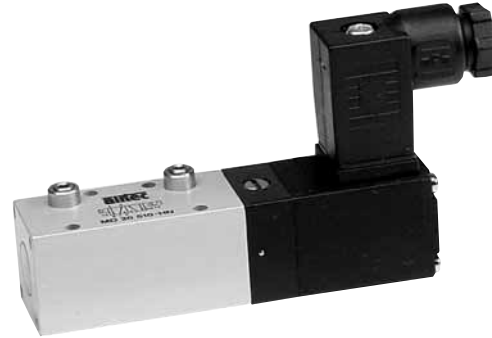


Electrically operated valves
5/2- and 5/3-way, for sub-base mounting,
220 NI/min (0.224 Cv)

Technical data for series

MC-20, MD-20



Order code

MC-20-510-HN-112

Series and function

Coil options*







- 141** = 12 V DC, 2 W, (plug socket on top, see pictures)
- 142** = 24 V DC, 2 W, (plug socket on top, see pictures)
- 441** = 12 V DC, 2 W, without plug socket (plug pins on top)
- 442** = 24 V DC, 2 W, without plug socket (plug pins on top)
- 111** = 12 V DC, 2 W, (plug socket bottom, at ports 1, 2, 3, 4, 5)
- 112** = 24 V DC, 2 W, (plug socket bottom, at ports 1, 2, 3, 4, 5)
- 411** = 12 V DC, 2 W, without plug socket (plug pins bottom)
- 412** = 24 V DC, 2 W, without plug socket (plug pins bottom)

Design and function

Spool valve actuated by an electrical signal.

The standard coil, the standard socket (see page 4.202), all mounting screws and sealing for sub-base mounting (see page 4.203) are included.

Please specify required control voltage when ordering.

Order number <small>Please complete according to order code.</small>	MC-20-510-HN	MC-20-520-HN	MC-20-530-HN	MC-20-533-HN	MD-20-510-HN	MD-20-520-HN
Function	 5/2-way single solenoid	 5/2-way double solenoid	 5/3-way center position closed	 5/3-way center position exhausted	 5/2-way single solenoid with exhaust throttles	 5/2-way double solenoid with exhaust throttles
Connection	Sub-base mounting					
Nominal size	3 mm					
Flow rate	220 NI/min (0.224 Cv)					
Pressure range	2.5 ... 8 bar (36 ... 116 psi)		3 ... 8 bar (43 ... 116 psi)		2.5 ... 8 bar (36 ... 116 psi)	
Response time at 6 bar	on 12 ms off 12 ms	11 ms	on 15 ms off 22 ms		on 12 ms off 12 ms	11 ms
Temperature range	- 10 °C ... + 70 °C (+ 14 °F ... + 158 °F)					
Materials	Body: Al (anodized), plastic, Seals: NBR and POM, Inner parts: Al, stainless steel, brass					
Degree of protection	IP 65 according to EN 60529					
Weight	0.100 kg (0.220 lb.)	0.156 kg (0.343 lb.)	0.162 kg (0.356 lb.)		0.100 kg (0.220 lb.)	0.156 kg (0.343 lb.)

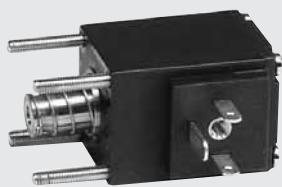
*Valves with other control voltages on request.

**Electrically operated valves
5/2- and 5/3-way, for sub-base mounting,
220 NI/min (0.224 Cv)**

Accessories for series

MC-20, MD-20

Solenoid coil



Standard coil
23-M-20-...
page 4.282

Plug sockets



Standard plug socket
28-ST-02
page 4.283



Plug socket with LED
28-ST-09-...
page 4.283



Plug socket with LED
and circuit protection
28-ST-10-...
page 4.283



Socket with LED, circuit
protection and cable
28-ST-10-K3-...
page 4.283



Socket with M-12 sensor
connection, LED and
circuit protection
28-ST-02-2-07
page 4.282



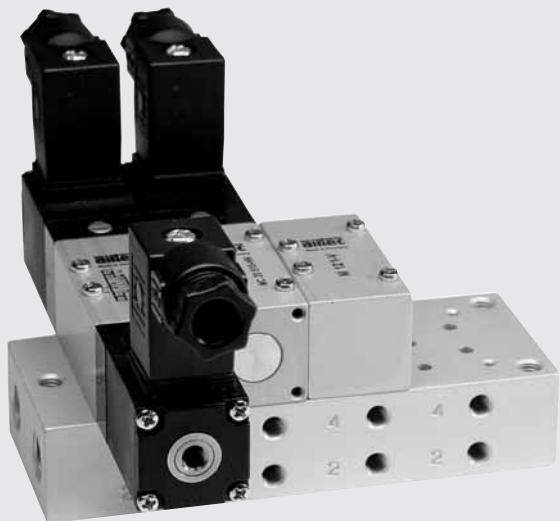
Socket with M-8 sensor
connection, LED and
circuit protection
28-ST-02-2-05
page 4.282

**Electrically operated valves
5/2- and 5/3-way, for sub-base mounting,
220 NI/min (0.224 Cv)**

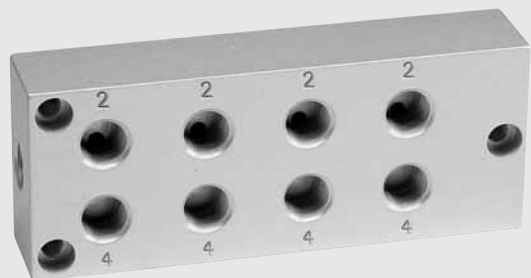
Accessories for series

MC-20, MD-20

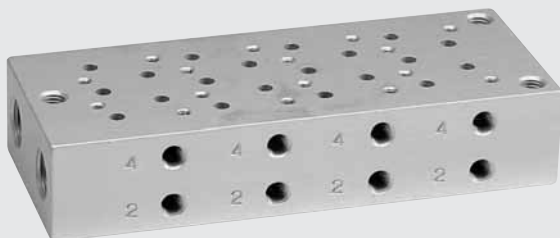
Sub-bases



Sub-bases will be delivered completely assembled with valves if requested



Sub-base G 1/8.
Available from 1 to 12 stations
M-122/n
page 4.204



Sub-base M5 (10/32 UNF).
Available from 1 to 12 stations
M-123/n
page 4.205

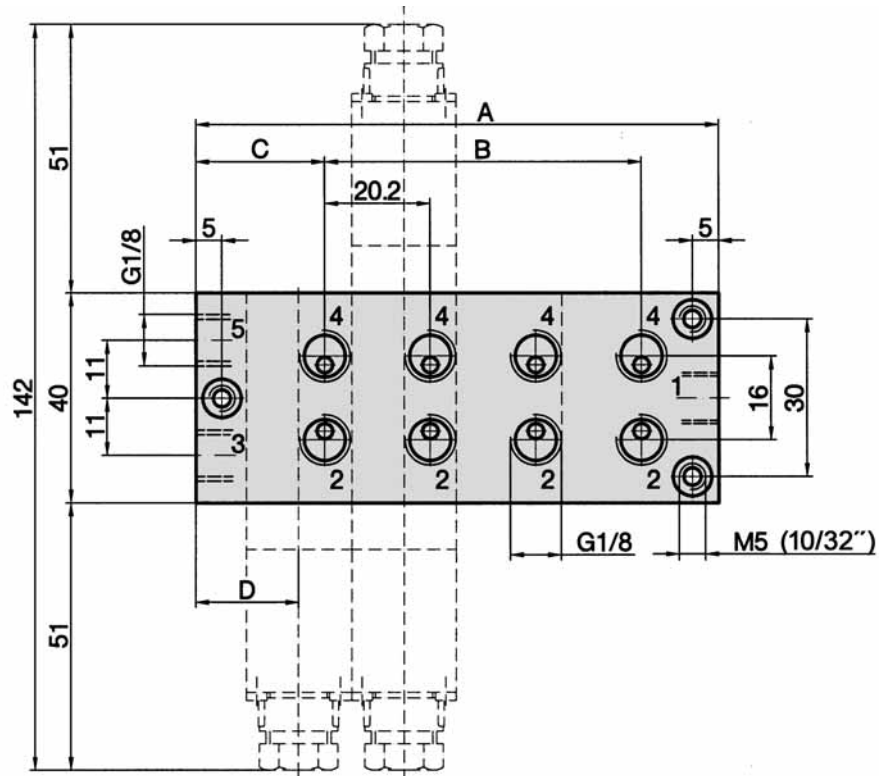


Blind plate for blank
valve station
M-121-V

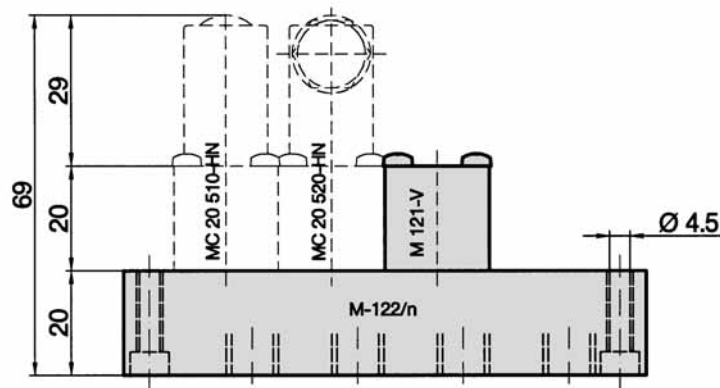
Electrically operated valves
5/2- and 5/3-way, for sub-base mounting,
220 NI/min (0.224 Cv)

Dimensions for sub-base

M-122



- 1 = pressure inlet
- 2, 4 = outlets
- 3, 5 = exhausts



M-121-V
 Blind plate for blank station.
 Material: Al (anodized).

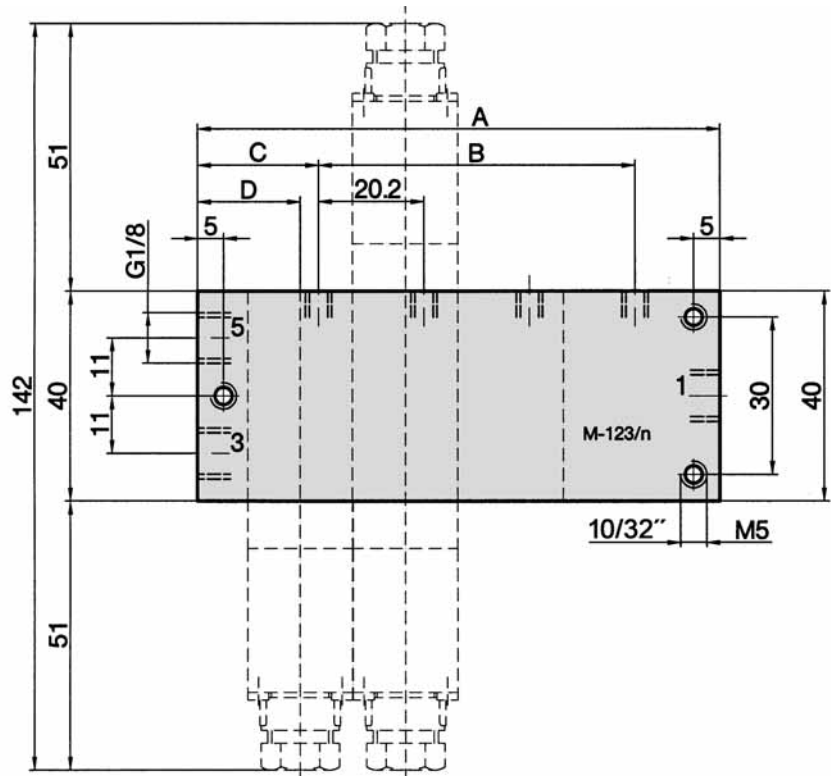
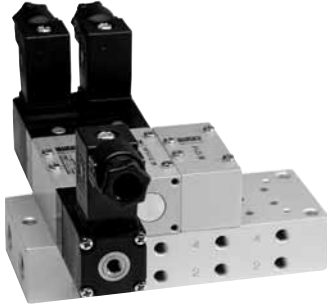
M-122/n
 Sub-base suitable for valve series MC-20 and MD-20.
 Material: Al (anodized).

Order number	A	B	C	D	Weight
M-122/1	40	-	25.0	20.0	0.080 kg (0.176 lb.)
M-122/2	60	20.2	24.9	19.9	0.122 kg (0.269 lb.)
M-122/3	80	40.4	24.8	19.8	0.164 kg (0.362 lb.)
M-122/4	100	60.6	24.7	19.7	0.206 kg (0.454 lb.)
M-122/5	120	80.8	24.6	19.6	0.248 kg (0.547 lb.)
M-122/6	140	101	24.5	19.5	0.290 kg (0.639 lb.)
M-122/7	160	121.2	24.4	19.4	0.332 kg (0.732 lb.)
M-122/8	180	141.4	24.3	19.3	0.374 kg (0.824 lb.)
M-122/9	200	161.6	24.2	19.2	0.416 kg (0.917 lb.)
M-122/10	220	181.8	24.1	19.1	0.458 kg (1.010 lbs.)
M-122/11	240	202	24.0	19.0	0.500 kg (1.102 lbs.)
M-122/12	260	222.2	23.9	18.9	0.542 kg (1.195 lbs.)

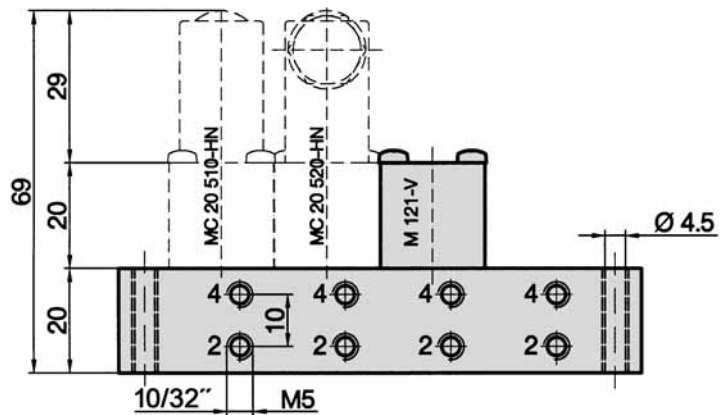
Electrically operated valves
5/2- and 5/3-way, for sub-base mounting,
220 NI/min (0.224 Cv)

Dimensions for sub-base

M-123



- 1 = pressure inlet
- 2, 4 = outlets
- 3, 5 = exhausts



M-121-V

Blind plate for blank station.
 Material: Al (anodized).

M-123/n

Sub-base suitable for valves series MC-20 and MD-20.
 Material: Al (anodized).

Order number	A	B	C	D	Weight
M-123/1	40	-	23.5	20.0	0.083 kg (0.183 lb.)
M-123/2	60	20.2	23.4	19.9	0.128 kg (0.282 lb.)
M-123/3	80	40.4	23.3	19.8	0.173 kg (0.381 lb.)
M-123/4	100	60.6	23.2	19.7	0.218 kg (0.480 lb.)
M-123/5	120	80.8	23.1	19.6	0.263 kg (0.580 lb.)
M-123/6	140	101	23.0	19.5	0.308 kg (0.679 lb.)
M-123/7	160	121.2	22.9	19.4	0.353 kg (0.778 lb.)
M-123/8	180	141.4	22.8	19.3	0.398 kg (0.877 lb.)
M-123/9	200	161.6	22.7	19.2	0.443 kg (0.977 lb.)
M-123/10	220	181.8	22.6	19.1	0.488 kg (1.076 lbs.)
M-123/11	240	202	22.5	19.0	0.533 kg (1.175 lbs.)
M-123/12	260	222.2	22.4	18.9	0.578 kg (1.274 lbs.)