

# BM SERIES BALL VALVE ACTUATOR

Modulating Control  
5 Nm



**High Neck  
Ball Valve Actuator**



**Low Neck  
Ball Valve Actuator**

## BM...05 SERIES

BM series standard valve actuators are especially designed and produced for applications in the HVAC systems. Our wide range of standard valve actuators has been developed to operate and position ball valves of different sizes.

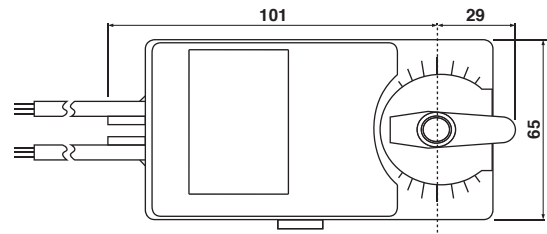
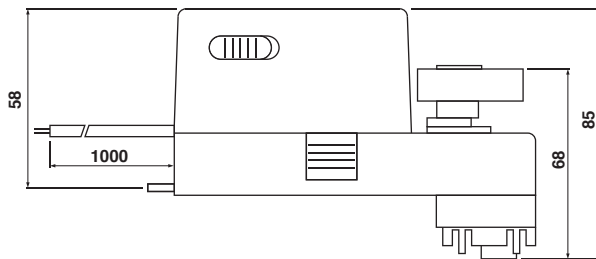
## PRODUCT FEATURE

- Torque 5 Nm
- Valve size DN15(1/2") / DN20(3/4") / DN25(1") / DN32(1 1/4")
- Power supply AC/DC 24 V and AC 230 V
- Control Modulating DC 0(2)...10 V
- Shaft dimensions - □ 9.0 mm (fixed)
- Selectable direction of rotation of reversing actuator
- Actuator with 1 m cable connection
- Available in high neck and low neck

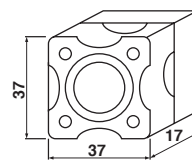
## MODEL SELECTION TABLE

MODEL / TYPE	TORQUE	POWER SUPPLY	RUNNING TIME	AUXILIARY SWITCH
BM 1.2-05 LN	5 Nm	AC/DC 24 V ± 10%	70...100 sec	-
BM 1.2-05 HN	5 Nm	AC/DC 24 V ± 10%	70...100 sec	-

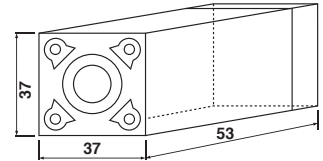
## DIMENSION (mm)



For Low Neck:



For High Neck:



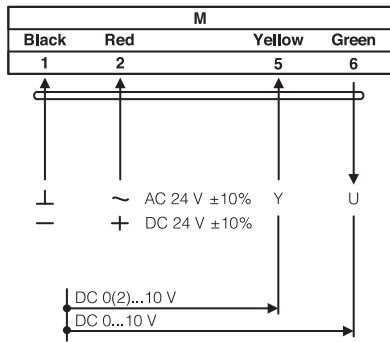
## TECHNICAL SPECIFICATION

<b>MODEL NUMBER</b>	<b>BM 1.2-05</b>
<b>TORQUE</b>	5 Nm
<b>VALVE SIZE</b>	DN15(1/2") / DN20(3/4") / DN25(1") / DN32(1 1/4")
<b>SHAFT DIMENSION</b>	□ 9.0 mm (fixed)
<b>POWER SUPPLY</b>	AC/DC 24 V ± 10%
<b>FREQUENCY</b>	50...60 Hz
<b>CONTROL SIGNAL (INPUT)</b>	DC 0(2)...10 V
<b>CONTROL SIGNAL (OUTPUT)</b>	DC 0...10 V
<b>POWER CONSUMPTION</b>	
● OPERATING	4.0 W
● END POSITION	2.0 W
<b>FOR WIRE SIZING</b>	14.0 VA
<b>ELECTRICAL CONNECTION</b>	1 m Cable
<b>PROTECTION CLASS</b>	Class III ⬠
<b>ANGLE OF ROTATION</b>	90° (95° mechanical)
<b>WEIGHT</b>	< 0.8 Kg
<b>LIFE CYCLE</b>	60,000 Rotation
<b>SOUND LEVEL</b>	40 dB
<b>IP PROTECTION</b>	IP54
<b>OPERATING TEMPERATURE</b>	-20°...50° as per IEC 721-3-3
<b>NON-OPERATING TEMPERATURE</b>	-30°...+60° C / IEC 721-3-2
<b>AMBIENT HUMIDITY</b>	5%...95% rH non condensing / EN
<b>MAINTENANCE</b>	Maintenance Free
<b>MODE OF OPERATION</b>	Type I / EN 60730-1
<b>EMC</b>	CE & ISO 9000 EN / EEC

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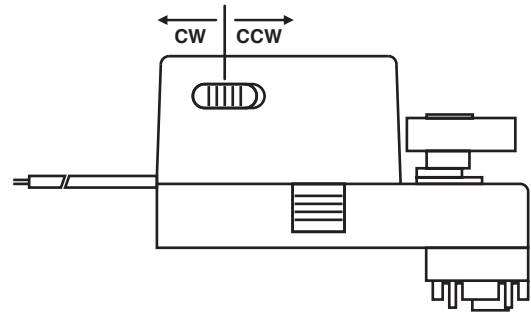
## WIRING DIAGRAM BM...05 POWER SUPPLY AC/DC 24V



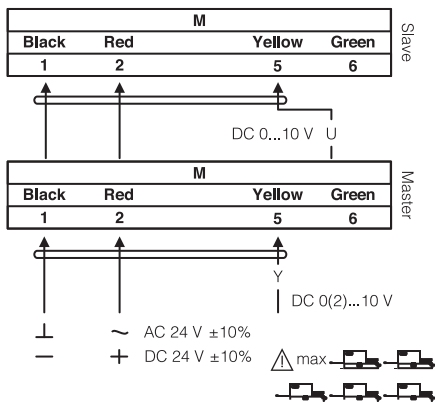
## DIRECTION OF ROTATION BM...05

Default factory setting: CCW.

Direction of rotation can be change by toggling between CW/CCW switch on the actuator's housing.

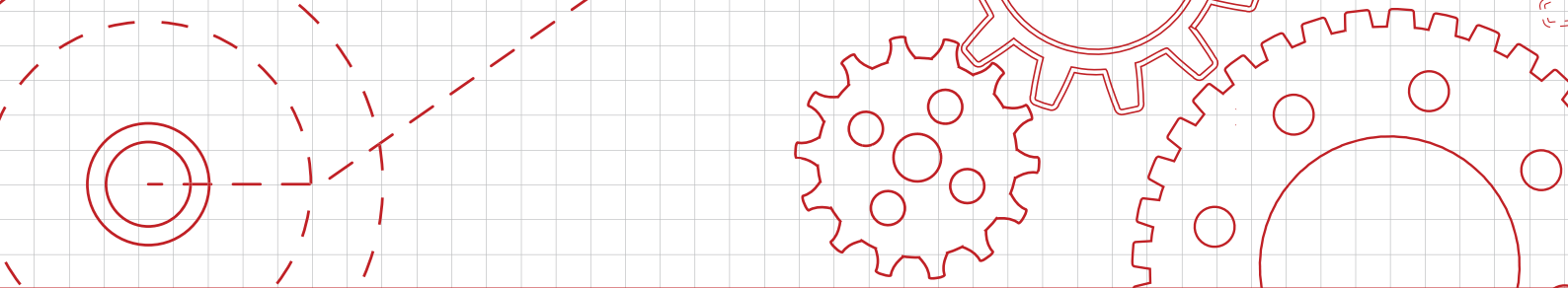


## WIRING DIAGRAM BM...05 PARALLEL CONNECTION



## REMARK

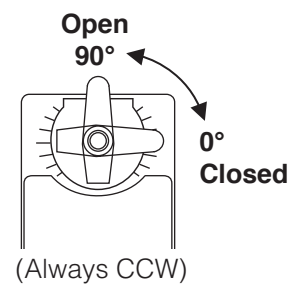
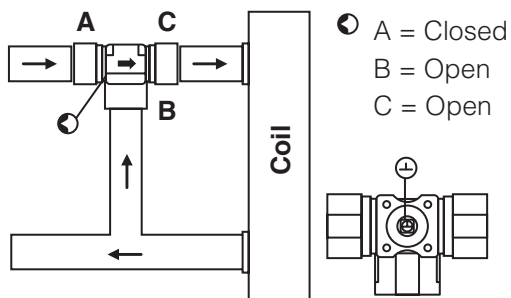
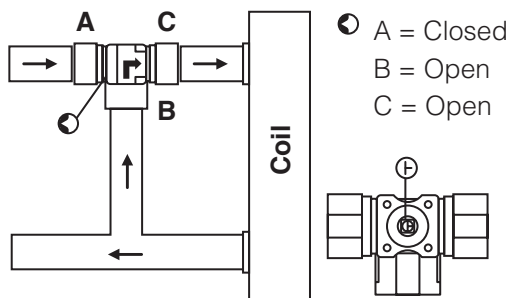
During parallel operation, the output signal (terminal 6, DC 0...10 V) of the master actuator must be connected to terminal 5 of the next slave actuator.



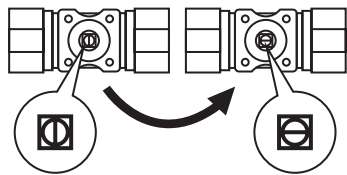
### MIXING CLOSED

### MIXING OPEN

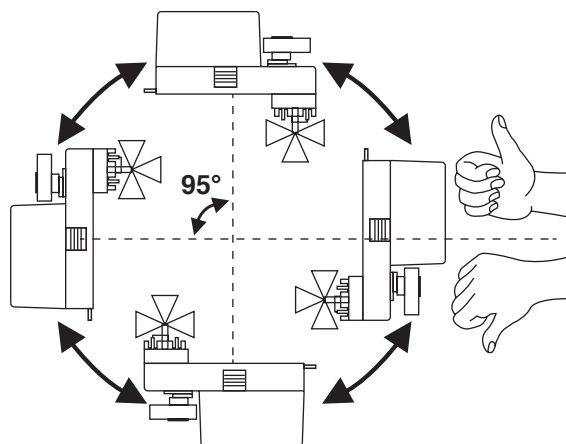
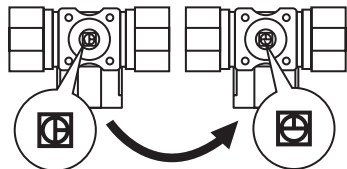
### ACTUATOR POSITION



#### 2-way Closed 2-way Open



#### 3-way Closed 3-way Open



## IMPORTANT REMARK

For special requirement, consult your local Swisotec's representative.

This actuator includes electrical and electronic components and may not be disposed as household garbage. Please consider the local valid legislation.

AC / DC 24 V: Connect via safety isolating transformer.  
 AC 230 V: To isolate from the main power supply, the system must incorporate a device which disconnects the phase conductor (with at least a 3mm contact gap.)

The performance specifications are nominal and conform to acceptable industry standards. Swisotec shall not be liable for damages resulting from misapplication or misuse of its products.