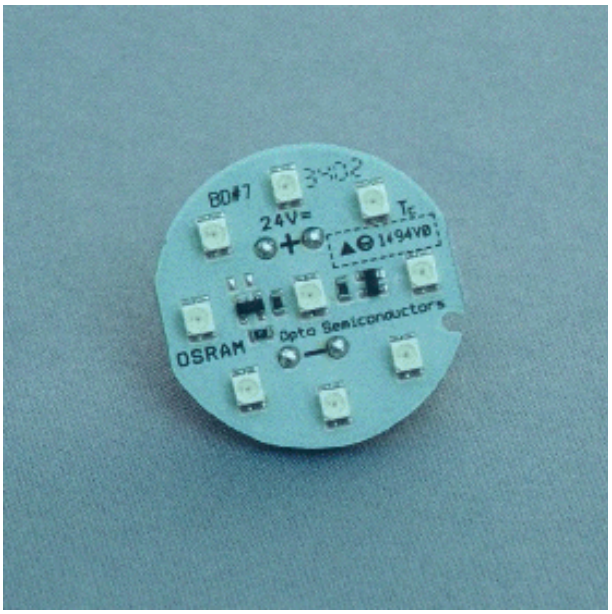
Data Sheet

COINlight

OS-CM01E



Benefits

- Small height
- Wide viewing angle
- Easy installation
- Available in various colors

Applications

- Border marker
- In-ground mounted luminaires
- Small signals
- Walkways

Technical Operating Data

Product	Color	Number of LEDs	Voltage [V DC]*	Power [W]*	Current [A]*	Radiance Angle [°]*	Wavelength [nm] Color Temp [K]*	Lum. Flux [lm]*
OS-CM01E-W1	white	9	24	1,2	0,05	120	x=0,32; y=0,31	10
OS-CM01E-A1	red	9	24	1,2	0,05	120	617 nm	24
OS-CM01E-Y1	yellow	9	24	1,2	0,05	120	587 nm	19
OS-CM01E-T1	green	9	24	1,2	0,05	120	525 nm	10
OS-CM01E-B1	blue	9	24	1,2	0,05	120	470 nm	3

*) All Data are related to the entire module
Due to the special conditions of the manufacturing processes of LED the typical data of technical parameters can only reflect statistical figures and do not necessarily correspond to the actual parameters of each single product which could differ from the typical data.

Technical Features

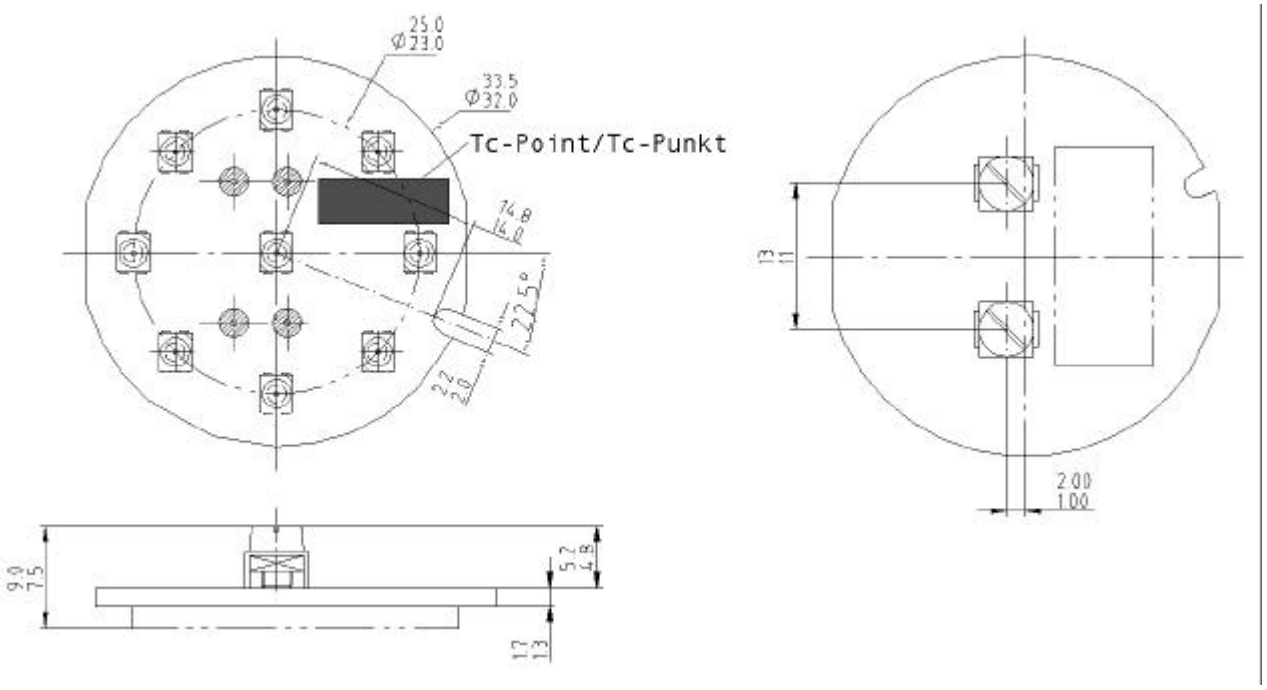
- Modules optimized for use with OSRAM OPTOTRONIC power supplies.
- Dimmable by Pulse width modulation (PWM) with the electronic controller OT DIM
- Only parallel connection allowed
- Diameter of the module: 33 mm
- Connection with screw terminals
- Light emission vertical to the mounting surface

Minimum and Maximum Ratings

Product	Operating Temperatur at Tc-Point [°C] *	Storage Temperature [°C] *	Voltage Range [V dc] *	Reverse Voltage [V dc] *
OS-CM01E-W1	-30 ... 75	-40 ... 85	23 ... 25	25
OS-CM01E-A1	-30 ... 85	-40 ... 85	23 ... 25	25
OS-CM01E-Y1	-30 ... 85	-40 ... 85	23 ... 25	25
OS-CM01E-T1	-30 ... 75	-40 ... 85	23 ... 25	25
OS-CM01E-B1	-30 ... 75	-40 ... 85	23 ... 25	25

*) Exceeding maximum ratings for operation and storage temperature will reduce expected life time or destroy the LED Module.
Exceeding maximum ratings for operation voltage will cause hazardous overload and will likely destroy the LED Module.
The temperature of the LED module has to measured at the Tc-point according to EN60598-1 in a thermally constant status with a temperature sensor or a temperature sensitive label (available e.g. at RS-Components). For exact location of the Tc-point see drawing below.

Drawing



Safety Information

- The LED module itself and all its components may not be mechanical stressed.
- Assembly must not damage or destroy conducting paths on the circuit board.

The LED Module incorporates no protection against: Short circuits, Overload, Overheating. Therefore it is absolutely necessary to operate the modules with a electronically stabilised power supply offering protection against the above mentioned safety risks. For dimming applications attention should be paid to specific references in "OPTOTRONIC Technical Guide".

OSRAM OPTOTRONIC power supplies are specifically designed with the necessary protection features for safe operation.

When using other power supplies other than OPTOTRONIC the following basic safety features are required, in addition to any other application specific concerns and local safety codes:

- Short circuit protection
- Overload protection
- Overheat protection
- Correct output voltage

- Correct electrical polarity needs to be observed. Wrong polarity will result in no light emission.
- Parallel connection is highly recommended as safe electrical operation mode.
  Serial connection is not recommended. Unbalanced voltage drop can cause hazardous overload and demage the LED module.
- Installation of LED modules (with power supplies) needs to be made with regard to all applicable electrical and safety standards. Only qualified personnel should be allowed to perform installations.
- Pay attention to ESD steps when mounting the module
- The module, as manufactured, has no conformal coating and therefore offers no inherent protection against corrosion.
- Damage by corrosion will not be honored as a materials defect claim. It is the user´s responsibility to provide suitable protection against corrosive agents such as moisture and condensation and other harmful elements.
- For applications involving exposure to humidity and dust the module must be protected by a fixture or housing with a suitable protection class. The module can be protected against condensation water by treatment with an appropriate circuit board grade conformal coating. The conformal coating should have the following features:
  - Optical transparency
  - UV-resistance
  - thermal expansion matching the thermal expansion of the module 15-30*10^-6 cm/cm/K
  - low permeability of steam for all climatic conditions
  - resistance against corrosive environment

  The lacquer APL of the company Electrolube http://www.electrolube.com met the conditions for the COINlight in our tests.

Assembly Information

- Rotation fixing by milled groove.
- Between bootom side and fixture housing should be an effective thermal contact.

Ordering Guide

Productgroup	Productname	EAN *	S-Unit *
COINlight	OS-CM01E-W1	4050300947914	25
COINlight	OS-CM01E-A1	4050300857534	25
COINlight	OS-CM01E-Y1	4050300947938	25
COINlight	OS-CM01E-T1	4050300947952	25
COINlight	OS-CM01E-B1	4050300947891	25

*) EAN: Ordering number per single module
S-Unit: Modules per shipping unit

Note: Typical performance data are subject to change without any further notice, particularly as LED technology evolves.

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Related and Further Information

The new dimension of light	(in preparation)
OPTOTRONIC Technical Guide	130 T08 E
OPTOTRONIC Data Sheets	www.osram.com