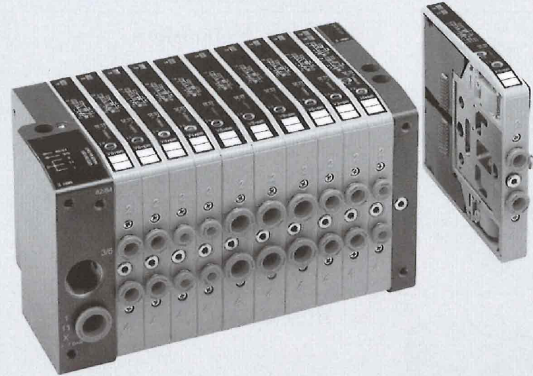


HDMs are the ideal solution for those requiring the unbeatable performance, flexibility and modularity of Multimach valves combined with sturdy mechanics and a high degree of protection against external agents. Each valve is enclosed in a reinforced technopolymer protective shell that acts as a shock-absorber 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.

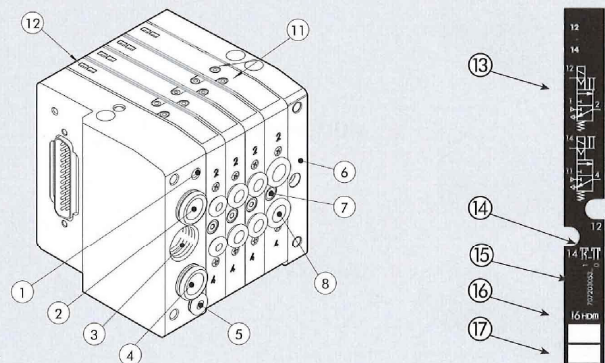


TECHNICAL DATA

Valve port connections	Ø 4,6,8,10 mm automatic fitting for ports 2 and 4 / power supply port for Ø10 or Ø 12 mm automatic fitting / 3/8 thread for exhaust port, M5 thread for exhaust pilot port				
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 to +60				
Fluid	Filtered air without lubrication; lubrication, if used, must be continuous				
Flow rate at 6.3 bar ΔP 1 bar	Nl/min	11.5 mm Ø 4	11.5 mm Ø 6	14 mm Ø 8	23 mm Ø 8
version 5/2 and 3/2		200	500	650	1000
version 5/3		200	300	300	500
Pressure range	bar	X (pilot supply) 3 to 7		1-11 (valve supply) vacuum at 10	
	Terminal 1-1				
	Terminal 1				
Voltage range		3 to 7			
Power	W	24 VDC ± 10%			
Control		0.9			
Insulation class		PNP o NPN			
Degree of protection		F155			
Solenoid rating		IP65 (with conveyed exhaust)			
TRA/TRR 2x3/2 monostable at 6 bar	ms	100% ED			
TRA/TRR 5/2 monostable at 6 bar	ms	8 / 45			
TRA/TRR 5/2 bistable at 6 bar	ms	8 / 33			
TRA/TRR 5/3 cc monostable at 6 bar	ms	20 / 20			
		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. Please refer to page 6-7 of the technical documentation latching, non-latching on request			
Compatibility with oils					
Manual Control					

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 or right end-plate 1-11
- ⑦ Screw for valve wall-mounting
- ⑧ Utility port for pipe Ø 4, 6, 8 or 10 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



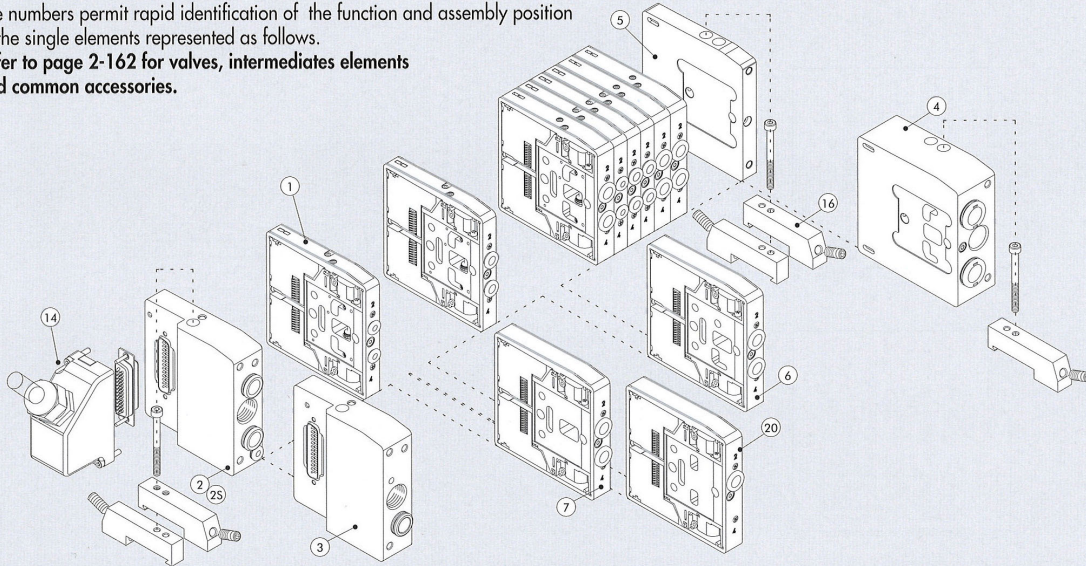
Valve terminals

Modular valve system, »HDM« series
 Type No. 3-8 to 2269.500
 Art. No. 106670 to 106702

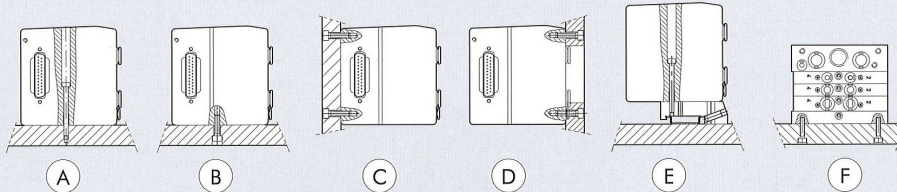


THE MULTIMACH WORLD: FLEXIBILITY

The numbers permit rapid identification of the function and assembly position of the single elements represented as follows.
 Refer to page 2-162 for valves, intermediates elements and common accessories.



FIXING THE BASE



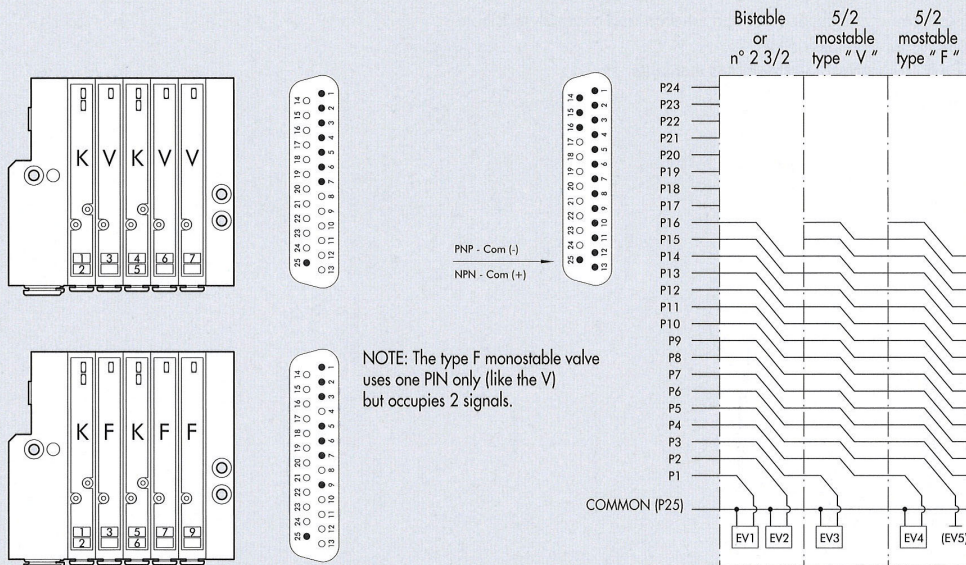
- (A) Fixing from above using the 1 or 1-11 input terminal and the blind terminal.
- (B) © Fixing from above using the 1 or 1-11 input terminal and the blind terminal, using the M5 threads on the bottom and the rear of the terminals.
- (C) Fixing from above using the 1 or 1-11 input terminal and the 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 M4 threads on the side lateral.
Note: The sole fixing admitted is the one showed.

KEY TO CODES

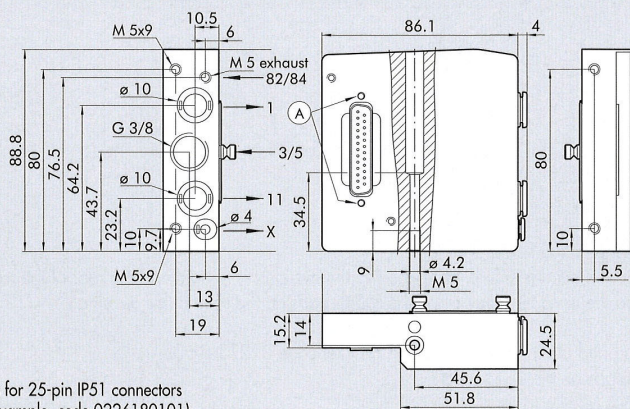
H D M VALVE	2 INPUT END-PLATE	8 ELECTRICAL BASE	M MANUAL TYPE	16 - W 8 - W 6 - O 4 - L 8 - 5 TYPE OF VALVE	1 4 - 1 6 FURTHER DETAILS
Heavy duty Multimach IP65	2 End-plate 1-11 pipe Ø 10 3 End-plate 1 pipe Ø 10 25 End-plate 1-11 pipe Ø 12	8 D-Sub 25 wire	M Monostable manual control B Bistable manual control	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 4 right-end-plate 1-11 pipe Ø12 5 blind end-plate 6 Passing-intermede 7 Blind intermede 20 Exhaust section	14 IP65 25-wire shell 16 n° 2 brackets for DIN bar
				4 Cartridge 4 6 Cartridge 6 8 Cartridge 8 - 14 mm 85 Cartridge 8 - 23 mm 10 Cartridge 10	

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

WIRING DIAGRAM



② END-PLATE 1-11-25D - PIPE Ø10



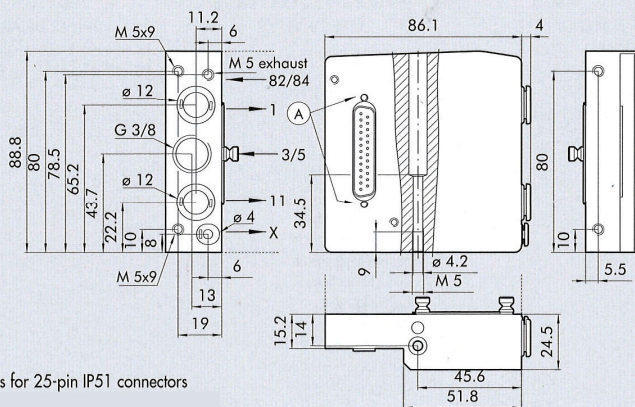
Ⓐ = Holes for 25-pin IP51 connectors
(for example, code 0226180101)

Code	Description	Weight [g]
2-8	End-plate HDM 1-11-25D Ø10	370

This end-plate allows for supplies to be differentiated

- Port 2
- Port 4
- Pilot supply

②S END-PLATE 1-11-25D - PIPE Ø12



Ⓐ = Holes for 25-pin IP51 connectors

Code	Description	Weight [g]
	End-plate HDM 1-11-25D Ø12	370

This end-plate allows for supplies to be differentiated

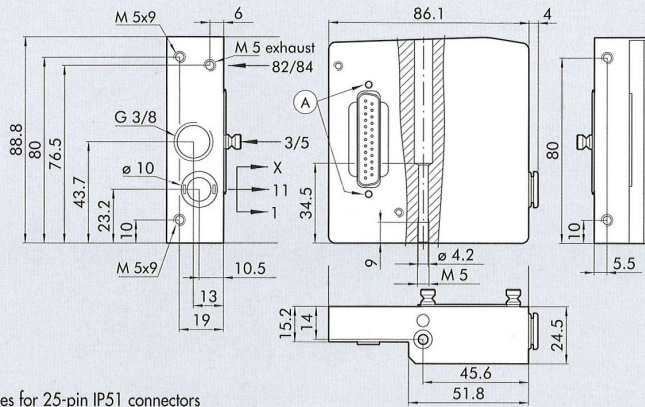
- Port 2
- Port 4
- Pilot supply

Valve terminals

Modular valve system, »HDM« series
 Type No. 3-8 to 2269.500
 Art. No. 106670 to 106702



③ END-PLATE 1-25D - PIPE Ø10

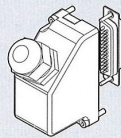


Ⓐ = Holes for 25-pin IP51 connectors
 (for example, code 0226180101)

Code	Description	Weight [g]
3-8	End-plate HDM 1-25D Ø10	370

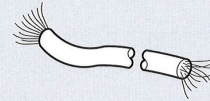
ACCESSORIES

⑭ 45° CONNECTOR KIT, 25 WIRES IP65



Code	Description	Weight [g]
	45° connector kit, 25 wires IP 65	65

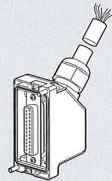
CABLES



Code	Description	Weight [g]
	10-wire cable	86
	19-wire cable	122
	25-wire cable	130

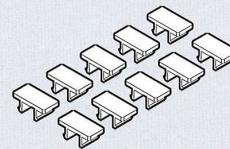
Specify the number of metres desired.

PRE-WIRED 45° CONNECTOR KIT, 25 WIRES IP65



Code	Description	Weight [g]
2269.100	Connector IP 65 + 25-wire 45° cable L = 1 m	190
2269.250	Connector IP 65 + 25-wire 45° cable L = 2.5 m	390
2269.500	Connector IP 65 + 25-wire 45° cable L = 5 m	740

IDENTIFICATION PLATE KIT



Code	Description
	Identification plate kit

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

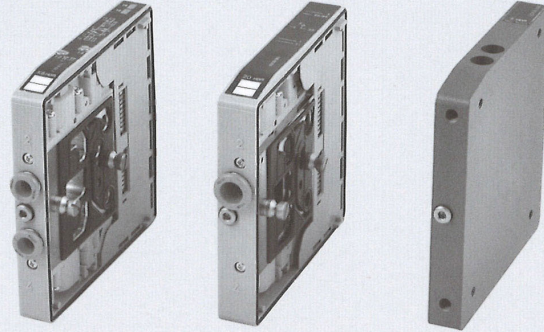
Valve terminals

Modular valve system, »HDM« series
 Type No. 3-8 to 2269.500
 Art. No. 106670 to 106702

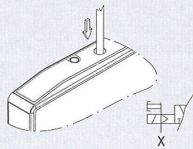


HDM valve can be included in islands with any available input terminal. So the same valve can be connected to the multiple connection terminal, the AS-Interface terminal, the Profi bus-DP, terminal or the CAN-Open terminal.

Note: if you use valves 8S type or 10 exploiting their flow capacity, it is appropriate to choose the inlet end plate 1-11 type by feeding the pilots separately (to avoid the pressure to decrease too much on the pilots). If you use simultaneously more than one valve 8S or 10 it is necessary to potentiate the pneumatic feeding by inserting end plates having 12 mm pipe and/or through intermediate modules

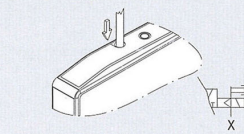


MANUAL CONTROLS



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



MONOSTABLE OVERRIDE PORT 4
servo-assisted

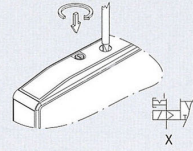
- Press and hold the manual control in position (not necessary for bistable type K valve)
- Release the manual control:
 - The manual control returns to the home position.
 - Valves type I, W, L, V and F reposition.
 - The type K valve remains switched

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

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

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

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

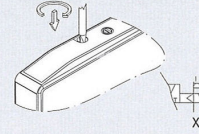
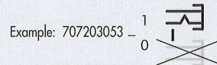


BISTABLE OVERRIDE PORT 2
servo-assisted

- 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.

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



BISTABLE OVERRIDE PORT 4
servo-assisted

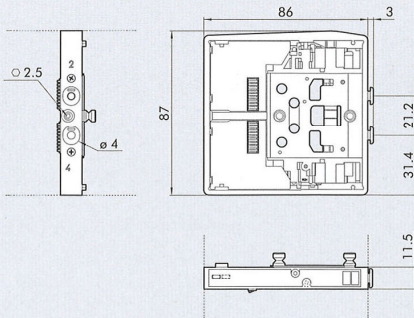
- Press the manual control right in then turn it 90 degrees clockwise and Leave it in position.
- Rotate the manual control 90 degrees anticlockwise, and then release it.
 - The manual control returns to the home position.
 - Valves type I, W, L and O reposition.
 - The type K valve remains switched

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

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

① VALVE DIMENSIONS HDM Ø 4

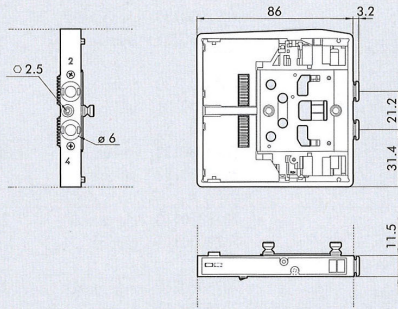
*uses a single PIN (like the V) and occupies 2 signals



Symbol	Manual control	Weight [g]
HDM I4	monostable bistable	130
HDM W4	monostable bistable	130
HDM L4	monostable bistable	130
HDM V4	monostable bistable	115
HDM *F4	monostable bistable	115
HDM K4	monostable bistable	130
HDM O4	monostable bistable	130

① VALVE DIMENSIONS HDM Ø 6

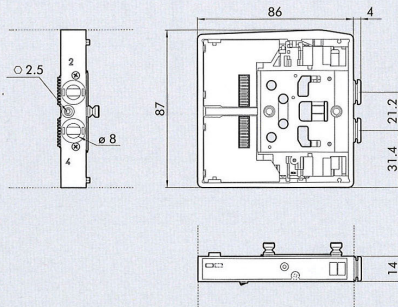
*uses a single PIN (like the V) and occupies 2 signals



Symbol	Diagram	Manual control	Weight [g]
HDM I6		monostable bistable	130
HDM W6		monostable bistable	130
HDM L6		monostable bistable	130
HDM V6		monostable bistable	115
HDM *F6		monostable bistable	115
HDM K6		monostable bistable	130
HDM O6		monostable bistable	130

① VALVE DIMENSIONS HDM Ø 8

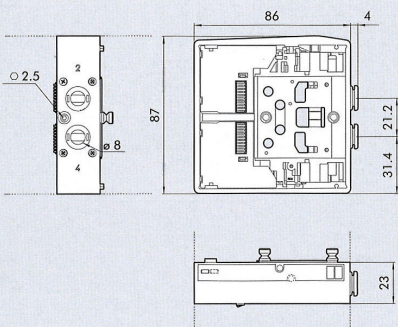
*uses a single PIN (like the V) and occupies 2 signals



Symbol	Diagram	Manual control	Weight [g]
HDM I8		monostable bistable	140
HDM W8		monostable bistable	140
HDM L8		monostable bistable	140
HDM V8		monostable bistable	130
HDM *F8		monostable bistable	130
HDM K8		monostable bistable	140
HDM O8		monostable bistable	140

① VALVE DIMENSIONS HDM Ø 8S

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



Symbol	Diagram	Manual control	Weight [g]
HDM I8S		monostable bistable	260
HDM W8S		monostable bistable	260
HDM L8S		monostable bistable	260
HDM V8S		monostable bistable	241
HDM *F8S		monostable bistable	241
HDM K8S		monostable bistable	253
HDM O8S		monostable bistable	262

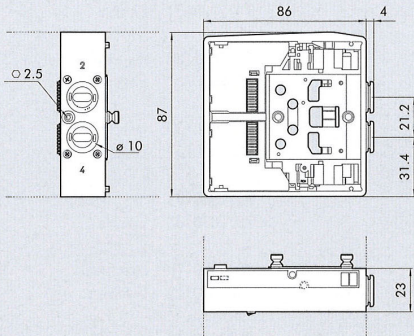
Valve terminals

Modular valve system, »HDM« series
 Type No. 3-8 to 2269.500
 Art. No. 106670 to 106702



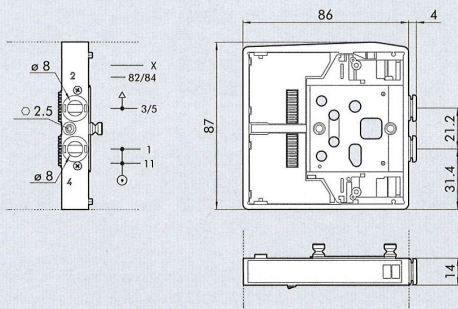
① VALVE DIMENSIONS HDM Ø 10

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



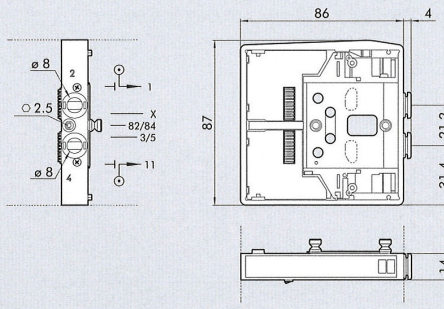
Symbol	Code	Manual control	Weight [g]
HDM I10	82/84 12 2 4 X 1 3/5 11	monostable bistable	250
HDM W10	82/84 12 2 4 X 1 3/5 11	monostable bistable	250
HDM L10	82/84 12 2 4 X 1 3/5 11	monostable bistable	250
HDM V10	82/84 14 2 4 X 1 3/5 11	monostable bistable	231
HDM *F10	82/84 14 2 4 X 1 3/5 11	monostable bistable	231
HDM K10	82/84 14 2 4 12 X 1 3/5 11	monostable bistable	243
HDM O10	82/84 14 2 4 12 X 1 3/5 11	monostable bistable	252

⑥ INTERMEDIATE THROUGH



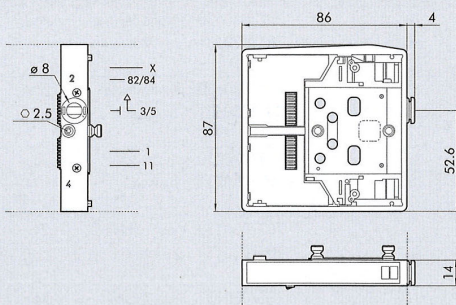
Code	Description	Weight [g]
6	Intermediate through HDM	120

⑦ INTERMEDIATE BLIND



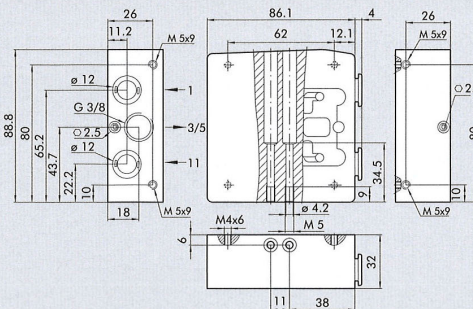
Code	Description	Weight [g]
7	Intermediate blind HDM	117

⑳ INTERMEDIATE EXHAUST SWITCH



Code	Description	Weight [g]
20	Intermediate exhaust switch HDM	125

④ RIGHT-END-PLATE 1-11 PIPE Ø 12



Code	Description	Weight [g]
	Righ-end-plate HDM 1-11 Ø 12	630

This end-plate allows for supplies to be differentiated:

- Port 2
- Port 4

Valve terminals

Modular valve system, »HDM« series

Type No. 3-8 to 2269.500

Art. No. 106670 to 106702



Summary Art. No:

Type No.	Art. No.
3-8	106670
2-8	106671
P-3	106672
P-2	106673
I 4	106674
W 4	106675
L 4	106676
V 4	106677
F 4	106678
K 4	106679
O 4	106680
I 6	106681
W 6	106682
L 6	106683
V 6	106684
F 6	106685
K 6	106686
O 6	106687
I 8	106688
W 8	106689
L 8	106690
V 8	106691
F 8	106692
K 8	106693
O 8	106694
6	106695
7	106696
20	106697
5	106698
16	106699
2269.100	106700
2269.250	106701
2269.500	106702