LUXMETER

MS-LUX in standard-housing

OVERVIEW

The MS-LUX luxmeter is designed to measure the intensity of illumination of a natural or artificial light source. A measuring cell is used to convert the beam emitted from the light into an electrical output signal which is proportional to the intensity of illumination and at the same time the beam is amplified by a precise amplifier into an analog output signal of 0 to 4 V. The optical filter is especially transparent for wave lengths of 350..750nm. This corresponds to the proportion of the beam that is visible to the human eye. The beam is cosine-corrected as it passes through the glass lens to a diffuser and from there to the sensitive measuring cell.

MEASURING TECHNIQUE

Quality silicon measuring cells, precision made filters and a glass lens over the measuring cell guarantee high accuracy and reproducibility of measuring results.

DESIGN

As standard the sensor is integrated into a robust aluminium housing with a fixed foot. The MS-LUX S(mart) model is best suited for integration into very restricted spaces, e.g. flush-mounted distribution box. However, external mounting is also possible. It is fixed onto a level plate with three screws.

OUTPUT

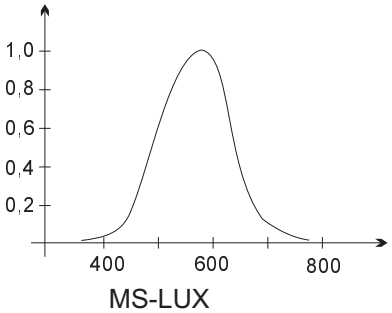
The optionally integrated output amplifier supplies a signal of up to max. 4 Volt, and can therefore be easily connected to standard components (PC, data logger, DDC, etc.).

LUXMETER

The sensor records the current intensity of illumination and is very well suited to the following applications:

- ❒ Illumination measurements in the work place
- ❒ Brightness-dependent control of artificial light
- ❒ Greenhouses (e.g. irrigation control)
- ❒ Shade installations

SPEKTRALE RESPONSE



MS-LUX

MS-LUX Smart

7..28VDC is sufficient for the power supply. The luxmeter is characterised by a very low temperature dependence. The current consumption is only 5mA.
Maintenance is limited to simply cleaning the glass dome when it is contaminated.

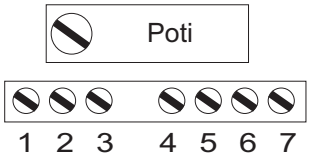
ADVANTAGES

- ❒ Low temperature dependence
- ❒ Integrated amplifier for voltage output
- ❒ 0..20 or 4..20mA ouput signal (Option)
- ❒ Longterm stability
- ❒ Cosine correction
- ❒ Complies with CE regulations
- ❒ Excellent price/performance ratio
- ❒ Very compact
- ❒ Long service life

DATA

	MS-LUX (Indoor)	MS-LUX (Outdoor)
Measurement range	0..35 kLux	0..140 kLux
Output	0..4 V	0..1V
	0..20mA*)	0..4 V
	4..20mA*)	0..20mA*)
		4..20mA*)
Temperature drift	@<250Ohm load	@<250Ohm load
Spectral response	<0,15%/K	<0,15%/K
Longterm drift	350..750nm	350..750nm
Refresh time	<2%/year	<2%/year
Power supply	<50ms	<50ms
Operating temp	7..28V/5mA	7..28V/5mA
Offset	-25°..+60°C	-25°..+60°C
Cosine error	<0,2%@0 kLux	<0,2%@0 kLux
Weight	<10%@80°	<10%@80°
(MS-LUX Smart)	250gr	250gr
Cable*)	40gr	40gr
	2m	2m
	4x0,22mm²	4x0,22mm²

Connection configuration for Smart-version (housing underside)

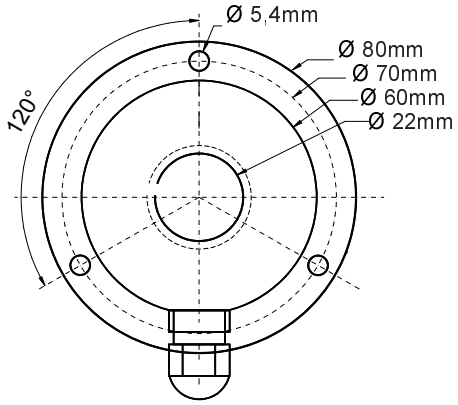


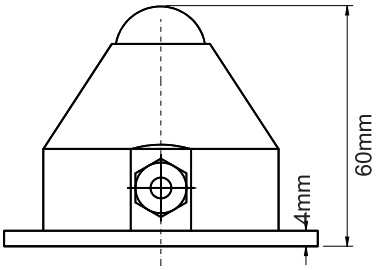
4 Power supply 7..28 VDC
5 Analog-output (signal)
6 GND
7 GND

Amplification settings (voltage out):
0....40 kLux = 0..4 V no jumper
0..160 kLux = 0..4 V jumper 2-3
0..160 kLux = 0..1 V jumper 1-2

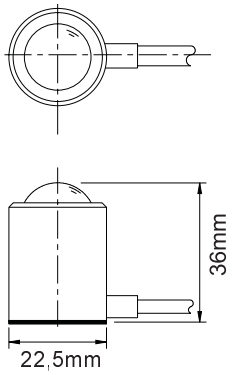
Connection configuration for the standard housing, see housing underside

DIMENSIONS MS-LUX in standard housing





MS-LUX Smart



ORDERING INFORMATION MS-LUX xyz
whereas
x = I for Inndoor use
O for Outdoor use
y = S Smart Housing
B Standard Housing
z = 0..1V or 0..4V
0..20mA (only for Standard Housing)
4..20mA (only for Standard Housing)

MESA

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Technical data is subject to change.
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