

OF210120

Optical sensors • Color sensors

sensor optical, color, 50x40x15mm, White light, Sn: 30-40, 10-30V DC, 3x PNP NO (NO), Connector M12 5pin, IP67, PBTP+Glass, 4kHz, 3 colors

including 1x Screw



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.

Electrical features

Number of switching outputs	3
Display	LED display
Type of switching function	Normally open contact (NO)
Type of electrical connection	Connector M12
Type of switching output	PNP
Rated switching current	200mA
Setting procedure	Teach-In
No-load current	180mA
Number of pins	5
Switching frequency	4000Hz
Protection class	III
Reverse polarity protection	Yes
Overload protection	Yes
Operating voltage (DC)	10 - 30V
Measuring range	30 - 40mm
Time function	Yes

Mechanical features

Design	Cuboid
Width	15mm
Height	50mm
Length	40mm
Degree of protection (IP)	IP67
Active area material of sensor	glass
Housing material	PBT
Number of colors	3
Ambient temperature	-5 - 55°C

Optical features

Light source	White light
Measuring method for color detection	Active tristimulus method
Nominal operating distance	35mm
Number of colors	3
focus	35mm
Light spot diameter at focal point	4mm

Other features

Reference distance	35
Ambient temperature	-5 - 55°C

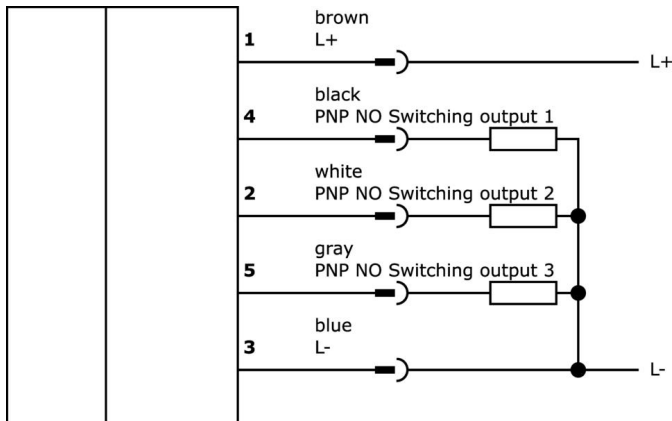
Classification

ETIM 8	EC001817 Color probe
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More

IPF Product Group	104 color sensors
packaging dimensions	210 x 185 x 15 mm
gross weight	46 g
Customs tariff number	85365019
WEEE number	40951076
Reach-compliant	Yes
RoHS-compliant	Yes

Connection



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.

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

For suitable connection and mounting accessories, please refer to our website www.ipf-electronic.com.

Dimensional drawing

