

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 110-230 VAC 50/60 Hz power supply
- · Total data saving on KNX bus failure
- Integrated KNX BCU (TP1-256)
- Dimensions 67 x 90 x 79 mm (4.5 DIN units)
- DIN rail mounting according to IEC 60715 TH35, with fixing clamp
- DALI Standard compatible
- Conformity with the CE, UKCA, RCM directives (marks on the right side)

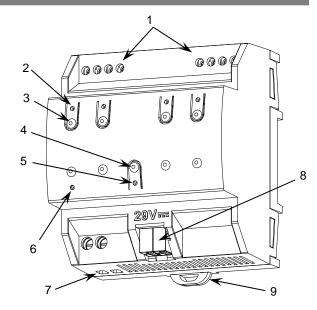


Figure 1: DALIBOX Broadcast 4CH

DALI channel output	2. DALI channel status LED	3. DALI channel control button		4. Programming/Test button	
5. Programming/Test LED	6. External supply LED	7. External power supply	8. KNX c	connector	9. Fixing clamp

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	GENERAL SPECIFICATIONS					
CONCEPT		DESCRIPTION	DESCRIPTION			
Type of device		Electric operation control device	Electric operation control device			
	Voltage (typical)		29 VDC SELV	29 VDC SELV		
Voltage range)	21-31 VDC	21-31 VDC		
IZNIV avanaliv	Maximum	Voltage	mA	mW		
KNX supply		29 VDC (typical)	7	203		
	consumption	24 VDC ¹	10	240		
	Connection ty	ре	Typical TP1 bus connector for	Typical TP1 bus connector for 0.8 mm Ø rigid cable		
External power	External power supply		110-230 VAC 50/60 Hz			
Operation temperature		-5 +45 °C	-5 +45 °C			
Storage temp	erature		-20 +55 °C	-20 +55 °C		
Operation hur	midity		5 95%	5 95%		
Storage humi	dity		5 95%	5 95%		
Complementa	ary characteristic	CS	Class B	Class B		
Protection cla	Protection class		II	II		
Operation typ	Operation type		Continuous operation	Continuous operation		
Device action	Device action type		Type 1	Type 1		
Electrical stre	Electrical stress period		Long	Long		
Degree of protection		IP20, clean environment	IP20, clean environment			
Installation	Installation		Independent device to be mour	Independent device to be mounted inside electrical panels with DIN rail (IEC		
Installation		60715)				
Minimum clea	Minimum clearances			Not required		
Response on	Response on KNX bus failure		Data saving according to para	Data saving according to parameterization		
Response on	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 (green).				
Weight			124 g			
	PCB CTI index		175 V			
	Housing material		PC FR V0 halogen free			

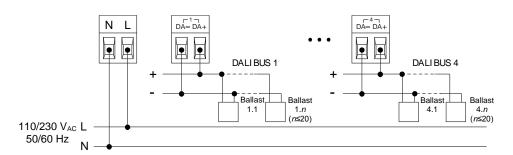
¹ Maximum consumption in the worst-case scenario (KNX Fan-In model).

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

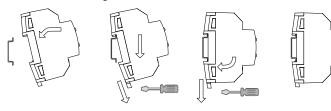
² One DALI address is considered per DALI ballast.

EXTERNAL POWER SUPPLY SPECIFICATIONS AND CONNECTIONS					
CONCEPT		DESCRIPTION			
Power supply protection fuse	Voltage	250 V			
	Current	4 A			
	Response type	F (Fast acting)			
Connection method		Screw terminal block (0.5 Nm max.)			
Cable cross-section		1.5-4 mm ² (IEC) / 26-10 AWG (UL)			

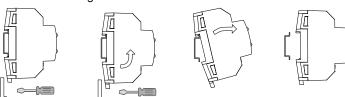
WIRING DIAGRAMS



Attaching DALIBOX Broadcast 4CH to DIN rail:







Notes:

- •Electrical connection between different DALI channels must be avoided.
- In case of ballast replacement, please pay attention to the defined steps on the manual.

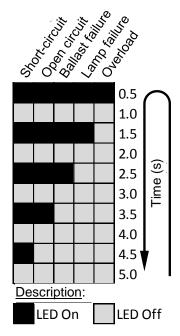


Figure 2. Error notification through DALI channel status LED

SAFETY INSTRUCTIONS AND ADDITIONAL NOTES

- 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 10 A 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.
- This device contains a security short-circuit proof transformer.
- Once the device is installed (in the panel or box), it must not be accessible from outside.
- For indoor use only.
- Keep the device away from water (condensation over the device included) and do not cover it with clothes, paper or any other material
- 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 https://www.zennio.com/en/legal/weee-regulation.