

Notice of Discontinuation  
**LM89PA2**  
**Retro-Reflex Sensor Universal**



EN

# End-of-Life Notices

Discontinued product: LM89PA2

Recommended replacement product: P1ML101

Discontinuation date: 31.12.2026

## Key Differences

The BEF-SET-04 mounting set from the discontinued product is not compatible; the Z1ME002 mounting set must be used.

The ZSM-NN-02 protective housing is not compatible with the successor product.

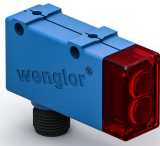

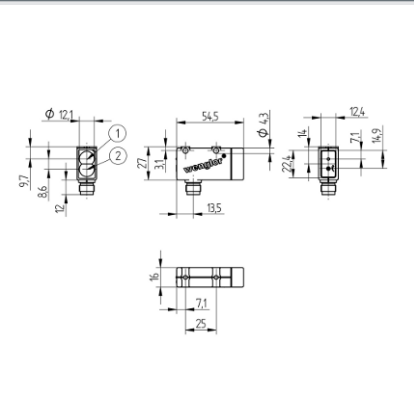
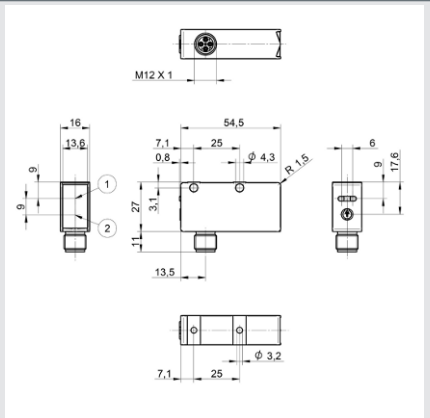


The successor product has an IO-Link interface.

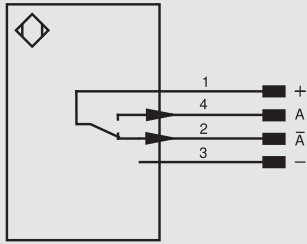
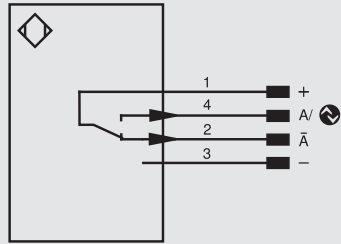






Below you will find a detailed product comparison:

	Discontinued product LM89PA2	Successor product P1ML101
<b>Optical data</b>		
Range	6500 mm	6500 mm
Reference Reflector/Reflector Foil	RQ100BA	RQ100BA
Switching Hysteresis	< 15 %	< 10 %
Light Source	Red Light	Red Light
Polarization Filter	yes	yes
Service Life (T = +25 °C)	100000 h	100000 h
Max. Ambient Light	10000 Lux	10000 Lux
Opening Angle	5 °	
Two-Lens Optic	yes	yes
<b>Electrical data</b>		
Supply Voltage	10...30 V DC	10...30 V DC
Supply Voltage with IO-Link		18...30 V DC
Current Consumption (U <sub>b</sub> = 24 V)	< 40 mA	< 20 mA
Switching Frequency	1 kHz	2000 Hz
Switching frequency (speed mode)		3500 Hz
Response Time	500 µs	0.25 ms
Response time (speed mode)		0.14 ms
Temperature Drift	< 10 %	< 10 %
Temperature Range	-10...60 °C	-40...60 °C
Switching Output Voltage Drop	< 2.5 V	< 2 V
Residual Current Switching Output	< 50 µA	< 50 µA
Short Circuit Protection	yes	yes
Reverse Polarity Protection	yes	yes
Overload Protection	yes	yes
Lockable		yes
Interface		IO-Link V1.1
Protection Class	III	III
<b>Mechanical Data</b>		

	Discontinued product LM89PA2	Successor product P1ML101
Setting Method	Potentiometer	Potentiometer
Housing Material	Plastic, PBT	Plastic, ABS/GF
Full Encapsulation	yes	
Degree of Protection	IP67	IP67 IP68
Connection	M12 × 1; 4-pin	M12 × 1; 4-pin
<b>Safety technology data</b>		
MTTFd (EN ISO 13849-1)	3127.51 a	2260.5 a
<b>Output functions</b>		
Output	PNP	PNP
Circuit	NC+NO	NC+NO

### Product Images/Technical Drawings/Connection Diagrams/Certifications

	Discontinued product LM89PA2	Successor Product P1ML101
Product image		
Dimensioned image	 <p>① Transmitter Diode ② Receiver Diode Screw M4 = 1 Nm</p>	 <p>① Transmitter Diode ② Receiver Diode Screw M4 = 0.5 Nm</p>
control panel	<p><b>M4</b></p>  <p>01 = Switching Status Indicator 05 = Switching Distance Adjuster</p>	<p><b>A 47</b></p>  <p>05 = Switching Distance Adjuster 30 = Switching Status/Contamination Warning 68 = Power LED</p>

	Discontinued product LM89PA2		Successor Product P1ML101	
connection diagram	<div style="border: 1px solid black; padding: 5px;"> <div style="float: left; border: 1px solid black; padding: 2px;">101</div>  </div>		<div style="border: 1px solid black; padding: 5px;"> <div style="float: left; border: 1px solid black; padding: 2px;">215</div>  </div>	
Approvals	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 10px; text-align: center;"><b>CE</b></div> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <input checked="" type="checkbox"/>  <b>RoHS</b> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; padding: 10px; text-align: center;">  </div> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <b>UK CA</b> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; padding: 10px; text-align: center;">   <small>IND. CONT. EQ 72HL / E189727 For use in class 2 circuits</small> </div> <div style="border: 1px solid black; padding: 10px; text-align: center;">   <small>IND. CONT. EQ 72HL / E189727 For use in class 2 circuits</small> </div> </div>		<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 10px; text-align: center;"><b>CE</b></div> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <input checked="" type="checkbox"/>  <b>RoHS</b> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; padding: 10px; text-align: center;">  </div> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <b>UK CA</b> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; padding: 10px; text-align: center;">   <small>IND. CONT. EQ 72HL / E189727 For use in class 2 circuits</small> </div> <div style="border: 1px solid black; padding: 10px; text-align: center;">  </div> </div>	