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		SY1	SY2	SY3	SY4	SY5
		Amps	Amps	Amps	Amps	Amps
wire gauge		1.8	3	3	6	6.5
MAX Distance between Actuator and Supply (feet)						
18		92	55	55		
16		144	87	87	43	40
14		233	140	140	70	65
12		357	214	214	107	99
10		606	364	364	182	168
8		905	543	543	271	250

24 VAC

		SY1	SY2	SY3	SY4	SY5	SY6	SY7	SY8	SY9	SY10	SY11	SY12
		Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps
wire gauge		0.5	1	1	1.3	1.5	1.8	3.2	4	3.2	4	3	4
MAX Distance between Actuator and Supply (feet)													
18		1515	758	758	583	505	421	237	189	237	189	253	189
16		2381	1190	1190	916	794	661	372	298	372	298	397	298
14		3846	1923	1923	1479	1282	1068	601	481	601	481	641	481
12		5882	2941	2941	2262	1961	1634	919	735	919	735	980	735
10		10000	5000	5000	3846	3333	2778	1563	1250	1563	1250	1667	1250
8		14925	7463	7463	5741	4975	4146	2332	1866	2332	1866	2488	1866

110 VAC

		SY1	SY2	SY3	SY4	SY5	SY6	SY7	SY8	SY9	SY10	SY11	SY12
		Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps
wire gauge		0.3	0.5	0.5	0.6	0.7	0.8	1.6	2	1.6	2	1.6	2.2
MAX Distance between Actuator and Supply (feet)													
18		5051	3030	3030	2525	2165	1894	947	758	947	758	947	689
16		7937	4762	4762	3968	3401	2976	1488	1190	1488	1190	1488	1082
14		12821	7692	7692	6410	5495	4808	2404	1923	2404	1923	2404	1748
12		19608	11765	11765	9804	8403	7353	3676	2941	3676	2941	3676	2674
10		33333	20000	20000	16667	14286	12500	6250	5000	6250	5000	6250	4545
8		49751	29851	29851	24876	21322	18657	9328	7463	9328	7463	9328	6784

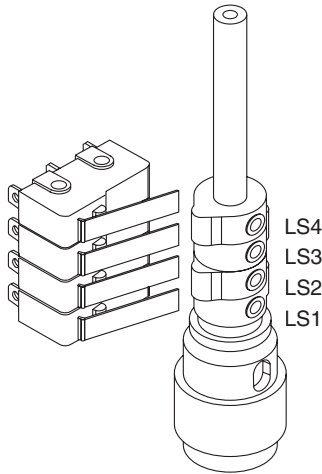
220 VAC

The NEC mandates that 24 VAC over 100 VA power requires CLASS 1 wiring conduit. Local codes may vary. Do NOT mix CLASS 1 & CLASS 2 circuits in the same conduit. Generally, 24 VAC actuators over 100 VA should be changed to 120 VAC models.



Electrical Travel Adjustment (Factory Pre-set)

SY-1



Factory pre-set see chart below. Field adjustable if required

- LS4
Auxiliary Switch for Closed Indication
- LS3
Auxiliary Switch for Opened Indication

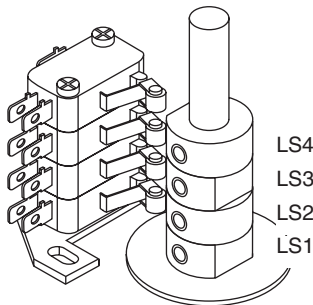
Factory pre-set and calibrated. Do not adjust - warranty voided

- LS2
"CLOSE"
 - Clockwise Decrease Closed Angle
 - Counter-clockwise Increase Closed Angle
- LS1
"OPEN"
 - Clockwise Increase Opening Angle
 - Counter-clockwise Decrease Opening Angle



Electrical Travel Adjustment

SY-2-12



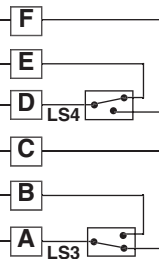
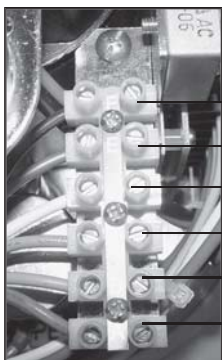
Factory pre-set see chart below. Field adjustable if required

- LS4
Auxiliary Switch for Closed Indication
- LS3
Auxiliary Switch for Opened Indication

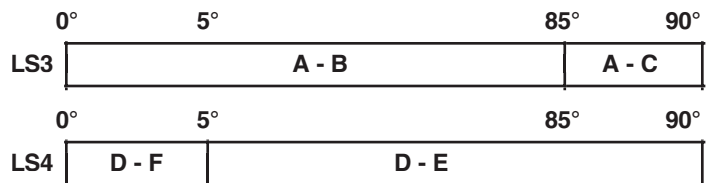
Factory pre-set and calibrated. Do not adjust - warranty voided

- LS2
"CLOSE"
 - Clockwise Decrease Closed Angle
 - Counter-clockwise Increase Closed Angle
- LS1
"OPEN"
 - Clockwise Increase Opening Angle
 - Counter-clockwise Decrease Opening Angle

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Switches at left are shown with actuator fully open.



INSTALLATION NOTES



Notes:

1. An adaption must be performed when the limit switches are adjusted. For the SYx-MFT actuators. This will calibrate the beginning and end stopping points. Press the adaption button for 3 seconds and release.

W1546_12

SY Actuator Wiring Diagram, SY1...5-24V – On/Off
SY1...12-120V or 230V On/Off

Hazard Identification

Warnings and Cautions appear at appropriate sections throughout this manual. Read these carefully.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

Indicates an action or condition that may cause irreversible damage to the actuator(s) or associated equipment.

Equipment damage!
 Power consumption and input impedance must be observed.

⚠ NOTES SY1...5-24

⚠ Each actuator should be powered by a single, isolated control transformer.

- Isolation relays must be used in parallel connection of multiple actuators using a common control signal input.
- "H" cannot be connected to terminal #3 and #4 simultaneously.

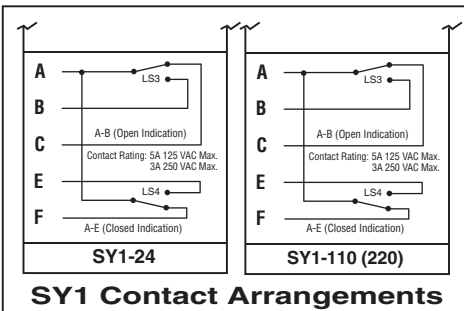
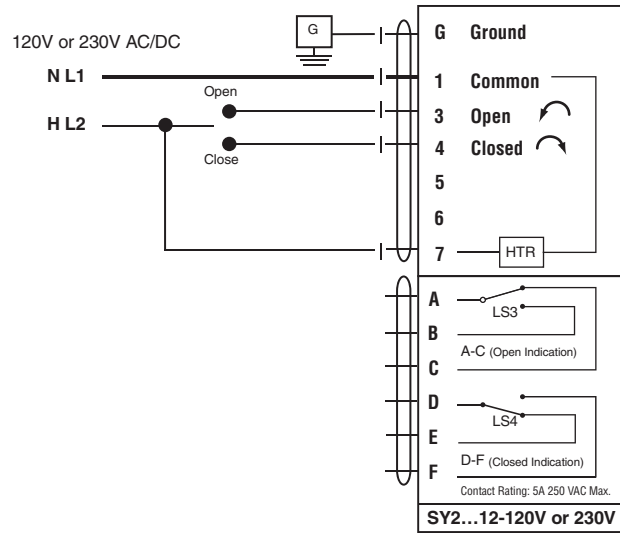
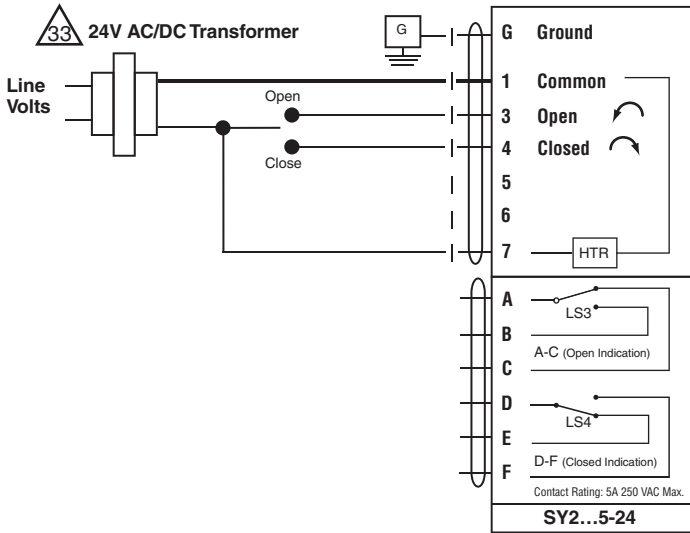
🔧 INSTALLATION NOTES

Observe class 1 and class 2 wiring restrictions.

Transformer sizing = SY actuator draw X 1.25 (safety margin)
 (Ex. SY2-24 requires 3.0A x 1.25 = 3.75A,
 3.75A X 24 VAC = 90VA Transformer).

⚠ NOTES SY1...12-120V or 230V

- **Caution:** Power Supply Voltage
- Isolation relays must be used in parallel connection of multiple actuators using a common control signal input.
- "H" (L2) cannot be connected to terminal #3 and #4 simultaneously.



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