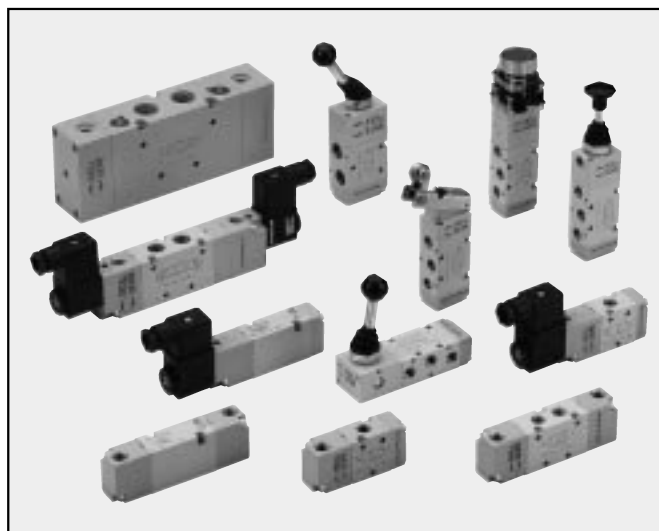


VALVES SERIES 70

This is Metal Work's full range. Available in three sizes: 1/8", 1/4", 1/2". Three versions: 3/2 5/2 5/3, four different types of actuation (mechanical, manual, pneumatic and electric). Series 70 valves can be used for a wide range of applications as they can be mounted in line, on the wall, on the cylinder using a special bracket, or in series on a multiple or manifold base.

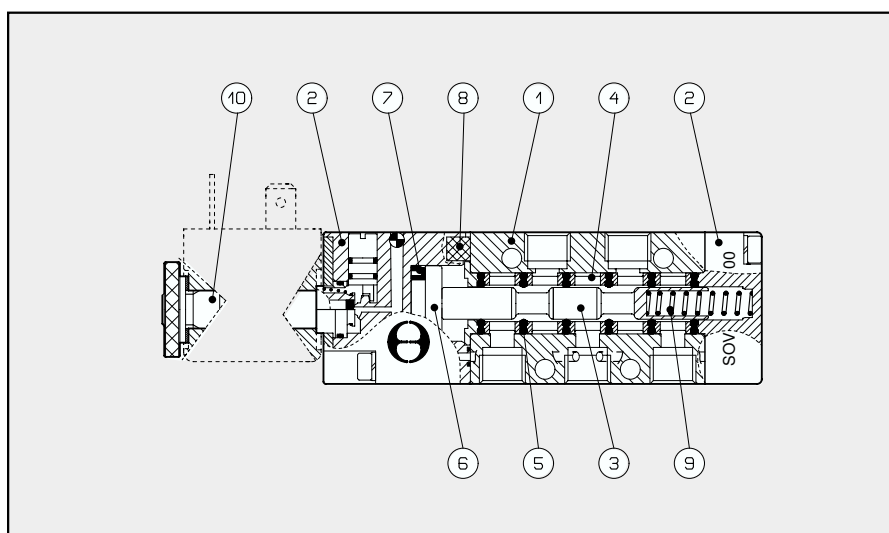


2

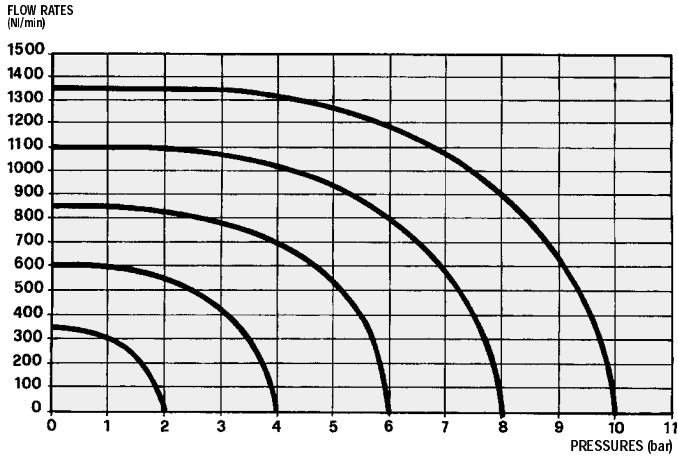
TECHNICAL DATA	1/8"	1/4"	1/2"
Fluid	Filtered air without lubrication; lubrication, if used, must be continuous		
Thread on the valve ports	G 1/8	G 1/4	G 1/2
Operating pressure:			
• monostable	2.5 ÷ 10 bar		
• bistable	1 ÷ 10 bar		
• asserved	vacuum ÷ 10 bar		
Minimum pilot pressure	2.5 bar		
Operating temperature range	-10°C ÷ +60°C		
Nominal diameter	5 mm	7.5 mm	15 mm
Conductance C	121.43 NI/min · bar	264.26 NI/min · bar	971.43 NI/min · bar
Critical ratio b	0.32 bar/bar	0.27 bar/bar	0.43 bar/bar
Flow rate at ΔP 0.5 bar	400 NI/min	750 NI/min	3,200 NI/min
Flow rate at ΔP 1 bar	550 NI/min	1100 NI/min	4,600 NI/min
Installation	In any position (vertical assembly is not recommended for bistable valves subjected to vibration)		
Recommended lubricant	ISO and UNI FD 22		
Maximum coil nut torque	1 Nm		

COMPONENTS

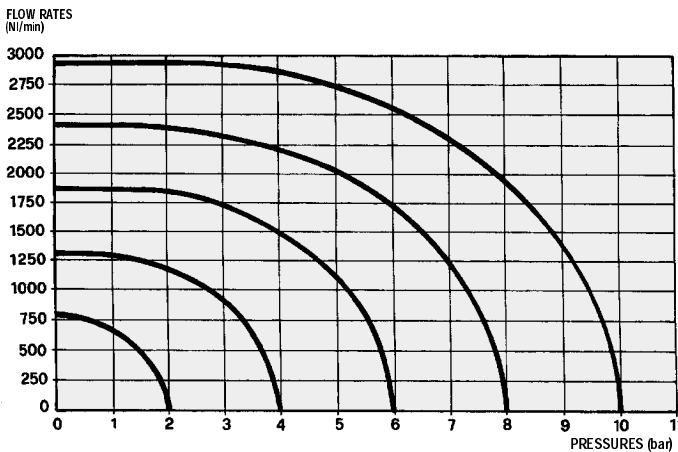
- ① VALVE BODY: Aluminium
- ② CONTROL/END CAP: HOSTAFORM®
- ③ SPOOL: chemically nickel-plated aluminium
- ④ DISTANCE PLATES: plastic
- ⑤ GASKETS: Nitrile rubber NBR
- ⑥ PISTONS: HOSTAFORM®
- ⑦ PISTON GASKET: Nitrile rubber NBR
- ⑧ FILTER: sintered bronze
- ⑨ SPRINGS: special steel
- ⑩ OPERATOR: Brass pipe – Stainless steel core



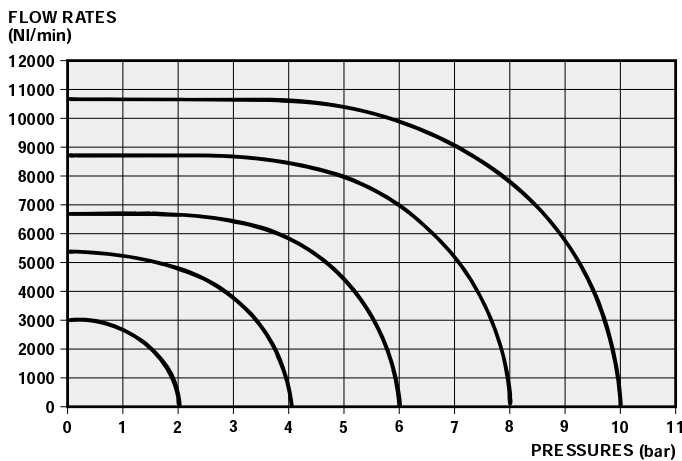
VALVES SERIES 70, 1/8"

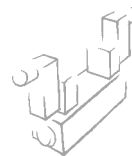


VALVES SERIES 70, 1/4"



VALVES SERIES 70, 1/2"





VALVES SERIES 70, HAND OPERATED

TECHNICAL DATA	1/8"	1/4"	1/2"
Operating pressure range:	Vacuum-10 bar		
• version with direct control	2.5 ÷ 10 bar		
• Pilot-assisted version	-10 to 60°C		
Operating temperature range	-10 to 60°C		
Nominal diameter	5 mm	7.5 mm	15 mm
Conductance C [Nl/min · bar]	121.43	264.26	971.43
Critical ratio b	0.32 bar/bar	0.27 bar/bar	0.43 bar/bar
Flow rate at 6 bar ΔP 0.5 bar	400 Nl/min	750 Nl/min	3200 Nl/min
Flow rate at 6 bar ΔP 1 bar	550 Nl/min	1100 Nl/min	4600 Nl/min



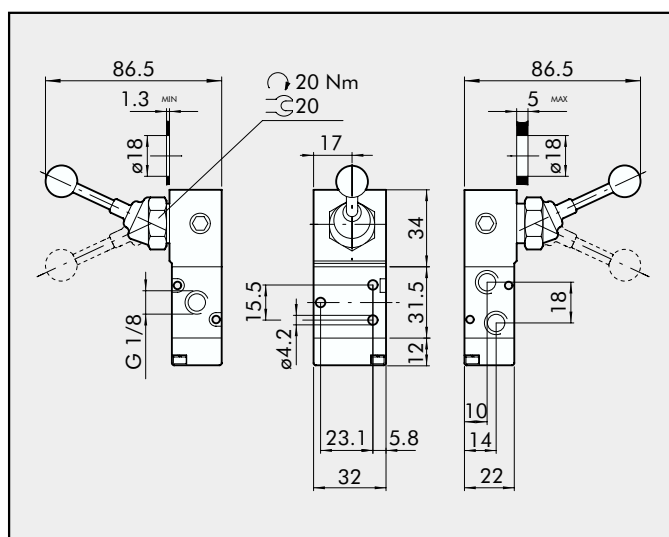
2

KEY TO CODES

M	A	V	2	3	P	P	S	N	C		
FAMILY		DIMENSIONS		FUNCTION		OPERATION 14		REPEATED OPERATION 12		FURTHER DETAILS	
MAV	manual valves	2	1/8"	3	3/2	PP	drawer	A	pneumatic/mechanical spring*	NC	normally closed
		3	1/4"	5	5/2	VL	axial lever	S	mech. spring	NO	normally open
		4	1/2"	6	5/3	LE	90° lever	B	bistable	OO	no indication
				8	2x3/2	BRE	arranged for manual panel actuators	D	differential stable for 5/3	CC	closed centres
								O		OC	open centres
										PC	pressure centres

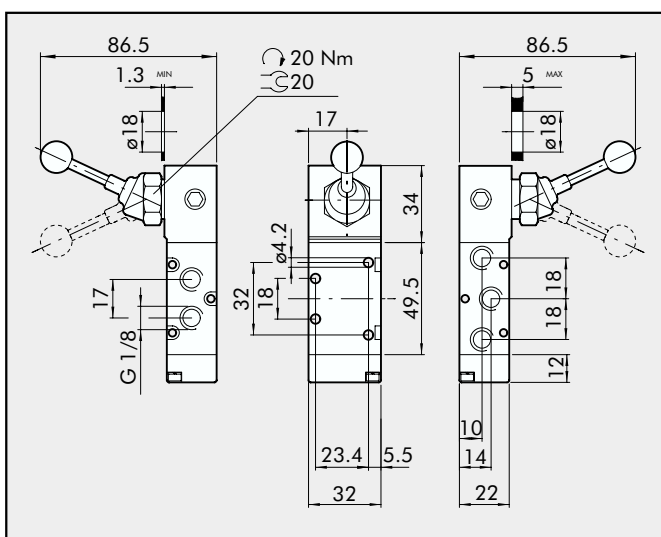
VALVES SERIES 70, HAND OPERATED, 1/8"

90° LEVER 3/2 1/8"



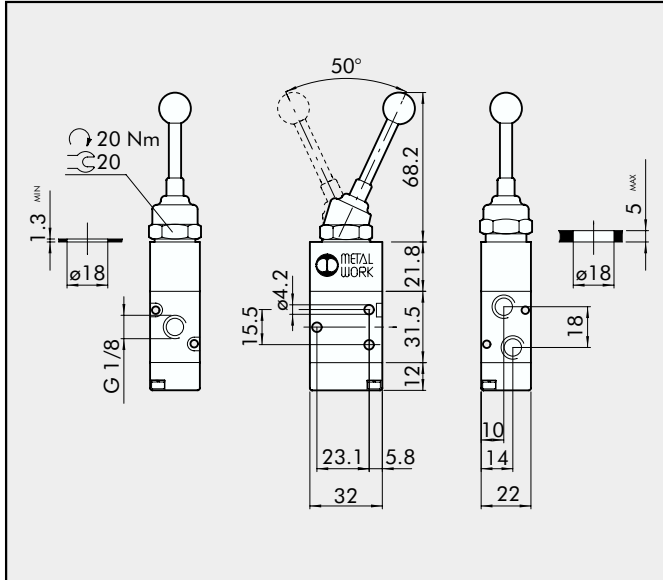
Symbol	Abbrev.	Code	Weight [g]
	MAV 23 LES NC	7010000100	168
	MAV 23 LEB OO	7010000200	171


90° LEVER 3/2 1/8"



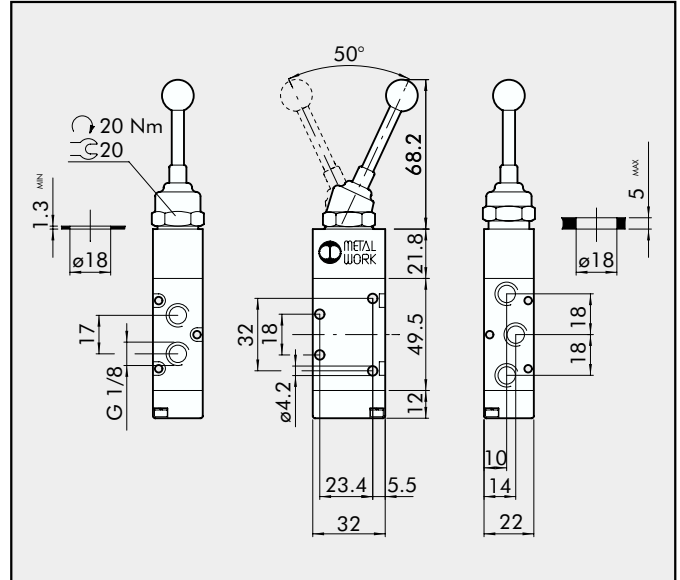
Symbol	Abbrev.	Code	Weight [g]
	MAV 25 LES OO	7010000300	194
	MAV 25 LEB OO	7010000400	197


FRONT LEVER 3/2, 1/8"



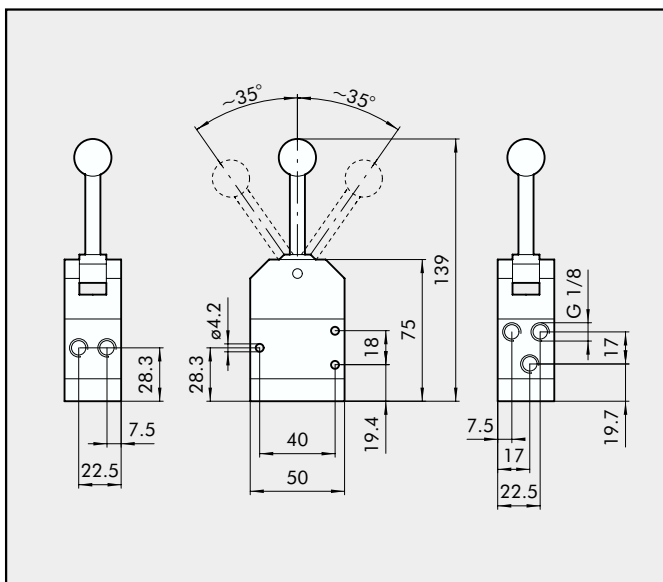
Symbol	Abbrev.	Code	Weight [g]
	MAV 23 VLB OO	7010001400	130



FRONT LEVER 5/2, 1/8"



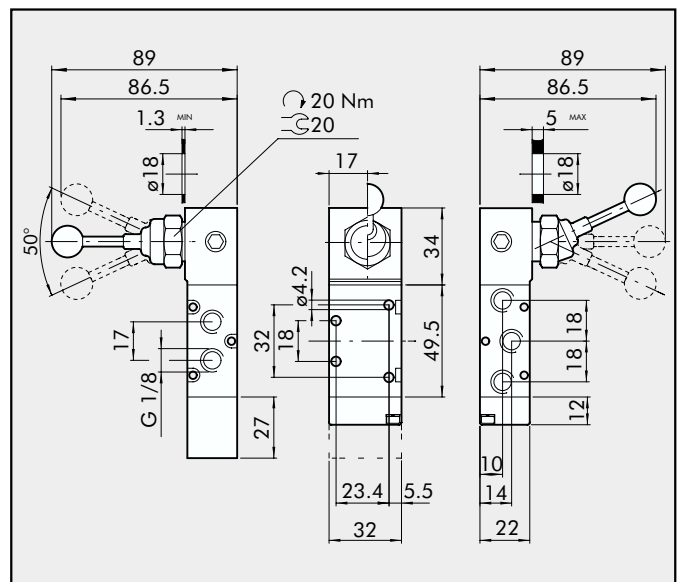
Symbol	Abbrev.	Code	Weight [g]
	MAV 25 VLB OO	7010001700	156



FRONT LEVER 5/3, 1/8"

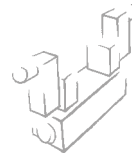


Symbol	Abbrev.	Code	Weight [g]
	MAV 28 VLO OC	7010001150	316
	MAV 28 VLS OC	7010001160	325

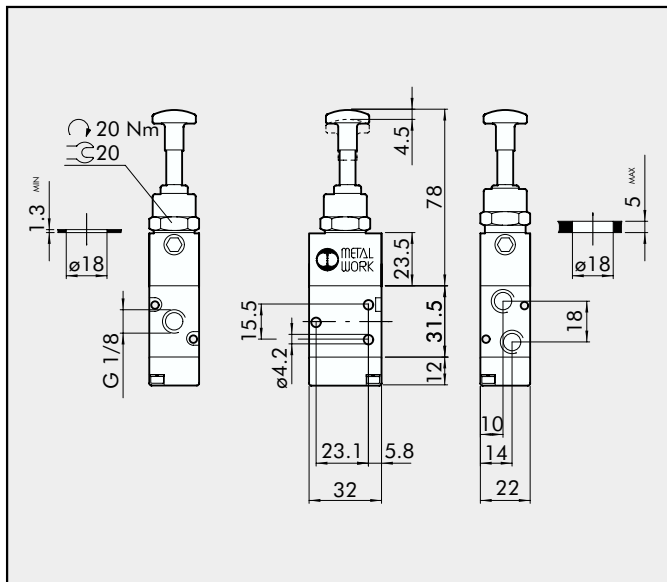
ANGULAR LEVER 5/3, 1/8"



Symbol	Abbrev.	Code	Weight [g]
	MAV 26 LES CC	7010001000	242
	MAV 26 LES OC	7010000900	242
	MAV 26 LES PC	7010001100	242
	MAV 26 LEO CC	7010000500	194
	MAV 26 LEO OC	7010000600	194
	MAV 26 LEO PC	7010000700	194

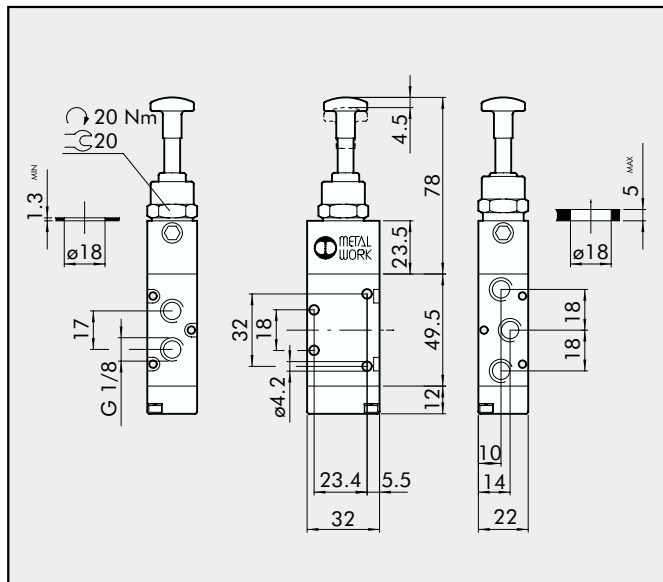


DRAWER 3/2, 1/8"



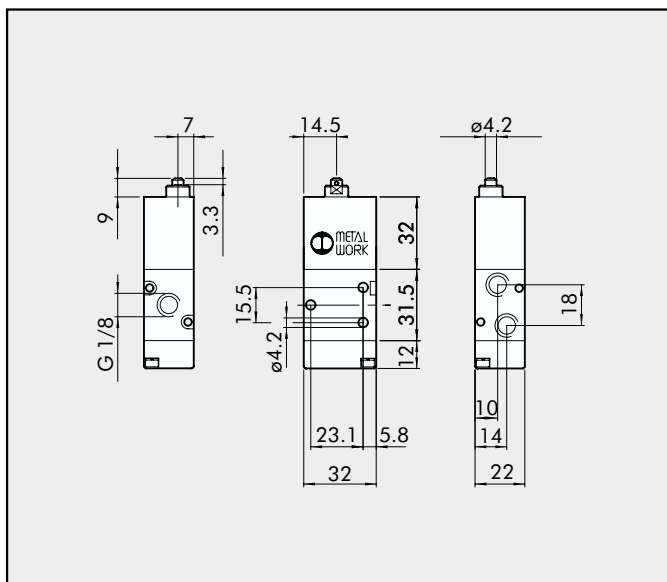
Symbol	Abbrev.	Code	Weight [g]
	MAV 23 PPB OO	7010001300	134
	MAV 23 PPS NC	7010001200	134

DRAWER 5/2



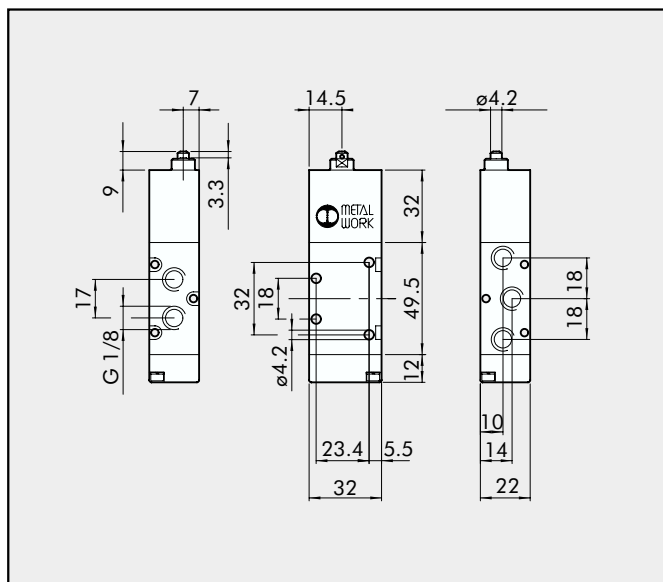
Symbol	Abbrev.	Code	Weight [g]
	MAV 25 PPB OO	7010001600	160
	MAV 25 PPS OO	7010001500	160

PILOT-ASSISTED PLUNGER 3/2 1/8" FOR PANEL ACTUATORS

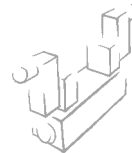


Symbol	Abbrev.	Code	Weight [g]
	MAV 23 BRE NC	7010001800	124

PILOT-ASSISTED PLUNGER 5/2 1/8" FOR PANEL ACTUATORS

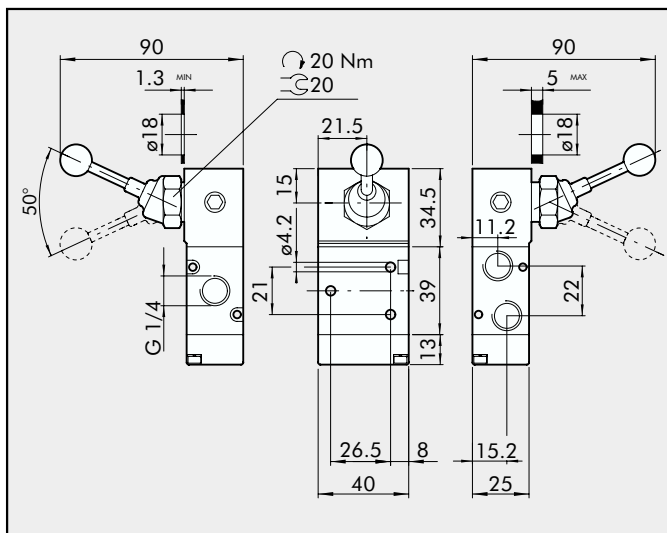


Symbol	Abbrev.	Code	Weight [g]
	MAV 25 BRE OO	7010001900	150



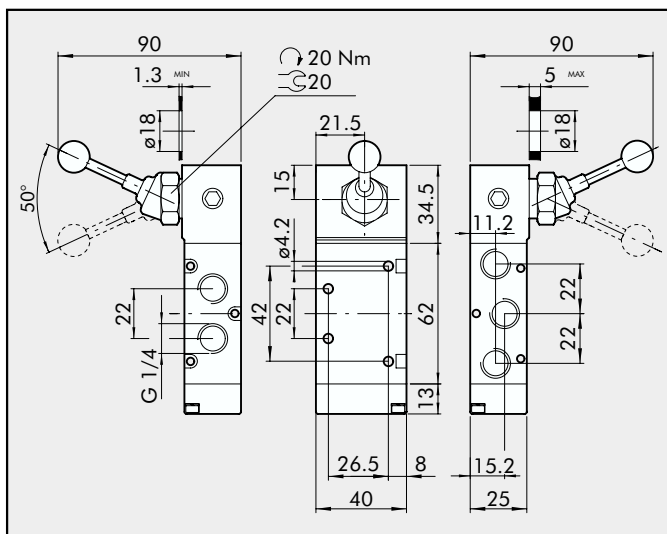
VALVES SERIES 70, HAND-OPERATED, 1/4"

90° LEVER 3/2, 1/4"



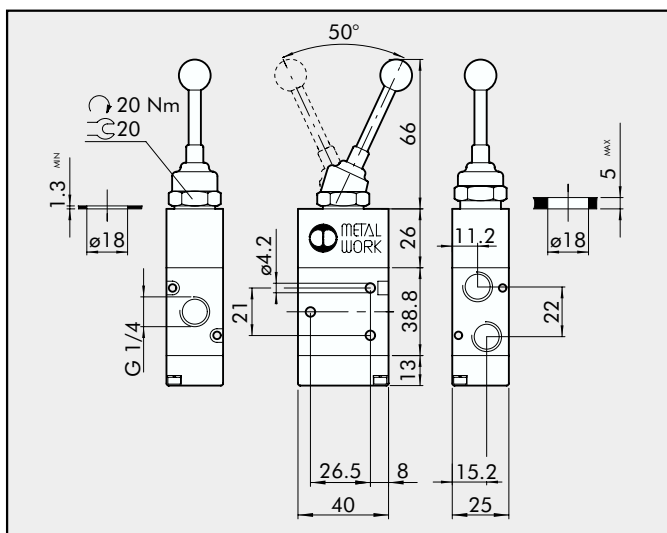
Symbol	Abbrev.	Code	Weight [g]
	MAV 33 LES NC	7020000100	244
	MAV 33 LEB OO	7020000200	244

90° LEVER 5/2, 1/4"



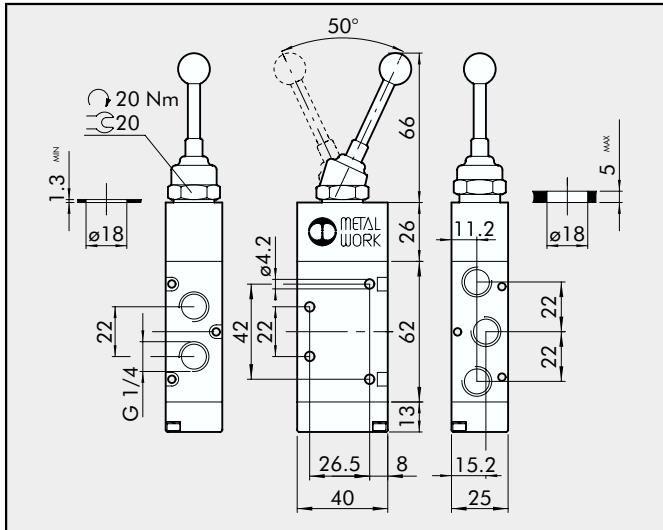
Symbol	Abbrev.	Code	Weight [g]
	MAV 35 LES OO	7020000300	290
	MAV 35 LEB OO	7020000400	290


FRONT LEVER 3/2, 1/4"



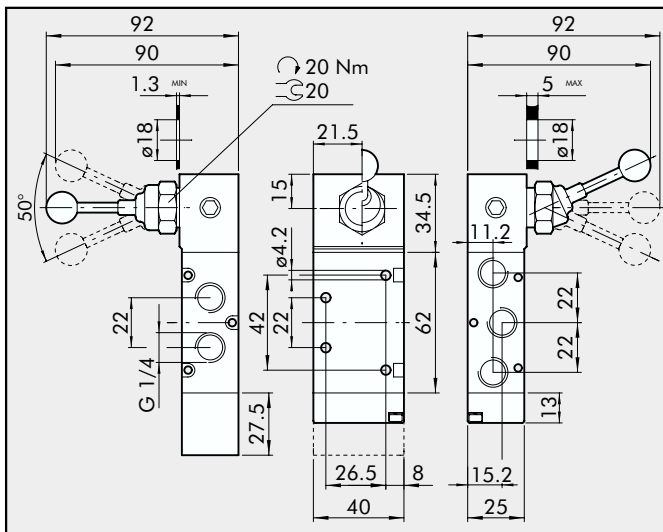
Symbol	Abbrev.	Code	Weight [g]
	MAV 33 VLB OO	7020001400	194

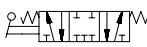

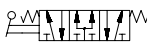
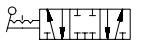

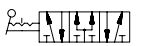
FRONT LEVER 5/2, 1/4"

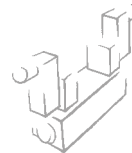


Symbol	Abbrev.	Code	Weight [g]
	MAV 35 VLB OO	7020001700	244

90° LEVER 5/3, 1/4"

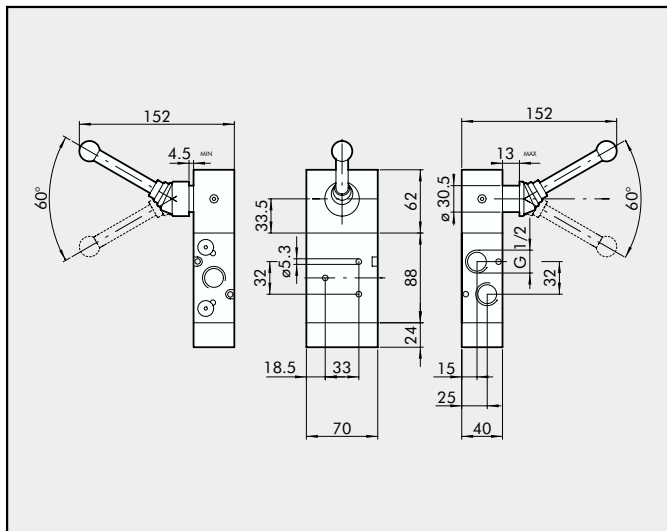


Symbol	Abbrev.	Code	Weight [g]
	MAV 36 LES CC	7020001000	354
	MAV 36 LES OC	7020000900	354
	MAV 36 LES PC	7020001100	354
	MAV 36 LEO CC	7020000500	288
	MAV 36 LEO OC	7020000600	288
	MAV 36 LEO PC	7020000700	288



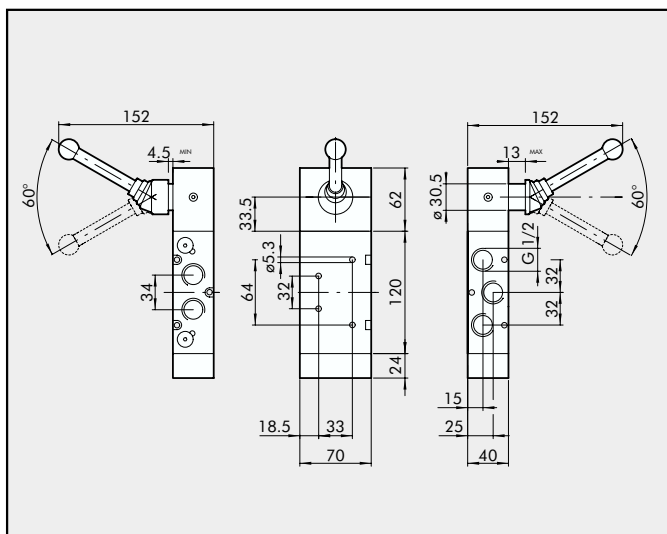
VALVES SERIES 70, HAND OPERATED, 1/2"

90° LEVER 3/2, 1/2"



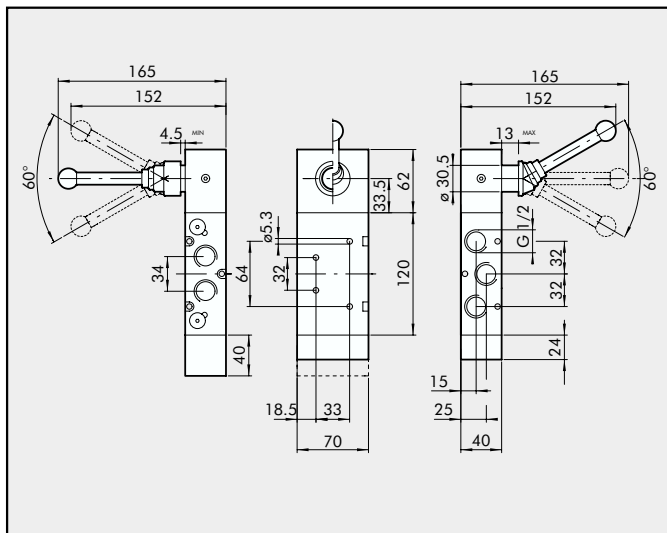
Symbol	Abbrev.	Code	Weight [g]
	MAV 43 LES NC	7030000100	1443
	MAV 43 LEB OO	7030000200	1435

90° LEVER 5/2, 1/2"



Symbol	Abbrev.	Code	Weight [g]
	MAV 45 LES OO	7030000300	1588
	MAV 45 LEB OO	7030000400	1630

90° LEVER 5/3, 1/2"



Symbol	Abbrev.	Code	Weight [g]
	MAV 46 LES CC	70300001000	1810
	MAV 46 LES OC	7030000900	1800
	MAV 46 LES PC	70300001100	1800
	MAV 46 LEO CC	7030000500	1615
	MAV 46 LEO OC	7030000600	1605
	MAV 46 LEO PC	7030000700	1605