

SpaceLogic MG600C SR

Installation and Manual Override Instructions

⚠ CAUTION

DISCONNECT POWER FOR MANUAL OVERRIDE OPERATION

- Disable power to the actuator prior to operating the manual override.
- If the hex key is left in the hex manual override drive socket, the hex key will rotate as the actuator is driven. This is not recommended and damage could occur if the key is not free to rotate.

Failure to follow this instruction may result in equipment damage or personal injury.

⚠ CAUTION

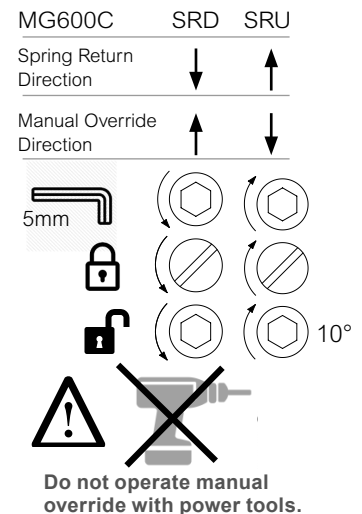
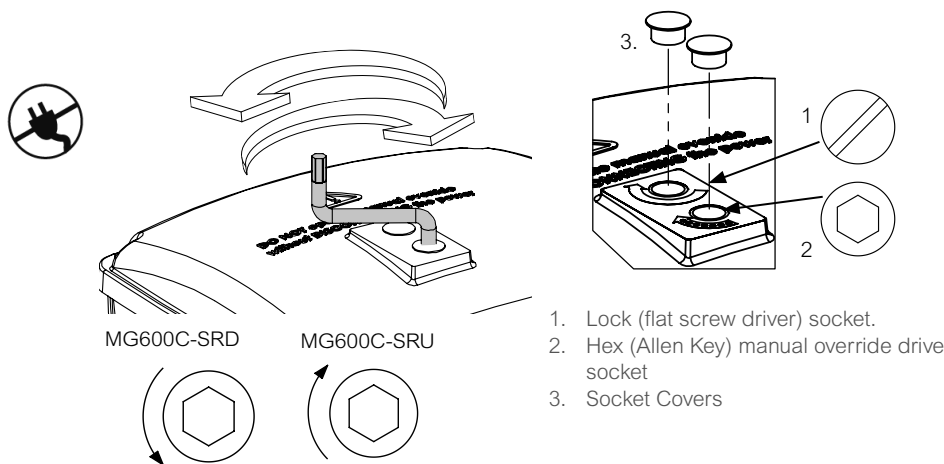
RISK OF BURNS OR FLYING PARTS

If the valve stem, spindle, or plug has been damaged, it may blow out under pressure while servicing the actuator.

- Isolate and depressurize the valve before servicing.
- Manually check valve stem, spindle, or plug integrity by moving it within the valve. If the part can be removed, replace the valve assembly.

Failure to follow these instructions may result in death or serious injury.

Manual Override Operation



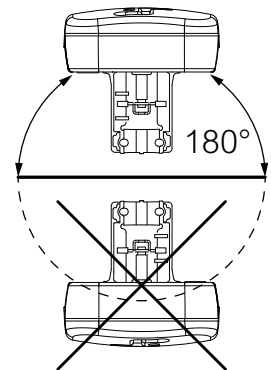
NOTE: Remove Allen Key wrench before resuming normal operation. Only operate the manual override and the lock screw in the direction shown by the arrows on the actuator labels or this instruction manual. Upon re-connecting power to the actuator, the actuator will momentarily drive against the spring to ensure disengagement of the lock screw and return the actuator to automatic control.

Mounting and Installation

1. Before assembling the valve and actuator, pull the valve stem up on the valve.
2. It will not be possible to properly mount the valve if the actuator stem connection brace is at either end of the stroke limits: Operate the manual override with the 5mm hex key. Only operate the manual override in the direction shown for the SRU/SRD variant.
3. Position the bracket in mid-position of actuator stroke range.
4. Once the actuator is in the mid-position, lock using a flat blade screw driver turning the socket in the direction shown.
5. To slide the actuator onto the valve, first align the valve stem connector to the actuator stem connection brace. Push the actuator down over the valve bonnet and secure with the U-bolt brace.
6. Unlock the actuator by operating the manual override and exchange a green indicator for a red (hot) or blue (cold) indicator as applicable and slide the stroke indicators around the stem connection brace. During the calibration process the actuator will automatically position the stroke indicators to the end stop limits of the valve.
7. Loosen the cover screws with a Phillips screwdriver and if necessary pry off the cover using a flat screwdriver.
8. Install the cable glands and blanking plugs required as shown and wire and stroke calibrate the actuator once power is applied.

Mounting Orientation

The actuator can be mounted in any orientation other than upside down. Maximum actuator ambient temperature is 50° C (122° F) for chilled water media. Maximum actuator ambient temperature is 46° C (115° F) when media temperature is 120° C (248° F).



Dimensions (mm)

1

2

SRD

3

4

MG600-SRU MG600-SRD

5

6

MG600C-SRU MG600C-SRD

Exchange one of the Green indicators for a red/blue as required indicating the valve open position.

Blue: Chilled water

Red: Hot water

7

8

Ensure cable gland and sealing washer is centrally mounted and secure. Plug all unused cable entry holes.

9

Calibrate the actuator stroke limits (Switch 9) after finalizing the mechanical connection to the valve and the electrical power is applied to the actuator.

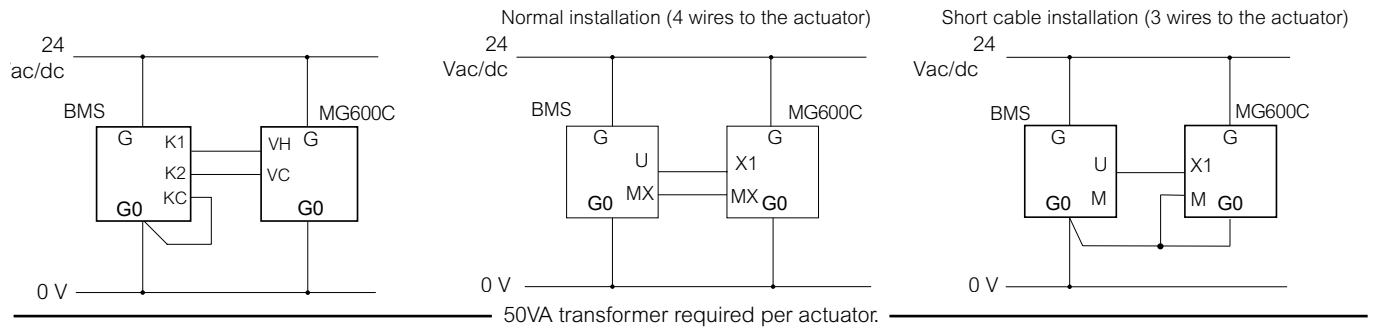
10

Mount the cover again checking the correct positioning of the gaskets placed under the cover, and locking properly the 4 screws.

Wiring

Increase/Decrease (Floating)

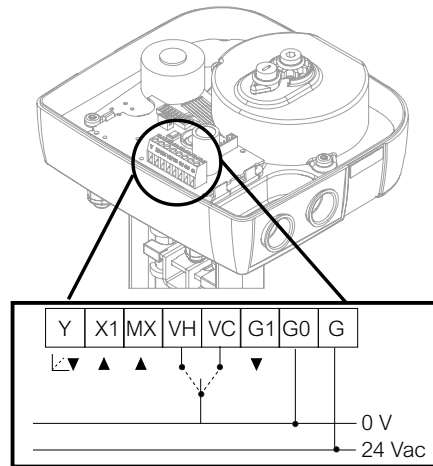
Modulating (proportional) 0...10 Vdc / 2...10 Vdc [+ 0...5 / 2...6 / 5...10 / 6...10 Vdc]



50VA transformer required per actuator.

Electrical Connections

Terminal	Function	Description
G	24 Vac/dc	Power Supply
G0		
X1	Proportional (MOD)	Modulating (Proportional) Control signal input
MX	Neutral, proportional (MOD)	
VH	Increase, 3-point (Floating)	Increase / decrease (3 Point floating) control signal input (Direction switching on 0V / GND)
VC	Decrease, 3-point (Floating)	
G1	16 Vdc	External supply, 25 mA max.
Y	0...100% (2-10 Vdc / 0-5 Vdc)	Feedback signal

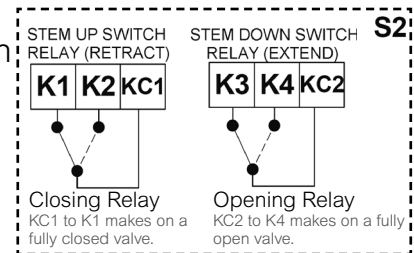


Cable Lengths

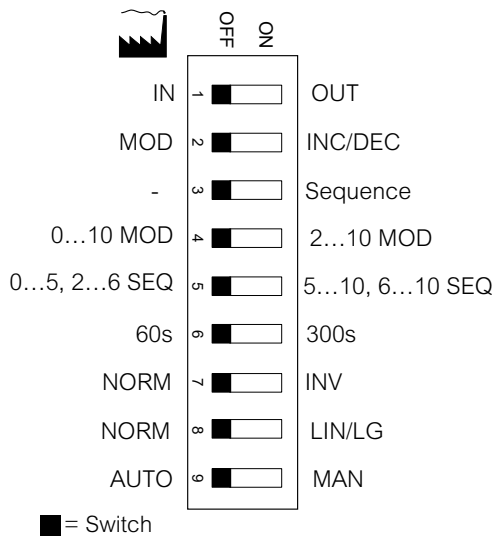
G, G0 = Max 100m (328 ft.): 1.5 mm² (AWG 15)
 X1, MX, Y, VH, VC = Max. 200m (656 ft.): 0.5mm² (AWG 20)

Auxiliary Switch Block Relay

Accessory Part No.: 8800104000



Dip Switch Settings



Sw	Description	Off Position	On Position
1	Feedback signal	2...10 Vdc	0...5 Vdc
2	Control mode	Modulating (Proportional)	Increase / decrease (3P floating)
3	Sequence operation	Normal operation (no sequence)	Sequence Control (Modulating only) Refine sequential control signal using Sw. 4 and Sw.5
4	Input voltage range (Modulating)	0...10 Vdc	2...10 Vdc
5	Working sequential control signal	0...5 Vdc (or 2...6 Vdc) (with Sw. 4 ON)	5...10 Vdc (or 6...10 Vdc) (with Sw. 4 ON)
6	Running time (floating control only)	60 sec.	300 sec.
7	Direction of movement	Normal (direct) movement to input signal	Inverse / reverse direction of operation to control signal
8	Flow Curve Linearization	Normal (no electronic flow curve adaptation)	Electronically adapts the the flow rate in an EQ valve to a linear characterized flow
9	Normal Operation / Stroke Calibration	Normal	Stroke Calibration, momentary flip sw. 9 ON and then OFF to adjust actuator control signal to valve stroke limits

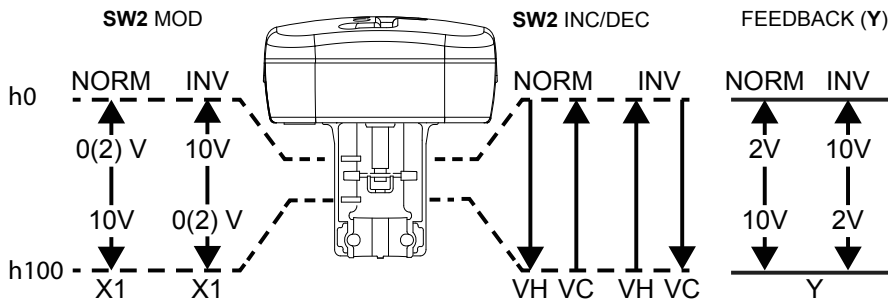
Notes: Dip Switch Settings

Calibrate the actuator with Sw 9 after carrying out the first coupling and everytime some component and/or the coupling parts are changed on the valve.

- 1) Units are shipped with switches in a default "off" position.
- 2) Switch 3 must be in the off position if sequence control is not used.
- 3) Switch 5 is only active if switch 2 is off and switch 3 is on.

NOTE: For the actuator to register new settings of the switches, the supply voltage must be removed by removing power to the actuator, then change any of switches 1 through 8 as required and then restore power to the actuator.

Control direction according to Switch 7 (Normal / Inverse)



Actuator Spring Return Direction and Valve Function

	MG600C-SRU (Stem up)	MG600C-SRD (Stem down)
VG210	Normally closed	Normally open
VG310	Normally closed	Normally open

Commercial Reference	Range Name		Product Description			
880XXXXXXX MXXX(X)A(X)(X)(-S2)(-VB) MGXXX(-S(R)X)(-W) MPXXX(-SRX)(-W)	SPACELOGIC VALVES & ACTUATORS		SPACELOGIC 800 SERIES GLOBE VALVE ACTUATOR SR/NSR SPACELOGIC M SERIES GLOBE VALVE ACTUATOR SR/NSR SPACELOGIC MG SERIES GLOBE VALVE ACTUATOR SR/NSR SPACELOGIC MP SERIES PIBCV ACTUATOR SR/NSR			
有害物质 - Hazardous Substances						
部件名称 Part Name	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
属部件 Metal Parts	X	O	O	O	O	O
塑料部件 Plastic Parts	O	O	O	O	O	O
电子件 Electronic	X	O	O	O	O	O
触点 Contacts	O	O	O	O	O	O
线缆和线缆附件 Cable & Cabling Accessories	O	O	O	O	O	O



本表格依据 SJ/T11364 的规定编制。
O: 表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下。
X: 表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 规定的限量要求。
(企业可在此处, 根据实际情况对上表中打 "X" 的技术原因进行进一步说明。)

This table is made according to SJ/T 11364.
O: indicates that the concentration of hazardous substance in all of the homogeneous materials for this part is below the limit as stipulated in GB/T 26572.
X: indicates that concentration of hazardous substance in at least one of the homogeneous materials used for this part is above the limit as stipulated in GB/T 26572

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