

elitedali™ - for Niagara

smart lighting controls

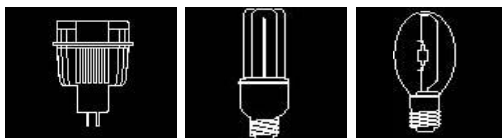
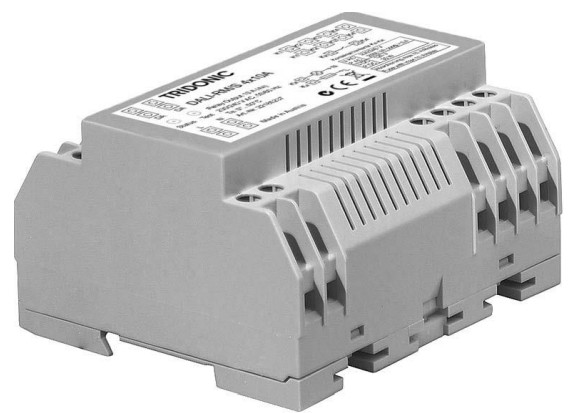
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elitedali RM-S DALI 4 Channel Relay Datasheet

Introduction

CNS's elitedali RM – S 4 Channel Relay Module unit is manufactured by Tridonic AG and is available for use with **elitedali** Multidrop for Niagara solution, version v2.0.6 and later.

This addressable field relay provides on/off control and DALI network connectivity in order to conserve energy and effectively manage non intelligent lighting loads such as architectural and other external lighting as part of a complete Niagara smart lighting management solution. Simply connect to the integrated Digital Addressable Lighting Interface (DALI) bus to control daily operating cycle of non-intelligent lighting or other miscellaneous loads.



HALOGEN FLUORESCENT HID



elitedali RM-S DALI 4 Channel Relay Datasheet

Features

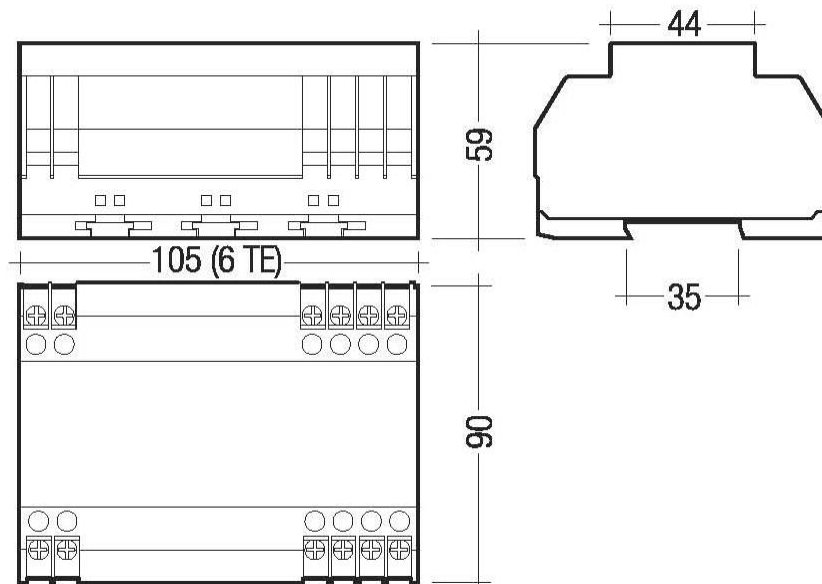
DALI relay output with 4 independent 10 A switching contacts

- ◆ Switching of 4 independent and potential free contacts via DALI
- ◆ Max. switching current per contact: 10 A at ohmic load ($\cos \phi = 1$)¹
- ◆ 1 DALI address per switching contact
- ◆ For installation in switching cabinets
- ◆ Status LED for indicating the operating status
- ◆ Test switch for installation test

¹ More loads see load specification on page 2.

Specifications

Mechanical



DIMENSIONS (MM)

elitedali RM-S DALI 4 Channel Relay Datasheet

Electrical Input

Rated supply voltage	230 – 240 V
Mains frequency	50 / 60 Hz
Power	< 2 W

Environmental

Ambient temperature, ta	0 ... +50 °C
Storage temperature	-20 ... +70 °C
Humidity	5 % ... max. 85 % ^②
Type of protection	IP20
Weight	approx. 0.4Kg

^②Not condensed (max. 56 days/year at 85 %).

	Inputs			Output, relay	
ALI control input 1	Current draw 2 mA from DALI	Number of DALI addresses 4 (1 per contact)	Relay, floating 4 (make contact)	Switching output (at 125 V DC max.) 30 W (ohmic load) ^①	Switching output (at 240 V AC max.) 2000 W / 10 A (ohmic load) ^①

^① More loads see load specification on page 4

elitedali RM-S DALI 4 Channel Relay Datasheet

User Information

Functional and planning instructions

elitedali RM-S 4x10A relay unit enables switching of 4 independent switching loads via DALI. Lamps and other electronic users with a mains voltage of 230 / 240 VAC can be integrated in a DALI circuit.

- ◆ For each DALI scene the 4 contact positions "opened / closed" can be defined separately.
- ◆ Control value \geq DALI 2: contact closes, control value \leq DALI 1: contact opens. When commanding "Recall min Level" the contact opens
- ◆ It is not permitted to connect tapped transformers (e.g. autotransformers) or 3-phase loads (e.g. 3-phase motors) to this unit because of the risk of a mains short circuit
- ◆ Use only in electrical installations that meet EMC, National and Local Codes and Regulations.
- ◆ No monitoring of loads

Status LED and momentary-action test switch

The status LED indicates the operating status of the device and helps to locate faults:

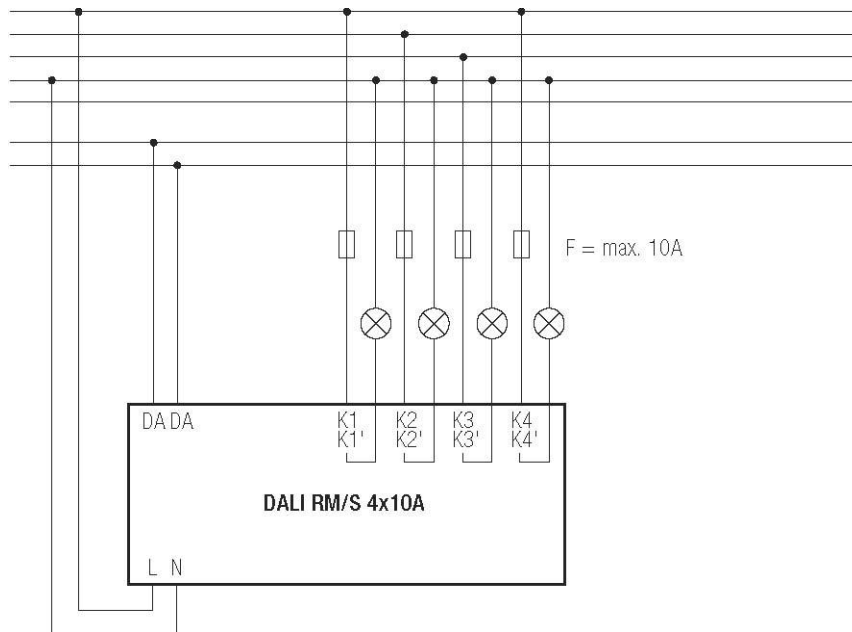
on, flickering occasionally	OK
off, flickering at (4 second) intervals	fault in DALI line (break or short-circuit)
off	no mains voltage
flashing steadily (on/off every 0,5 s)	test mode
flashing slowly (on/off every 2 s)	blocking mode

Test mode

If the momentary-action test switch is pressed for 1 to 5 seconds, all luminaires connected will be switched on. Each time the test switch is subsequently pressed for 1 to 5 seconds, the luminaires are alternately switched on and off. In this way it is possible to check the wiring and operation of the DALI RM-S 4x10A. The test mode is ended by pressing the momentary-action test switch for more than 5 seconds.

elitedali RM-S DALI 4 Channel Relay Datasheet

Electrical Connections



Load specification (designed for 30,000 switching operations)

- ◆ Light bulb: 2,000 W
- ◆ High-voltage halogen lamps: 2,000 W
- ◆ Fluorescent lamps uncompensated: 1,000 W
- ◆ Fluorescent lamps parallel compensated: 920 W / 100 μ F
- ◆ Fluorescent lamps duo circuit: 2 x 1,000 W
- ◆ Compact fluorescent lamps uncompensated: 800 W
- ◆ Compact fluorescent lamps parallel compensated: 800 W / 100 μ F
- ◆ Low-voltage halogen lamps to magnetic transformers: 400 VA
- ◆ Electronic ballasts: as mentioned in manufacturer data for electronic ballasts for automatic circuit breaker type B / 10 A
- ◆ HID lamps: 800 W / 100 μ F

elitedali RM-S DALI 4 Channel Relay Datasheet

Installation

Mounting in switching and distribution cabinets on DIN cap rail (35 mm).

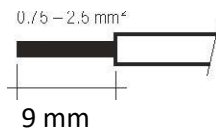
The DALI interface is not SELV, installation instructions for mains voltage therefore apply.

The maximum cable length of the DALI control signal (for a cable cross-section of 1.5 mm²) must not exceed 300 m or 2 V voltage decrease.

Wiring type and cross section

The wiring can be solid wire stranded wire with end sleeve with a cross-section of 0.75 mm² to 2.5 mm².

Wire preparation:



IMPORTANT NOTES:

Install in accordance with all applicable National and local electrical & building codes.

Specifications subject to change without notice.

Relay DALI Communication Interface

The Digital Addressable Lighting Interface (DALI) is the international standard lighting communication protocol IEC 62386. It allows for a variety of lighting devices to be networked together on a common communication network. Run DALI wires with power wires in the same conduit or modular wiring to minimise installation costs. DALI wires are 18 AWG or larger, non-polarized, non-twisted, non-shielded and have a maximum length of 300 m. A maximum of 64 devices can be connected to a DALI bus subject to maximum DALI network power load of 250mA.

Each relay represents one of the 64 available DALI addresses applied by the native Niagara **elitedali** addressing tool.

elitedali RM-S DALI 4 Channel Relay Datasheet

Order Details

Description:

elitedali RM-S DALI 4 x 10A Relay Module

Part No:

elitedali.4-RM-S

Additional **elitedali** compatible DALI products are also available, [click here](#) for more details.

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