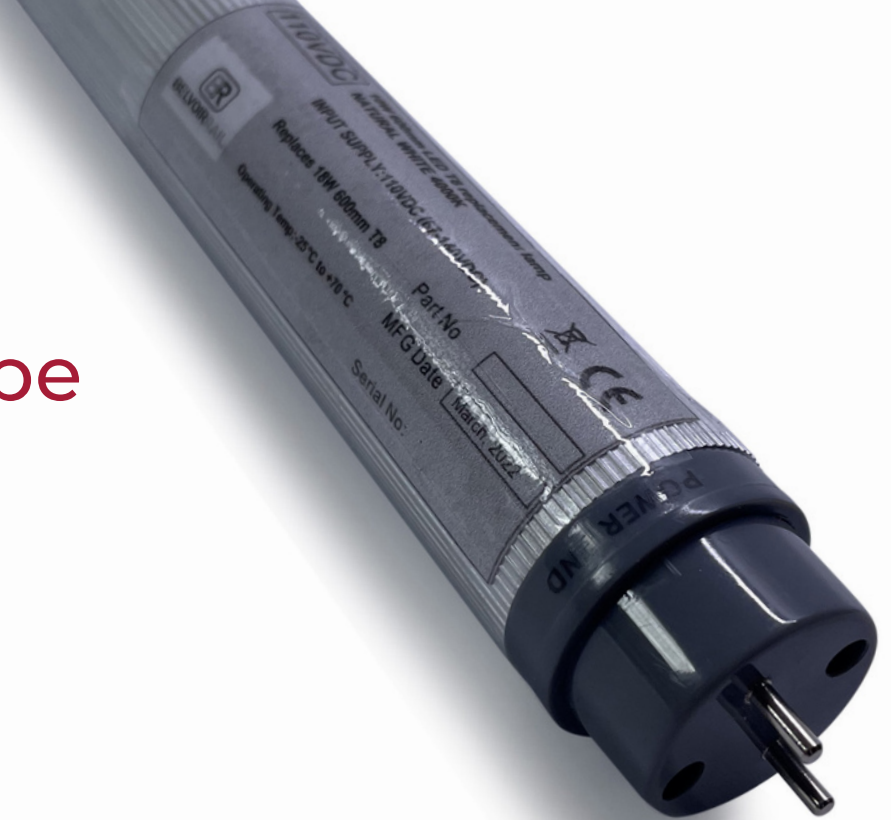




BELVOIRRAIL

T8 LED Tube



Product Overview

- Rolling Stock Compliant
- 600mm, 900mm, 1200mm, 1500mm, 1800mm
- High reliability LED and driver technology
- Built in drive electronics for direct connection to power source
- Significant energy savings
- Maintenance free
- Flicker free lighting with instant start
- No mercury content, environmentally friendly

Safety Specifications

- DC input voltage reversal (non-destructive)
- Input transient protection
- Under voltage protection
- Built in multiple LED circuit redundancy
- Protected against power supply interruptions

Technical Overview

| T5 Train Tube | |
|---|------------------------|
| Input Voltage Range | 24VDC - 110VDC -230VAC |
| Input Current at Nominal Supply | 1184mA ±5% 395mA ±5% |
| Input Power at Nominal Supply | As per table |
| Line Regulation (Percentage Illuminance change oversupply range 16.8-34VDC) | ±5% |
| CRI | >80 |
| Beam Angle | 180° |
| Operating Temperature Range | -25 to 55°C |
| Storage Temperature Range | -25 to 55°C |
| Operating Humidity Range | 10%-80% |
| Lumen Maintenance (time to 70% of the initial light output) | 65,000 hours |
| MTBF MIL-HDBK-217F (40°C) (hrs) | 100,000 hours |
| Sealing Rating | IP40 |
| Switch Cycles | >100,000 (UIC555) |
| Connector | G13 |

Electronic Specifications

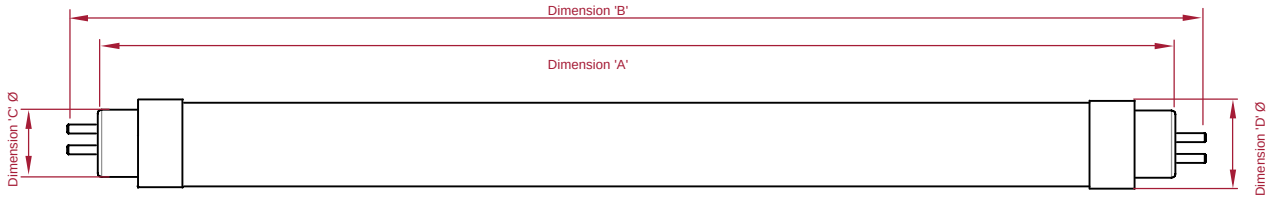
| | | | | | |
|---------------------------------|------------------|------------------|------------------|------------------|------------------|
| 24 VDC T8 Train Tube | 600 mm 24VDC | 900 mm 24VDC | 1200 mm 24VDC | 1500 mm 24VDC | 1800 mm 24VDC |
| Input Power at Nominal Supply | 10W | 15W | 20W | 25W | 30W |
| Input Voltage Range | 16.8 - 32VDC ±2% | 16.8 - 32VDC ±2% | 16.8 - 32VDC ±2% | 16.8 - 32VDC ±2% | 16.8 - 32VDC ±2% |
| Input Current at Nominal Supply | 395 mA | 592 mA | 790 mA | 988 mA | 1184 mA |
| Line Regulation | ±5% | | | | |

| | | | | | |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 110 VDC T8 Train Tube | 600 mm 110VDC | 900 mm 110VDC | 1200 mm 110VDC | 1500 mm 110VDC | 1800mm 110VDC |
| Input Power at Nominal Supply | 10W | 15W | 20W | 25W | 30W |
| Input Voltage Range | 67 - 140VDC ±2% | 67 - 140VDC ±2% | 67 - 140VDC ±2% | 67 - 140VDC ±2% | 67 - 140VDC ±2% |
| Input Current at Nominal Supply | 91 mA | 136 mA | 180 mA | 210 mA | 272 mA |
| Line Regulation | ±5% | | | | |

| | | | | | |
|---------------------------------|------------------|------------------|------------------|------------------|------------------|
| 230 VAC T8 Train Tube | 600 mm 230VAC | 900 mm 230VAC | 1200 mm 230VAC | 1500 mm 230VAC | 1800 mm 230VAC |
| Input Power at Nominal Supply | 10W | 15W | 20W | 25W | 30W |
| Input Voltage Range | 160 - 265VAC ±2% | 160 - 265VAC ±2% | 160 - 265VAC ±2% | 160 - 265VAC ±2% | 160 - 265VAC ±2% |
| Input Current at Nominal Supply | 395 mA | 592 mA | 790 mA | 988 mA | 1184 mA |
| Line Regulation | ±5% | | | | |

Light Technical Data

| | | | | | |
|--|---|---------|---------|---------|---------|
| T8 Train Tube | 600 mm | 900 mm | 1200 mm | 1500 mm | 1800mm |
| Nominal luminous Flux | 1250 LM | 1875 LM | 2500 LM | 3125 LM | 3750 LM |
| Colour Temperature | 3000K ±150K / 4000K ±150K / 5000K ±150K / 6000K ±150K | | | | |
| CRI | >80 | | | | |
| Beam Angle | 180° | | | | |
| Lumen Maintenance (time to 70% of the initial light output) | 65,000 hours | | | | |
| MTBF MIL-HDBK-217F (40°C) (hrs) | 100,000 hours | | | | |
| Switch Cycles | >100,000 (UIC555) | | | | |
| Weight | 258 g | 516 g | 580 g | 645 g | 774 g |
| Connector | G13 Compliant with EL60081 | | | | |
| Operating Temperature Range | -25 to 55°C | | | | |
| Storage Temperature Range | -25 to 55°C | | | | |
| IP rating | IP40 | | | | |



| Unit Dimensions | | | | | |
|-----------------|----------|----------|--------|------|--------|
| | A | B | C | D | E |
| 600mm | 589.8mm | 604mm | 25.4mm | 30mm | 12.5mm |
| 900mm | 894.6mm | 903.8mm | 25.4mm | 30mm | 12.5mm |
| 1200mm | 1199.4mm | 1213.6mm | 25.4mm | 30mm | 12.5mm |
| 1500mm | 1500mm | 1514.2mm | 25.4mm | 30mm | 12.5mm |
| 1800mm | 1763.8mm | 1778mm | 25.4mm | 30mm | 12.5mm |

Certificates

| | |
|--------------------------|---|
| EN61373:2010 | Rolling stock equipment. Shock and vibration |
| EN50121-3-2:2015 | Rolling stock equipment. Electromagnetic compatibility |
| EN50155:2007 | Electronic equipment used on rolling stock |
| BRB/LUL RIA12 | Surge and transient requirements |
| EN45545 | Fire protection on railway vehicles |
| EN620331 with EN62471 | Photobiological Safety of lamps |
| ROHS | Restriction of Hazardous Substances |

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