

OSRAM SubstiTUBE® Double End HO T8



Highlights

- Replacement of traditional T8 tube with G13 base
- High luminous flux for sophisticated lighting tasks
- No bending thanks to glass technology

Application Areas:

- Train Station
- Office
- Underground subway
- Supermarket, retail store
- Parking lot
- Warehouse

Advancing Light

One of the World's leaders in general lighting for lighting professionals as well as end users



A broad variety of LED luminaires



Advanced LED lamps



Intelligent, networked Smart Home & Smart Building solutions



Traditional light sources

Product Specifications

SubstiTUBE® Double End HO T8



Key product features:

- Double end wiring, easy and simply installation
- High color rendition (Ra≥80) with excellent color fidelity for a true lighting effect
- Mercury free
- High quality consistency thanks to automatic production
- High efficiency, up to 50% energy savings compared to conventional fluorescent lamps

Electrical and photometric data¹

	Voltage [V]	Power [W]	Lumen Flux [lm]	CRI (Ra)	CCT [K]	Base
ST8DE-0.6M 10W/830	220-240 VAC	10	1000	≥80	3000	G13
ST8DE-0.6M 10W/840	220-240 VAC	10	1100	≥80	4000	G13
ST8DE-0.6M 10W/865	220-240 VAC	10	1100	≥80	6500	G13
ST8DE-1.2M 20W/830	220-240 VAC	20	2000	≥80	3000	G13
ST8DE-1.2M 20W/840	220-240 VAC	20	2200	≥80	4000	G13
ST8DE-1.2M 20W/865	220-240 VAC	20	2200	≥80	6500	G13

Common Characteristics

Lifetime @L70B50 (hrs) ¹	Color Rendering Index	SDCM	Beam Angle	Operating Temp.(°C)
15,000	≥ 80	≤6	>160°	-20 ~ +45
Start up time (s)	Tube material	Weight (g)	PF	Dimming
< 0.5	glass	<500	>0.5	Non-DIM

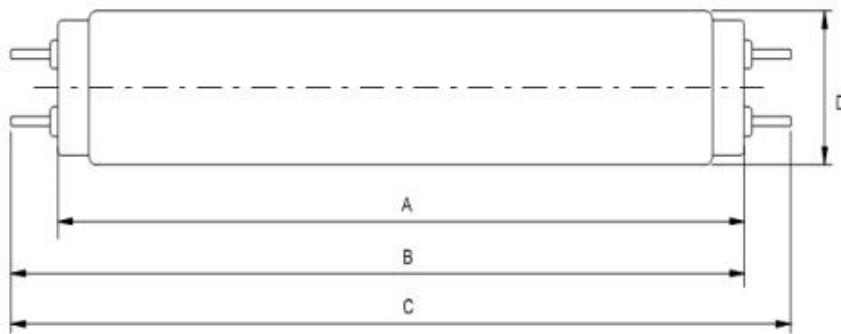
1. Typical values. All the technical parameters apply to the entire lamp. In view of the complex manufacturing process for light emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual product may vary from the typical values. For parameter of Lumen and Watt, production control tolerance with ±10% in delivery.
2. L70B50 is the average operating life of the LED Lamp during which the luminous flux is greater than or equal to 70% of the initial luminous flux, for 50% of the population. The lifetime is estimated at room temperature (25deg C), free air burning, base up position.

Minimum/Maximum rating

Models	Ambient temp. T_a	Storage temp. T_s	Maximum temp. T_{c1}
ST8DE-0.6M 10W HO	-20 ... 45° C	-20° ... 80° C	<75° C
ST8DE-1.2M 20W HO	-20 ... 45° C	-20° ... 80° C	<75° C

Mechanical Specifications

Models	A (mm)	B (mm)	C (mm)	D (mm)	Net Weight (g)
ST8DE-0.6M 10W HO	≤589.8	≤596.9	≤604	≤28	<500
ST8DE-1.2M 20W HO	≤1199.4	≤1206.5	≤1213.6	≤28	<500



- The T_c is defined as the highest permissible temperature which may occur on the outer surface of the LED lamp (in the indicated position) under normal operating conditions and at the rated voltage/current/power or the maximum of the rated voltage/current/power range (DIN EN 62031: 2009-01)



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Safety and Application notes

- The SubstiTUBE® Double End HO T8 must not be damaged or operated in a damaged condition.
- Operating notice



Lamp not suitable for emergency operation



Lamp suitable for 50Hz or 60Hz operation



Dimming not allowed



Lamp to be used in dry conditions or in a luminaire that provides protection

- **Do not use SubstiTUBE® Double End HO T8 in ECG luminaire !**
- **Do not use SubstiTUBE® Double End HO T8 in CCG luminaire !**
- Not suitable for luminaires with serial lamp connection i.e. more than one tube at one magnetic ballast.
- SubstiTUBE® Double End HO T8 **can be operated in AC 220V-240V**. In order to grant a safe operation mode please refer to the installation instructions for further information
- SubstiTUBE® Double End HO T8 emits light only with a limited angle, not like a fluorescent tube with 360° output.
- Due to the characteristic light distribution of the SubstiTUBE® Double End HO T8, the resulting luminaire light characteristic is likely to change. It is not guaranteed that e.g. standards for lighting at working places will be complied to after replacement. A photometric check of the installation is recommended.
- The effective energy savings depend on the efficiency of the luminaire setup to be replaced and should be considered individually in each case.
- The SubstiTUBE® Double End HO T8 is protected according to IP20. Applications with external risk of moisture and dust can be served with an adequately protected luminaire.
- SubstiTUBE® Double End HO T8 differ in their diameters and geometries from fluorescent lamps. Their use in open batten luminaires with gaskets is possible if no excessive force is expended during the fixing. Obtaining the necessary IP protection in open batten luminaires with gaskets cannot be ensured.
- This lamp may not be suitable for use in all applications where a traditional fluorescent lamp has been used. The temperature range of this lamp is more restricted. In cases of doubt regarding the suitability of the application the manufacturer of this lamp should be consulted.
- **Warning: Be sure to cut off the power supply when installing and replacing products.**



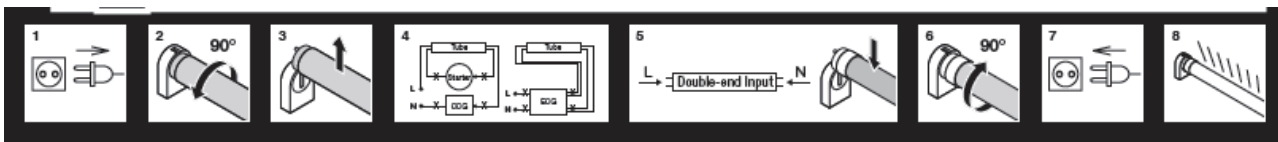
Installation Guide

1) Installation directly on line voltage

SubstiTUBE® Double End HO T8 is driven directly on line voltage with **double end input**. In order to grant a safe operation mode please refer to the installation instructions for further information. Installation must be done by qualified Electricians and all security described should be strictly followed.

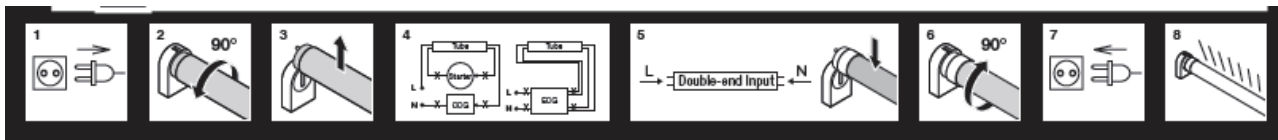
Installation of a double-end LED T8 luminaire with SubstiTUBE® Double End HO T8

SubstiTUBE® Double End HO T8 can be used directly to replace the LED T8 in a double-end LED T8 luminaire.



2) Installation of an ECG or CCG luminaire with SubstiTUBE® Double End HO T8

SubstiTUBE® Double End HO T8 is not for use with ECG (electronic control gear) or CCG (conventional control gear). Rewiring of the luminaire is necessary for replacing fluorescent tube by SubstiTUBE® Double End HO T8 in ECG or CCG luminaires. Installation must be done by qualified Electricians and all security described should be strictly followed.



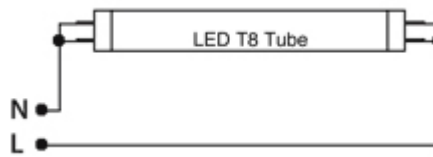
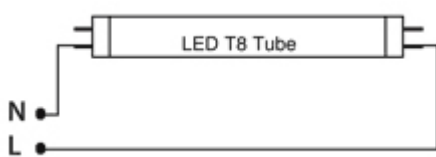
Installation Guide

Installation Instructions for SubstiTUBE® Double End HO T8 Alternative

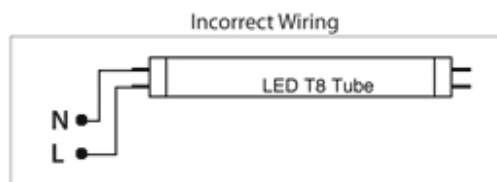
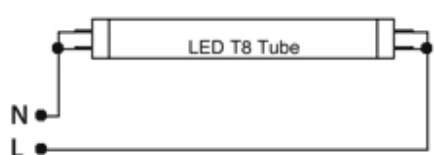
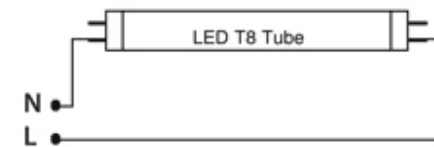
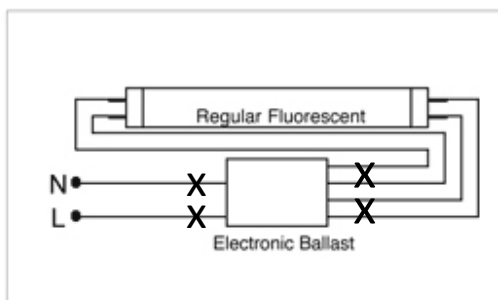
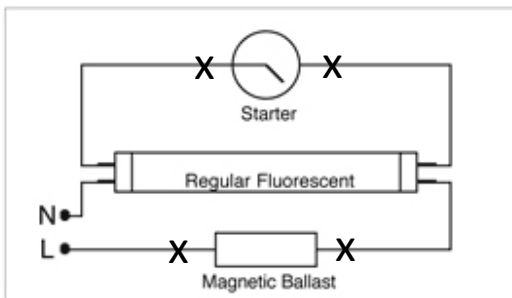
Connect both line (L) and neutral (N) power to lamp holder on both side as below diagram.

Installation must be done by qualified Electricians and all security described should be strictly followed.

a) New installation or replace in double-end LED T8 luminaire



b) Magnetic or Electronic Ballast luminaire





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Ordering Guide

Product	EAN-10*	EAN-40**	S-Unit***
ST8DE-0.6M 10W/830 230V ACG1325X1APOS RAM	4099854722806	4099854722813	25x1
ST8DE-0.6M 10W/840 230V ACG1325X1APOS RAM	4099854722820	4099854722837	25x1
ST8DE-0.6M 10W/865 230V ACG1325X1APOS RAM	4099854722844	4099854722851	25x1
ST8DE-1.2M 20W/830 230V ACG1325X1APOS RAM	4099854722868	4099854722875	25x1
ST8DE-1.2M 20W/840 230V ACG1325X1APOS RAM	4099854722882	4099854722899	25x1
ST8DE-1.2M 20W/865 230V ACG1325X1APOS RAM	4099854722905	4099854722912	25x1

* EAN-10: ordering code for single unit

** EAN-40: ordering code for shipping unit

*** S-Unit: Lamps per shipping unit

Sales and Technical Support

Sales and technical support is given by the local LEDVANCE subsidiaries.

On our worldwide homepage all LEDVANCE subsidiaries are listed with complete address and phone numbers.

www.ledvance.com

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