

OL100340

FIBER OPTIC SENSORS • FIBER OPTIC AMPLIFIERS

Fiber optics in combination with the appropriate fiber optic amplifier function as contactless and wear-free position switches that can also be used in harsh environmental conditions. They detect objects independent of their characteristics (e.g., shape, color, surface structure, material). Because the ends and heads of the fiber optics have small dimensions and the fiber optics are flexible, very elegant solutions can be created for detecting objects in places that are difficult to access. Fiber optics can be used without special precautions in potentially explosive areas and in zones with electrical and/or magnetic fields (high-voltage installations, electrical welding equipment) as their function is not thereby affected. Fiber optics are available in versions for implementing the function as through-beam sensor or diffuse reflection sensor.



MECHANICAL DATA

Ambient temperature	-25 °C ... 55 °C
Amplifier height	30.5 mm
Amplifier length	70 mm
Amplifier width	10 mm
Degree of protection (IP)	IP40
Housing design	Cuboid
Housing material	ABS
Type of mechanical connection	Clamped terminal connection

ELECTRICAL DATA

Analogue output 0 mA ... 20 mA	No
Analogue output 0 V ... 10 V	No
Analogue output -10 V ... +10 V	No
Analogue output 4 mA ... 20 mA	No
Connection amplifier with interference suppression	Yes
Hysteresis	10 %
Max. output current	100 mA
No-load current	40 mA
Operating voltage	12 V ... 24 V
Rated control supply voltage U_s at DC	12 V ... 24 V
Response/decay time	2 ms
Reverse polarity protection	Yes
Scanning function	Light-/dark-on mode
Setting procedure	Teach-In
Setting via teach-in	Yes
Short-circuit-proof	Yes
Switching frequency	7000 Hz
Time function	Yes
Type of electrical connection	Plug-in connection

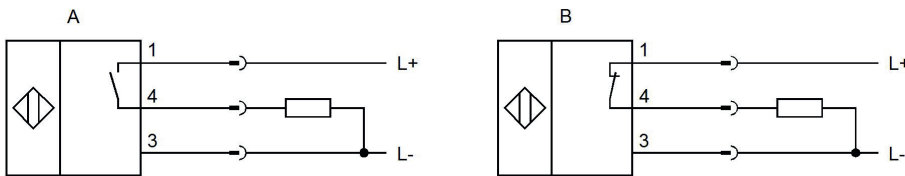
ELECTRICAL DATA

Type of indication	Digital
Type of switch function	Normally closed contact/normally open contact
Type of switching output	PNP
Voltage drop	1.5 V
Voltage type	DC
With blanking function	Yes
With LED display	Yes

OPTICAL DATA

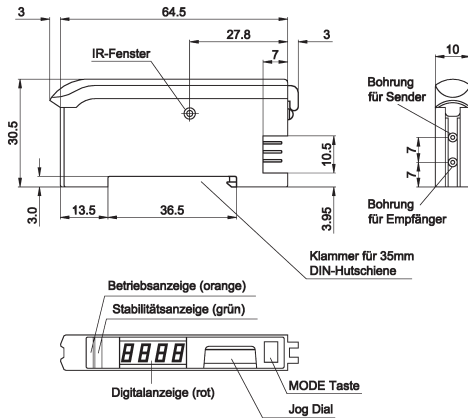
Light source	Polarity free red light
Wavelength of the sensor	660 nm

CONNECTION



Colors: A: 1 = BN (brown), 3 = BU (blue), 4 = BK (black)
 B: 1 = BN (brown), 3 = BU (blue), 4 = BK (black)
Functions: A: 1 = L+, 3 = L-, 4 = PNP NO
 B: 1 = L+, 3 = L-, 4 = PNP NC

DIMENSIONAL DRAWING



INSTALLATION



Mounting / Installation may only be carried out by a qualified electrician!

DISPOSAL



SAFETY WARNINGS

Before initial operation, please make sure to follow all safety instructions that may be provided in the product information!

