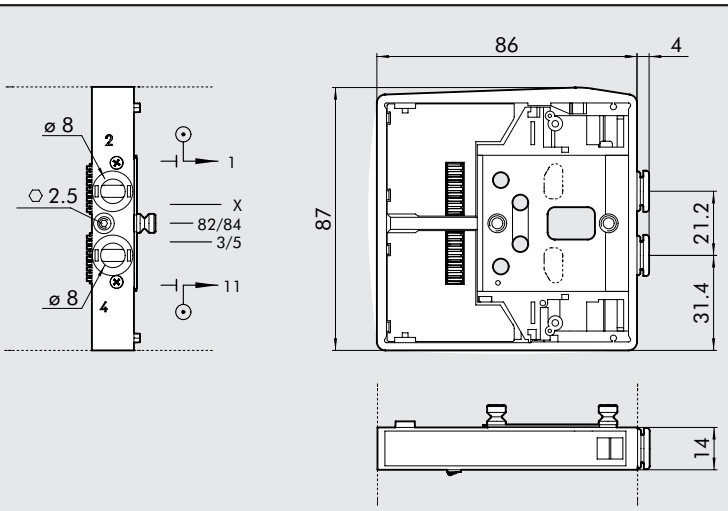
6



Code	Description	Weight [g]
0227301301	INTERMEDIATE THROUGH HDM	120

INTERMEDIATE BLIND

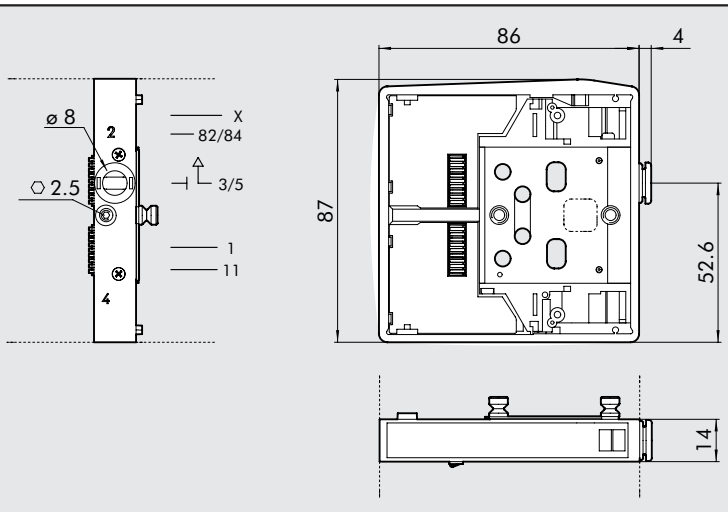
7



Code	Description	Weight [g]
0227301302	INTERMEDIATE BLIND HDM	117

INTERMEDIATE EXHAUST SWITCH

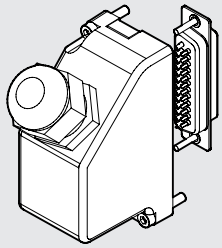
20



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

45° CONNECTOR KIT, 25 WIRES IP65

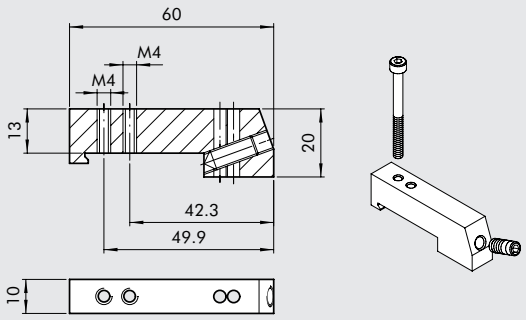
14



Code	Description	Weight [g]
0226180107	45° CONNECTOR KIT, 25 WIRES IP 65	65

CONNECTION BRACKETS ON DIN BAR

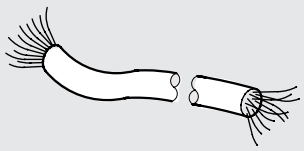
16



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

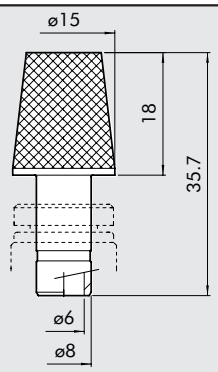
CABLES



Code	Description	Weight [g]
0226107201	10-WIRE CABLE	86
0226107101	19-WIRE CABLE	122
0226107102	25-WIRE CABLE	130

Specify the number of metres desired

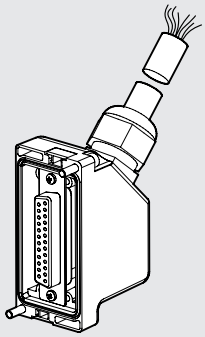
SILENCER FOR FITTING, Ø 8



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

PRE-WIRED 45° CONNECTOR KIT, 25 WIRES IP65



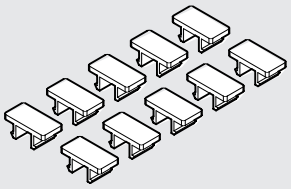
Code	Description	Weight [g]
0226960100	ACCESSORIES: CONNECTOR IP 65+ 25-WIRE 45° CABLE L.=1 M	190
0226960250	ACCESSORIES: CONNECTOR IP 65+ 25-WIRE 45° CABLE L.=2.5 M	390
0226960500	ACCESSORIES: CONNECTOR IP 65+ 25-WIRE 45° CABLE L.=5 M	740

WIRING DIAGRAM FOR PRE-WIRED PLUG CONNECTOR

25 PIN

Position of electrical contact	Colour of the corresponding wire	Position of electrical contact	Colour of the corresponding wire	Position of electrical contact	Colour of the corresponding wire
1	blue/black	10	brown/white	19	yellow/black
2	red/brown	11	red/orange	20	white
3	white/black	12	light blue	21	blue/white
4	red/blue	13	yellow/white	22	brown
5	black/orange	14	yellow	23	green/white
6	yellow/red	15	red/green	24	red
7	black/brown	16	orange	25	green/black
8	white/red	17	orange/white		
9	red/black	18	green		

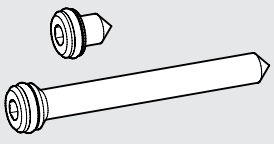
IDENTIFICATION PLATE KIT



Code	Description
0226107000	IDENTIFICATION PLATE KIT

Comes in 10-pc. packs

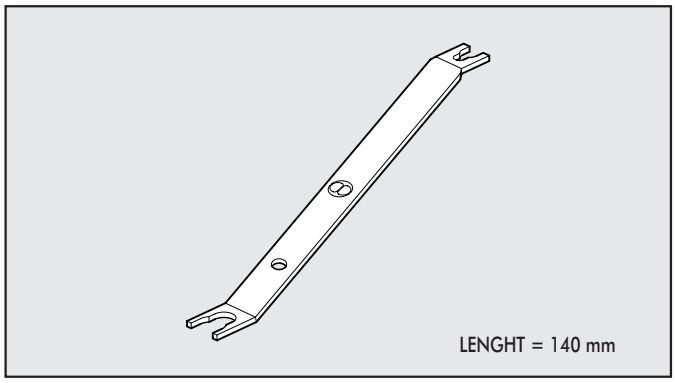
GRUB SCREW KIT



Code	Description
0227301800	GRUB SCREW FOR MULTIMACH HDM/CM

Comes in 1+1 -pc. packs

R17 - PIPE RELEASE SPANNER



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

NOTES