

Optilux – XXX



Features:

- Solid state
- Luminous flux regulation
- Light plant protection
- Reduction running costs
- Switching light plant ON / OFF automaticly



Interior Luminance Sensor LUCAS

Product data sheet LUCAS

Luminance L 20 (cd/m²) according to CIE
visual field: 20°
standard measuring range: 0... 500 cd/m²
output current: 4...20 mA/max. 250 ohms
voltage supply: 230V +/-10%, 50Hz, 30VA
casing: stainless steel AISI 316L, heat insulation
dimension (HxBxT): 155 x 110 x 280 mm
ambient temperatures: -30... +70°C
protection: IP 65
weight: 2.5 kg



Outdoor Luminance Sensor LUCI L20

Product data sheet LUCI

Luminance L20 (cd/m²) according to CIE
visual field adjustable: 16... 32 °,
vario optics: 3,5 / 60 - 110
standard measuring range: 0... 10.000 cd/m²
voltage supply: 230V +/-10%, 50Hz
stainless steel AISI 316L, double-casing
dimensions (HxBxT): 185 x 175 x 455 mm
ambient temperatures: -30... +70 °C
protection: IP 65
weight: 7.5 kg



Illuminance Sensor LUXOR-EH

Product data sheet LUXOR

Sensor LUXOR "EH" covers the horizontal illumination [lx] to control the illumination systems. The measuring range is designed for 1000 lx.



Supporting binder for LUCAS / LUCI / LUXOR

for wall or ceiling suspension
stainless steel AISI 316L, 3 mm
length 350 mm



Tunnel security modul RELMODP

[Product data sheet RELMODP](#)



**Luminous flux regulator Typ variLUM x
including Interface functions (NEW GENERATION)**

[Product data sheet variLUMx](#)

single-phase operation
continuous load current: 50A
optimized for dimming of high pressure lamps
soft start in phase-angle operation
current limitation of the load rms value
simulation process for power failure and luminous flux adjustment
response time for optimisation of high pressure lamps
failure indication for current monitoring, break of fuse and thyristor,
break of wire control signal (4 ... 20mA)
subsidiary control: U^p
nominal load voltage: 230V -20%/ +15%, 45 ... 63Hz
raising edge: 0(4) ... 20mA (50Ohm), 0(2) ... 10V (25kOhm)
falling edge: 20 ... 0(4)mA (50Ohm), 10 ... 0(2)V (25kOhm)
load failure relay: rating 5A/230V
protection: IP00 to EN 60 529, grounded heatsink
housing: plastics, black anodized heatsink
dimensions: 110 x195 x152mm (WxHxD)
weight: 2.8 kg



Light controller Typ LUMATIC S - new version

[Produktdatenblatt LUMATIC S](#)



Light controller Typ LUMATICx - new generation

[Product data sheet LUMATIC](#)

Luminance-Sensor LUCAS

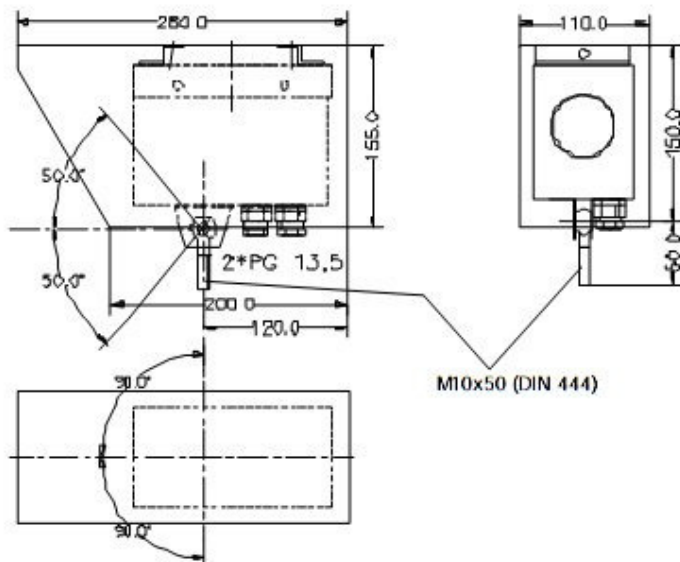
The LUMINANCE-LUCAS [L20] receives the measuring field via a fixed visual field angle of 20°. The visual field angle of 20° receives over an diaphragma with cascade-apertur. A diopter sight is used for adjusting the camera. It is not possible to attach masks.

Surround-luminance

The LUMINANCE-LUCAS [Lo] receives the mean luminance of the tunnel outdoor (visual field) as nominal value from the stopping distance via a fixed visual field angle of 20°.

Roadway luminance [Le/Lth]

The LUMINANCE-LUCAS [Lth] is used as a sensor for the actual value for control systems (comparison actual value / nominal value) to receive the threshold zone lu-



- Sensor for outdoor (Lo), threshold zone (Lth) and indoor zone (Li)
- Measuring mode: Integrale luminance CIE-L20
- Longtime stable amplifier of high reliability converts
- With a spectral sensitivity adapted to the human eye.
- Continuously controlled heating against icicles and clouding-over of the glass cap.

Technical data:

- Voltage supply: 230 V AC
- Measuring modes: L20 nach CIE
- Measuring end value: 25 / 250 / 500 / 1000 cd/m²
- Visual field: 20°
- Output: 4 ... 20 mA / 250 Ohm
- Interference protection: Varistor, finefuse, suppressordiode
- Connection: Screw clamp 0,5 ... 2,5 mm²
- Casing: AISI 316L, protected by heat insulation
- Cabel entry: 2 x PG 13,5
- Measurement: 155 x 110 x 280 (HxBxT) mm
- Weight:: 2,5 kg
- Rating: IP65
- Range of temperature: -30° ... +70°C

Luminance Sensor LUCI / LUCE

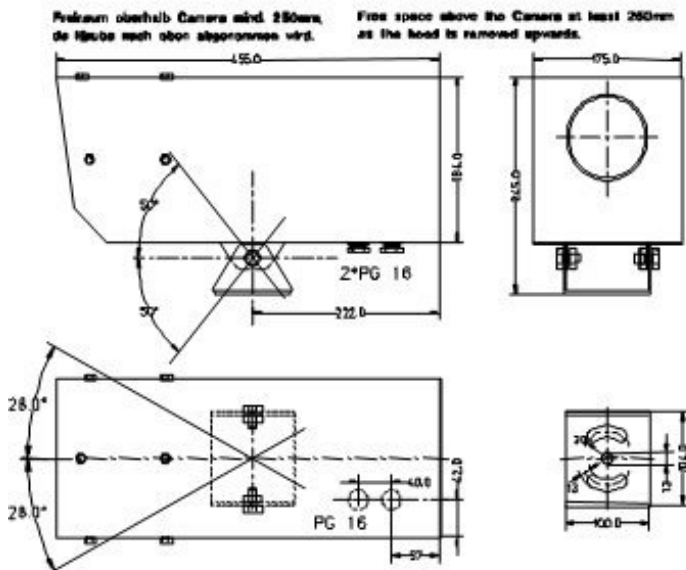
The LUMINANCE-CAMERA [Lo] receives the measuring field by an specifically designed vario-lens system over an adjustable angle of visual field. The visual field is projected as mirror image and upside down on a ground-glass screen - similar to the projection in a photographic camera. Crossed-wires on the ground-glass screen are used to adjust the LUMINANCE-CAMERA.

LUCI *L20*

The LUMINANCE camera LUCI measures the luminance L20 according to CIE.

LUCE *Ls30*

The luminance CAMERA [Ls30] measures the equivalent veiling luminance of the tunnel outdoor according to the laws of the physical glare over an angle of view of 30 degrees.



- Sensores for the surround luminance
- Measuring mode: Integrale luminance CIE-L20 notation RABT85 / DIN 67524
- Longtime stable amplifier of high reliability converts
- Vario-optic for adjustment of the visual field
- With a spectral sensitivity adpted to the human eye.
- Continously controlled heating against ice accretion and clouding-over of the glass cap.
- New: Professional bus in preparation

Technical data:

- | | | |
|--|--|--|
| • Voltage supply: 230 V AC | • Output: 4 ... 20 mA / 250 Ohm | • Cable entry: 2 x PG 16 |
| • Measuring mode:
LUCI: L20 - CIE
LUCE:Ls30 - RABT 85, DIN 67524 | • Interference protection: Varistor, finefuse, suppressordiode | • Measurement:
185 x 175 x 455 (HxWxD) mm |
| • Masuring range:
0 ... 10.000 cd/m ² | • Connection:
Screw clamp 0,5 ... 2,5 mm ² | • Weight: 7,5 kg |
| • Visual field: 16° ... 32° | • Casing: AISI 316L
protected by heat insulation | • Rating: IP65 |
| | | • Range of temperature:
-30° ... +70°C |

Light regulator

The light regulator collects the brightness of the environment and the glare of the driver, analyses the data and switches or dims the lamps of each lighting level efficiently according to the individual requirements.

Through the modular design individual configurations like the control of illumination by stages or continuity, regulation of the inner web, lighting level or trigger rotations as well as bus connections and statistical analyses can be realised.

The light regulator LUMatic is mounted on a sub plate ready for connection in order to minimise the amount of cabling on site.

Each system requires a 250 hours long-term test in a tunnel simulation system with real equipment parameter.



- Optimal safety to traffic and energy consumption at minimum cost
- Individual adaptability for any tunnel project
- Level control, continuous regulation, level or trigger rotations, regulations of the inner web
- Easy bonding in existing control technology
- Comfortable menu navigation (optional and capable of graphics)
- Parameter is changeable at any time (protected by a password)
- 250 hours quality test for every system
- Individual error alert configuration
- Bistable relay cards to activate the lighting level in order to maintain the lighting level after a power failure or a recurrence of voltage.

Technical data:

- | | | |
|--|--|---|
| • Voltage supply: 230 V AC | • Flash-EPROM and storage battery for parameter and important data | • Display:
LED-lighted
8-lined, 40 signes |
| • Measurement method:
CIE or RABT-85 / DIN 67524 resp. | • Protection:
Varistor, micro fuse, suppressordiode | • Keyboard:
24 enter-keys
8 funktions-keys
16 parameter-keys |
| • Measurement value processing:
12 Bit System with electroplated seperation | • Protection type:
casing: IP65
subplate: IP00 | |
| • Floating point arithmetic for complex calculation functions | | |

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ILLUMINANCE-LUXOR *Eh*

- Silicon photovoltaic cell for a linear signal
- Adapted to the spectral response of the eye
- Long-term stable amplifier with high reliability
- Electronically adjusted heater against icing

The sensor LUXOR *Eh* covers the horizontal illumination [lx] to control the illumination systems.

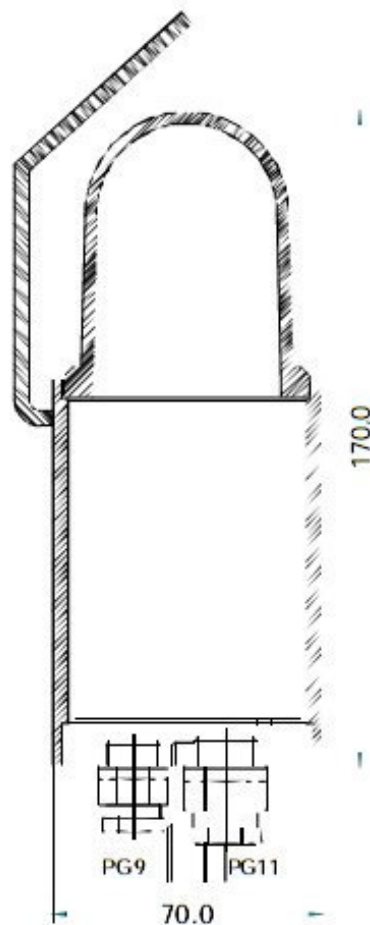
The measuring range is designed for 1000 lx.

The illumination [lx] is being measured by a silicon photovoltaic cell which is adapted to the spectral response of the eye.

The built-in long-term stable amplifier of high reliability forms the photocurrent of the silicon photovoltaic cell into a strictly linear voltage signal, that is proportional to the illumination.

The sensor is equipped with an installed, electrical, continuously regulated heater. This prevents the formation of condensation and ice on the diffuser in winter.

The diffuser of the sensor consists of dirt-repelling glass. Cleaning is only necessary during maintenance of the entire illumination-system.



The casing consists of Stainless steel (1.4571) and is equipped with a diffuser of glass for the light admission.

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