Electric Actuators

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actuators

HOKE Incorporated
405 Centura Court • PO Box 4866 (29305) • Spartanburg, SC 29303
Phone (864) 574-7966 Fax (864) 587-5608
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Electric Actuators

Hoke actuated valves are available for use in a wide variety of applications including on-off switching, selecting, sampling, and metering of fluids. Specific types of actuated valves include 90° Shut-Off Ball Valves, 3-way, 4-way and 5-way Ball Valves and Metering Valves. Electrically actuated valves are supplied in two standard voltages, 115 VAC and 24 VDC, designed to meet weather-proof or explosion-proof standards. The Application / Buyers Guide will help you select the actuator-valve combination best suited to your requirements. Depend on Hoke to supply the actuated valve for your automated instrument and process systems, or for applications where manual control is difficult or not possible.



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Application & Buyers Guide

	**90° UNIDIRECTIONAL ELECTRICALLY OPERATED FOR BALL VALVES** Low cost electric actuator is designed for unidirectional 90° control of Hoke Flomite®, Multimite®, and Rotoball® valves. Select from weather-proof or explosion-proof models for 115 VAC or 24 VDC service. Position Indicator switches are standard.
	**180° UNIDIRECTIONAL ELECTRICALLY OPERATED FOR 3-way BALL VALVES.** These 115 VAC (weather-proof or explosion-proof) and 24 VDC (weather-proof) actuators provide 180° unidirectional control of Hoke Selectomite® 3-way ball valves. Position indicator switches are standard.
	**90° REVERSIBLE ELECTRICALLY OPERATED FOR 3-way BALL VALVES** This reversible 115 VAC weather-proof actuator is recommended for 90° incremental positioning of Hoke Selectomite® 3-way ball valves. Position indicator switches are standard.
	**4–POSITION UNIDIRECTIONAL ELECTRICALLY OPERATED FOR 5-WAY BALL VALVES** Designed for the unidirectional 90°, 180°, or 270° positioning of Hoke Multimite® 5-way ball valves. Select fron 115 VAC (weather-proof or explosion-proof) or 24 VDC (weather-proof) models. Position indicator switches are standard.
	**METERING VALVE ACTUATORS – ELECTRICALLY OPERATED** These 115 VAC weather-proof actuators provide positioning or shut-off of Hoke 2300 series, Milli-Mite® 1300 series and Micromite® 1600 series metering valves. Models come with limit switches or feedback potentiometers.

Application & Buyers Guide

Voltage . . . . . **115 VAC/60 Cycle** . . . . . **24 VDC**
Rated Current (Full Load) . . . . . 1.6 Amps . . . . . 0.63 Amps
Power Consumption (Full Load) . . . . . .57 Watts . . . . . 15 Watts
Torque Output . . . . . 40 In. lbs. . . . . .40 In. lbs.
Output Speed. . . . . 6 RPM . . . . . .6 RPM
Cycle Time . . . . . 2.5 Seconds Max for 90° Operation

Page 4

Power . . . . . **115 VAC/60 Cycle** . . . . . **24 VDC**
Rated Current (Full Load) . . . . . 1.6 Amps . . . . . 0.63 Amps
Power Consumption (Full Load) . . . . . .57 Watts . . . . . .15 Watts
Torque Output . . . . . 40 In. lbs. . . . . .40 In. lbs.
Output Speed. . . . . 6 RPM . . . . . .6 RPM
Cycle Time . . . . . 5 Seconds Max for 180° Operation

Page 6

Voltage . . . . . .115 VAC/60 Cycle
Rated Current (Full Load) . . . . . 0.4 Amps
Power Consumption (Full Load) . . . . . .47 Watts A
Torque Output . . . . . .40 in lbs.
Output Speed. . . . . 6 RPM
Cycle Time . . . . . .1.8 seconds Max for 90° Operation

Page 8

Power . . . . . **115 VAC / 60 Cycle** . . . . . **24 VDC**
Rated Current (Pull Load) . . . . . 1.6 Amps . . . . . .0.63 Amp
Power Consumption (Full Load) . . . . . .57 Watts . . . . . 15 Watts
Torque Output . . . . . 40 In. lbs. . . . . .40 In. lbs.
Output Speed. . . . . 6 RPM . . . . . .6 RPM
Cycle Time . . . . . .2.5 seconds max for 90° Operation

Page 10

Voltage . . . . . .115 VAC/60 Cycle
Rated Currant (Full Load) . . . . . .19 Watts max.
Power Consumption (Full Load) . . . . . 2 Amps max.
Torque Output . . . . . 20 In. Lbs.
Output Speed. . . . . 10 RPM

Page 12

90° Actuators

Unidirectional Electrically Operated for 2- and 4-way Ball Valves
115 Volt AC & 24 Volt DC



Typical Applications

- Unidirectional 90° on-off control of Hoke Flomite® and Rotoball® 2-way valves, and unidirectional 90° positioning of Multimite® 4-way valves.
- Automated instrument and process systems.
- Test areas where remote control is mandatory.
- For inaccessible areas where manual operation is not possible.
- Anywhere separate low voltage power supply is required.

Features & Benefits

- Position indicator switches are standard in all models.
- Low operating cost – power on during positioning only.
- Choice of weather-proof or explosion-proof enclosures.
- Long life 24 volt permanent magnet gear motors on direct current models.
- Thermal overload protection prevents motor burnout on AC models.
- Manual override allows manual valve operation in the event of a power failure.
- ½" weather-proof conduit connection is standard; grommet is furnished for field installation.
- Can be installed in any position.

Technical Data

	115 VAC/60 CYCLE*	24 VDC
RATED CURRENT (FULL LOAD)	1.6 Amps	0.63 Amps
POWER CONSUMPTION (FULL LOAD)	57 Watts	15 Watts
TORQUE OUTPUT	40 in. lbs.	
OUTPUT SPEED	6 RPM	
CYCLE TIME	2.5 Seconds Max for 90° Operation	
WEIGHT	3 lbs. Weather-proof 7 lbs. Explosion-proof	2 lbs. Weather-proof

* *220 VAC / 50 Hz also available – consult factory*

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90° Actuators

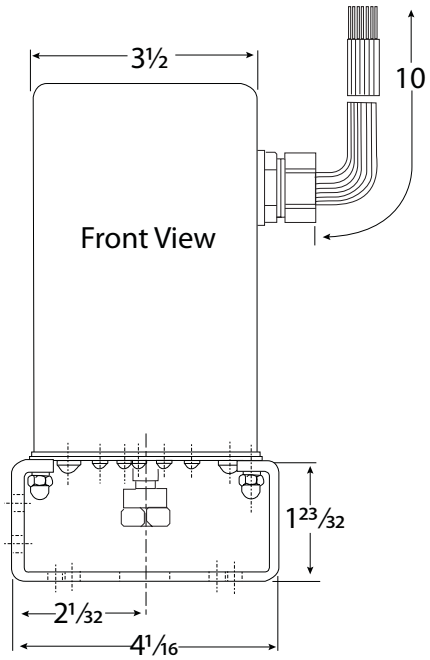
Outline Drawings

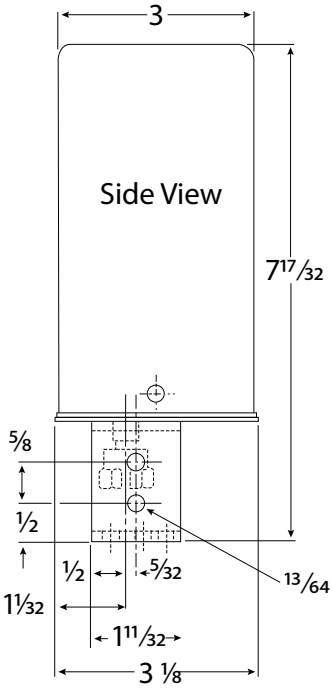
Dimensions in inches

0172L2

0172L2F

0172L2P



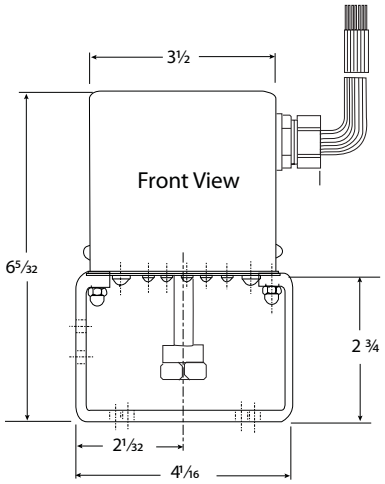


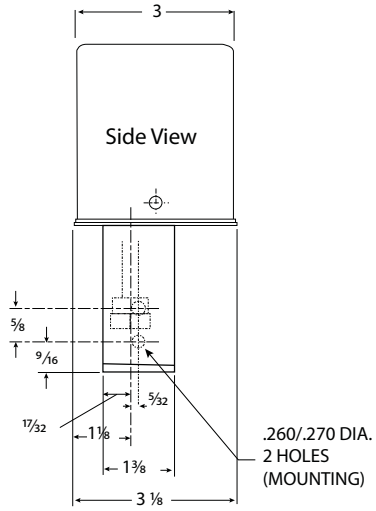
0112L2

0112L2F

0112L2T

0112L2P



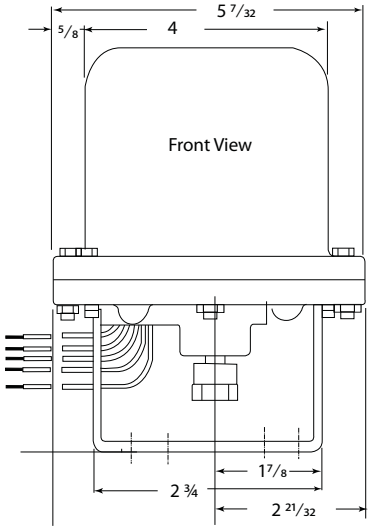


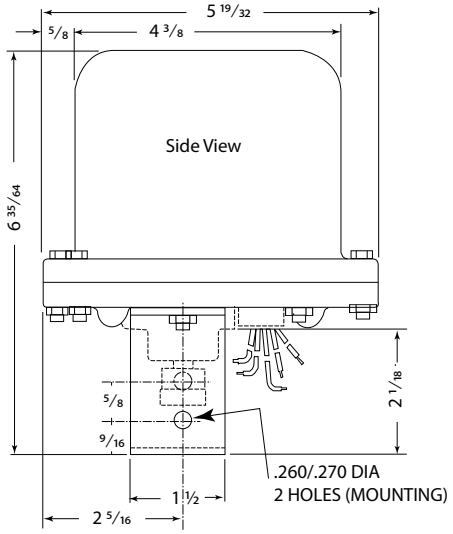
0112Y6

0112Y6F

0112Y6T

0112Y6P

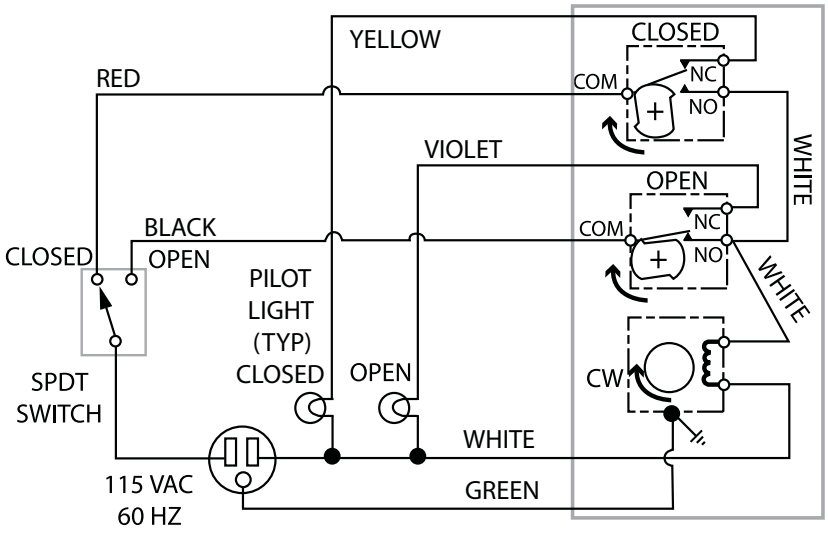




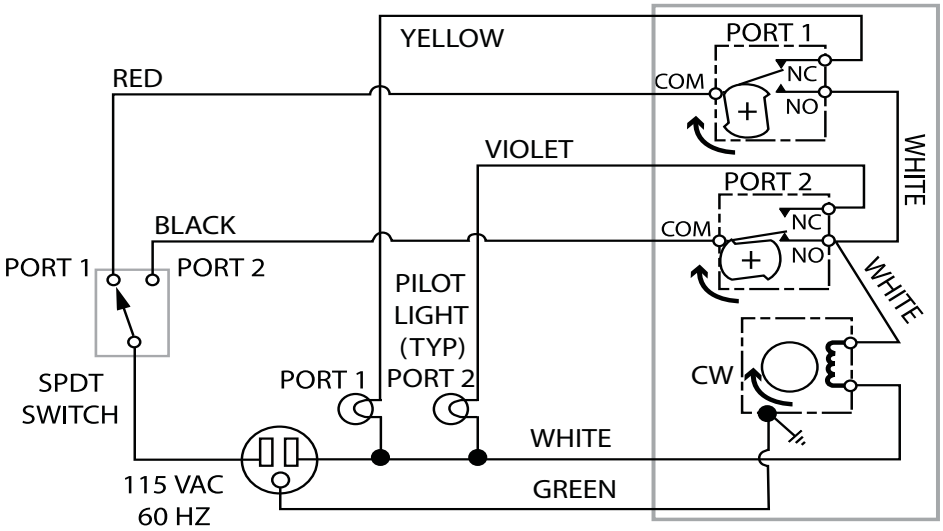
90° Actuators

Wiring Diagrams

0112L2 & 0112Y6



0172L2



How to Order*

VOLTAGE	ACTUATOR DESCRIPTION	ACTUATOR ORDER NUMBER	FOR USE WITH VALVE SERIES	MOUNTING KIT NUMBER
115 VAC 60 CYCLE	WEATHER-PROOF	0112L2	Flomite® 7115 & 7122[1]	0112K7100
	EXPLOSION-PROOF	0112Y6		
	WEATHER-PROOF	0112L2	Rotoball® 7200[1]	0112K7200
	EXPLOSION-PROOF	0112Y6		
	WEATHER-PROOF	0112L2	Multimite® 7911 & 7921[2]	0112K7900
	EXPLOSION-PROOF	0112Y6		
24 VDC	WEATHER-PROOF EXPLOSION-PROOF	0172L2 0172Y6	Flomite® 7115 & 7122[1]	0112K7100
			Rotoball® 7200[1] Multimite® 7911 & 7921	0112K7200 0112K7900

Explosion-proof models are suitable for Class I Group C & D and Class II Group E, F & G service. UL listing or FM approval not applied for.

* *To order a valve-actuator combination, specify the valve model number from Hoke's General Purpose Ball Valve Catalog 79066 followed by the actuator number. Example: Valve 7115G4Y with actuator 0112L2. For field assembly, the valve number, actuator number, and mounting kit number must be specified. Factory assembly is highly recommended.*

[1] *2-way*

[2] *4-way*

180° Actuators

Unidirectional Electrically Operated for 3-way Ball Valves
115 Volt AC & 24 Volt DC



Typical Applications

- Unidirectional 180° position for switching between ports of 3-way Selectomite® valves.
- Automated instrument and process systems.
- Test areas where remote control is mandatory.
- For inaccessible areas where manual operation is not possible.
- Anywhere separate low voltage power supply is required.

Technical Data

	115 VAC/60 CYCLE*	24 VDC
RATED CURRENT (FULL LOAD)	1.6 Amps	0.63 Amps
POWER CONSUMPTION (FULL LOAD)	57 Watts	15 Watts
TORQUE OUTPUT	40 in. lbs.	
OUTPUT SPEED	6 RPM	
CYCLE TIME	5 Seconds Max for 180° Operation	
WEIGHT	3 lbs. Weather-proof 7 lbs. Explosion-proof	2 lbs. Weather-proof

* *220 VAC / 50 Hz also available – consult factory*

Features & Benefits

- Position indicator switches are standard in all models.
- Low operating cost – power on during positioning only.
- Choice of weather-proof or explosion-proof enclosures.
- Long life 24 volt permanent magnet gear motors on direct current models.
- Thermal overload protection prevents motor burnout on AC models.
- Manual override allows manual valve operation in the event of a power failure.
- ½" weather-proof conduit connection is standard; grommet is furnished for field installation.
- Can be mounted in any position.
- Special High Tolerance NPT Thread

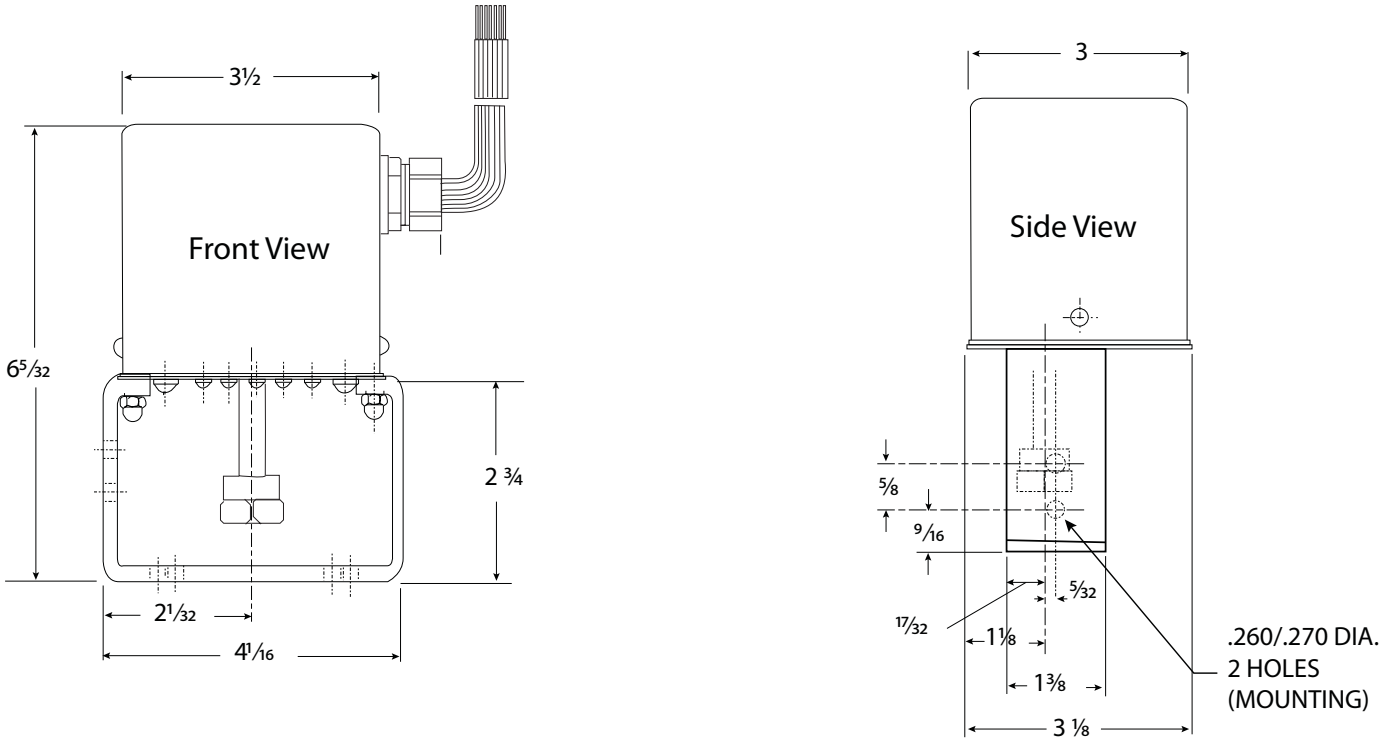
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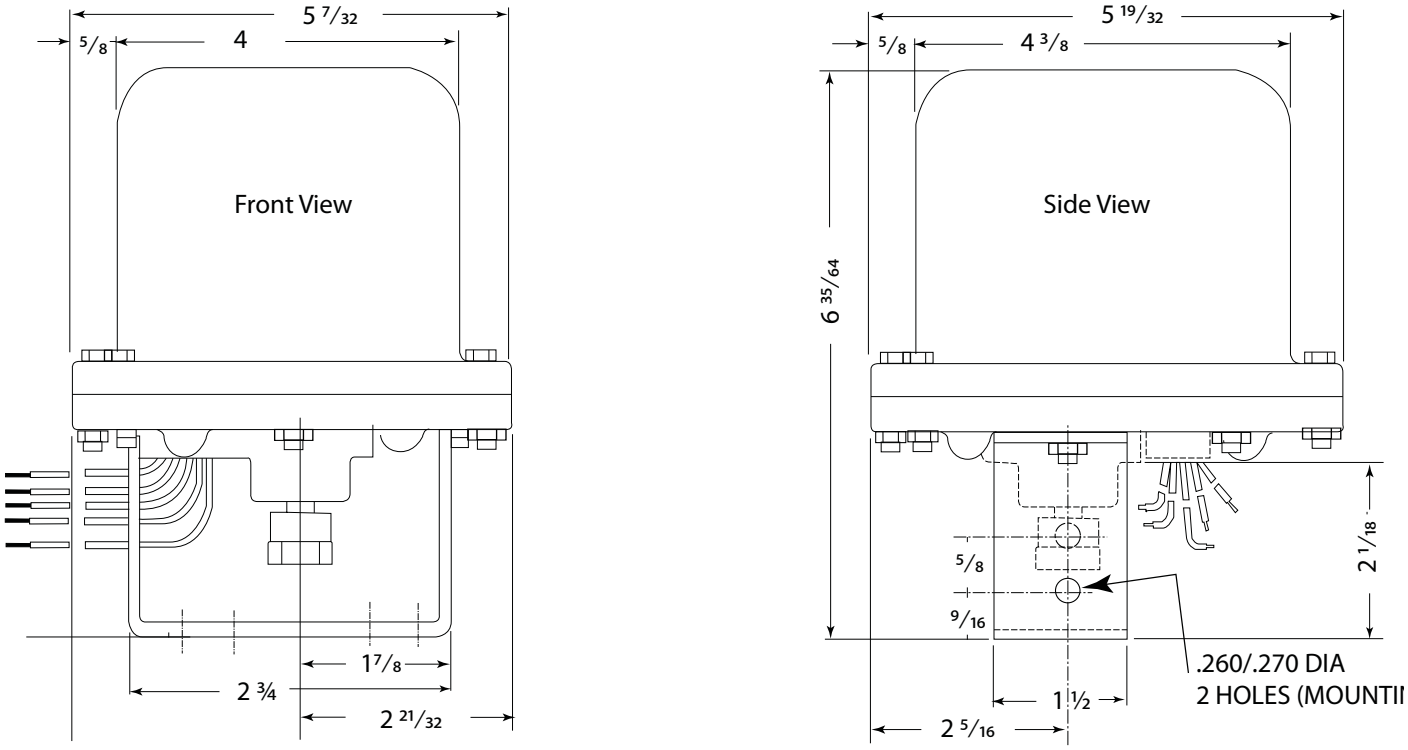
180° Actuators

Outline Drawings

Dimensions in inches



0112L2/0112L2F/0112L2T/0112L2P



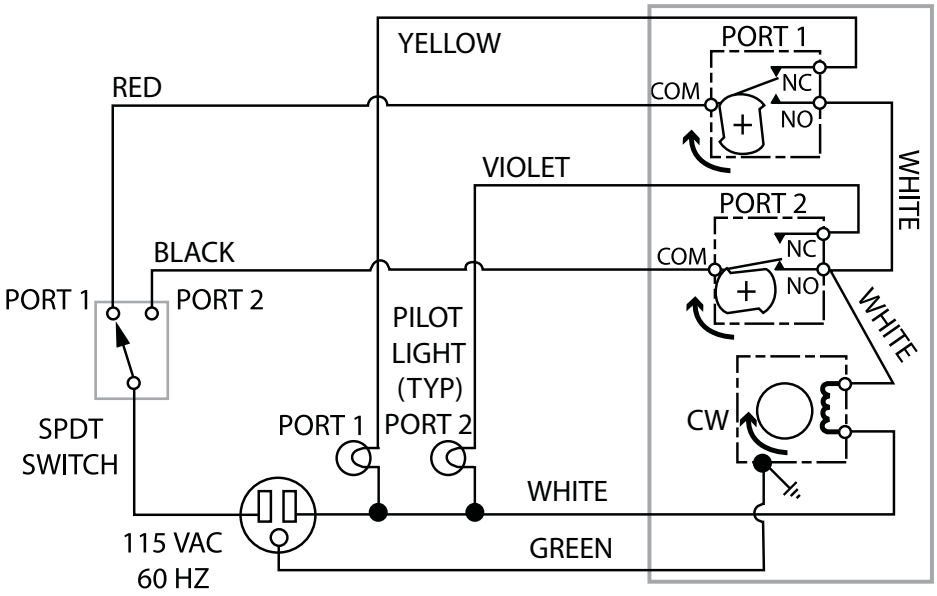
0112Y6/0112Y6F/0112Y6T/0112Y6P

180° Actuators

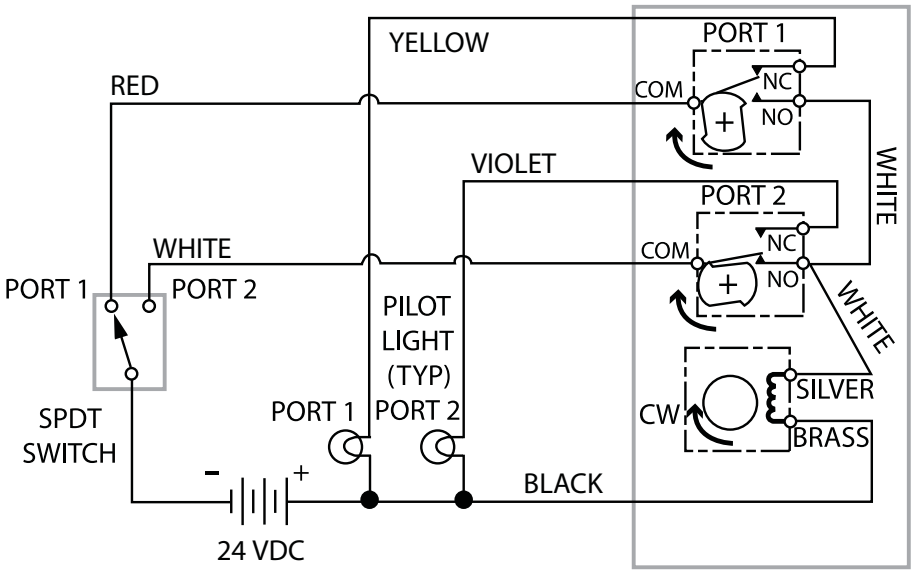
Wiring Diagrams

Dimensions in inches

0112L2F/0112L2T



0172L2F



How to Order*

VOLTAGE	ACTUATOR DESCRIPTION	ACTUATOR ORDER NUMBER	FOR USE WITH VALVE SERIES	MOUNTING KIT NUMBER
115 VAC 60 CYCLE	WEATHER-PROOF	0112L2F	Selectomite® 7165, 7671, 7673	RS0112K7165
	EXPLOSION-PROOF	0112Y6F		
	WEATHER-PROOF	0112L2T	Selectomite® 7644	RS0112K7644
	EXPLOSION-PROOF	0112Y6T		
24 VDC	WEATHER-PROOF EXPLOSION-PROOF	0172L2F 0172Y6F	Selectomite® 7165, 7671, 7673	RS0112K7165
			Selectomite® 7644	RS0112K7644

Explosion-proof models are suitable for Class I Group C & D and Class II Group E, F & G service. UL listing or FM approval not applied for.

* *To order a valve-actuator combination, specify the valve model number from Hoke's General Purpose Ball Valve Catalog 79066 followed by the actuator number. Example: Valve 7165G4Y with actuator 0112L2F. For field assembly, the valve number, actuator number, and mounting kit number must be specified. Factory assembly is highly recommended.*

90° Actuators

Reversible Electrically Operated for 3-way Ball Valves
115 VAC



Typical Applications

- 90° positioning of Hoke Selectomite® 71 & 76 Series 3-way ball valves. Select any port in desired sequence.
- Anywhere shutoff position is required.
- Automated instrument and process systems.
- Test areas where remote control is mandatory.
- For inaccessible areas where manual operation is not possible.

Technical Data

VOLTAGE	115 VAC/60 Cycle
RATED CURRENT (FULL LOAD)	0.4 Amps
POWER CONSUMPTION (FULL LOAD)	47 Watts
TORQUE OUTPUT	40 in. lbs.
OUTPUT SPEED	8.5 RPM
CYCLE TIME	1.8 Seconds Max for 90° Operation
WEIGHT	3 lbs.

Features & Benefits

- Position indicator switches are standard in all models.
- Low operating cost – power on during positioning only.
- Reversible motor permits switching to desired port
- Thermal overload protection prevents motor burnout on AC models.
- Manual override allows manual valve operation in the event of a power failure.
- ½" weather-proof conduit connection is standard; grommet is furnished for field installation.
- Can be mounted in any position.
- Special High Tolerance NPT Thread

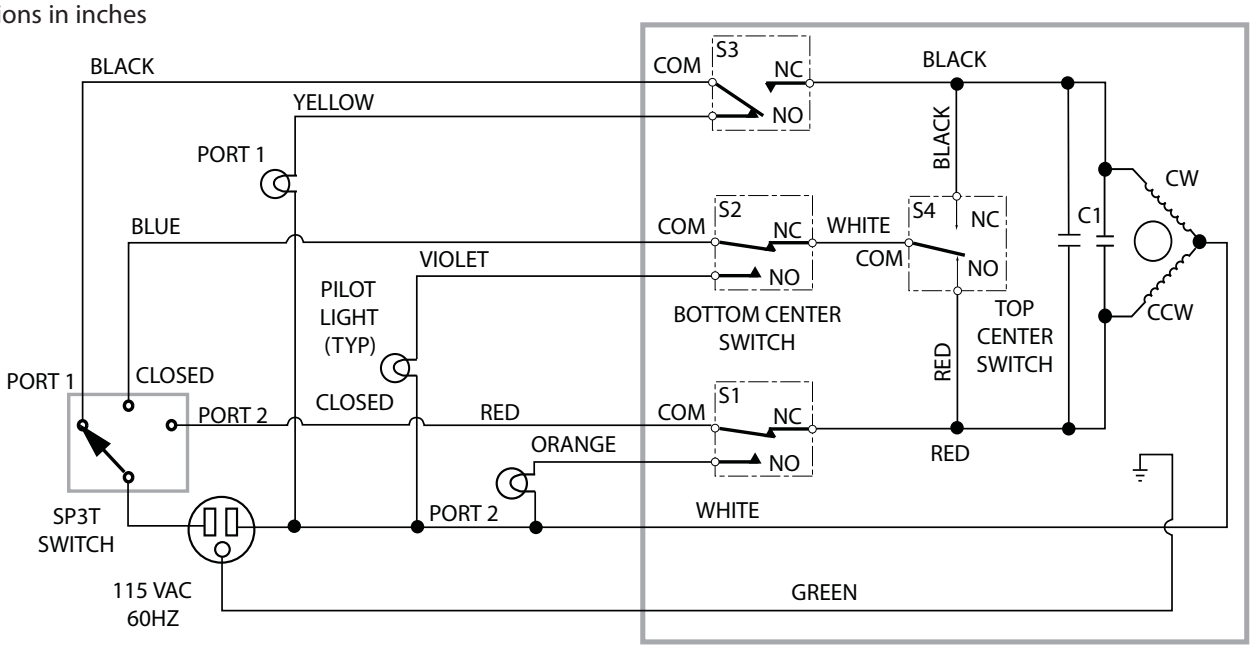
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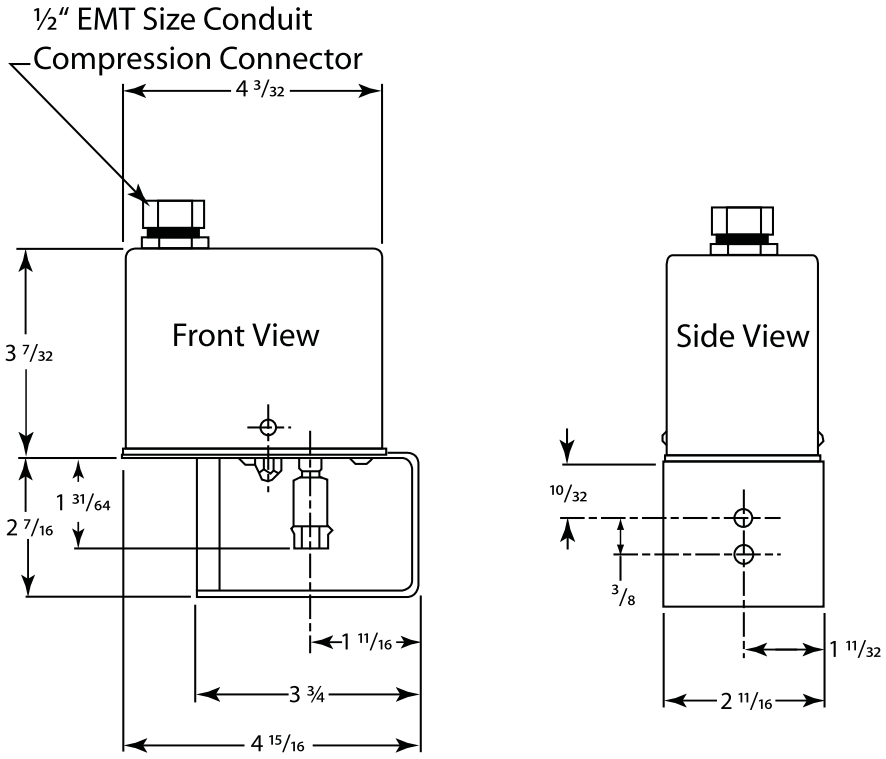
90° Actuators

Wiring Diagrams & Outline Drawings

Dimensions in inches



0122A2C



0122A2C

*How to Order**

ACTUATOR ORDER NUMBER	FOR USE WITH VALVE SERIES*	MOUNTING KIT NUMBER
0122A2C	7165 7671 7673	0122K7165
	7644	0122K7644

* *Refer to Hoke's General Purpose Ball Valve Catalog 79066 71 & 76 Series for full details*

Actuators

4 Position Unidirectional Electrically Actuated for 5-Way Ball Valves
115 VAC and 24 VDC



Typical Applications

- Unidirectional 90°, 180°, 270° positioning of the Hoke 5-way Multimite® 79 Series ball valves. Select any position in desired sequence.
- Automated instrument and process systems.
- Test areas where remote control is mandatory.
- For inaccessible areas where manual operation is not possible.
- Anywhere separate low voltage power supply is required.

Technical Data

	115 VAC/60 CYCLE	24 VDC
RATED CURRENT (FULL LOAD)	1.6 Amps	0.63 Amps
POWER CONSUMPTION (FULL LOAD)	57 Watts	15 Watts
TORQUE OUTPUT	40 in. lbs.	
OUTPUT SPEED	6 RPM	
CYCLE TIME	2.5 Seconds Max for 90° Operation	
WEIGHT	3 lbs. Weather-proof 7 lbs. Explosion-proof	2 lbs. Weather-proof

Features & Benefits

- Position indicator switches are standard in all models.
- Low operating cost – power on during positioning only.
- Choice of weather-proof or explosion-proof enclosures.
- Long lasting 24 volt permanent magnet gear motors on direct current models.
- Thermal overload protection prevents motor burnout on AC models.
- Manual override allows manual valve operation in the event of a power failure.
- ½" weather-proof conduit connection is standard; grommet is furnished for field installation.
- Can be mounted in any position.
- Special High Tolerance NPT Thread

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Actuators

Outline Drawings

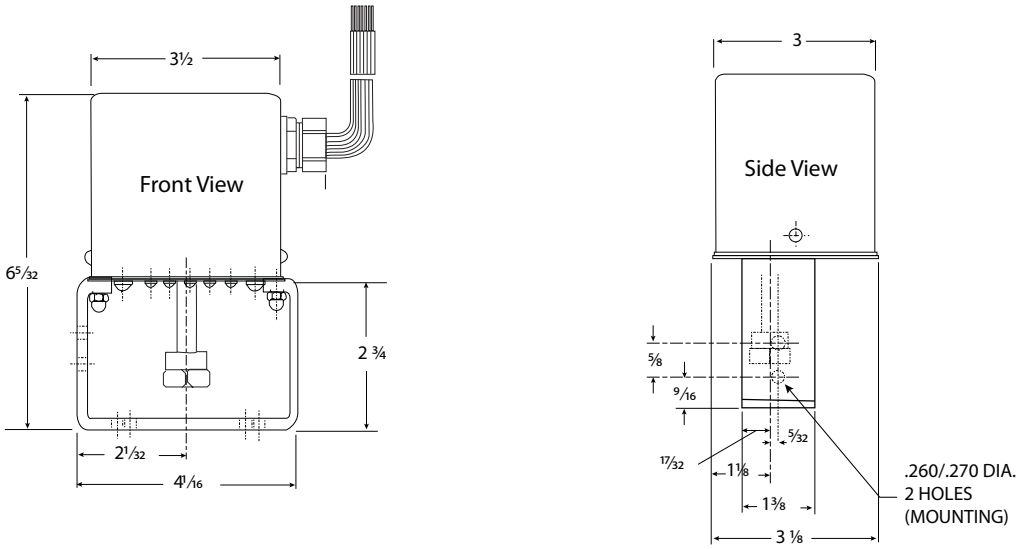
Dimensions in Inches

0112L2

0112L2F

0112L2T

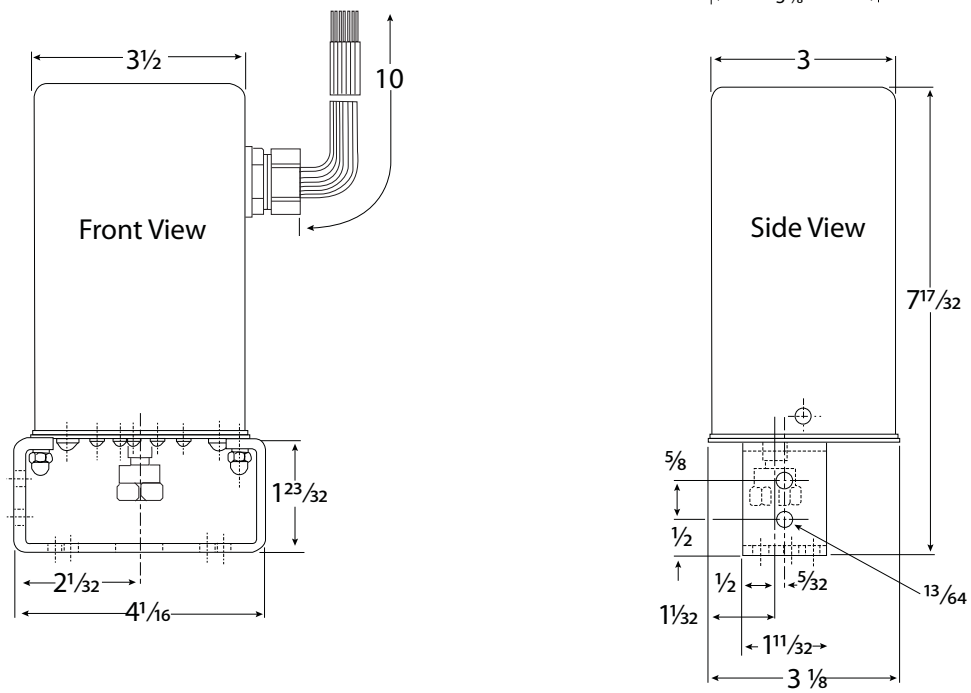
0112L2P



0172L2

0172L2F

0172L2P

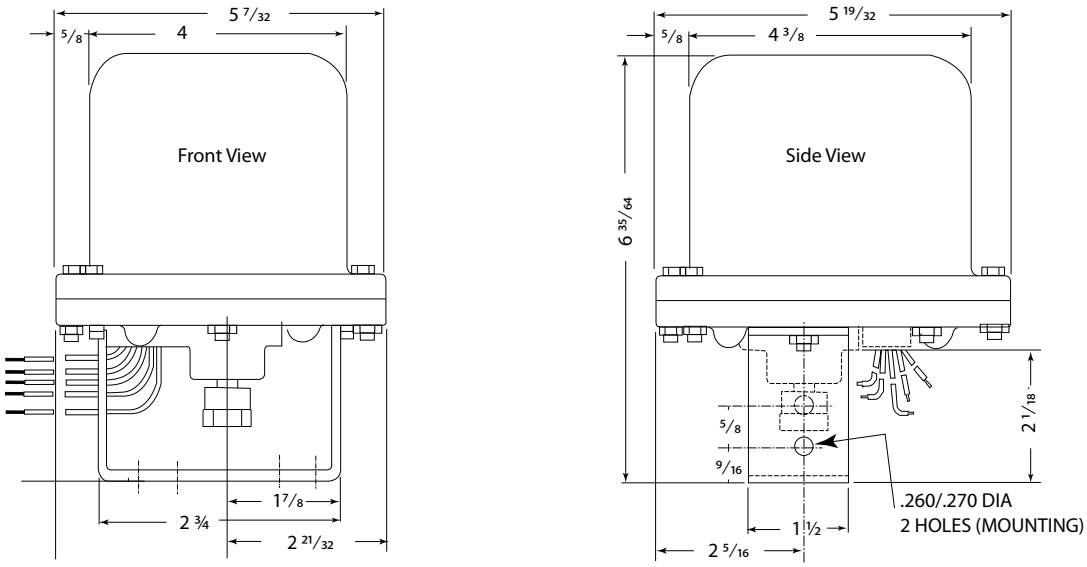


0112Y6

0112Y6F

0112Y6T

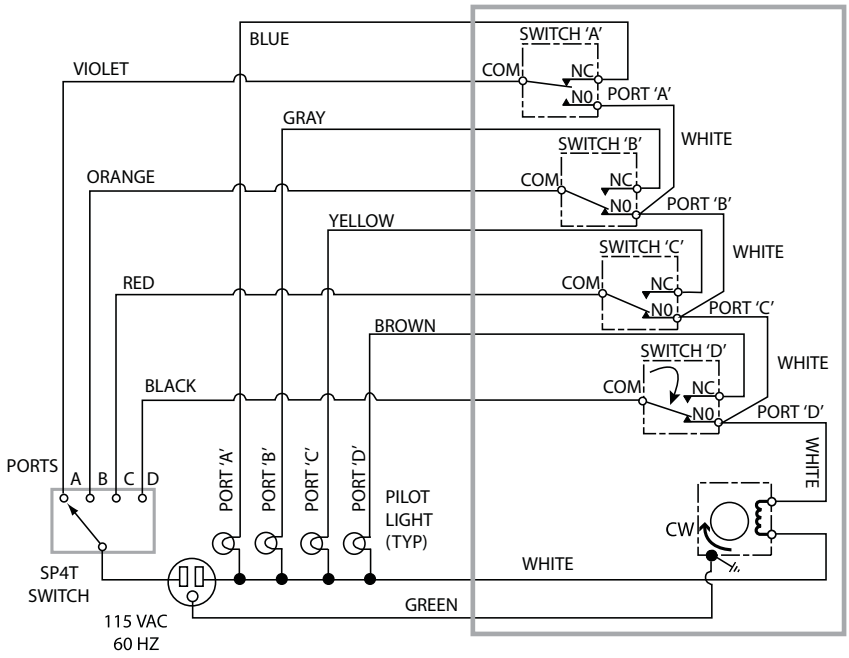
0112Y6P



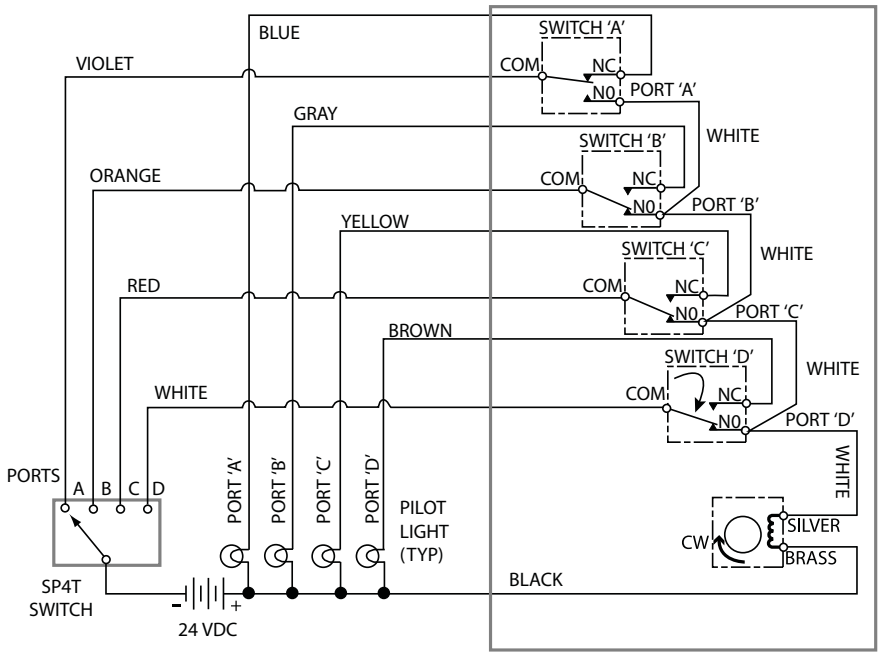
Actuators

Wiring Diagrams

0112L2P/0112Y6P



0172L2P



How to Order

VOLTAGE	ACTUATOR DESCRIPTION	ACTUATOR ORDER NUMBER	FOR USE WITH VALVE SERIES*	MOUNTING KIT NUMBER
115 VAC 60 Cycles	Weather-proof Unidirectional	0112L2P	Multimite® 5-Way 7931 & 7941	0112K7900
	Explosion-proof Unidirectional	0112Y6P		
24 VDC	Unidirectional Weather-proof	0172L2P	Multimite® 5-Way 7931 & 7941	0112K7900
	Explosion-proof models are suitable for Class I Group C & D and Class II Group E, F & G service. UL listing or FM approval not applied for.			

* *Refer to Hoke's General Purpose Ball Valve Catalog 79066 Multimite® 79 Series for full details*

Actuators

Electrically Operated for Metering Valves
115 VAC



Typical Applications

- Positioning and shut-off for Hoke metering valves. Automated instrument and process systems.
- For inaccessible areas where manual operation is not practical or remote control is mandatory.
- Programmed sampling and process control.

Technical Data

VOLTAGE	115 VAC/60 Cycle
RATED CURRENT (FULL LOAD)	2 Amps max.
POWER CONSUMPTION (FULL LOAD)	19 Watts
TORQUE OUTPUT	20 in. lbs.
OUTPUT SPEED	10 RPM
WEIGHT	2.8 lbs.
FEEDBACK POTENTIOMETER	500 OHMS, 2 Watts, Precision 10 turn (geared 1:2 for 20 turn valves).
PILOT LIGHT SWITCHES	10 Amps 125-250 VAC

Features & Benefits

- Limit switch option controls valve travel between two set points and provides pilot light indication of position.
- Feedback potentiometer option provides means of obtaining valve position or system flow signal for automated close look control systems.
- Continuous stall gear motor.
- Low power consumption – power required during positioning of valve only.
- ½" weather-proof conduit connection is standard; grommet is furnished for field installation
- Special High Tolerance NPT Thread

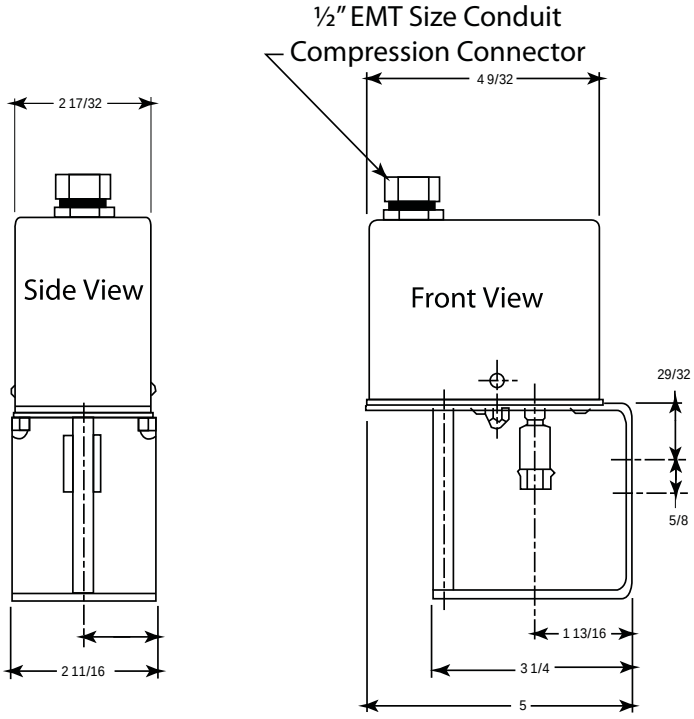
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Actuators

Wiring Diagrams & Outline Drawings

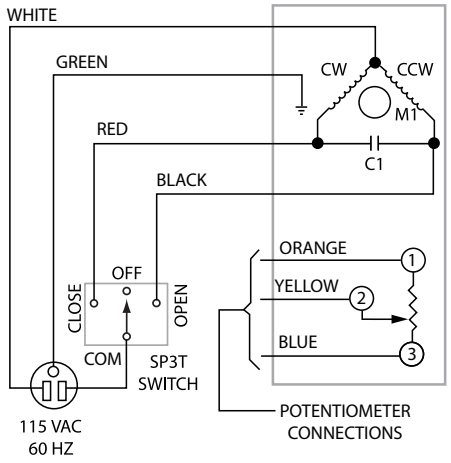
Dimensions in inches

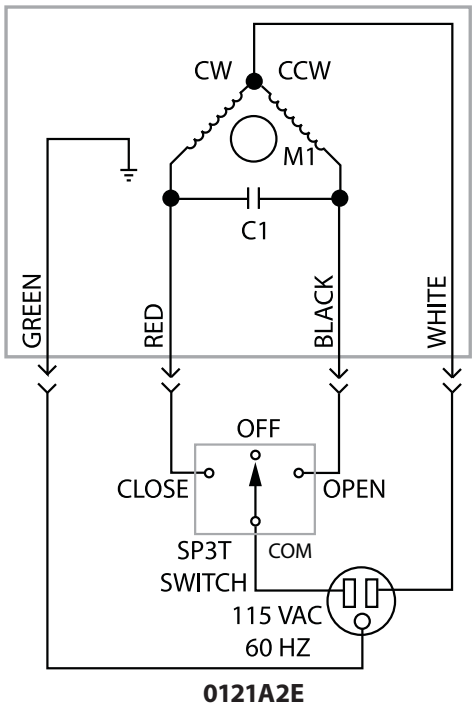


0121F2D

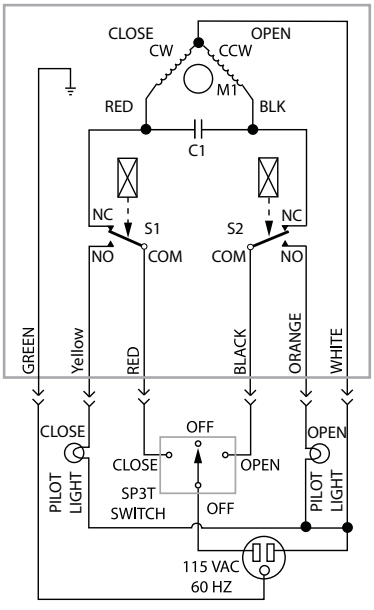
0121F2E

0121F2R





0121A2E



0121L2D, 0121L2E, 0121L2R

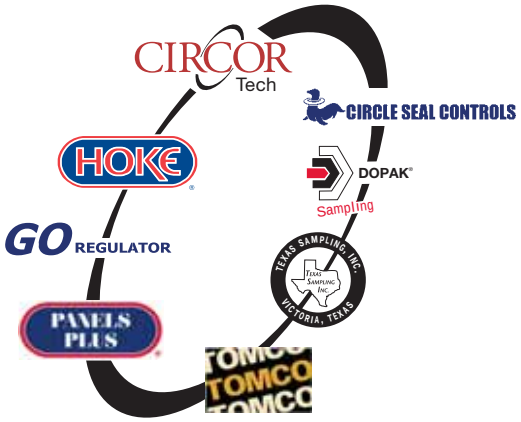
How to Order*

ACTUATOR DESCRIPTION	ACTUATOR ORDER NUMBER	FOR USE WITH VALVE SERIES	MOUNTING KIT NUMBER
115 VAC WEATHER-PROOF	0121A2E	2300**	0121K2300
	0121A2D	Milli-Mite® 1315, 1325, 1335, 1345	0121K1300
	0121A2R	Micromite® 1654, 1656, 1666	0121K1600
115 VAC WEATHER-PROOF WITH LIMIT SWITCHES	0121L2E	2300**	0121K2300
	0121L2D	Milli-Mite® 1315, 1325, 1335, 1345	0121K1300
	0121L2R	Micromite® 1654, 1656, 1666	0121K1600
115 VAC WEATHER-PROOF WITH FEEDBACK POTENTIOMETER	0121F2E	2300**	0121K2300
	0121F2D	Milli-mite® 1315, 1325, 1335, 1345	0121K1300
	0121F2R	Micromite® 1654, 1656, 1666	0121K1600

* *To order a valve-actuator combination, specify the valve model number from Hoke's Metering Valve Catalog 79013 followed by the actuator number. Example: Valve 2315G4Y with actuator 0121F2E. For field assembly, the valve number, actuator number, and mounting kit number must be specified. Factory assembly is highly recommended.*

** *Actuators may not close 2300 Series valves leak tight above 1500 psig (103 barg).*

CIRCOR
Instrumentation Technologies



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CIRCOR Instrumentation Technologies

CIRCOR Instrumentation Technologies (CIT) is a product group of CIRCOR International (NYSE: CIR), specializing in fluid process control solutions with orifice sizes typically up to 1″. Our main product lines include ball, needle, packless, diaphragm, solenoid, and metering valves, pressure regulators, quick couplers, Gyrolok® compression tube fittings, and fully integrated sampling systems.

CIT markets primarily to the petrochemical, refining, power generation, food and beverage, semiconductor, and pharmaceutical industries, and to OEM's. CIT separates itself from the competition by offering highly engineered components manufactured to exacting standards and a variety of custom options.

03/07