



# MB15B

Inc./dec. (3-point)  
Butterfly Valve actuator

# G-20-12

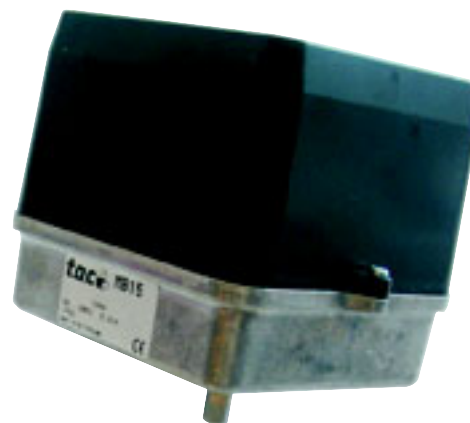
4 Aug 2003

MB15B is an electromechanical actuator for motorizing butterfly valves TRV-S.

MB15B is available for 24 V and 230 V, 50-60 Hz. It is controlled by 3-point control.

The actuators working range is set from factory to 90° to fit with TRV-S

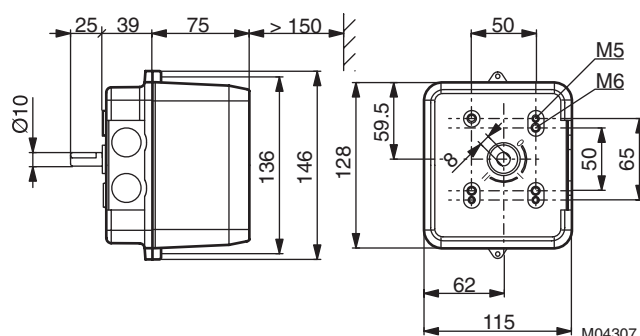
MB15B can be operated manually a pointer between the actuator and the valve indicates the valve position.



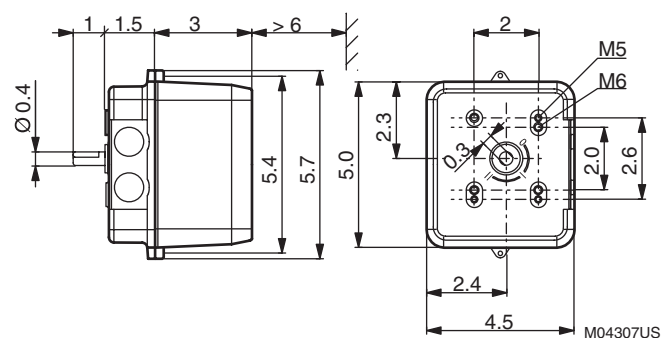
## TECHNICAL SPECIFICATION

|                             |                                 |
|-----------------------------|---------------------------------|
| Part number .....           | see table below                 |
| Optional end switches ..... | see auxiliary                   |
| Duty cycle .....            | 100%                            |
| Torque .....                | 15 Nm (11.1 ft-lbf)             |
| Control signal .....        | Inc./dec. (3-point)             |
| Enclosure material :        |                                 |
| Cover .....                 | Lexan 940                       |
| House .....                 | cast light alloy                |
| Colour .....                | black/aluminium                 |
| Standards conformity:       |                                 |
| EMC, emission .....         | SS EN 50081-1                   |
| EMC, immunity .....         | SS EN 50082-1                   |
| Enclosure rating .....      | IP 55                           |
| Ambient humidity .....      | < 95 %rH                        |
| Ambient temperature:        |                                 |
| Operation .....             | -20 to +60 °C (- 4 to +140 °F)  |
| Storage .....               | -30 to +70 °C (- 22 to +158 °F) |
| Maintenance .....           | maintenance-free                |
| Weight .....                | 1.1 kg (2.4lb.)                 |

Dimensions in mm



Dimensions in inches



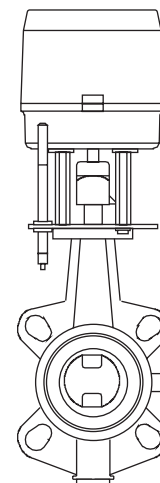
| Part number  | Description     | Running time 90° ∠ | Power supply | Power consumption |        |
|--------------|-----------------|--------------------|--------------|-------------------|--------|
|              |                 |                    |              | 50 Hz             | 60Hz   |
| 865-1510-000 | MB15B-60s-230V  | 60s                | 230Vac±15%   | 3.7 VA            | 4.2 VA |
| 865-1514-000 | MB15B-60s-24V   | 60s                | 24 Vac±20%   | 4.8 VA            | 5.4 VA |
| 865-1520-000 | MB15B-120s-230V | 120s               | 230Vac±15%   | 3.7 VA            | 4.2 VA |
| 865-1524-000 | MB15B-120s-24V  | 120s               | 24 Vac±20%   | 4.8 VA            | 5.4 VA |

## SELECTION OF ASSEMBLY KIT

| Part number  |           | Actuator Input |     | MB15B<br>inc/dec<br>$\Delta P_c$ |      |     |
|--------------|-----------|----------------|-----|----------------------------------|------|-----|
|              |           | Size DN        | in. | Kit <sup>1)</sup>                | kP   | psi |
| 721-6010-000 | TRV-S 25  | 25             | 1   | A                                | 1000 | 145 |
| 721-6014-000 | TRV-S 32  | 32             | 1½  | A                                | 1000 | 145 |
| 721-6018-000 | TRV-S 40  | 40             | 1¾  | A                                | 1000 | 145 |
| 721-6022-000 | TRV-S 50  | 50             | 2   | A                                | 1000 | 145 |
| 721-6026-000 | TRV-S 65  | 65             | 2½  | A                                | 700  | 102 |
| 721-6030-000 | TRV-S 80  | 80             | 3   | B                                | 400  | 58  |
| 721-6034-000 | TRV-S 100 | 100            | 4   | B                                | 200  | 29  |
| 721-6038-000 | TRV-S 125 | 125            | 5   | -                                | -    | -   |
| 721-6042-000 | TRV-S 150 | 150            | 6   | -                                | -    | -   |
| 721-6046-000 | TRV-S 200 | 200            | 8   | -                                | -    | -   |

$\Delta P_c$  = Permissible differential pressure when the valve is closed

<sup>1)</sup> Needed assembly kit    A= **911-3010-000** Kit MB15 to TRV-S DN25-65  
                                      B= **911-3014-000** Kit MB15 to TRV-S DN80-100



B01425a

## DESIGN

MB15B consists of a reversible motor and a gear train in a cast light alloy 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.

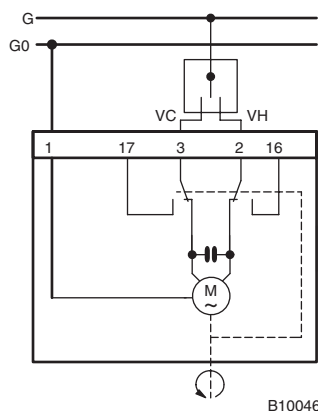
The operating range of the MB15B is adjustable from 30 to 180 degrees of rotation. Factory setting is 90 degrees.

The actuator can be manually operated by means of a handle used in a position under the cover of the actuator.

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

As option two auxiliary switch are operated by cam on the output shaft and the switching point can be adjusted to switch anywhere within the working range.

## WIRING



B10046

Anti-clockwise direction when power is at 2 (viewed from the actuator towards the valve).

## INSTALLATION

The installation of the MB15B is carried out according to instruction, shipped together with the actuator.

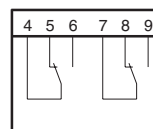
The actuator may be mounted beside or above the valve. Mounting below the valve should be avoided.

## AUXILIARY

S2 Auxillary switches MB15

Part number **965-1510-000**

min load : 100 mA 24 Vac  
 max load: 10A 250 Vac



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