

DESCRIPTION

Valves series "MEV" have been designed to satisfy the need of integration between pneumatics and electronics. Their main feature is the possibility to offer valve islands complete with the electrical connection. This series, realized in the 5/2 and 5/3 pneumatic functions, is composed of two types of valves:

"MEV 8", body ported G 1/8, prearranged for both single use and for mounting on multiple base with fixed stations;

"MEV 18" (size 02), to VDMA 24563 (UNI 10528) standards, prearranged for mounting on both single and manifold bases.

Both the multiple bases (that convey the exhausts part of the solenoid actuated electropilots) and the manifold ones are fit for mounting onto rails according to DIN 46277/3. For the 24 V AC/DC solenoid actuated valves with coils toward the bottom (versions "MEVX"), are available modules with two or four stations to carry out a multi-pin connection through a 25-pin plug with protection class "IP 65" (see technical information on page 0.4).



TECHNICAL DATA

Operating pressure	Monostable 1,8 ÷ 8 bar Bistable 1 ÷ 8 bar
Working temperature	0 ÷ +60 °C (-10 °C with dry air)
Fluid	Filtered, unlubricated or continuous lubricated compressed air
Port size	G 1/8 Size 02 = Interface to VDMA 24563 standard
Pneumatic piloting port size	G 1/8 = M5 Size 02 = Interface to VDMA 24563 standard
Nominal diameter	5 mm
Piloting solenoid valve	UMCSV - see chapter Direct acting solenoid valves page 2.3
Electric connectors	MEK 192/N - see chapter Connectors on page 2.15 See Multi-pin connection on page 2.28

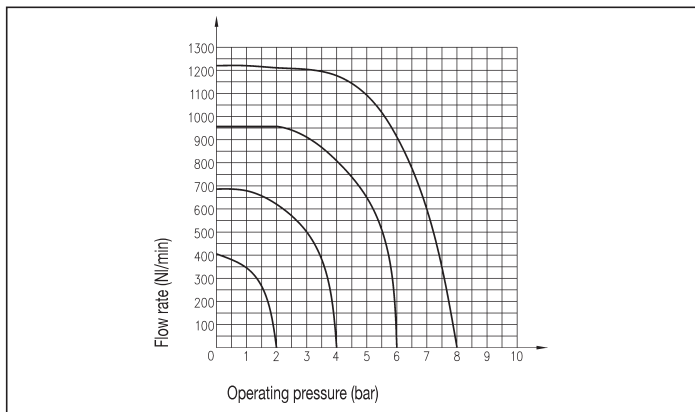
MATERIALS

Bottoms	Plastic
Body	Anodized aluminium alloy treated with PTFE
Springs	Stainless steel
Seals	NBR rubber
Spool	Anodized aluminium alloy
Piston	Anodized aluminium alloy

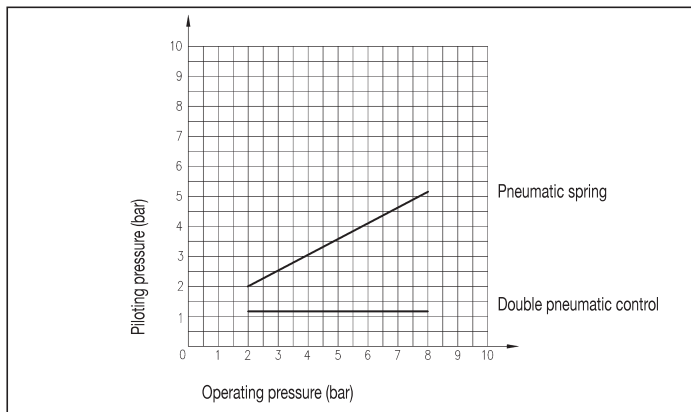
SPARE PARTS

SEALS KIT	
5/2 monostable and bistable	MEV/SG
5/3 closed centre	MEV/CC/SG
5/3 open centre	MEV/CA/SG
5/3 pressure centre	MEV/CP/SG

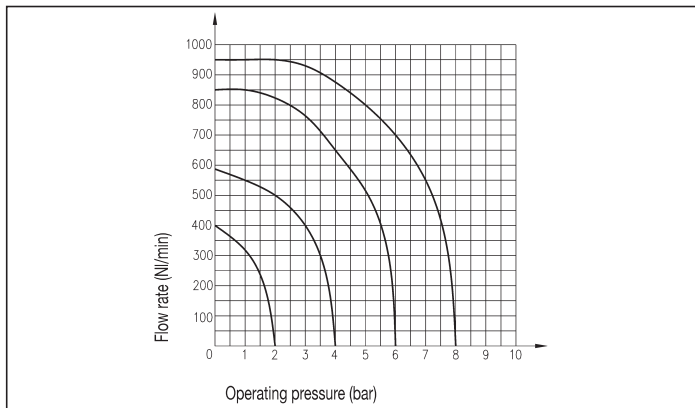
FLOW CHART - MEV/8



PILOTING CHART - MEV/8 - MEV/18



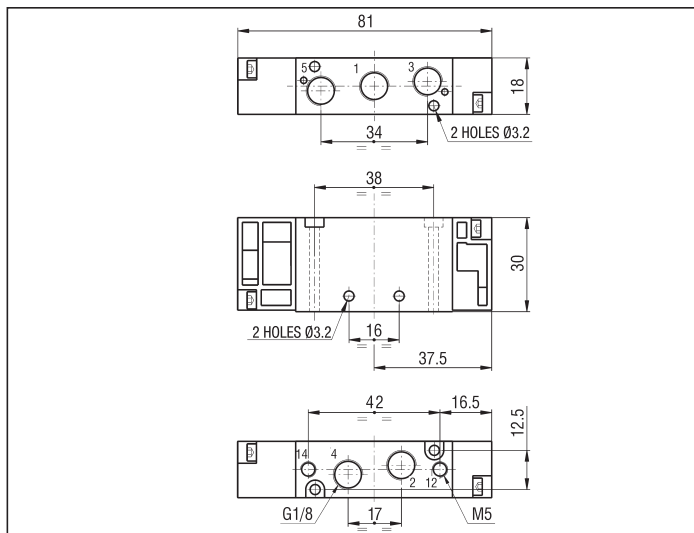
FLOW CHART - MEV/18



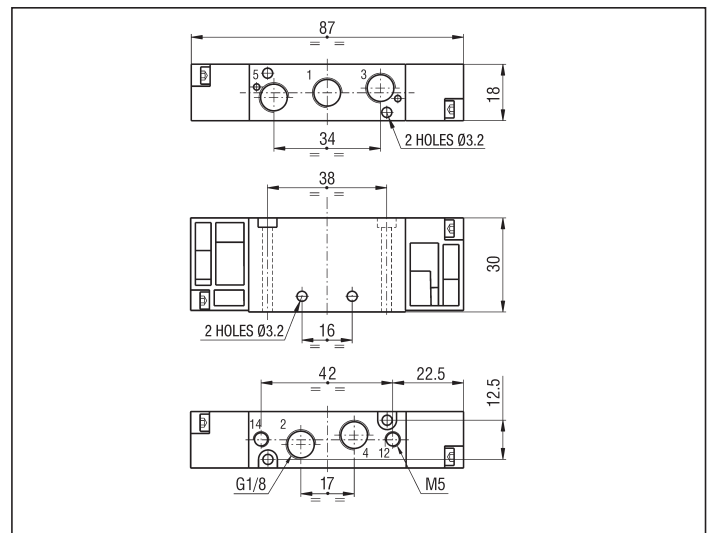
PILOT ACTUATED VALVES G 1/8 - MEV 8

Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar $\Delta P = 1$ bar (Nl/min)	Weight (g)	TYPE
		Pilot	Return	Energized	De-energized			
	5/2 monostable	Solenoid	Mechanical spring	10	10	650	100	MEV8 KR/ZR
		Solenoid	Pneumatic spring	12	20			MEV8 KR/TQ
	5/2 bistable	Solenoid	Pneumatic spring	10	10	650	100	MEV8 KR/KR
	5/3 closed center	Solenoid	Mechanical spring	10	10	510	100	MEV8 SR/SR
	5/3 open center	Solenoid	Mechanical spring	10	10	510	100	MEV8 AR/AR
	5/3 pressure center	Solenoid	Mechanical spring	10	10	650	100	MEV8 PR/PR

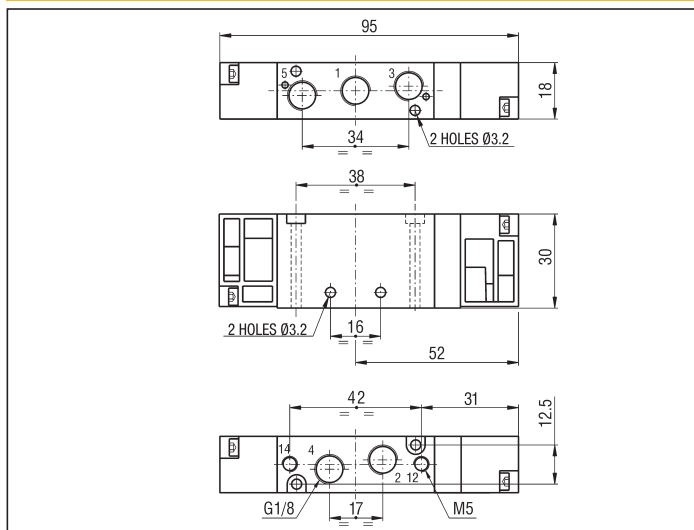
5 PORT - MONOSTABLE



5 PORT - BISTABLE



5 PORT - 3 POSITIONS



2

SOLENOID ACTUATED VALVES G 1/8 - MEV 8

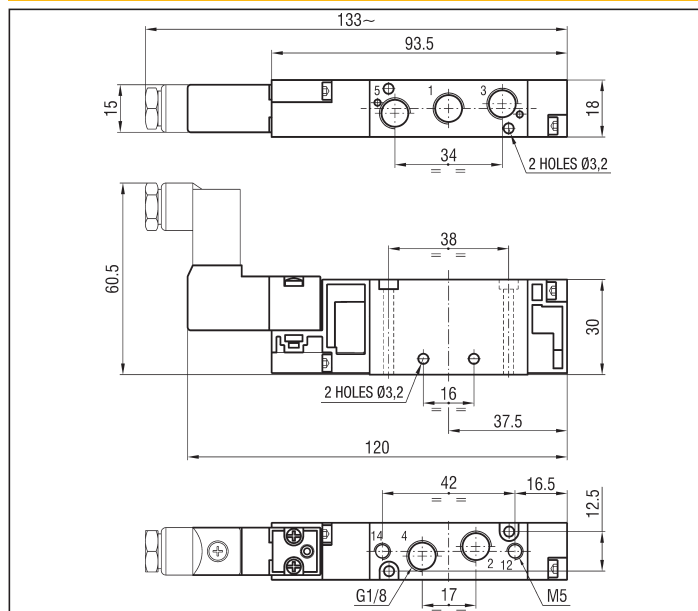
Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar $\Delta P = 1$ bar (l/min)	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized			
	5/2 monostable	Solenoid	Mechanical spring	10	30	650	130	MEV8 KUC/ZR
		Solenoid	Pneumatic spring	10	20			MEV8 KUC/TQ
		Solenoid pilot assisted	Mechanical spring	10	30			MEV8 KUR/ZR
	5/2 bistable	Solenoid	Solenoid	10	10	650	160	MEV8 KUC/KUC
		Solenoid pilot assisted	Solenoid pilot assisted					MEV8 KUR/KUR
	5/3 closed centre	Solenoid	Mechanical spring	10	25	510	160	MEV8 SUC/SUC
		Solenoid pilot assisted	Mechanical spring					MEV8 SUR/SUR
	5/3 open centre	Solenoid	Mechanical spring	10	25	510	160	MEV8 AUC/AUC
		Solenoid pilot assisted	Mechanical spring					MEV8 AUR/AUR
	5/3 pressure centre	Solenoid	Mechanical spring	10	25	650	160	MEV8 PUC/PUC
		Solenoid pilot assisted	Mechanical spring					MEV8 PUR/PUR

* SPECIFY THE VOLTAGE IN THE ORDER - E.G.: MEV8 KUC/ZR 02400
 TYPES OF THE SOLENOID VALVES INCLUDE THE PILOTING SOLENOID VALVES "UMCSV" - SEE ON PAGE 2.3)

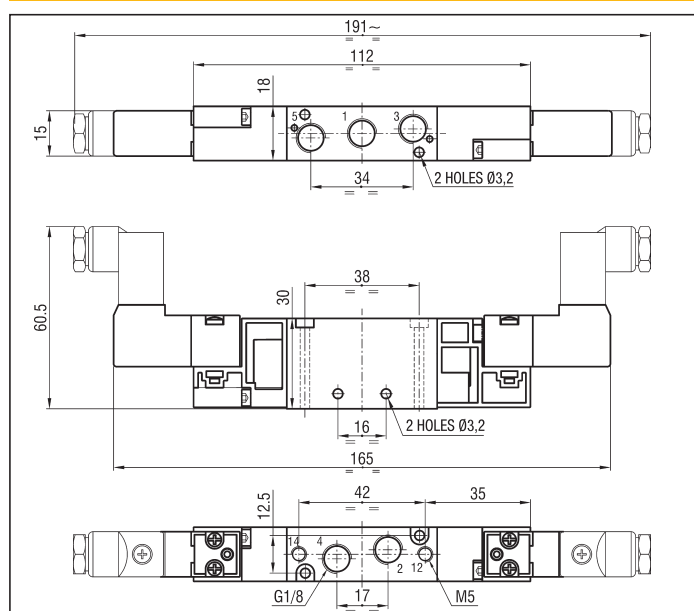
02400 = 24 V DC
 02450-60 = 24 V AC

11050-60 = 110 V AC
 22050-60 = 220 V AC

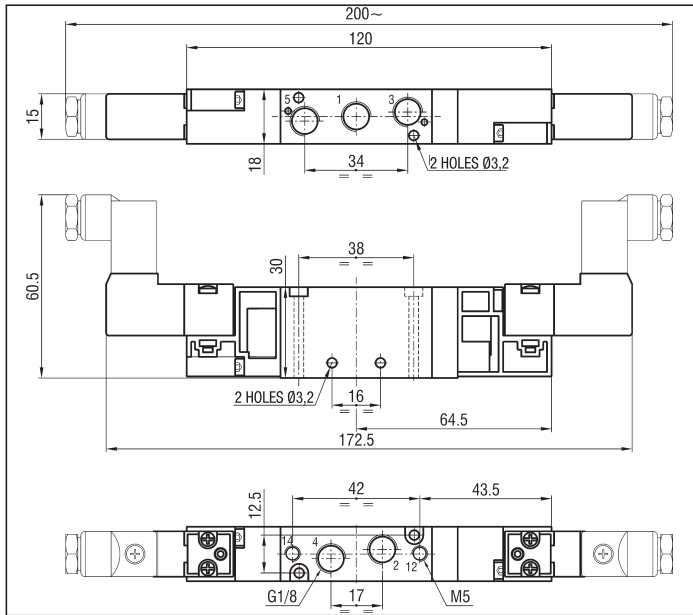
5 PORT - MONOSTABLE



5 PORT - BISTABLE



5 PORT - 3 POSITIONS



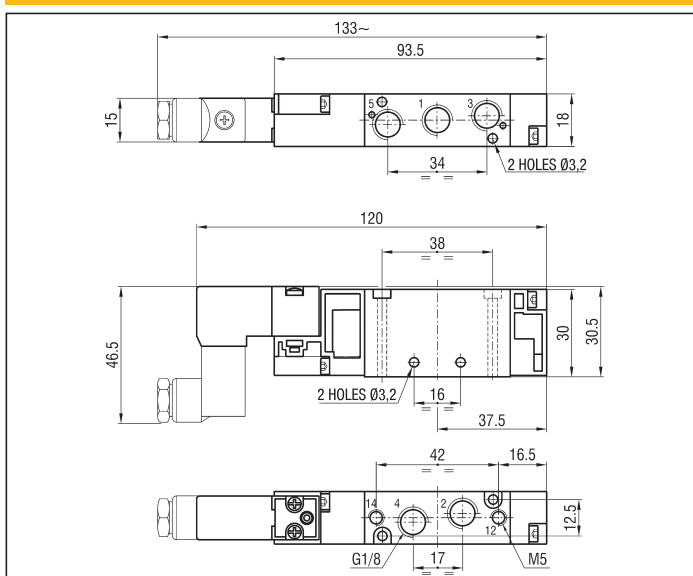
SOLENOID ACTUATED VALVES WITH COILS TOWARD THE BOTTOM G 1/8 - MEVX 8
SUITABLE FOR SINGLE USE OR MULTI-PIN PLUG CONNECTOR

Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar $\Delta P = 1$ bar (NI/min)	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized			
	5/2 monostable	Solenoid	Mechanical spring	10	30	650	130	MEVX8 KUC/ZR
		Solenoid	Pneumatic spring	10	20			MEVX8 KUC/TQ
		Solenoid pilot assisted	Mechanical spring	10	30			MEVX8 KUR/ZR
	5/2 bistable	Solenoid	Solenoid	10	10	650	175	MEVX8 KUC/KUC
		Solenoid pilot assisted	Solenoid pilot assisted					MEVX8 KUR/KUR
	5/3 closed centre	Solenoid	Mechanical spring	10	25	510	175	MEVX8 SUC/SUC
		Solenoid pilot assisted	Mechanical spring					MEVX8 SUR/SUR
	5/3 open centre	Solenoid	Mechanical spring	10	25	510	175	MEVX8 AUC/AUC
		Solenoid pilot assisted	Mechanical spring					MEVX8 AUR/AUR
	5/3 pressure centre	Solenoid	Mechanical spring	10	25	650	175	MEVX8 PUC/PUC
		Solenoid pilot assisted	Mechanical spring					MEVX8 PUR/PUR

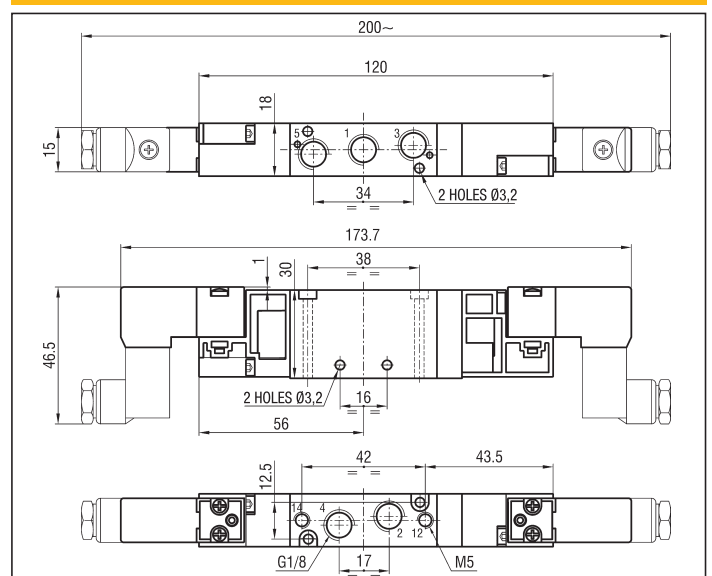
* SPECIFY THE VOLTAGE IN THE ORDER - E.G.: MEVX8 KUC/ZR 02400
(TYPES OF THE SOLENOID VALVES INCLUDE THE PILOTING SOLENOID VALVES "UMCSV" - SEE ON PAGE 2.3)

02400 = 24 V DC
02450-60 = 24 V AC

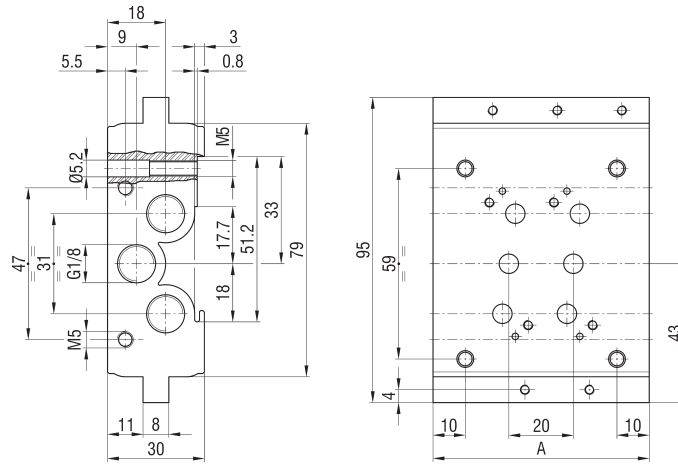
5 PORT - MONOSTABLE



5 PORT - BISTABLE AND 5 PORT - 3 POSITIONS



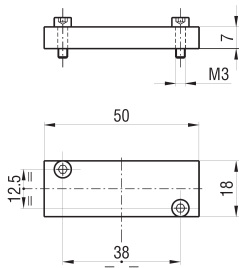
BASE FOR MANIFOLD MOUNTING OF VALVES G 1/8 - KB/MEV8 - Fit for mounting onto DIN 46277/3 rail



No. of stations	2	3	4	5	6	8	10	12	14	16	18	20
A	67	87	107	127	147	187	227	267	307	347	387	427
Weight (g)	324	421	518	615	712	905	1098	1292	1486	1680	1873	2067
TYPE*	KB/MEV8/2	KB/MEV8/3	KB/MEV8/4	KB/MEV8/5	KB/MEV8/6	KB/MEV8/8	KB/MEV8/10	KB/MEV8/12	KB/MEV8/14	KB/MEV8/16	KB/MEV8/18	KB/MEV8/20

* BASES ARE SUPPLIED COMPLETE WITH SCREWS AND SEALS

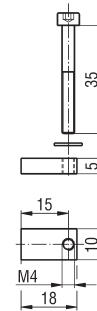
BLANKING PLATE - MEV8/PC



WEIGHT 20 g

BLANKING PLATE IS SUPPLIED COMPLETE WITH SCREWS AND SEALS

FIXING PLATE FOR DIN 46277/3 RAIL - MEV8/PF



WEIGHT 7 g

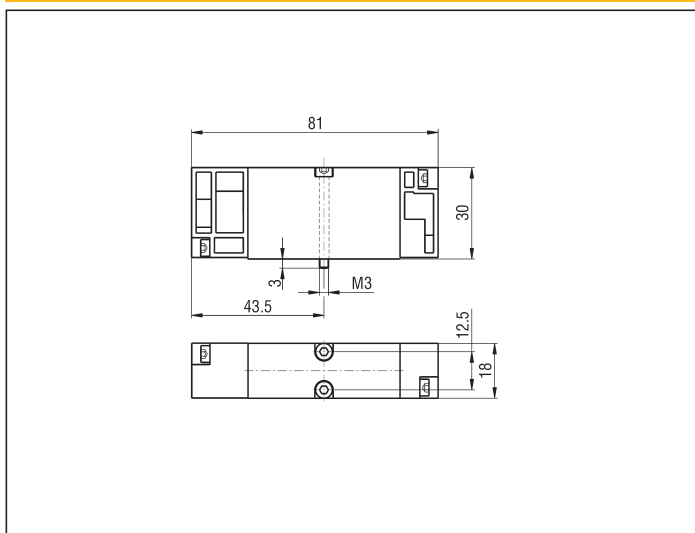
FIXING PLATE IS SUPPLIED COMPLETE WITH SCREWS

2

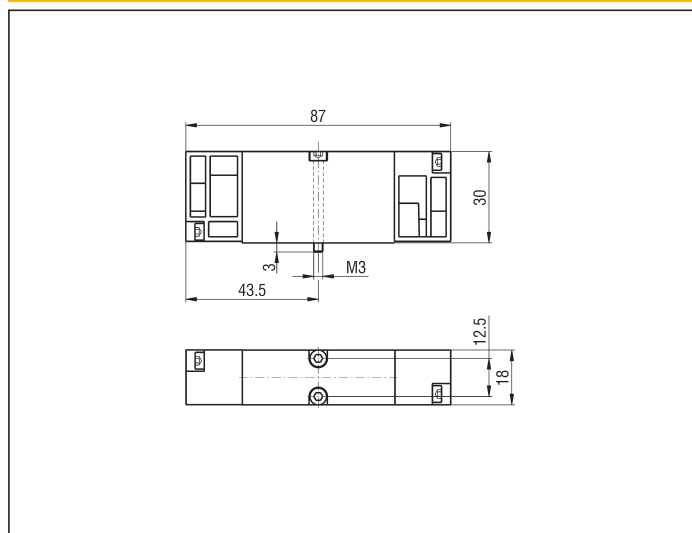
PILOT ACTUATED VALVES TO VDMA 24563 STANDARD SIZE 02 - MEV 18

Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar $\Delta P = 1$ bar (Nl/min)	Weight (g)	TYPE
		Pilot	Return	Energized	De-energized			
	5/2 monostable	Pneumatic	Mechanical spring	12	50	510	100	MEV18 KR/ZR
		Pneumatic	Mechanical spring	20	35	510	100	MEV18 KR/TQ
	5/2 bistable	Pneumatic	Pneumatic	12	12	510	100	MEV18 KR/KR
	5/3 closed centre	Pneumatic	Mechanical spring	15	15	420	100	MEV18 SR/SR
	5/3 open centre	Pneumatic	Mechanical spring	15	15	420	100	MEV18 AR/AR
	5/3 pressure centre	Pneumatic	Mechanical spring	15	15	500	100	MEV18 PR/PR

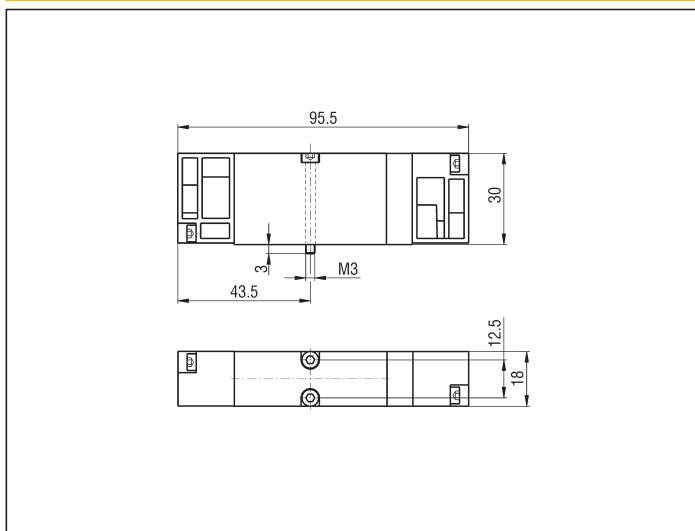
5 PORT - MONOSTABLE



5 PORT - BISTABLE



5 PORT - 3 POSITIONS



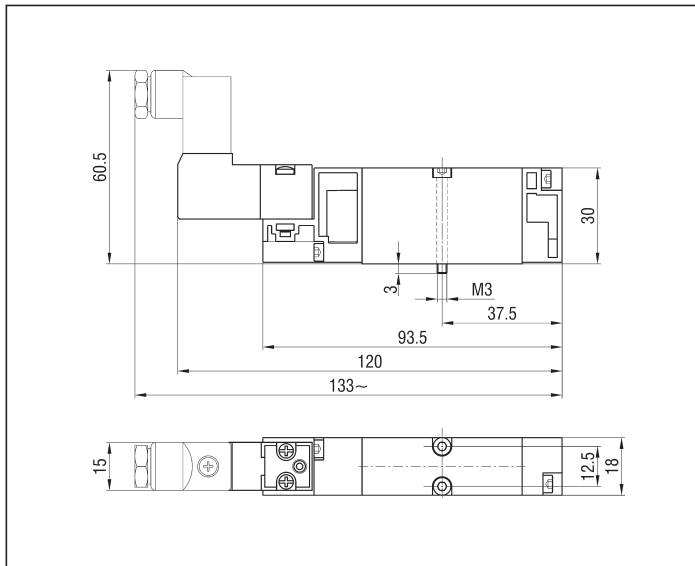
SOLENOID ACTUATED VALVES TO VDMA 24563 STANDARD SIZE 02 - MEV 18

Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar $\Delta P = 1$ bar (Nl/min)	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized			
	5/2 monostable	Solenoid	Mechanical spring	10	50	510	130	MEV18 KUC/ZR
		Solenoid	Pneumatic spring	12	35			MEV18 KUC/TQ
		Solenoid pilot assisted	Mechanical spring	10	50			MEV18 KUR/ZR
	5/2 bistable	Solenoid	Solenoid	10	10	510	160	MEV18 KUC/KUC
		Solenoid pilot assisted	Solenoid pilot assisted					MEV18 KUR/KUR
	5/3 closed centre	Solenoid	Mechanical spring	10	30	420	160	MEV18 SUC/SUC
		Solenoid pilot assisted	Mechanical spring					MEV18 SUR/SUR
	5/3 open centre	Solenoid	Mechanical spring	10	30	420	160	MEV18 AUC/AUC
		Solenoid pilot assisted	Mechanical spring					MEV18 AUR/AUR
	5/3 pressure centre	Solenoid	Mechanical spring	10	30	500	160	MEV18 PUC/PUC
		Solenoid pilot assisted	Mechanical spring					MEV18 PUR/PUR

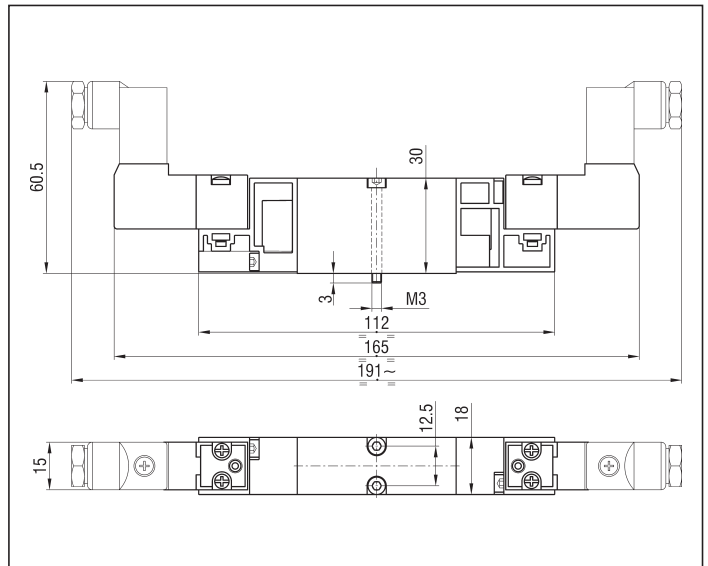
* SPECIFY THE VOLTAGE IN THE ORDER - E.G.: MEV18 KUC/ZR 02400
 (TYPES OF THE SOLENOID VALVES INCLUDE THE PILOTING SOLENOID VALVES "UMCSV" - SEE ON PAGE 2.3)

02400 = 24 V DC 11050-60 = 110 V AC
 02450-60 = 24 V AC 22050-60 = 220 V AC

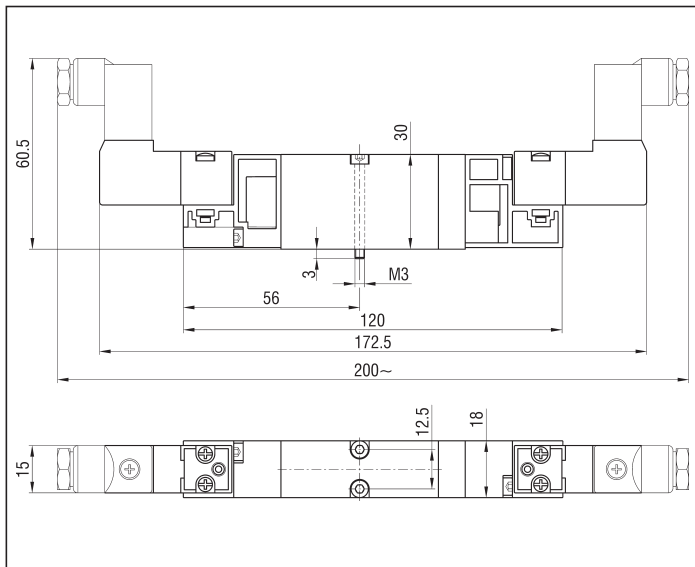
5 PORT - MONOSTABLE



5 PORT - BISTABLE



5 PORT - 3 POSITION



2

SOLENOID ACTUATED VALVES WITH COILS TOWARD THE BOTTOM TO VDMA 24563 STANDARD SIZE 02 - MEVX 18
SUITABLE FOR SINGLE USE OR MULTI-PIN PLUG CONNECTOR

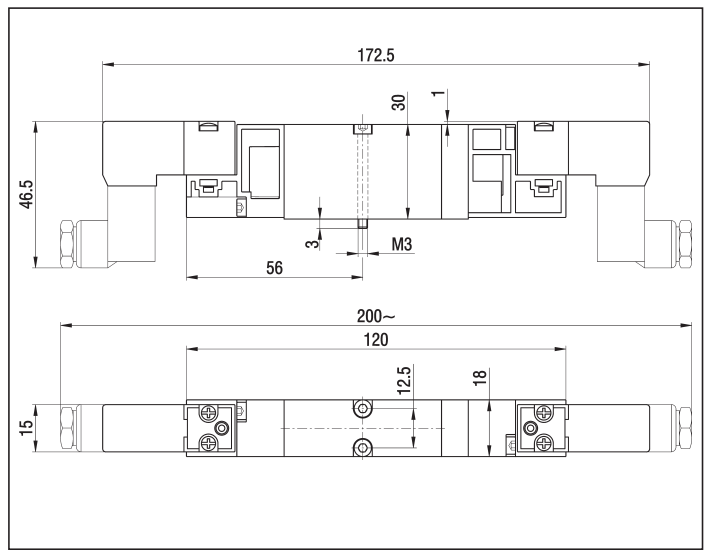
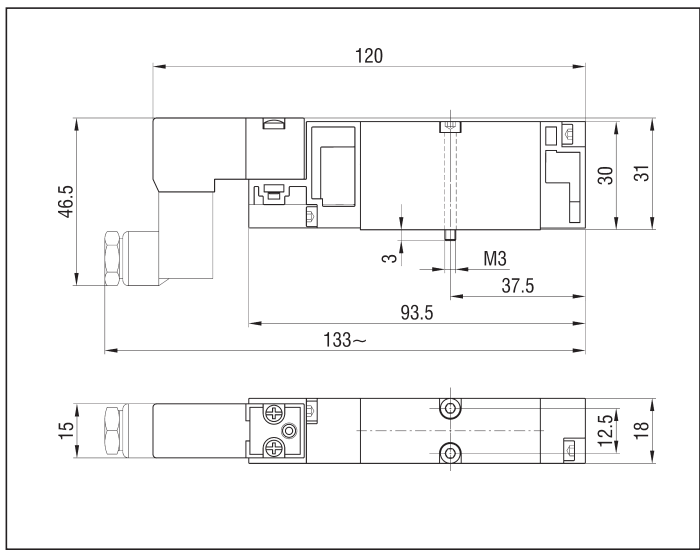
Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar $\Delta P = 1 \text{ bar (l/min)}$	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized			
	5/2 monostable	Solenoid	Mechanical spring	10	50	510	130	MEVX18 KUC/ZR
		Solenoid	Pneumatic spring	12	35			MEVX18 KUC/TQ
		Solenoid pilot assisted	Mechanical spring	10	50			MEVX18 KUR/ZR
	5/2 bistable	Solenoid	Solenoid	10	10	510	175	MEVX18 KUC/KUC
		Solenoid pilot assisted	Solenoid pilot assisted					MEVX18 KUR/KUR
	5/3 closed centre	Solenoid	Mechanical spring	10	30	420	175	MEVX18 SUC/SUC
		Solenoid pilot assisted	Mechanical spring					MEVX18 SUR/SUR
	5/3 open centre	Solenoid	Mechanical spring	10	30	420	175	MEVX18 AUC/AUC
		Solenoid pilot assisted	Mechanical spring					MEVX18 AUR/AUR
	5/3 pressure centre	Solenoid	Mechanical spring	10	30	500	175	MEVX18 PUC/PUC
		Solenoid pilot assisted	Mechanical spring					MEVX18 PUR/PUR

2

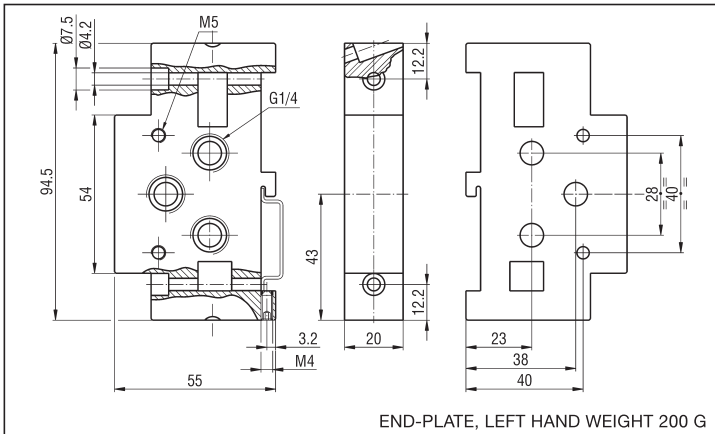
* SPECIFY THE VOLTAGE IN THE ORDER - E.G.: MEVX18 KUC/ZR 02400
(TYPES OF THE SOLENOID VALVES INCLUDE THE PILOTING SOLENOID VALVES "UMCSV" - SEE ON PAGE 2.3)

02400 = 24 V DC
02450-60 = 24 V AC

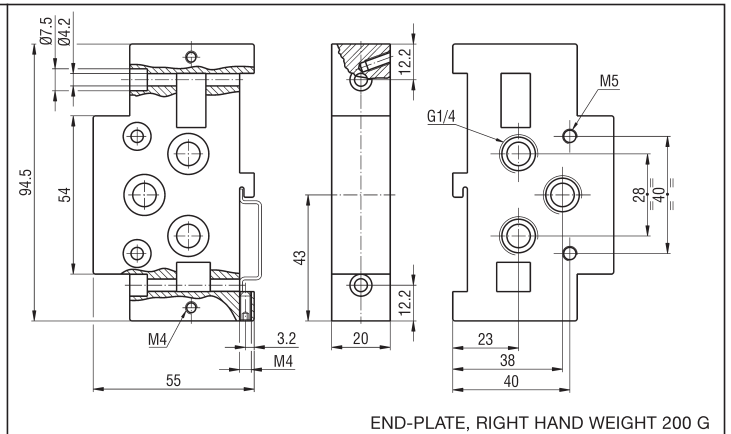
5 PORT - MONOSTABLE 5 PORT - BISTABLE AND 5 PORT - 3 POSITIONS



INPUT PLATES (pair) - MEV18PE



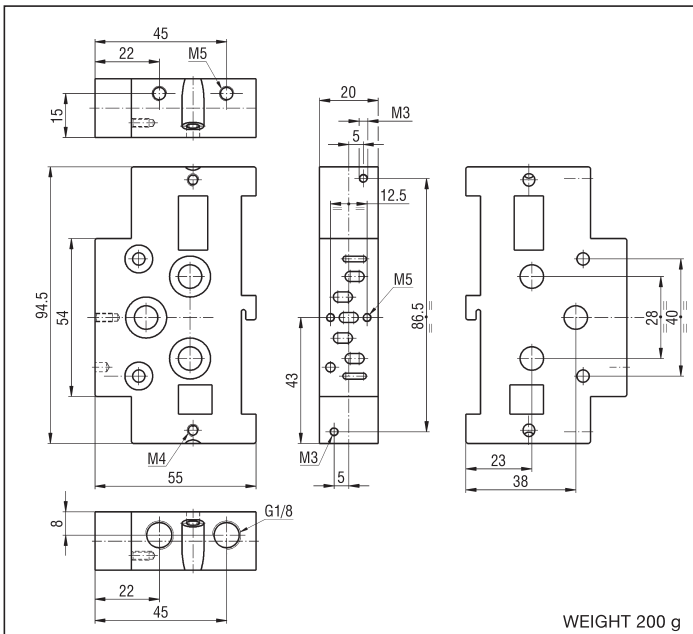
END-PLATE, LEFT HAND WEIGHT 200 G



END-PLATE, RIGHT HAND WEIGHT 200 G

INPUT PLATES ARE SUPPLIED COMPLETE WITH SCREWS AND SEALS

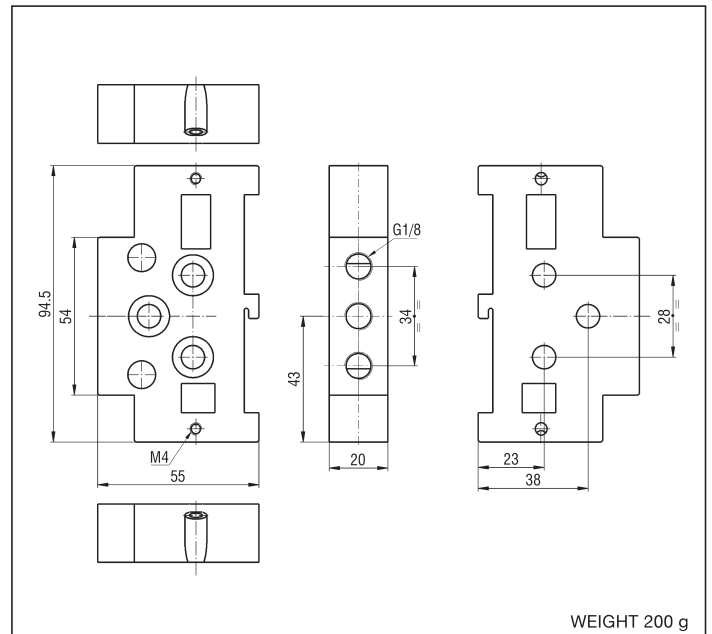
MANIFOLD BASE, SIDE PORTED - MEV18BM



WEIGHT 200 g

MANIFOLD BASE IS SUPPLIED COMPLETE WITH SCREWS AND SEALS

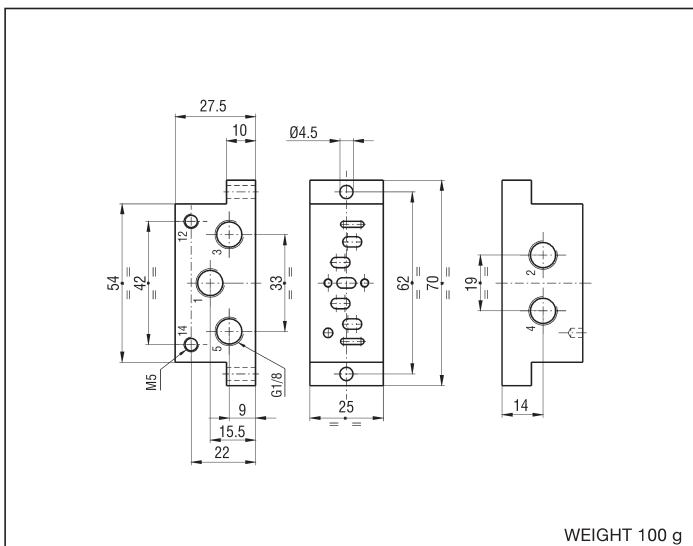
INTERMEDIATE PLATE, TOP PORTED - MEV18PUS



WEIGHT 200 g

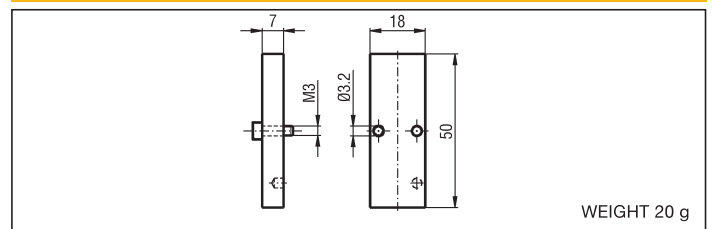
INTERMEDIATE PLATE IS SUPPLIED COMPLETE WITH SCREWS AND SEALS

SINGLE BASE SIDE PORTED - MEV18S BS



WEIGHT 100 g

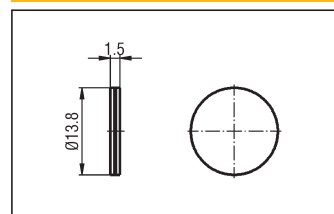
BLANKING PLATE - MEV18PC



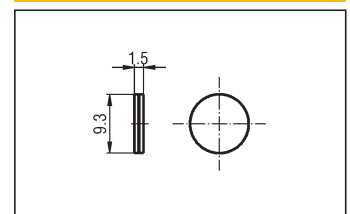
WEIGHT 20 g

BLANKING PLATE IS SUPPLIED COMPLETE WITH SCREWS AND SEALS

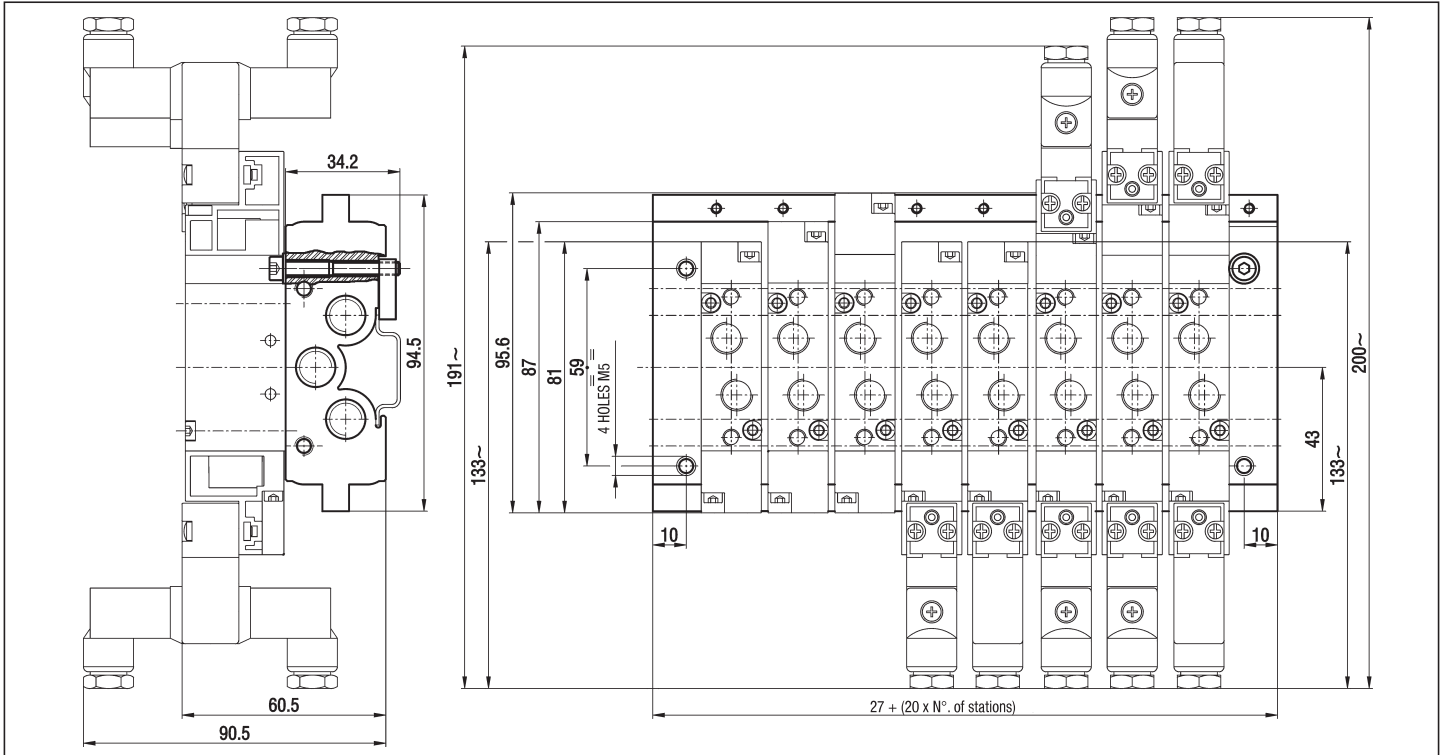
DIAPHRAGM - MEV18DG (No.3 PCS)



DIAPHRAGM - MEV18DP (No.2 PCS)

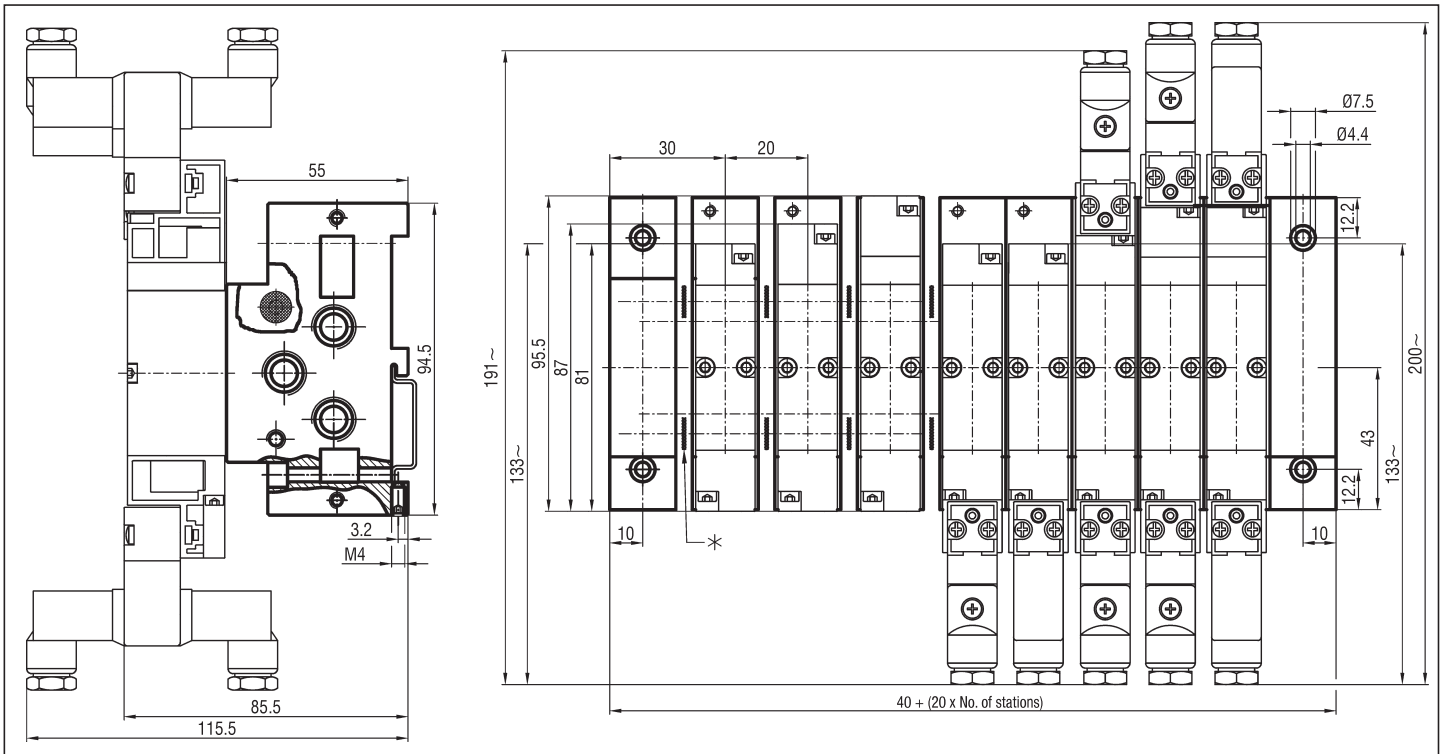


EXAMPLE OF ASSEMBLY - MEV 8 - MEVX 8



2

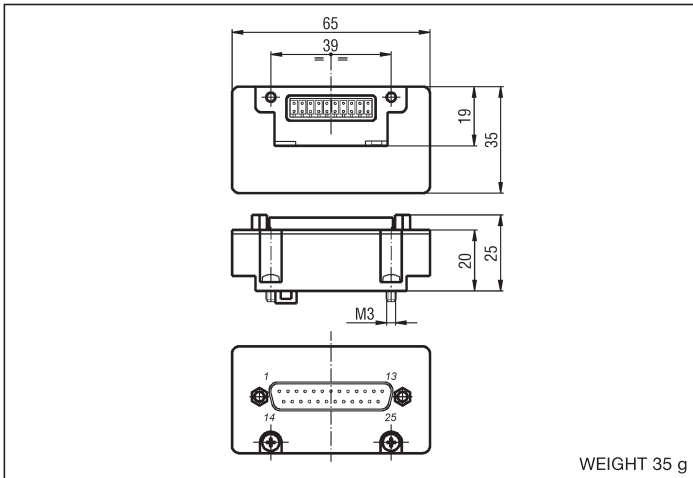
EXAMPLE OF ASSEMBLY - MEV 18 - MEVX 18



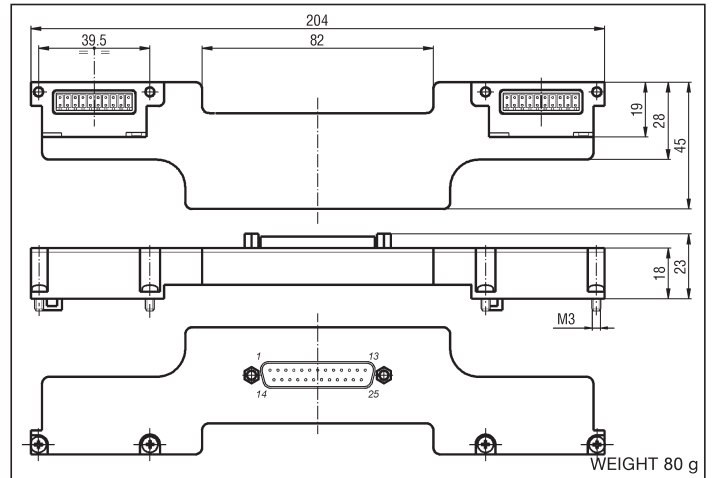
* WITH THE PILOT ACTUATED VALVES USE THE TWO DIAPHRAGMS (TYPE MEV18DP) TO EXCLUDE THE PILOTING EXHAUST (SEE ON PAGE 2.26)

2

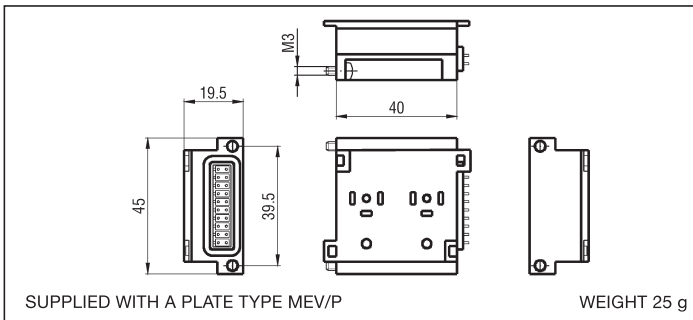
25-PIN PLUG, SINGLE - MEV/C1



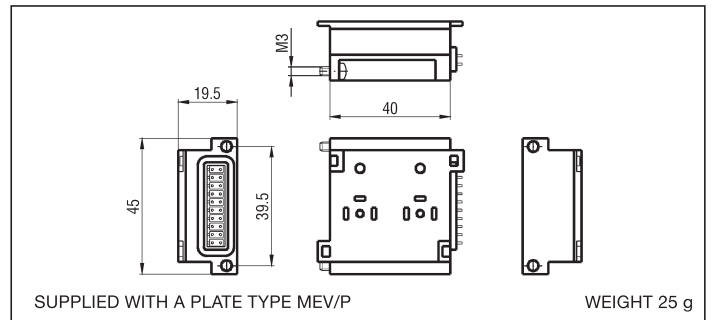
25-PIN PLUG, DOUBLE - MEV/C2



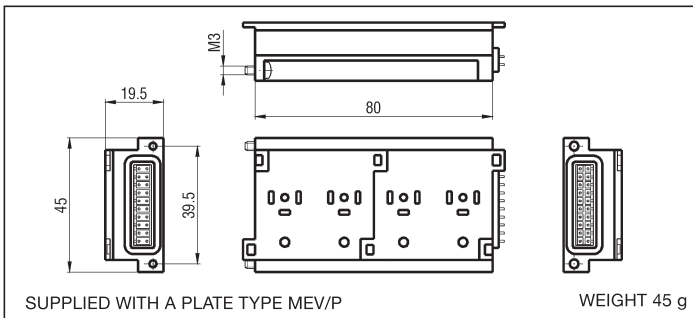
TWO STATIONS MODULE, LEFT - MEV/M2S/AC or DC (24 V)



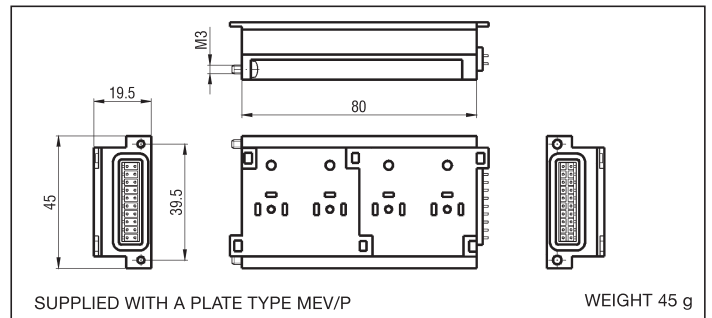
TWO STATIONS MODULE, RIGHT - MEV/M2D/AC or DC



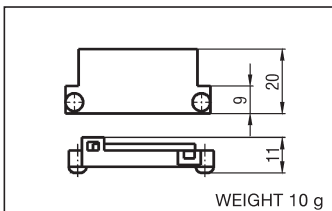
FOUR STATIONS MODULE, LEFT - MEV/M4S/AC or DC (24 V)



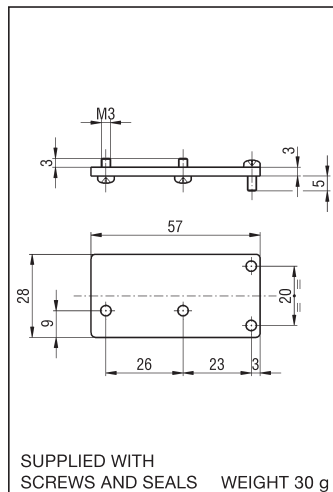
FOUR STATIONS MODULE, RIGHT - MEV/M4D/AC or DC (24 V)



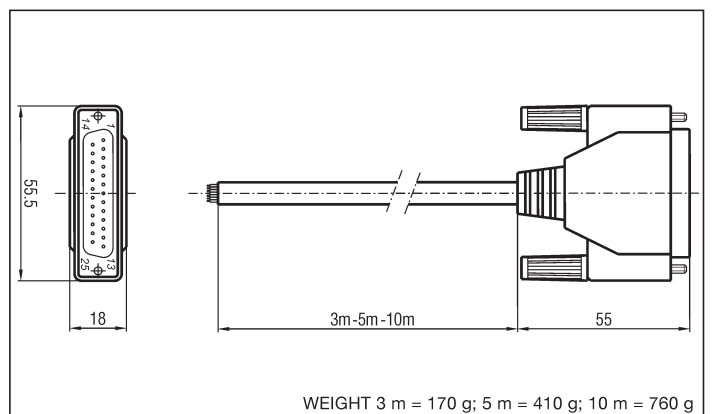
BLANKING CAP - MEV/C



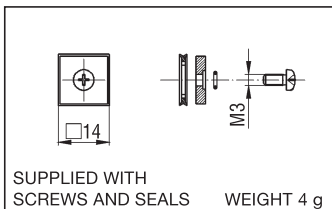
FIXING PLATE - MEV/P



PRE-ASSEMBLED MULTI-PIN CABLE "X" METERS LONG WITH 25-PIN SUB-D PLUG MEV/CF "X" (X= 3, 5, OR 10 m)



BLANKING PLATE - MEV/PM



TECHNICAL INFORMATION

CONNECTION WITH ONE DOUBLE 25-PIN SUB-D PLUG, FOR 2 ÷ 11 STATIONS VALVE ISLANDS

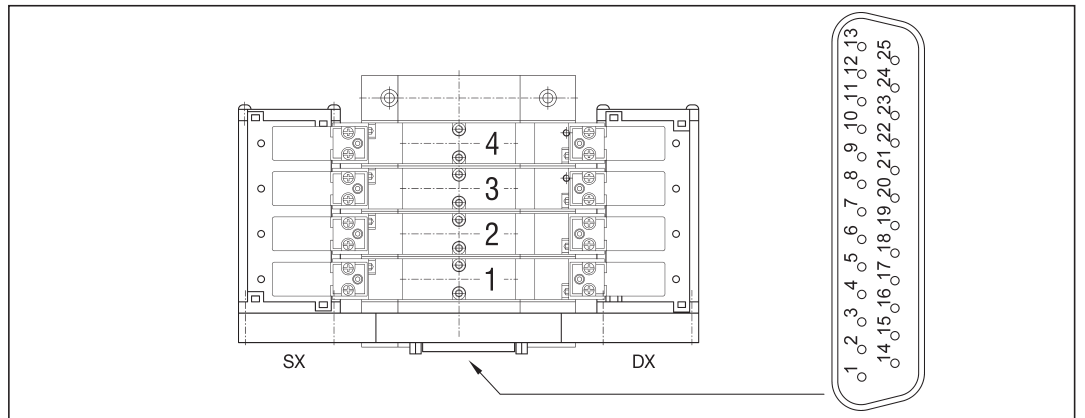
Valve	1		2		3		4		5		6		7		8		9		10		11	
Pilot coil	14(sx)	12(dx)	14(sx)	12(dx)	14(sx)	12(dx)	14(sx)	12(dx)	14(sx)	12(dx)	14(sx)	12(dx)	14(sx)	12(dx)	14(sx)	12(dx)	14(sx)	12(dx)	14(sx)	12(dx)	14(sx)	12(dx)
PIN Number	1	12	2	13	3	14	4	15	5	16	6	17	7	18	8	19	9	20	10	21	11	22
Color	brown	green white	red	green chiaro	orange	red black	yellow	orange black	green	yellow black	blue	green black	purple	grey black	grey	black sky blue	white	rose black	black	brown black	rose	orange white

2

Valve	-		-	
Pilot coil	GND*	GND*	GND*	-
PIN Number	23	24	25	-
Color	yellow green	sky blue	grey green	-

*Common cable

P.S.: For monostable solenoid valves use left modules

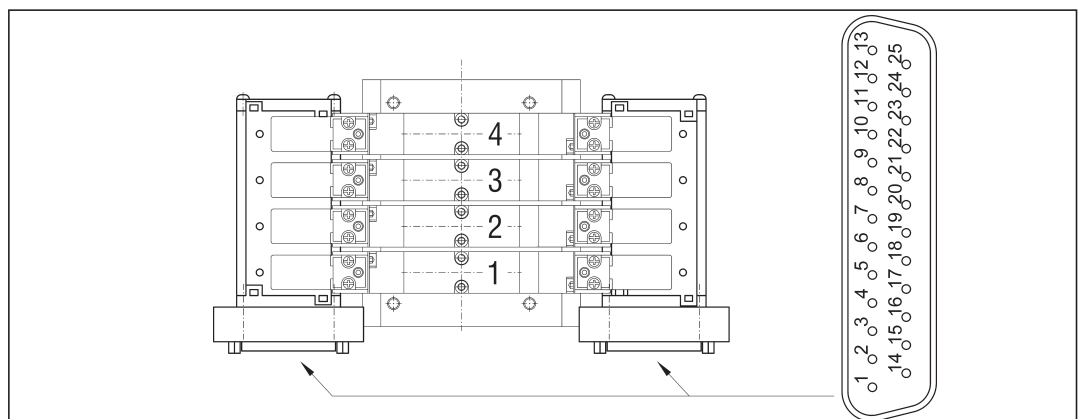


CONNECTION WITH TWO SINGLE 25-PIN SUB-D PLUGS, FOR 2 ÷ 16 STATIONS VALVE ISLANDS

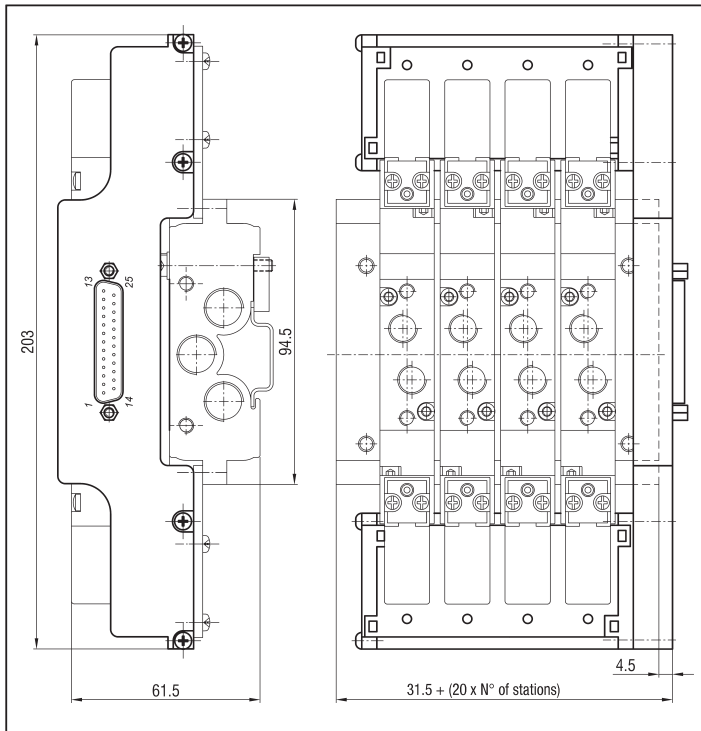
Valve	1		2		3		4		5		6		7		8		9		10		11	
Pilot coil	14(sx)	12(dx)	14(sx)	12(dx)	14(sx)	12(dx)	14(sx)	12(dx)	14(sx)	12(dx)	14(sx)	12(dx)	14(sx)	12(dx)	14(sx)	12(dx)	14(sx)	12(dx)	14(sx)	12(dx)	14(sx)	12(dx)
PIN Number	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11
Color	brown	brown	red	red	orange	orange	yellow	yellow	green	green	blue	blue	purple	purple	grey	grey	white	white	black	black	red	red

Valve	12		13		14		15		16		-		-		-		-		-	
Pilot coil	14(sx)	12(dx)	14(sx)	12(dx)	14(sx)	12(dx)	14(sx)	12(dx)	14(sx)	12(dx)	GND*	GND*	GND*	GND*	NC	NC	NC	NC	NC	-
PIN Number	12	12	13	13	14	14	15	15	16	16	17	18	19	20	21	22	23	24	25	-
Color	green white	green white	green chiaro	green chiaro	red black	red black	orange black	orange black	yellow black	yellow black	green black	green black	black sky blue	rose black	brown black	orange white	yellow green	sky blue	grey green	-

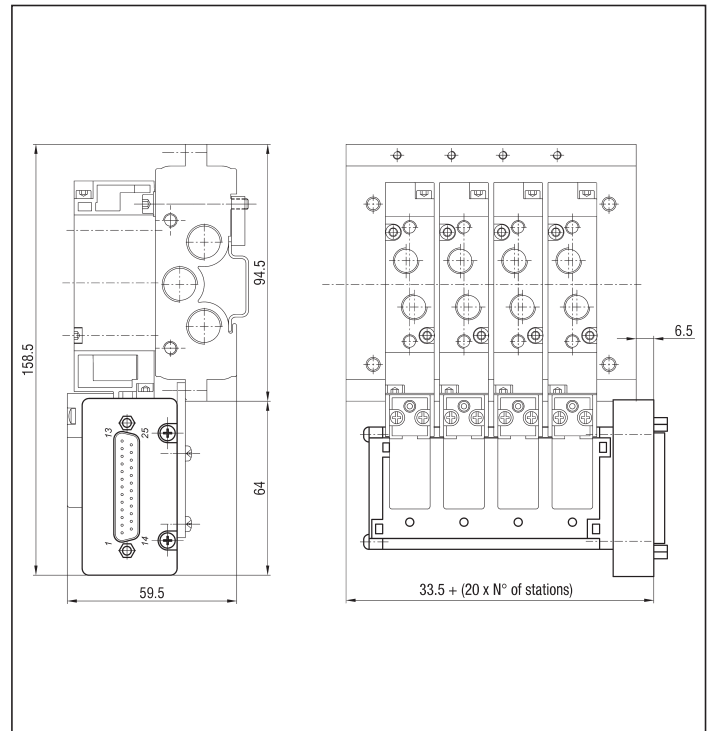
*Common cable



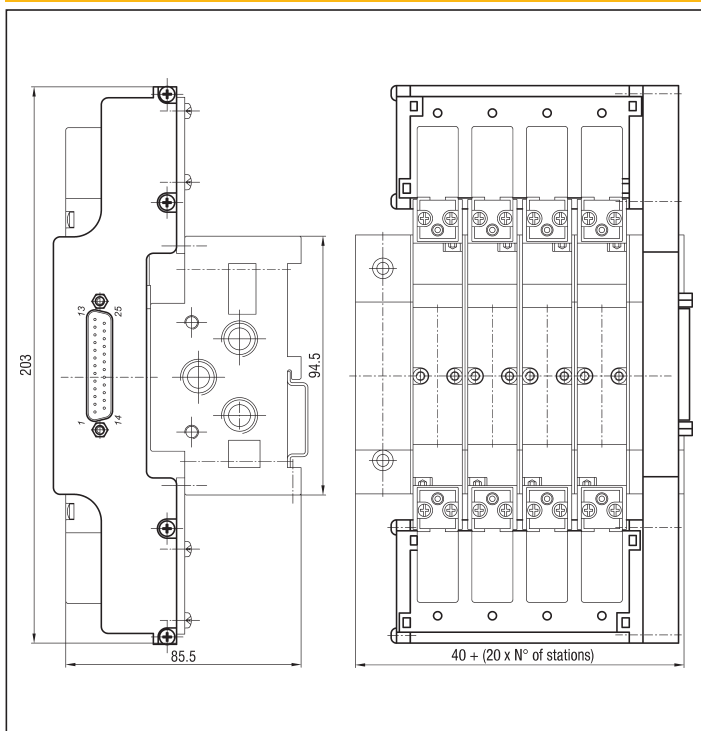
MEVX 8 WITH DOUBLE 25-PIN SUB-D PLUG



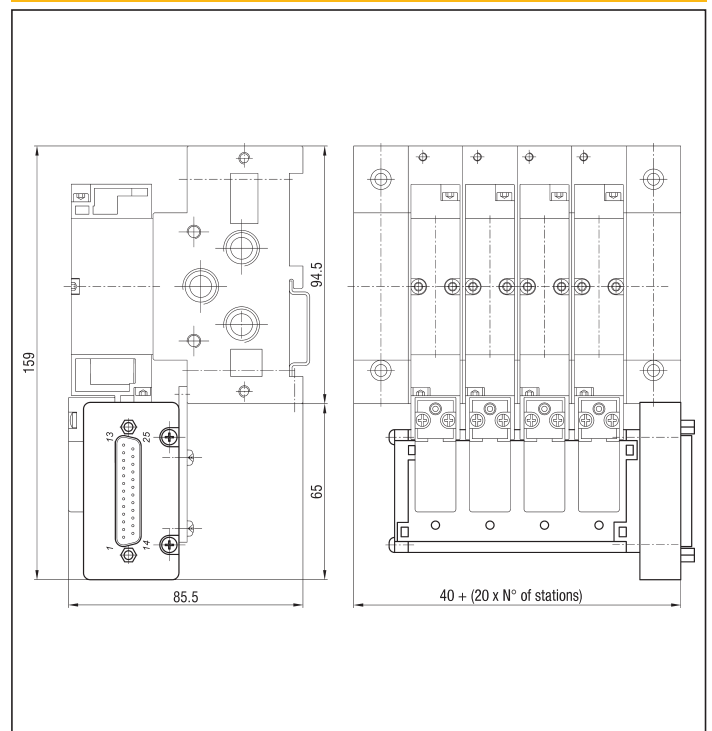
MEVX 8 WITH SINGLE 25-PIN SUB-D PLUG



MEVX 18 WITH DOUBLE 25-PIN SUB-D PLUG



MEVX 18 SINGLE 25-PIN SUB-D PLUG



Assembling examples

Multi-pin connection with solenoid valves versions MEVX 8 and MEVX 18

series MEV

Solenoid valves versions MEVX allow a multi-pin plug connection with the possibility of creating islands of pre-assembled solenoid valves with a number of positions chosen by the user during the assembling of the components.

The replacement of the solenoid valves can be easily made in every moment.

Connection modules are at 2 or 4 positions that can operate with 24 V AC or DC voltage.

MEV/C2
Double 25-pin sub-d plug for batteries of bistable solenoid valves.

MEV/M2D/AC or DC (24 V)

Manifold base to VDMA 24563 size 02

MEV18BM

MEV18PE

Possibility of assembling till No. 4 modules of 4 positions each, for a total of 16 solenoid valves and the 2 positions module as final element for manifolds of 2, 6, 10, 14 positions.

MEV/PM

MEV/M4S/AC or DC (24 V)

MEV/C

MEV/P

MEV8/PC

KB/MEV8

The bases are fit for mounting onto rails according to DIN 46277/3

MEV/C1

Single 25-pin sub-d plug for manifolds of monostable solenoid valves