# TR3 LED Transit Colorlight Signal Modules

5.5 inch (140 mm)



- Meets AREMA standards for Safety Assurance (Manual Part 17.3.1)
- Meets SIL-4 Safety classification (92-series only)
- Compatible with most microprocessor controllers with light-out-detection capability (92-series only)
- Self-contained design provides protection against moisture and dust

## **Excellent Appearance & Visibility**

- · Robust LED system design enables high luminous intensity over long product life
- · Efficient optical system delivers uniform color
- Sloped front shell reduces reflections
- Optional frosted shell available for tunnel applications

# **Meets Rigorous Certification & Testing Standards**

- Meets AREMA standards
- All lamps undergo comprehensive testing in the manufacturing plant



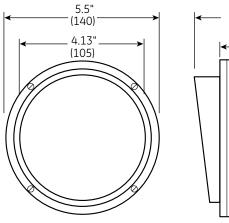


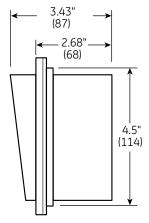
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Dimensions in inches. (mm) indicates metric equivalen

#### **Mechanical Outline**





## **Design Compliance**

| Characteristic              | Compliance                   |  |  |  |
|-----------------------------|------------------------------|--|--|--|
| Environmental Limits        | AREMA Part 11.5.1 – Class B  |  |  |  |
| Dielectric Requirement      | AREMA Part 1.4.1             |  |  |  |
| Electrical Surge Protection | AREMA Part 11.2.1 – Tertiary |  |  |  |
| Safety Assurance            | AREMA Part 17.3.1            |  |  |  |
|                             |                              |  |  |  |

# **Operating Specifications**

| Parameter              | Rating                       |                                |  |  |  |
|------------------------|------------------------------|--------------------------------|--|--|--|
|                        | 120V                         | 10V                            |  |  |  |
| Operating Temperature  | -40 to +70°C (-40 to +158°F) |                                |  |  |  |
| Operating Voltage      | 85 to 135 V AC               | 8 to 16 V AC<br>8.2 to 20 V DC |  |  |  |
| Voltage Turn-Off (VTO) | 45 V AC                      | 5.3 V AC<br>7.3 V DC           |  |  |  |
| Power Surge            | 360 Vrms for 80 ms           | 45 Vrms for 80 ms              |  |  |  |

#### **Product Information**

| Model                               | Dominant                        | Nominal Power (W) |      |                                 | Peak                           | Field Angles               |  |  |
|-------------------------------------|---------------------------------|-------------------|------|---------------------------------|--------------------------------|----------------------------|--|--|
| Number                              | Wavelength <sup>1</sup><br>(nm) | 120V              | 10 V | 10V for Light-<br>Out Detection | Intensity <sup>1</sup><br>(cd) | (10% of peak<br>Intensity) |  |  |
| Short Range and Tunnel Applications |                                 |                   |      |                                 |                                |                            |  |  |
| TR3-RFFB-301 (A or B)*              | 627                             | 4                 | 5    | n/a                             | 65                             | 43°                        |  |  |
| TR3-YFFB-301 (A or B)               | 592                             | 4                 | 5    | n/a                             | 45                             | 47°                        |  |  |
| TR3-GFFB-301 (A or B)               | 500                             | 4                 | 4    | n/a                             | 65                             | 47°                        |  |  |
| TR3-WFFB-301 (A or B)               | -                               | 4                 | 4    | n/a                             | 100                            | 34°                        |  |  |
| Mid-Range and Outdoor Applica       | ations                          |                   |      |                                 |                                |                            |  |  |
| TR3-RCFB-501 (A or B)               | 632                             | 7                 | 8    | 16                              | 240                            | 15°                        |  |  |
| TR3-YCFB-501 (A or B)               | 594                             | 7                 | 8    | 16                              | 320                            | 16°                        |  |  |
| TR3-GCFB-501 (A or B)               | 500                             | 8                 | 9    | 14                              | 240                            | 22°                        |  |  |
| TR3-WCFB-501 (A or B)               | -                               | 7.5               | 9    | 15                              | 240                            | 41°                        |  |  |

<sup>\*</sup>Must indicate voltage using suffix: A (120) or B (10V).

#### Options

-92: Light-out detection device for 10 V DC microprocessor-based control systems. Available on 501B models only.





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 $<sup>^{1}</sup>$  This is a minimum initial value at T = 25°C.