

VALVES MACH 11

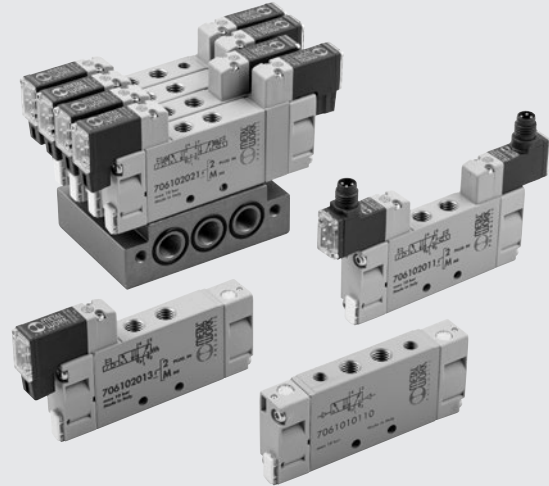
The Mach 11 in-line valves with M7 threaded connection come in the following versions:

- 5/2 monostable and bistable
- 5/3 with closed, open or pressure centres.

Control:

- pneumatic
- solenoid/pneumatic 24 V

With an exceptional compact design only 11 mm wide, and excellent high performance, these valves can be used in numerous applications in industrial automation.

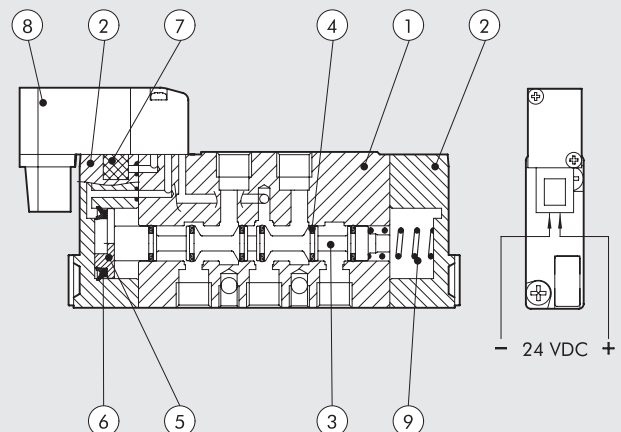


TECHNICAL DATA

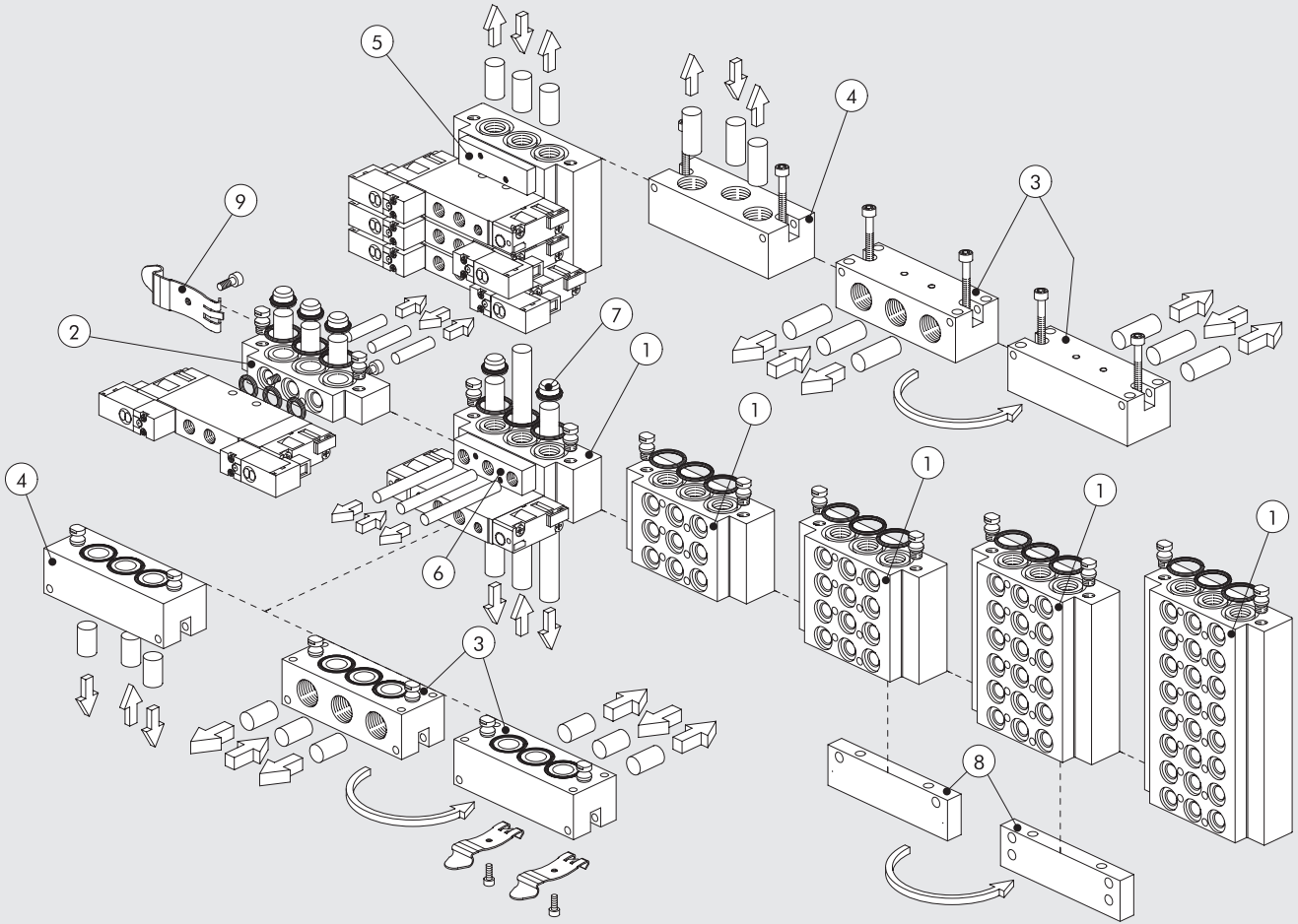
| | | | |
|---------------------------------------|--------|--|---|
| Valve port thread | | M7 | |
| Pilot thread | | M5 | |
| Maximum external diameter of fittings | mm | Pneumatic: M7 = Ø 11 - M5 = Ø 9 - Electric: M7 - M5 = Ø 11 | |
| Operating temperature range | °C | -10 to +60 | |
| Fluid | | Filtered air without lubrication; lubrication, if used, must be continuous | |
| Screw for valve wall-mounting | | M3 | |
| Flow rate at 6 bar ΔP 1 bar | NI/min | 400 | |
| Pressure range | bar | Electric | Electric pilot-assisted |
| | | monostable: 2 to 7 | pilot pressure: 2 to 7 |
| | | bistable: 2 to 7 | valve: vacuum to 10 |
| | | 5/3: 2 to 7 | |
| | | | Pneumatic |
| | | | monostable control pres.values: 2 to 10 |
| | | | bistable control pres. values: 1 to 10 |
| | | | control pressure 5/3: 2 to 10 |
| | | | valve: vacuum to 10 |
| Voltage range | | 24 VDC ± 10% | |
| Power | W | 0.9 | |
| Insulation class | | F155 | |
| Degree of protection | | IP51 for PLUG-IN version | |
| | | IP65 for M8 version | |
| Solenoid rating | | 100% ED | |
| TRA/TRR monostable at 6 bar | ms | 10 / 45 | |
| TRA/TRR bistable at 6 bar | ms | 22 / 22 | |
| TRA/TRR 5/3 monostable at 6 bar | ms | 22 / 22 | |
| Compatibility with oils | | See chapter Z1 | |

COMPONENTS

- ① VALVE BODY: Aluminium
- ② CONTROL/BASE: Hostaform®
- ③ SPOOL: Aluminium
- ④ GASKETS: Polyurethane
- ⑤ PISTONS: Hostaform®
- ⑥ PISTON GASKET: Polyurethane
- ⑦ FILTER: sintered bronze
- ⑧ PILOT: with integrated coil
- ⑨ SPRINGS: special steel
- ⑩ REMOVABLE IDENTIFICATION PLATE

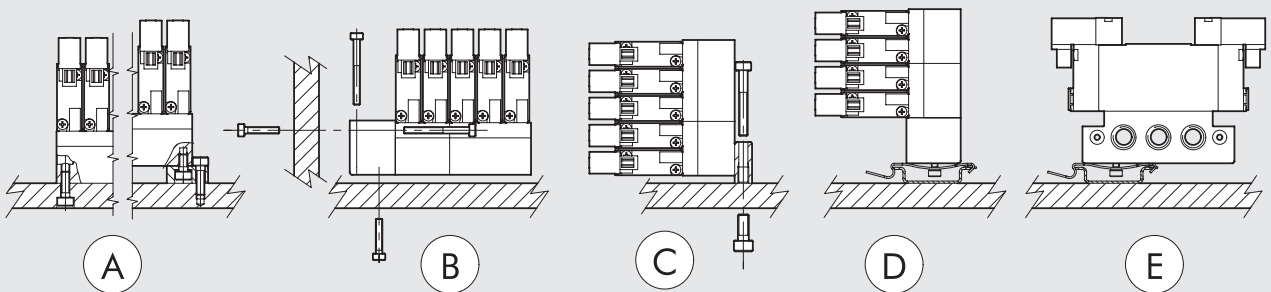


MODULARITY



VALVES
VALVES MACH 11

HOW TO FIX THE BASE

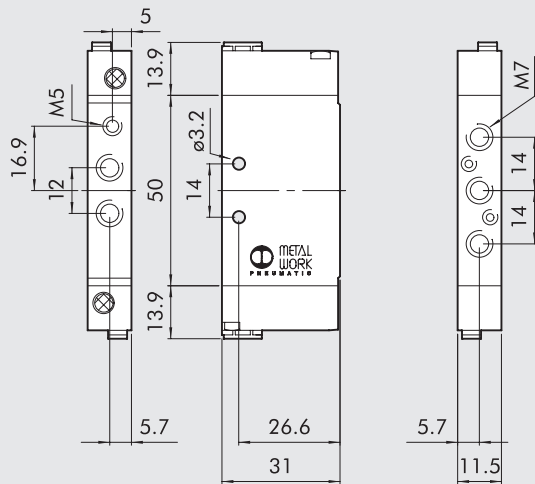


SYNOPTIC, SIZES AND VERSIONS

| M S V | 1 | 5 | S O | B | O O | 2 4 V D C |
|--------------------------|------------|----------------|---|------------------------------------|---|--|
| FAMILY | DIMENSIONS | FUNCTION | OPERATORS 14 | RESETTING (12) | FURTHER DETAILS | |
| MSV mini-solenoid valve | 1 M7 | 5 5/2 6 5/3 | SO solenoid SE solenoid assisted PN pneumatic | B bistable S mechanical springs | OO no indication CC closed centres OC open centres PC pressure centres | 24VDC PLUG-IN 24VDC connector M8 M8 24VDC connector |
| MPV mini-pneumatic valve | | | | | | |

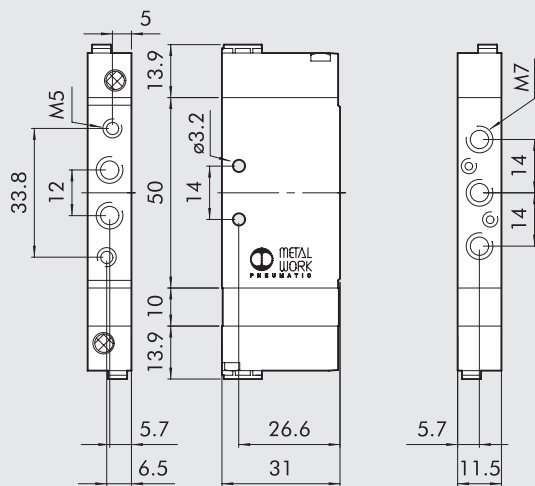
VALVES MACH 11, PNEUMATIC

MONOSTABLE 5/2



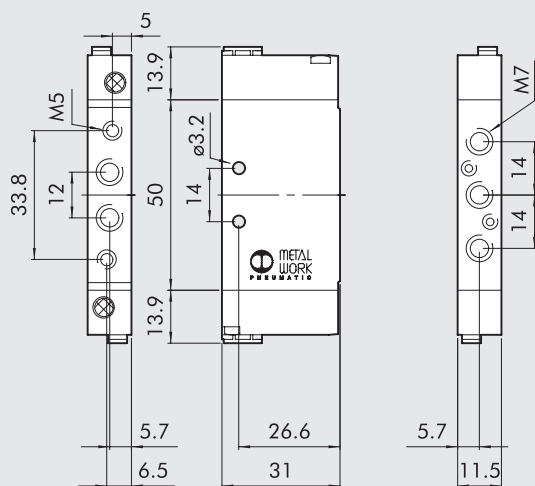
| Symbol | Code | Abbrev. | Weight [g] |
|--------|------------|---------------|------------|
| | 7061010130 | MPV 15 PNS OO | 52 |

MONOSTABLE 5/3



| Symbol | Code | Abbrev. | Weight [g] |
|--------|------------|---------------|------------|
| | 7061010210 | MPV 16 PNS CC | 62 |
| | 7061010310 | MPV 16 PNS OC | 62 |
| | 7061010410 | MPV 16 PNS PC | 62 |

BISTABLE 5/2

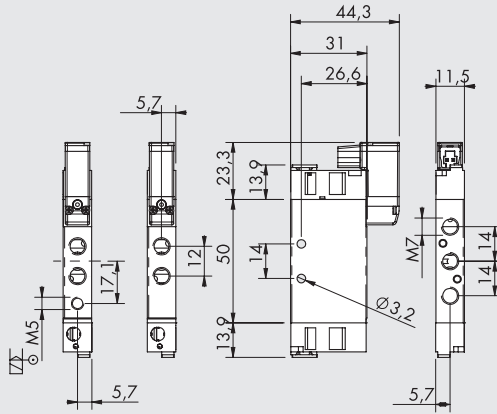


| Symbol | Code | Abbrev. | Weight [g] |
|--------|------------|---------------|------------|
| | 7061010110 | MPV 15 PNB OO | 52 |

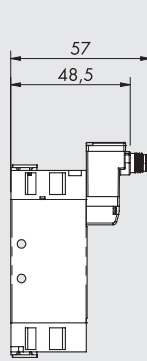
VALVES MACH 11, SOLENOID-PNEUMATIC

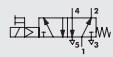
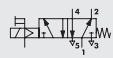
MONOSTABLE 5/2

PLUG-IN VERSION



M8 VERSION



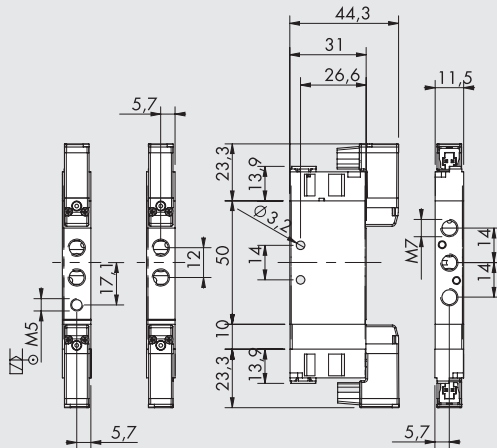
| Symbol | Code | Abbrev. | Weight [g] |
|---|------------|-----------------------------|------------|
|  | 7061020132 | MSV 15 SOS OO 24VDC PLUG-IN | 60 |
| | 706102013M | MSV 15 SOS OO 24VDC M8 | 60 |
|  | 7061030132 | MSV 15 SES OO 24VDC PLUG-IN | 60 |
| | 706103013M | MSV 15 SES OO 24VDC M8 | 60 |

M8 CONNECTION

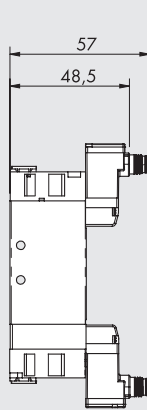
| | | | |
|---|---|---|--|
| 4 | 3 | 1 | Not used |
| 1 | | 3 | 0 V (Operation also with reverse polarity) |
| | | 4 | +24V |

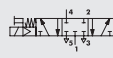
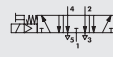

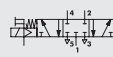

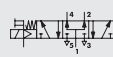
MONOSTABLE 5/3

PLUG-IN VERSION



M8 VERSION



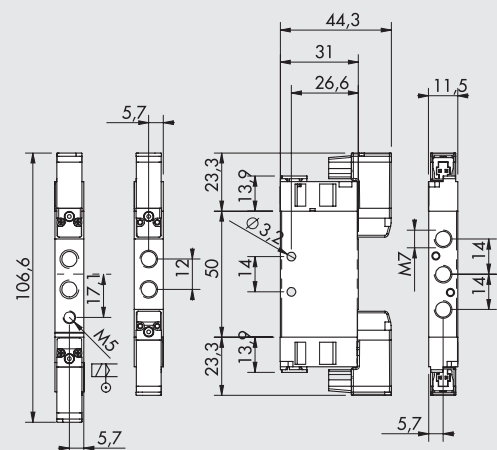
| Symbol | Code | Abbrev. | Weight [g] |
|---|------------|-----------------------------|------------|
|  | 7061020212 | MSV 16 SOS CC 24VDC PLUG-IN | 82 |
| | 706102021M | MSV 16 SOS CC 24VDC M8 | 82 |
|  | 7061020312 | MSV 16 SOS OC 24VDC PLUG-IN | 82 |
| | 706102031M | MSV 16 SOS OC 24VDC M8 | 82 |
|  | 7061020412 | MSV 16 SOS PC 24VDC PLUG-IN | 82 |
| | 706102041M | MSV 16 SOS PC 24VDC M8 | 82 |
|  | 7061030212 | MSV 16 SES CC 24VDC PLUG-IN | 82 |
| | 706103021M | MSV 16 SES CC 24VDC M8 | 82 |
|  | 7061030312 | MSV 16 SES OC 24VDC PLUG-IN | 82 |
| | 706103031M | MSV 16 SES OC 24VDC M8 | 82 |
|  | 7061030412 | MSV 16 SES PC 24VDC PLUG-IN | 82 |
| | 706103041M | MSV 16 SES PC 24VDC M8 | 82 |

M8 CONNECTION

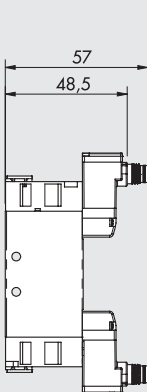
| | | | |
|---|---|---|--|
| 4 | 3 | 1 | Not used |
| 1 | | 3 | 0 V (Operation also with reverse polarity) |
| | | 4 | +24V |

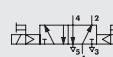
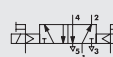
BISTABLE 5/2

PLUG-IN VERSION



M8 VERSION



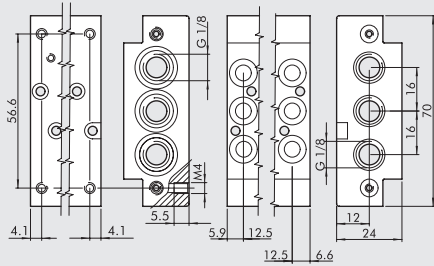
| Symbol | Code | Abbrev. | Weight [g] |
|---|------------|-----------------------------|------------|
|  | 7061020112 | MSV 15 SOB OO 24VDC PLUG-IN | 72 |
| | 706102011M | MSV 15 SOB OO 24VDC M8 | 72 |
|  | 7061030112 | MSV 15 SEB OO 24VDC PLUG-IN | 88 |
| | 706103011M | MSV 15 SEB OO 24VDC M8 | 88 |

M8 CONNECTION

| | | | |
|---|---|---|--|
| 4 | 3 | 1 | Not used |
| 1 | | 3 | 0 V (Operation also with reverse polarity) |
| | | 4 | +24V |

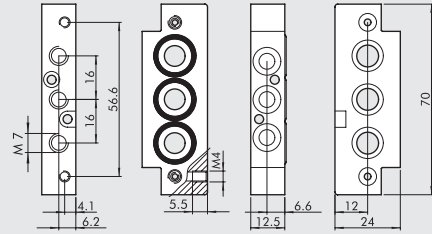
ACCESSORIES: MANIFOLD BASES

① MULTIPLE MANIFOLD BASE



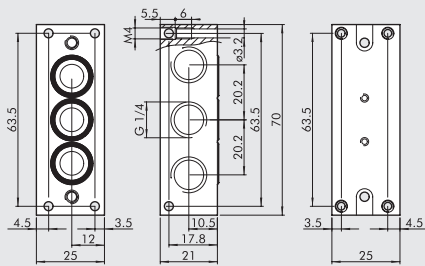
| Code | Description | Weight [g] |
|------------|---------------------------|------------|
| 0227400201 | Base, 2 posn. for Mach 11 | 94 |
| 0227400301 | Base, 3 posn. for Mach 11 | 140 |
| 0227400401 | Base, 4 posn. for Mach 11 | 186 |
| 0227400601 | Base, 6 posn. for Mach 11 | 282 |
| 0227400801 | Base, 8 posn. for Mach 11 | 378 |

② SEPARATE FEED MANIFOLD BASE



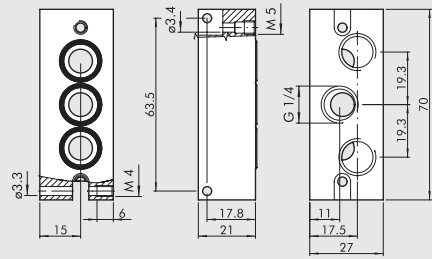
| Code | Description | Weight [g] |
|------------|---|------------|
| 0227400200 | Separate feed manifold base for Mach 11 | 44 |

③ 90° END PLATE



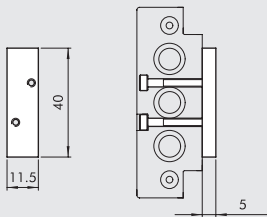
| Code | Description | Weight [g] |
|------------|---------------------------|------------|
| 0227400101 | 90° end plate 1/4 Mach 11 | 82 |

④ STRAIGHT END PLATE



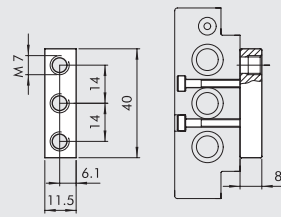
| Code | Description | Weight [g] |
|------------|------------------------------------|------------|
| 0227400100 | Straight end plate 1/4 for Mach 11 | 93 |

⑤ BLANKING PLATE



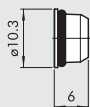
| Code | Description | Weight [g] |
|------------|----------------------------|------------|
| 0227400500 | Blanking plate for Mach 11 | 13 |

⑥ FEED BLOCK



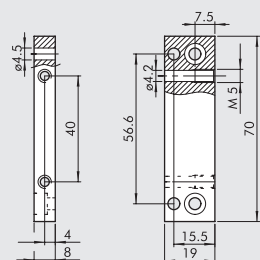
| Code | Description | Weight [g] |
|------------|---------------------------|------------|
| 0227400503 | M7 feed block for Mach 11 | 11 |

⑦ DIAPHRAGM



| Code | Description | Weight [g] |
|------------|-----------------------------|------------|
| 0227400000 | Diaphragm for Mach 11 bases | 3 |

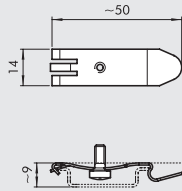
⑧ BASE FIXING PLATE



| Code | Description | Weight [g] |
|------------|--------------------------------|------------|
| 0227400504 | Fixing plate for Mach 11 bases | 28 |

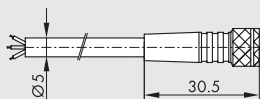
ACCESSORIES

9 CONNECTION BRACKET ON BAR OMEGA (DIN EN 50022)



| Code | Description |
|------------|-------------------------------|
| 0227300600 | Connection bracket on DIN bar |

M8 STRAIGHT CONNECTOR WITH CABLE

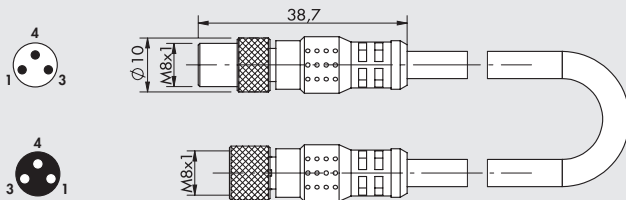


| Pin | Cable color |
|-----|-------------|
| 1 | Brown |
| 3 | Blue |
| 4 | Black |

| Code | Description |
|------------|--|
| 02400A0100 | M8 female 3 PIN HIGH FLEX CL6 connector with cable L = 1 m |
| 02400A0250 | M8 female 3 PIN HIGH FLEX CL6 connector with cable L = 2.5 m |
| 02400A0500 | M8 female 3 PIN HIGH FLEX CL6 connector with cable L = 5 m |
| 02400A1000 | M8 female 3 PIN HIGH FLEX CL6 connector with cable L = 10 m |

Very flexible cables, class 6 according to IEC 60228

M8 M - M8 F CONNECTOR

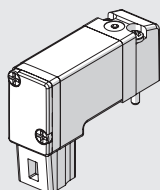


| Code | Description |
|------------|---|
| 0240009009 | M8-M8 3-pin straight connector with cable L = 3 m |

Note: Can be used for direct connection to the modules with digital OUTPUT of the EB 80 valves

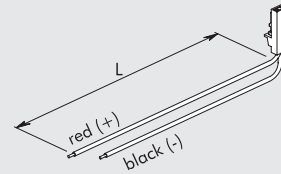
SPARE PARTS

PLUG-IN PILOT



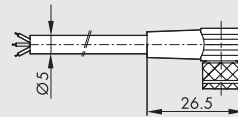
| Code | Description |
|--------------|---------------------|
| 722113541100 | PLT-10 722113541100 |

PLUG-IN CONNECTOR



| Code | Description |
|-------------|--|
| W0970512000 | Plug-in connector for Mach 11 L = 300 mm |
| W0970512007 | Plug-in connector for Mach 11 L = 1 m |
| W0970512002 | Plug-in connector for Mach 11 L = 2 m |

90° M8 CONNECTOR WITH CABLE



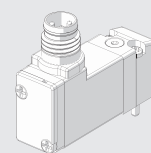
| Pin | Cable color |
|-----|-------------|
| 1 | Brown |
| 3 | Blue |
| 4 | Black |

| Code | Description |
|------------|--|
| 02400B0100 | M8 female 3 PIN 90° HIGH FLEX CL6 connector with cable L = 1 m |
| 02400B0250 | M8 female 3 PIN 90° HIGH FLEX CL6 connector with cable L = 2.5 m |
| 02400B0500 | M8 female 3 PIN 90° HIGH FLEX CL6 connector with cable L = 5 m |
| 02400B1000 | M8 female 3 PIN 90° HIGH FLEX CL6 connector with cable L = 10 m |

Very flexible cables, class 6 according to IEC 60228

NOTES

M8 PILOT



| Code | Description |
|--------------|---|
| 7222M3541100 | PLT-10 3/2 NC 0.8W 24VDC LED M8 with manual |