Reflex Sensor with Background Suppression





LASER

- High switching frequency
- Laser light
- Low current consumption < 15 mA
- Miniature design

Optical Data		
Range	80 mm	
Adjustable Range	1880 mm	
Switching Hysteresis	< 10 %	
Light Source	Laser (red)	
Wavelength	655 nm	
Service Life (T = +25 °C)	100000 h	
Laser Class (EN 60825-1)	1	
Max. Ambient Light	10000 Lux	
Light Spot Diameter	see Table 1	
Electrical Data		
Supply Voltage	1030 V DC	
Current Consumption (Ub = 24 V)	< 15 mA	
Switching Frequency	1900 Hz	
Response Time	263 µs	
Temperature Drift	< 5 %	
Temperature Range	-4060 °C	
Switching Output Voltage Drop	< 2,5 V	
PNP Switching Output/Switching Current	100 mA	
Short Circuit Protection	yes	
Reverse Polarity Protection	yes	
Overload Protection	yes	
Protection Class	III	
FDA Accession Number	1120743-000	
Mechanical Data		
Setting Method	Potentiometer	
Housing Material	Plastic	
Full Encapsulation	yes	
Degree of Protection	IP67	
Connection	M12 × 1; 4-pin	
Cable Length	200 mm	
PNP NO/NC antivalent		
Connection Diagram No.	101	
Control Panel No.	K4	
Suitable Connection Equipment No.	2	
Suitable Mounting Technology No.	400	

* Temperature range with permanently installed cable, bending radius: > 20 mm

These sensors detect distance by measuring angles. They are particularly good at recognizing objects in front of any background. The color, shape and surface characteristics of the object have practically no influence on sensor switching performance.



Complementary Products PNP-NPN Converter BG7V1P-N-2M

Photoelectronic Sensors







Ctrl. Panel

05 = Switching Distance Adjuster

30 = Switching Status/Contamination Warning



Table 1

Detection Range	40 mm	80 mm
Light Spot Diameter	1,5 mm	1 mm

Switching Distance Deviation

Typical characteristic curve based on white, 90 % remission



dSr = Switching Distance Change

grey 18 % remission

