

# 1 LAMP BALLASTS

1 L A M P B A L L A S T

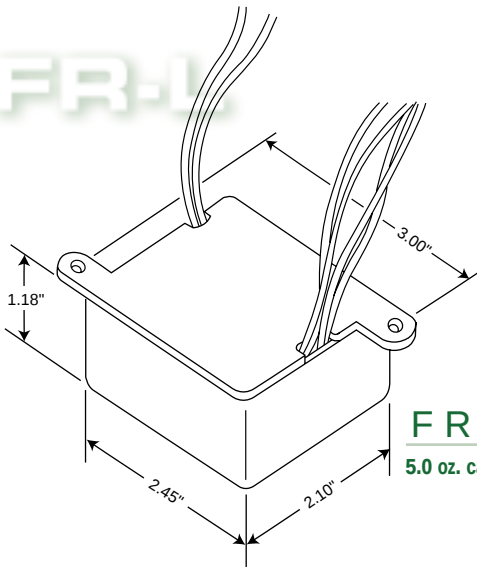
| Watts | GE2D      | GE BIAx                   | OSRAM                                                                    | PHILIPS                                | No. Lamps | Input Volts | Input Amps | Case Style | Hatch Item Number |
|-------|-----------|---------------------------|--------------------------------------------------------------------------|----------------------------------------|-----------|-------------|------------|------------|-------------------|
| 10    | F10/2D/4P | F10DBX                    | CF10DD/E<br>DULUX D/E 10                                                 |                                        | 1         | 120         | 0.11       | FR-LH      | FR1000LH          |
|       |           |                           |                                                                          |                                        |           |             |            | FR-L       | FR1000L           |
|       |           |                           |                                                                          |                                        |           | 230         | 0.06       | FR-LH      | FR1000-230        |
|       |           |                           |                                                                          |                                        |           | 277         | 0.05       | FR-LH      | FR1000-277        |
|       |           |                           |                                                                          |                                        |           |             |            | FR-L       | FR1000-277L       |
| 13    |           | F13DBX<br>F13TBX          | CF13DD/E<br>DULUX D/E 13                                                 | PL-C 13W/4P                            | 1         | 120         | 0.13       | FR-LH      | FR1300LH          |
|       |           |                           |                                                                          |                                        |           |             |            | FR-L       | FR1300L           |
|       |           |                           |                                                                          |                                        |           | 230         | 0.07       | FR-LH      | FR1300-230        |
|       |           |                           |                                                                          |                                        |           | 277         | 0.06       | FR-LH      | FR1300-277        |
|       |           |                           |                                                                          |                                        |           |             |            | FR-L       | FR1300-277L       |
| 18    | F16/2D/4P | F18BX<br>F18DBX<br>F18TBX | CF18DD/E<br>CF18DT/E/IN<br>DULUX L 18<br>DULUX D/E 18<br>DULUX T/E/IN18  | PL-C 18W/4P<br>PL-T 18W/4P<br>PL-L 18W | 1         | 120         | 0.15       | FR-LH      | FR1800LH          |
|       |           |                           |                                                                          |                                        |           |             |            | FR-L       | FR1800L           |
|       |           |                           |                                                                          |                                        |           | 230         | 0.08       | FR-LH      | FR1800-230        |
|       |           |                           |                                                                          |                                        |           | 277         | 0.07       | FR-LH      | FR1800-277        |
|       |           |                           |                                                                          |                                        |           |             |            | FR-L       | FR1800-277L       |
| 21    | F21/2D/4P |                           |                                                                          |                                        | 1         | 120         | 0.17       | FR-LH      | FR2100LH          |
|       |           |                           |                                                                          |                                        |           |             |            | FR-L       | FR2100L           |
|       |           |                           |                                                                          |                                        |           | 230         | 0.10       | FR-LH      | FR2100-230        |
|       |           |                           |                                                                          |                                        |           | 277         | 0.08       | FR-LH      | FR2100-277        |
|       |           |                           |                                                                          |                                        |           |             |            | FR-L       | FR2100-277L       |
| 26    | F28/2D/4P | F27BX<br>F26DBX<br>F26TBX | CF26DD/E<br>CF26DT/E/IN<br>DULUX L 24<br>DULUX D/E 26<br>DULUX T/E/IN 26 | PL-C 26W/4P<br>PL-T 26W/4P<br>PL-L 24W | 1         | 120         | 0.21       | FR-LH      | FR2600LH          |
|       |           |                           |                                                                          |                                        |           |             |            | FR-L       | FR2600L           |
|       |           |                           |                                                                          |                                        |           | 230         | 0.11       | FR-LH      | FR2600-230        |
|       |           |                           |                                                                          |                                        |           | 277         | 0.10       | FR-LH      | FR2600-277        |
|       |           |                           |                                                                          |                                        |           |             |            | FR-L       | FR2600-277L       |
| 32    |           | F32TBX                    | CF32DT/E/IN<br>DULUX T/E/IN 32                                           | PL-T 32W/4P                            | 1         | 120         | 0.26       | FR-LH      | FR3200LH          |
|       |           |                           |                                                                          |                                        |           |             |            | FR-L       | FR3200L           |
|       |           |                           |                                                                          |                                        |           | 230         | 0.14       | FR-LH      | FR3200-230        |
|       |           |                           |                                                                          |                                        |           | 277         | 0.12       | FR-LH      | FR3200-277        |
|       |           |                           |                                                                          |                                        |           |             |            | FR-L       | FR3200-277L       |
| 38    | F38/2D/4P | F39BX                     | FT36 DL<br>DULUX L-36                                                    | PL-L 36W                               | 1         | 120         | 0.31       | FR-LH      | FR3200LH          |
|       |           |                           |                                                                          |                                        |           | 230         | 0.16       | FR-LH      | FR3200-230        |
|       |           |                           |                                                                          |                                        |           | 277         | 0.14       | FR-LH      | FR3200-277        |
| 42    |           | F42TBX<br>F42QBX          | CF42DT/E/IN<br>DULUX T/E/IN 42                                           | PL-T 42W/4P                            | 1         | 120         | 0.36       | FR-LH      | FR4200LH          |
|       |           |                           |                                                                          |                                        |           | 230         | 0.19       | FR-LH      | FR4200-230        |
|       |           |                           |                                                                          |                                        |           | 277         | 0.17       | FR-LH      | FR4200-277        |

**HATCH**

# CASE STYLES

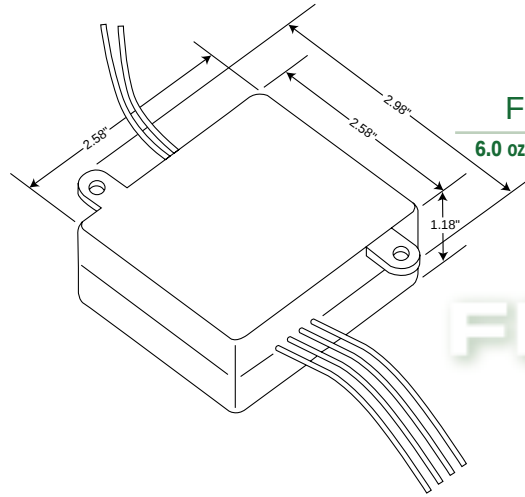
## C A S E S T Y L E S

FR-L



FR-L

5.0 oz. case weight

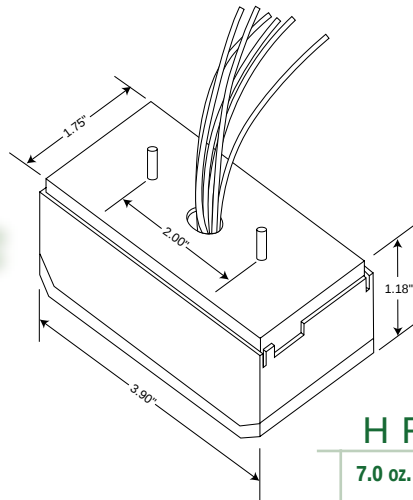


FR-LH

6.0 oz. case weight

FR-LH

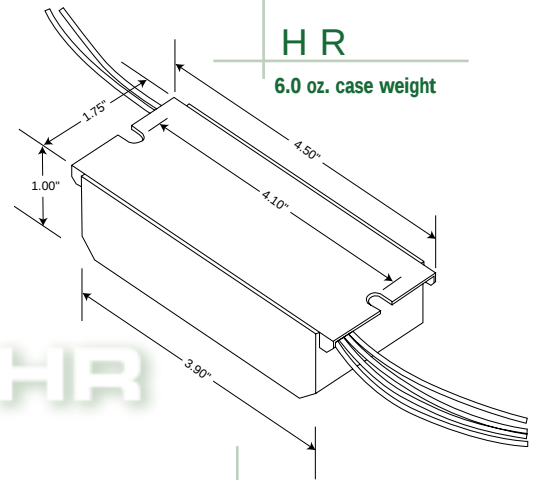
HR-BF



HR

6.0 oz. case weight

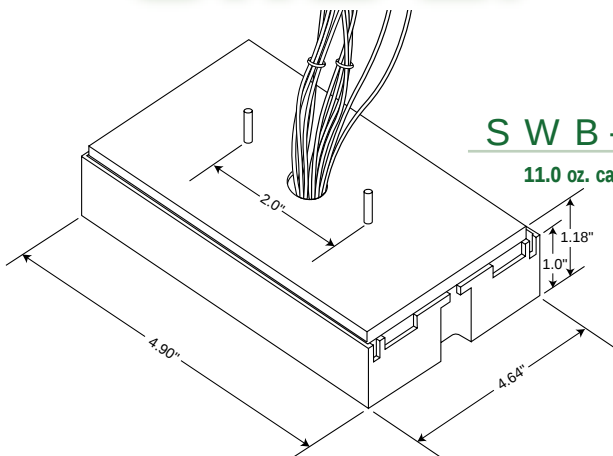
HR



HR-BF

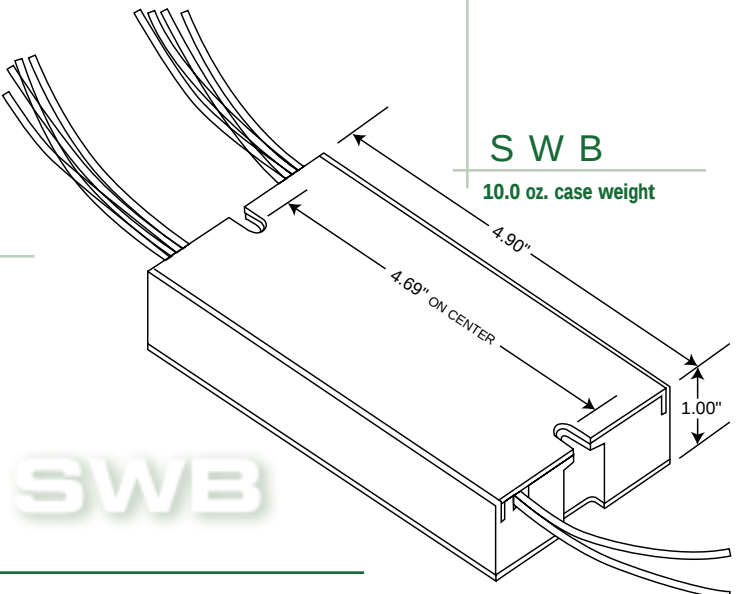
7.0 oz. case weight

SWB-BF



SWB-BF

11.0 oz. case weight



SWB

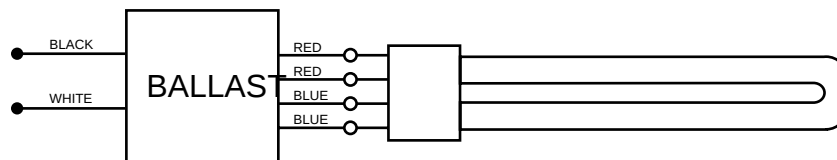
10.0 oz. case weight

SWB

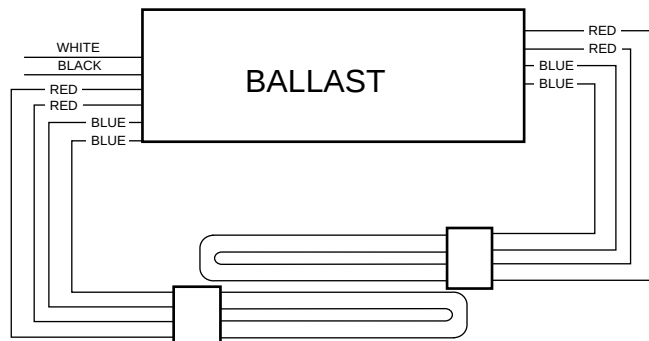
# WIRING DIAGRAMS

W I R I N G   D I A G R A M S

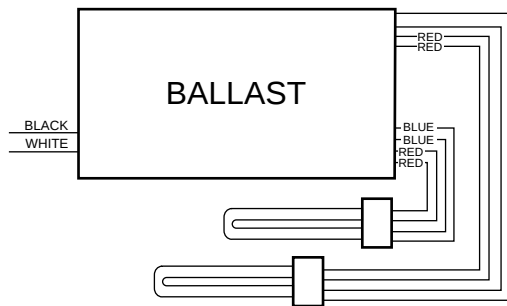
**DIAGRAM A**



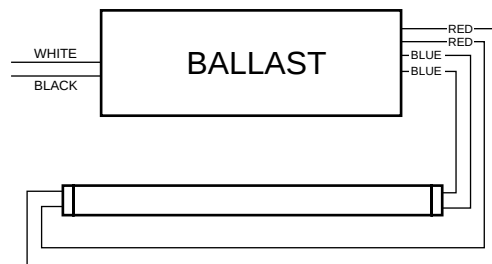
**DIAGRAM B**



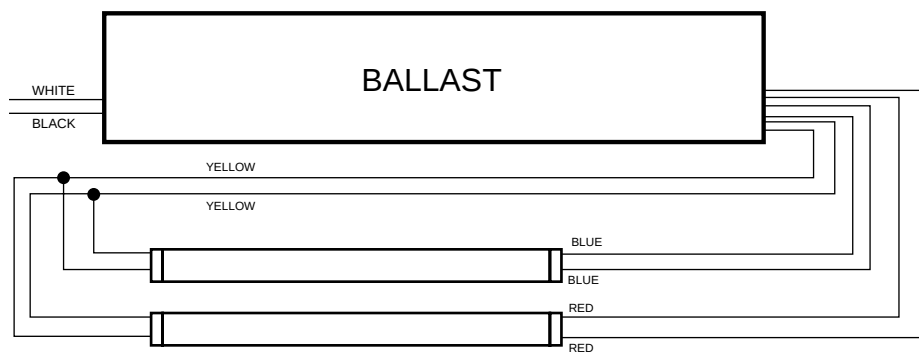
**DIAGRAM C**



**DIAGRAM D**



**DIAGRAM E**



## Compact Fluorescent Hardwire Ballast Features:

- Auto Restart After Hot Relamp
- Deactive Lamp Protection Circuit
- Flicker Free Operation
- High Power Factor
- Low THD
- 100% Factory Tested
- High Reliability
- No Audible Noise
- True Preheat Starting
- No Starting Aid Required
- Energy Efficient
- High Frequency Operation
- Solid State
- Moisture and Shock Resistant
- No PCBs
- Bottom Feed Models Available

## Environmental Specifications

|                                     |                                                                     |
|-------------------------------------|---------------------------------------------------------------------|
| <b>Maximum Case Temperature</b>     | 80°C at "T" point                                                   |
| <b>Minimum Starting Temperature</b> | -25°C                                                               |
| <b>Sound Rating</b>                 | A+                                                                  |
| <b>Operating Humidity</b>           | 95% relative humidity, non-condensating                             |
| <b>Environmental Protection</b>     | Epoxy Sealed for moisture resistance and shock vibration resistance |
| <b>Safety Listing</b>               | UL Listed, C-UL, Class P<br>Type 1 outdoor                          |

## Electrical/Mechanical Specifications

|                                            |                                                                     |
|--------------------------------------------|---------------------------------------------------------------------|
| <b>Color</b> .....                         | White                                                               |
| <b>Weight</b> .....                        | See Case Styles                                                     |
| <b>Operating Frequency</b> .....           | 50 KHz +                                                            |
| <b>Power Factor</b> .....                  | ≥ 0.99                                                              |
| <b>Total Harmonic Distortion</b> .....     | 5-13% depending<br>.....on lamp/ballast<br>.....combination         |
| <b>Deactive Lamp Protection</b> ....       | Yes                                                                 |
| <b>Auto Restart After Hot Relamp</b> ..... | Yes                                                                 |
| <b>Input Voltage</b> .....                 | 120V 50/60 Hz<br>.....230V 50 Hz (special order)<br>.....277V 60 Hz |

|                                                                                                                   |       |
|-------------------------------------------------------------------------------------------------------------------|-------|
| <b>Current Crest Factor</b> .....                                                                                 | ≤ 1.7 |
| <b>Open Circuit Protected</b> .....                                                                               | Yes   |
| <b>RFI Suppression</b> .....                                                                                      | Yes   |
| <b>Input Leads</b> 10 <sup>5</sup> / <sub>8</sub> " 18 AWG solid 105<br>.....degree C stripped 3/ <sub>8</sub> "  |       |
| <b>Output Leads</b> 10 <sup>5</sup> / <sub>8</sub> " 18 AWG solid 105<br>.....degree C stripped 3/ <sub>8</sub> " |       |

**Meets ANSI 15 C62.41, ANSI C82.1  
CLASS P**

Built with two threaded studs, 2" on center and bottom center feed wiring, for easily replacing magnetic ballasts.



**HATCH**  
**TRANSFORMERS, INC.**

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