

# TCS (Tunnel Control System)

## TSL-SC-RTL-TCS

Control cabinet solution with application software for dimming luminaires

Data sheet  
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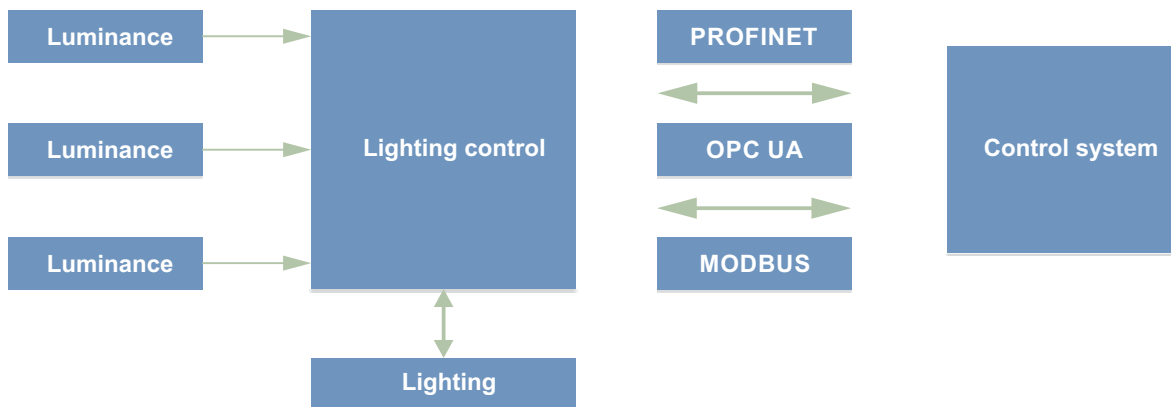
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### Description

The switchgear and controlgear assemblies can be used to implement complex lighting applications, e.g. building or tunnel lighting. Their basic function is the coordinated dimming of luminaires based on analog sensor measured values. In addition, diagnostic data can be read. Up to four luminance sensors can be connected per TLA. The luminaire groups are connected to the TLA via up to 240 Lumgates. Lumgates are luminaire controllers that dim the connected luminaires via a voltage signal ranging from 0 to 10 V and also measure the current consumption of the luminaires for diagnostic purposes. The Lumgates are connected to the TLA via a fieldbus.

### Features

- NIS compliant (IEC 62443)
- Virtualization / BIM ready
- OPC UA embedded
- Enhanced lighting features (Lseq, speed adaption)
- Web-based parameterization
- Industry 4.0 ready
- Up to 8 fieldbus connections for communication with up to 240 lighting controller (Lumgates)



This data sheet contains additional article-specific information. You must also observe the user manual 109780 (see Section "Documentation").

## Technical data

### 1.1 Version AC 230 V


**Valid for the following items:**

- 1180707 TLS-SC-RTL-TLAD221TCS1
- 1180708 TLS-SC-RTL-TLAD221TCS2

#### System parameter

Nominal power	240 W
Voltage ( $U_N$ )	1/N/PE AC 230 V 45 Hz ... 65 Hz
Nominal current ( $I_N$ )	1.6 A at 230 V AC
Recommended backup fuse	20 A, characteristic B, 2-pos.
Control voltage	24 V DC
Nominal current (control voltage)	5 A

#### General data

Installation location	Indoor
Housing material	Sheet steel, with all-round PU foam seal, dip-primed, powder-coated on the outside, textured finish
Color	RAL 7035 textured finish
Weight	46 kg
Degree of protection	Without HMI: IP66 / With HMI: IP65
Protection class	I

#### Dimensions

Width	600 mm
Height	800 mm
Depth	260 mm
Note on dimensions	Housing dimensions

#### Ambient conditions

Ambient temperature (operation, storage, transport)	0 °C ... 32 °C
Humidity (operation/storage/transport)	≤95% at 25 °C, non-condensing
Air pressure (operation/storage/transport)	70 kPa ... 106 kPa (up to 2000 m above sea level)
Vibration (operation; according to EN 60068-2-6/IEC 60068-2-6)	1 g
Shock (according to EN 60068-2-27/IEC 60068-2-27)	Without HMI: 25 g / With HMI: 15 g

## Documentation

Type/description	Designation	Order No.
User manual for TCS (Tunnel Control System)	UM IA TSL-SC-RTL-TCS	109780
User manual TSL-SC-RTL-TLA - application software	UM EN TSL-SC-RTL-TLA	109746



**Important:** Read the package slip carefully before mounting, installing, and starting up the switchgear and controlgear assembly. Pay particular attention to the safety notes in the package slip.



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