

# Flasher - LED Lamps

## FS400 Series

### Solid State Flasher

Flashers



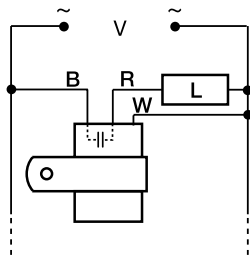
- Low Leakage for LED Lamps
- Fixed Flash Rate at 75 Flashes Per Minute
- Custom Flash Rate 45 ... 150 F.P.M.
- 0.5 or 1 A Solid State Output
- 24 V to 240 V AC in 2 Ranges
- Small Size: 1.5 x 0.94 in. (38 x 23.9 mm)

Approvals:

#### Description

The FS400 Series is a low leakage AC flasher designed to control LED, or resistive loads. This series offers a solid state output and may be ordered with an input voltage of 24 V to 240 V AC, in two ranges. It offers a factory fixed flash rate of 75 flashes per minute or may be ordered with a fixed custom flash rate ranging from 45 to 150 flashes per minute. The FS400 is the perfect solution for LED lamp flashing.

#### Connection



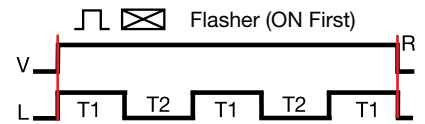
V = Voltage L = Load  
R = Red Wire B = Black Wire  
W = White Wire

#### Operation

Upon application of input voltage, the output energizes and the ON time begins. At the end of the ON time, the output de-energizes and the OFF time begins. At the end of the OFF time, the output energizes and the cycle repeats as long as input voltage is applied.

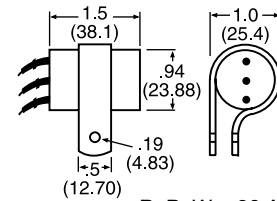
**Reset:** Removing input voltage resets the output and the flash sequence.

#### Function



V = Voltage R = Reset L = Load  
T1 = ON Time T2 = OFF Time T1 ≅ T2  
ON time plus OFF time equals one complete flash.

#### Mechanical View



R, B, W = 20 AWG (0.52 mm<sup>2</sup>) wires  
6 in. (15.2 cm)  
Mounting bracket is removable

#### Ordering Table

Input	Output Rating	Part Number
120 V AC ... 240 V AC	0.5 A	FS491
24 V AC	1 A	FS421

#### Technical Data

##### Operation

Mode of Operation  
Flash Rate  
ON/OFF Ratio  
Custom Flash Rates Available

ON/OFF solid state flasher for continuous duty  
Factory fixed at 75 flashes per minute +/-20%  
≅ 50%  
From 45 ... 150 FPM +/-20%

##### Input

Voltage  
Tolerance  
Frequency

24, or 120 ... 240 V AC  
+/- 15%  
50 ...60 Hz

##### Output

Load Type  
Output  
Maximum Load Rating 120 V AC...240 V AC  
24 V AC  
Max. Load Leakage Current  
Voltage Drop

LED or resistive  
Bridge Rectifier and FET  
0.5 A steady state; 5 A Inrush  
1A steady state; 10 A Inrush  
250 μA  
2 V Typical

##### Mechanical

Mounting  
Package

Surface mount with one #8 (M4 x 0.7) screw  
1.5 x 0.94 in. (38.1 x 23.9 mm)

##### Protection

Surge  
Circuitry

IEEE C62.41 - 1991 Level A  
Encapsulated

##### Environmental

Operating / Storage Temperature  
Humidity  
Weight

-20°C ... +60°C / -40°C ... +85°C  
95% relative, non-condensing  
≅ 1.1 oz (31 g)

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