

# HRPS / HRIS SERIES



## Description

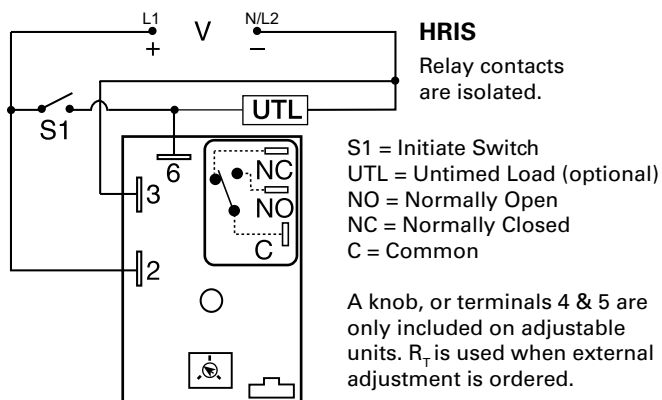
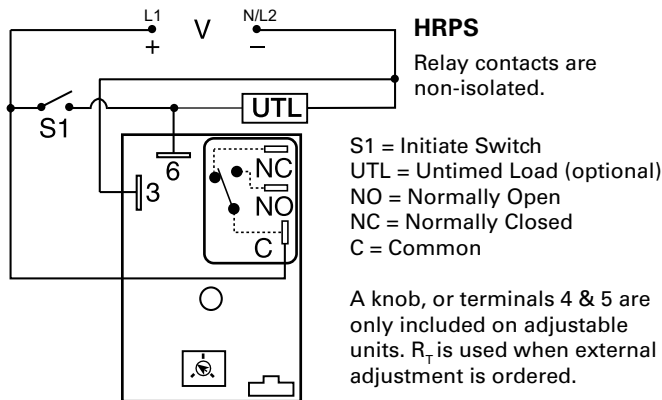
The HRPS/HRIS Series combines an electromechanical relay output with microcontroller timing circuitry. It is a factory programmed module available in any 1 of 13 standard functions. It offers 12 to 240V operation in two universal ranges and factory fixed, onboard, or external adjustable time delays with a repeat accuracy of  $\pm 0.5\%$ . The output contact rating allows for direct operation of heavy loads, such as compressors, pumps, blower motors, heaters, etc. This series is ideal for OEM applications where cost is a factor. The HRPS has non-isolated SPDT relay contacts, and the HRIS has isolated SPDT relay contacts. Both offer the most popular timer functions in the industry.

### Operation (Interval)

Upon application of input voltage, the time delay begins. The output (relay or solid state) energizes during the time delay. At the end of time delay the output de-energizes and remains de-energized until input voltage is removed.

**Reset:** Removing input voltage resets the time delay and output.

## Wiring Diagram



## Features & Benefits

FEATURES	BENEFITS
<b>Microcontroller based</b>	Repeat Accuracy +/- 0.5% , factory calibration +/- 2%
<b>Compact design</b>	Allows flexibility for OEM applications
<b>30A, SPDT, Normally Open output contacts</b>	Allows for direct operation of heavy loads
<b>Encapsulated</b>	Protects against shock, vibration, and humidity

## Ordering Information

MODEL	INPUT VOLTAGE	ADJUST.	TIME DELAY	FUNCTION
HRISW21FT	24 - 240VAC/24 - 110VDC	Onboard	0.1 - 10s	Alternating
HRISW27I	24 - 240VAC/24 - 110VDC	Onboard	0.1 - 10h	Interval
HRPSD12HI	12 - 48VDC	Fixed	2h	Interval
HRISW25B	24 - 240VAC/24 - 110VDC	Onboard	1 - 100m	Delay on break

If you don't find the part you need, call us for a custom product 800-843-8848

# HRPS / HRIS SERIES

## Accessories



**P1004-95, P1004-95-X Versa-Pot**  
Panel mountable, industrial potentiometer recommended for remote time delay adjustment.



**P1023-6 Mounting bracket**  
The 90° orientation of mounting slots makes installation/removal of modules quick and easy.



**P0700-7 Versa-Knob**  
Designed for 0.25 in. (6.35 mm) shaft of Versa-Pot. Semi-gloss industrial black finish.



**P1015-64 (AWG 14/16), P1015-13 (AWG 10/12) Female Quick Connect**  
These 0.25 in. (6.35 mm) female terminals are constructed with an insulator barrel to provide strain relief.



**P1015-18 Quick Connect to Screw Adapter**  
Screw adapter terminal designed for use with all modules with 0.25 in. (6.35 mm) male quick connect terminals.

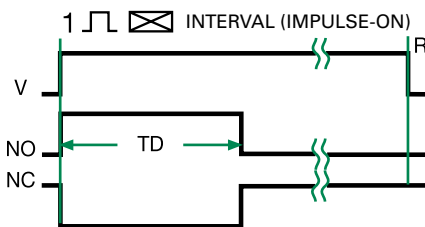


**C103PM (AL) DIN Rail**  
35 mm aluminum DIN rail available in a 36 in. (91.4 cm) length.

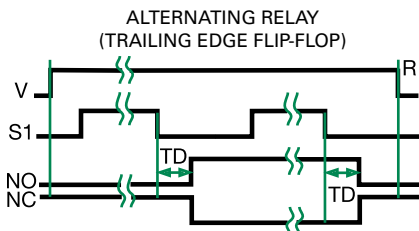


**P1023-20 DIN Rail Adapter**  
Allows module to be mounted on a 35 mm DIN type rail with two #10 screws.

## Function Diagrams



V = Voltage  
S1 = Initiate Switch  
NO = Normally Open Contact  
NC = Normally Closed Contact  
TD = Time Delay  
R = Reset  
— = Undefined Time



## Specifications

### Time Delay

**Type** Microcontroller circuitry  
**Range** 0.1s - 1000h in 9 adjustable ranges or fixed  
**Repeat Accuracy** ±0.5% or 20ms, whichever is greater

**Tolerance** ±2%  
**Reset Time** ≤ 150ms  
**Initiate Time** ≤ 20ms

**Time Delay vs Temp. & Voltage** ±2%

### Input

**Voltage** 12 to 48VDC; 24 to 240VAC/24 to 110VDC

**Tolerance** 12 to 48VDC -15% - 20%  
24 to 110VDC/240VAC -20% - 10%

**AC Line Frequency** 50/60Hz  
**Power Consumption** AC ≤ 4VA; DC ≤ 2W

### Output

**Type** Electromechanical relay

### Form

**SPDT-NO**                      **SPDT-NC**

**General Purpose** 125/240VAC                      30A                      15A

**Resistive** 125/240VAC                      30A                      15A  
28VDC                      20A                      10A

**Motor Load** 125VAC                      1 hp\*                      1/4 hp\*\*  
240VAC                      2 hp\*\*                      1 hp\*\*

**Life** Mechanical - 1 x 10<sup>6</sup>  
Electrical - 1 x 10<sup>5</sup>, \*3 x 10<sup>4</sup>, \*\*6,000

### Protection

**Surge** IEEE C62.41-1991 Level A

**Circuitry** Encapsulated

**Isolation Voltage** ≥ 1500V RMS input to output; isolated units

**Insulation Resistance** ≥ 100 MΩ

**Polarity** DC units are reverse polarity protected

### Mechanical

**Mounting** Surface mt. with one #10 (M5 x 0.8) screw

**Dimensions** **H** 76.2 mm (3.0"); **W** 50.8 mm (2.0");

**D** 38.1 mm (1.5")

0.25 in. (6.35 mm) male quick connects

### Termination

### Environmental

### Operating/Storage

**Temperature** -40° to 60°C / -40° to 85°C

**Humidity** 95% relative, non-condensing

**Weight** ≈ 3.9 oz (111 g)

## Данный компонент на территории Российской Федерации

### Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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