



Model Number

MLV41-LL-RT-4393

Fiber optic sensor
with 4-pin, M8 x 1 connector

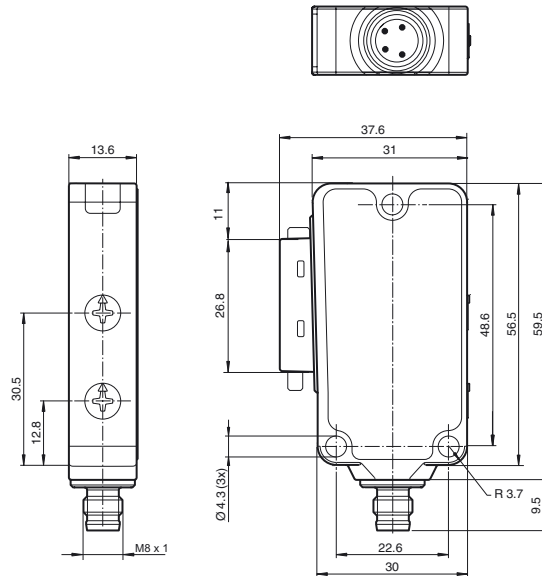
Features

- Robust housing with Delta Seal coating
- Protection degree IP67
- Not sensitive to ambient light, even with switched energy saving lamps
- Multiple device installation possible, no mutual interference
- Adjustable continuous sensitivity
- Protection class II

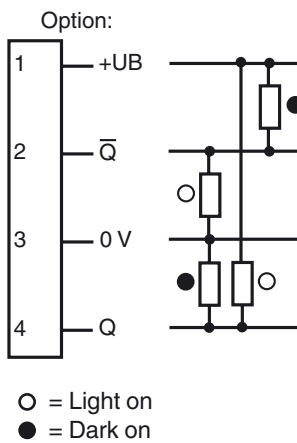
Product information

The unique and extremely popular design of the MLV41 series enables it be mounted correctly in confined areas and offers all the functions that are normally only found on larger phototelectric sensors. The MLV41 series comes with a range of functions grouped together under the VISO+ quality symbol. For example, highly visible status LEDs on the front and back, resistance to ambient light, crosstalk protection and universally applicable output stages that permit every possible switching logic and polarity to be realized. The enhanced resistance to ambient light ensures reliable operation even where modern energy-saving lamps with electronic ballasts are in use. The same applies where multiple devices are present, i.e. the use of a number of sensors in the same vicinity causes no problems.

Dimensions



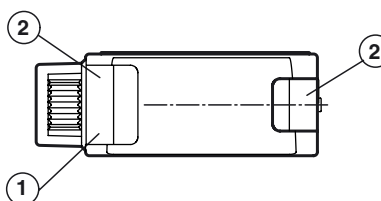
Electrical connection



Pinout



Indicators/operating means



| | |
|---|-------------------------|
| 1 | Operating display green |
| 2 | Function display yellow |

Release date: 2011-09-26 12:22 Date of issue: 2011-10-20 2:15243_eng.xml

Subject to modifications without notice

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Technical data**General specifications**

| | |
|-----------------|--------------------------------------|
| Sensor range | up to 45 mm (LMR 04-1,6-0,5-Z1) |
| Detection range | up to 120 mm (LME 04-1,6-0,5-Z1) |
| Light source | LED |
| Light type | modulated visible red light , 660 nm |

Indicators/operating means

| | |
|-------------------|---|
| Operating display | LED green, statically lit Power on , Undervoltage indicator: Green LED, pulsing (approx. 0.8 Hz) , short-circuit : LED green flashing (approx. 4 Hz) |
| Function display | LED yellow, lights up when light beam is free, flashes when falling short of the stability control |
| Controls | Sensitivity adjuster, light/dark switch |

Electrical specifications

| | | |
|------------------------|-------|----------------|
| Operating voltage | U_B | 10 ... 30 V DC |
| Ripple | | max. 10 % |
| No-load supply current | I_0 | max. 35 mA |

Output

| | | |
|---------------------|---|-----------------|
| Switching type | light/dark on switchable | |
| Signal output | 2 Push-pull outputs, complementary, short-circuit proof, reverse polarity protected | |
| Switching voltage | max. 30 V DC | |
| Switching current | max. 100 mA | |
| Voltage drop | U_d | ≤ 2.5 V DC |
| Switching frequency | f | 1000 Hz |
| Response time | | 0.5 ms |

Ambient conditions

| | |
|---------------------|--------------------------------|
| Ambient temperature | -40 ... 60 °C (-40 ... 140 °F) |
| Storage temperature | -40 ... 75 °C (-40 ... 167 °F) |

Mechanical specifications

| | |
|---------------------|------------------------------|
| Fiber optic adapter | 04 |
| Protection degree | IP67 |
| Connection | M8 x 1 connector, 4-pin |
| Material | |
| Housing | aluminum , Delta-Seal coated |
| Optical face | Fiber optic connection |
| Mass | 50 g |

Compliance with standards and directives

| | |
|---------------------------|---|
| Directive conformity | |
| EMC Directive 2004/108/EC | EN 60947-5-2:2007 |
| Standard conformity | |
| Product standard | EN 60947-5-2:2007 IEC 60947-5-2:2007 |

Approvals and certificates

| | |
|--------------|--|
| UL approval | cULus Listed 57M3 (Only in association with UL Class 2 power supply; Type 1 enclosure) |
| CCC approval | Products with a maximum operating voltage of ≤ 36 V do not bear a CCC marking because they do not require approval. |

Accessories**OMH-41**

Mounting bracket

V31-WM-2M-PUR

4-pin, M8 socket, PUR cable

V31-GM-2M-PUR

4-pin, M8 socket, PUR cable

LCR 04-1,6-0,5-Z1

Glass fiber optic - diffuse with PVC covering

LLR 04-1,6-0,5-G(M6x30)

Glass fiber optic - diffuse with metal silicone covering

LCR 04-1,6-0,5-WC 3

Glass fiber optic - diffuse with PVC covering

LLR 04-1,6-0,5-W C3

Glass fiber optic - diffuse with metal silicone covering

LCE 04-1,6-1,0-Z1

Glass fiber optic - thru-beam with PVC covering

LCE 04-1,6-1,0 G

Glass fiber optic - thru-beam with PVC covering

LLE 04-1,6-1,0-G

Glass fiber optic - thru-beam with metal silicone covering

LCE 04-1,6-1,0-W C3

Glass fiber optic - thru-beam with PVC covering

LLE 04-1,6-1,0-W C3

Glass fiber optic - thru-beam with metal silicone covering

Other suitable accessories can be found at www.pepperl-fuchs.com