

SQN71...

Reversing Actuators

ISO 9001
REGISTERED FIRM



Description

SQN7... Actuators are used to position flow control valves, butterfly valves, dampers or any application requiring rotary motion.

A synchronous motor drives the shaft and switch cam drum.

The switch cam drum actuates two limit end switches and one auxiliary switch.

The position of each limit end and auxiliary switch can be independently adjusted within a maximum range of 160°.

The drive shaft can be disengaged for manual rotation.

Features

- Line voltage floating or proportional control
- Two-stage or three-stage application
- Torques up to 22 lb-in
- Running times 3.5 seconds, 10 seconds or 25 seconds through 90° ↯
- Two limit end switches and one auxiliary switch
- Shaft disengagement clutch
- Optional single- or double-position feedback potentiometer
- UL Recognized and CSA certified
- 230 Vac models conform to CE for export

Product Numbers

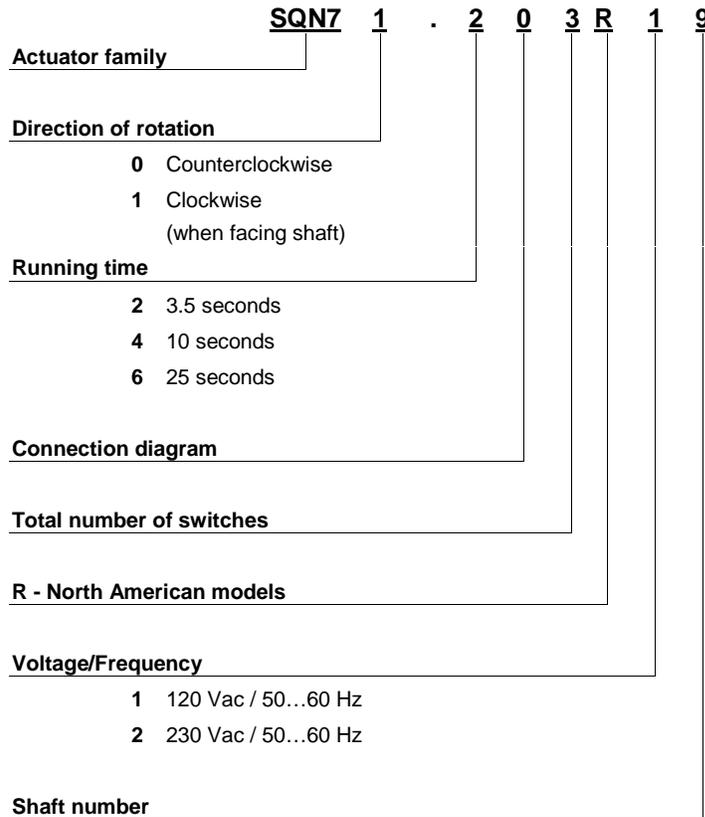
Table 1.

Running Time at 60 Hz ¹ Through 90° ↯ Seconds	Nominal Torque lb-in	Holding Torque lb-in	Product Numbers	
			120 Vac +10% /-15% 50 to 60 Hz	230 Vac +10%/-15% 50 to 60 Hz
3.5	13	6	SQN71.203R19	SQN71.203R29
10	22	10.5	SQN71.403R19	SQN71.403R29
25	22	11.5	SQN71.603R19	SQN71.603R29

1. At 50 Hz, running times are 20% longer.

Product Number Identification Legend

For actuator identification only. See Table 1 for product numbers.



Accessories

NOTE: Accessories must be ordered separately.

Single potentiometers

- 1000Ω/90° ↯
- 1000Ω/135° ↯

Product Number

ASZ12.30
 ASZ12.33

Double potentiometers

- 1000Ω/1000Ω/90° ↯
- 1000Ω/1000Ω/135° ↯

ASZ22.30
 ASZ22.33

Installation and Service Notes

- Electrical wiring must be in compliance with national and local standards and regulations.
- Potentiometer wires must have the same insulation class as line voltage wires.



WARNING:

Disconnect the actuator power supply before servicing.

Specifications

Nominal Voltage			
SQN71..R19 models			120 Vac –15%/+10%
SQN71..A29 models			230 Vac –15%/+10%
Input Signal			
SQN71..R19 models			120 Vac –15%/+10%
SQN71..A29 models			230 Vac –15%/+10%
Frequency			50 to 60 Hz ±6%
Motor			Synchronous
Power consumption			6 VA
Duty cycle			60%, 3-minute max. (continuous)
Angular adjustment			160° ↯
Mounting position			Optional
NEMA rating			NEMA1, 2, 5 and 12 for indoor use
Cable entry			Flexible conduit 3/8-inch connector with nut, included
Wiring connections			Screw terminals
Direction of rotation			Clockwise (when facing shaft)
Torques and holding torques			See Table 1
Running times			See Table 1
Coupling			Pin disengagement of drive shaft and gear train
Installation			No.10 screws, from the inside (See <i>Dimensions</i> .)
Adjustable limit end switches			Two
Adjustable with color-coded switch cams			Red Open Cam I Blue Closed Cam II
Adjustable auxiliary switches			One
Adjustable with color-coded switch cam			Orange Auxiliary Cam III
Cam adjustment			
Red and blue cams			1° increments
Orange cam			Infinite
Terminal load			
Limit switches			0.5A pilot duty
Auxiliary switch			1A pilot duty
Ambient Conditions			
Operating temperature			–5°F to 140°F (–20°C to 60°C)
Storage and transport temperature			–60°F to 140°F (–51°C to 60°C)
NOTE:	Do not allow condensation, ice formation or water ingress		
Weight			1 lb (0.5 kg)
Agency approvals			UL Recognized, CSA certified
CE conformity			According to the Low Voltage Directive and the EMC Directive

Wiring Diagram

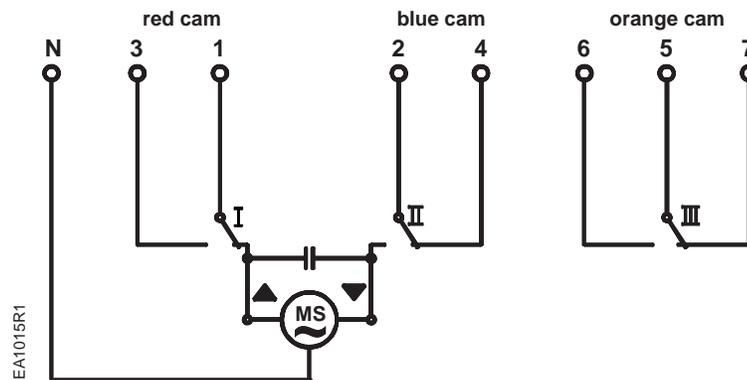


Figure 1. Wiring Diagram.

Dimensions

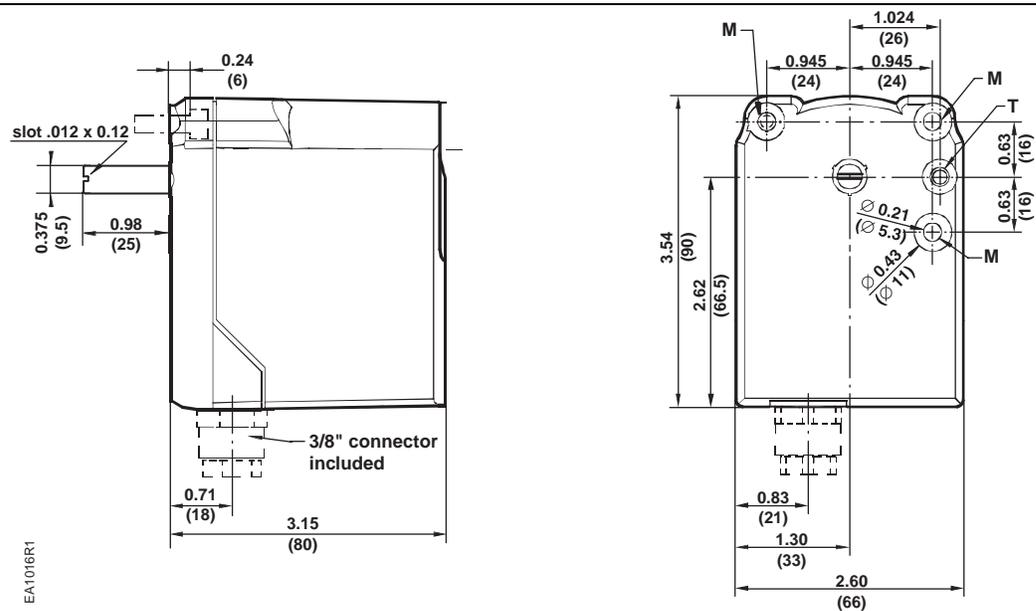


Figure 2. Dimensions in Inches (Millimeters).

Drive shaft shown in fully closed position
 M Diameter of through hole: 5.3 mm
 T Diameter of knockout hole: 5.3 mm

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