

Electrical Accessories

Low-Voltage Switching Components

Pass & Seymour



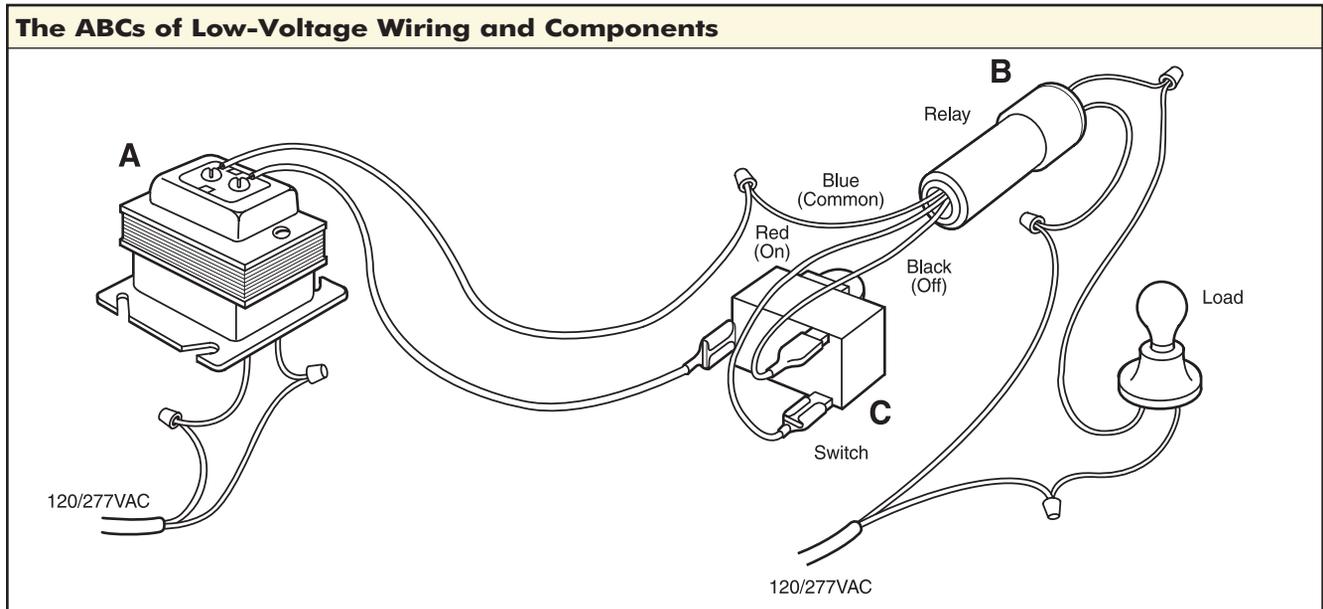
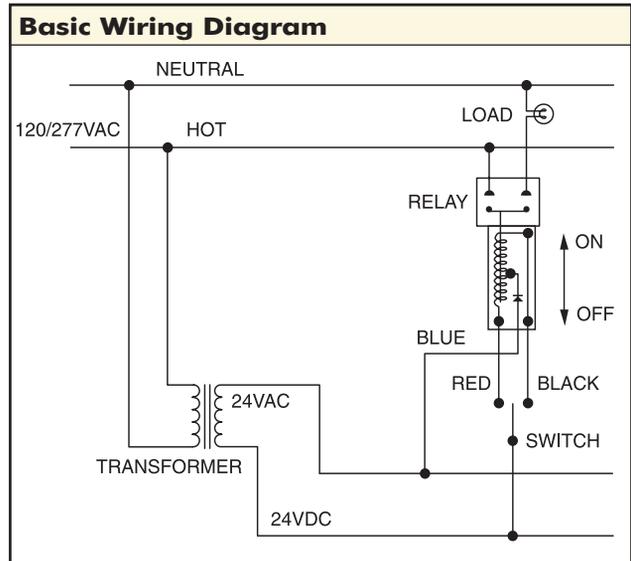
Application

Pass & Seymour/Legrand's Low-Voltage Remote Control Products consist of reliable, field-tested switching circuitry that provide central or local control of lighting loads throughout a building. These are best applied in institutions, schools, commercial buildings, warehouses and other installations where the ON-OFF switching of lighting is widely dispersed throughout the structures.

Important:

Low-Voltage Switching Components are specifically designed for switching incandescent and fluorescent lighting (non-HID) loads.

Low-Voltage Switching Components are not to be used with any components supplied by other manufacturers. Misapplication or improper use may void product warranties.



The low-voltage system differs from conventional switch wiring by actuating relays through the use of momentary contact switches. This type of switching utilizes a transformer to provide safe low-voltage current to control line voltage circuits. The wiring of lights and other electrical loads is installed in the conventional manner.

The above illustration simplifies a low-voltage circuit with its basic components:

A. Transformer – Converts line voltage to low-voltage. All low-voltage components operate using 24 volts furnished by the step-down transformer. Secondary output is 3-12A.

B. Relay – The magnetic relay switches line voltage. A momentary 24 volt pulse energizes the “ON” or “OFF” coils to make or break line voltage contacts.

C. Switches – Switches are momentary contact type used to energize either the “ON” or “OFF” coils of a relay. Momentary contact switches are normally open, single pole, double throw.

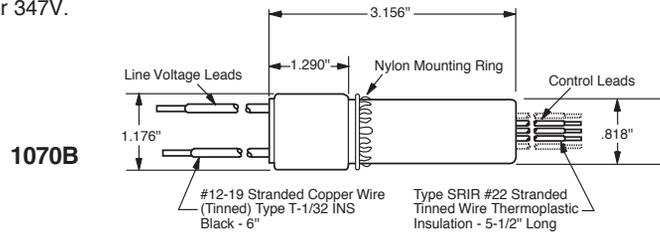
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Features	
<ul style="list-style-type: none"> Mount in standard 1/2" KO through noise suppressing nylon ring. Maximum ambient temp: 140°F (60°C). Insulated flame retardant nylon shell. Prestripped 5-1/2" (140mm) #22 AWG leads for easy wiring. 	<ul style="list-style-type: none"> Split coil design energizes ON coil to close line contacts, and OFF coil to open contacts. Can be mounted in any position. Operates on momentary impulse. Draws .520 mA.

Catalog Number	Rating A. V.	3rd Party Compliance	
		UL Listed	CSA Listed
Magnetic Latching Relay, 24V/24VDC Control			
1070B	20 120/277V 20 347V	•	•

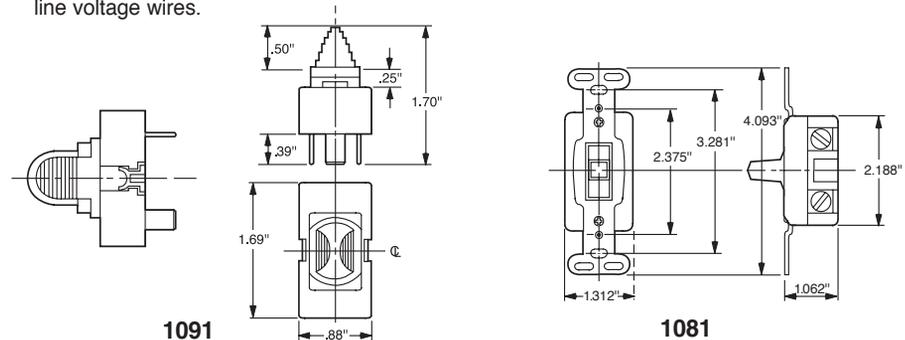
CSA listed for 347V.



Features	
<ul style="list-style-type: none"> Available in Despard® interchangeable and heavy-duty toggle versions. Side wired screw terminals. 	<ul style="list-style-type: none"> Heavy-duty toggles recommended where low-voltage switches must match conventional switches.

Catalog Number	Color	Rating A. V.	Description
Momentary Contact Switches			
1091I	Ivory	3 24 AC/DC	Despard Interchangeable
1091W	White	3 24 AC/DC	Despard Interchangeable
1091	Brown	3 24 AC/DC	Despard Interchangeable
1091GRY	Gray	3 24 AC/DC	Despard Interchangeable
1091KGRY	Gray	3 24 AC/DC	Despard Interchangeable, Key-Locking
1050K			Key only for Despard Locking Switch
1081I	Ivory	3 24 AC/DC	Heavy-Duty Toggle
1081W	White	3 24 AC/DC	Heavy-Duty Toggle
1081	Brown	3 24 AC/DC	Heavy-Duty Toggle
1081GRY	Gray	3 24 AC/DC	Heavy-Duty Toggle
1081LA	Light Almond	3 24 AC/DC	Heavy-Duty Toggle
1081RED	Red	3 24 AC/DC	Heavy-Duty Toggle
1081KGRY	Gray	3 24 AC/DC	Heavy-Duty Key-Locking
500K			Key only for Heavy-Duty Locking Switch

Note: When installing low-voltage control wiring, wires should not be bundled or run in parallel with line voltage wires.



All devices listed on this page conform to NEMA WD-1 and WD-6.

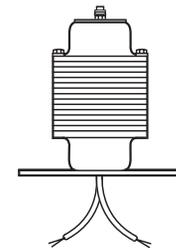
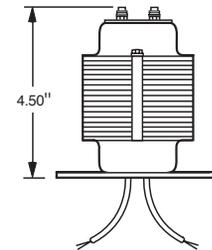
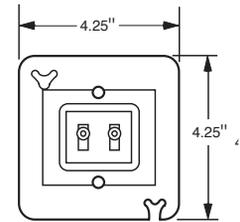
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Features	
<ul style="list-style-type: none"> 100% HIPOT tested primary and secondary. Built-in overload protection. 	<ul style="list-style-type: none"> Base fits 4 Screw box.



1038

Catalog Number	VA Rating	Primary Volts	Secondary Volts	Secondary Output
Transformers				
1038	75 VA	120V	24V	3.12A
1039	75 VA	277V	24V	3.12A

A 75VA transformer can drive a maximum of 7 relays simultaneously. However, the length of a wire run as well as the size of the wire itself have an effect on a transformer's output capability.

The following tables will be useful in selecting the proper wire size and length of wire runs.

75VA transformer (1038 or 1039) switch leg-length of run in feet (2 wires):

No. of Relays in Parallel	#12 Wire	#14 Wire	#16 Wire	#18 Wire	#20 Wire	#22 Wire
1	3000'	2000'	1200'	750'	500'	300'
2	1500'	1000'	600'	375'	250'	150'
3	1000'	650'	400'	250'	160'	100'
4	750'	500'	300'	180'	125'	75'
5	600'	400'	240'	150'	100'	60'
6	500'	330'	200'	125'	80'	50'
7	420'	280'	170'	100'	70'	40'

Notes:

Relays in Parallel – Relays so wired will **all** be activated by **any** switch in the circuit. If more than one transformer is used, the load should be divided between transformers.