



# **Model Number**

#### M100/MV100-6757/102

Thru-beam sensor with 2 m fixed cable

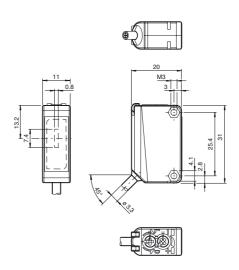
## **Features**

- Miniature design
- Slit aperture to shape the light in miniature sensors
- Easy to use
- Very bright, highly visible light spot
- Full metal thread mounting
- Highly visible LEDs for Power ON and switching state
- Not sensitive to ambient light

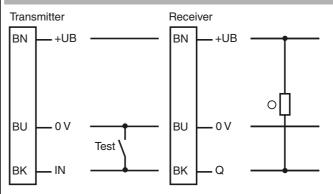
# **Product information**

The ML100 series is characterized by its miniature housing with integral, all-metal threaded bushings. All versions are equipped with a visible red transmitter LED. This greatly simplifies installation and commissioning. The switching states are easily visible from all directions thanks to the highly visible LEDs.

## **Dimensions**

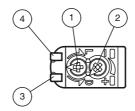


## **Electrical connection**



- O = Light on
- = Dark on

# Indicators/operating means



1	Light-Dark-switching	
2	Sensitivity adjuster	
3	Signal display	yellow
4	Operating display	areen

when falling short of the stability control ; OFF when light be is interrupted  Control elements  Control elements  Light-on/dark-on changeover switch  Electrical specifications  Operating voltage  No-load supply current  Test input  Test input  Output  Switching type  The switching type of the sensor is adjustable. The default of thing is: light on  Signal output  1 NPN output, short-circuit protected, reverse polarity protection open collector  max. 10 °M  No-load supply current  Test input  Output  Switching type  The switching type of the sensor is adjustable. The default of thing is: light on  Signal output  1 NPN output, short-circuit protected, reverse polarity protection open collector  max. 30 ∨ DC  Switching current  max. 100 mA , resistive load  Voltage drop  Ud  ≤ 1.5 ∨ DC  Switching frequency  f 1000 Hz  Response time  0.5 ms  Ambient conditions  Ambient temperature  -30 60 °C (-22 140 °F)  Storage temperature  -40 70 °C (-40 158 °F)  Mechanical specifications  Degree of protection  Degree of protection  Pef7  Connection  2 m fixed cable  Material  Housing  PC (Polycarbonate)  Optical face  PMMA  Mass  approx. 100 g (emitter and receiver)  Tightening torque, fastening screws  0.6 Nm  Cable length  2 m  Compliance with standards and directives  Directive conformity  EMC Directive 2004/108/EC  Standard conformity  Standards  UL 60947-5-2:2007+A1:2012	Technical data		
Receiver MV100-6757/102  Seneral specifications  Effective detection range	•		
Effective detection range 0 1.5 m Threshold detection range 2 m Light source LED Light source approx. 0.14 m at a distance of 2 m Angle of divergence approx. 0.14 m at a distance of 2 m Angle of divergence approx. 0.14 m at a distance of 2 m Angle of divergence approx. 0.14 m at a distance of 2 m Angle of divergence approx. 0.14 m at a distance of 2 m Angle of divergence approx. 0.14 m at a distance of 2 m Angle of divergence approx. 0.2 m Angle of divergence approx. 0.2 m Angle of divergence approx. 0.14 m at a distance of 2 m Angle of divergence approx. 0.10 g (emitter and receiver) Angle of divergence approx. 0.10 g (emitter and receiver) Angle of protection approx. 0.10 g (emitter and receiver) Angle of protection approx. 0.10 g (emitter and receiver) Angle of protection approx. 0.10 g (emitter and receiver) Angle of protection approx. 0.10 g (emitt	Emitter		M100-6757/76b
Effective detection range	Receiver		MV100-6757/102
Threshold detection range Light source Light source Light source Light source Light source Light source John March 1997 and 14 m at a distance of 2 m approx. 2 n approx. 4 n	General specifications		
Light source Light type Light type Light type Light type Modulated visible red light Dameter of the light spot Angle of divergence Optical face Optical face Optical face Optical face Optical face Functional safety related parameters MTTF₄ Mission Time (T₁₄) Diagnostic Coverage (DC) Diagnostic Coverage (DC) Diagnostic Coverage (DC) Ruction indicator Function indicator Fun	Effective detection range		0 1.5 m
Light type modulated visible red light Diameter of the light spot approx. 0.14 m at a distance of 2 m Angle of divergence approx. 2 ° Optical face frontal Ambient light limit EN 60947-5-2 Functional safety related parameters MTTrd 880 a Mission Time (Ttw) 20 a Diagnostic Coverage (DC) 0 % Mission Time (Ttw) 20 a Diagnostic Coverage (DC) 0 % Mission Time (Ttw) 20 a Diagnostic Coverage (DC) 0 % Mission Time (Ttw) 20 a Diagnostic Coverage (DC) 0 % Mission Time (Ttw) 20 a Diagnostic Coverage (DC) 0 % Mission Time (Ttw) 20 a Diagnostic Coverage (DC) 0 % Mission Time (Ttw) 20 a Diagnostic Coverage (DC) 0 % Mission Time (Ttw) 20 a Diagnostic Coverage (DC) 0 % Mission Time (Ttw) 20 a Diagnostic Coverage (DC) 0 % Mission Time (Ttw) 20 a Diagnostic Coverage (DC) 0 % Mission Time (Ttw) 20 a Diagnostic Coverage (DC) 0 % Mission Time (Ttw) 20 a M	Threshold detection range		2 m
Diameter of the light spot approx. 0.14 m at a distance of 2 m approx. 3 m approx. 4 m approx. 3 m approx. 3 m approx. 4 m app	Light source		LED
Angle of divergence optical face frontal face frontal Ambient light limit EN 60947-5-2 Functional safety related parameters  MTF <sub>d</sub> 860 a  Mission Time (T <sub>th</sub> ) 20 a  Diagnostic Coverage (DC) 0% indicators/operating means  Operation indicator EED yellow, lights up when light beam is free, flas when falling short of the stability control; OFF when light be is interrupted sensitivity adjustment  Control elements Light-on/dark-on changeover switch  Electrical specifications  Operating voltage U <sub>B</sub> 10 30 V DC  Ripple max. 10 % Enitter: ≤15 mA Receiver: ≤8 mA  Input  Test input emitter deactivation at 0 V  Output  Switching type The switching type of the sensor is adjustable. The default of the stability protected, reverse polarity protection open collector  Switching current max. 30 V DC  Switching current max. 30 V DC  Switching current max. 30 V DC  Switching derop U <sub>d</sub> ≤1.5 V DC  Switching derop U <sub>d</sub> ≤1.5 V DC  Switching derop U <sub>d</sub> ≤1.5 V DC  Switching requency f 1000 Hz  Response time 0.5 ms  Ambient temperature 30 60 °C (-22 140 °F)  Storage temperature 40 70 °C (-40 158 °F)  Machanical specifications  Degree of protection IP67  Connection PMMA  Mass approx. 100 g (emitter and receiver)  Jinghening torque, fastening screws 0.6 Nm  Cable length Compliance with standards and directives  Directive conformity  EMC Directive 2004/108/EC EN 60947-5-2:2007+A1:2012  Slandard Conformity  EMC Directive 2004/108/EC EN 60947-5-2  Approvals and certificates  UL approval	Light type		modulated visible red light
Optical face frontal Ambient light limit EN 60947-5-2 Functional safety related parameters  MTTF <sub>d</sub> 860 a  Mission Time (T <sub>fw</sub> ) 20 a  Diagnostic Coverage (DC) 0%  Indicators/operating means  Operation indicator Receiver: LED yellow, lights up when light beam is free, flas when falling short of the stability control; OFF when light be is interrupted  Control elements Elight-on/dark-on changeover switch  Electrical specifications  Operating voltage Ug 10 30 V DC  Ripple max. 10 %  No-load supply current lg emitter ≤ 15 mA Receiver: ≤ 8 mA  Input  Test input emitter deactivation at 0 V  Output  Switching type in the sensor is adjustable. The defaults ting is: light on yellow processed in the processed of the p	Diameter of the light spot		approx. 0.14 m at a distance of 2 m
Ambient light limit	Angle of divergence		approx. 2 °
Functional safety related parameters  MTFd	Optical face		frontal
Mission Time (T <sub>M</sub> ) 20 a Mission Time (T <sub>M</sub> ) 20 a Diagnostic Coverage (DC) 0 % Indicators/operating means Operation indicator LED green: power on Function indicator Receiver: LED yellow, lights up when light beam is free, flas when falling short of the stability control; OFF when light be is interrupted Control elements sensitivity adjustment Control elements Light-on/dark-on changeover switch Electrical specifications Operating voltage U <sub>B</sub> 10 30 V DC Ripple max. 10 % No-load supply current I <sub>0</sub> Receiver: ≤ 8 mA Receiver: ≤ 8 mA Receiver: ≤ 8 mA Receiver: ≤ 8 mA  Input  Test input emitter deactivation at 0 V  Output  Switching type The switching type of the sensor is adjustable. The default of ting is: light on Signal output 1 NPN output, short-circuit protected, reverse polarity protect open collector Switching voltage max. 30 V DC  Switching voltage max. 30 V DC  Switching current max. 100 mA , resistive load  Voltage drop U <sub>d</sub> ≤ 1.5 V DC Switching frequency f 1000 Hz Response time 0.5 ms  Ambient temperature 30 60 °C (-22 140 °F) Storage temperature 40 70 °C (-40 158 °F)  Mechanical specifications Degree of protection PG7  Connection 2 m fixed cable  Material  Housing PC (Polycarbonate) Optical face PMMA Mass approx. 100 g (emitter and receiver) Tightening torque, fastening screws 0.6 Nm Cable length 2 m  Compliance with standards and directives  Directive conformity EMC Directive 2004/108/EC Standard conformity Standards UL 60947-5-2:2007+A1:2012  Standards UL approval with a limited voltage output with (maybe integrated) tuse (max. 3.3 A according UL248), Type 1 enclosure	Ambient light limit		EN 60947-5-2
Mission Time (T <sub>M</sub> ) 20 a Diagnostic Coverage (DC) 0%  Indicators/operating means  Operation indicator Receiver: LED yellow, lights up when light beam is free, flas when fallings about of the stability control; OFF when light be is interrupted sensitivity adjustment  Control elements Light-on/dark-on changeover switch  Electrical specifications  Operating voltage U <sub>B</sub> 1030 V DC  Ripiple max. 10 %  No-load supply current I <sub>Q</sub> Emitter: ≤ 15 mA Receiver: ≤ 8 mA  Receiver: ≤ 8 mA  Receiver: ≤ 8 mA  Receiver: ≤ 15 mA  Rece	Functional safety related param	eters	
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Diagnostic Coverage (DC)  ndicators/operating means Operation indicator Function indicat	•		20 a
Operation indicator  Operation indicator  Function indicator  Function indicator  Function indicator  Control elements  Light-on/dark-on changeover switch  Electrical specifications  Operating voltage  No-load supply current  Ioo  Emitter: ≤ 15 mA  Receiver: ≤ 8 mA  Input  Test input  Switching type  The switching type of the sensor is adjustable. The default sting is: light on  Signal output  Switching voltage  The switching type of the sensor is adjustable. The default sting is: light on  Signal output  Switching voltage  The switching type of the sensor is adjustable. The default sting is: light on  Signal output  Switching voltage  Switching voltage  The switching type of the sensor is adjustable. The default sting is: light on  Signal output  1 NPN output, short-circuit protected, reverse polarity protectopen collector  Switching voltage  The switching type of the sensor is adjustable. The default sting is: light on  Signal output  1 NPN output, short-circuit protected, reverse polarity protectopen collector  Switching ucurent  The switching type of the sensor is adjustable. The default sting is: light on  Signal output  Signal output  1 NPN output, short-circuit protected, reverse polarity protectopen collector  Switching frequency  Function of max. 30 V DC  Switching frequency  f 1000 Hz  Sestiching current  The switching frequency  f 200 max. 100 mA, resistive load  The switching frequency  The switching frequenc	* ****		0 %
Departion indicator   LED green: power on			
Function indicator  Funct	· · · · · ·		LED green: power on
Electrical specifications  Operating voltage  UB  No-load supply current  Test input  Test input  Switching type  Signal output  Switching voltage  WB  No-load supply current  The switching type of the sensor is adjustable. The default string is: light on  Signal output  The switching type of the sensor is adjustable. The default string is: light on  Signal output  The switching type of the sensor is adjustable. The default string is: light on  Signal output  The switching type of the sensor is adjustable. The default string is: light on  Signal output  1 NPN output, short-circuit protected, reverse polarity protect open collector  max. 30 ∨ DC  Switching voltage  max. 100 mA , resistive load  Voltage drop  Ud  ≤ 1.5 ∨ DC  Switching frequency  f 1000 Hz  Response time  0.5 ms  Ambient conditions  Ambient temperature  -30 60 °C (-22 140 °F)  Storage temperature  -40 70 °C (-40 158 °F)  Mechanical specifications  Degree of protection  1P67  Connection  2 m fixed cable  Material  Housing  Optical face  PMMA  Mass  approx. 100 g (emitter and receiver)  Tightening torque, fastening screws  0.6 Nm  Cable length  2 m  Compliance with standards and directives  Directive conformity  EMC Directive 2004/108/EC  EN 60947-5-2:2007+A1:2012  Standard conformity  Standards  UL 60947-5-2  Approvals and certificates  UL approval  cultus Listed, Class 2 Power Source or listed Power Supple with a limited voltage output with (maybe integrated) fuse (max. 3.3 A according UL248), Type 1 enclosure	•		Receiver: LED yellow, lights up when light beam is free, flasl when falling short of the stability control; OFF when light be
Electrical specifications  Operating voltage UB 10 30 V DC Ripple max. 10 % No-load supply current ID Emitter: ≤ 15 mA Receiver: ≤ 8 mA  Receiver: ≤ 10 mA  Receiver: ≤	Control elements		sensitivity adjustment
Operating voltage   U <sub>B</sub>   10 30 V DC   Ripple   max. 10 %   No-load supply current   I <sub>0</sub>   Emitter: ≤ 15 mA   Receiver: ≤ 8 mA    Input   max. 10 W   Test input   max. 10 W   Switching type   max. 10 W   Switching type   The switching type of the sensor is adjustable. The default sting is: light on   Signal output   1 NPN output, short-circuit protected, reverse polarity protection open collector   Switching ourrent   max. 30 V DC   Switching current   max. 100 mA   resistive load   Voltage drop   U <sub>d</sub> ≤ 1.5 V DC   Switching frequency   f 1000 Hz   Response time   0.5 ms   Ambient conditions   Ambient emperature   -30 60 °C (-22 140 °F)   Storage temperature   -40 70 °C (-40 158 °F)   Mechanical specifications   Degree of protection   IP67   Connection   2 m fixed cable   Material   Housing   PC (Polycarbonate)   Optical face   PMMA   Mass   approx. 100 g (emitter and receiver)   Tightening torque, fastening screws   0.6 Nm   Compliance with standards and directives   Directive conformity   EMC Directive 2004/108/EC   EN 60947-5-2:2007+A1:2012   Standard conformity   Standards   UL 60947-5-2   Approvals and certificates   UL approval   CULus Listed, Class 2 Power Source or listed Power Supple with a limited voltage output with (maybe integrated) fuse (max. 3.3 A according UL248), Type 1 enclosure	Control elements		Light-on/dark-on changeover switch
Operating voltage   U <sub>B</sub>   10 30 V DC   Ripple   max. 10 %   No-load supply current   I <sub>0</sub>   Emitter: ≤ 15 mA   Receiver: ≤ 8 mA    Input   max. 10 W   Test input   max. 10 W   Switching type   max. 10 W   Switching type   The switching type of the sensor is adjustable. The default sting is: light on   Signal output   1 NPN output, short-circuit protected, reverse polarity protection open collector   Switching ourrent   max. 30 V DC   Switching current   max. 100 mA   resistive load   Voltage drop   U <sub>d</sub> ≤ 1.5 V DC   Switching frequency   f 1000 Hz   Response time   0.5 ms   Ambient conditions   Ambient emperature   -30 60 °C (-22 140 °F)   Storage temperature   -40 70 °C (-40 158 °F)   Mechanical specifications   Degree of protection   IP67   Connection   2 m fixed cable   Material   Housing   PC (Polycarbonate)   Optical face   PMMA   Mass   approx. 100 g (emitter and receiver)   Tightening torque, fastening screws   0.6 Nm   Compliance with standards and directives   Directive conformity   EMC Directive 2004/108/EC   EN 60947-5-2:2007+A1:2012   Standard conformity   Standards   UL 60947-5-2   Approvals and certificates   UL approval   CULus Listed, Class 2 Power Source or listed Power Supple with a limited voltage output with (maybe integrated) fuse (max. 3.3 A according UL248), Type 1 enclosure	Electrical specifications		
No-load supply current IDENTITY STATE STA	Operating voltage	U <sub>B</sub>	10 30 V DC
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Test input  Dutput  Switching type  The switching type of the sensor is adjustable. The default sting is: light on  Signal output  1 NPN output, short-circuit protected, reverse polarity protect open collector  Switching voltage  max. 30 V DC  Switching current  Max. 100 mA , resistive load  Voltage drop  Ud  ≤1.5 V DC  Switching frequency  f 1000 Hz  Response time  0.5 ms  Ambient conditions  Ambient emperature  -30 60 °C (-22 140 °F)  Storage temperature  -40 70 °C (-40 158 °F)  Mechanical specifications  Degree of protection  IP67  Connection  Material  Housing  PC (Polycarbonate)  Optical face  PMMA  Mass  approx. 100 g (emitter and receiver)  Tightening torque, fastening screws  Cable length  2 m  Compliance with standards and directives  Directive conformity  EMC Directive 2004/108/EC  Standard conformity  Standards  UL 60947-5-2:2007+A1:2012  Approvals and certificates  UL approval  cullus Listed, Class 2 Power Source or listed Power Suppl with a limited voltage output with (maybe integrated) fuse (max. 3.3 A according UL248), Type 1 enclosure	No-load supply current	I <sub>0</sub>	
Switching type  The switching type of the sensor is adjustable. The default sting is: light on  Signal output  1 NPN output, short-circuit protected, reverse polarity protectoes open collector  Switching voltage  max. 30 V DC  Switching current  max. 100 mA , resistive load  Voltage drop  Ud  Switching frequency  f 1000 Hz  Response time  0.5 ms  Ambient conditions  Ambient temperature  -30 60 °C (-22 140 °F)  Storage temperature  -40 70 °C (-40 158 °F)  Wechanical specifications  Degree of protection  IP67  Connection  2 m fixed cable  Material  Housing  PC (Polycarbonate)  Optical face  PMMA  Mass  approx. 100 g (emitter and receiver)  Tightening torque, fastening screws  Cable length  Compliance with standards and directives  Directive conformity  EMC Directive 2004/108/EC  Standard conformity  Standards  UL 60947-5-2:2007+A1:2012  Approvals and certificates  UL approval  with a limited voltage output with (maybe integrated) fuse (max. 3.3 A according UL248), Type 1 enclosure	nput		
Switching type  The switching type of the sensor is adjustable. The default sting is: light on  Signal output  1 NPN output, short-circuit protected, reverse polarity protectoes copen collector  max. 30 V DC  Switching current  max. 100 mA , resistive load  Voltage drop  Webraic and service a	Test input		emitter deactivation at 0 V
ting is: light on  Signal output  1 NPN output, short-circuit protected, reverse polarity protect open collector  Switching voltage  max. 30 ∨ DC  Switching current  wax. 100 mA, resistive load  Voltage drop  Ud  ≤ 1.5 ∨ DC  Switching frequency  f 1000 Hz  Response time  0.5 ms  Ambient conditions  Ambient temperature  -30 60 °C (-22 140 °F)  Storage temperature  -40 70 °C (-40 158 °F)  Mechanical specifications  Degree of protection  IP67  Connection  2 m fixed cable  Material  Housing  PC (Polycarbonate)  Optical face  PMMA  Mass  approx. 100 g (emitter and receiver)  Tightening torque, fastening screws  Cable length  2 m  Compliance with standards and directives  Directive conformity  EMC Directive 2004/108/EC  Standards  UL 60947-5-2  Approvals and certificates  UL approval  CULus Listed, Class 2 Power Source or listed Power Suppl with a limited voltage output with (maybe integrated) fuse (max. 3.3 A according UL248), Type 1 enclosure	Output		
open collector  Switching voltage  Switching current  Max. 30 V DC  Switching current  Max. 100 mA , resistive load  Voltage drop  V <sub>d</sub> ≤ 1.5 V DC  Switching frequency  Fesponse time  0.5 ms  Ambient conditions  Ambient temperature  -30 60 °C (-22 140 °F)  Storage temperature  -40 70 °C (-40 158 °F)  Mechanical specifications  Degree of protection  IP67  Connection  2 m fixed cable  Material  Housing  PC (Polycarbonate)  Optical face  PMMA  Mass  approx. 100 g (emitter and receiver)  Tightening torque, fastening screws  Cable length  2 m  Compliance with standards and directives  Directive conformity  EMC Directive 2004/108/EC  Standard conformity  Standards  UL 60947-5-2  Approvals and certificates  UL approval  CULus Listed, Class 2 Power Source or listed Power Supple with a limited voltage output with (maybe integrated) fuse (max. 3.3 A according UL248), Type 1 enclosure	Switching type		The switching type of the sensor is adjustable. The default s ting is: light on
Switching current  Voltage drop  Voltage output with (maybe integrated) fuse (max. 3.3 A according UL248), Type 1 enclosure	Signal output		·
Voltage drop U <sub>d</sub> ≤ 1.5 V DC  Switching frequency f 1000 Hz  Response time 0.5 ms  Ambient conditions  Ambient temperature -30 60 °C (-22 140 °F) Storage temperature -40 70 °C (-40 158 °F)  Mechanical specifications  Degree of protection IP67  Connection 2 m fixed cable  Material  Housing PC (Polycarbonate)  Optical face PMMA  Mass approx. 100 g (emitter and receiver)  Tightening torque, fastening screws 0.6 Nm  Cable length 2 m  Compliance with standards and directives  Directive conformity  EMC Directive 2004/108/EC EN 60947-5-2:2007+A1:2012  Standards UL 60947-5-2  Approvals and certificates  UL approval  CULus Listed, Class 2 Power Source or listed Power Suppl with a limited voltage output with (maybe integrated) fuse (max. 3.3 A according UL248), Type 1 enclosure	Switching voltage		max. 30 V DC
Switching frequency f 1000 Hz Response time 0.5 ms  Ambient conditions  Ambient temperature -30 60 °C (-22 140 °F) Storage temperature -40 70 °C (-40 158 °F)  Mechanical specifications  Degree of protection IP67 Connection 2 m fixed cable  Material Housing PC (Polycarbonate) Optical face PMMA Mass approx. 100 g (emitter and receiver)  Tightening torque, fastening screws 0.6 Nm Cable length 2 m  Compliance with standards and directives  Directive conformity EMC Directive 2004/108/EC EN 60947-5-2:2007+A1:2012  Standards UL 60947-5-2  Approvals and certificates  UL approval  CULus Listed, Class 2 Power Source or listed Power Supply with a limited voltage output with (maybe integrated) fuse (max. 3.3 A according UL248), Type 1 enclosure	Switching current		max. 100 mA , resistive load
Response time 0.5 ms  Ambient conditions  Ambient temperature -30 60 °C (-22 140 °F) Storage temperature -40 70 °C (-40 158 °F)  Mechanical specifications  Degree of protection IP67  Connection 2 m fixed cable  Material  Housing PC (Polycarbonate)  Optical face PMMA  Mass approx. 100 g (emitter and receiver)  Tightening torque, fastening screws 0.6 Nm  Cable length 2 m  Compliance with standards and directives  Directive conformity  EMC Directive 2004/108/EC EN 60947-5-2:2007+A1:2012  Standard conformity  Standards UL 60947-5-2  Approvals and certificates  UL approval culture index of course or listed Power Supply with a limited voltage output with (maybe integrated) fuse (max. 3.3 A according UL248), Type 1 enclosure	Voltage drop		≤ 1.5 V DC
Ambient conditions  Ambient temperature -30 60 °C (-22 140 °F) Storage temperature -40 70 °C (-40 158 °F)  Mechanical specifications  Degree of protection IP67  Connection 2 m fixed cable  Material  Housing PC (Polycarbonate)  Optical face PMMA  Mass approx. 100 g (emitter and receiver)  Tightening torque, fastening screws 0.6 Nm  Cable length 2 m  Compliance with standards and directives  Directive conformity  EMC Directive 2004/108/EC EN 60947-5-2:2007+A1:2012  Standards UL 60947-5-2  Approvals and certificates  UL approval culture in the factor of the conformity with a limited voltage output with (maybe integrated) fuse (max. 3.3 A according UL248), Type 1 enclosure	Switching frequency	f	1000 Hz
Ambient temperature -30 60 °C (-22 140 °F) Storage temperature -40 70 °C (-40 158 °F)  Mechanical specifications  Degree of protection IP67 Connection 2 m fixed cable  Material Housing PC (Polycarbonate) Optical face PMMA Mass approx. 100 g (emitter and receiver) Tightening torque, fastening screws 0.6 Nm Cable length 2 m  Compliance with standards and directives  Directive conformity EMC Directive 2004/108/EC EN 60947-5-2:2007+A1:2012  Standard conformity Standards UL 60947-5-2  Approvals and certificates  UL approval  CULus Listed, Class 2 Power Source or listed Power Suppl with a limited voltage output with (maybe integrated) fuse (max. 3.3 A according UL248), Type 1 enclosure	Response time		0.5 ms
Storage temperature -40 70 °C (-40 158 °F)  Mechanical specifications  Degree of protection IP67  Connection 2 m fixed cable  Material  Housing PC (Polycarbonate)  Optical face PMMA  Mass approx. 100 g (emitter and receiver)  Tightening torque, fastening screws 0.6 Nm  Cable length 2 m  Compliance with standards and directives  Directive conformity  EMC Directive 2004/108/EC EN 60947-5-2:2007+A1:2012  Standard conformity  Standards UL 60947-5-2  Approvals and certificates  UL approval culture Listed, Class 2 Power Source or listed Power Supply with a limited voltage output with (maybe integrated) fuse (max. 3.3 A according UL248), Type 1 enclosure	Ambient conditions		
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Material Housing PC (Polycarbonate) Optical face PMMA Mass approx. 100 g (emitter and receiver) Tightening torque, fastening screws 0.6 Nm Cable length 2 m Compliance with standards and directives Directive conformity EMC Directive 2004/108/EC EN 60947-5-2:2007+A1:2012 Standard conformity Standards UL 60947-5-2  Approvals and certificates UL approval cULus Listed, Class 2 Power Source or listed Power Suppl with a limited voltage output with (maybe integrated) fuse (max. 3.3 A according UL248), Type 1 enclosure	Degree of protection		IP67
Optical face PMMA  Mass approx. 100 g (emitter and receiver)  Tightening torque, fastening screws 0.6 Nm  Cable length 2 m  Compliance with standards and directives  Directive conformity  EMC Directive 2004/108/EC EN 60947-5-2:2007+A1:2012  Standard conformity  Standards UL 60947-5-2  Approvals and certificates  UL approval cULus Listed, Class 2 Power Source or listed Power Suppl with a limited voltage output with (maybe integrated) fuse (max. 3.3 A according UL248), Type 1 enclosure			2 m fixed cable
Mass approx. 100 g (emitter and receiver) Tightening torque, fastening screws 0.6 Nm Cable length 2 m  Compliance with standards and directives  Directive conformity EMC Directive 2004/108/EC EN 60947-5-2:2007+A1:2012 Standard conformity Standards UL 60947-5-2  Approvals and certificates  UL approval cULus Listed, Class 2 Power Source or listed Power Suppl with a limited voltage output with (maybe integrated) fuse (max. 3.3 A according UL248), Type 1 enclosure	Housing		PC (Polycarbonate)
Tightening torque, fastening screws Cable length 2 m  Compliance with standards and directi- //es  Directive conformity EMC Directive 2004/108/EC Standard conformity Standards UL 60947-5-2:2007+A1:2012  Approvals and certificates  UL approval  CULus Listed, Class 2 Power Source or listed Power Suppl with a limited voltage output with (maybe integrated) fuse (max. 3.3 A according UL248), Type 1 enclosure	Optical face		PMMA
Cable length 2 m  Compliance with standards and directives  Directive conformity EMC Directive 2004/108/EC EN 60947-5-2:2007+A1:2012  Standard conformity Standards UL 60947-5-2  Approvals and certificates  UL approval cULus Listed, Class 2 Power Source or listed Power Supple with a limited voltage output with (maybe integrated) fuse (max. 3.3 A according UL248), Type 1 enclosure	Mass		approx. 100 g (emitter and receiver)
Directive conformity  EMC Directive 2004/108/EC  Standard conformity  Standards  UL 60947-5-2:2007+A1:2012  Approvals and certificates  UL approval  cULus Listed, Class 2 Power Source or listed Power Suppl with a limited voltage output with (maybe integrated) fuse (max. 3.3 A according UL248), Type 1 enclosure		WS	
EMC Directive 2004/108/EC EN 60947-5-2:2007+A1:2012  Standard conformity Standards UL 60947-5-2  Approvals and certificates  UL approval cULus Listed, Class 2 Power Source or listed Power Suppl with a limited voltage output with (maybe integrated) fuse (max. 3.3 A according UL248), Type 1 enclosure	•	directi	-
Standards  UL 60947-5-2  Approvals and certificates  UL approval  cULus Listed, Class 2 Power Source or listed Power Suppl with a limited voltage output with (maybe integrated) fuse (max. 3.3 A according UL248), Type 1 enclosure			EN 60947-5-2:2007+A1:2012
Approvals and certificates  UL approval  CULus Listed, Class 2 Power Source or listed Power Suppl with a limited voltage output with (maybe integrated) fuse (max. 3.3 A according UL248), Type 1 enclosure	Standard conformity		
UL approval cULus Listed, Class 2 Power Source or listed Power Suppl with a limited voltage output with (maybe integrated) fuse (max. 3.3 A according UL248), Type 1 enclosure	Standards		UL 60947-5-2
UL approval cULus Listed, Class 2 Power Source or listed Power Suppl with a limited voltage output with (maybe integrated) fuse (max. 3.3 A according UL248), Type 1 enclosure	Annuarala and soutificates		
(max. 3.3 A according UL248), Type 1 enclosure	• •		cULus Listed, Class 2 Power Source or listed Power Supply with a limited voltage output with (maybe integrated) fuse
CCC approval CCC approval / marking not required for products rated <3			(max. 3.3 A according UL248), Type 1 enclosure
	CCC approval		CCC approval / marking not required for products rated ≤36

## Accessories

## OMH-ML100-01

Mounting aid for ML100 series, Mounting bracket

## OMH-ML100-02

Mounting aid for ML100 series, Mounting bracket

#### OMH-ML100-03

Mounting aid for round steel ø 12 mm or sheet 1.5 mm ... 3 mm

#### OMH-ML100-04

Mounting aid for ML100 series, Mounting bracket

## OMH-ML100-05

Mounting aid for ML100 series, Mounting bracket

#### OMH-F10-ML100

Mounting aid for ML100 series

#### **OMH-10**

Mounting aid

#### OMH-ML100-S1

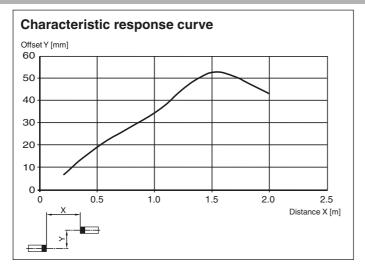
Mounting bracket

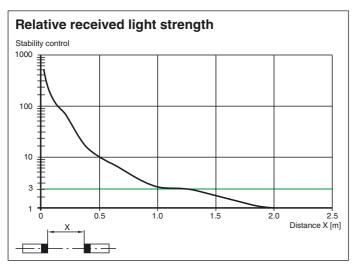
#### OMH-ML100-08

Mounting aid for ML100 series, Snap-in

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

# **Curves/Diagrams**





www.pepperl-fuchs.com