



*You in Control*

# 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 almost anywhere. The relays are also packaged with wire-nuts to aid installation.

PAM Relays are ideal for applications where remote relays are required for control or status feedback. They are suitable for use with HVAC, Temperature Control, Fire Alarm, Security, Energy Management, Lighting Control Systems and Building Automation Systems.

### **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 9VDC to 40VDC, making it ideal for 12VDC and 24VDC EOL circuits. The 15mA 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).



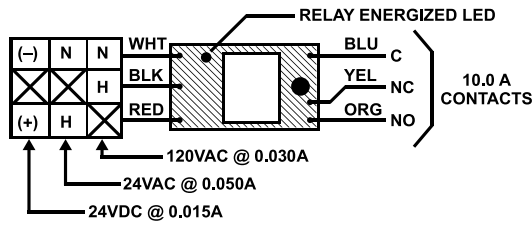
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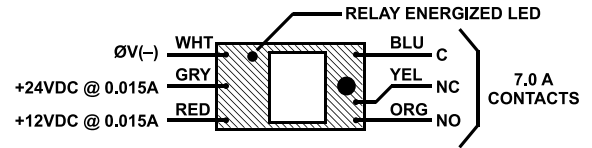
— A —  
**HALMA**  
**GROUP**  
COMPANY

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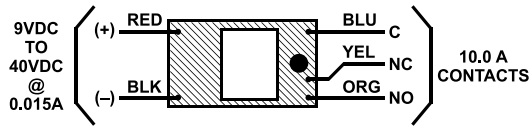
## WIRING



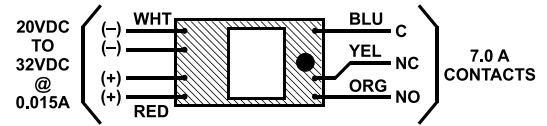
**PAM-1**



**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	9 to 40VDC	20 to 32VDC
POLARIZED:	Yes	Yes	Yes	Yes
ENERGIZED LED INDICATOR:	Yes	Yes	No	No
CURRENT REQUIREMENT:				
@12VDC		15mA	15mA	
@24VDC	15mA	15mA	15mA	15mA
@24VAC	50mA			
@120VAC	30mA			
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
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: (@ 100% RH, condensing)	32°F to 120°F (0°C to 49°C)	32°F to 120°F (0°C to 49°C)	32°F to 120°F (0°C to 49°C)	32°F to 120°F (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" (25mm)	1.00" (25mm)	1.00" (25mm)	1.00" (25mm)
D	0.90" (20mm)	0.90" (23mm)	0.90" (23mm)	0.80" (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 Air Products and Controls 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 Air Products and Controls Inc. Air Products and Controls Inc. reserves the right to change any and all documentation without notice.