

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.



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: ± 1%.

Timing Modes

See the following page for a description of timing modes.

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 10⁶ 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.

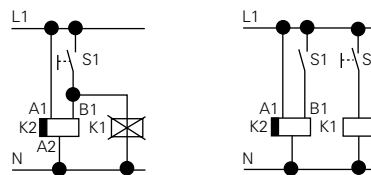
Mounting: 35mm DIN track.

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).

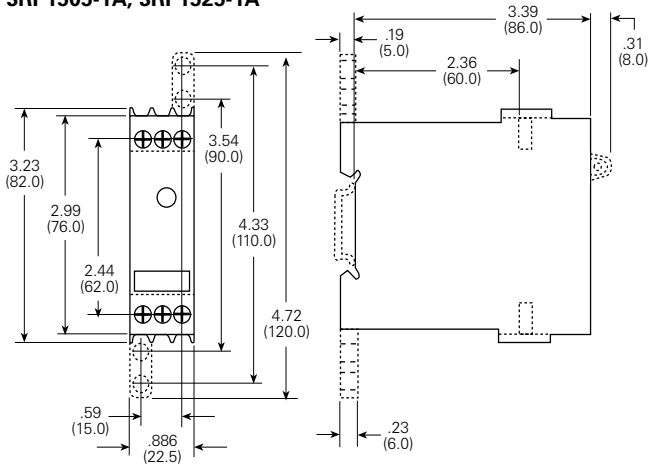


Ordering Information – Authorized distributors are more likely to stock boldface items listed below.

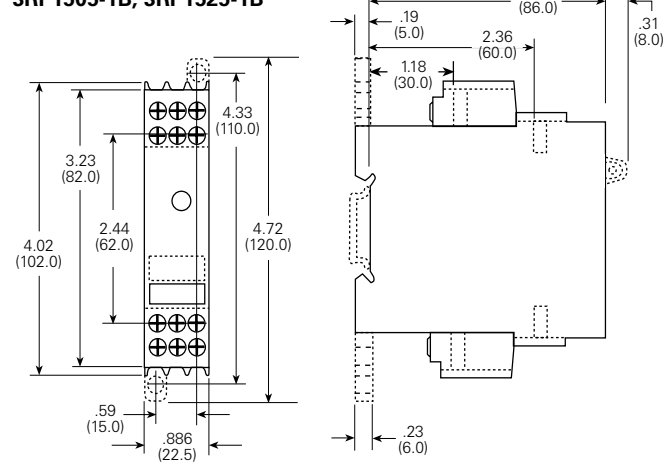
Input Voltage		Input Type	Contact Arrang.	Wiring Diagram	Functions	Part Number
DC	AC					
3RP1505 Multifunction						
24	24, 100-127	Fixed	SPDT	1 to 8	1 to 8	3RP15 05-1AQ30
24	24, 200-240	Fixed	SPDT	1 to 8	1 to 8	3RP15 05-1AP30
24	100-127	Fixed	DPDT	9 to 24	9 to 24	3RP15 05-1BQ30
24-240	24-240	Universal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



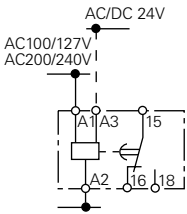
3RP1505-1B, 3RP1525-1B



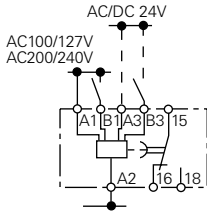
Wiring Diagram

1. On-Delay

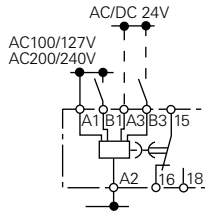
**3RP1505-1A
3RP1525-1A**



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

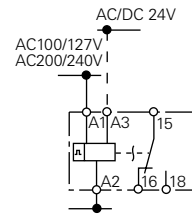


**3. On and Off Delay
With Auxiliary Voltage
3RP1505-1A**



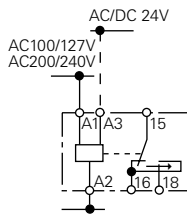
4. Flashing

3RP1505-1A

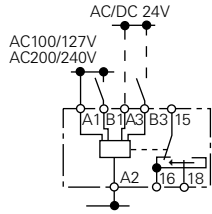


5. Making-Pulse Contact

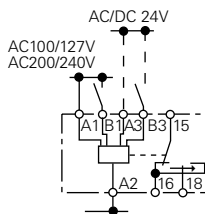
**3RP1505-1A
3RP1525-1A**



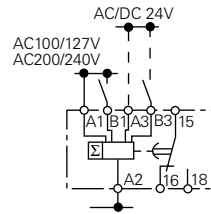
**6. Breaking-Pulse Contact
With Auxiliary Voltage
3RP1505-1A**



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

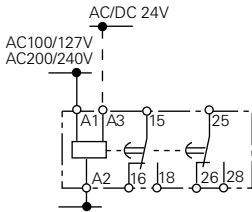


**8. Additive On-Delay With Auxiliary Voltage and Instantaneous Contact
3RP1505-1A**

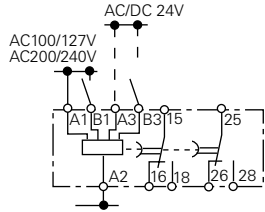


9. On-Delay

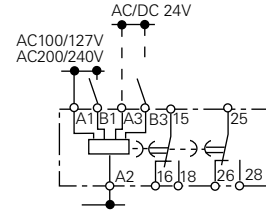
**3RP1505-1B
3RP1525-1B**



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

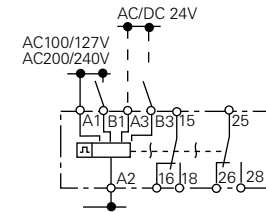


**11. On-and Off-Delay
With Auxiliary Voltage
3RP1505-1B**



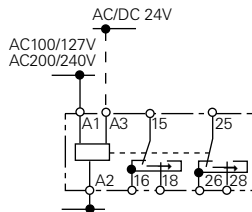
12. Flashing

3RP1505-1B

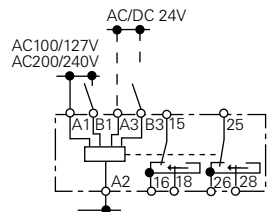


13. Making-Pulse Contact

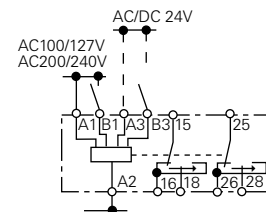
3RP1505-1B



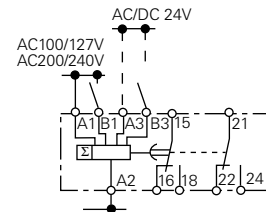
**14. Breaking-Pulse Contact
With Auxiliary Voltage
3RP1505-1B**



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



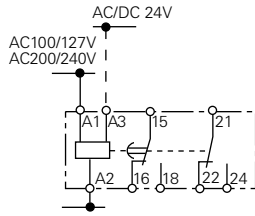
**16. Additive On-Delay With Auxiliary Voltage and Instantaneous Contact
3RP1505-1B**



Wiring Diagrams (continued)

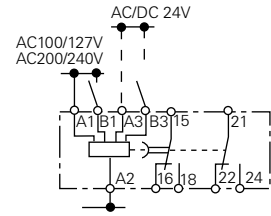
17. On-Delay and Instantaneous Contact

3RP1505-1B



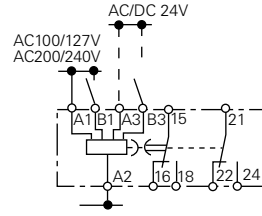
18. Off-Delay With Auxiliary Voltage and Instantaneous Contact

3RP1505-1B



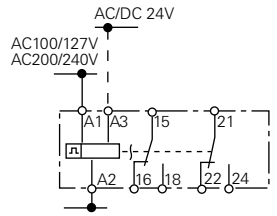
19. On and Off Delay With Auxiliary Voltage and Instantaneous Contact

3RP1505-1B



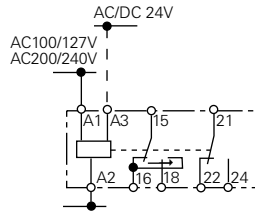
20. Flashing and Instantaneous Contact

3RP1505-1B



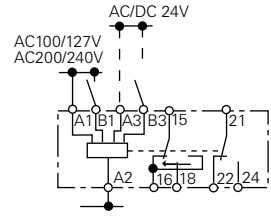
21. Making-Pulse Contact and Instantaneous Contact

3RP1505-1B



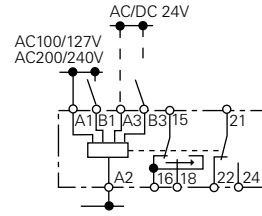
22. Breaking-Pulse Contact With Auxiliary Voltage and Instantaneous Contact

3RP1505-1B



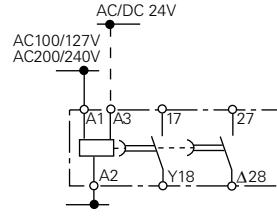
23. Pulse Forming With Auxiliary Voltage and Instantaneous Contact

3RP1505-1B



24. Star-Delta Function

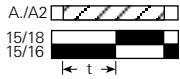
3RP1505-1B



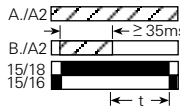
Timing Function Descriptions and Settings

3RP1505-1A

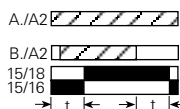
1. On Delay



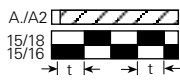
2. Off Delay



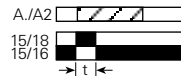
3. On/Off Delay



4. Flasher



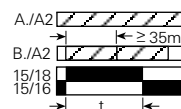
5. Impulse On



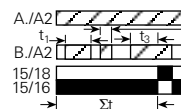
6. Impulse Off



7. Pulse Shaping

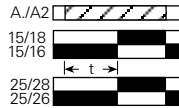


8. Cumulative On Delay

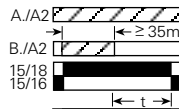


3RP1505-1B

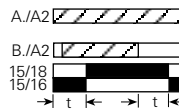
9. On Delay



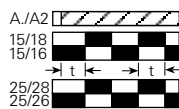
10. Off Delay



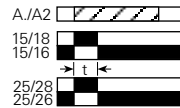
11. On/Off Delay



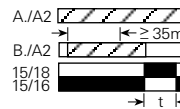
12. Flasher



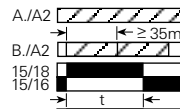
13. Impulse On



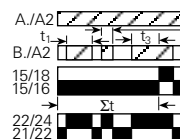
14. Impulse Off



15. Pulse Shaping



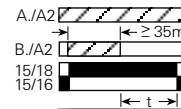
16. Cumulative On Delay



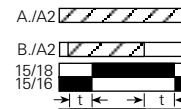
17. On Delay



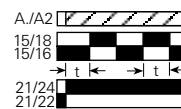
18. Off Delay



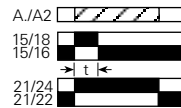
19. On/Off Delay



20. Flasher



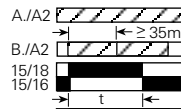
21. Impulse On



22. Impulse Off



23. Pulse Shaping



24. Star/Delta

