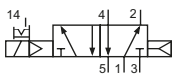


**Technical details**

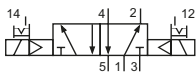
<b>Connection</b>	Sub-base mounting
<b>Nominal size</b>	3 mm
<b>Temperature range</b>	-10°C ... +70°C
<b>Medium</b>	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
<b>Materials</b>	Body: Al (anodized), plastic, seals: NBR, inner parts: Al, steel and plastic
<b>Protection</b>	IP 65 according to EN 60529



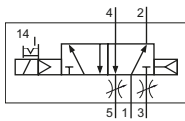
Electrically operated spool valve. The manual override is detent and is operated by screw driver. Gaskets and screws are part of delivery.

**5/2-way-valves**


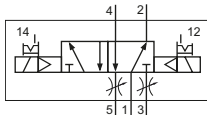
**MC-20-510-HN-xxx**  
5/2-way, single solenoid, air spring return



**MC-20-520-HN-xxx**  
5/2-way, double solenoid

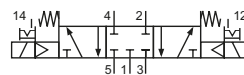


**MD-20-510-HN-xxx**  
5/2-way, single solenoid, air spring return, with exhaust throttles

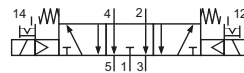


**MD-20-520-HN-xxx**  
5/2-way, double solenoid, with exhaust throttles

Please complete: xxx = electrical option

**5/3-way-valves**


**MC-20-530-HN-xxx**  
5/3-way, center position closed



**MC-20-533-HN-xxx**  
5/3-way, center position exhausted

**Electrical options**

Nominal voltage	Power consumption	Specifics	Plug connection*1	-xxx Plug connections	
				opposite 1,2,3,4,5	at 1,2,3,4,5
12 V DC	1 W		Form C industrial norm	-411	-441
24 V DC	1 W		Form C industrial norm	-412	-442

\*1 Plug socket not included, suitable plug sockets see page 03.

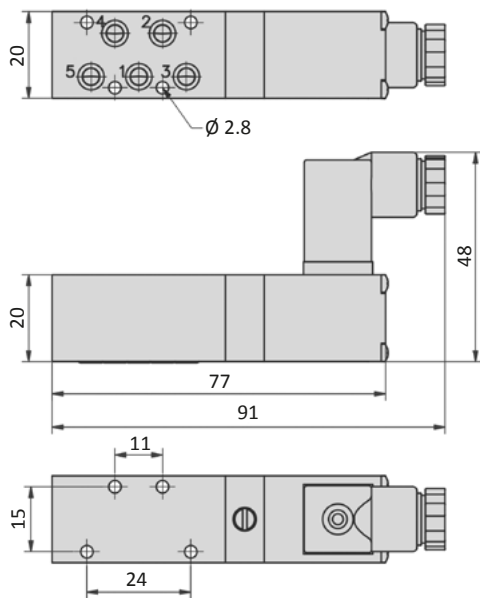
## Series MC-20 and MD-20

### Technical data

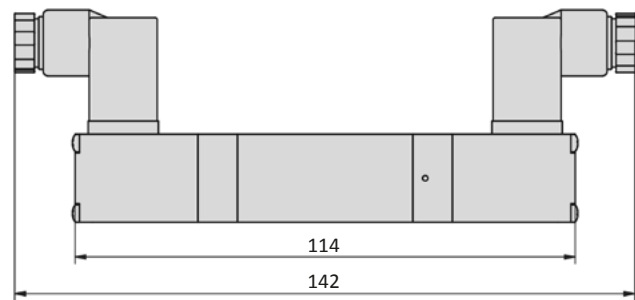
Model-no.:	MC-20-510 MD-20-510	MC-20-520 MD-20-520	MC-20-530	MC-20-533
Operating pressure (bar)	2.5 ... 8	2.5 ... 8	3 ... 8	3 ... 8
Pilot pressure (bar)	2.5 ... 8	2.5 ... 8	3 ... 8	3 ... 8
Flow rate (NI/min)	220	220	220	220
Response time (ms) at 6 bar	on: 12 off: 12	on: 11 off: 11	on: 15 off: 22	on: 15 off: 22
Weight (kg)	0.100	0.156	0.162	0.162

### Dimensions

#### MC-20-510-HN



#### MC-20-520-HN, MC-20-53x-HN



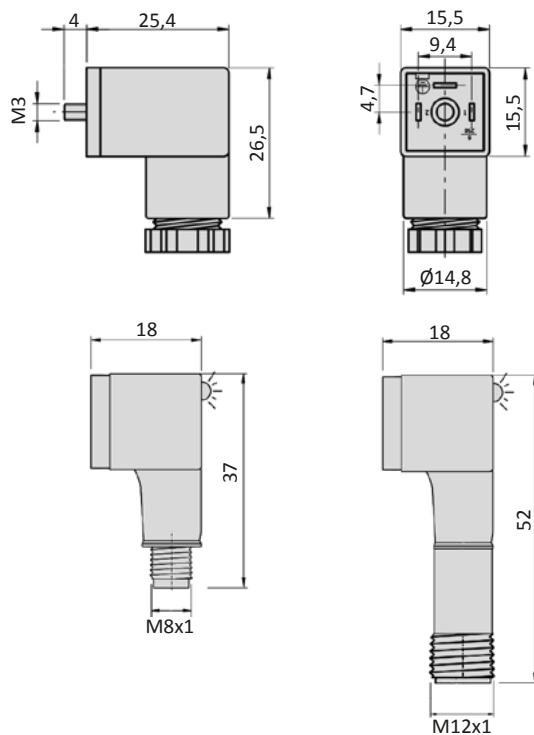
**Form C Industriennorm**

<b>Baubreite</b>	15 mm
<b>Kontaktabstand</b>	9,4 mm
<b>Kontakte</b>	2P + E
<b>Schutzart</b>	IP 65 nach EN 60529 in Verbindung mit Flachdichtung
<b>Einsatz für Baureihe</b>	M-20, MC-20, MD-20, MS-20



<b>Bestell-Nr.:</b>	28-ST-02-01	28-ST-09-112	28-ST-10-112	28-ST-10-K3-112
<b>Spannung (AC/DC)</b>	0 - 250 V	10 - 50 V	24 V	24 V
<b>Statusanzeige</b>	nein	ja	ja	ja
<b>Schutzbeschaltung</b>	nein	nein	ja (Varistor)	ja (Varistor)
<b>Anschlusskabel</b>	ohne	ohne	ohne	3 m
<b>Kabelquerschnitt</b>	max. 0,75 mm <sup>2</sup>	max. 0,75 mm <sup>2</sup>	max. 0,75 mm <sup>2</sup>	3 x 0,5 mm <sup>2</sup>
<b>Kabeldurchmesser</b>	4 - 6 mm	4 - 6 mm	4 - 6 mm	

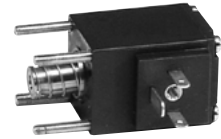
<b>Bestell-Nr.:</b>	28-ST-02-2-05	28-ST-02-2-07
<b>Spannung (AC/DC)</b>	24 V	24 V
<b>Statusanzeige</b>	ja	ja
<b>Schutzbeschaltung</b>	ja (Varistor)	ja (Varistor)
<b>Anschluss</b>	M8 Stecker	M12 Stecker


**4**
**Abmessungen**
**Form C Industriennorm**


## Solenoid coils

### Form C industrial norm

<b>Overall width</b>	20 mm
<b>Contact distance</b>	9,4 mm
<b>Contacts</b>	2P + E
<b>Protection</b>	IP 65 according to EN 60529 with connected plug socket
<b>Duty cycle</b>	100 %
<b>Temperature range*</b>	-20°C...+50°C
<b>Voltage tolerance</b>	± 10 %
<b>For use with series</b>	M-20, MS-20, MC-20, MD-20

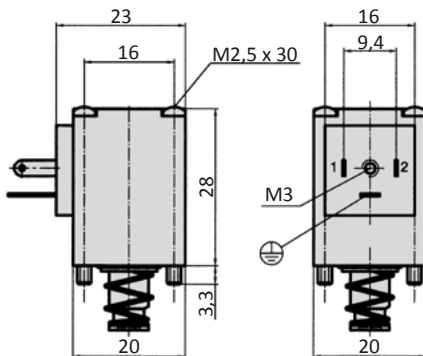


\* The max. applicable operating temperature, depends on the temperature specification of the used valve.

<b>Model-no.:</b>	23-M-20-411	23-M-20-412
<b>Voltage</b>	12 V DC	24 V DC
<b>Power consumption DC</b>	2 W	2 W
<b>Power consumption AC</b>	-	-

### Dimensions

#### Form C industrial norm



- HN * - * * *					
Manual override	Coil and plug options		Coil type	Manual override position on side of	Voltage
HN detent	0	ATEX 2GD, encapsulated with casting compound width 30 mm	23-SP-037	0 without indication ports 1/3/(5)	0 without indication
HNR detent	1	with coil and plug	according to valve	1 DC ports 1/3/(5)	1 12 V
HNT non-detent	2			2 AC ports 1/3/(5)	2 24 V
	3			3 DC, low power consumption ports 1/3/(5)	3 42 V
	4	with coil, without plug	according to valve	4 DC ports 2/(4)	4 48 V
	5	without coil	no	5 AC ports 2/(4)	5 110 V
	6	without pilot valve	no	6 DC, low power consumption ports 2/(4)	6 115 V
	7	with coil, with enhanced humidity resistance, without plug	according to valve	7 without indication ports 2/(4)	7 230 V
	8	with coil, with enhanced humidity resistance, with plug	according to valve		8 240 V
	9	ATEX 2GD, intrinsically safe, with plug width 30 mm	23-SP-038		9
	A	ATEX 3GD, without plug, width 30 mm	23-SP-040		A 4 V
	B	ATEX 3GD, with plug, width 30 mm	23-SP-040		B 6 V
	C	ATEX 3GD, without plug, width 22 mm	23-SP-041		C 8 V
	D				D 61 V
	E	ATEX 2GD, encapsulated with casting compound width 22 mm	23-SP-036		E 36 V
	F	with coil, with enhanced humidity resistance, without plug, low temperature version	23-SP-060-1		F 9 V
	G				
	H	with coil shape B according to DIN EN 175301-803, with plug	23-SP-011-G		
	I	with coil shape B according to DIN EN 175301-803, without plug	23-SP-011-G		
	J	with coil shape A according to DIN EN 175301-803, without plug (if not standard)	23-SP-016		
	K	with coil shape A according to DIN EN 175301-803, with plug (if not standard)	23-SP-016		
	L	with coil, with plug with LED and protective circuit	according to valve		
	M	with coil, with plug with LED, without protective circuit	according to valve		
	N	with coil with M12 connection	according to valve		
	O	with coil with M12 connection with LED and protective circuit	according to valve		
	P	without connector bridge, without plug			
	Q	with coil with with cable	according to valve		
	R	with cable up to 1 m length	according to valve		
	S	with connector bridge, without plug			
	T				
	U	ATEX 2GD, without coil (for coil 23-SP-036)	no		
	V	ATEX 2GD, Flame proof enclosures and encapsulated with casting compound	23-SP-045		
	W	ATEX 2GD / 3GD, without coil (for coil 23-SP-041 and 23-SP-045)	no		
	X	ATEX 3GD, without coil (for coil 23-SP-040 in 230V AC and 115V AC)	no		
	Y	ATEX 2GD, without coil (for coil 23-SP-038)	no		
	Z	ATEX 2GD / 3GD, without coil (for coil 23-SP-040 in 24V DC and 23-SP-037)	no		

*Not all options are suitable for all valve series*