

diff. reflection with background suppression

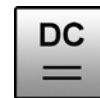
dimensions **M12x1**

sensing range 20 ... 150mm



- ✓ background suppression
- ✓ time-of-flight measuring method
- ✓ infrared laser, laser protection class 1
- ✓ adjustment via teach-in
- ✓ push-pull switching output
- ✓ window function programmable
- ✓ short-circuit and reverse polarity protected
- ✓ LED-display
- ✓ M12-connector, 4-pin

**diffuse reflection laser sensor
with background suppression**

**Description**

With this new device ipf electronic presents for the first time an extremely compact optical diffuse reflection sensors with background suppression that is able to detect objects completely independent of their color.

The background suppression works according to the so-called "time-of-flight" principle (TOF), a transit time method used for distance measurement. With this method, the distance of an object is determined by measuring the time-of-flight of a light pulse that is emitted by a sensor transmitter, reflected by the detected object and then finally captured by the sensor receiver.

The range, or rather the switching distance, of this compact diffuse reflection sensor is therefore fully independent of the reflective properties of the object surface that is to be detected.

The sensors operate with infrared laser light of laser protection class 1.

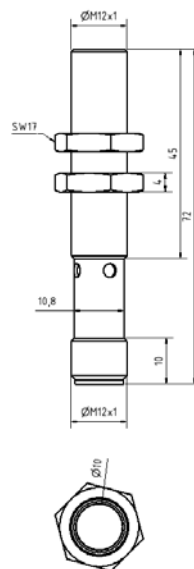
The electrical connection is made via a 4-pin M12-connector. To avoid EMC-interferences a shielded cable socket (e.g. VK205325) has to be used.

article-no.
operating range
connection

PT120320

20 ... 150mm

M12-connector, 4-pin



TECHNICAL DATA

sensing range
output signal

20... 150mm

push-pull, light on- / dark-on mode, no / nc

operating voltage
output current (max. load)
transmitting element
laser protection class
switching frequency

10 ... 30V DC

100mA

laser diode, infrared light

1

25Hz

display
adjustment
short-circuit protection
reverse polarity protection

LED yellow

teach - in

+

+

dimensions
length (thread / total)
material (housing)
material (front screen)
protection class (EN 60529)
temperature (operating)

M12x1

45mm / 72mm

VA 1.4305

lux acryl 2H

IP65

-10 ... +60°C

connection
connection accessories

M12-connector, 4-pin

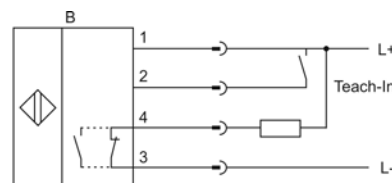
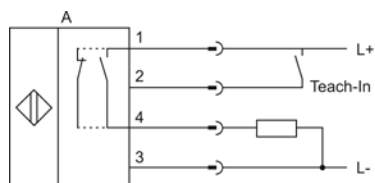
e.g. VK205325 (cable socket M12 shielded)

AV000114 (teach-in-adapter)

mounting accessories (universal holder)

AY000115

connection



colors: 1 = BN (brown), 2 = WH (white), 3 = BU (blue), 4 = BK (black)
functions: 1 = L+, 2 = teach-in, 3 = L-, 4 = push-pull

Warning:

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