



TDS13621

DALI - DSI - DMX interface

TDS13621 is an AUTOBUS interface for DALI (V1.0 / V2.0) / DSI / DMX. It can be configured to integrate up to 64 DALI control gears (ballasts) or 1 DSI output or 64 DMX compliant channels in combination with the TELETASK domotics system.

The interface is suited for controlling monochrome, duotone and multicolour lighting units with DALI, DSI or DMX control gear. It supports ramp speeds up to 1 hour.

The interface has an external override input which can be used in case of emergency/evacuation.

You can connect up to 7 interfaces to one Central Unit (up to 500 dim circuits).

APPLICATION

Output interface to control 64 DALI (V1.0 / V2.0) or 1 DSI or 64 DMX compliant channels.

CHARACTERISTICS

DALI

DALI V2.0 devices 2014 (IEC62386).

Up to 64 DALI (Version 1.0 and 2.0) control gears/addresses.

Supported types: single colour-, RGB- and Tuneable white control gears up to V2.0 / T8.

Advantage of DALI: individual (addressable) and grouped control, including feed-back to the TDS diagnostics when a ballast or lamp is defect.

The DALI control gear should support the DIRECT ARC POWER with level 255 (Stop fading), otherwise continuous dimming will not work.

Tested on:

Osram: PL-LIN-Z4 TW, OTi DALI 35 TW

Tridonic: LCAI 38W 125mA TW Ip, STARK-LLE-24-280-700-830-860-PRE

Helvar: LC35/2-DA-IC, L-ic-285-827-865-011A

Lumitech: ZUMI35131PI01042

DSI

1 DSI output / up to 100 gears.

Advantage of DSI: In case of failure or replacement of DSI electronic gear, the replaced unit does not need to be re-addressed/configured.

DMX

Up to 64 DMX addresses.

Advantage of DMX: very fast reaction time.

Galvanic isolation

The DALI / DSI / DMX bus is 1500V galvanic isolated from the AUTOBUS.

Built-in power supply

Build-in DALI/DSI power supply (power is taken from the AUTOBUS for both galvanic sides).

Remark: No additional DALI/DSI-bus power supply is allowed.

Current is limited to max. 128mA (sufficient for 64 ballasts which draws 2mA or less)

External override contact

Must be a voltage free contact. When the external contact is closed, all connected DALI/DSI/DMX devices will go to 100% (Feedback LED ON continuous). If this contact is used, it is advised to implement this feature into the emergency evacuation procedures of the concerned area/building.

DALI feedback features

The concerned touch panel LED's will blink on lamp/gear defect.

Full status information of every individual lamp/gear address is available in PROSOFT-Diagnostics.

SETTINGS

AUTOBUS address

Via two rotary switches 'Tens' and 'Units'.

Configuration

Via PROSOFT Suite 3.6.22 or higher (to be set as DALI- or DSI- or DMX-mode).

Jumpers

Terminating resistor (supplied with the central unit). To be used when the interface is at the physical end of the AUTOBUS cable.

DALI address

The ballast must be addressed before connecting. Groups are simple to configure via PROSOFT. Two methods (A or B) for gear address configuration are possible:

A: Use DALISOFT together with the TDS20620V2 DALI-address configuration tool:

1. Disconnect the TDS13621 from the DALI-bus.
2. Connect the TDS20620V2 (see datasheet TDS20620V2).
3. Use PROSOFT/DALISOFT to assign the DALI-addresses.

B: Use PROSOFT/DALISOFT together with this interface, starting from PROSOFT Suite 3.6.22.x:

- Follow the instruction from the Technical handbook (help menu in PROSOFT). Or check latest version online.

<https://professional.teletask.be>

DSI address

Not applicable

DMX address

0 to 255 (max. 64 addresses can be defined).

Follow the supplier instructions of the used DMX devices for address configuration.

INSTALLATION

DIN-rail mounting

4 modules wide

CONNECTION

AUTOBUS

AUTOBUS connector set + patch cable supplied with this unit

DALI / DSI / DMX

Screw terminals; Solid wires: max. 4mm² (AWG 12)

Stranded wires: max. 2,5mm² (AWG 14).

DMX:

Always use shielded cable with two twisted pairs (1 pair for DMX data and 1 wire for 0V signal).

Recommended max. cable length: 400m (0.25mm²).

DALI/DSI wire sections:

0.5mm² for total cable length 0-100m

0.75mm² for total cable length 100m-150m

1.5mm² for total cable length 150m-300m

External override

Override input: voltage free contact

0.34mm² for cable length max. 100m

POWER CONSUMPTION

AUTOBUS Load

Min. 175mA (DMX or 1 DSI / DALI ballast connected)

+ 2.5mA for every DSI / DALI ballast connected

DALI = Max. 335mA

DSI = Max. 425mA

DMX = Max. 175mA

DIMENSIONS

72 W x 90 H x 60 D (mm)

WEIGHT NET | PACKED

0.115kg | 0.210kg

ERROR CHECK IN PROSOFT DIAGNOSTICS

DALI errors

- Lamp defect
- Gear defect
- Power failure (230V missing)
- Gear not found

Interface errors

- AUTOBUS voltage
- Interface malfunction (+ additional information)

PACKAGING CONTENT

TDS13621 interface

AUTOBUS connector set + terminating resistor

AUTOBUS Patch cable

ENVIRONMENTAL CONDITIONS

Storage (with no condensation or icing)

Temperature: -20°C to +65°C max.

Relative humidity: 5% to 85% max.

Operation (with no condensation or icing)

Temperature: 0°C to +50°C max.

Relative humidity: 5% to 80% max.

IP PROTECTION RATE

IP20

SCHEMATIC DRAWING

