



AIR PRODUCTS & CONTROLS

PAM SERIES

MULTI-VOLTAGE RELAY MODULES

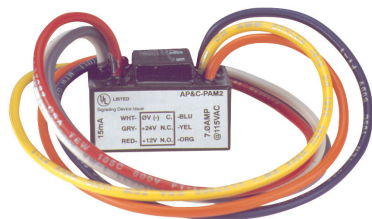
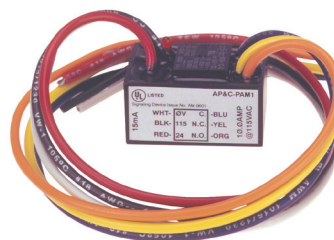
The PAM Series Relays are encapsulated multi-voltage devices with “flying” leads that offer versatile, reliable performance in a convenient package. Several of the versions contain a red LED which indicates when the relay coil is energized. The PAM Series Relays are packaged with a self-tapping screw and a piece of double sided tape for easy installation. The relays are also packaged with wire-nuts to aid installation.

PAM Relays are ideal for applications where remote relays are required for fire alarm control or status feedback. They are only suitable for use within UL864 applications and installed in accordance with NFPA 70® and NFPA 72®.

PRODUCT DESCRIPTION

PAM-1

The PAM-1 Relay provides 10.0 A form “C” contacts. The relay may be energized by one of three input voltages: 24VDC, 24VAC, or 120VAC. The input voltages are polarity-sensitive and diode-protected. PAM-1 Relays contain a red LED which indicates when the relay coil is energized.

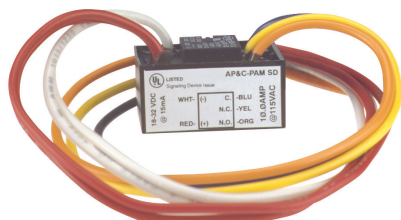
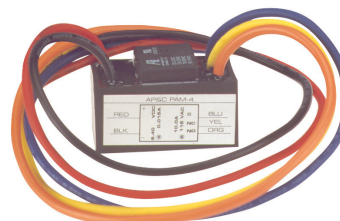


PAM-2

The PAM-2 Relay provides 7.0 A form “C” contacts. The relay may be energized by one of two input voltages: 12VDC or 24VDC. The input voltages are polarity-sensitive and diode-protected. PAM-2 Relays contain a red LED which indicates when the relay coil is energized.

PAM-4

The PAM-4 Relay provides 10.0 A form “C” contacts. The relay may be energized across a wide voltage range from 12VDC to 40VDC, making it ideal for 12VDC and 24VDC EOL circuits. The 20mA operating current is constant across the operating range. The input voltages are polarity-sensitive and diode-protected.



PAM-SD

The PAM-SD Relay provides 7.0 A form “C” contacts. The relay may be energized by an input voltage between 20VDC to 32VDC, making it ideal for 24VDC NAC circuits. The input voltages are polarity-sensitive and diode-protected. The PAM-SD provides an additional set of wires for redundant input voltage (circuit supervision pass through).



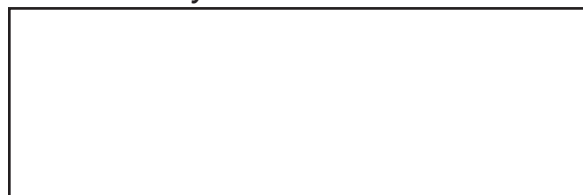
CSFM LISTED

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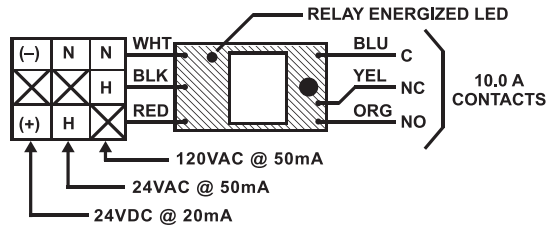
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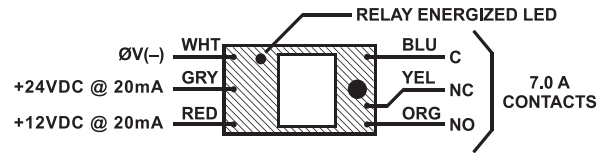
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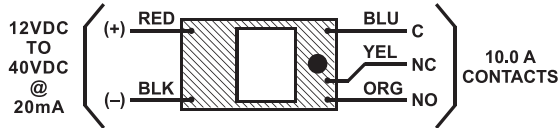
WIRING



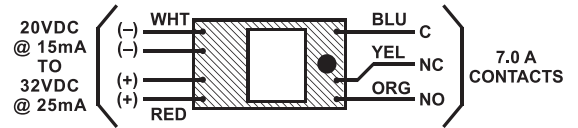
PAM-1



PAM-2



PAM-4



PAM-SD

PRODUCT SPECIFICATIONS

MODEL NUMBER:	PAM-1	PAM-2	PAM-4	PAM-SD
COIL VOLTAGE:	24VAC/24VDC/120VAC	12VDC/24VDC	12 to 40VDC	20 to 32VDC
POLARIZED:	Yes	Yes	Yes	Yes
ENERGIZED LED INDICATOR:	Yes	Yes	No	No
CURRENT REQUIREMENT:				
@12VDC		20mA	20mA	
@24VDC	20mA	20mA	20mA	15mA
@32VDC			20mA	25mA
@24VAC	50mA			
@120VAC	50mA			
CONTACT CONFIGURATION:	(1) SPDT dry form "C"	(1) SPDT dry form "C"	(1) SPDT dry form "C"	(1) SPDT dry form "C"
CONTACT RATINGS:				
(contact rating/ power factor)				
@5VDC	250μA / .35 PF	250μA / .35 PF	250μA	250μA / .35 PF
@24VDC	7A / .35 PF	7A / .35 PF	7A	7A / .35 PF
@120VAC	10A	7A / .35 PF	10A	7A / .35 PF
RELAY PULL-IN TIME:				
@12VDC		< 1s	< 5s	
@24VDC	< 1s	< 1s	< 3s	< 1s
@32VDC			< 1.5s	< 1s
@24VAC	< 1s			
@120VAC	< 1s			
WIRE LEADS:	6 "flying" leads 12" / 18 AWG Wire-nuts provided	6 "flying" leads 12" / 18 AWG Wire-nuts provided	5 "flying" leads 12" / 18 AWG Wire-nuts provided	7 "flying" leads 12" / 18 AWG Wire-nuts provided
AMBIENT TEMPERATURE:	32°F to 120°F	32°F to 120°F	32°F to 120°F	32°F to 120°F
(@ 100% RH, condensing)	(0°C to 49°C)	(0°C to 49°C)	(0°C to 49°C)	(0°C to 49°C)
CONSTRUCTION:	100% potted (sealed) with "flying" leads			
MOUNTING:	Pre-drilled mounting screw hole and self tapping screw provided. Double sided tape provided.			
DIMENSIONS:				
H	1.50" (38mm)	1.50" (38mm)	1.50" (38mm)	1.50" (38mm)
W	1.20" (31mm)	1.20" (31mm)	1.20" (31mm)	1.20" (31mm)
D	0.77" (20mm)	0.77" (20mm)	0.77" (20mm)	0.77" (20mm)
LISTINGS AND APPROVALS:				
UL*:	U0XX/7.S3403	U0XX/7.S3403	U0XX/7.S3403	U0XX/7.S3403
MEA:	73-92-E Vol. 21	73-92-E Vol. 21	73-92-E Vol. 21	73-92-E Vol. 21
CSFM:	7300-1004:101	7300-1004:101	7300-1004:101	7300-1004:101

*UOXX=Control Unit Accessories, System; /7=also Certified for Canada

NOTICE: The information contained in this document is intended only as a summary and is subject to change without notice. The products described have specific instructional/installation documentation, which covers various technical, approval, code, limitation and liability information. Copies of this documentation along with any general product warning and limitation documents, which also contain important information, are provided with the product and are also available from Apollo America Inc. The information contained in all of these documents should be considered before specifying or using the products. Any example applications shown are subject to the most current enforced local/national codes, standards, approvals, certifications, and/or the authority having jurisdiction. All of these resources, as well as the specific manufacturer of any shown or mentioned related equipment, should be consulted prior to any implementation. For further information or assistance concerning the products, contact Apollo America Inc. Apollo America Inc. reserves the right to change any and all documentation without notice.