PY310300

Laser sensors ● Through-beam sensors

Sensor laser, light barrier, 32x20x11mm, Sn: 30m, 10-30V DC, PNP programmable/ configurable, 2m PVC cable, IP67, plastic, glass fiber reinforced+PMMA, laser diode, red light, dot, manual setting

- / **plastic housing**
- / **switching output no/nc switchable**
- / **Cable connection**

laser class 1
long range

Optical sensors work contactless. They detect objects regardless of their properties (e.g. shape, color, surface structure, material). The basic mode of operation is based on the transmitter and receiver of light. There are three versions: 1. the through-beam sensor consists of two separate devices, a transmitter and a receiver, which are aligned with each other. If the light beam between the two devices is interrupted, the switching output integrated in the receiver changes its status. 2. in the reflex light barrier, the transmitter and receiver are located in one device. The transmitted light beam is reflected onto the receiver by a reflector to be mounted opposite. As soon as the light beam is interrupted, the switching output integrated in the device changes its status. 3. the diffuse reflection sensor has a transmitter and receiver in one device. The transmitted light beam is reflected by the object to be detected. As soon as the receiver detects the reflected light, the switching output integrated in the device changes its status.

Electrical features

Response/decay time	0.25 ms
Number of switching outputs	1
Display	LED display
Type of switching function	Programmable/configurable
Type of electrical connection	Cable
Type of switching output	PNP
Rated switching current	100 mA
Setting procedure	Manual adjustment | Potentiometer
Short-circuit protection	Yes
No-load current	70 mA
No-load current, receiver	35 mA
No-load current, transmitter	35 mA
Reaction time	0.25 ms
Residual ripple	10 %
Switching distance	0 - 30000 mm
Switching frequency	2000 Hz
Voltage drop	2 V
Scanning function	Light-/dark-on mode
Reverse polarity protection	Yes
Decay time	0.25 ms
Operating voltage (DC)	10 - 30 V

Mechanical features

Number of cores	3
Design	Cuboid
Width	10.8 mm
Height	31.5 mm
Cable length	2 m
Storage temperature	-40 - 70 °C
Length	19.5 mm
Maximum tightening torque	0.4 Nm
Shock resistance, acceleration	30 g
Shock resistance, pulse time	11 ms
Degree of protection (IP)	IP67
Active area material of sensor	Plastic (PMMA)
Housing material	Plastic (ABS)
Material of cable sheath	Plastic (PVC)
Vibration resistance Amplitude	0.5 mm
Vibration resistance Frequency	10 - 55 Hz
Ambient temperature	-25 - 55 °C

Optical features

Laser class	Class 1
Light source	Laser diode, red light
Light beam form	Point
Wavelength of the sensor	650 nm

Other features

Version	Light barrier

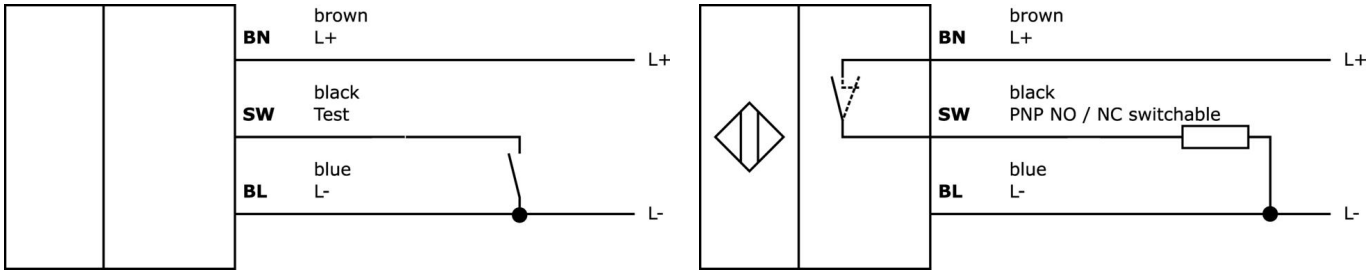
Classification

ETIM 8

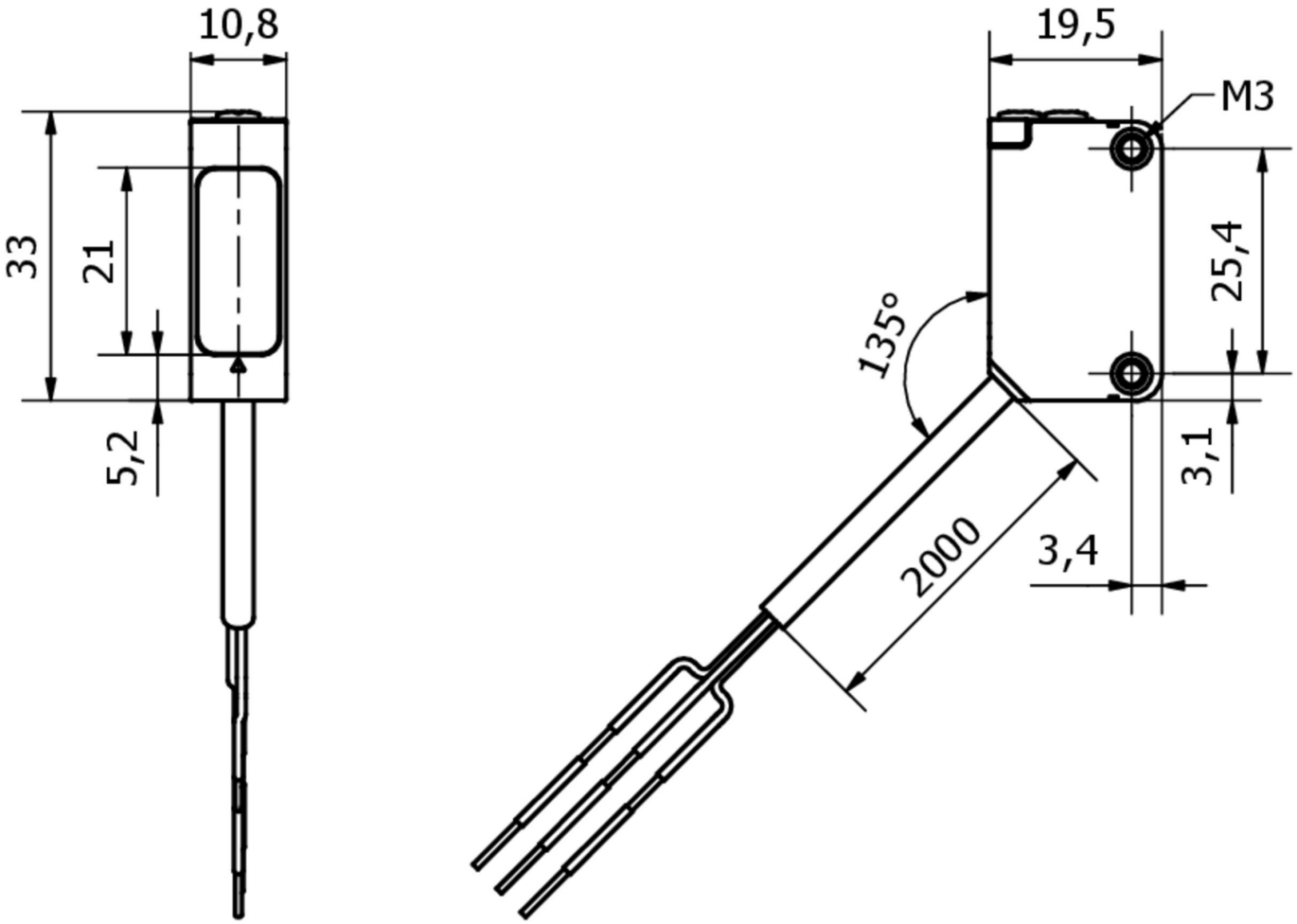
More

IPF Product Group	160 laser sensor
packaging dimensions	183 x 168 x 20 mm
gross weight	96 g
Customs tariff number	85365019
WEEE number	40951076
Reach-compliant	Yes
RoHS-compliant	Yes

Connection



Dimensional drawing



Extract accessories program

AY000118

accessories sensor, Fixture kit, Metal, ball joint

AO000474

accessories optical, Mounting angle bracket, 43x13x22mm, Mounting material for sensor, brackets, Steel

VY000004

DC power supply, sensor tester, 120x26x72mm, 18V, 0.04A, Spring clamp connection 4pin, IP20, Plastic

NG530002

DC power supply, single-phase, 99x114x22mm, 24V, 0.1A, Number of relay outputs 2, 100-264V AC 50Hz, 100-264V AC 60Hz, Screw connection, IP20, Plastic, Stabilized, Output voltage, pulsed

You can find further accessories on our homepage

Installation

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

Disposal

WEEE number according to § 6 para. 3 ElektroG: 40951076

Safety warnings

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

/ Never use these devices in applications where the safety of a person depends on their functionality.