



# M22B and M50B

# G-45-15

3-point 24 V AC or 230 V AC  
Valve Actuator for size DN 125 – DN 150

8 June 2004

M22B and M50B are electromechanical actuators for motorizing 2-way and 3-way valves large sizes DN125 and DN150 type V222, V292 and V321.

M22B and M50B actuators are powered by 24 Vac or 230 Vac and controlled by 3-point action (inc./dec.)

The actuators have optional end switches.

M22B and M50B can be ordered mounted in factory on the valve. See data sheet F-10-6.



## TECHNICAL SPECIFICATION

Part numbers ..... see the table below

Running time:  
3-point 0 –50 mm (0 - 2 in.) ..... 50Hz, 132 s  
60Hz, 112 s

Thrust :  
M22B ..... 2200 N (495 lbf)  
M50B ..... 5000 N (1120 lbf)

Duty cycle ..... max. 80%/60 minutes

Optional travel switch S2:  
Type ..... zero potential  
Capacity ..... 10A, 250V

Ambient temperature:  
Operation ..... -20 – +70 °C (-4°F –158°F)  
Storage ..... -20 – +70 °C (-4°F –158°F)

Ambient humidity ..... <95 %RH

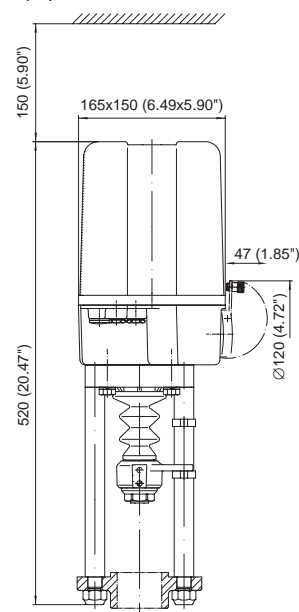
Enclosure rating ..... IP 65

Standards:  
Emission ..... EN 50081-1: 03.1993  
Immunity ..... EN 50082-1: 11.1997  
EN 50082-2: 02.1996

Material:  
Housing ..... CoPA - Grivory GV-4H  
Cover ..... PC - Polycarbonat  
Color ..... black/blow

Weight:  
M22B ..... 5,4 kg (11,9 lb.)  
M50B ..... 6,0 kg (13,2 lb.)

Dimensions mm (in)



Part number	Description	Power supply	Power consumption	
			50 Hz	60Hz
890-0106-000	M22B-24V	24 Vac+10%/ -15%	12 VA	15 VA
890-0108-000	M22B-24V-S2V	24 Vac+10%/ -15%	12 VA	15 VA
890-0110-000	M22B-230V	230 V AC +10% / -15%	11 VA	14 VA
890-0112-000	M22B-230V-S2V	230 V AC +10% / -15%	11 VA	14 VA
890-0206-000	M50B-24V	24 Vac+10%/ -15%	19 VA	29 VA
890-0208-000	M50B-24V-S2	24 Vac+10%/ -15%	19 VA	29 VA
890-0210-000	M50B-24V	230 V AC +10% / -15%	28 VA	35 VA
890-0212-000	M50B-24V-S2	230 V AC +10% / -15%	28 VA	35 VA

## FUNCTION

### The actuator

M22A and M50A consists of a reversible motor and a gear train in a CoPA housing.

All bearings of motor and gear train are of permanent lubrication type.

The reversible motor cuts out in both end positions on activating limit switches.

### Additional switches

The actuators can be optional equipped with an additional stroke-switch board containing two travel switches (double-throw contacts (S4 and S5)). These switches can be adjusted to switch anywhere within the working range.

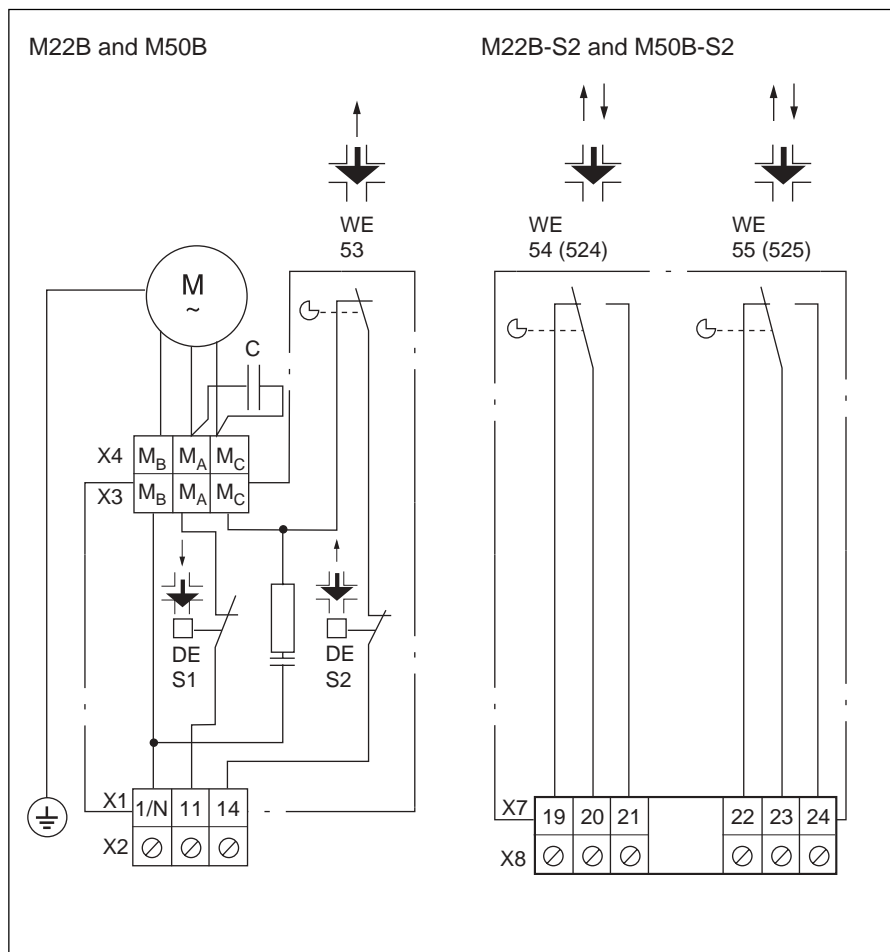
### Manual operation

The actuator can be manually operated by means of a hand wheel. Since the hand wheel always follows during motor-driven operation (running indication), never operate by hand while the actuator is running – potential injury hazards.

**Note:** Switch of the electrical source and secure against turning on again.

The position of the actuator is indicated with a pointer between the actuator and the valve.

## WIRING



## INSTALLATION

The installation of the M22B and M50B is carried out according to instruction, shipped together with the actuator, if the actuator is mounted on the valve from factory.

How to mount and adjust a M22B and M50B actuator to a valve is described in the handbook for M22 and M50.

The actuator may be mounted beside or above the valve. Mounting below the valve should be avoided.

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