

ProgramaCube® **HRPU/HRIU Series Single Function**

Time Delay Relay (30A SPDT)



US Patent 6708135





- 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: vww.ssac.com/pp1.htm

Switch Adjustment

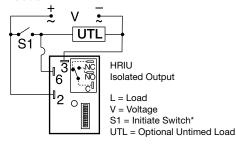
Adjustment Switch Operation				
TIME DELAY		COUNTER		
0.1102.3	11023	1165	163	
OFF FON 0.1 0.2 0.4 0.8 1.6 0.8 0.8 0.8 0.8 0.9 0.8 0.9 0.8 0.9 0.8 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9	= 16 = 32 = 64 = 128	OFF > ON 1	OFF ►ON	

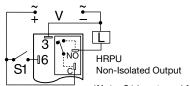
relay output with any 1 of 16 standard switch adjustable timer or counter functions. Its switching capacity allows direct control of loads like compressors, pumps, motors, heaters, and lighting. Modules are manufactured without the function assigned. When an order is received, the function and time delay software are added. This approach provides Quick Ship delivery on a large number of part numbers. Switch adjustment allows accurate selection of the time delay or number of counts the first time and everytime. The HRPU has non-isolated relay contacts, the HRIU has isolated relay contacts. The HRPU/HRIU Series is a cost effective approach for OEM applications that require small size, reliability and accurate switch adjustment.

The HRPU/HRIU features a 30A rated electromechanical

One or more switches must be ON for proper operation.

Connection





**Function Chart

Code Delay on Make Timer M Delay on Break Timer В Recycle Timer (ON Time First, Equal Times) RE Recycle Timer (OFF Time First, Equal Times) RD Single Shot Timer S,SD Interval Timer Trailing Edge Single Shot Timer TS Motion Detector/Retriggerable Single Shot PSD, PSE Inverted Single Shot Timer US Accumulative Delay on Make Timer ΑM Inverted Delay on Break Timer UB Counter/Pulsed Output C Counter/Interval Output CI Flip Flop (Trailing Edge, Alternating) FT Flip Flop (Leading Edge)

See page 9 for function time diagrams

Technical Data

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

Count				
Rate	≤ 25 counts per second			
Output				
Ratings:	Voltage	SPDT-N.O.	SPDT-N.C.	
General Purpose	125/240 V AC	30 A	15 A	
Motor Load	125 V AC	1 hp*	1/4 hp**	
	240 V AC	2 hp**	1 hp**	
Life	Electrical 1 x 105, *3 x 104, ** 6,000			
Counter Output	(P/N Variable 7 & 8) Output Pulse width 300 ms +/- 20%			
Mechanical				
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)			

Mounting Accessory



Ordering Table HRPU/HRIU

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

Example P/N:

†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
-2 - 1 1023 s
-3 - 0.1 102.3 m
4 - 1 1023 m

-**5** - 0.1 ... 102.3 h **-6** - 1 ... 1023 h

1 ... 165 counts (straight) w/pulsed output -8 - 1 ... 1023 counts (binary) w/pulsed output

- 1 ... 7 counts to start 1 ... 63 s or m interval time

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

Function**

Specify Function

Chart for Code)

(Refer to Function