

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China









THIS DATA IS FOR REFERENCE PURPOSES ONLY This Product's status is: OBSOLETE.

Tyco Electronics no longer offers the 3RP1 series.





#### Standards and Specifications

- IEC 721-3-3 "Ambient conditions"
- IEC 61812-1/DIN VDE 0435 Part 2021 "Solid State Relays, Time Relays"
- IEC 1000 "electromagnetic compatibility"
- IEC 947-5-1: DIN VDE 0660 Part 200 "Low-voltage control circuit devices"

#### **Timing Specifications**

**Timing Ranges:** 0.05 to 1/0.15 to 3/0.5 to 10/1.5 to 30/5 to 100 sec.;

0.05 to 1/0.15 to 3/0.5 to 10/1.5 to 30/5 to 100 min.; 0.05 to 1/0.15 to 3/0.5 to 10/1.5 to 30/5 to 100 hr.

Timing Adjustment: Potentiometer adjustable within selected range.

**Tolerance:** ±5% of full scale value.

Reset Time: 150 ms.
Minimum On Period: 35 msec.

Repeatability:  $\pm~1\%$ .

#### Timing Modes

See the following page for a description of timing modes.

# 3RP1 series Multifunction Solid State DIN Mount Time Delay Relay

- Available as SPDT or DPDT
- 15 time setting ranges
- .05s 100hr programmable timing range
- Universal 24-240 VAC/VDC or fixed input types.
- 3A switching current rating
- Fits 35mm DIN track
- Single function, Delay-On available





Users should thoroughly review the technical data before selecting a product part number. It is recommended that user also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.

#### Contact Data @ 25°C

**Arrangements:** 1 Form C (SPDT). 2 Form C (DPDT)

**Material:** Silver tin oxide. **Rating:** 3A @ 250VAC.

Switching Frequency: 2,500 ops./hour.

Electrical Life: 200,000 operations min. at rated load.

Mechanical Life: 30 x 10<sup>6</sup> operations.

#### Input Data @ 25°C

Voltage: Universal Input Type: 24 - 240V, 50/60 Hz. AC or DC. Fixed Input Type: 24, 100-127, 200-240AC; 24VDC.

Operating Range: AC: 85 to 110%. DC: 80 to 125%.

**Power Requirement:** 

Universal Input Type: AC: 6VA. DC: 2W.

#### **Environmental Data**

**Temperature Range:** Storage: -40°C to +80°C.

Operating: -25°C to +60°C. Protection Category: IP 20 according to EN 60529.

#### **Mechanical Data**

**Termination:** Screw terminal. **Enclosure:** Plastic DIN case. **Mounting:** 35mm DIN track.

**Weight:** (3RP1505) 5.29 oz. (150g) approximately. (3RP1525) 3.88 oz. (110g) approximately.

#### Configuring

- Changing the timer range and their functions will only be effective when they are carried out in a voltage-free state.
- Trigger input B1 or B3 must only be started when the supply voltage is applied.
- The same potential must be applied to A1 and B1, or A3 and B3. With the
  two-voltage design, only one voltage range must be connected.
- The triggering of the load paralleled to the start input is not permissible when using AC (see adjacent diagrams).

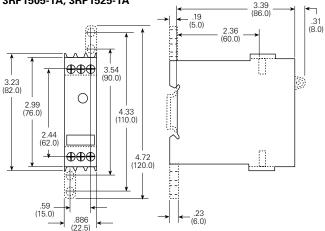




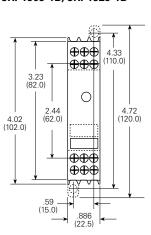
#### Ordering Information - Authorized distributors are more likely to stock boldface items listed below.

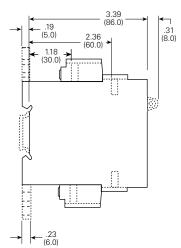
Input Voltage		Input	Contact	Wiring	Functions	Part
DC	AC	Туре	Arrang.	Diagram		Number
3RP1505	Multifunction					
24	24, 100-127	Fixed	SPDT	1 to 8	1 to 8	3RP15 05-1AQ30
24	24, 200-240	Fixed	SPDT	1 to 8	1 to 8	3RP15 05-1AP30
24	24, 100-127	Fixed	DPDT	9 to 24	9 to 24	3RP15 05-1BQ30
24-240	24-240	Universal	DPDT	9 to 24	9 to 24	3RP15 05-1BW30
3RP1525	Delay On					
24	24, 100-127	Fixed	SPDT	1	1	3RP15 25-1AQ30
24	24, 200-240	Fixed	SPDT	1	1	3RP15 25-1AP30
24	24, 100-127	Fixed	DPDT	9	9	3RP15 25-1BQ30
24	24, 200-240	Fixed	DPDT	9	9	3RP15 25-1BP30

#### **Outline Dimensions** 3RP1505-1A, 3RP1525-1A



#### 3RP1505-1B, 3RP1525-1B

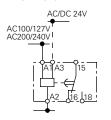




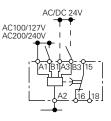
#### Wiring Diagram

#### 1. On-Delay

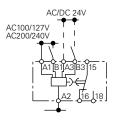
3RP1505-1A 3RP1525-1A



#### 2. Off-Delay With Auxiliary Voltage 3RP1505-1A

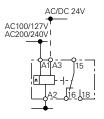


#### 3. On and Off Delay With Auxiliary Voltage 3RP1505-1A



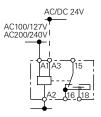
#### 4. Flashing

3RP1505-1A

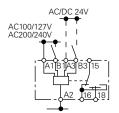


#### 5. Making-Pulse Contact

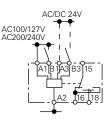
3RP1505-1A 3RP1525-1A



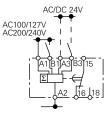
#### 6. Breaking-Pulse Contact With Auxiliary Voltage 3RP1505-1A



#### 7. Pulse Forming With Auxiliary Voltage 3RP1505-1A

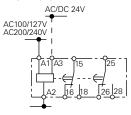


#### 8. Additive On-Delay With Auxiliary **Voltage and Instantaneous Contact** 3RP1505-1A

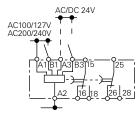


#### 9. On-Delay

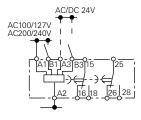
3RP1505-1B 3RP1525-1B



10. Off-Delay With Auxiliary Voltage 3RP1505-1B

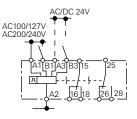


11. On-and Off-Delay With Auxiliary Voltage 3RP1505-1B



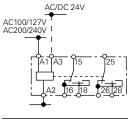
12. Flashing

3RP1505-1B

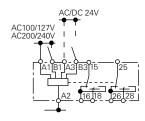


### 13. Making-Pulse Contact

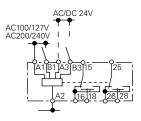
3RP1505-1B



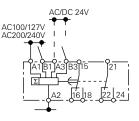
14. Breaking-Pulse Contact With Auxiliary Voltage 3RP1505-1B



#### 15. Pulse Forming With Auxiliary Voltage 3RP1505-1B



#### 16. Additive On-Delay With Auxiliary Voltage and Instantaneous Contact 3RP1505-1B

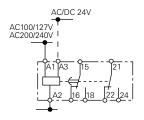




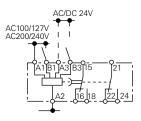
#### Wiring Diagrams (continued)

#### 17. On-Delay and **Instantaneous Contact**

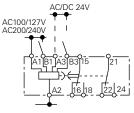
3RP1505-1B



#### 18. Off-Delay With Auxiliary Voltage and **Instantaneous Contact** 3RP1505-1B

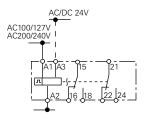


#### 19. On and Off Delay With Auxiliary Voltage and **Instantaneous Contact** 3RP1505-1B



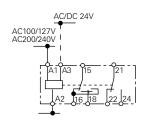
#### 20. Flashing and **Instantaneous Contact**

3RP1505-1B

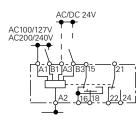


#### 21. Making-Pulse Contact and Instantaneous Contact

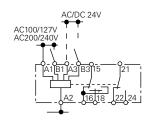
3RP1505-1B



22. Breaking-Pulse Contact With Auxiliary Voltage and Instantaneous Contact 3RP1505-1B

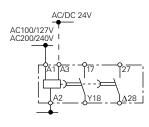


23. Pulse Forming With **Auxiliary Voltage and** Instantaneous Contact 3RP1505-1B



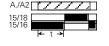
24. Star-Delta Function

3RP1505-1B



#### Timing Function Descriptions and Settings 3RP1505-1A

1. On Delay



#### 5. Impulse On



3RP1505-1B



13. Impulse On



17. On Delay



21. Impulse On



2. Off Delay



6. Impulse Off











#### 3. On/Off Delay











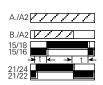


7. Pulse Shaping



A./A2 B./A2

B./A2





#### 4. Flasher



8. Cumulative On Delay







