

MERRYTEK MSA063 99 PRESENCE DETECTOR WITH DALI AND PUSH DIMMING CONTROL AND CONSTANT LIGHT FUNCTION

The Merrytek MSA063 99 is a 24 GHz radar presence sensor based on the manufacturer's patented orthogonal antenna technology, providing high gain and a wide detection range. By combining FMCW technology, Merrytek's proprietary processing algorithm, and LifeBeing technology, it is capable of accurately detecting conventional movements, micro-movements, slight gestures, and even breathing signals, ensuring continuous human presence detection even in very low-activity scenarios.

Designed for intelligent control applications in indoor environments, the sensor enables automatic switching, switching-off, and dimming of lighting and other electrical equipment via DALI protocol or Push-button control (Push). In addition, it incorporates an illuminance detector that automatically adjusts artificial lighting according to the contribution of natural daylight, maintaining a constant lighting level and optimising energy efficiency.

Its DALI interface is compatible with DALI drivers and includes a PUSH input that allows manual ON/OFF control whenever required.



MSA063S 99
Lifebeing Technology



**Surface
mounting**



**Recessed
mounting**

PRODUCT DATA

Article code:	MSA06399
Description:	Presence detector with dimming control

ELECTRICAL DATA

Voltage	100-240V AC
Frequency:	50/60 Hz
Output signal:	DALI + Push

MOTION SENSOR DATA

Operating mode:	Radar
Modo de funcionamento:	DALI terminal: DA+/D- (maximum cable length: 300 m, maximum terminal current: 100 mA) Push terminal: manual dimming + ON/OFF control (maximum cable length: 15 m)
Daylight harvesting:	When daylight harvesting mode is enabled, the dimming range is 10%–100%. The sensor is automatically disabled when ambient light exceeds 1000 lux and reactivated when it falls below 120 lux.
Operating frequency:	2.4GHz–24.25GHz, ISM band
Hold time:	10s - 30 min. Important: presence detection is only available when the hold time is set above 30 s.
Stand-by on-time:	10s. - 30 min.
Light level threshold:	50lux / Disabled
PUSH control:	Dimming: 10%–100% Sensor lock time: 10 s after manual switch-off via push button
Sensitivity:	High / Medium / Low
Detection area:	0-4 m
Detection radius:	Detection range for large, small, and micro movements (installation height: 3 m): 3.5 ± 0.5 m (tested in an open area of 41 m ² ; values may vary depending on environmental conditions)
Installation height:	2,5 mt - 4 mt
Detection angle:	3 dB 100° XZ / 100° YZ

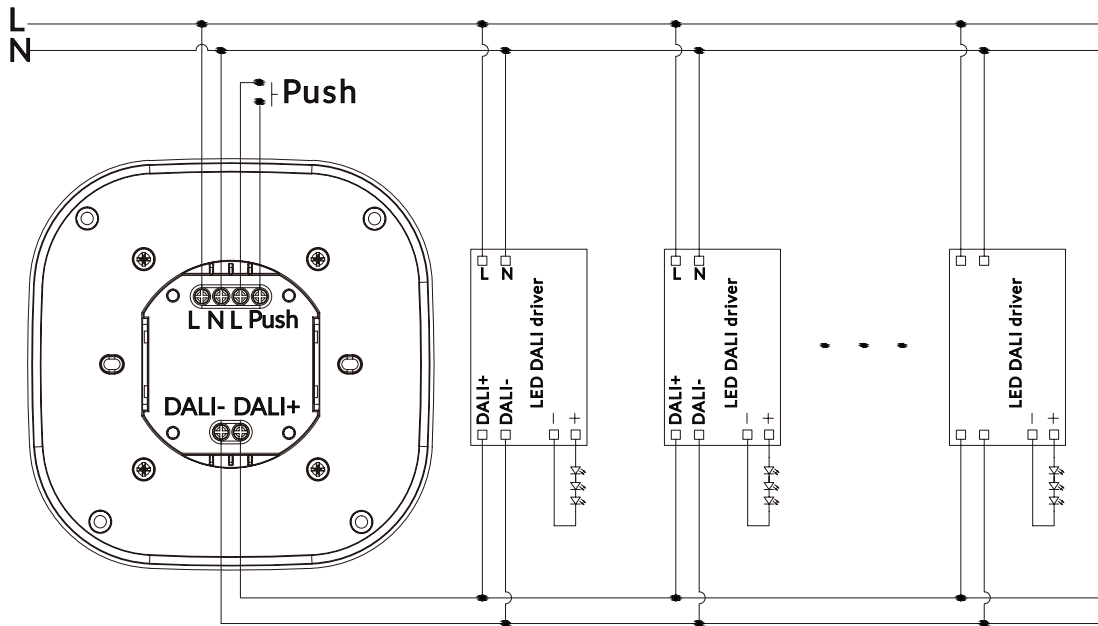
TECHNICAL DATA

Mounting type:	Recessed and surface-mounted
Protection rating:	Encastrado: Recessed: IP20 (protected against solid objects >12 mm in diameter) Surface: IP54 (protected against dust and water splashes)
Working temperature:	0°C - 50°C

PHYSICAL DATA

Material:	PS
Finish:	White

INSTALLATION DIAGRAM



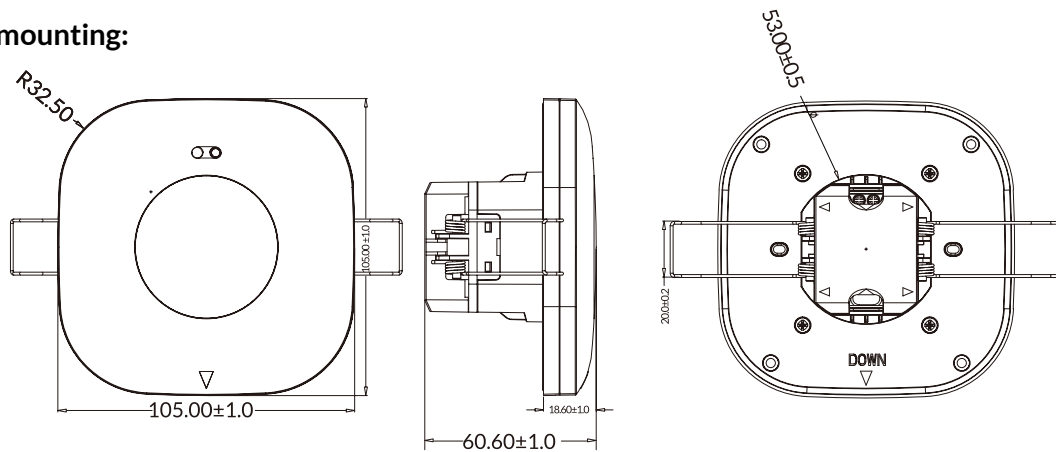
1. Wiring recommendations:

L and N correspond to the AC input power supply. DALI+ and DALI- correspond to the DALI output. PUSH corresponds to the push control input. Ensure correct wiring is carried out.

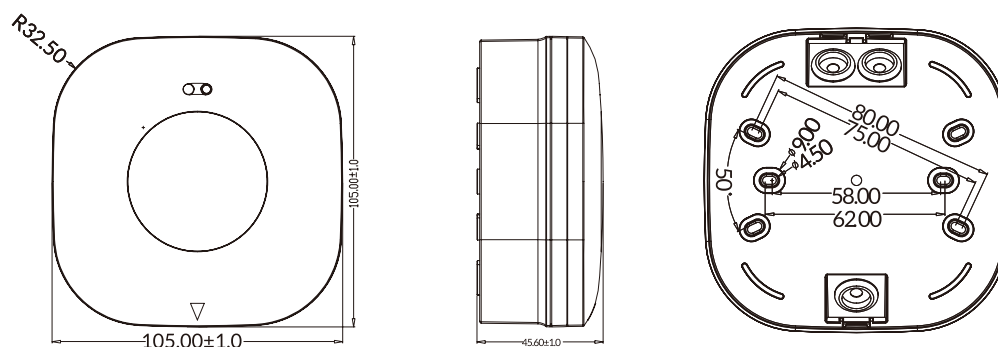
The wiring length for the DALI terminals must not exceed 300 m, and the current must not exceed 100 mA. The wiring length for the PUSH terminal must not exceed 15 m.

DIMENSIONS

Recessed mounting:

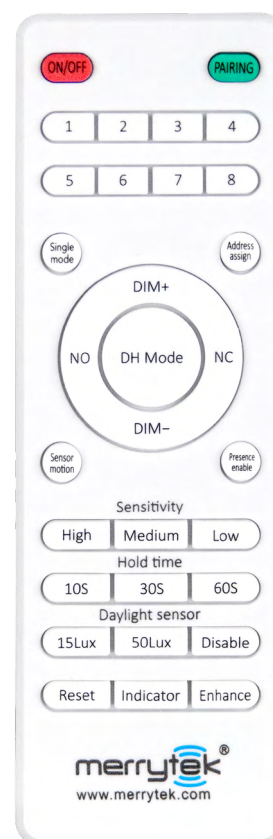


Surface mounting:



REMOTE CONTROL FUNCTIONS

Key	Function
ON/OFF	Activate/Deactivate detection function.
PAIRING	N/A
Pad numérico: (1/2/3/4/5/6/7/8)	1=0.5m / 2=1m / 3=1.5m / 4=2m / 5=2.5m / 6=3m / 7=3.5m / 8=4m
Single mode	Press and hold for more than 3 seconds to enter individual mode.
Asignación de direcciones	N/A
NO/NC	N/A
Sensor motion	Activate detection function.
Presence enable	Short press: activate presence detection. Long press: deactivate presence detection.
Sensitivity (High/Medium/Low)	Short press to switch between high, medium, and low sensitivity.
Hold time (10S / 30S / 60S)	Short press to change hold time between 10 s, 30 s, and 60 s.
Daylight sensor (15Lux / 50Lux / Disabled)	Short press to change daylight sensor threshold between 15 lux, 50 lux, and disabled.
Reset	Reset all parameters to factory settings. Short press: activate indicator.
Indicator	Long press: deactivate indicator.
Enhance	Short press to enter self-learning mode.



MH18

CERTIFICATIONS

