FOX LUX LIGHTING CONTROLS

FXS132CLDLPIR DALI-2 D4i PIR SENSOR

8 YEAR WARRANTY · 12-24V DC · UKCA · CE · DALI 2 · D4i

Technical Data

Operating Voltage	12-22.5V DC
Rated Load	N/A
Standby Power	Max. 6mA
Sensor Technology	PIR
Mounting Height	Max. 4m
Detection Radius	3 to 4m
Operating Temperature	-10°C to 50°C
IP Rating	Front Face IP65

Logistics Information

Product Dimensions	43 x 32 x 32mm
Net Weight	0.01kg
Box Dimensions	40 x 40 x 52mm
Gross Weight	0.02kg
Carton Qty	175 pcs
Carton Dimensions	340 x 280 x 28 mm
Carton Weight	4.00kg
Commodity Code	8536500090

Materials

Housing	Polycarbonate
Finish	Matt
Colour	White

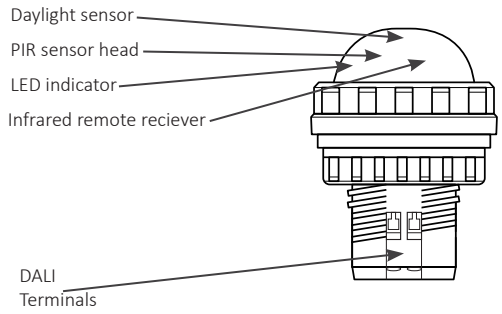
REMOTE CONTROL

When used without a front end control system, the settings can be adjusted directly via remote control.
The paired remote control for this sensor is REM-S21.
See separate data sheet for further details.

FEATURES

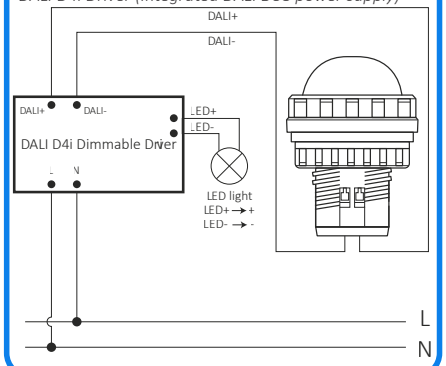
- Daylight harvesting
- Setting via DALI configuration software
- Alternatively, settings via remote
- Power supply and sensor data via DALI-2 bus
- Self-contained application controller
- Individual / group addressing

KEY ELEMENTS

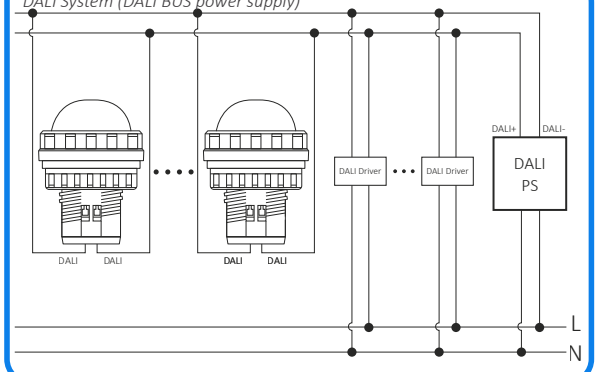


WIRING

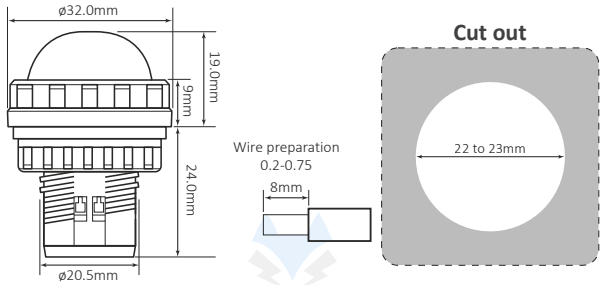
DALI D4i Driver (Integrated DALI BUS power supply)



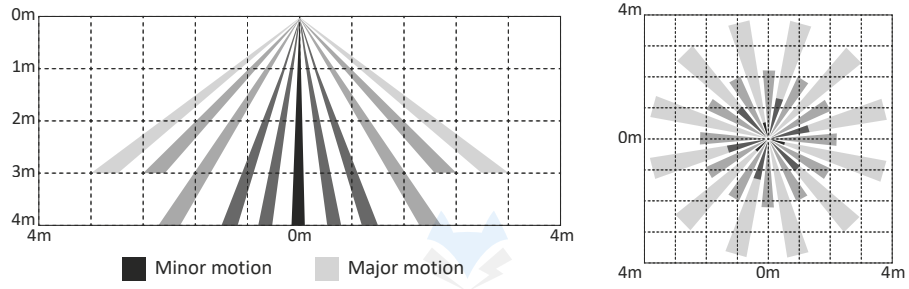
DALI System (DALI BUS power supply)



DIMENSIONS



DETECTION



PARAMETERS SETTING (VIA DALI BUS)

Address	Description	Factory default value	Reset Value	Range of validity		Memory Type
0x00	Address of last accessible memory location	0x17	no change	0x17		ROM
0x01	Indicator byte	0x86	no change	0x86		ROM
0x02	Memory bank 2 lock byte. Lockable bytes in the memory bank shall be read-only while the lock byte has a value different from 0x55	0xFF	0xFF			RAM
0x03	T1 level	0xFE	0xFE(100%)	[1, 254]		NVM(lockable)
0x04	T2 level	0xAA	0xAA(10%)	[0, 254]		NVM(lockable)
0x05	T1 time (LSB)	0x2C	0x2C(5min)	[1, 65535(+ ∞)]		NVM(lockable)
0x06	T1 time (MSB)	0x01	0x01			NVM(lockable)
0x07	T2 time (LSB)	0xFF	0xFF(+ ∞)	[0, 65535(+ ∞)]		NVM(lockable)
0x08	T2 time (MSB)	0xFF	0xFF			NVM(lockable)
0x09	Lux level (LSB)	0xFF	0xFF(disable)	[10, 2000lux], 65535(disable)		NVM(lockable)
0x0A	Lux level (MSB)	0xFF	0xFF			NVM(lockable)
0x0B	Parent Enable	0x01	0x01	0x00, 0x01	0x00 (child)	NVM(lockable)
					0x01 (parent)	NVM(lockable)
0x0C	Send data address method	0x00	0x00 (Broadcast)	[0, 3]	0x00 (Broadcast)	NVM(lockable)
					0x01 (Short addressing)	
					0x02 (Group addressing)	
					0x03 (Multi-groups addressing)	
					Other: 0x00(Broadcast)	
0x0D	Send data address value	0x00	0x00	Location 0x0D=1, [0, 63]; Location 0x0D=2, [0, 15]		NVM(lockable)
0x0E	Receive occupancy sensor type	0x9F	0x9F	x00x xxxxb		NVM(lockable)
0x0F	Receive occupancy sensor short address	0x00	0x00	[0, 63]		NVM(lockable)
0x10	Receive occupancy sensor instance number byte0 (LSB)	0xFF	0xFF	[0, 0xFFFFFFFF]		NVM(lockable)
0x11	Receive occupancy sensor instance number byte1	0xFF	0xFF			NVM(lockable)
0x12	Receive occupancy sensor instance number byte2	0xFF	0xFF			NVM(lockable)
0x13	Receive occupancy sensor instance number byte3 (MSB)	0xFF	0xFF			NVM(lockable)
0x14	Receive occupancy sensor instance group byte0 (LSB)	0xFF	0xFF	[0, 0xFFFFFFFF]		NVM(lockable)
0x15	Receive occupancy sensor instance group byte1	0xFF	0xFF			NVM(lockable)
0x16	Receive occupancy sensor instance group byte2	0xFF	0xFF			NVM(lockable)
0x17	Receive occupancy sensor instance group byte3 (MSB)	0xFF	0xFF			NVM(lockable)

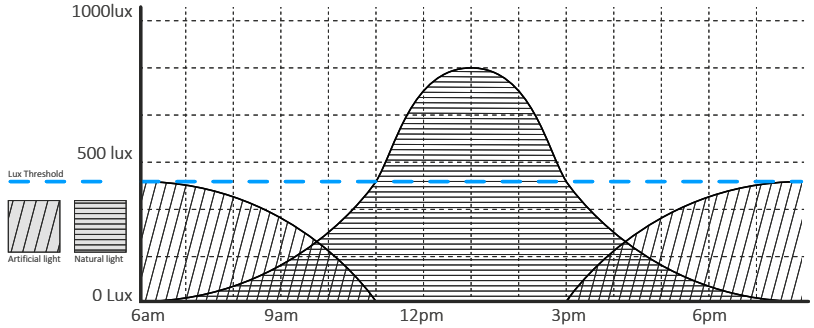
LSB: Least Significant Byte.
MSB: Most Significant Byte.
Range of values: [lowest, highest]

All numbers used in this document are decimal numbers unless otherwise noted. Hexadecimal numbers are given in the format 0xVV, where VV is the value. Binary numbers are given in the format XXXXXXXXb or in the format XXXX XXXX, where X is 0 or 1;" x" in binary numbers means" don't care"

T1 level:
This is the preset max. brightness of the fixture after motion detected. The brightness that the sensor enters into T1 by DAPC, the default factory setting is 0xFE.
T2 level:
This is the dimmed low light level you would like to have after the hold time in the absence of people. The brightness that the sensor enters into T2 by DAPC, the default factory setting is 0xFE.
T1 time:
T1 time is Hold-time that means the time period to keep the lamp on T1 level after motion detected.
T1 time=65535 (0xFFFF)[+ ∞], means bi-level dimming control, the fixture never enters into T2 level.
T2 time:
This is the time period that the lamp remains at T2 level before it is completely switched off in the long absence of people. When T2 time=65535 (0xFFFF) [+ ∞], means bi-level dimming control, the fixture never switch off.
Lux level:
Lux level means the daylight threshold to enable or disable the sensor function.
Lux level=65535 (0xFFFF)[Disable], means the sensor always, even during daylight.
Master enable:
0x00: only send the motion signal as slave.
0x01: daylight harvest according to the surrounding brightness as master
Send data address method:
This is the method of device addressing used by the transmitter, adapts different way to send DAPC command based on required value.
0x03: Multi-groups addressing, can control the groups the sensor enters into, then send the multi-group control instances one time, max. 16 groups
Send data address value:
(1) Send data address method=0x02 [0, 63], default setting is 63 when data> 63;
(2) Send data address method=0x03 [0, 15], default setting is 15 when data> 15;
Receive occupancy sensor type:
The sensor receives the signal other sensors have sent (24-bit event message frame).
(1) Bit7: event message enable
(2) Bit4: instance groups + instance types (event scheme 4)
(3) Bit3: device groups + instance types (event scheme 3)
(4) Bit2: short addresses + instance numbers (event scheme 2)
(5) Bit1: short addresses + instance types (event scheme 1)
(6) Bit0: instance types + instance numbers (event scheme 0)
(7) Other bit: reservation
Receive occupancy sensor short address:
Receive occupancy sensor type [bit2], the sensor can receive the equivalent signal of occupancy sensor short address. Range of validity [0, 63], default setting is 63 when data> 63;
Receive occupancy sensor instance number:
Bit0-Bit31: each bit corresponds to instance number, e.g. bit is 1, means that the sensor can receive the singal of the instance number (bit is 1).
For example: receive occupancy sensor instance number=0x00000003, Bit0=1 & Bit1=1, means that receives occupancy sensor signal of the sensor whose instance number is 0 and 1.
Receive occupancy sensor instance group:
Bit0-Bit31: each bit corresponds to instance group, bit is 1, means that receives occupancy sensor signal of the instance group (bit is 1).
For example: receive occupancy sensor instance group=0x00000003, Bit0=1 & Bit1=1, means that receives occupancy sensor signal of the sensor whose instance group is 0 and 1.

For example: *change T1 level to 90% (254*90%=229)via broadcasting as below*
START QUIESCENT MODE (broadcast)
START QUIESCENT MODE (broadcast)
DTR1 (0x02)
DTR0 (0x02)
ENABLE WRITE MEMORY (broadcast)
ENABLE WRITE MEMORY (broadcast)
WRITE MEMORY LOCATION – NO REPLY (0x55) // Unlock Lock Byte
DTR0 (0x03)
WRITE MEMORY LOCATION – NO REPLY (0xE5) // Set T1 level to 229 (90%)
SAVE PERSISTENT VARIABLES (broadcast)
SAVE PERSISTENT VARIABLES (broadcast)
STOP QUIESCENT MODE (broadcast)
STOP QUIESCENT MODE (broadcast)

DAYLIGHT HARVEST



DAYLIGHT HARVEST SET UP

Choose the desired daylight sensor threshold, the daylight sensor will automatically switch on when surrounding brightness is below the chosen threshold. If surrounding brightness is over the threshold, the whole daylight sensor will not work at all.
During operation, the daylight sensor regulates the light output automatically according to the level of surrounding brightness.
The natural light goes up, the artificial light goes down; the natural light goes down, the artificial light goes up.
The daylight sensor will automatically switch off when the natural light is confirmed sufficient.

DALI-2 & D4i standards

EN62386-101 Ed.2
EN62386-103 Ed.2
EN62386-351 Type C