

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.

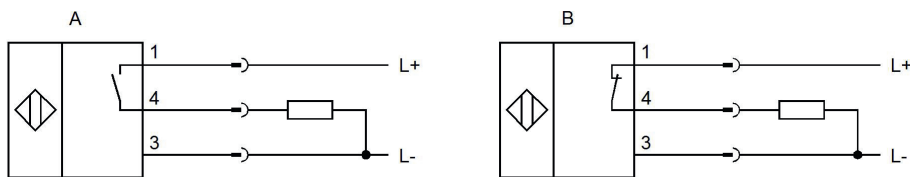

**TECHNICAL DATA**

Feeding technology	NO
Ambient temperature (min/max)	-25 °C / 55 °C
Amplifier height	30.5 mm
Amplifier length	70 mm
Amplifier width	10 mm
Bendable	NO
Degree of protection (IP)	IP40
Ejection control	NO
Fiber optic with bendable head	NO
Fiber optic with small bending radius	NO
Heavy soiling	NO
Housing design	Cuboid
Housing material	ABS plastic
Increased ambient temperature ffi 180°C	NO
Increased ambient temperature ffi 300°C	NO
Punching tools	NO
Strong vibration / motion	NO
Type of mechanical connection	Clamped terminal connection
Analogue output -10 V ... +10 V	NO
Analogue output 0 V ... 10 V	NO
Analogue output 0 mA ... 20 mA	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 (min/max)	12 V / 24 V
Rated control supply voltage $U_s$ at DC (min/max)	12 V / 24 V
Response/decay time	2 ms
Reverse polarity protection	YES

**TECHNICAL DATA**

Scanning function	Light-/dark switching
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
Type of switching output	PNP
Voltage drop	1.5 V
Voltage type	DC
With LED display	YES
With blanking function	YES
Fiber optic for attachment optics	NO
Fiber optic with coaxial structure	NO
Fiber optic with linear light beam	NO
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**

