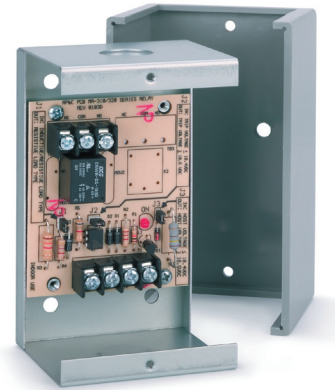


MR-310 SERIES MR-320 SERIES LOW-VOLTAGE, LOW-CURRENT OPTO-ISOLATED RELAYS

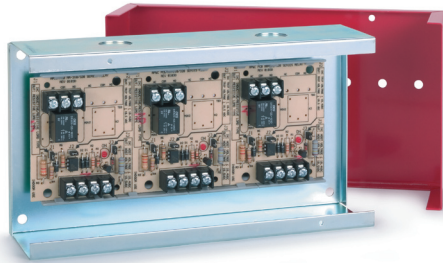
PRODUCT DESCRIPTION

The MR-310 (SPDT) and MR-320 (DPDT) Series Relays provide for the use of two differently referenced power supplies on the trip and host inputs. Both inputs are polarity sensitive and diode protected. Both the trip and host inputs are jumper selectable for dual ranges to optimize power consumption. Application configuration is easy, with reversible selectability for “LO” range ($\leq 18.4\text{VDC}$) and “HI” range ($\geq 18.5\text{VDC}$) trip and host inputs. The trip and host inputs are opto-isolated to guarantee non-interference between inputs or integrated systems.

Each relay position contains a red LED, which indicates when the relay coil is energized. Multi-position relays may be “snapped apart” and used independently. Relays are available with snap track and mounting hardware (an optional MR Series Snap Track is also available) or mounted in sturdy enclosures.

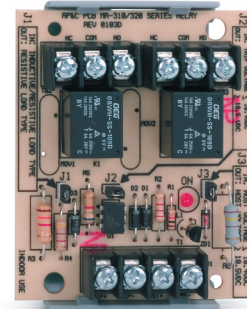


SSU-MR-311/C



SSU-MR-313/C/R

Both trip and host inputs are polarized, so that either or both may be supervised, and/or utilize voltage polarity reversal logic for complex, multi-criteria operations. These relay modules are suitable for use with standard TTL, Fire, Security, and many other Building Control Systems.



SSU-MR-321/T

WIRING (TYPICAL FOR ONE MODULE POSITION)

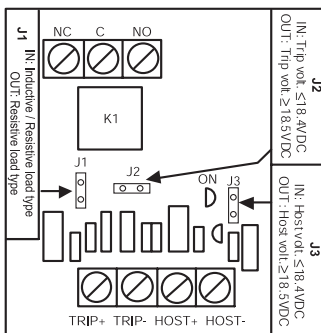
UUKL
Smoke Control



CSFM LISTED **MEA APPROVED**

UL RECOGNIZED COMPONENT

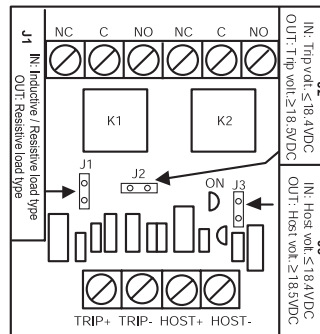
MR-310 SERIES
SPDT Contacts
Resistive: 10A @ 120VAC,
7A @ 24VDC/VAC
Inductive: 0.35 PF (Power Factor)



Triggering Power Input
TRIP: 5-27.3VDC @
2.0-17mA (Min.- Max.)*
(Polarized)

Operating Power Input
HOST: 12-27.3VDC @
36-46mA (Min.- Max.)*
(Polarized)

MR-320 SERIES
DPDT Contacts
Resistive: 10A @ 120VAC,
7A @ 24VDC/VAC
Inductive: 0.35 PF (Power Factor)



Triggering Power Input
TRIP: 5-27.3VDC @
2.0-17mA (Min - Max.)*
(Polarized)

Operating Power Input
HOST: 12-27.3VDC @
56-79mA (Min - Max.)*
(Polarized)



*Refer to application specific jumper configuration programming guide (on reverse) for precise current draw requirements. Relay is shipped with J1, J2, and J3 installed in the “OUT” positions. You must program all jumpers for the proper load type and specific voltages in your application to guarantee proper relay operation.

MR-310 & MR-320 SERIES JUMPER CONFIGURATIONS

Modes (Application)	Application Configuration					Trip Input		Host Input			General System Applications
	J1 (Load)	J2 (Trip)	J3 (Host)	Load Type	Inductive Breaking Power	Voltage	Current	Voltage	Current		
									MR-310	MR-320	
"A" (LO trip - HI host)	In	In	Out	Any	Maximum	5 - 18.4VDC	3.2 - 17mA	18.5 - 27.3VDC	38 - 46mA	56 - 79mA	TTL or Security to Fire Alarm
"B" (LO trip - HI host)	Out	In	Out	Resistive	Moderate	5 - 18.4VDC	2.5 - 13mA	18.5 - 27.3VDC			
"C" (HI trip - LO host)	In	Out	In	Any	Maximum	18.5 - 27.3VDC	2.1 - 3.3mA	12 - 18.4VDC	36 - 40mA	69 - 73mA	Fire Alarm to Security
"D" (HI trip - LO host)	Out	Out	In	Resistive	Moderate	18.5 - 27.3VDC	2.0 - 3.2mA	12 - 18.4VDC			
"E" (LO trip - LO host)	In	In	In	Any	Maximum	5 - 18.4VDC	3.2 - 17mA	12 - 18.4VDC	36 - 40mA	69 - 73mA	TTL or Security to Security
"F" (LO trip - LO host)	Out	In	In	Resistive	Moderate	5 - 18.4VDC	2.5 - 13mA	12 - 18.4VDC			
"G" (HI trip - HI host)	In	Out	Out	Any	Maximum	18.5 - 27.3VDC	2.1 - 3.3mA	18.5 - 27.3VDC	38 - 46mA	56 - 79mA	Fire Alarm, Lighting, or Building Control
"H" (As Shipped) (HI trip - HI host)	Out	Out	Out	Resistive	Moderate	18.5 - 27.3VDC	2.0 - 3.2mA	18.5 - 27.3VDC			

PRODUCT SPECIFICATIONS

MODEL NUMBER	MODULE POSITIONS	CONTACT CONFIGURATION PER POSITION	TRACK MOUNTED H x W x D	ENCLOSURE MOUNTED H x W x D	COVER MATERIAL	UL FILE* S3403	MEA FILE 73-92-E	CSFM FILE 7300-1004
SSU-MR-311/T	1	SPDT	3.40"(87mm)	5.13"(131mm) 3.13"(80mm) 2.50"(64mm)	Grey ABS 94V-0 Plastic Red ABS 94V-0 Plastic	UOXX UUKL NMTR NMTR7 PAZX UEHX	Vol.30	:111
SSU-MR-321/T		DPDT	2.75"(70mm)					
SSU-MR-311/C		SPDT						
SSU-MR-321/C		DPDT						
SSU-MR-311/C/R		SPDT						
SSU-MR-321/C/R		DPDT						
SSU-MR-312/T	2	SPDT	3.40"(87mm)	5.13"(131mm) 9.50"(241mm) 2.50"(64mm)	Plated 18ga CRS Red 18ga CRS	UOXX UUKL NMTR NMTR7 PAZX UEHX	Vol.30	:111
SSU-MR-322/T		DPDT	6.00"(152mm)					
SSU-MR-312/C		SPDT						
SSU-MR-322/C		DPDT						
SSU-MR-312/C/R		SPDT						
SSU-MR-322/C/R		DPDT						
SSU-MR-313/T	3	SPDT	3.40"(87mm)	5.13"(131mm) 9.50"(241mm) 2.50"(64mm)	Plated 18ga CRS Red 18ga CRS	UOXX UUKL NMTR NMTR7 PAZX UEHX	Vol.30	:111
SSU-MR-323/T		DPDT	8.25"(210mm)					
SSU-MR-313/C		SPDT						
SSU-MR-323/C		DPDT						
SSU-MR-313/C/R		SPDT						
SSU-MR-323/C/R		DPDT						

VOLTAGE REQUIREMENTS:	Trip: 5 - 27.3VDC	Host: 12 - 27.3VDC
POLARIZED INPUT(S):	Yes, on both trip optoisolator and host coil inputs	
ENERGIZED INDICATOR:	One red LED per module position	
CURRENT REQUIREMENTS:	Refer to Jumper Configuration chart above	
CONTACT RATINGS:	Resistive load: 10A @120VAC, 7A @ 24VDC/VAC; Inductive load: 0.35 PF (Power Factor)	
CONTACT CONSTRUCTION:	Dry Form "C"	
ENVIRONMENTAL:	32°F to 120°F (0°C to 49°C) @ 93% RH (@ 32°C) Non-Condensing, Non-Freezing	
WIRING:	Solid or stranded; #14 to #22 AWG terminals	
"T" VERSIONS:	3.5" wide, low profile plastic snap track provided with mounting screws	
"C" VERSIONS:	Backbox: 18ga CRS, plated with 1/2" conduit knockouts top and bottom	

- *UOXX (UL864) = Control Unit Accessories, System; 2=Component
- *UUKL (UL864) = Smoke Control System Equipment, System; 2=Component
- *NMTR (UL508) = Miscellaneous Apparatus, System; 2=Component; 7=Certified for Canada; 8=Certified for Canada, Component
- *PAZX (UL916) = Energy Management Equipment, System; 2=Component
- *UEHX (UL2017) = General Purpose Signaling Devices and Systems, System; 2=Component

