

ZDI-DLB4 TECHNICAL DOCUMENTATION

## **FEATURES**

- Control of up to 20 DALI ballasts per channel in up to 4 channels only for logarithmic curve.
- Ballast replacement allowed with automatic detection.
- Error detection and monitoring (except multiaddress DALI ballasts).
- Burn-in, Stand-by and Auto-off functionality for each channel.
- Not suitable for emergency lighting control.
- Optional manual dimming control.
- External 110-230VAC 50/60Hz power supply.
- Total data saving on KNX bus failure.
- Integrated KNX BCU.
- Dimensiones 60 x 90 x 79mm (4,5 unidades DIN).
- DIN rail mounting (EN 50022), through pressure.
- DALI Standard compatible.
- Conformity with the CE directives (CE-mark on the right side).

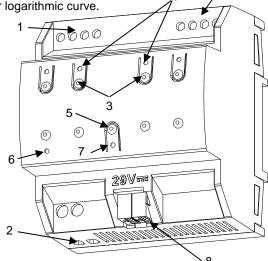


Figure 1: DALIBOX Broadcast 4CH

<ol> <li>DALI channel output</li> </ol>	<ol><li>External supply</li></ol>	<ol><li>DALI channel control button</li></ol>	4. DALI channel status LED
5. Programming/Test button	<ol><li>External supply LED</li></ol>	7. Programming/Test LED	8. KNX connector

Programming/test button: short press to set programming mode. If this button is held while plugging the device into the KNX bus, it enters the safe mode. If this button is held for more than 3 seconds, the device enters the test mode.

Programming/Test LED: programming mode indicator (red). When the device enters the safe mode, it blinks (red) every half second. The manual mode is indicated by the green color. During the start-up (reset or after KNX bus failure) and if the device is not in safe mode, it emits a red flash.

GENERAL S	SPECIFICATION	ONS			
CONCEPT		DESCRIPTION			
Type of device		Electric operation control device	Electric operation control device		
	Voltage (typic	al)	29VDC SELV	29VDC SELV	
KNX supply Ma	Voltage range	)	2131VDC	2131VDC	
	Maximum	Voltage	mA	mW	
	consumption	29VDC (typical)	7	203	
	Consumption	24VDC <sup>1</sup>	10	240	
	Connection type		Typical TP1 bus connector for 0.80mm Ø rigid cable		
External power	er supply			110/230VAC 50/60Hz	
Operation ten	nperature			0°C +55°C	
Storage temp	erature			-20°C +55°C	
Operation hu	midity		5 95% (No condens.)	5 95% (No condens.)	
Storage humidity		5 95% (No condens.)	5 95% (No condens.)		
Complementary characteristics		Class B			
Protection class		II			
Operation type		Continuous operation	Continuous operation		
Device action type		Type 1	Type 1		
Electrical stress period		Long			
Degree of protection		IP20, clean environment			
Installation		·	Independent device to be mounted inside electrical panels with DIN rail (EN		
		50022)			
Minimum clearances		Not required			
Response on KNX bus failure		Data saving according to parameterization			
Response on KNX bus restart		Data recovery according to parameterization			
Operation indicator		The programming LED indicates programming mode (red) and test mode (green). Each output LED indicates its status (fixed = active output; flashing			
		= error in the output). Power supply LED indicates the presence of supply voltage.			
Weight		124g			
PCB CTI index		175V	175V		
Housing material		PC FR V0 halogen free			

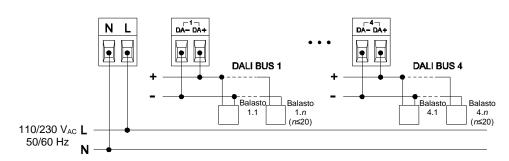
<sup>&</sup>lt;sup>1</sup> Maximum consumption in the worst case scenario (KNX Fan-In model)

OUTPUTS SPECIFICATIONS AND CONNECTIONS OF DALI CHANNELS		
CONCEPT	DESCRIPTION	
Number of channels	4	
Output type / Voltage	DALI bus / 16VDC SELV	
Maximum current per channel	40mA	
Maximum DALI ballasts per channel <sup>2</sup>	20	
Maximum cable length	300m (@ 1.5mm²)	
Short-circuit protection	YES	
Overload protection	YES	
Over-voltage protection	YES	
Connection method	Screw terminal block	
Cable cross-section	0.5-2.5mm <sup>2</sup> (IEC) / 26-12AWG (UL)	

<sup>&</sup>lt;sup>2</sup> One DALI address is considered per DALI ballast.

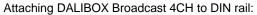
EXTERNAL POWER SUPPLY SPECIFICATIONS AND CONNECTIONS					
CONCEPT		DESCRIPTION			
Power supply protection fuse	Voltage	250V			
	Current	4A			
	Response type	F (Fast acting)			
Connection method		Screw terminal block			
Cable cross-section		1.5-4mm² (IEC) / 26-10AWG (UL)			

## **WIRING DIAGRAMS**

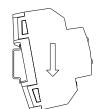


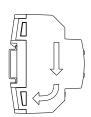
## Notas:

Debe evitarse la unión eléctrica entre diferentes canales DALI.
En caso de remplazo de balasto, por favor, siga atentamente los pasos definidos en el manual.

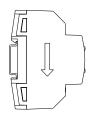


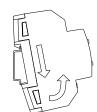


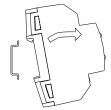




Removing DALIBOX Broadcast 4CH from DIN rail:







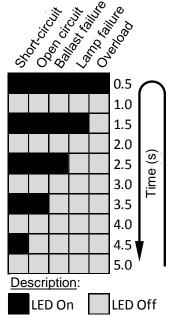


Figure 2. Error notification through DALI channel status LED



- Installation should only be performed by qualified professionals according to the laws and regulations applicable in each country.
- Do not connect the mains voltage nor any other external voltage to any point of the KNX bus; it would represent a risk for the entire KNX system. The facility must have enough insulation between the mains (or auxiliary) voltage and the KNX bus or the wires of other accessories, in case of being installed.
- The facility must be equipped with a device that ensures the omnipolar sectioning. Installation of a 10A mini-circuit-breaker is recommended. To prevent accidents, it must remain open in case of manipulation of the device.
- The device has a short-circuit protection fuse that, in case of activation, should only be rearmed or replaced by the Zennio technical service.
- Once the device is installed (in the panel or box), it must not be accessible from outside.
- Keep the device away from water and do not cover it with clothes, paper or any other material while in use.
- This device contains a security short-circuit proof transformer.
- The WEEE logo means that this device contains electronic parts and it must be properly disposed of by following the instructions at http://zennio.com/weee-regulation.