

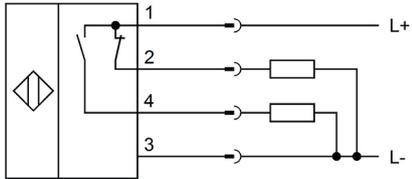
Optical sensors function contactlessly. They detect objects independent of their characteristics (e.g., shape, color, surface structure, material). The basic operating principle is based on the transmission and reception of light. There are three different versions: 1. The through-beam sensor consists of two separate devices, a transmitter and a receiver that are aligned with one another. If the light beam between the two devices is interrupted, the switching output integrated in the receiver changes its status. 2. With the retro-reflective sensor, the transmitter and receiver are located in one device. The emitted light beam is reflected back to the receiver by a reflector that is to be mounted opposite the device. As soon as the light beam is interrupted, the switching output integrated in the device changes its status. 3. With the diffuse reflection sensor, the transmitter and receiver are in one device. The emitted light beam is reflected by the object that is to be detected. As soon as the receiver detects the reflected light, the switching output integrated in the device changes its status.


TECHNICAL DATA

| | |
|---------------------------------|-------------------|
| Adjustment range (min/max) | 25mm / 300mm |
| Construction type housing | Cuboid |
| Degree of protection (IP) | IP67 |
| Height of sensor | 50mm |
| Length of sensor | 50mm |
| Material housing | Zinc die-cast |
| Material of optical surface | Glass |
| Max. switching distance | 300mm |
| Operating distance (min/max) | 25mm / 300mm |
| Rated switching distance | 300mm |
| Setting procedure | Manual adjustment |
| Width sensor | 15.4mm |
| Alarm output | NO |
| 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 |
| Decay time | 0.6ms |
| Function test | NO |
| Interference suppression | YES |
| Laser power | 1mW |
| Max. output current | 200mA |
| No load current | 35mA |
| Number of poles | 4 |
| Number of switch outputs | 2 |
| Operating voltage (min/max) | 10V / 30V |
| Relative repeat accuracy | 0.1mm |
| Response time | 0.6ms |

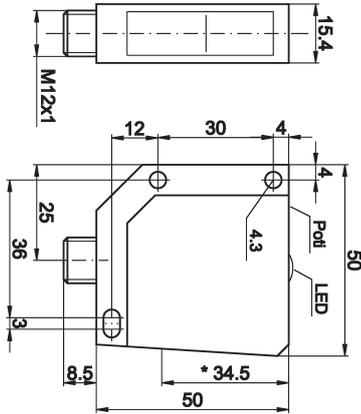
TECHNICAL DATA

| | |
|-------------------------------------|---|
| Reverse polarity protection | YES |
| Short-circuit-proof | YES |
| Switching frequency | 800Hz |
| Type of electric connection | Connector M12 |
| Type of switch function | Normally closed contact/normally open contact |
| Type of switching output | PNP |
| Voltage drop | 2V |
| Voltage type | DC |
| With LED display (operation) | YES |
| With LED display (signal) | YES |
| With LED indication | YES |
| With other analog output | NO |
| Ambient temperature (min/max) | -10°C / 50°C |
| Increased ambient temperature >70°C | NO |
| Reflector included | NO |
| Background suppression | YES |
| Distance laser focus | 80mm |
| Laser class | 2 |
| Light dot | 0.01mm ² |
| Resolution | 0.1mm |
| Shape of light beam | Point |
| Switch function | Light-/dark switching |
| Triangulation | Background fade-out |
| Type of light | Laser diode, red light |
| Wavelength of the sensor | 650nm |

CONNECTION


Colors: 1 = BN (brown), 2 = WH (white), 3 = BU (blue), 4 = BK (black)

Functions: 1 = L+, 2 = pnp/nc, 3 = L-, 4 = pnp no

DIMENSIONAL DRAWING

ADDITIONAL INFORMATION