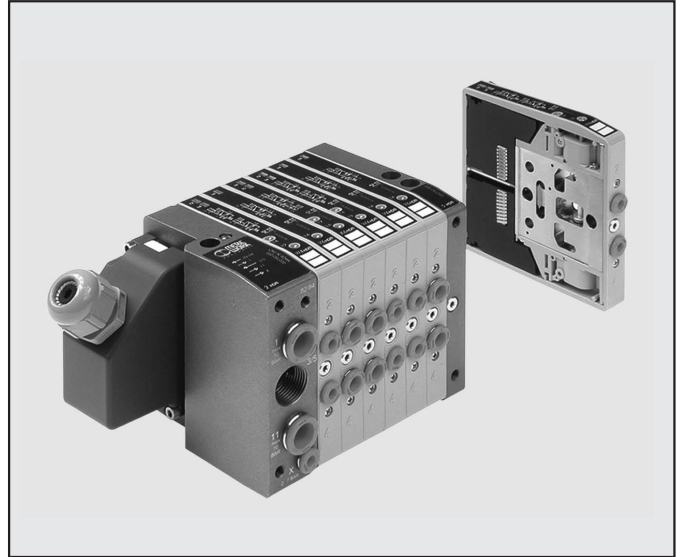


HDMs are the ideal solution for those requiring the unbeatable performance, flexibility and modularity of Multimach valves combined with sturdy mechanics and a high degree of protection against external agents. Each valve is enclosed in a reinforced technopolymer protective shell that acts as a shock-absorber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

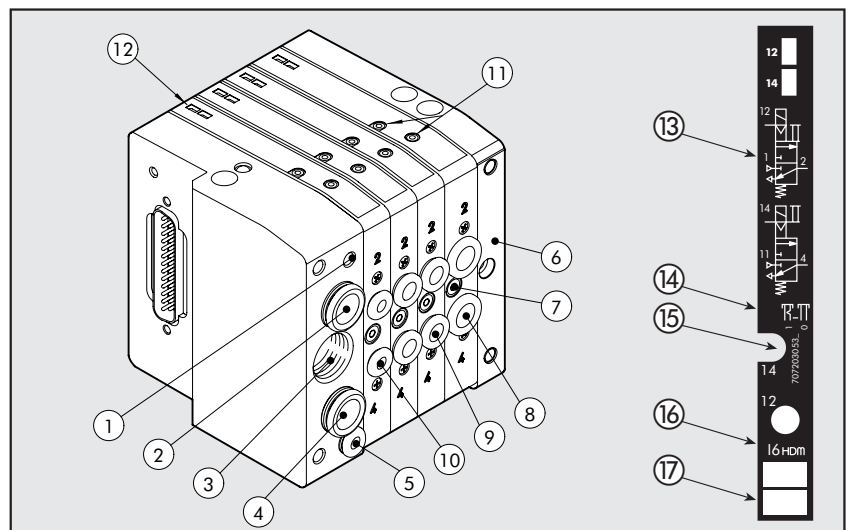


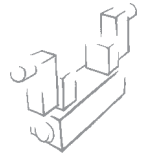
### TECHNICAL DATA

|  |  |  |
|--|--|--|
| 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<br>-10 ÷ +60  |  |
| 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 = 800         |
| Pressure range                                       | X (pilot supply)<br>2 ÷ 7 bar  | 1-11 (valve supply)<br>vacuum at 10 bar    |
|  | - terminal 1-11<br>- terminal 1  | 2 ÷ 7 bar                                  |
| Voltage range  | 24 VDC ± 10%   |  |
| Power  | W<br>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                                    |

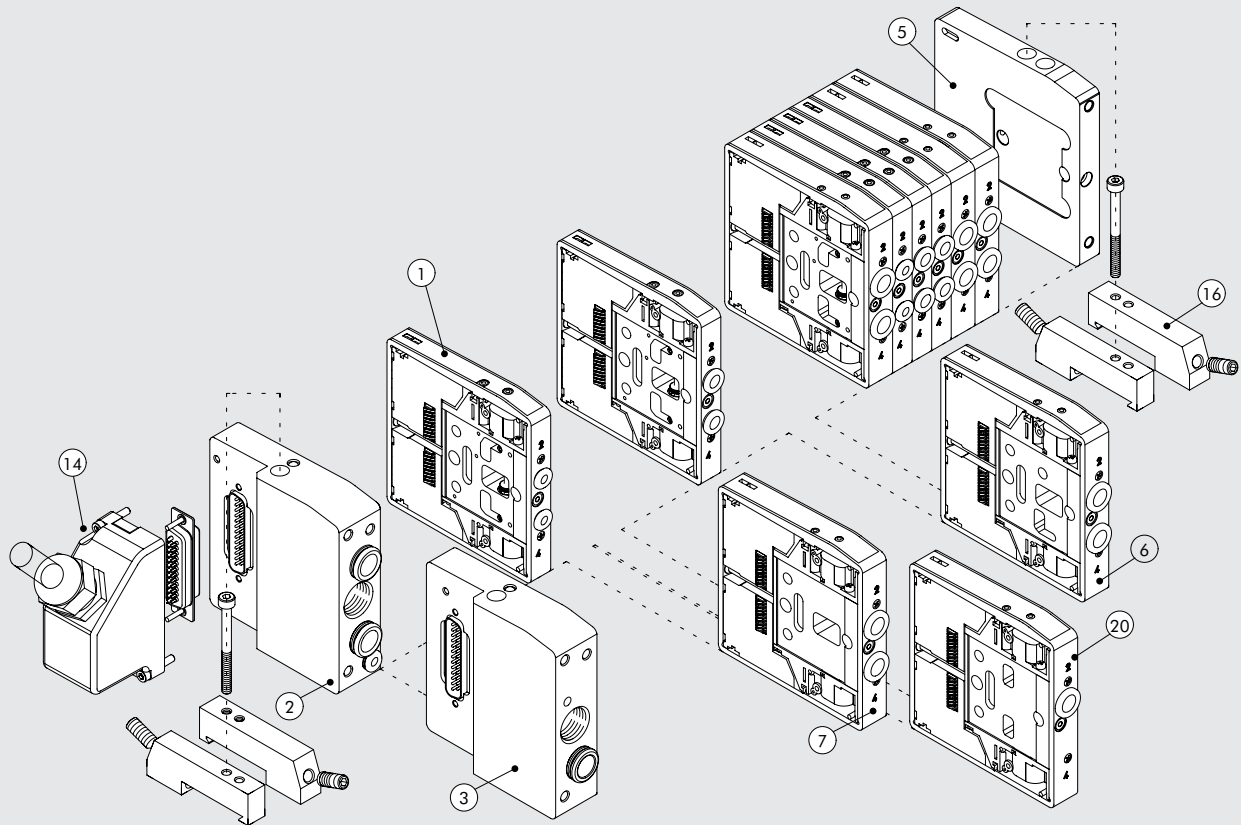
### COMPONENTS

- 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



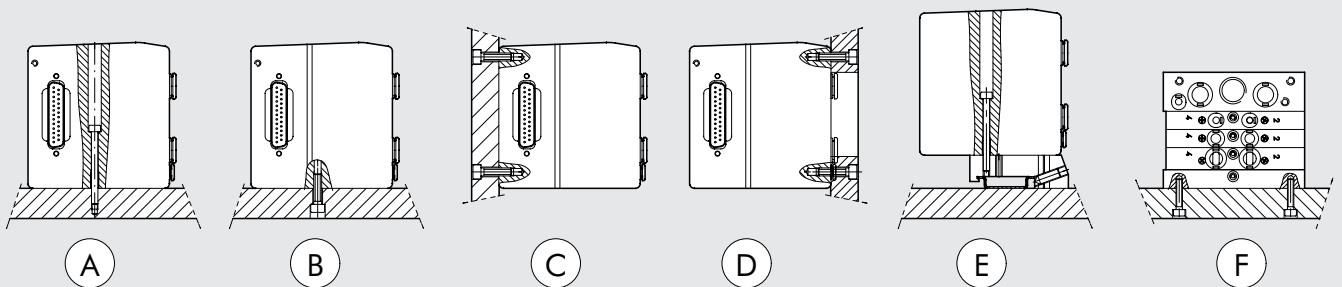


## THE MULTIMACH WORLD: FLEXIBILITY



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

## FIXING THE BASE



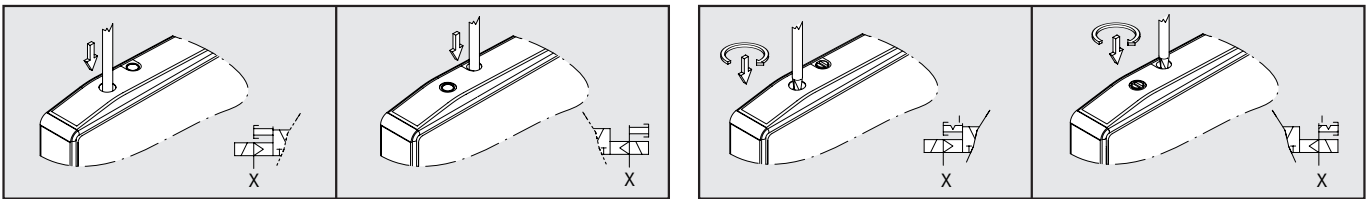
- A:** Fixing from above using the 1 or 1-1 input terminal and the blind terminal.
  - B-C:** Fixing from above using the 1 or 1-1 input terminal and the blind terminal, using the M5 threads on the bottom and the rear of the terminals.
  - D:** Fixing from above using the 1 or 1-1 input terminal and 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  | 16-W8-W6-O4-L8-5   | 1 4 - 1 6  |
|------------------------------|-----------------|-----------------------------|-----------------|--|--|--|--|
| VALVE                        | INPUT END-PLATE |                             | ELECTRICAL BASE | MANUAL TYPE  | TYPE OF VALVE  |  | FURTHER DETAILS  |
| Heavy duty<br>Multimach IP65 | 2<br>3          | End-plate1-11<br>End-plate1 | 8 D-Sub 25-wire | M Monostable<br>manual<br>control<br>B Bistable<br>manual<br>control | I n° 2 3/2 NC<br>W n° 2 3/2 NO<br>L 3/2 NO + 3/2 NC<br>V 5/2 monostable<br>K 5/2 bistable<br>O 5/3 monostable<br>*F 5/2 monostable | 5 blind end-plate<br>6 Passing-intermed.<br>7 Blind intermediate<br>20 exhaust section.<br>4 cartridge 4<br>6 cartridge 6<br>8 cartridge 8 | 14 IP65 25-wire shell<br>16 n° 2 brackets<br>for DIN bar |

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

### MANUAL CONTROLS

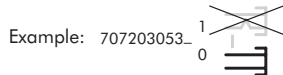


**MONOSTABLE OVERRIDE PORT 2**  
with direct actuation on the spool

- 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.

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



**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.

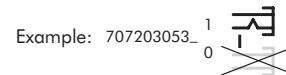
**N.B.:** The pilot power supply X must be present.

**BISTABLE OVERRIDE PORT 2**  
with direct actuation on the spool

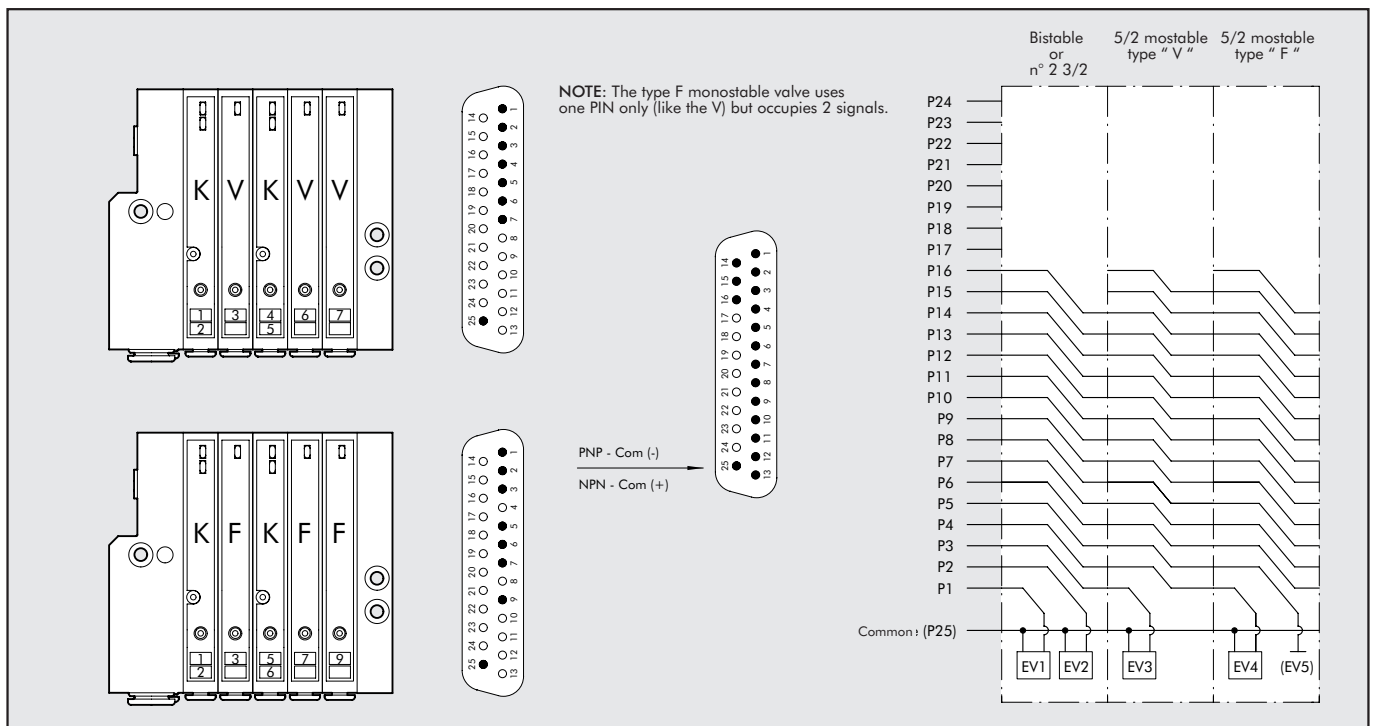
- Press the manual control right in then turn it fully clockwise and Leave it in position.
- Rotate the manual control fully anticlockwise, and then release it.
  - With valves type I, W, L, V and O, the manual control returns to the home position, and the valve repositions.
  - With type K valves, the 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.

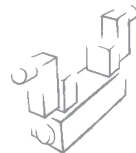
**N.B.:** The pilot power supply X need not be present.

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

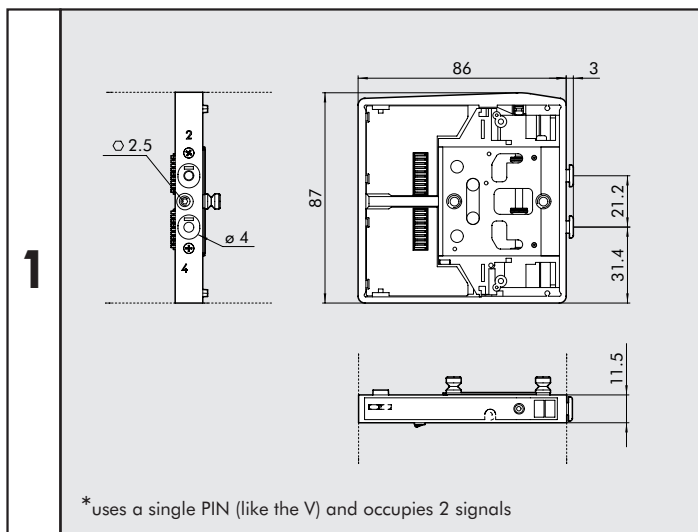


### WIRING DIAGRAM



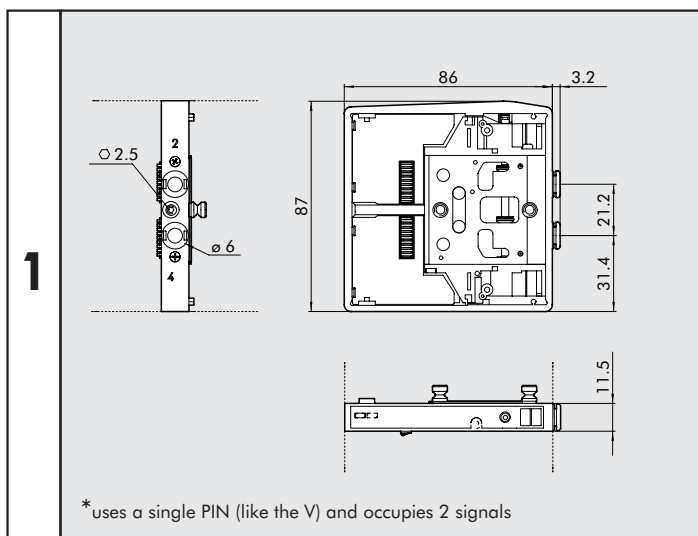


### VALVE DIMENSIONS HDM Ø 4



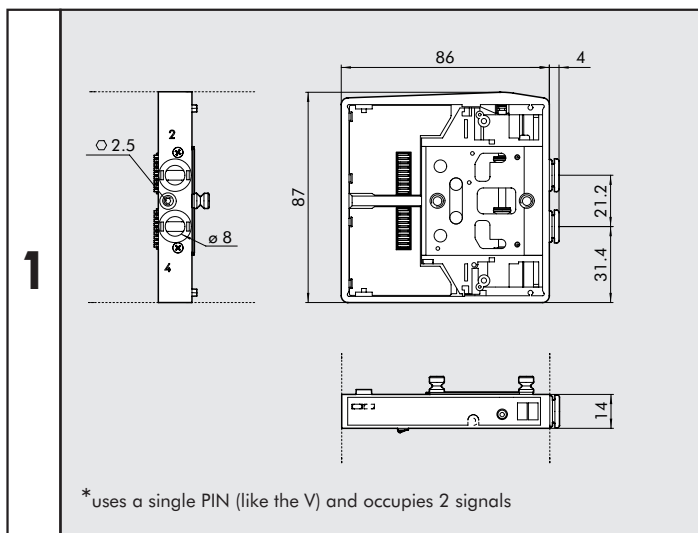
| Symbol                    | Manual Control | Code       | Weight [g] |
|---------------------------|----------------|------------|------------|
| <b>I4</b> <sub>HDM</sub>  | monostable     | 7071030530 | 130        |
|                           | bistable       | 7071030531 |            |
| <b>W4</b> <sub>HDM</sub>  | monostable     | 7071030630 | 130        |
|                           | bistable       | 7071030631 |            |
| <b>L4</b> <sub>HDM</sub>  | monostable     | 7071030730 | 130        |
|                           | bistable       | 7071030731 |            |
| <b>V4</b> <sub>HDM</sub>  | monostable     | 7071030130 | 115        |
|                           | bistable       | 7071030131 |            |
| <b>*F4</b> <sub>HDM</sub> | monostable     | 7071030132 | 115        |
|                           | bistable       | 7071030133 |            |
| <b>K4</b> <sub>HDM</sub>  | monostable     | 7071030110 | 130        |
|                           | bistable       | 7071030111 |            |
| <b>O4</b> <sub>HDM</sub>  | monostable     | 7071030210 | 130        |
|                           | bistable       | 7071030211 |            |

### VALVE DIMENSIONS HDM Ø 6



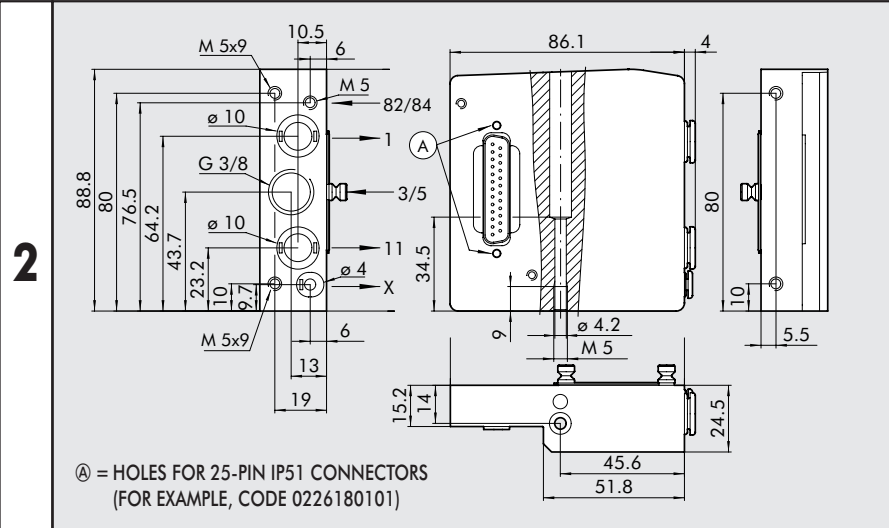
| Symbol                    | Manual Control | Code       | Weight [g] |
|---------------------------|----------------|------------|------------|
| <b>I6</b> <sub>HDM</sub>  | monostable     | 7072030530 | 130        |
|                           | bistable       | 7072030531 |            |
| <b>W6</b> <sub>HDM</sub>  | monostable     | 7072030630 | 130        |
|                           | bistable       | 7072030631 |            |
| <b>L6</b> <sub>HDM</sub>  | monostable     | 7072030730 | 130        |
|                           | bistable       | 7072030731 |            |
| <b>V6</b> <sub>HDM</sub>  | monostable     | 7072030130 | 115        |
|                           | bistable       | 7072030131 |            |
| <b>*F6</b> <sub>HDM</sub> | monostable     | 7072030132 | 115        |
|                           | bistable       | 7072030133 |            |
| <b>K6</b> <sub>HDM</sub>  | monostable     | 7072030110 | 130        |
|                           | bistable       | 7072030111 |            |
| <b>O6</b> <sub>HDM</sub>  | monostable     | 7072030210 | 130        |
|                           | bistable       | 7072030211 |            |

### VALVE DIMENSIONS HDM Ø 8



| Symbol                    | Manual Control | Code       | Weight [g] |
|---------------------------|----------------|------------|------------|
| <b>I8</b> <sub>HDM</sub>  | monostable     | 7073030530 | 140        |
|                           | bistable       | 7073030531 |            |
| <b>W8</b> <sub>HDM</sub>  | monostable     | 7073030630 | 140        |
|                           | bistable       | 7073030631 |            |
| <b>L8</b> <sub>HDM</sub>  | monostable     | 7073030730 | 140        |
|                           | bistable       | 7073030731 |            |
| <b>V8</b> <sub>HDM</sub>  | monostable     | 7073030130 | 130        |
|                           | bistable       | 7073030131 |            |
| <b>*F8</b> <sub>HDM</sub> | monostable     | 7073030132 | 130        |
|                           | bistable       | 7073030133 |            |
| <b>K8</b> <sub>HDM</sub>  | monostable     | 7073030110 | 140        |
|                           | bistable       | 7073030111 |            |
| <b>O8</b> <sub>HDM</sub>  | monostable     | 7073030210 | 140        |
|                           | bistable       | 7073030211 |            |

## END-PLATE 1-11-25D

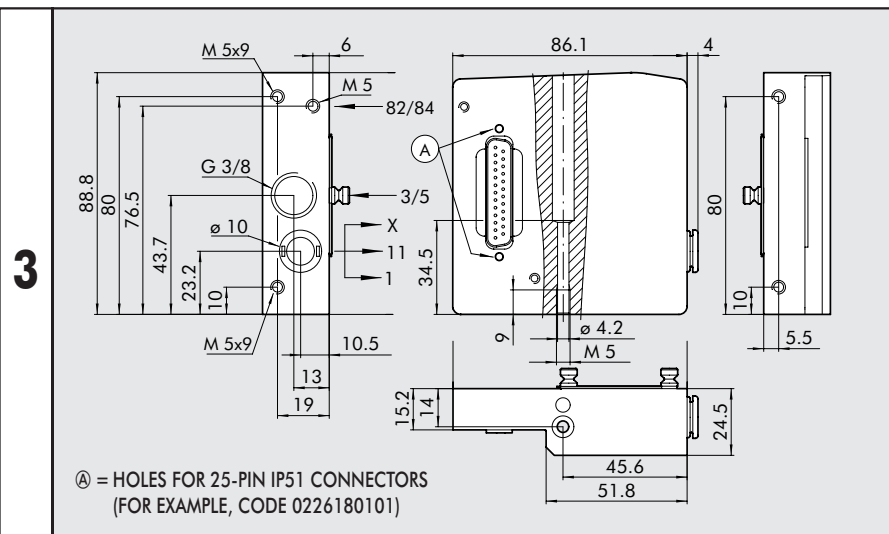


| Code       | Description                   | Weight [g] |
|------------|-------------------------------|------------|
| 0227301200 | END-PLATE HDM<br>KIT 1-11-25D | 370        |

This end-plate allows for supplies to be differentiated

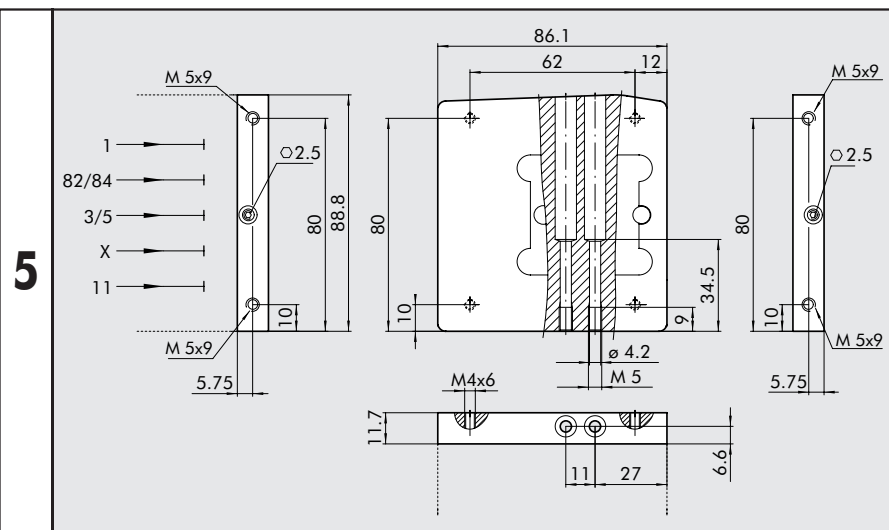
- port 2
- port 4
- pilot supply

## END-PLATE 1-25D

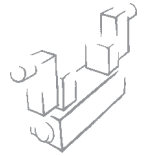


| Code       | Description                | Weight [g] |
|------------|----------------------------|------------|
| 0227301201 | END-PLATE HDM<br>KIT 1-25D | 370        |

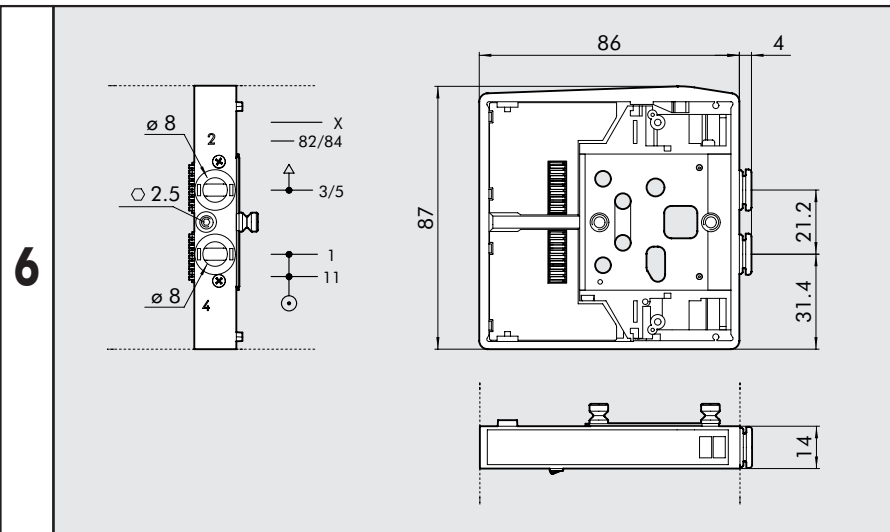
## BLIND END-PLATE



| Code       | Description            | Weight [g] |
|------------|------------------------|------------|
| 0227301500 | BLIND END-PLATE<br>HDM | 230        |

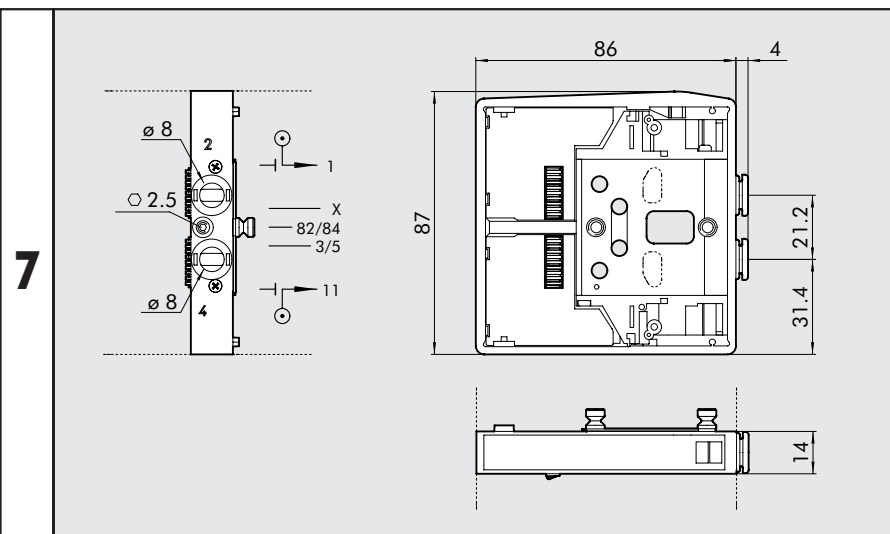


### INTERMEDIATE THROUGH



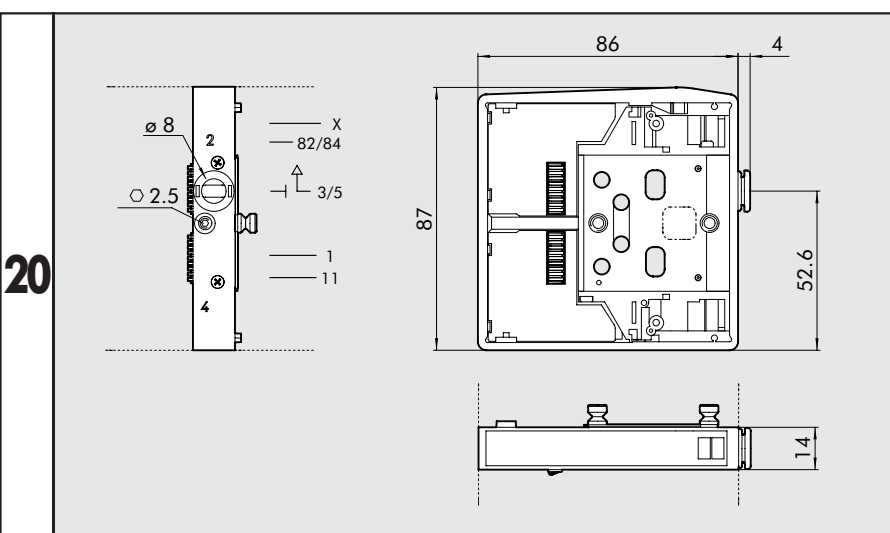
| Code       | Description              | Weight [g] |
|------------|--------------------------|------------|
| 0227301301 | INTERMEDIATE THROUGH HDM | 120        |

### INTERMEDIATE BLIND



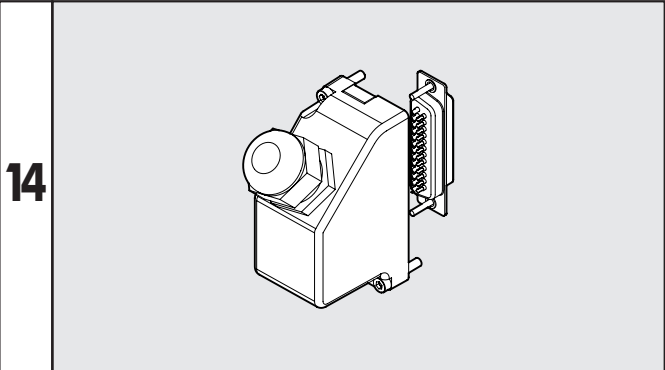
| Code       | Description            | Weight [g] |
|------------|------------------------|------------|
| 0227301302 | INTERMEDIATE BLIND HDM | 117        |

### INTERMEDIATE EXHAUST SWITCH



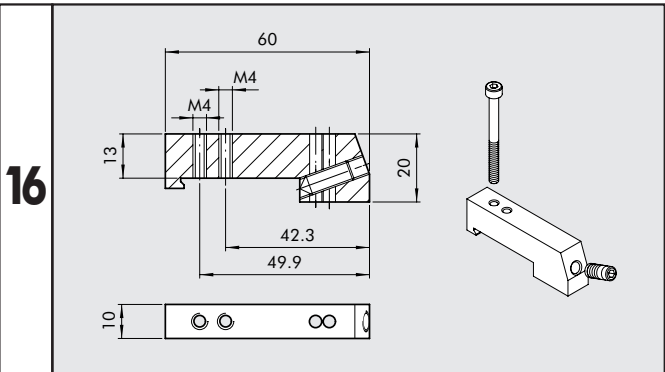
| Code       | Description                     | Weight [g] |
|------------|---------------------------------|------------|
| 0227301303 | INTERMEDIATE EXHAUST SWITCH HDM | 125        |

### 45° CONNECTOR KIT, 25 WIRES IP65



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

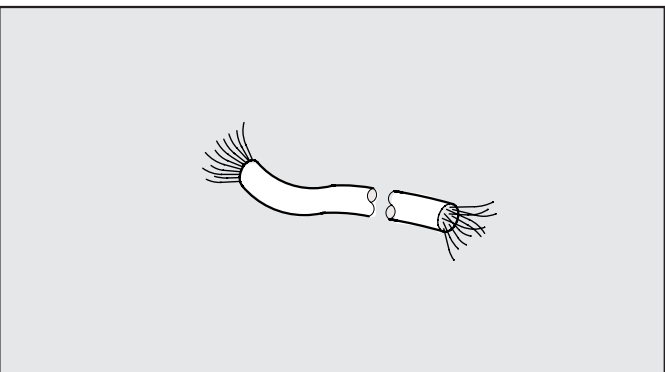
### CONNECTION BRACKETS ON DIN BAR



| 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

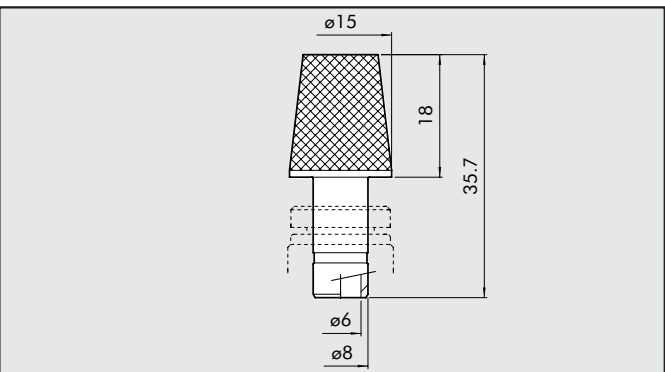
### CABLES



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

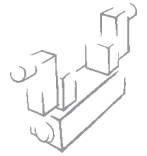
Specify the number of metres desired

### SILENCER FOR FITTING, Ø 8

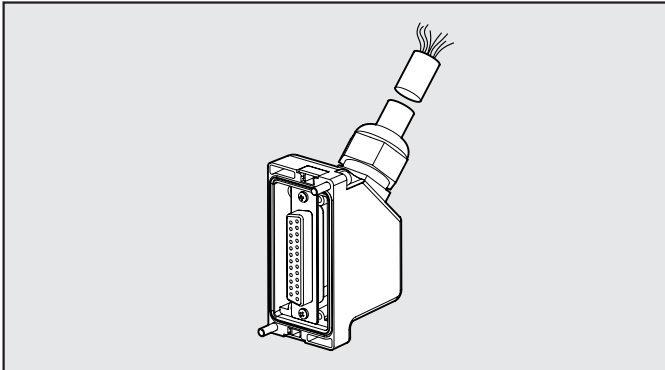


| Code        | Description               | Weight [g] |
|-------------|---------------------------|------------|
| W0970530084 | SILENCER FOR FITTING, Ø 8 | 15         |
|             |                           |            |
|             |                           |            |
|             |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

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**



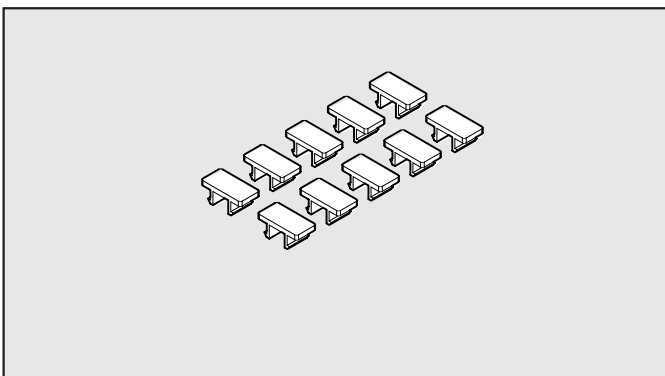
| Code       | Description   | Weight [g] |
|------------|---|------------|
| 0226960100 | ACCESSORIES: CONNECTOR IP 65+ 25-WIRE 45°<br>CABLE L.=1 M   | 190        |
| 0226960250 | ACCESSORIES: CONNECTOR IP 65+ 25-WIRE 45°<br>CABLE L.=2.5 M | 390        |
| 0226960500 | ACCESSORIES: CONNECTOR IP 65+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

2

**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                            |                                |                                  |

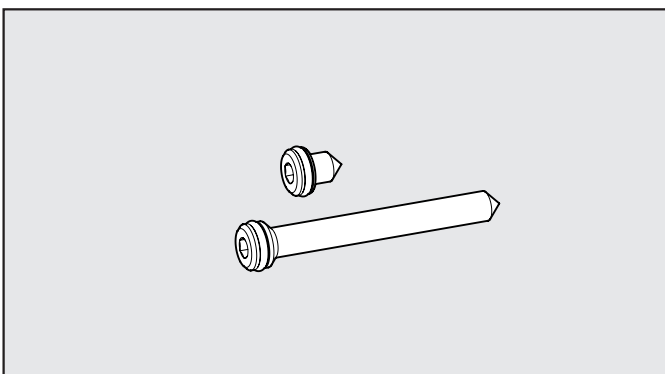
**IDENTIFICATION PLATE KIT**



| 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

