![TheoryLight logo]

TL55-D-8

The TL55 is an AC-input, 8-channel switch actuator designed based on the DALI protocol. Each channel supports a maximum control current of 16A, making it suitable for on/off control of devices rated at 16A or lower.
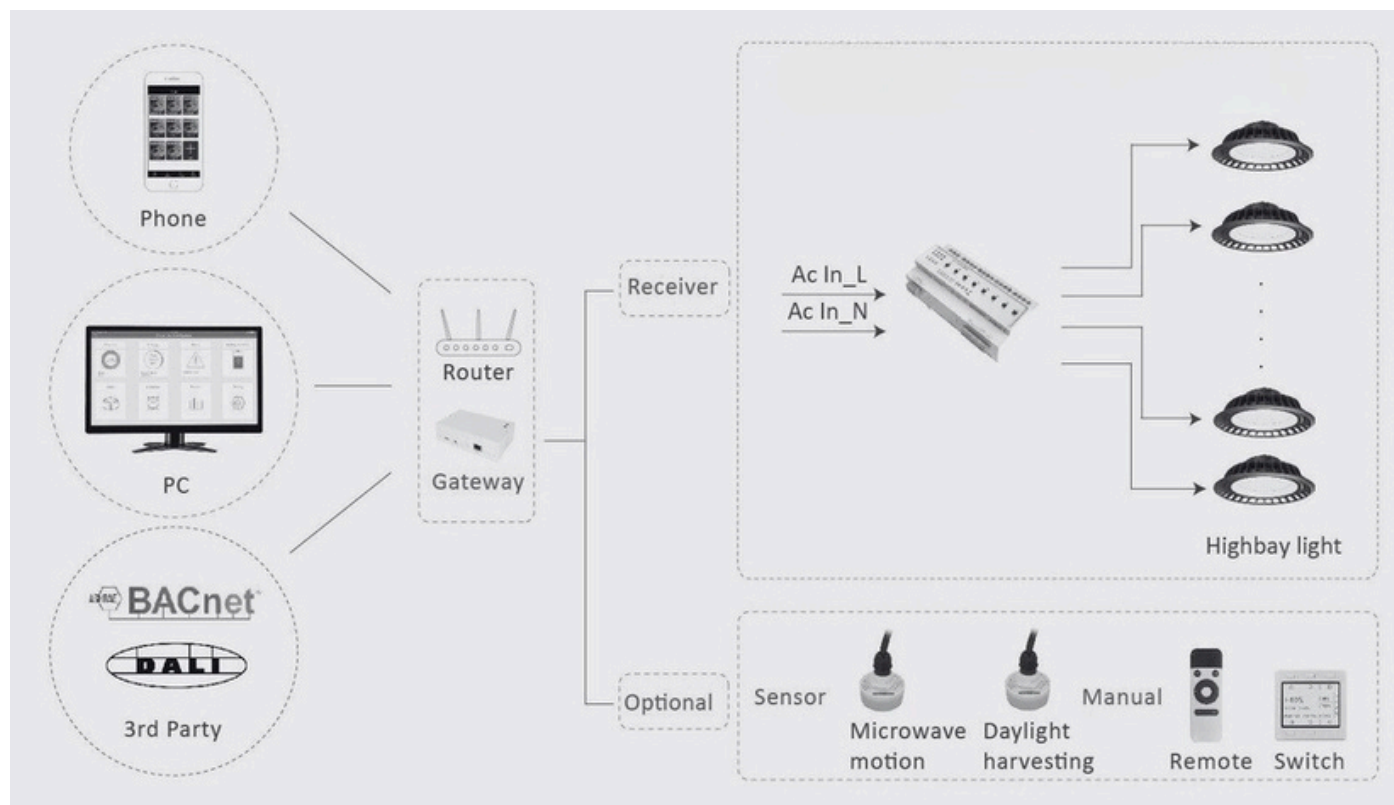
Key features:

1.Output Options:
  ◦ DC 12V, 100mA output.
  ◦ 8-channel dry contact on/off control.

2.Magnetic Retention:
  ◦ Low power consumption with magnetic retention functionality.

3.Emergency Manual Operation:
  ◦ Each relay is equipped with a mechanical manual switch for emergency operation.

4.External Control:
  ◦ Channels can be controlled via external dry contacts.

5.Protocol Compatibility:
  ◦ Supports the DALI 2.0 standard protocol, offering flexible control options for individual devices, groups, and scenarios.

6.Integration and Remote Control:
  ◦ Compatible with the TL928-ZD dual-mode gateway, enabling local and remote control, as well as advanced functions such as scenarios, scheduling, and mobile or server-based application control.

Part no.

TL55-D-8

TL55	project name/ index		
D	DALI Protocol		
8	8 channel Switch		

System Diagram

Parameter

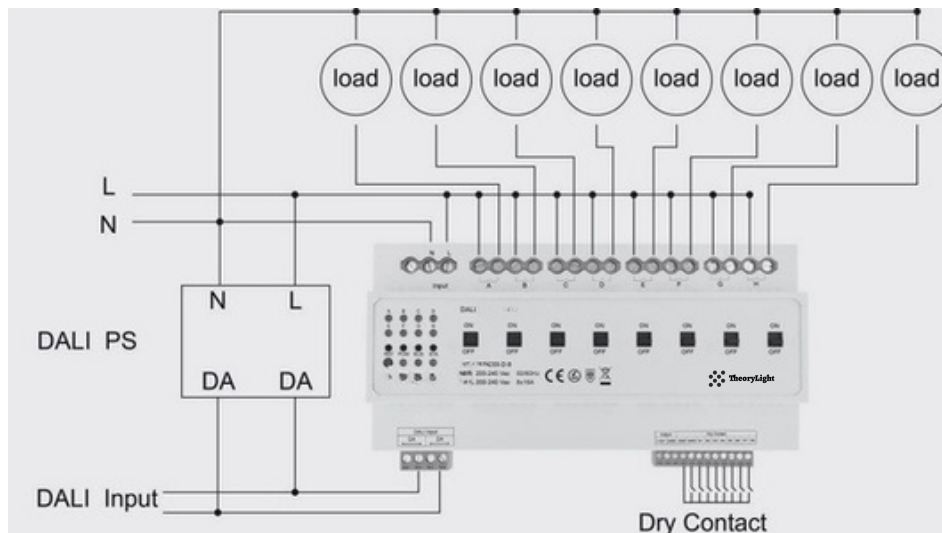|	
Input Voltage(V)	200-240Vac 50/60Hz
Output Channel	8 channels magnetic latching relay Each MAX (Resistive load)
Operation Life	channel/16A 100,000 times
DC Voltage Output Interface	12V 100mA
DALI Bus Interface	DALI 2.0 wire communications protocol
Standby Power	0.5W
Dry Contact Interface	8-channel Dry contact
Operating Temperature	-20℃ to 60℃
Operating Humidity	5%-85%RH
Storage temperature	-40℃~85℃
Storage Humidity	0%~90%
IP Level	IP20
Housing Material	PCV0 35mm
Installation Mode	mounted rail
Outdoor	NOT ALLOWED
Net weight	542 g
Gross weight	598 g
Package	1 set / box

Wiring Diagram

Dry Contact

Terminal Definition

Definition of Wire Harness Port		Ports Description
AC IN	L	Input 200-240VAC L Input
	N	200-240VAC N
Channels	A	On/Off Output 200-240VAC 16A
	B	On/Off Output 200-240VAC 16A
	C	On/Off Output 200-240VAC 16A
	D	On/Off Output 200-240VAC 16A
	E	On/Off Output 200-240VAC 16A
	F	On/Off Output 200-240VAC 16A
	G	On/Off Output 200-240VAC 16A
	H	On/Off Output 200-240VAC 16A
DALI Bus Input	DA	DALI Bus（1 and 2 are）connected in parallel
	DA	DALI Bus connected in parallel（3 and 4 are） Output
DC Output	+12V	12V 100mA (Maximum)
	GND	GND Dry Contact
Dry Contact	GND	GND
	S1	A ON/OFF Control the channel
	S2	B ON/OFF Control the channel
	S3	C ON/OFF Control the channel
	S4	D ON/OFF Control the channel
	S5	E ON/OFF Control the channel
	S6	F ON/OFF Control the channel
	S7	G ON/OFF Control the channel
	S8	H ON/OFF Control the channel

LED Indicator Status

LED Indicator		LED Indicator Status	Comments
A	A Channel Load	ON: The LED indicator keeps on OFF: The LED indicator keeps off	1. The LED indicator will flash 5 times when TEST this channel in APP. 2. The channel LED indicator will keep on/off if current channel dry contact control.
B	B Channel Load		
C	C Channel Load		
D	D Channel Load		
E	E Channel Load		
F	F Channel Load		
G	G Channel Load		
H	H Channel Load		
S1	Dry Contact S1 A	The LED indicator when that channel dry contact is pressed.	
S2	Dry Contact S2 B		
S3	Dry Contact S3 C		
S4	Dry Contact S4 D		
RST	Reset Button	Long press 10s to Reset	STA LED indicator keeps flashing after resetting successfully.
POW	Power Indicator Light	The LED indicator keeps on after main power on.	
BUS	Bus Indicator Light	The LED indicator keeps flashing when the bus has DALI DATA.	If DALI bus is disconnected, both "BUS"` "STA" LED indicator will keep flashing after 50 seconds.
STA	Status Indicator Light	1 The LED indicator keeps flashing if the device is initial state. The LED indicator keeps on when the device is searched into gateway.	

Software Operation

1. Initial states: Power on Switch Actuator, "STA" LED Indicator will keep flashing.
2. Choose a gateway. Power on the gateway, open the App "theorylight Pro", select gateway from Settings/Add device.
3. Add device. Click "Search" button to search the Switch Actuator device in APP based on the connected DALI channel.
4. For more operating details please refer to user manual of gateway.

Initial States Setting

1. Soft reset: Make sure both Switch Actuator and Gateway are power on and delete the Switch Actuator device in "Editing Device" under the "Setting Menu" in the APP, and confirm successfully deleted.
2. Hard reset: power on the device, then long press the "RST" button for 10 seconds. If the "STA" LED indicator keep flashing, meaning reset successful.

Dimension