



**BELVOIRRAIL**

# T5 LED Tube



## Product Overview

- Rolling Stock Compliant
- 563mm, 863mm, 1163mm, 1463mm
- 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
Input Current at Nominal Supply	1004mA ±5% 583mA ±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	G5.3

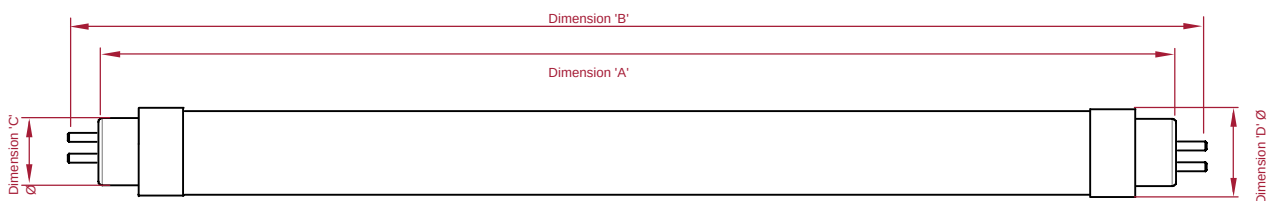
## Electronic Specifications

24 VDC T5 Train Tube	563 mm 24VDC	863 mm 24VDC	1163 mm 24VDC	1463mm 24VDC
Input Power at Nominal Supply	10W	15W	20W	25W
Input Voltage Range	16.8 - 32VDC $\pm$ 2%	16.8 - 32VDC $\pm$ 2%	16.8 - 32VDC $\pm$ 2%	16.8 - 32VDC $\pm$ 2%
Input Current at Nominal Supply	410 mA	620 mA	830 mA	1040 mA
Line Regulation	$\pm$ 5%			

110 VDC T5 Train Tube	563 mm 110VDC	863mm 110VDC	1163 mm 110VDC	1463 mm 110VDC
Input Power at Nominal Supply	10W	15W	20W	25W
Input Voltage Range	67 - 140VDC $\pm$ 2%	67 - 140VDC $\pm$ 2%	67 - 140VDC $\pm$ 2%	67 - 140VDC $\pm$ 2%
Input Current at Nominal Supply	90 mA	135 mA	180 mA	220 mA
Line Regulation	$\pm$ 5%			

## Light Technical Data

T5 Train Tube	563 mm	863 mm	1163 mm	1463 mm
Nominal luminous Flux	1200 LM	1800 LM	2400 LM	3000 LM
Colour Temperature	3000K $\pm$ 150K / 4000K $\pm$ 150K / 5000K $\pm$ 150K / 6000K $\pm$ 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	210 g	315 g	420 g	520 g
Connector	G5.3 Compliant with EL60081			
Operating Temperature Range	-25 to 55°C			
Storage Temperature Range	-25 to 55°C			
IP rating	IP40			



Item	A	B	C	D
600mm 10W T5 Tube	517mm	531mm	16mm	23mm
900mm 15W T5 Tube	849mm	863mm	16mm	23mm
1200mm 20W T5 Tube	1150mm	1164mm	16mm	23mm
1500mm 25W T5 Tube	1449mm	1465mm	16mm	23mm

## 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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