

OF230125**OPTICAL SENSORS • COLOR SENSORS**

The functioning of the color sensors is based on the evaluation of the red, green and blue components of the light reflected by the objects to be measured, or from the emitted radiation of the 'self-luminous' object (for example, LEDs, automobile tail lights, halogen lamps, fluorescent lamps, etc.). For this purpose, a so-called 3-fold receiver is integrated in the unit next to an on / off switchable white light or UV-light. This receiver works according to the True Color principle. This means that the evaluation of the light hitting the receiver is similar to the color perception of the human eye. This is a prerequisite for the reliable differentiation of objects or luminous objects by their color and brightness. For testing fluorescent materials the use of sensors with UV-light source is recommended. The use under adverse environmental conditions is possible through the use of additional fiber optics. The interaction between a precise detection and a high switching frequency distinguishes the devices. Thus, they are an ideal tool for process and quality control.

MECHANICAL DATA

Ambient temperature	-20 °C ... 55 °C
Degree of protection (IP)	IP64
For damp environments	Yes
Housing design	Cuboid
Housing material	Aluminium
Material of optical surface	Glass
Sensor height	50 mm
Sensor length	50 mm
Sensor width	22.9 mm

ELECTRICAL DATA

Equipment protection class	Protection class 3
Max. number of measurements for averaging	32768
Max. output current	100 mA
No-load current	300 mA
Number of pins	8
Number of pins of the communication interface	4
Number of switching outputs	4
Operating voltage	10 V ... 30 V
Overload protection	Yes
Rated control supply voltage U_s at DC	10 V ... 30 V
Response/decay time	0.34 ms
Reverse polarity protection	Yes
Setting procedure	Parameterization
Switching frequency	60000 Hz
Type of switching function	Normally open contact (NO)
Voltage type	DC

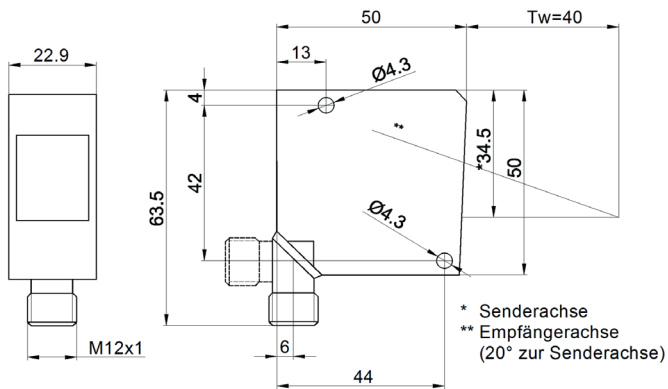
ELECTRICAL DATA

With time function	Yes
--------------------	-----

OPTICAL DATA

Alternating light operation	Yes
Light spot length	5 mm
Light spot width	3 mm
Max. ambient light	5000 lx
Measuring method for color detection	Active tristimulus method

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!