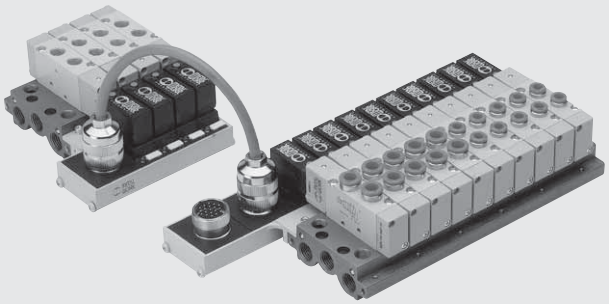
MULTIPLE CONNECTORS MACH 16

Mach 16 valves can be mounted on bases with pneumatic or electrical connection.
The electric contacts of the individual valves are connected by means of a printed circuit board in a sealed conduit to a single connection point suitable for up to 16 controls.
The number 16 was chosen because the number of outputs of most PLC output boards is 16 or a multiple of it.
The system has numerous alternatives and variants for a wide range of requirements:

- Base for monostable or bistable valves.
- Connection via a multiple connector or wired cable.
- Supply of individual parts or ready prepared bases or complete valve units
- The configuration can be modified at any time to convert bases for monostable valves into bases for bistable valves.
- The return cable can be used to connect two monostable valve units to a single multiple connector.

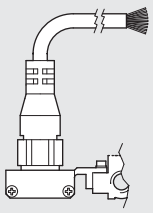
All versions are certified for electromagnetic compatibility and hence they bear the CE mark. The system is prearranged for mounting a slave for field buses, which can be added at any time. Valve units with multiple pneumatic/electrical connection are supplied complete with valves and are tested.
System modularity means that the valve sequence can be ordered to meet your own requirements (see key to codes).



TECHNICAL DATA

Supply voltage		24VDC - 24VAC
Maximum absorption		50 mA for each position
Valve actuation indicator		Yellow LED
Protection		Fuse
Operating temperature range	°C	-10 to +60
Degree of protection with valves mounted		IP65
Insulation class		In compliance with IEC 664-1and VDE 0110 Group C
Electromagnetic compatibility		In compliance with EEC 366/89
Maximum number of solenoid valves which can be applied		16
n° of contacts		19, 16 of which for solenoid valves, 2 common and 1 earth
Pre-wired version		
Cable length	m	5
n° of wires		19, 16 of which for solenoid valves, 2 common and 1 earth
Wire section	mm^2	0.22
Shielding		Tin plated – covering 80 to 90%
Cable		Outer oil-proof and flame-proof PVC sheath
Cable outside diameter	mm	8.5

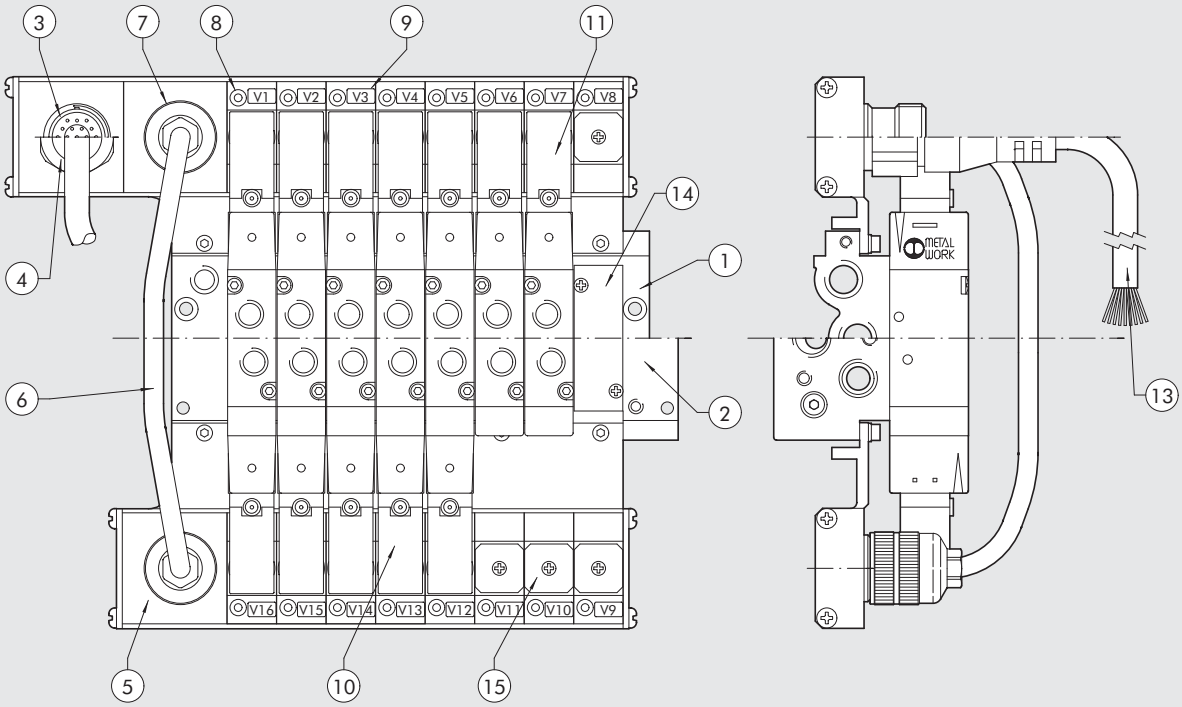
WIRING DIAGRAM FOR VERSION WITH CONNECTOR



Position of electrical contact	Colour of the corresponding wire
V1	Green /black
V2	Yellow
V3	White/black
V4	Blue
V5	Red
V6	Yellow/black
V7	White
V8	Brown/red
V9	Red/white
V10	Red/black
V11	Green/red
V12	Blue/red
V13	Brown
V14	Orange/black
V15	Orange
V16	Blue/black
GROUND	Yellow/red
– COM	Brown/black
– COM	Green

NOTES

COMPONENTS



① Multiple base: extruded anodised aluminium
② Modular base: anodised aluminium
③ Main assembly, version with connector
④ Main assembly, pre-wired version
⑤ Secondary unit/additional secondary unit
⑥ 10-wire return cable
⑦ Socket for 10-wire return cable
⑧ LED (LED on = Solenoid valve energised)
⑨ Identification label (for writing on)
⑩ Bistable solenoid valve MACH 16
⑪ Monostable solenoid valve MACH 16
⑬ 19-wire cable for pre-wired version
⑭ Blanking plate - pneumatic position: anodised aluminium
⑮ Small blanking plate - electric connector: painted aluminium

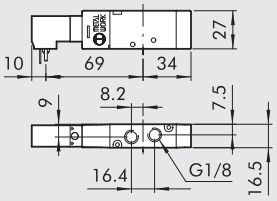
SYNOPTIC, SIZES AND VERSIONS

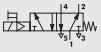
A	0 8	B	W C 5	0 8	M M V L	2 4 V D C
FAMILY	**NO. OF POSITIONS**			**SIZE**		**VOLTAGE**
A multiple base for solenoid/pneumatic connection Mach 16	**04** 4 posn.	**M** electrical connection only for monostable valves	**MCN** electrical connection	**08** G 1/8"	**M** MSV 25 SMS OO	24VDC
B manifold base for Mach 16 solenoid/pneumatic connection	**06** 6 posn.	**B** electrical connection for bistable valves	**WC5** pre-wired cable 5 m		**V** MSV 25 SCS OO	24VAC
	08 8 posn.		**ACM** additional connection for monostable battery		**L** MSV 25 SMP OO	
	10 10 posn.				**J** MSV 25 SMB OO	
	12 12 posn.				**K** MSV 25 SCB OO	
					G MSV 26 SMS CC	
					O MSV 26 SCS CC	
					E MSV 26 SMS OC	
					F MSV 26 SCS OC	
					B MSV 26 SMS PC	
					C MSV 26 SCS PC	
					A blanking plate	
					D intermediate diaphragm	

N.B.: The valve insertion order inside the descriptive key is the following, starting from the connector, from the left towards the right: the first left square corresponds to the first valve close to the connector on the base. There are 12 squares available for the description: if you order a base with less than 12 positions, complete by placing a 0 in the remaining boxes.

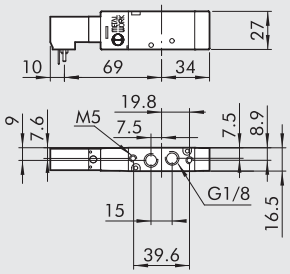
MACH 16 VALVES FOR MULTIPLE CONNECTOR

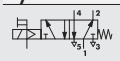
Ⓜ MONOSTABLE 5/2, SOLENOID/PNEUMATIC - MECHANICAL SPRING



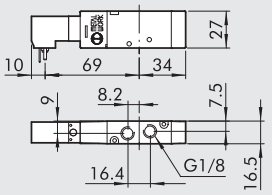
Symbol	Code	Description	Weight [g]
	7062040132	MSV 25 SMS OO 24VDC	92
	7062040133	MSV 25 SMS OO 24VAC	92

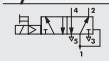
Ⓥ MONOSTABLE 5/2, SOLENOID/PNEUMATIC, PILOT-ASSISTED - MECHANICAL SPRING



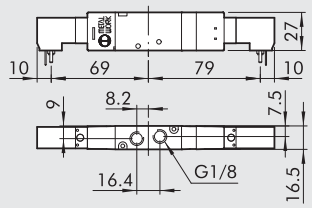
Symbol	Code	Description	Weight [g]
	7062060132	MSV 25 SCS OO 24VDC	93
	7062060133	MSV 25 SCS OO 24VAC	93

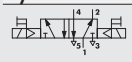
Ⓛ MONOSTABLE 5/2, SOLENOID/PNEUMATIC - PNEUMATIC SPRING



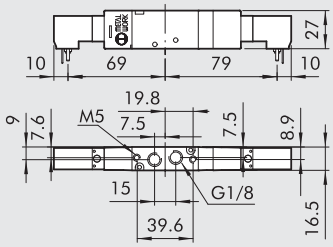
Symbol	Code	Description	Weight [g]
	7062040102	MSV 25 SMP OO 24VDC	93
	7062040103	MSV 25 SMP OO 24VAC	93

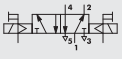
Ⓙ BISTABLE 5/2, SOLENOID/PNEUMATIC



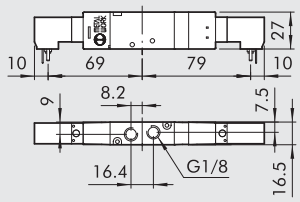
Symbol	Code	Description	Weight [g]
	**7062040112**	MSV 25 SMB OO 24VDC	139
	7062040113	MSV 25 SMB OO 24VAC	139

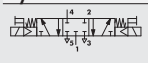
Ⓚ BISTABLE 5/2, SOLENOID/PNEUMATIC, PILOT-ASSISTED



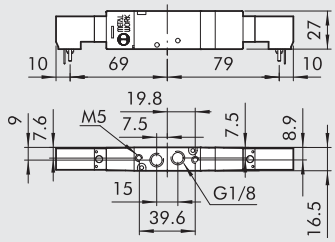
Symbol	Code	Description	Weight [g]
	**7062060112**	MSV 25 SCB OO 24VDC	140
	7062060113	MSV 25 SCB OO 24VAC	140

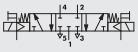
Ⓖ MONOSTABLE 5/3, SOLENOID/PNEUMATIC - CLOSED CENTRES



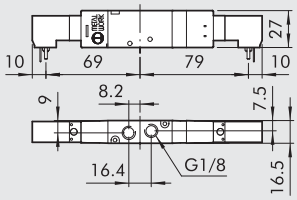
Symbol	Code	Description	Weight [g]
	**7062040212**	MSV 26 SMS CC 24VDC	142
	7062040213	MSV 26 SMS CC 24VAC	142

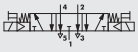
Ⓞ MONOSTABLE 5/3, SOLENOID/PNEUMATIC, PILOT-ASSISTED - CLOSED CENTRES



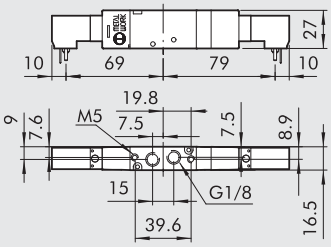
Symbol	Code	Description	Weight [g]
	**7062060212**	MSV 26 SCS CC 24VDC	143
	7062060213	MSV 26 SCS CC 24VAC	143

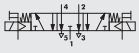
Ⓔ MONOSTABLE 5/3 SOLENOID/PNEUMATIC - OPEN CENTRES



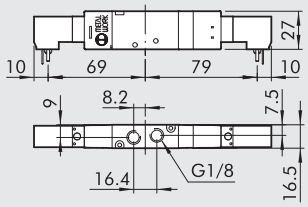
Symbol	Code	Description	Weight [g]
	**7062040312**	MSV 26 SMS OC 24VDC	142
	7062040313	MSV 26 SMS OC 24VAC	142

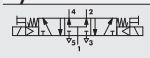
Ⓕ MONOSTABLE 5/3 SOLENOID/PNEUMATIC, PILOT-ASSISTED - OPEN CENTRES



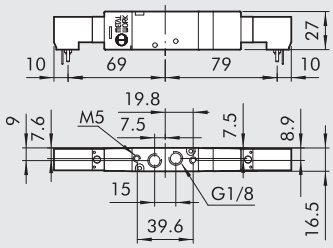
Symbol	Code	Description	Weight [g]
	**7062060312**	MSV 26 SCS OO 24VDC	143
	7062060313	MSV 26 SCS OO 24VAC	143

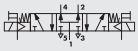
Ⓑ MONOSTABLE 5/3, SOLENOID/PNEUMATIC - PRESSURE CENTRES



Symbol	Code	Description	Weight [g]
	**7062040412**	MSV 26 SMS PC 24VDC	142
	7062040413	MSV 26 SMS PC 24VAC	142

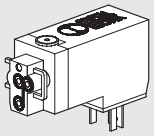
Ⓒ MONOSTABLE 5/3, SOLENOID/PNEUMATIC, PILOT-ASSISTED - PRESSURE CENTRES



Symbol	Code	Description	Weight [g]
	**7062060412**	MSV 26 SCS PC 24VDC	143
	7062060413	MSV 26 SCS PC 24VAC	143

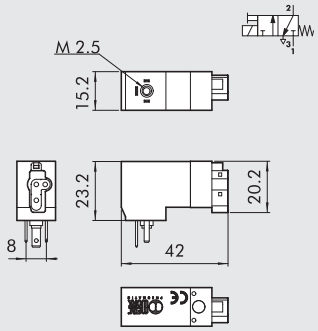
SPARE PARTS

COIL MACH 16 (OLD)



Code	Description
W4015201000	Pilot – multiple connection 24VDC
W4015201010	Pilot – multiple connection 24VAC

COIL MACH 16 (NEW)

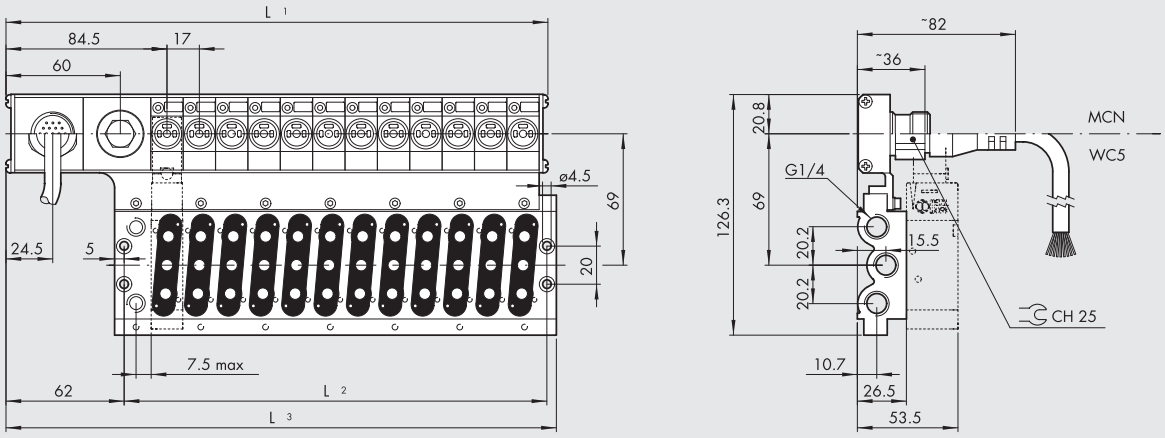


Code	Description
W4015401000	In-line pilot 24VDC
W4015401010	In-line pilot 24VAC 50/60 Hz

N.B.: if the pilot to be replaced bears the writing **CE**, you have to order among the NEW pilots, otherwise order among the OLD pilots.

BASES WITH MULTIPLE CONNECTION

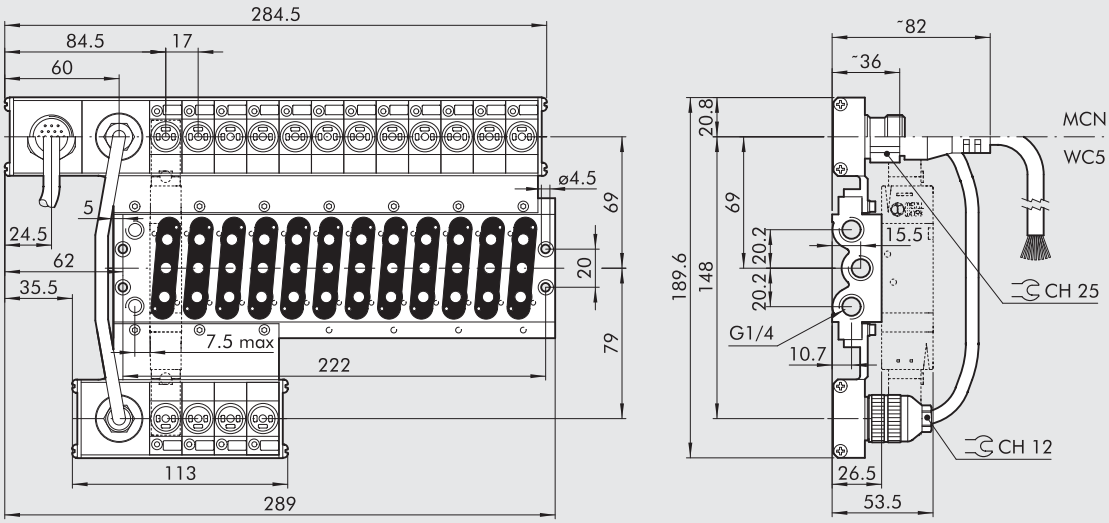
MONOSTABLE SOLENOID/PNEUMATIC BASE WITH 4, 6, 8, 10, 12 POSITIONS



	Pos.-Nr.	L1	L2	L3	Description	Code 24VDC	Code 24VAC	Weight [g]
With multiple connector	4	148.5	86	153	CVM EP 08 04 M MCN	**0225100401**	**0225110401**	504
	6	182.5	120	187	CVM EP 08 06 M MCN	**0225100601**	**0225110601**	644
	8	216.5	154	221	CVM EP 08 08 M MCN	**0225100801**	**0225110801**	784
	10	250.5	188	255	CVM EP 08 10 M MCN	**0225101001**	**0225111001**	924
	12	284.5	222	289	CVM EP 08 12 M MCN	**0225101201**	**0225111201**	1264
With pre-wired cable	4	148.5	86	153	CVM EP 08 04 M WC5	**0225400401**	**0225410401**	3642
	6	182.5	120	187	CVM EP 08 06 M WC5	**0225400601**	**0225410601**	3781
	8	216.5	154	221	CVM EP 08 08 M WC5	**0225400801**	**0225410801**	3923
	10	250.5	188	255	CVM EP 08 10 M WC5	**0225401001**	**0225411001**	4070
	12	284.5	222	289	CVM EP 08 12 M WC5	**0225401201**	**0225411201**	4195

. . . . . : • 24VDC = direct current
• 24VAC = alternating current

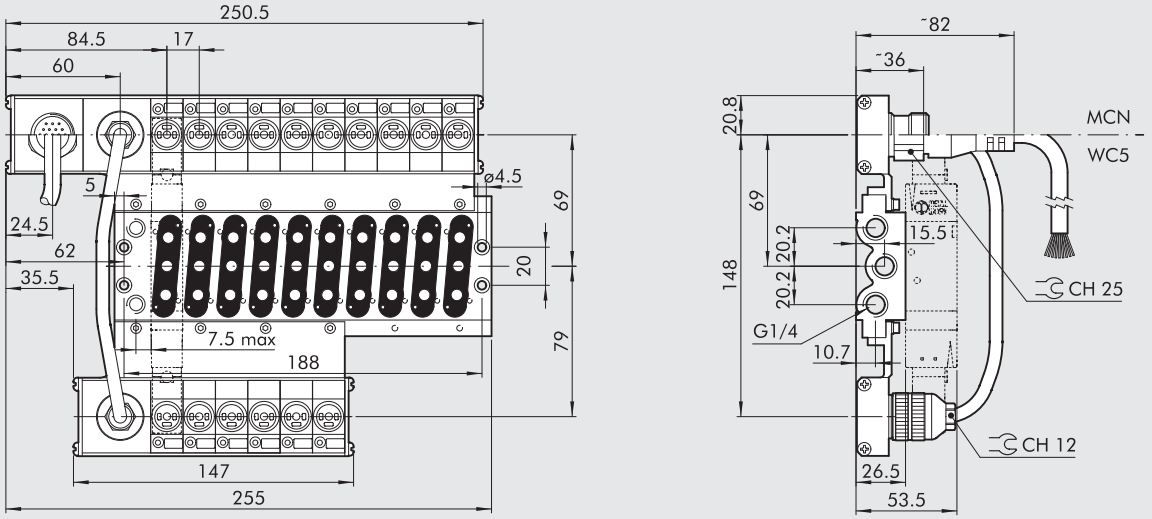
BISTABLE SOLENOID/PNEUMATIC BASE WITH 12 POSITIONS



	Pos.-Nr.	Description	Code 24VDC	Code 24VAC	Weight [g]
With multiple connector	12	CVM EP 08 12 B MCN	**0225201201**	**0225211201**	1315
With pre-wired cable	12	CVM EP 08 12 B WC5	**0225501201**	**0225511201**	4700

. . . . . : • 24VDC = direct current
• 24VAC = alternating current

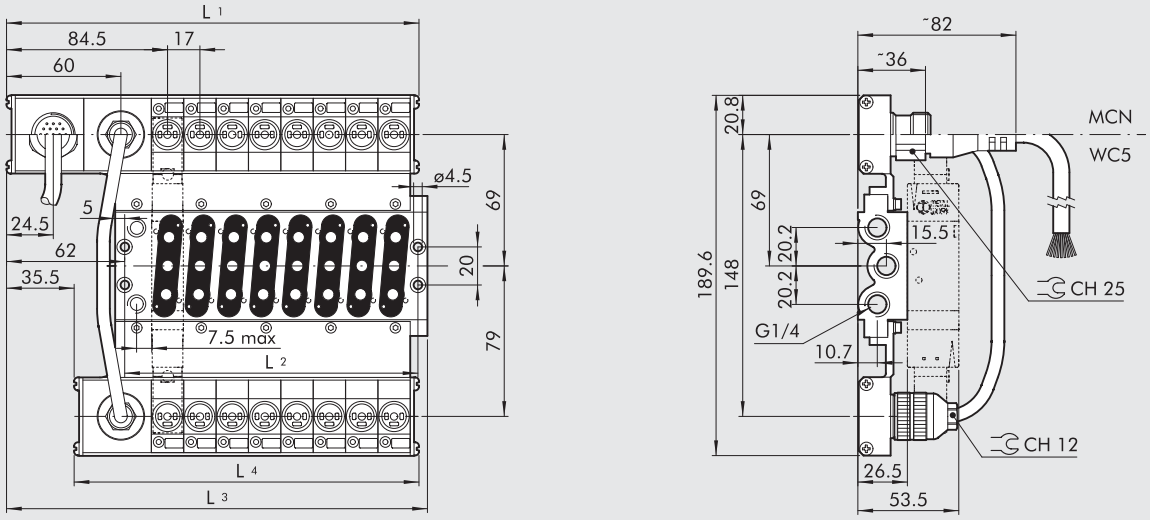
BISTABLE SOLENOID/PNEUMATIC BASE WITH 10 POSITIONS



	Pos.-Nr.	Description	Code 24VDC	Code 24VAC	Weight [g]
With multiple connector	10	CVM EP 08 10 B MCN	**0225201001**	**0225211001**	1245
With pre-wired cable	10	CVM EP 08 10 B WC5	**0225501001**	**0225511001**	4600

. . . . . : • 24VDC = direct current
• 24VAC = alternating current

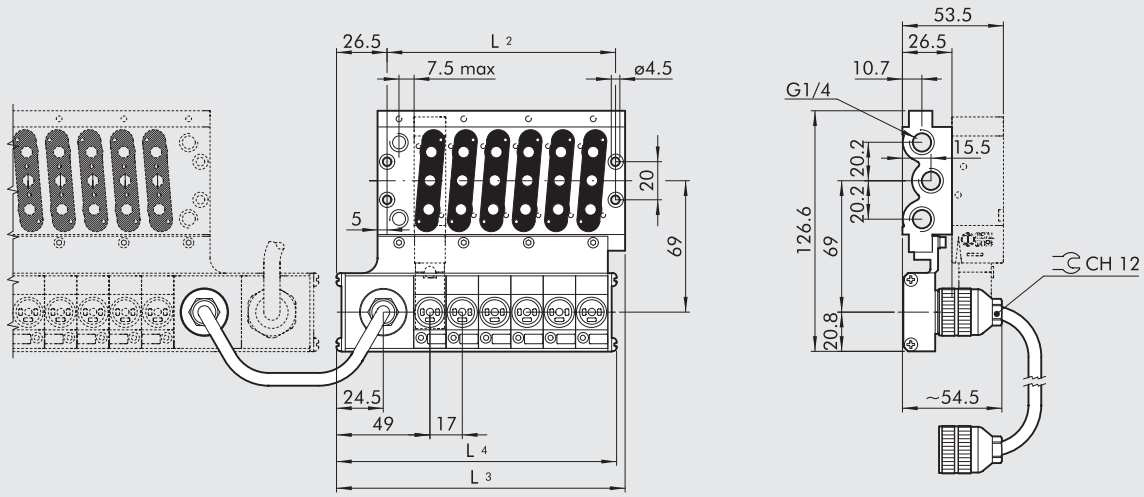
BISTABLE SOLENOID/PNEUMATIC BASE WITH 4, 6, 8 POSITIONS



	Pos.-Nr.	L1	L2	L3	L4	Description	Code 24VDC	Code 24VAC	Weight [g]
With multiple connector	4	148.5	86	153	113	CVM EP 08 04 B MCN	**0225200401**	**0225210401**	770
	6	182.5	120	187	147	CVM EP 08 06 B MCN	**0225200601**	**0225210601**	965
	8	216.5	154	221	181	CVM EP 08 08 B MCN	**0225200801**	**0225210801**	1200
With pre-wired cable	4	148.5	86	153	113	CVM EP 08 04 B WC5	**0225500401**	**0225510401**	3910
	6	182.5	120	187	147	CVM EP 08 06 B WC5	**0225500601**	**0225510601**	4086
	8	216.5	154	221	181	CVM EP 08 08 B WC5	**0225500801**	**0225510801**	4264

. . . . . : • 24VDC = direct current
• 24VAC = alternating current

ADDITIONAL MONOSTABLE SOLENOID/PNEUMATIC BASE WITH 4, 6, 8 POSITIONS



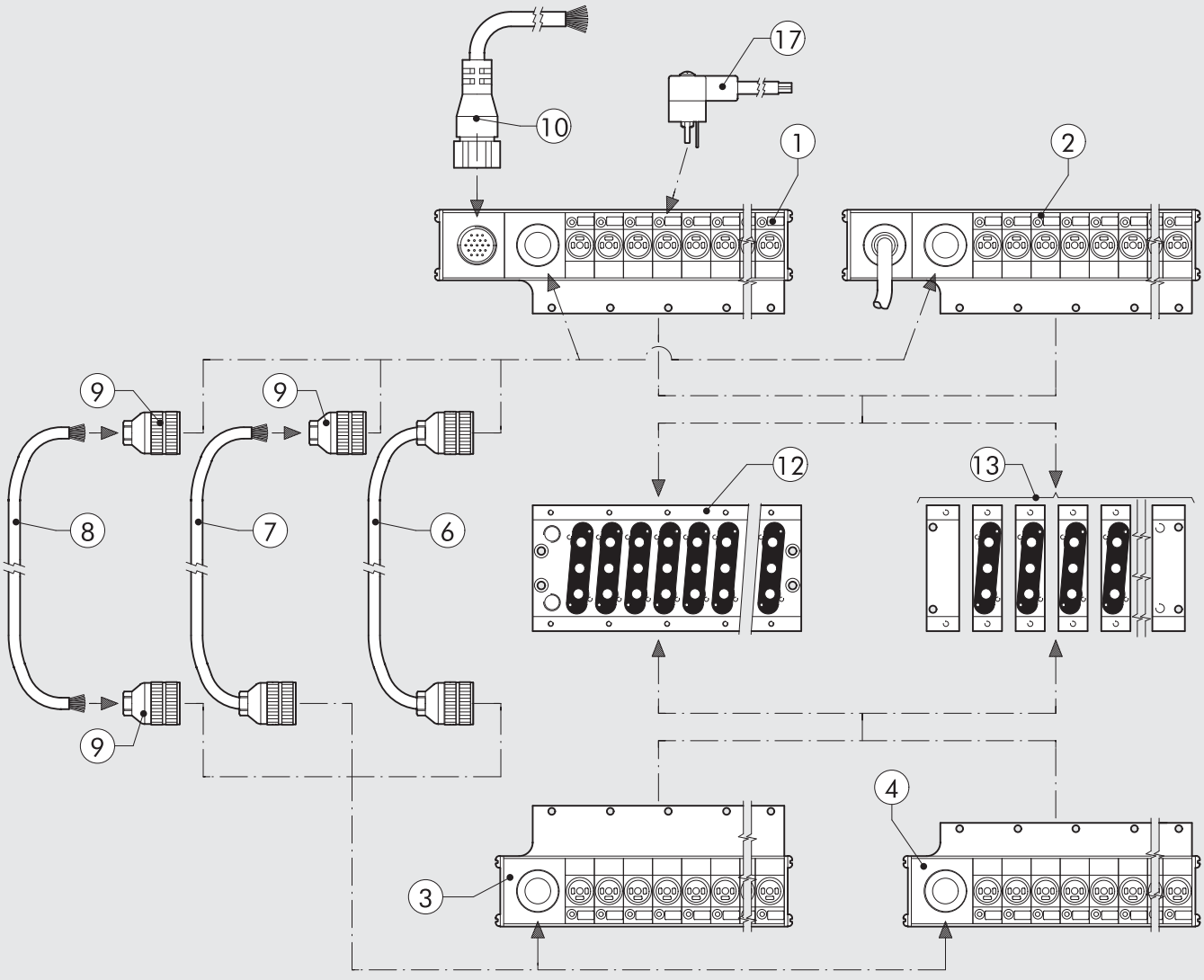
Pos.-Nr.	L2	L3	L4	Description	Code 24VDC	Code 24VAC	Weight [g]
4	86	117.5	113	CVM EP 08 04 M ACM	**0225300401**	**0225310401**	500
6	120	151.5	147	CVM EP 08 06 M ACM	**0225300601**	**0225310601**	640
8	154	185.5	181	CVM EP 08 08 M ACM	**0225300801**	**0225310801**	780

. . . . . : • 24VDC = direct current
• 24VAC = alternating current

NOTES

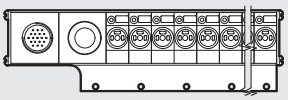
MODULAR MULTIPLE CONNECTOR KIT

It is possible to buy the various assembly kits separately, to obtain a wide range of customised applications.
The main units of the version with connector ① or the pre-wired version ② can easily be assembled with the multiple base ⑫ or the modular manifold base ⑬. The manifold base allows particular circuits on the individual valves (feed from exhaust outlets, pressure differentiation, etc.)
Likewise, on the other side it is also simple to mount the secondary unit ③. This possibility is very interesting because it allows you to convert a base for monostable valves into a base for bistable valves.
If you fit an additional secondary unit ④ on a base, you obtain an additional solenoid base that can be connected by means of return cables to a main base for monostable valves. The only thing to remember is that in all cases the total number of positions (connection to solenoid valve coil) must not exceed sixteen.
The 10 pin return cable ⑥ is used when a main unit and a secondary unit, or only one additional secondary unit, are mounted together on the multiple (or manifold) base. It has to be connected to the sockets shown in the diagram.
For different requirements, it is also possible to have return cables with a connector at one end only ⑦, or just the 10-wire cable ⑧.
These types are available in different lengths. A 10-wire connector kit ⑨ is also available if you need to complete the wiring.
In the version with a connector, the piloting of the entire assembled base is assigned to the 19-wire connector complete with cable ⑩ which is available in various lengths.
The male connector ⑰ allows the free electrical connection of the multiple connector to be used, in order to control the valves placed in the system or to control the bistable valves by a monostable multiple electrical connection base.



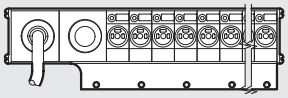
METAL WORK PNEUMATIC

① MAIN KIT - VERSION WITH CONNECTOR



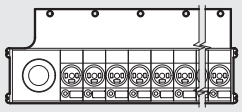
Code	Description	Weight [g]
0226500401	Main multiple connection kit, 4 positions 24VDC	245
0226510401	Main multiple connection kit, 4 positions 24VAC	245
0226500601	Main multiple connection kit, 6 positions 24VDC	280
0226510601	Main multiple connection kit, 6 positions 24VAC	280
0226500801	Main multiple connection kit, 8 positions 24VDC	308
0226510801	Main multiple connection kit, 8 positions 24VAC	308
0226501001	Main multiple connection kit, 10 positions 24VDC	344
0226511001	Main multiple connection kit, 10 positions 24VAC	344
0226501201	Main multiple connection kit, 12 positions 24VDC	396
0226511201	Main multiple connection kit, 12 positions 24VAC	396

② MAIN MULTIPLE PRE-WIRED CONNECTION KIT



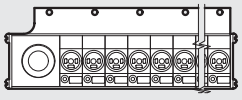
Code	Description	Weight [g]
0226400401	Pre-wired multiple main connector kit, 4 positions 24VDC	3350
0226410401	Pre-wired multiple main connector kit, 4 positions 24VAC	3350
0226400601	Pre-wired multiple main connector kit, 6 positions 24VDC	3400
0226410601	Pre-wired multiple main connector kit, 6 positions 24VAC	3400
0226400801	Pre-wired multiple main connector kit, 8 positions 24VDC	3423
0226410801	Pre-wired multiple main connector kit, 8 positions 24VAC	3423
0226401001	Pre-wired multiple main connector kit, 10 positions 24VDC	3460
0226411001	Pre-wired multiple main connector kit, 10 positions 24VAC	3460
0226401201	Pre-wired multiple main connector kit, 12 positions 24VDC	3490
0226411201	Pre-wired multiple main connector kit, 12 positions 24VAC	3490

③ SECONDARY KIT



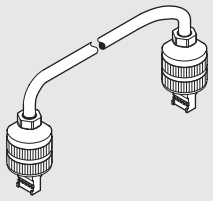
Code	Description	Weight [g]
0226200401	Multiple secondary connector kit, 4 positions 24VDC	166
0226210401	Multiple secondary connector kit, 4 positions 24VAC	166
0226200601	Multiple secondary connector kit, 6 positions 24VDC	210
0226210601	Multiple secondary connector kit, 6 positions 24VAC	210
0226200801	Multiple secondary connector kit, 8 positions 24VDC	257
0226210801	Multiple secondary connector kit, 8 positions 24VAC	257

④ ADDITIONAL SECONDARY KIT



Code	Description	Weight [g]
0226300401	Multiple secondary connector kit, 4 positions 24VDC	158
0226310401	Multiple secondary connector kit, 4 positions 24VAC	158
0226300601	Multiple secondary connector kit, 6 positions 24VDC	199
0226310601	Multiple secondary connector kit, 6 positions 24VAC	199
0226300801	Multiple secondary connector kit, 8 positions 24VDC	243
0226310801	Multiple secondary connector kit, 8 positions 24VAC	243

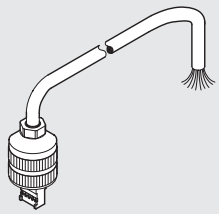
⑥ 10-WIRE RETURN CABLE



Code	Description
0226150022	10-whire return cable L = 22 cm
022615....	10-whire return cable

....Length in cm
Please contact our sales offices

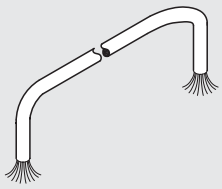
⑦ 10-WIRE RETURN CABLE - ONE END WITH CONNECTOR



Code	Description
022613....	10-wire return cable - one end with connector

....Length in cm
Please contact our sales offices

⑧ CABLE WITH 10 CONNECTORS



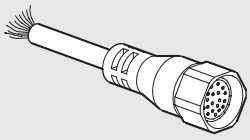
Code	Description
0226107201	10-wires cable

Please specify the desired length in metres

⑨ 10-WIRE CONNECTOR KIT

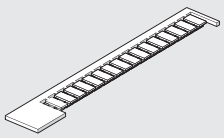
Code	Description
0226170002	10-wire connector kit

⑩ 19-WIRE CABLE, ONE END WITH CONNECTOR



Code	Description
0226140250	19-wire cable, one end with connector L = 2.5 m
0226140500	19-wire cable, one end with connector L = 5 m
0226141000	19-wire cable, one end with connector L = 10 m
0226141500	19-wire cable, one end with connector L = 15 m
0226142000	19-wire cable, one end with connector L = 20 m
0226143000	19-wire cable, one end with connector L = 30 m

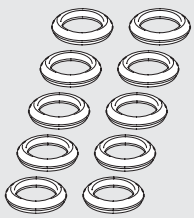
⑫ SET OF IDENTIFICATION PLATES



Code	Description
0226107000	Set of identification plates

Package: 16 pieces

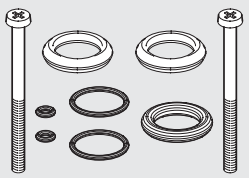
⑬ ELECTRIC CONTACT GASKETS



Code	Description
0226107001	Set of electric contact gaskets

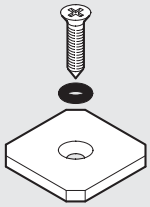
Package: 10 pieces

⑭ SET OF MULTIPLE BASE GASKETS



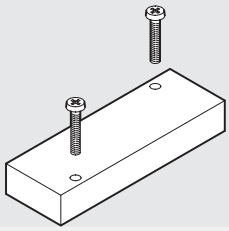
Code	Description
0226007001	Set of M16 multiple base gaskets

⑮ ELECTRIC CONNECTION BLANKING PLATE



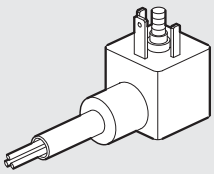
Code	Description
0225004502	Mach 16 electric connection blanking plate

⑯ BASE BLANKING PLATE



Code	Description
0225004500	Mach 16 base blanking plate

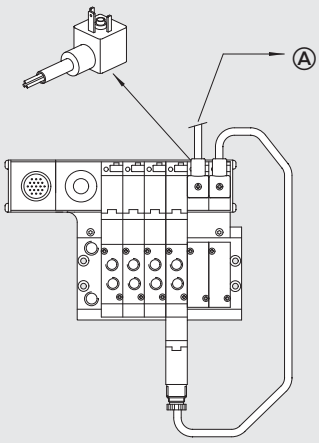
⑰ MALE CONNECTOR



Code	Description
W0970504021	Male connector 2 mm

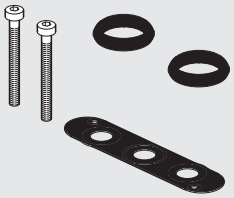
Max power for each position = 5W
Max total power of multiple connector = 36W

Example of a male connector



SOV 1/8″
SOV 1/4″
SOV 1/2″
SOV on base
MACH 16
MACH 18
ISO 1 – ISO 2
PIV valves
APR: progressive starter
V3V: circuit switching valve

⑱ KIT OF MULTIPLE BASE GASKETS



Code	Description
0226007003	Kit of M16 multiple base integrate gaskets

NOTES