

# PRODUCT DATASHEET LED MR16 20 36° P 2.1W 830 GU5.3

LED MR16 P | Low-voltage LED reflector lamps MR16 with retrofit pin base



## Areas of application

- Shops and exhibition rooms
- Domestic applications
- Commercial applications
- Accent lighting
- Outdoor use in suitable outdoor luminaires only

## Product benefits

- Quick, simple and safe replacement without rewiring
- Design, dimensions, luminous flux comparable to an incandescent or halogen lamp
- Low maintenance costs thanks to long lifetime
- No UV and near-IR radiation in the light beam
- Instant 100 % light, no warm-up time
- Lower energy consumption than incandescent or halogen lamps

## Product features

- LED alternative to low voltage halogen lamps
- High color consistency: ≤ 6 SDCM
- Not dimmable
- Base: GU5.3
- Lamp made of glass
- Good quality of light; color rendering index CRI ≥ 80
- Lifetime up to 15,000 h





## TECHNICAL DATA

## Electrical data

Nominal wattage	2.1 W
Construction wattage	2.10 W
Nominal voltage	12 V
Operating mode	12V AC/DC <sup>1)</sup>
Claimed equiv. conventional lamp power	20 W
Nominal current	270 mA
Type of current	AC/DC
Inrush current	17.8 A
Max. lamp number on MCB B10 A	33
Max. lamp number on MCB B16 A	42
Total harmonic distortion	≤ 120 %
Power factor $\lambda$	> 0.50

<sup>1)</sup> Check ECG compatibility at ledvance.com/compatibility

## Photometrical data

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Luminous intensity	520 cd
Luminous flux	210 lm
Nominal useful luminous flux 90°	210 lm
Luminous efficacy	100 lm/W
Lumen main.fact.at end of nom.life time	0.93
Light color (designation)	Warm White
Color temperature	3000 K
Color rendering index Ra	80
Light color	830
Standard deviation of color matching	≤6 sdcm
Rated peak intensity	520 cd
Flickering metric (Pst LM)	1.0
Stroboscope effect metric (SVM)	0.4



OS S10x18 3000K

# Light technical data

Beam angle	36 °
Warm-up time (60 %)	< 0.50 s
Starting time	< 0.5 s

# Dimensions & Weight

Overall length	44.00 mm
Diameter	50.00 mm
Maximum diameter	50 mm
Product weight	28.00 g

# Temperatures & operating conditions

Ambient temperature range	-20+40 °C
Maximum temperature at tc test point	60.3 °C

# Lifespan

Lifespan L70/B50 at 25 °C	15000 h
Number of switching cycles	100000
Lumen maintenance at end of service lifetime	0.93

# Additional product data

Base (standard designation)	GU5.3
Mercury content	0.0 mg
Mercury-free	Yes

Product remark	All technical parameters apply to the entire lamp / Due to the complex production process for light-emitting diodes, the typical values shown for the technical LED parameters are purely statistical values that do not necessarily match the actual technical parameters of each individual product, which can vary from the typical value
Capabilities	
Dimmable	No
Certificates & Standards	
Energy efficiency class	F 1)
Energy consumption	3.00 kWh/1000h
Type of protection	IP20
Standards	CE / UKCA / EAC
Photobiological safety group acc. to EN62778	RG1
Country-specific categorizations  Order reference	LED MR162036 2.
•	LED MR162036 2.
Order reference	LED MR162036 220+80 °C
Order reference  OGISTICAL DATA	
Order reference  OGISTICAL DATA  Temperature range at storage	
Order reference  OGISTICAL DATA  Temperature range at storage  Energy labelling regulation data acc EU 2019/2015	-20+80 °C
Order reference  OGISTICAL DATA  Temperature range at storage Energy labelling regulation data acc EU 2019/2015  Lighting technology used	-20+80 °C
Order reference  OGISTICAL DATA  Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used  Non-directional or directional	-20+80 °C  LED  DLS
Order reference  OGISTICAL DATA  Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used  Non-directional or directional  Mains or non-mains	-20+80 °C  LED  DLS  NMLS
Order reference  OGISTICAL DATA  Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used  Non-directional or directional  Mains or non-mains  Light source cap-type (or other electric interface)	-20+80 °C  LED  DLS  NMLS  GU5.3
Order reference  OGISTICAL DATA  Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used  Non-directional or directional  Mains or non-mains  Light source cap-type (or other electric interface)  Connected light source (CLS)	-20+80 °C  LED  DLS  NMLS  GU5.3
Order reference  OGISTICAL DATA  Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used  Non-directional or directional  Mains or non-mains  Light source cap-type (or other electric interface)  Connected light source (CLS)  Color-tuneable light source	-20+80 °C  LED  DLS  NMLS  GU5.3  No
Order reference  OGISTICAL DATA  Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used  Non-directional or directional  Mains or non-mains  Light source cap-type (or other electric interface)  Connected light source (CLS)  Color-tuneable light source  Envelope	-20+80 °C  LED  DLS  NMLS  GU5.3  No  No  No
Order reference  OGISTICAL DATA  Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used  Non-directional or directional  Mains or non-mains  Light source cap-type (or other electric interface)  Connected light source (CLS)  Color-tuneable light source  Envelope  High luminance light source	-20+80 °C  LED  DLS  NMLS  GU5.3  No  No  No  No
Order reference  OGISTICAL DATA  Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used  Non-directional or directional  Mains or non-mains  Light source cap-type (or other electric interface)  Connected light source (CLS)  Color-tuneable light source  Envelope  High luminance light source  Anti-glare shield	-20+80 °C  LED  DLS  NMLS  GU5.3  No  No  No  No  No  No
Order reference  OGISTICAL DATA  Temperature range at storage  Energy labelling regulation data acc EU 2019/2015  Lighting technology used  Non-directional or directional  Mains or non-mains  Light source cap-type (or other electric interface)  Connected light source (CLS)  Color-tuneable light source  Envelope  High luminance light source  Anti-glare shield  Correlated colour temperature type	-20+80 °C  LED  DLS  NMLS  GU5.3  No  No  No  No  SINGLE_VALUE

50.00 mm

Height

Width	50.00 mm
Chromaticity coordinate x	0.434
Chromaticity coordinate y	0.403
R9 Colour rendering index	1
Beam angle correspondence	NARROW_CONE_90
Survival factor	0.90
Displacement factor	0.5
LED light source replaces a fluorescent light source	No
EPREL ID	1842011
Model number	AC57973

## **EQUIPMENT / ACCESSORIES**

- Equipped with high-power LEDs

## Safety advice

- Do not touch the lamp if broken.
- Must not be used if outer bulb is defective.

## DOWNLOAD DATA

	Documents and certificates Document name	
PDF	Declarations of conformity	LED MR11, MR16
PDF	Declarations of conformity UKCA	LED MR11 MR16
	Photometric and lighting design files	Document name
	Spectral power distribution	OS S10x18 3000K

## LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4099854235115	Folding box	49 mm x 49 mm x 62 mm	35.00 g	0.15 dm <sup>3</sup>
4099854235122	Shipping box 10	255 mm x 107 mm x 72 mm	400.00 g	1.96 dm <sup>3</sup>

The mentioned product code describes the smallest quantity unit which can be ordered. One shipping unit can contain one or more single products. When placing an order, for the quantity please enter single or multiples of a shipping unit.

## References / Links

- For further products and actual information concerning LED lamps see www.ledvance.com/ledlamps
- For Guarantee see www.ledvance.com/guarantee
- Further information see www.ledvance.com/low-voltage-ledlamps

## **DISCLAIMER**

Subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.