

Project		Catalog #		Type	
Prepared by		Notes		Date	



# Fifth Light

## FRS-DA

### Field Relay

#### Typical Applications

Office • Education • Healthcare • Hospitality • Retail • Industrial • Manufacturing • Outdoor

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- Product Warranty

#### Product Certification



#### Product Features

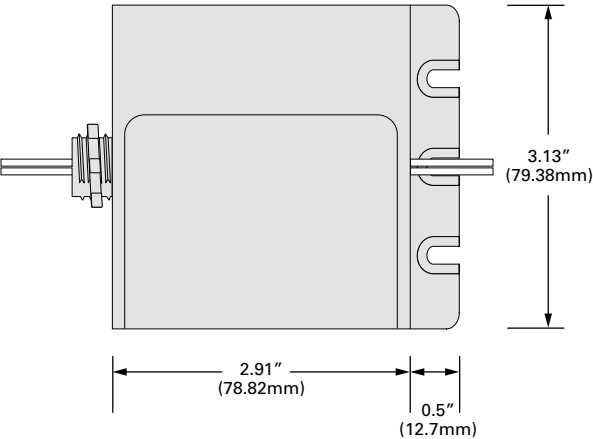


### Top Product Features

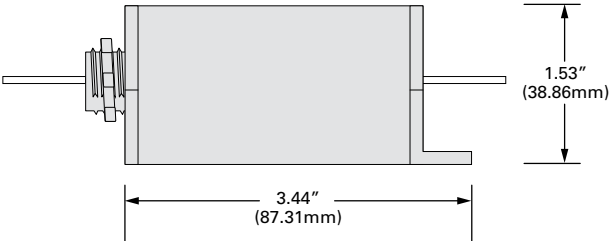
- Provides ON/OFF control of lighting and/or receptacles
- Universal Voltage Input (120V - 347V)
- Rated for lighting and receptacle loads
- UL924 Listed

### Dimensional Details

Top View



Side View



## Order Information

The Field Relay is an accessory to the Fifth Light system and connects to the Fifth Light two-wire communication bus via Fifth Light lighting control panel.

### Catalog Number

Catalog Number	Description	Input Voltage	Current
FRS-DA	Single pole, single throw, 20A latching relay	120/277/347V	20A

## Product Specifications

### Key Features

- Connects to the Fifth Light two-wire communication bus for On/Off control of lighting loads or receptacles
- Universal Voltage Input (120V - 347V)
- Designed with safety in mind, a loss of power on the Fifth Light two-wire communication bus will automatically set the relay to the closed (ON) position
- Rated for lighting and receptacle loads

### Mechanical

**Dimensions:** 1.53"H x 3.13"W x 3.44"L (38.86mm x 79.40mm x 87.38mm)

### Mounting:

- Fixture or junction box 1/2" knockout

### Environment:

- **Temperature:** 32° F to 158° F (0°C to 70°C). For indoor use only.
- **Relative Humidity:** 10% to 90% (non-condensing).

### Electrical

#### Relay Output:

- **Input Voltage:** 120-347 VAC +/- 10%
- **Maximum Load:** 20 Amps
- **Input Frequency:** 50/60 Hz

#### Control Specification:

- **Communication Interface:** Fifth Light two-wire communication bus (topology, polarity free)
- **Current Draw:** 3.75mA
- **Number of cycles before recharge:** 4
- **Charging time:** 20 seconds/cycle
- **Last state upon full depletion:** On

Note: The relay always maintains enough internal energy to allow users to turn the light on.

### Wiring:

- **Relay:** 12 AWG stranded THHN non-polarized pair
- 18 AWG stranded PTFE plenum rated non-polarized pair

Note: The Field Relay is designed for low frequency switching applications, i.e. less than 4 cycles in 2 minutes

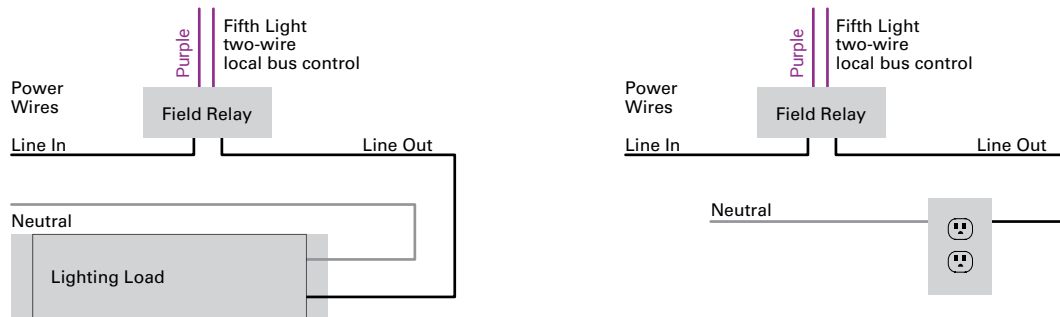
### Standards/Ratings

- cULus Listed - Energy Management Equipment (UL916)
- Manufactured in an ISO 9001 certified factory
- Meets ASHRAE Standard 90.1 requirements
- Meets IECC 2015 requirements
- Meets CEC Title 24 requirements

### Warranty

Five year warranty standard

## Wiring Diagram



Note: Install in accordance with all applicable National and local electrical and building codes.

Note: Specifications subject to change without notice.

## Overview

Cooper Lighting Solutions Field Relay provides ON/OFF control and network connectivity in order to conserve energy and effectively manage the lighting system. The Field Relay uses advanced switching technology specifically designed to handle the large in-rush currents and inductive loads found in lighting applications.

## System Architecture

This diagram illustrates the main components of the Fifth Light system. The DALI wallstations, DALI multi-sensors, DALI field relay, DALI dimming module, DALI DAC and DALI dimmable drivers/ballasts communicate with the Lighting Control Panel over the DALI bus while the touchscreen communicates with the Central Manager via ethernet.

Complete Fifth Light system

