

# ProgramaCube® HRPU/HRIU Series Single Function Time Delay Relay (30A SPDT)



US Patent 6708135



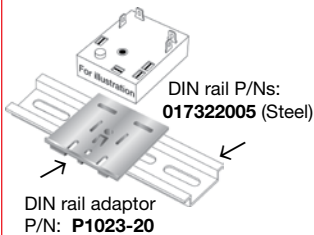
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- Choose 1 of 16 Standard Functions
- Factory Programmed
- Microcontroller Circuitry, +/-0.1% Repeat Accuracy
- 30 A, N.O. Output Contacts
- Accurate Switch Adjustment
- 24 ... 240 V AC; 24 ... 110 V DC
- Delays from 100 ms ...1023 h in 6 Ranges
- Counts to 1023 in 3 Ranges

Complete Product Details:  
<http://www.ssac.com/pp1.htm>



## Mounting Accessory



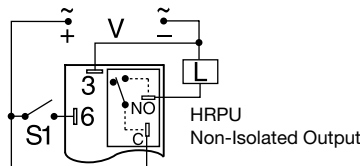
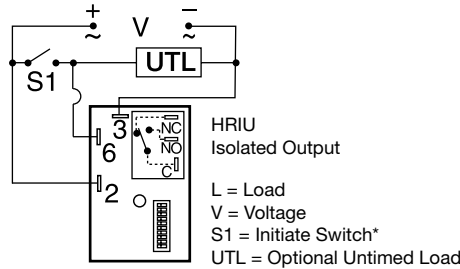
See accessory pages

## Switch Adjustment

Adjustment Switch Operation			
TIME DELAY		COUNTER	
0.1...102.3	1...1023	1...165	1...63
OFF ▶ ON	OFF ▶ ON	OFF ▶ ON	OFF ▶ ON
0.1	1	1	1
0.2	2	2	2
0.4	4	3	4
0.8	8	4	8
1.6	16	5	16
3.2	32	10	32
6.4	64	20	M
12.8	128	30	1
25.6	256	40	2
51.2	512	50	4
6.3	544	57 counts	44 s Delay 2 counts to Start

One or more switches must be ON for proper operation.

## Connection



\*Note: S1 is not used for some functions.  
Dashed lines are internal connections.

## \*\*Function Chart

- Delay on Make Timer
- Delay on Break Timer
- Recycle Timer (ON Time First, Equal Times)
- Recycle Timer (OFF Time First, Equal Times)
- Single Shot Timer
- Interval Timer
- Trailing Edge Single Shot Timer
- Motion Detector/Retriggerable Single Shot
- Inverted Single Shot Timer
- Accumulative Delay on Make Timer
- Inverted Delay on Break Timer
- Counter/Pulsed Output
- Counter/Interval Output
- Flip Flop (Trailing Edge, Alternating)
- Flip Flop (Leading Edge)

Code

- M
- B
- RE
- RD
- S,SD
- I
- TS
- PSD, PSE
- US
- AM
- UB
- C
- CI
- FT
- F

See page 9 for function time diagrams

## Technical Data

<b>Count</b>	Rate $\leq 25$ counts per second		
<b>Output</b>	Ratings:		
General Purpose	Voltage 125/240 V AC	SPDT-N.O. 30 A	SPDT-N.C. 15 A
Motor Load	125 V AC	1 hp*	1/4 hp**
	240 V AC	2 hp**	1 hp**
Life	Electrical -- 1 x 10 <sup>5</sup> , *3 x 10 <sup>4</sup> , ** 6,000		
Counter Output	(P/N Variable 7 & 8) Output Pulse width 300 ms +/- 20%		
<b>Mechanical</b>	Mounting Surface mt. with one #10 (M5 x 0.8) screw		
Termination	0.25 in. (6.35 mm) male quick connects		
Package	3 x 2 x 1.5 in. (76.7 x 51.3 x 38.1mm)		

## Ordering Table

HRPU/HRIU Series

X Input

- W - 24 ... 240 V AC
- 24 ... 110 V DC
- D - 12 ... 48 V DC

\*Note: Grayed option is available in standard lead time.

X Time Delay/Counts

- 1 - 0.1 ... 102.3 s
- 2 - 1 ... 1023 s
- 3 - 0.1 ... 102.3 m
- 4 - 1 ... 1023 m
- 5 - 0.1 ... 102.3 h
- 6 - 1 ... 1023 h
- 7 - 1 ... 165 counts (straight) w/pulsed output
- 8 - 1 ... 1023 counts (binary) w/pulsed output
- 9 - 1 ... 7 counts to start 1 ... 63 s or m interval time

X Function\*\*

Specify Function (Refer to Function Chart for Code)

## Example P/N:

HRPUW2S = Universal AC/DC voltage, switch adjustment, 1...1023 sec., single shot function

HRIUW3B = Universal AC/DC voltage, isolated relay contacts, switch adjustment, 0.1...102.3 min., delay on break function