

VEX TRI-COLOUR BULKHEAD

VEX-20-360TC/ME

QVIS®

LIGHTING & SECURITY



3HR
EMERGENCY
3W BATTERY

IP66

20W
POWER

6YR
WARRANTY
2YR
ON-SITE

IK10

TP(a)

2100
LUMENS

merrytek

Sensor Driver

EPISTAR

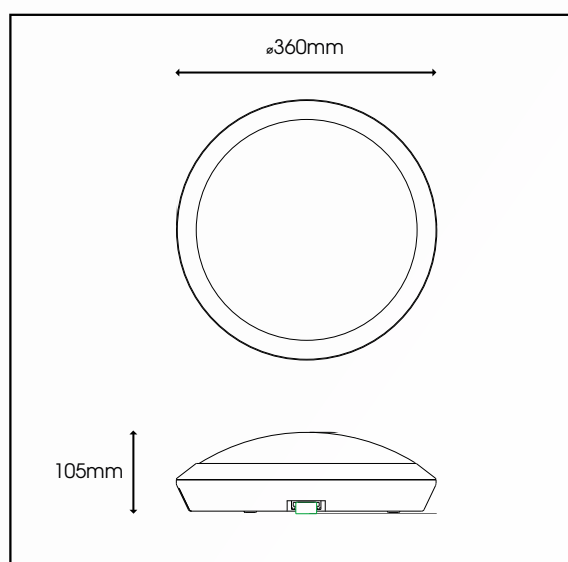
LED's inside

Specification	VEX
System Power	20W (Emergency 3W)
Sensor Driver	Merrytek
LED Chipset	Epistar
Colour Rendering Index	>80
Lumen Output	2100Lm (Emergency 315Lm)
LED Efficacy	105 Lm/cW
Dimmable	All types available
IK Rating	IK10
IP Rating	IP66
Power Factor	0.997
Fire Rating	TP(a)
Housing & Diffuser Material	Polycarbonate
Beam Spread	160 °
Colour Temperature	3000K/4000K/6000K
Operating Temperature	-20 to 30 °C
Weight	0.9kg
Dimensions	ø360mm x 105mm
MacAdam Step	<3
Lifetime	50,000 hours, L70-B10 (Ta 25 °C)
Emergency Output	3 Hours (3W)*
CE Standards	EN60598-1, EN62493, EN55015, EN61547, EN61000-3-2, EN61000-3-3, EN62722-1, EN62722-2-1 and EN50581
CE Directives	LVD, EMC, ERP & RoHS

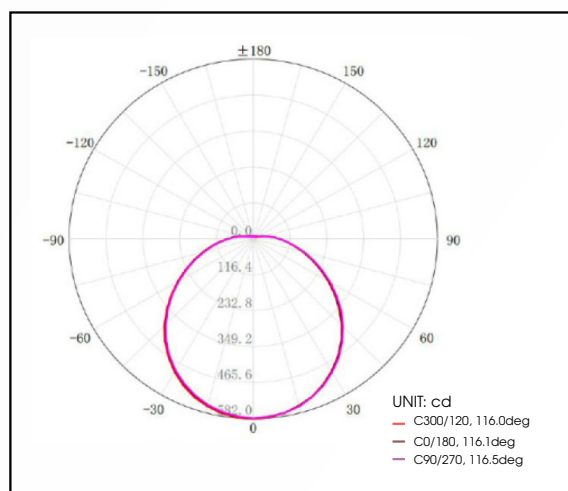
* Warranty terms and conditions apply

*For emergency products with a rated service life of < 50,000 operating hours, QVIS offers a 5-year warranty period on the luminaire and 1-year warranty period on the battery pack

TECHNICAL DRAWINGS



LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



● SURFACE & SUSPENDED RANGE



Introduction

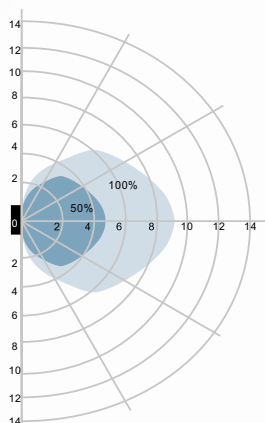
- Stand-by power < 0.5W.
- Stand-by dimming level is optional, 10% / 25%.
- Integration of microwave motion sensor, daylight sensor and LED power supply.
- Automatic switching and dimming based on motion and light level.
- Constant current can be set via DIP switch.
- Compact size makes the drivers suitable to fix within most LED ceiling lights.
- Detection area, time delay and daylight threshold can be precisely set via DIP switch.

Sensor DIM LED drivers, originally pioneered by Merrytek, are innovative products integrated with HF motion detector, daylight sensor and LED power supply.

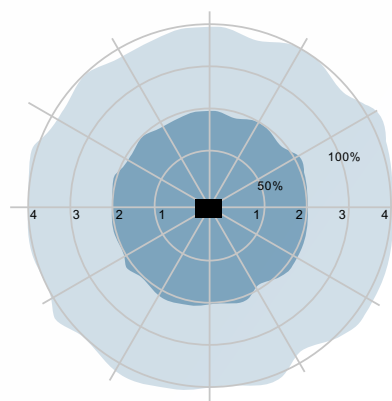
The products supply a simple energy-saving solution for LED ceiling lights. As all control parts are integrated in a same housing, it is very easy to assemble and save labor cost.

Compact size makes the drivers easy to be installed in luminaires and get more simple lighting structure.

As updated version adopts advanced sensor driver circuit, stand-by power is less than 0.5W, more energy saving. In addition, optional stand-by dim level is friendlier for actual use.



Wall mounting pattern (Unit: m)
Installation height: 1.5m



Ceiling mounting pattern (Unit: m)
Installation height: 3m

ON-OFF Function

The products provide ON-OFF and steps dimming function for LED lighting, users can select the right function according to different applications.



With sufficient ambient light, the sensor does not switch on the lamp.

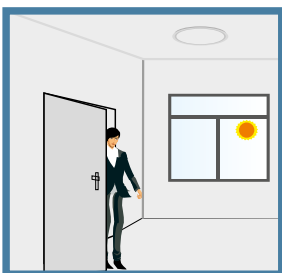


With insufficient ambient light, the sensor switches on the lamp when motion is detected.

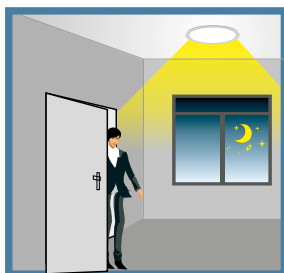


After hold time, the lamp gradually dims down if no motion is detected.

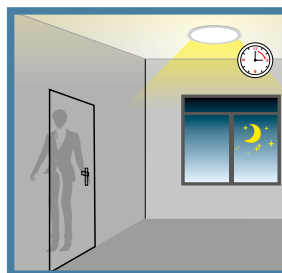
3-step dimming function



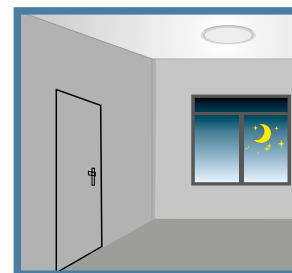
With sufficient ambient light, the sensor does not switch on the lamp.



With insufficient ambient light, the sensor switches on the lamp when motion is detected.

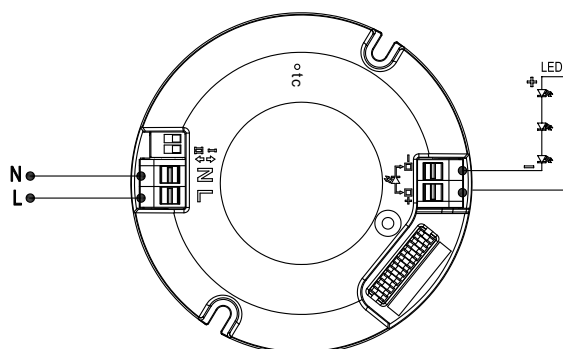


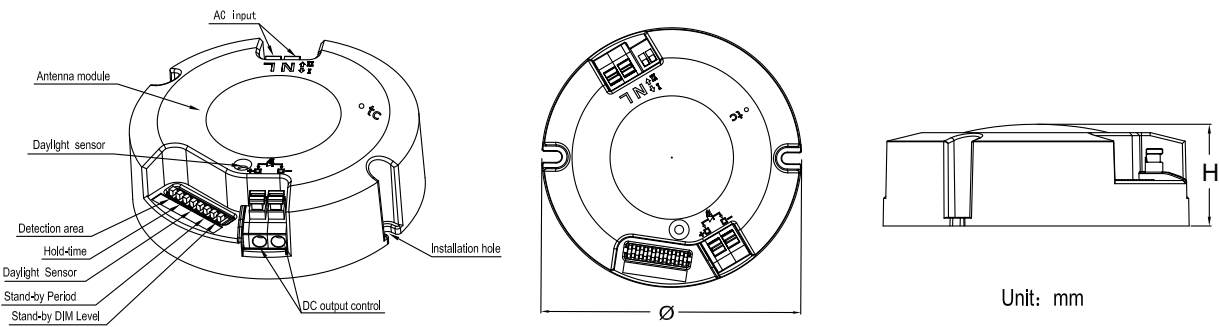
After hold time, the sensor dims the lamp at a low light level if no new motion trigger.



After stand-by period, the sensor switches off the lamp if no motion is detected in its detection zone.

Wiring scheme





SPECIFICATION VALUES

Operating voltage	220~240Vac,50/60Hz
Output constant current	350mA
Output voltage	28-52Vdc
Efficiency	≥84% (@Full load)
Power factor	>0.9 (@Full load)
HF system	5.8Ghz±75Mhz, ISM wave band
Transmitting power	<0.5mW
Power consumption	≤0.5W (standby)
Detection range	4m(@ 3m mounting height)
Detection area	50%/ 100%
Hold time	5s/ 90s/ 3min/ 10min
Stand-by period	0s/ 30s/ 10min/ +∞
Daylight sensor	5lux/ 15lux/ 50lux/ Disable
Stand-by DIM level	10%/ 25%
Mounting height	6m Max.
Motion detection	0.5~3m/s
Detection angle	150° (Wall installation) 360° (Ceiling installation)
Working temperature (Ta)	-25℃ ~ 50℃
Size (ø x H)	68x28.5mm
IP rating	IP20

By selecting the combination on the DIP switch, sensor data can be precisely set for each specific application.

ON ↑		1	
	I	ON	100%
	II	-	50%

Detection area

Detection area can be reduced by selecting the combination on the DIP switches to fit precisely each application.

ON ↑		2	3	
	I	ON	ON	5S
	II	-	ON	90S
	III	ON	-	3min
	IV	-	-	10min

Hold time

Refers to the time period the lamp remains at 100% illumination after no motion detected.

ON ↑		4	5	
	I	ON	ON	Disable
	II	-	ON	50Lux
	III	ON	-	15Lux
	IV	-	-	5Lux

Daylight sensor

The sensor can be set to only allow the lamp to illuminate below a defined ambient brightness threshold.

When set to Disable mode, the daylight sensor will switch on the lamp when motion is detected regardless of ambient light level.
50lux: twilight operation, 15lux, 5lux: darkness operation only.

ON ↑		6	7	
	I	ON	ON	0S
	II	-	ON	30S
	III	ON	-	10min
	IV	-	-	+∞

Corridor function (Stand-by period)

Refers to the time period the lamp remains at a low light level before it completely switches off in the long absence of people.

When set to “+∞”, the low light is maintained until motion is detected.
When set to “0s”, the light will turn off after hold time.

ON ↑		8	
	I	ON	10%
	II	-	25%

Stand-by dimming level

The low light level you would like to have after the hold time in the long absence of people.