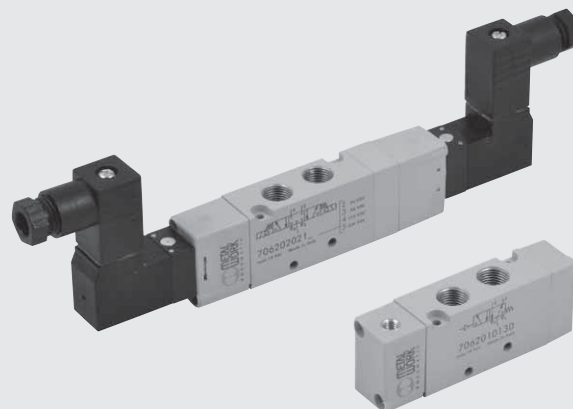


VALVES MACH 16

Available in size 1/8" only, versions 5/2 and 5/3 and with pneumatic and solenoid actuation. The Mach 16 valve is a typical small size valve, only 16 mm wide, with excellent performance 750 NI/min flow rate at 6 bar ΔP 1 bar.

The valve can be used in line, on a panel or on a base (multiple or manifold)
The Mach design is the result of the miniaturisation concept with the same durability, sturdiness and reliability.

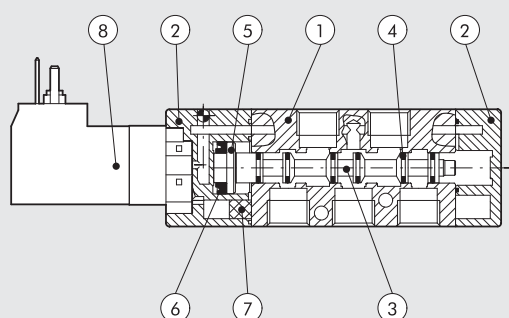


TECHNICAL DATA

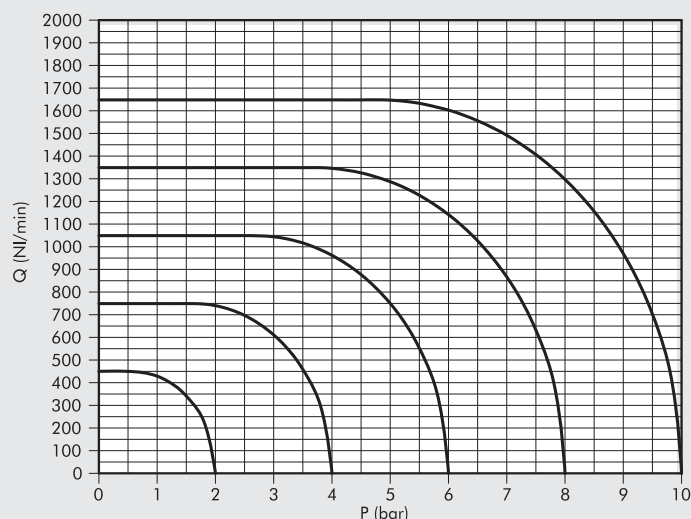
Valve port thread		1/8"
Type of control		M5 pneumatic actuation - Solenoid/pneumatic operation with integrated coil
Maximum outer diameter of gaskets for ports 1 - 3 - 5	mm	15
Maximum outer diameter for ports 2 - 4	mm	15
Operating temperature range	°C	-10 to +60
Minimum pressure pilot-pneumatic controls	bar	Monostable with pneumatic spring: see picture on page B1.90
	bar	1.6 bar for monostable valves – mechanical spring
	bar	1 bar for bistable valves – 1.9 bar for valves 5/3
	bar	vacuum -10
Operating pressure		Filtered lubricated or unlubricated air lubrication, if used, must be continuous
Fluid		ISO e UNI FD22
Recommended lubricant		Integrated coil DIN 43650 C shape
Solenoid pilot		Monostable on solenoid pilot (with bistable manual valve on request)
Manual		1-3-5 and pilot exhaust
Number of ways in base		2 screws M3
Screws for wall-mounting single valve		2 screws M2.5x30
Screws for base-mounting valve		In any position (vertical assembly is not recommended for bistable valves subjected to vibration)
Installation		
Flow rate at 6 bar ΔP 0.5 bar	NI/min	540
Flow rate at 6 bar ΔP 1 bar	NI/min	750
Conductance C	NI/min · bar	149.8
Critical ratio b	bar/bar	0.525
Compatibility with oils		See chapter Z1

COMPONENTS

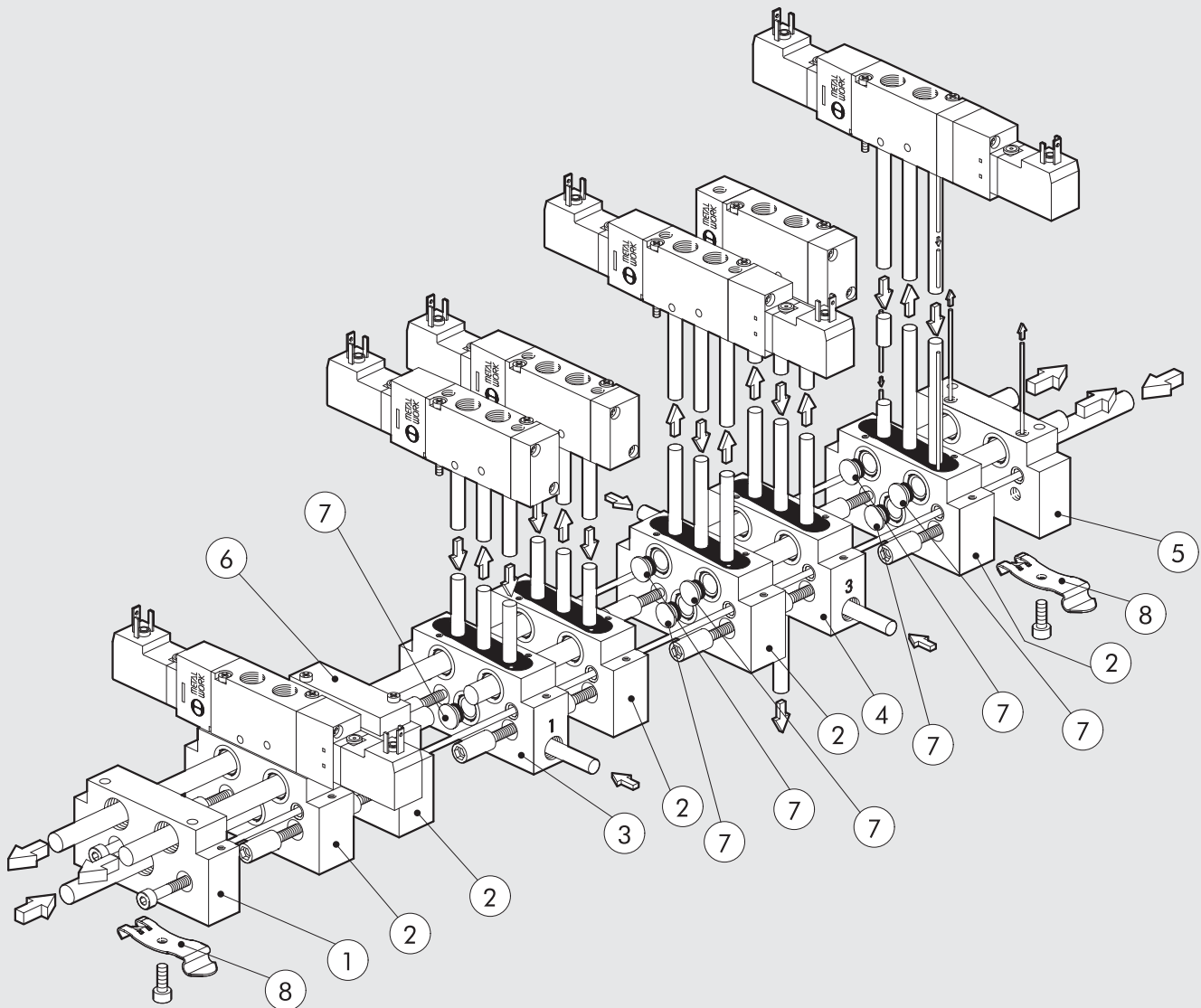
- ① VALVE BODY: Aluminium
- ② CONTROL/BASE: Hostaform®
- ③ SPOOL: Aluminium
- ④ GASKETS: Polyurethane
- ⑤ PISTONS: Hostaform®
- ⑥ PISTON GASKET: Polyurethane
- ⑦ INTERFACE GASKETS: NBR nitrile rubber
- ⑧ PILOT: with integrated coil



FLOW CHART



MANIFOLD BASES



DISTRIBUTORS

VALVES MACH 16

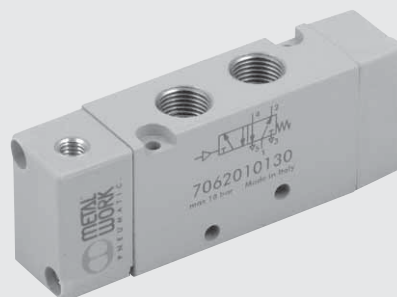
Reference	Code	Description
①	0227100201	M16/VDMA Input end-plate kit
②	0227100150	M16 manifold base kit
③	0227100301	M16 separate feed manifold base kit
④	0227100302	M16 exhaust feed manifold base kit
⑤	0227100200	M16/VDMA output end-plate kit
⑥	0225004500	M16 blanking plate
⑦	0227100000	Intermediate diaphragm
⑧	0227300600	Connection bracket on DIN-bar

SYNOPTIC, SIZES AND VERSIONS

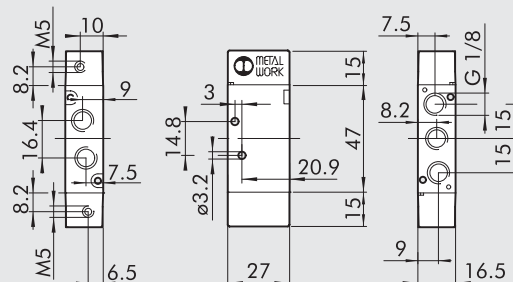
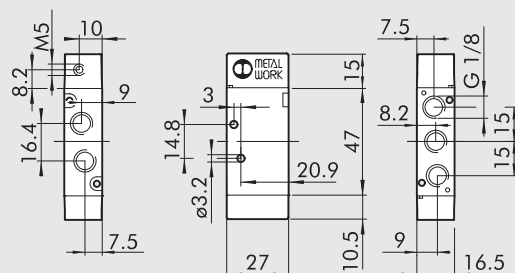
M S V FAMILY	2 DIMENSIONS	5 FUNCTION	S O OPERATORS 14	B RESETTING 12	O O FURTHER DETAILS	2 4 V D C VOLTAGE
MSV solenoid/pneumatic MPV pneumatic	2 1/8"	5 5/2 6 5/3	SO solenoid/pneumatic SE solenoid pilot PN pneumatic	P pneumatic spring S mechanical springs B bistable	OO 5/2 CC closed centres OC open centres PC pressure centres	24VDC 24VAC 110VAC 220VAC

TECHNICAL DATA

Operating pressure	bar	Vacuum to 10
Minimum operating pressure:	bar	
• monostable with pneumatic spring		see graph
• monostable with mechanical spring		1.6
• monostable 5/3		1.9
• bistable		1
Conductance C	Nl/min · bar	149.8
Critical ratio b	bar/bar	0.525
Flow rate at 6 bar ΔP 0.5 bar	Nl/min	540
Flow rate at 6 bar ΔP 1 bar	Nl/min	750
Repositioning response times at 6 bar:		
• monostable	ms	4
• bistable	ms	4
Repositioning response times at 6 bar:		
• monostable	ms	8.4
• bistable	ms	4



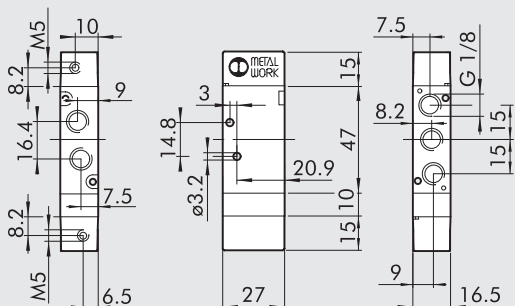
BISTABLE 5/2



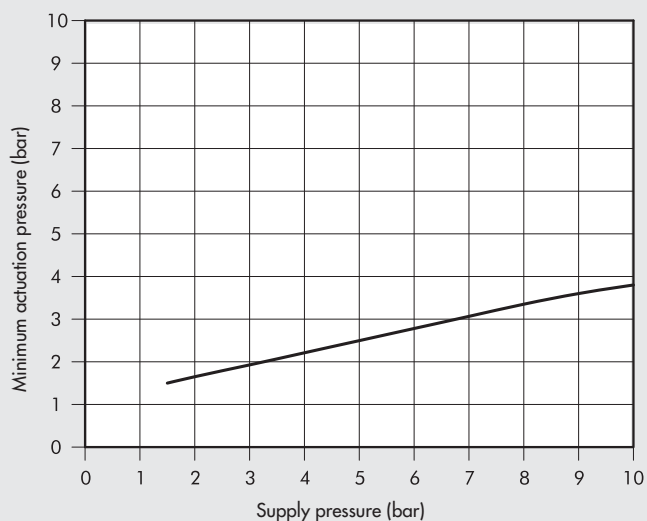
Symbol	Code	Abbrev.	Weight [g]
	7062010100	MPV 25 PNP OO	60
	7062010130	MPV 25 PNS OO	61

Symbol	Code	Abbrev.	Weight [g]
	7062010110	MPV 25 PNB OO	62

OPERATING PRESSURE



Symbol	Code	Abbrev.	Weight [g]
	7062010210	MPV 26 PNS CC	73
	7062010310	MPV 26 PNS OC	73
	7062010410	MPV 26 PNS PC	73



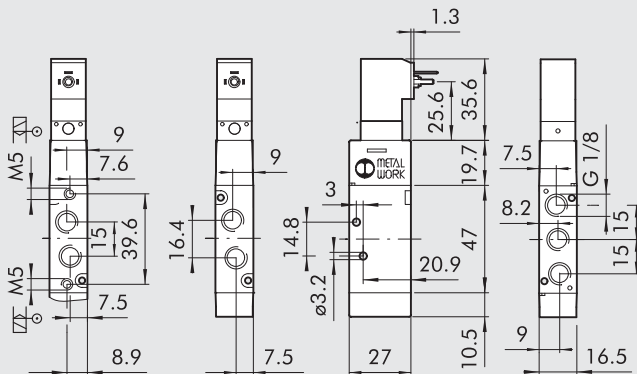
VALVES MACH 16 MPV, SOLENOID/PNEUMATIC

TECHNICAL DATA

Operating pressure:	bar	
• monostable		1.9 to 10
• bistable		1 to 10
• pilot-assisted		Vacuum to 10
Minimum pilot pressure	bar	2
Operating temperature range	°C	-10 to +60
Conductance C	Nl/min · bar	149.8
Critical ratio b	bar/bar	0.525
Flow rate at 6 bar ΔP 0.5 bar	Nl/min	540
Flow rate at 6 bar ΔP 1 bar	Nl/min	750
TRA / TRR monostable at 6 bar	ms	12 / 26
TRA / TRR bistable at 6 bar	ms	21 / 21
Type of operation: Manual		monostable on the solenoid pilot (also with bistable manual valve on request)
Pilot with integrated coil		24 VDC - 24 VAC - 110 VAC - 220 VAC
Power	W	1
Voltage tolerance		-10% to +15%
Insulation class		F 155
Degree of protection		IP 65 EN60529 with connector
Solenoid rating		100% ED
Electrical contacts		DIN 43650 C shape

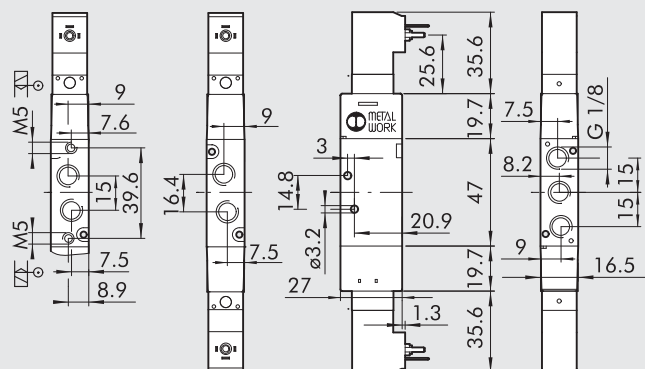


MONOSTABLE 5/2



Symbol	Code	Abbrev.	Weight [g]
	7062020102	MSV 25 SOP OO 24VDC	92
	7062020103	MSV 25 SOP OO 24VAC	92
	7062020104	MSV 25 SOP OO 110VAC	92
	7062020105	MSV 25 SOP OO 220VAC	92
	7062020132	MSV 25 SOS OO 24VDC	93
	7062020133	MSV 25 SOS OO 24VAC	93
	7062020134	MSV 25 SOS OO 110VAC	93
	7062020135	MSV 25 SOS OO 220VAC	93
	7062030132	MSV 25 SES OO 24VDC	93
	7062030133	MSV 25 SES OO 24VAC	93
	7062030134	MSV 25 SES OO 110VAC	93
	7062030135	MSV 25 SES OO 220VAC	93

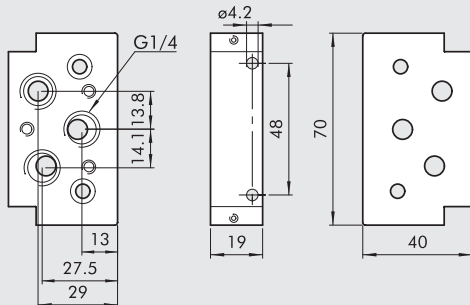
BISTABLE 5/2



Symbol	Code	Abbrev.	Weight [g]
	7062020112	MSV 25 SOB OO 24VDC	124
	7062020113	MSV 25 SOB OO 24VAC	124
	7062020114	MSV 25 SOB OO 110VAC	124
	7062020115	MSV 25 SOB OO 220VAC	124
	7062030112	MSV 25 SEB OO 24VDC	125
	7062030113	MSV 25 SEB OO 24VAC	125
	7062030114	MSV 25 SEB OO 110VAC	125
	7062030115	MSV 25 SEB OO 220VAC	125

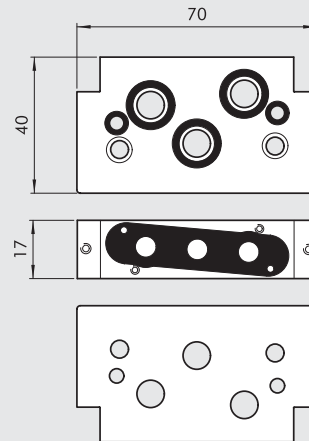
MANIFOLD BASES FOR VALVES MACH 16

① MACH 16 INPUT END-PLATE



Code	Description	Weight [g]
0227100201	Input end-plate kit M16/VDMA	125

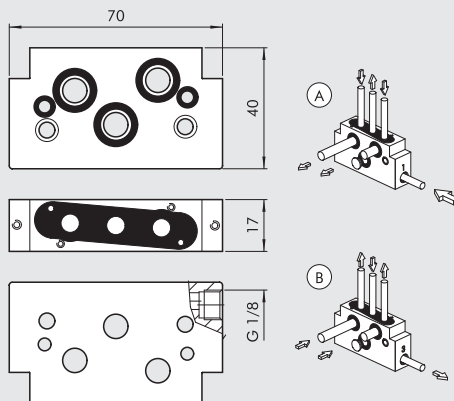
② MACH 16 MANIFOLD BASE



Code	Description	Weight [g]
0227100150	Manifold base kit M16	121

③ MACH 16 SEPARATE FEED MANIFOLD BASE

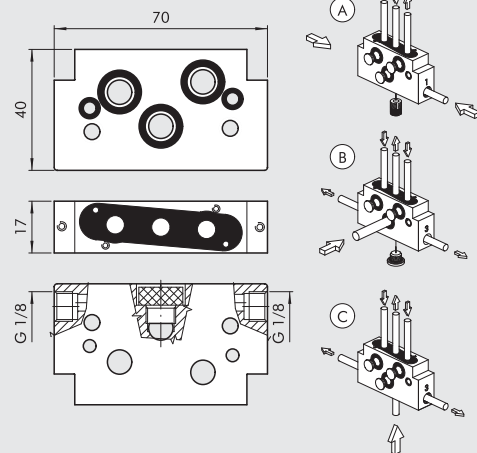
- Ⓐ Separate feed
- Ⓑ Separate exhaust



Code	Description	Weight [g]
0227100301	Manifold base kit-separate feed M16	119

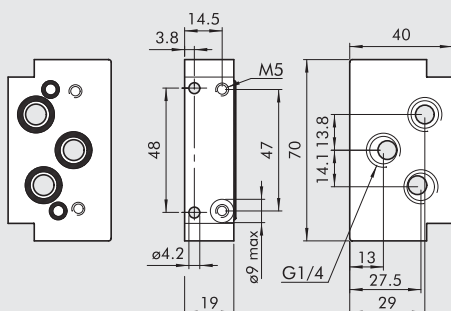
④ MACH 16 EXHAUST FEED MANIFOLD BASE

- Ⓐ Exhaust feed
- Ⓑ Separate exhausts
- Ⓒ Separate feed/exhausts



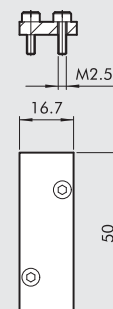
Code	Description	Weight [g]
0227100302	Manifold base kit-exhaust feed M16	113

⑤ MACH 16 OUTPUT END-PLATE



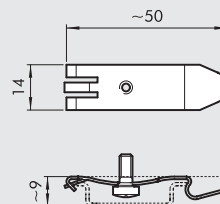
Code	Description	Weight [g]
0227100200	Output end-plate kit M16/VDMA	122

⑥ BLANKING PLATE – UNUSED POSITION

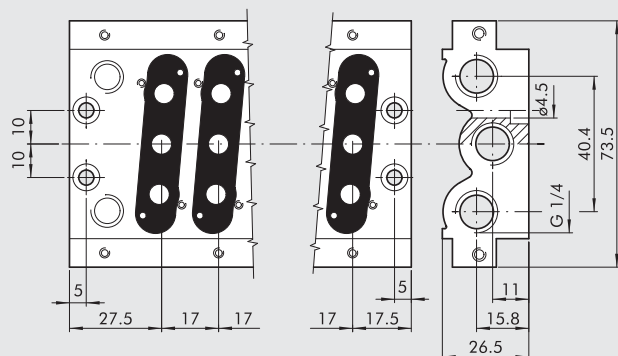


Code	Description	Weight [g]
0225004500	Accessories - blanking plate for Mach 16	18

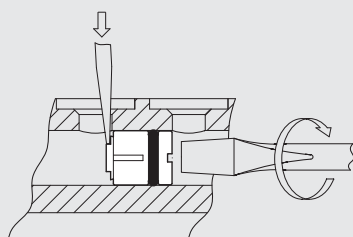
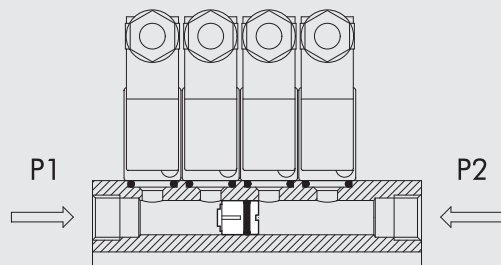
Code	Description	Weight [g]
0227100000	Intermediate diaphragm	1



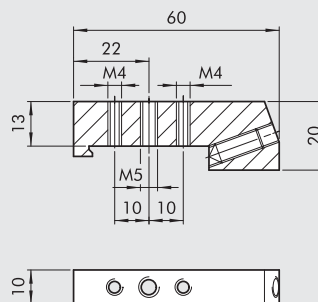
Code	Description	Weight [g]
0227300600	Connection bracket on DIN bar	7



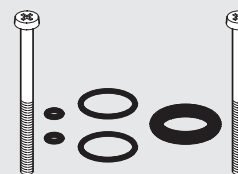
Code	Description	N° of positions	Weight [g]
0225000201	Base CVM.PN-08-02-0-000	2	180
0225000401	Base CVM.PN-08-04-0-000	4	286
0225000601	Base CVM.PN-08-06-0-000	6	390
0225000801	Base CVM.PN-08-08-0-000	8	500
0225001001	Base CVM.PN-08-10-0-000	10	613
0225001201	Base CVM.PN-08-12-0-000	12	706



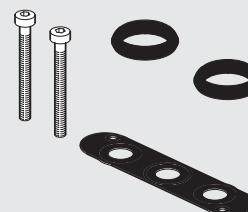
Code	Description	Weight [g]
0227100001	Acc. multiple base diaphragm	6



Code	Description	Weight [g]
0225004600	Omega-adapter Mach 16	46



Code	Description	Weight [g]
0226007001	M16 multiple base gasket kit	5



Code	Description	Weight [g]
0226007003	M16 multiple base gasket kit	5