

# VALVES MACH 11

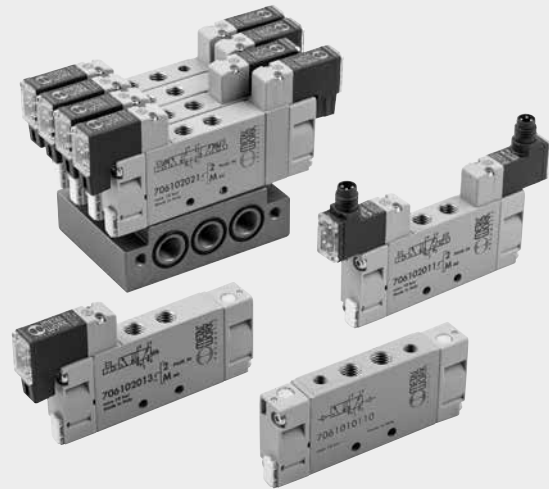
The Mach 11 in-line valves with M7 threaded connection come in the following versions:

- 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.



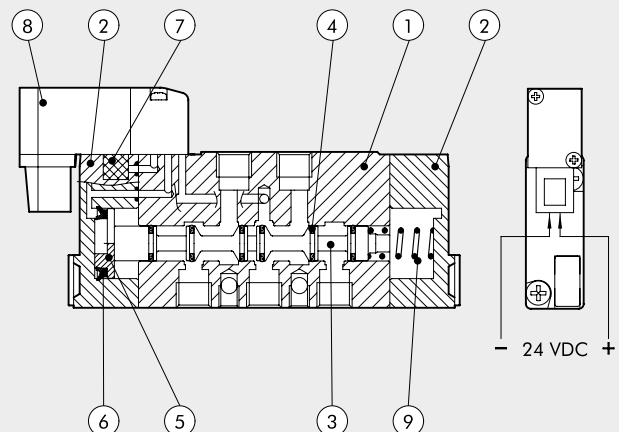
## TECHNICAL DATA

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	l/min	400															
Pressure range	bar																
		<table border="1"> <thead> <tr> <th>Electric</th> <th>Electric pilot-assisted</th> <th>Pneumatic</th> </tr> </thead> <tbody> <tr> <td>monostable: 2 to 7</td> <td>pilot pressure: 2 to 7</td> <td>monostable control pres.values: 2 to 10</td> </tr> <tr> <td>bistable: 2 to 7</td> <td>valve: vacuum to 10</td> <td>bistable control pres. values: 1 to 10</td> </tr> <tr> <td>5/3: 2 to 7</td> <td></td> <td>control pressure 5/3: 2 to 10</td> </tr> <tr> <td></td> <td></td> <td>valve: vacuum to 10</td> </tr> </tbody> </table>	Electric	Electric pilot-assisted	Pneumatic	monostable: 2 to 7	pilot pressure: 2 to 7	monostable control pres.values: 2 to 10	bistable: 2 to 7	valve: vacuum to 10	bistable control pres. values: 1 to 10	5/3: 2 to 7		control pressure 5/3: 2 to 10			valve: vacuum to 10
Electric	Electric pilot-assisted	Pneumatic															
monostable: 2 to 7	pilot pressure: 2 to 7	monostable control pres.values: 2 to 10															
bistable: 2 to 7	valve: vacuum to 10	bistable control pres. values: 1 to 10															
5/3: 2 to 7		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																	

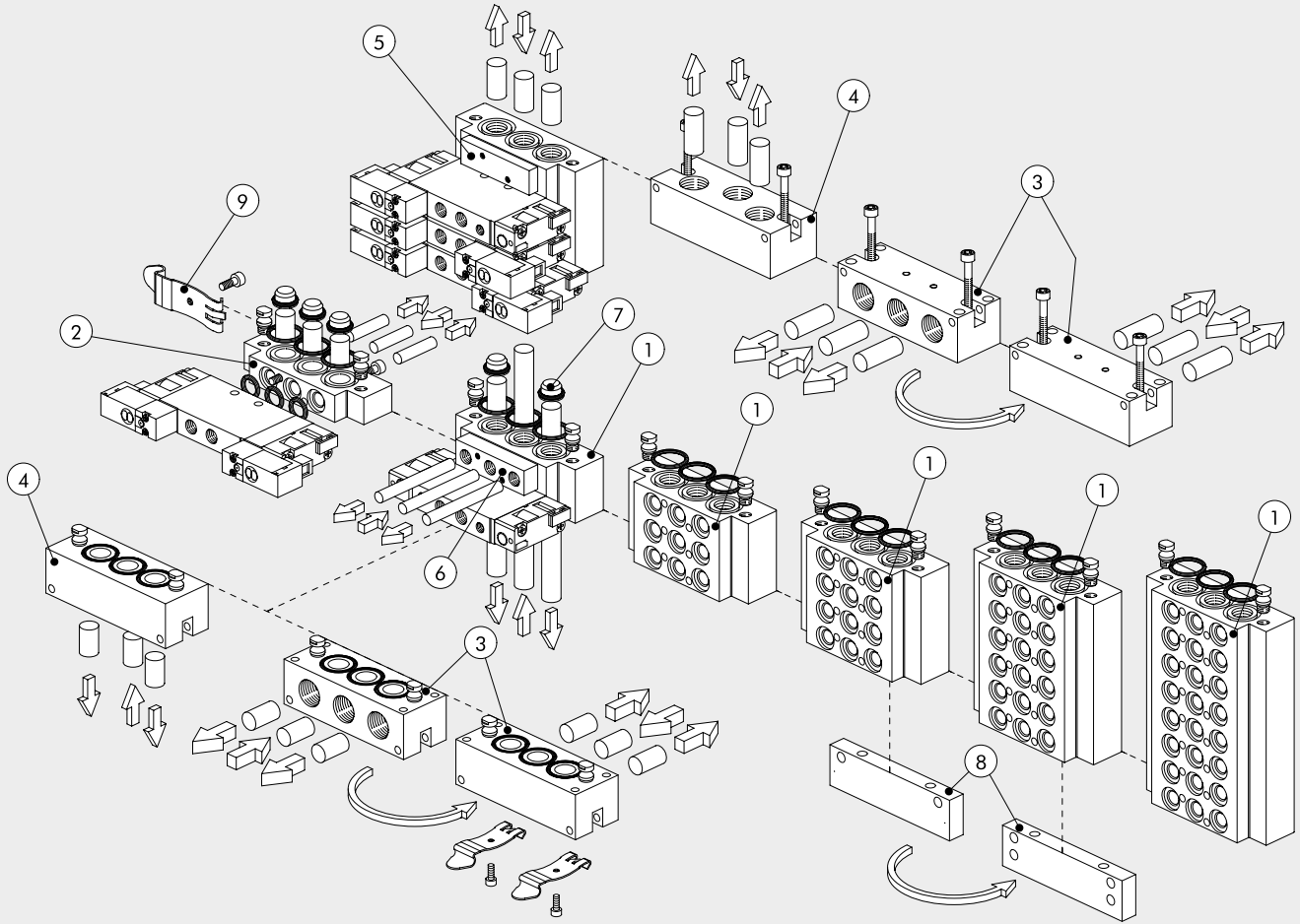
See chapter Z1

## 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

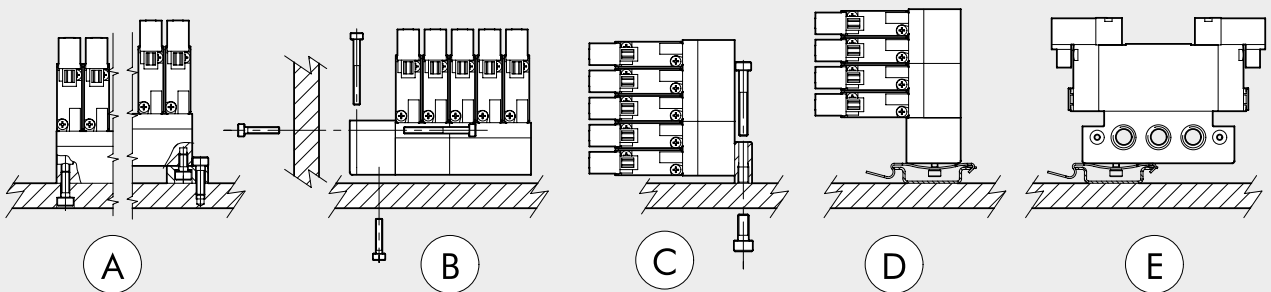


**MODULARITY**



**VALVES**  
VALVES MACH 11

**HOW TO FIX THE BASE**



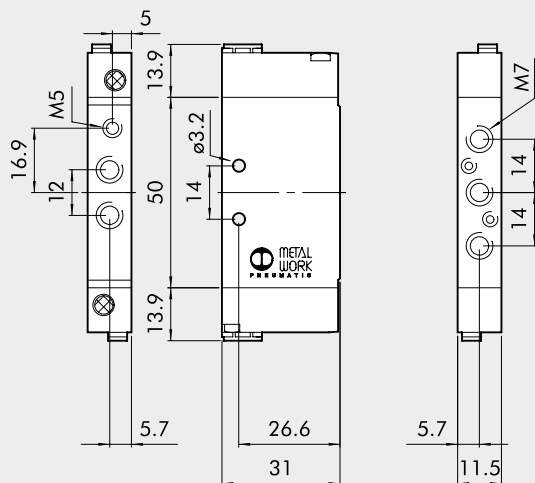
**SYNOPTIC, SIZES AND VERSIONS**

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

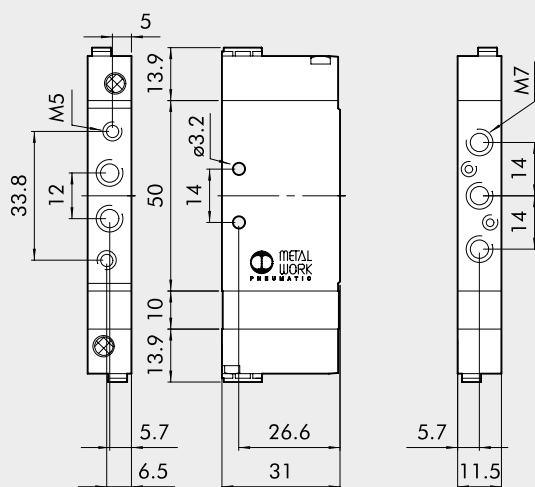
VALVES

## MONOSTABLE 5/2



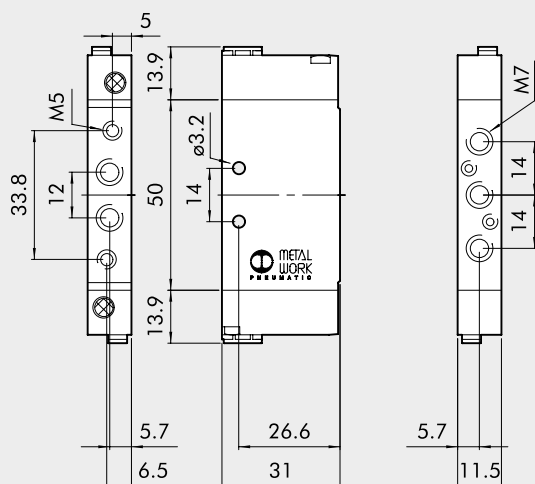
Symbol	Code	Abbrev.	Weight [g]
	7061010130	MPV 15 PNS OO	52

## 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

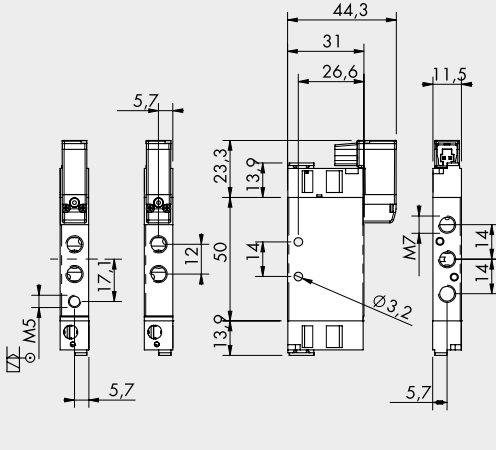


Symbol	Code	Abbrev.	Weight [g]
	7061010110	MPV 15 PNB OO	52

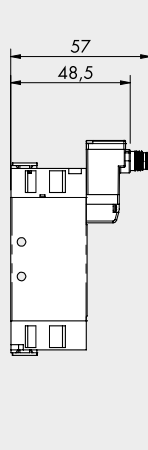
**VALVES MACH 11, SOLENOID-PNEUMATIC**

**MONOSTABLE 5/2**

PLUG-IN VERSION

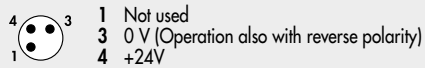


M8 VERSION



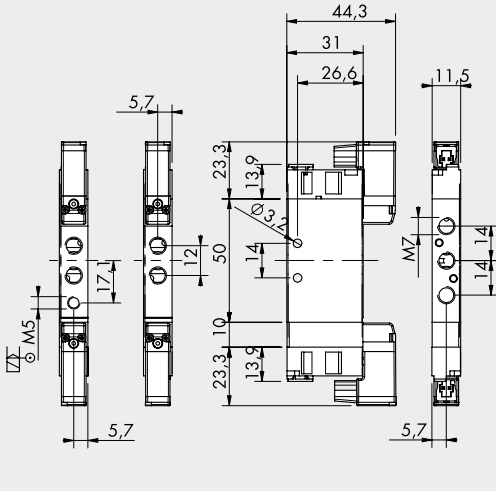
Symbol	Code	Abbrev.	Weight [g]
	7061020132	MSV 15 SOS OO 24VDC PLUG-IN	60
	706102013M	MSV 15 SOS OO 24VDC M8	60
	7061030132	MSV 15 SES OO 24VDC PLUG-IN	60
	706103013M	MSV 15 SES OO 24VDC M8	60

M8 CONNECTION

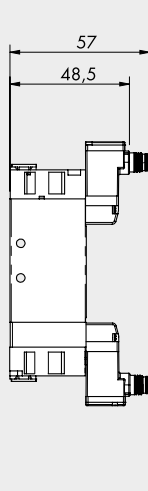


**MONOSTABLE 5/3**

PLUG-IN VERSION

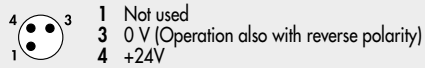


M8 VERSION



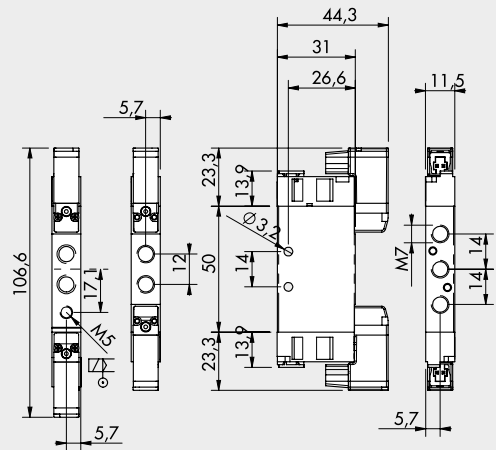
Symbol	Code	Abbrev.	Weight [g]
	7061020212	MSV 16 SOS CC 24VDC PLUG-IN	82
	706102021M	MSV 16 SOS CC 24VDC M8	82
	7061020312	MSV 16 SOS OC 24VDC PLUG-IN	82
	706102031M	MSV 16 SOS OC 24VDC M8	82
	7061020412	MSV 16 SOS PC 24VDC PLUG-IN	82
	706102041M	MSV 16 SOS PC 24VDC M8	82
	7061030212	MSV 16 SES CC 24VDC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

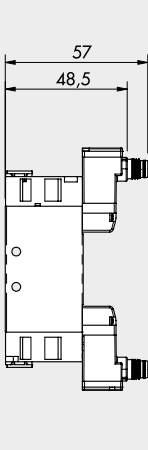


**BISTABLE 5/2**

PLUG-IN VERSION

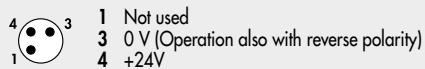


M8 VERSION



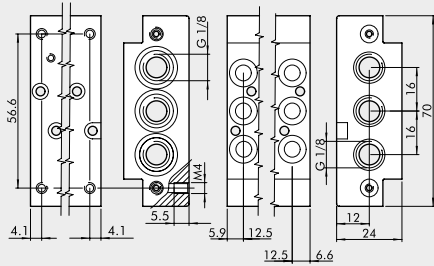
Symbol	Code	Abbrev.	Weight [g]
	7061020112	MSV 15 SOB OO 24VDC PLUG-IN	72
	706102011M	MSV 15 SOB OO 24VDC M8	72
	7061030112	MSV 15 SEB OO 24VDC PLUG-IN	88
	706103011M	MSV 15 SEB OO 24VDC M8	88

M8 CONNECTION



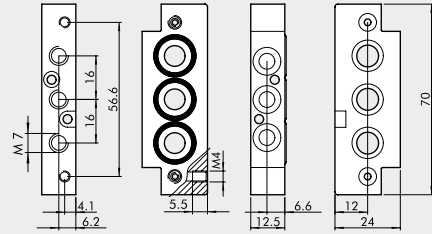
ACCESSORIES: MANIFOLD BASES

① MULTIPLE MANIFOLD BASE



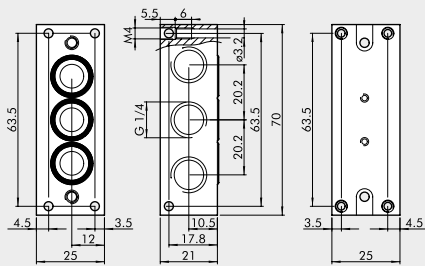
Code	Description	Weight [g]
0227400201	Base, 2 posn. for Mach 11	94
0227400301	Base, 3 posn. for Mach 11	140
0227400401	Base, 4 posn. for Mach 11	186
0227400601	Base, 6 posn. for Mach 11	282
0227400801	Base, 8 posn. for Mach 11	378

② SEPARATE FEED MANIFOLD BASE



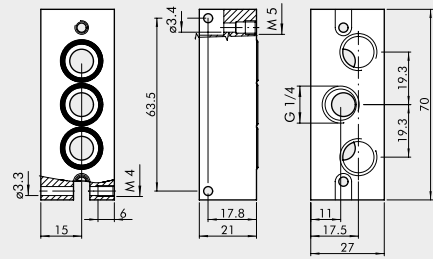
Code	Description	Weight [g]
0227400200	Separate feed manifold base for Mach 11	44

③ 90° END PLATE



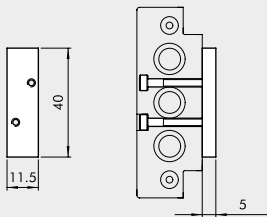
Code	Description	Weight [g]
0227400101	90° end plate 1/4 Mach 11	82

④ STRAIGHT END PLATE



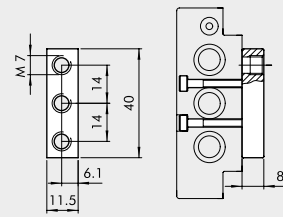
Code	Description	Weight [g]
0227400100	Straight end plate 1/4 for Mach 11	93

⑤ BLANKING PLATE



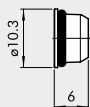
Code	Description	Weight [g]
0227400500	Blanking plate for Mach 11	13

⑥ FEED BLOCK



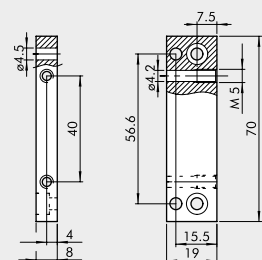
Code	Description	Weight [g]
0227400503	M7 feed block for Mach 11	11

⑦ DIAPHRAGM



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

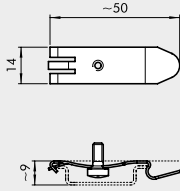
⑧ BASE FIXING PLATE



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

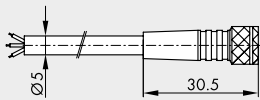
## ACCESSORIES

### 9 CONNECTION BRACKET ON BAR OMEGA (DIN EN 50022)



Code	Description
0227300600	Connection bracket on DIN bar

### M8 STRAIGHT CONNECTOR WITH CABLE

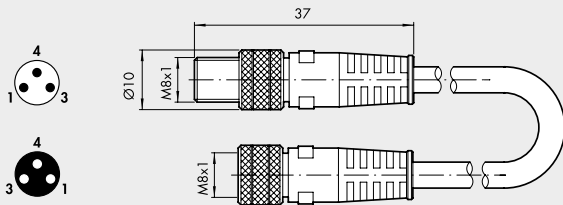


Pin	Cable color
1	Brown
3	Blue
4	Black

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

Mobile laying cable, class 6 according to IEC 60228

### M8 M - M8 F CONNECTOR

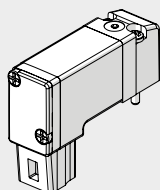


Code	Description
0240009009	M8-M8 3-pin straight connector with cable L = 3 m

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

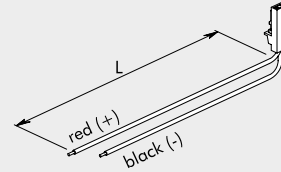
## SPARE PARTS

### PLUG-IN PILOT



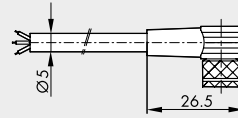
Code	Description
722113541100	PLT-10 722113541100

### 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



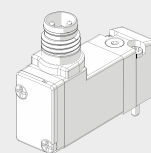
Pin	Cable color
1	Brown
3	Blue
4	Black

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

Mobile laying cable, class 6 according to IEC 60228

### NOTES

### M8 PILOT



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