PLD M 160 W-95/105 896

**LED machine light, 24 V DC,
degree of protection IP67,
emission angle 95°/105°**

Data sheet
106834_en_03

1 Description

This LED machine light is designed to provide illumination inside or on machinery.

Due to the narrow design, it can be mounted even where space is at a premium.

In the light holder supplied, the light can swivel and the lighting can therefore be optimally aligned.

The satin-finished plastic cover prevents glare for the machine operator.

Features

- Length: 896 mm
- 24 V DC supply voltage
- Color temperature 6200 K
- Emission angle 95°/105°
- Pivoting
- IP67 degree of protection

Make sure you always use the latest documentation.
It can be downloaded from the product at phoenixcontact.net/products.

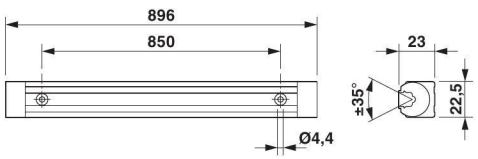
2 Table of contents

3 Ordering data

Description	Type	Order No.	Pcs./Pkt.
LED machine light, 24 V DC, Degree of protection IP67, Emission angle 95 °/105 °, Color temperature 6200 K, Length 896 mm, Connecting cable length approx. 3 m, Light housing: Anodized aluminum, Light cover: Satined acrylic, pivoting, including mounting accessories	PLD M 160 W-95/105 896	2702478	1

4 Technical data

Dimensions (nominal sizes in mm)



Length	896 mm
Width	22.5 mm
Height	23 mm

General data

Weight	0.8 kg
Color	aluminum color
Ambient temperature (operation)	0 °C ... 40 °C
Ambient temperature (storage/transport)	-10 °C ... 50 °C
Permissible humidity (operation)	95 %
Permissible humidity (storage/transport)	95 % (non-condensing)
Air pressure (operation)	69 kPa ... 102 kPa
Air pressure (storage/transport)	69 kPa ... 102 kPa
Degree of protection	IP67
Protection class	III, IEC 61140, EN 61140, VDE 0140-1
Mounting position	any
Mounting type	Screw mounting
Material	Anodized aluminum (Light housing) Satined acrylic (Light cover)

Special properties

pivoting (Swiveling range ±35°)

including mounting accessories

Connection data

Connection method	open cable end
Connecting cable length	approx. 3 m

Power supply for module electronics	
Supply voltage	24 V DC
Supply voltage range	22 V DC ... 26 V DC
Current consumption	typ. 0.875 A (at 24 V DC)
Power consumption	approx. 21 W (at 24 V DC)
Surge protection	Suppressor diode, 28 V DC
Reverse polarity protection	Polarity protection diode

Light properties	
Source of light type	LED
Number of LEDs	36
Service life, lighting appliance	50,000 h (L70)
Light color	daylight white
Color temperature	6200 K ±10 %
Color rendering index	75
Luminous flux	approx. 900 lm (Net luminous flux)
Luminous efficacy	approx. 43 lm/W
Energy efficiency class	A+
Average illumination	449 lx (Distance of 50 cm over 1 m^2 area)
Illumination	max. 833 lx (50 cm distance) min. 150 lx (Distance of 50 cm over 1 m^2 area)
Emission angle	95 ° (C0-C180) / 105 ° (C90-C270)

Conformance with EMC Directive 2014/30/EU	
Noise immunity test in accordance with EN 61547	
Electrostatic discharge (ESD) EN 61000-4-2/IEC 61000-4-2	Criterion B, 4 kV contact discharge, 8 kV air discharge
Electromagnetic fields EN 61000-4-3/IEC 61000-4-3	Criterion A, field strength: 3 V/m
Fast transients (burst) EN 61000-4-4/IEC 61000-4-4	Criterion B, ±0.5 kV
Conducted interference EN 61000-4-6/IEC 61000-4-6	Criterion A, test voltage 3 V
Noise emission test according to EN 61000-6-3	
Radio interference properties EN 55015	Class B

Approvals

For the latest approvals, please visit phoenixcontact.net/products.

5 Illuminance distribution and luminous intensity distribution

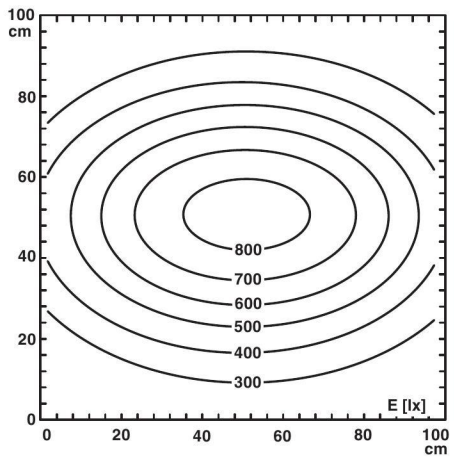


Figure 1 Illuminance distribution (distance d = 0.5 m)

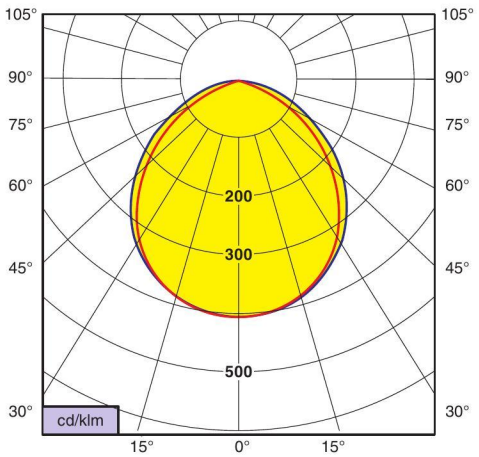


Figure 2 Luminous intensity distribution (LID) (red line: C0 - C180, blue line: C90 - C270)

6 Safety notes

WARNING: Explosion hazard

- Do not install and operate the light in potentially explosive spaces!

WARNING: danger of electric shock

- Electrical work may only be performed by qualified electricians.
- Perform all work on the light with it de-energized!

CAUTION: Risk of glare due to bright light source

Looking directly at the light source can lead to temporarily limited vision and after-images. This can lead to irritation, nuisances, adverse effects, and accidents.

- Do not look at the light source!
- Position the light so as to avoid looking directly into the light source!

NOTE: damage due to exposure to direct sunlight

Exceeding the permissible ambient temperature shortens the service life of the electronic components.

- Do not expose the light to direct sunlight!

CAUTION: Damage due to incident laser beam

Being struck directly or indirectly by a laser beam can destroy the LED.

- Only use the light outside of the effective range of high-power lasers such as cutting lasers or welding lasers!

7 Mount light

Mount the light as specified in the package slip.

8 Connecting the supply voltage

CAUTION: Damage due to incorrect connection

Incorrect connection voltage or polarity can damage or destroy the light.

- Only connect the light when the operating unit is switched off!
- Only operate the light with safety extra-low voltage (SELV)!
- Ensure that the connection voltage corresponds to the nominal voltage given on the ratings plate!
- Pay attention to the correct polarity!
- Use a class 2 power supply unit when the light is used on the North American market!

Pin assignment

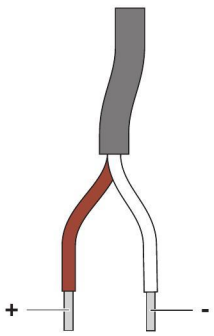


Figure 3 Pin assignment

	Color	Assignment
+	Brown	24 V DC
-	White	GND