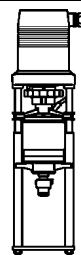


with microcontroller and spring return
for two-way valves
BR225
BR240S
BR240E



MC103SE
MC253SE

Features

- Electric linear actuator with defined end position in case of power failure (actuator stem extended)
- Electro-mechanic safety function (spring reserve), hydraulically damped
- Microprocessor controlled with automatic calibration on start up
- LED indication of actuator status
- Wear-free distance measuring system - no potentiometer
- Permanent storage of stroke in EPROM memory, values can not be lost
- Wire break recognition in 2...10 VDC and 4...20 mA operation
- Bonnet detachable in four positions, 90° locking, no screws required
- Terminals for binary signal to move to a limit position (frost protection)
- Pull-out manual adjustment with message signal
- Fault recognition in continuous operation (in case of blockage by foreign bodies)
- Input and output signal independently reversible
- Input signal freely adjustable: 3-point or modulating
- Hysteresis freely adjustable
- Shockproof at 230 VAC, no protective conductor (PE) necessary

Technical data

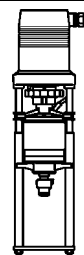
Type		MC103SE/24	MC103SE/230
Actuating time ¹⁾	s/mm	6 · 4*	6 · 4*
Fail-safe time	s/mm	approx 0.1	approx 0.1
Actuating thrust	kN	1.0	1.0
Stroke	mm	max. 20	max. 20
Power supply	VAC	24 ±10%	230 +6% -10%
Frequency	Hz	50/60 ±5%	50/60 ±5%
Power consumption	VA	max. 25	max. 20
Input signal ²⁾		3-point 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0.51 kOhm	3-point 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0.51 kOhm
Output signal ²⁾		0...10 VDC max. 8 mA min. 1200 Ohm	0...10 VDC max. 8 mA min. 1200 Ohm
Hysteresis ³⁾	V	0.05 · 0.15 · 0.3 · 0.5	0.05 · 0.15 · 0.3 · 0.5

¹⁾ Actuating time freely adjustable, presetting is marked with *

²⁾ Invertible input and output signal

³⁾ Freely adjustable

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Type		MC253SE/24	MC253SE/230
Actuating time ¹⁾	s/mm	5 · 2,5*	5 · 2,5*
Fail-safe time	s/mm	approx 0.1	approx 0.1
Actuating thrust	kN	2.5	2.5
Stroke	mm	max. 40	max. 40
Power supply	VAC	24 ±10%	230 +6% -10%
Frequency	Hz	50/60 ±5%	50/60 ±5%
Power consumption	VA	max. 50	max. 80
Input signal ²⁾		3-point 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0.51 kOhm	3-point 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0.51 kOhm
Output signal ²⁾		0...10 VDC max. 8 mA min. 1200 Ohm	0...10 VDC max. 8 mA min. 1200 Ohm
Hysteresis ³⁾	V	0.05 · 0.15 · 0.3 · 0.5	0.05 · 0.15 · 0.3 · 0.5

Enclosure protection:	IP 54	
Resolution:	electric	0.04 VDC
	mechanical	0.04 mm
Operating mode:	S3-50% ED c/h 1200	EN 60034-1
End position switch-off:	load-dependent	
Ambient temperature:	0...+60°C	
Weight:	MC103SE	5.0 kg
	MC253SE	13.0 kg

Actuator variant and accessories

- Voltage: 115 VAC
- Position switch unit ⁴⁾: 2 switches (WE1/WE2), potential free, infinitely adjustable
Rated load: 8 A / 250 VAC
8 A / 30 VDC
Turn-on voltage: max. 400 VAC
max. 125 VDC
- Board for output signal X=0(4)...20 mA ⁴⁾
- Adapter with coupling for external products

¹⁾ Actuating time freely adjustable, presetting is marked with *

²⁾ Invertible input and output signal

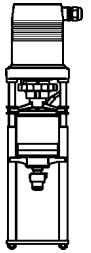
³⁾ Freely adjustable

⁴⁾ Position switch unit and output signal not in combination

Electric actuators with spring return

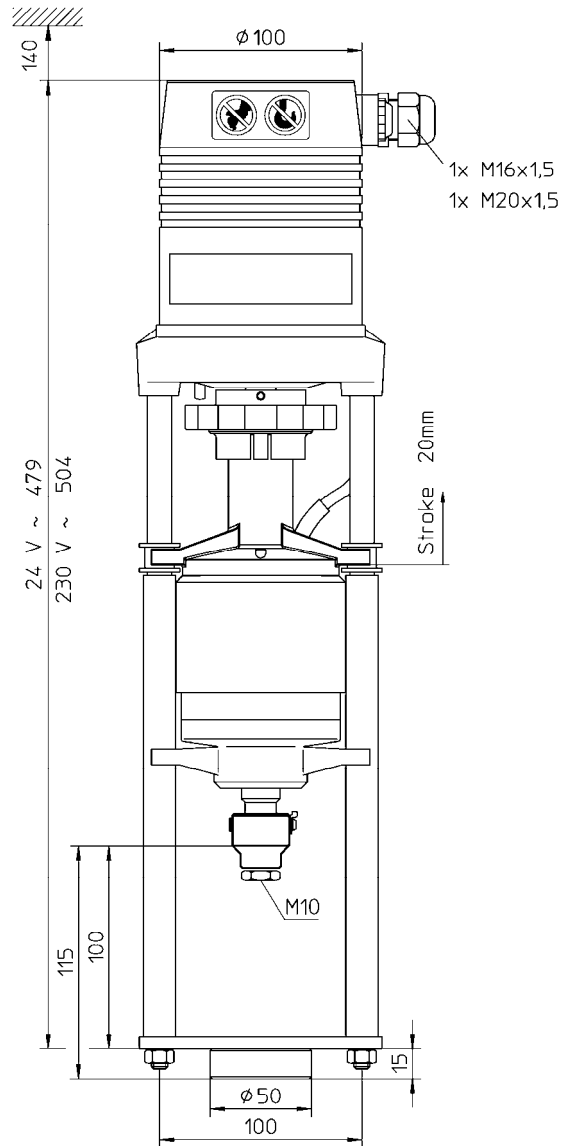
1.0 – 2.5 kN **7.3.2**

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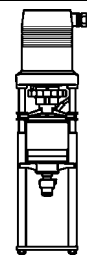
MC103SE
MC253SE

Drawing

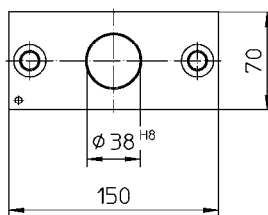
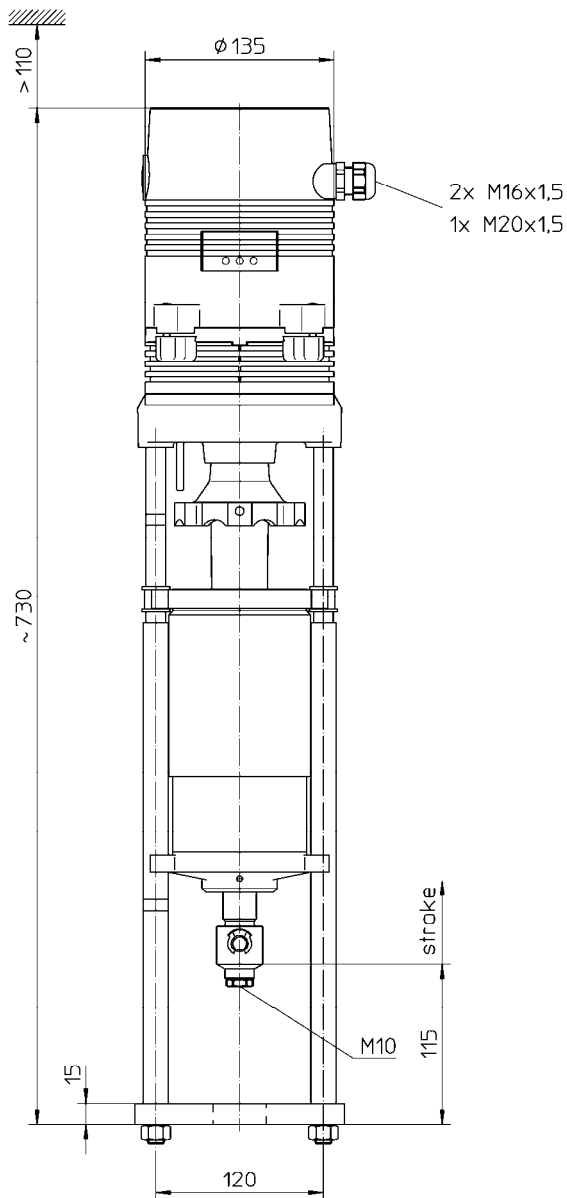


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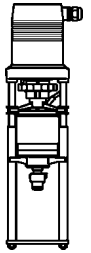


MC103SE
 MC253SE



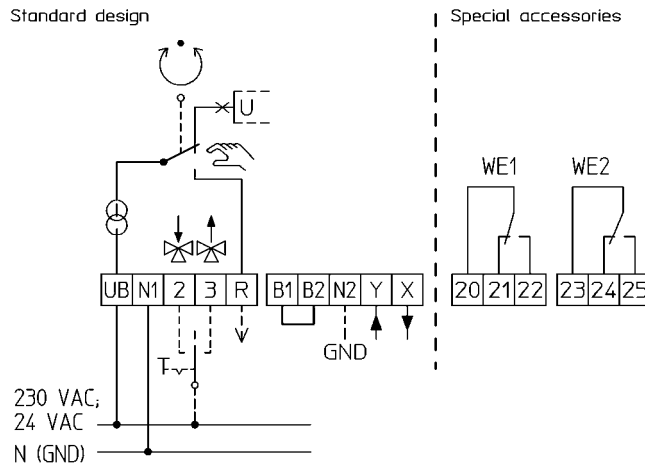
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MC103SE
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Circuit diagram



R Feedback signal in „Manual“ mode of operation

R=24 VAC max.100 mA for actuators in 24 VAC design

R=24 VDC max. 35 mA for actuators in 230 VAC design, resistance of load > 480 Ohm

N2 Zero potential of the „X“, „Y“ and „R“ signals.

If the actuators in 230 VAC design are to be triggered on the „continuous“ mode of operation, i.e. by analogue signal „Y“, the connection of N2 (zero potential of the controller) is absolutely necessary. For actuators in 230 VAC design the connection N2 in the „3-position“ mode of operation is only necessary if „X“ and/or „R“ are to be use by the actuator. If the zero potentials of the signals X, Y and R are identical with the zero potential of the supply voltage, a bridge can be laid between N1 and N2 in order to save an additional lead to N2.

B1/B2 Connection of a binary signal (e.g. frost protection)