

**ACTUATOR SPECIFICATIONS**

**Model:** #1: 9656-01 (SM.0.0.1.3) – **Standard** Non-Failsafe  
 #2: 9656-02 (SM.0.0.1.4) – **Standard** Failsafe  
 #5: SM.0.0.1.5 – **BACnet or Modbus** - Non-Failsafe  
 #6: SM.0.0.1.6 – **BACnet or Modbus** - Failsafe

**Supply Voltage:** 24V AC ±20%, 50/60 Hz or 24V DC ±20%

**Power Consumption:** Non-Failsafe: 24V AC: 2.2VA standby / 3.8VA operating / 15VA max  
 Non-Failsafe: 24V DC: 1.0W standby / 1.7W operating / 8.0W max  
 Failsafe: 24V AC: 3.3VA standby / 4.5VA operating / 15VA max  
 Failsafe: 24V DC: 2.0W standby / 3.0W operating / 8.0W max

**Type:** Electrical, Bi-directional synchronous motor

**Control Signal:** 0(2)-10VDC  
 0(4)-20mA  
 Digital 3-point floating or 2-Position

**Resolution:** 1:1000 (0-10V analog) and 1:800 (2-10V analog)

**Feedback:** Linear Flow  
 Auto (equal to analog control signal), 0-10V DC, 2-10V DC or 4-20mA

**Control Mode:** Linear flow, equal percentage or linear rotation

**Failsafe Setting:** Only 9656-02/ (SM.0.0.1.4) and SM.0.0.1.6: Fail in place or settable 0-100% open

**Turn Time:** MVP3-5: 190 seconds (from closed to fully open) MVP6: 317 seconds

**Stroke:** MVP3-5: 2160°; MVP6: 3600°

**Actuator Torque:** 79.66 in-lbs opening / 66.38 in-lbs closing

**Electrical Connection:** Standard: Fixed, 5 wires x 0.75 mm2 / AWG18, halogen free, 1 meter / 3 ft  
 BACnet/Modbus: Fixed, 7 wires x 0.75 mm2 / AWG18, halogen free, 1 meter / 3 ft

**Direction of Rotation:** Bi-directional

**CE conformity:** EN 60730, class II

**Humidity Rating:** 5-95% RH non condensing

**Housing Insulation:** IP 54 including upside down mounting

**Housing Material:** UL94 V0-rated plastic; top: PA (glass-reinforced), bottom: PC (glass-reinforced)

**Programming:** External programming of all settings, interface buttons and display

**Calibration:** Automatic calibration at start-up



Listed temperature regulating equipment 41 X 9

Class 2 circuit

**ACTUATOR SPECIFICATIONS (BACnet / Modbus only)**

**BACnet Device Profile:** BACnet Application Specific Controller (B-ASC) type server

**BACnet Protocol:** BACnet MS/TP

**BACnet Fallback action:** Yes

**BACnet Services (BIBBS):** DS-RP-B, DS-WP-B, DM-DDB-B, DM-DOB-B and DM-DCC-B

**Modbus/BACnet Baud:** 9600,19200,38400,76800 and 115200 Supported

**Modbus/BACnet Interface:** EIA-485 / RS-485

**Modbus/BACnet Participants:** Up to 32 recommended, max. 127 participants

**Modbus/BACnet Load:** 1/8

**Modbus Transmission:** RTU slave

**Modbus Start/Stop Bits:** 8N2 (standard)

**DIMENSIONS & WEIGHTS (NOMINAL) (measured in inches and lbs unless noted)**

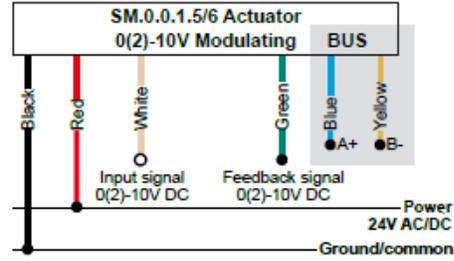
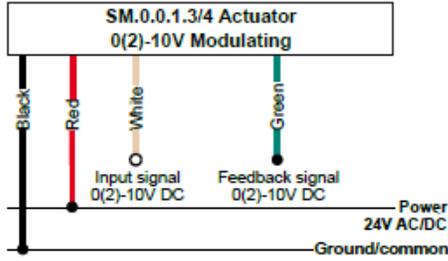
All dimensions are for planning purposes only and may change without notice.

OVERALL LENGTH	WIDTH	HEIGHT	WEIGHT (LBS.)
8.70	4.21	2.83	2.0

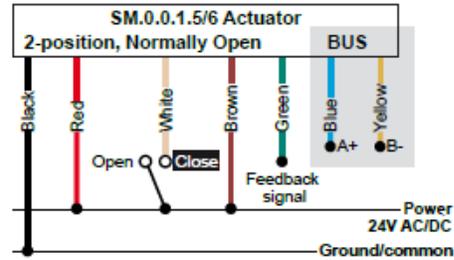
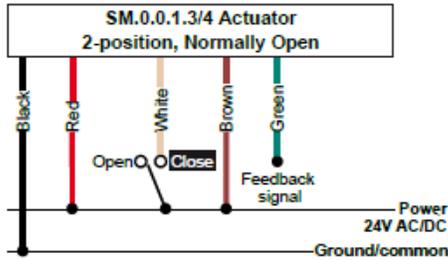
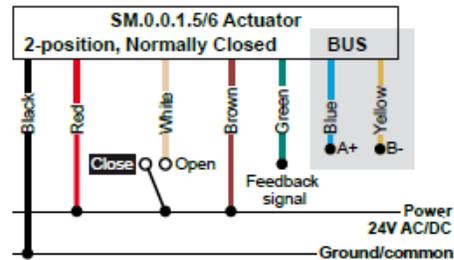
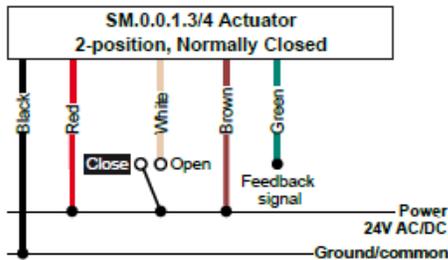
WIRING DIAGRAMS

For all setups, if feedback signal is not required, leave green wire detached. For modulating set up brown wire is not used and may be cut.

ELECTRICAL MODULATING



ELECTRICAL 2-POSITION



ELECTRICAL 3-POINT FLOATING

