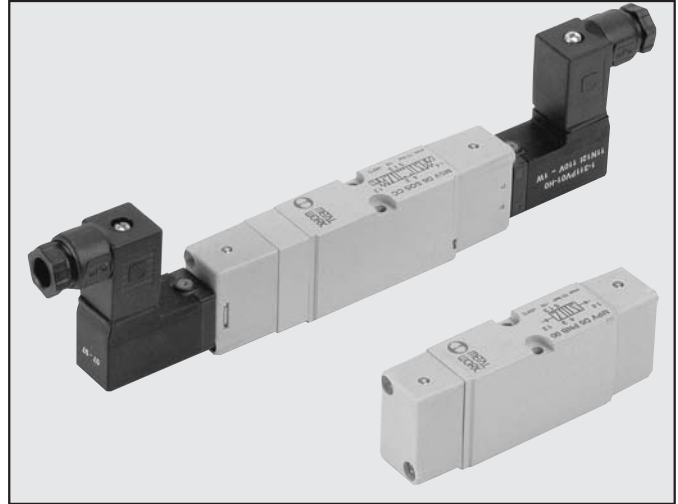


# VALVES TO ISO 15407-1/ VDMA 24563-02 SERIES MACH 18

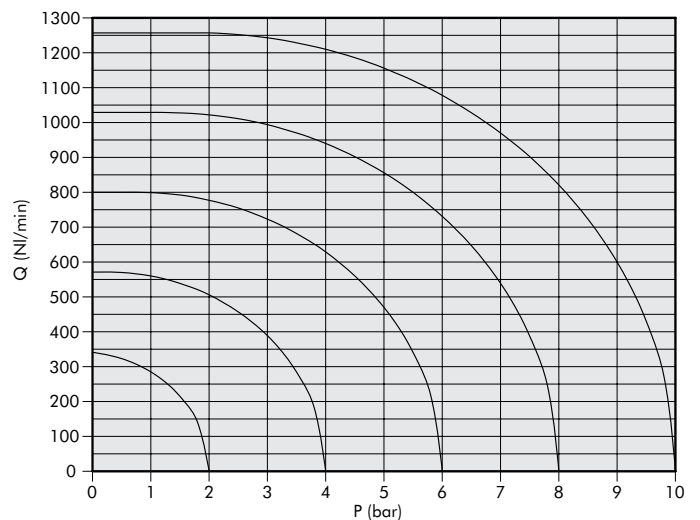
Mach 18 valve is manufactured according to the ISO 1507-1 standard, which in turn absorbs the VDMA 24563-02 rule. It comes in 5-way versions with 2 and 3 positions with solenoid or pneumatic actuation.



## TECHNICAL DATA

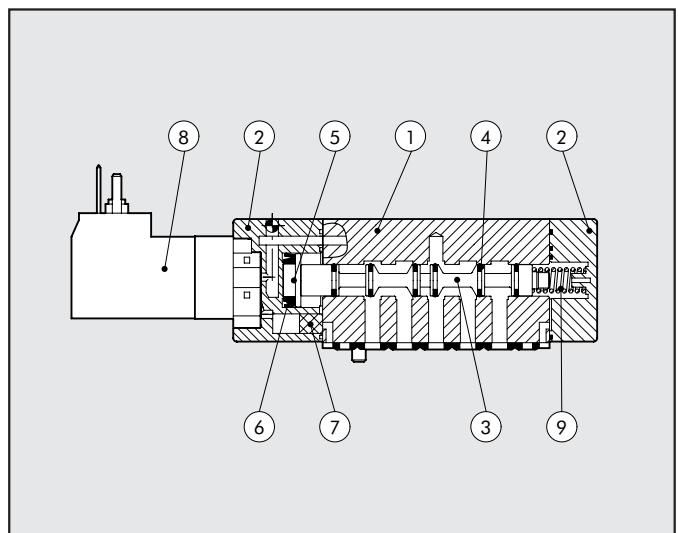
Fluid	Filtered air without lubrication; lubrication, if used, must be continuous
Operating pressure:	
• monostable	1.5 ÷ 10 bar
• monostable 5/3	Vacuum to 10 bar – 1.9 to 10 bar solenoid/pneumatic
• bistable	Vacuum to 10 bar – 1 to 10 bar solenoid/pneumatic
• pilot-assisted	Vacuum to 10 bar
Minimum pilot pressure	2-10 bar
Operating temperature range	-10° to 60°C
Conductance C	114.86 NI/min · bar
Critical ratio b	0.25 bar/bar
Flow rate at 6 Bar ΔP 0.5 Bar	340 NI/min
Flow rate at 6 Bar ΔP 1 Bar	470 NI/min
Installation	in any position (vertical assembly is not recommended for bistable valves subjected to vibration)
Assembly	on manifold bases
Recommended lubricant	ISO and UNI FD 22
Solenoid pilot	integrated coil to DIN 43650 C-shape
Manual	monostable on solenoid pilot (with manual monostable on request)
Compatibility with oils:	please refer to page 6.1/08

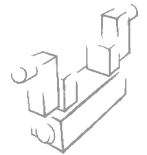
## FLOW CHART



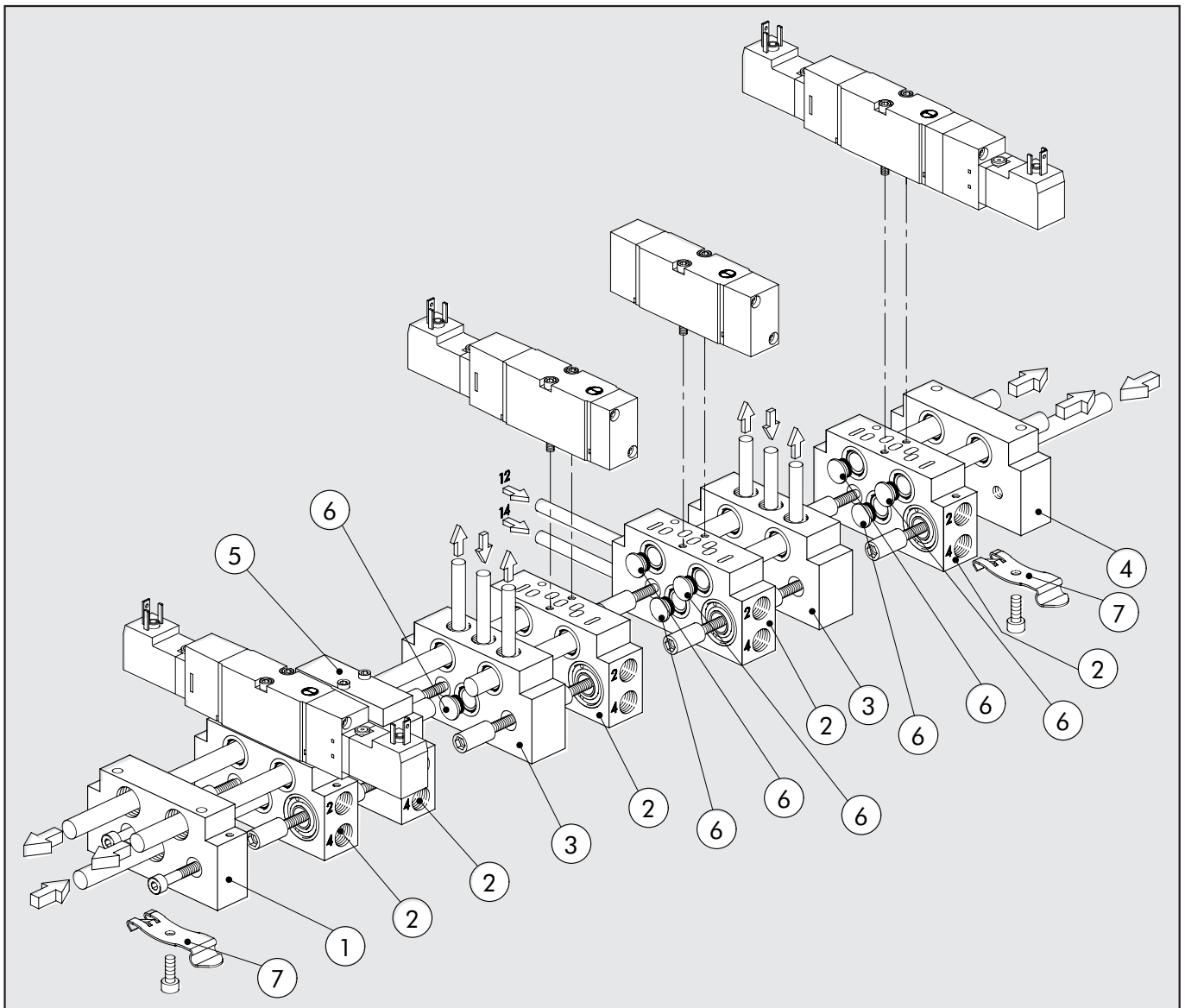
## COMPONENTS

- ① VALVE BODY: Aluminium
- ② CONTROL/END CAP: HOSTAFORM®
- ③ SPOOL: aluminium
- ④ GASKETS: Polyurethane
- ⑤ PISTON: HOSTAFORM®
- ⑥ PISTON GASKET: Polyurethane
- ⑦ FILTER: sintered bronze
- ⑧ PILOT: with integrated coil
- ⑨ SPRING: special steel





## MODULARITY



2

Ref.	Description	Code
①	VDMA input end plate kit	0227100201
②	Manifold side base kit size 2	0227200150
③	VDMA intermediate bases size 2	0227200300
④	VDMA output end plate kit	0227100200
⑤	VDMA blanking plate size 2	0227200500
⑥	Intermediate diaphragm	0227100000
⑦	Connection bracket on DIN bar	0227300600

## KEY TO CODES

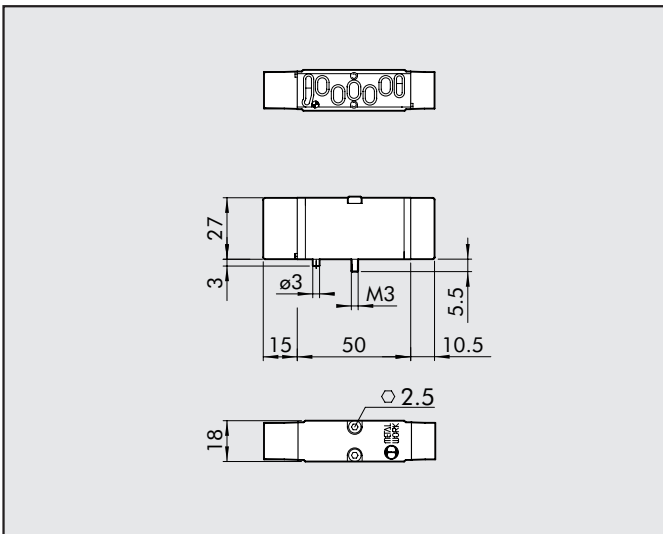
M	S	V	D	5	S	O	S	O	O	24VDC		
FAMILY		PORT		FUNCTION		OPERATORS 14		RESETTING 12		FURTHER DETAILS	VOLTAGE	
MSV	electropneumatic	D	ISO	5	5/2	SO	solenoid/ pneumatic	S	mechanical spring	OO	5/2	24VDC
MPV	pneumatic	15407-1/ VDMA 24563-02		6	5/3	SE	solenoid-pilot- assisted pneumatic	B	bistable	CC	closed centres	24VAC
						PN				OC	open centres	110VAC
										PC	pressure centres	220VAC

## TECHNICAL DATA

Operating pressure	Vacuum ÷ 10 bar
Minimum operating pressure:	
• monostable	1.5 bar
• monostable 5/3	1.9 bar
• bistable	1 bar
Conductance C	114.86 NI/min · bar
Critical ratio b	0.25 bar/bar
Flow rate at 6 Bar ΔP 0.5 Bar	340 NI/min
Flow rate at 6 Bar ΔP 1 Bar	470 NI/min
Actuation response times at 6 Bar:	
• monostable	4 ms
• bistable	4 ms
Repositioning response times at 6 Bar:	
• monostable	8,4 ms
• bistable	4 ms
Operating pressure	-10° to 60°C

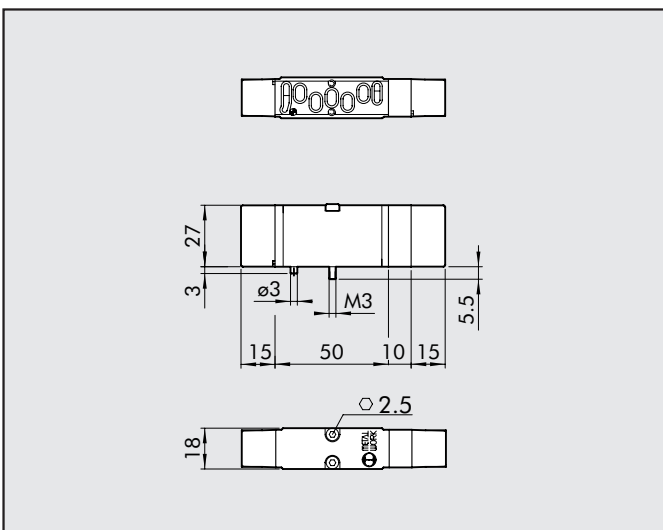


## MONOSTABLE 5/2

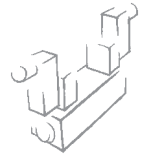


Symbol	Abbrev.	Code	Weight [g]
→  →	MPV D5 PNS 00	7063010130	80

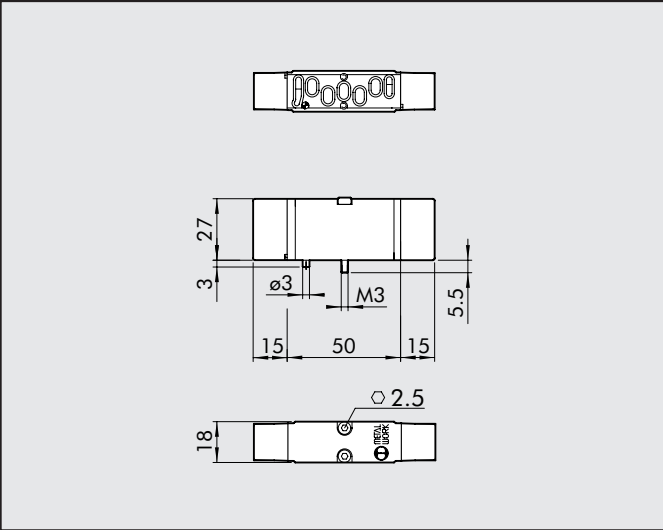
## MONOSTABLE 5/3



Symbol	Abbrev.	Code	Weight [g]
→  →	MPV D6 PNS CC	7063010210	93
→  →	MPV D6 PNS OC	7063010310	93
→  →	MPV D6 PNS PC	7063010410	93



BISTABLE 5/2



Symbol	Abbrev.	Code	Weight [g]
↔ ↗ ↘ ↙ ↔	MPV D5 PNB OO	7063010110	78

NOTES

(This area contains horizontal lines for notes but is currently empty.)

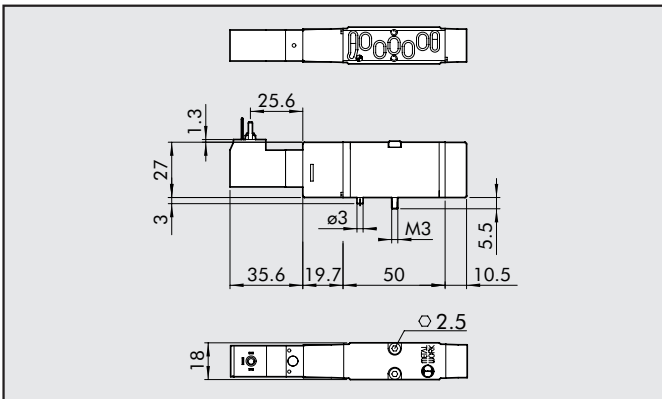
# MACH 18 ISO 15407-1/VDMA 24563-02 SOLENOID/PNEUMATIC MSV



## TECHNICAL DATA

Operating pressure:	
• monostable	1.5 ÷ 10 bar
• monostable 5/3	1.9 ÷ 10 bar
• bistable	1 ÷ 10 bar
• pilot-assisted	Vacuum ÷ 10 bar
Minimum pilot pressure	2 bar
Operating temperature range	-10° ÷ +60°C
Conductance C	114.86 NI/min · bar
Critical ratio b	0.25 bar/bar
Flow rate at 6 Bar ΔP 0.5 Bar	340 NI/min
Flow rate at 6 Bar ΔP 1 Bar	470 NI/min
TRA/TRR monostable at 6 Bar	12 ms / 26 ms
TRA /TRR bistable at 6 Bar	21 ms / 21 ms
Type of manual actuation	monostable on solenoid pilot (with bistable manual valve on request)
Pilot with integrated coil	24 VDC - 24VAC - 110 VAC - 220 VAC
Power	1 W
Voltage tolerance	-10% ÷ -15%
Insulation class	F 155
Degree of protection	IP 65 EN60529 with connector
Solenoid rating	100% ED
Electrical contacts	DIN 43650 C Shape

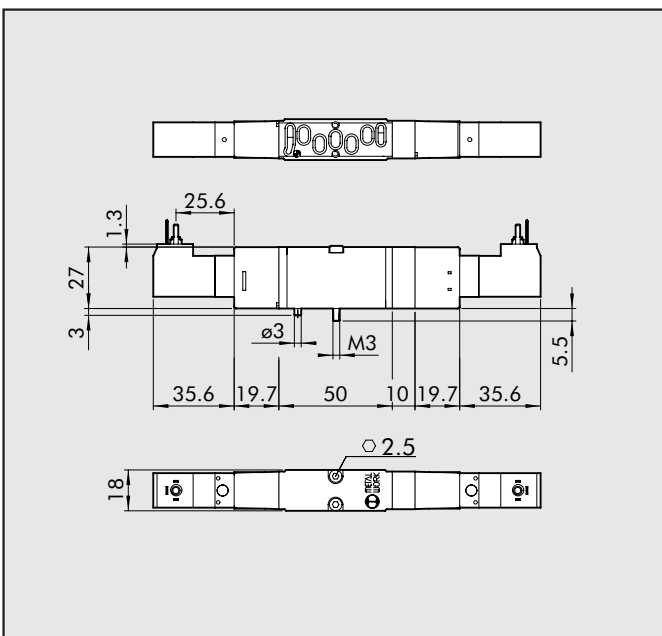




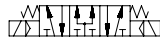
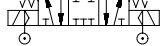

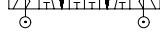
## MONOSTABLE 5/2

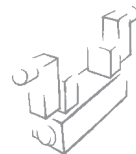


Symbol	Abbrev.	Code	Weight [g]
	MSV D5 SOS 00 24VDC	7063020132	110
	MSV D5 SOS 00 24VAC	7063020133	110
	MSV D5 SOS 00 110VAC	7063020134	110
	MSV D5 SOS 00 220VAC	7063020135	110
	MSV D5 SES 00 24VDC	7063030132	110
	MSV D5 SES 00 24VAC	7063030133	110
	MSV D5 SES 00 110VAC	7063030134	110
	MSV D5 SES 00 220VAC	7063030135	110

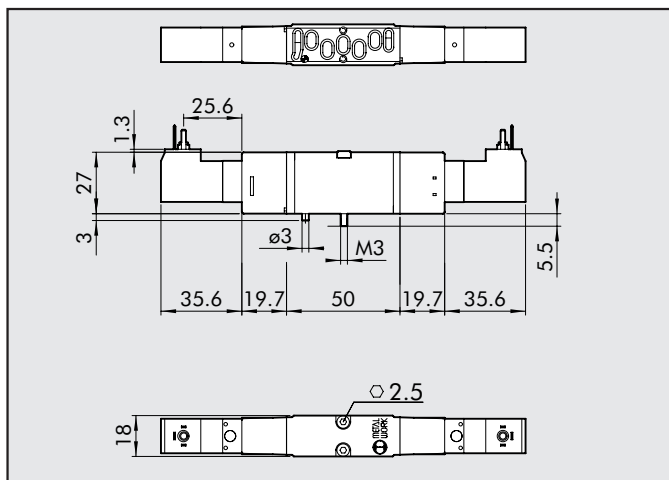
## MONOSTABLE 5/3



Symbol	Abbrev.	Code	Weight [g]
	MSV D6 SOS CC 24VDC	7063020212	156
	MSV D6 SOS CC 24VAC	7063020213	156
	MSV D6 SOS CC 110VAC	7063020214	156
	MSV D6 SOS CC 220VAC	7063020215	156
	MSV D6 SOS OC 24VDC	7063020312	156
	MSV D6 SOS OC 24VAC	7063020313	156
	MSV D6 SOS OC 110VAC	7063020314	156
	MSV D6 SOS OC 220VAC	7063020315	156
	MSV D6 SOS PC 24VDC	7063020412	156
	MSV D6 SOS PC 24VAC	7063020413	156
	MSV D6 SOS PC 110VAC	7063020414	156
	MSV D6 SOS PC 220VAC	7063020415	156
	MSV D6 SES CC 24VDC	7063030212	156
	MSV D6 SES CC 24VAC	7063030213	156
	MSV D6 SES CC 110VAC	7063030214	156
	MSV D6 SES CC 220VAC	7063030215	156
	MSV D6 SES OC 24VDC	7063030312	156
	MSV D6 SES OC 24VAC	7063030313	156
	MSV D6 SES OC 110VAC	7063030314	156
	MSV D6 SES OC 220VAC	7063030315	156
	MSV D6 SES PC 24VDC	7063030412	156
	MSV D6 SES PC 24VAC	7063030413	156
	MSV D6 SES PC 110VAC	7063030414	156
	MSV D6 SES PC 220VAC	7063030415	156



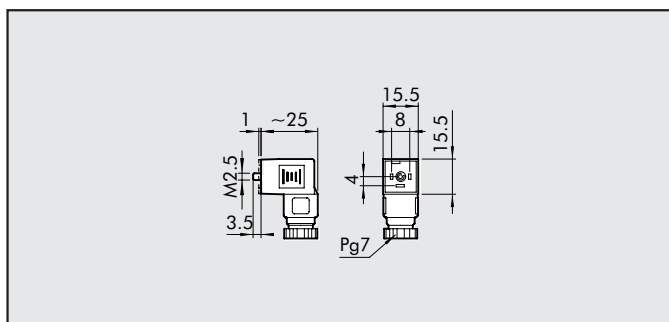
## BISTABLE 5/2



Symbol	Abbrev.	Code	Weight [g]
	MSV D5 SOB 00 24VDC	7063020112	143
	MSV D5 SOB 00 24VAC	7063020113	143
	MSV D5 SOB 00 110VAC	7063020114	143
	MSV D5 SOB 00 220VAC	7063020115	143
	MSV D5 SEB 00 24VDC	7063030112	143
	MSV D5 SEB 00 24VAC	7063030113	143
	MSV D5 SEB 00 110VAC	7063030114	143
	MSV D5 SEB 00 220VAC	7063030115	143

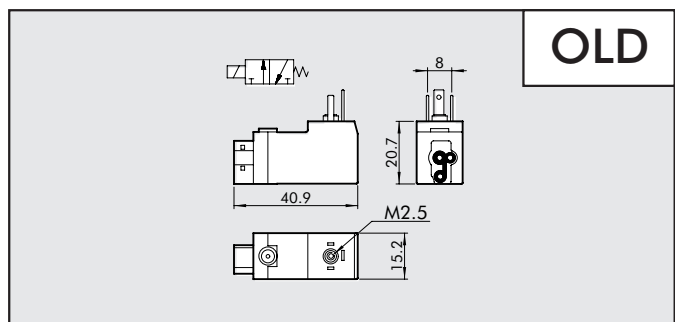
## ACCESSORIES: MACH 18 VALVES, MSV SOLENOID/PNEUMATIC

### CONNECTOR 15 mm DIN 43650 SHAPE C



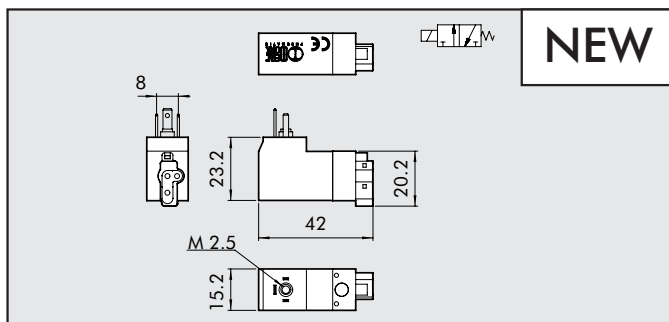
Code	Description
W0970501021	CONNECTOR 15 mm C SHAPE DIN 43650
W0970501022	CONNECTOR 15 mm C SHAPE DIN 43650 LED 24 V
W0970501025	CONNECTOR 15 mm C SHAPE DIN 43650 LED+VDR 24V

### SPARE PARTS: PILOT MACH 18



Code	Description
W4015101000	IN-LINE PILOT 24 VDC
W4015101010	IN-LINE PILOT 24 VAC 50/60 Hz
W4015101020	IN-LINE PILOT 110 VAC 50/60 Hz
W4015101030	IN-LINE PILOT 220 VAC 50/60 Hz

### SPARE PARTS: PILOT MACH 18



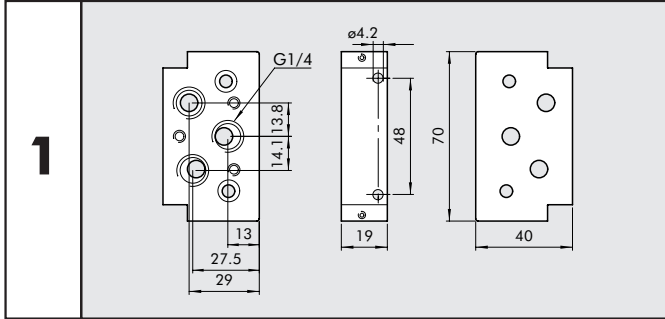
Code	Description
W4015301000	IN-LINE PILOT 24 VDC
W4015301010	IN-LINE PILOT 24 VAC 50/60 Hz
W4015301020	IN-LINE PILOT 110 VAC 50/60 Hz
W4015301030	IN-LINE PILOT 220 VAC 50/60 Hz

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

### NOTES

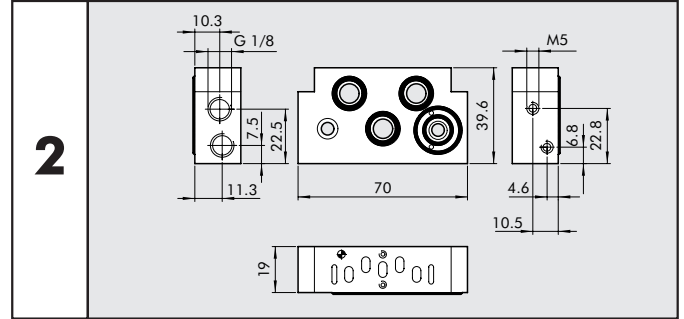
# BASES TO ISO 15407-1/VDMA 24563-02 FOR MACH 18 VALVES

## INPUT END PLATE TO VDMA 24563-02



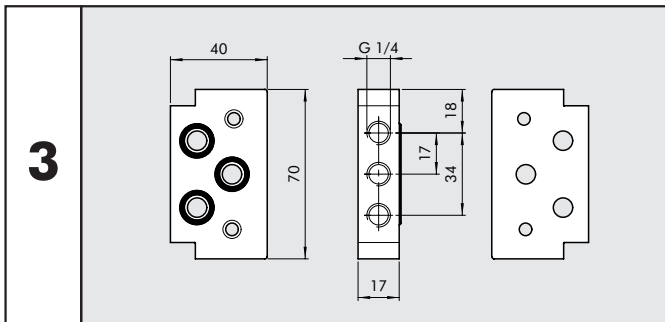
Code	Description	Weight [g]
0227100201	VDMA INPUT END PLATE KIT	125

## INPUT END PLATE TO VDMA 24563-02



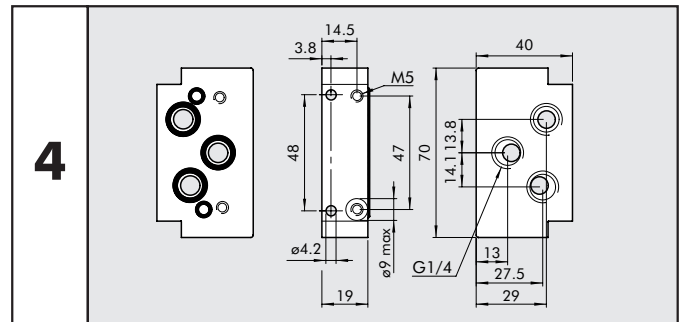
Code	Description	Weight [g]
0227200150	VDMA BASE KIT, MANIFOLD SIDE, DIMENSION 2	125

## INTERMEDIATE UPPER PORTS 24563-02



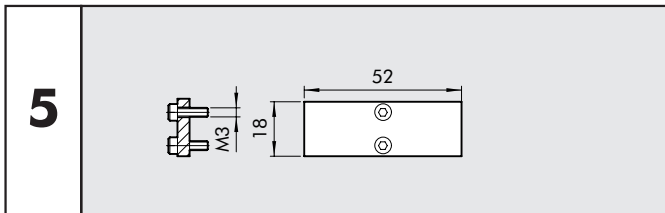
Code	Description	Weight [g]
0227200300	VDMA INTERMEDIATE UPPER PORTS KIT	118

## OUTPUT END PLATE TO VDMA 24563-02



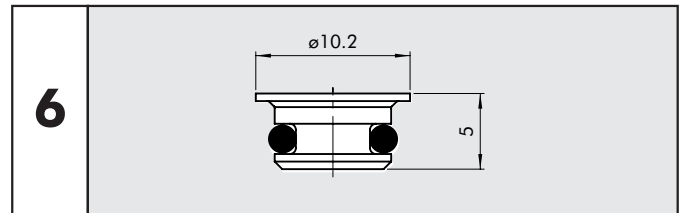
Code	Description	Weight [g]
0227100200	VDMA OUTPUT END-PLATE KIT	122

## BLANKING PLATE - UNUSED POSITION



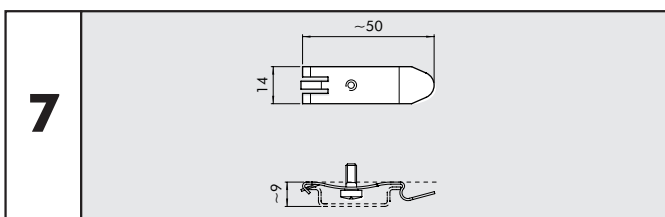
Code	Description	Weight [g]
0227200500	ACC. PIASTRA CHIUSURA MACH 18	24

## INTERMEDIATE DIAPHRAGM



Code	Description	Weight [g]
0227100000	INTERMEDIATE DIAPHRAGM	2

## CONNECTION BRACKETS ON THE BAR



Code	Description	Weight [g]
0227300600	CONNECTION BRACKETS ON DIN BAR	7

## NOTES