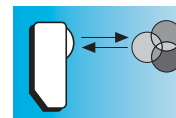


Programmable color sensor



- Programmable colors
- Ready at the press of a button
- 180° rotatable plug
- Very fast response time
- Compact housing



Programmable color sensor



General

With the color recognition sensor, Logipal, you can now use color as the criteria for your sorting, quality monitoring and automation processes.

Using the latest technology such as semiconductor light sources in Chip-on-board technology and powerful

microcontrollers, we can offer you an ultra-compact sensor which will enable you to distinguish several hundred colors.

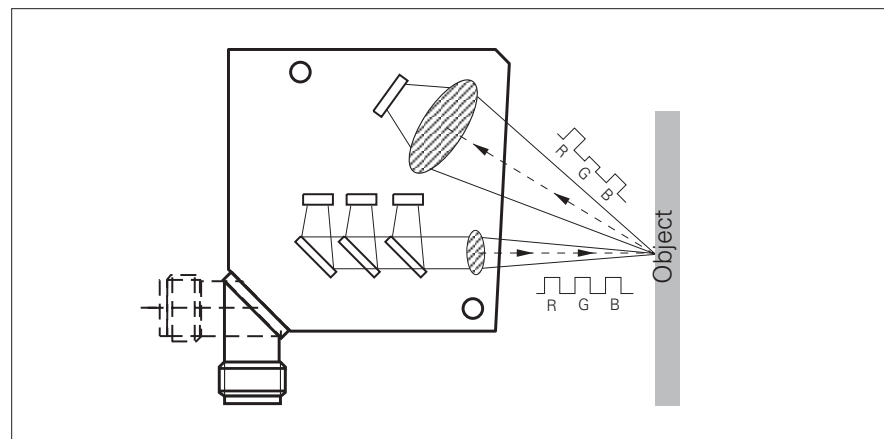
Functional principle

Logipal works in a similar manner to our eyes according to the three-color procedure with durable, maintenance-free semiconductor light sources. In the three-color procedure, any color can be described in relation to the primary colors red, green and blue.

In the Teach method, the color of an object is stored.

If the sensor recognizes the color again when measuring, it activates the relevant output.

The tolerances can be adjusted as required to allow you to detect rough or fine color differences.



Operation

Very simple operation according to the Teach-in procedure:

Four different colors can be stored using only three keys. For each color, there are five tolerance levels to choose from.

The external Teach signal input allows complete remote control of all storage functions and feedback as well as serial data transfer. An RS 232 interface transducer with galvanic separation available.

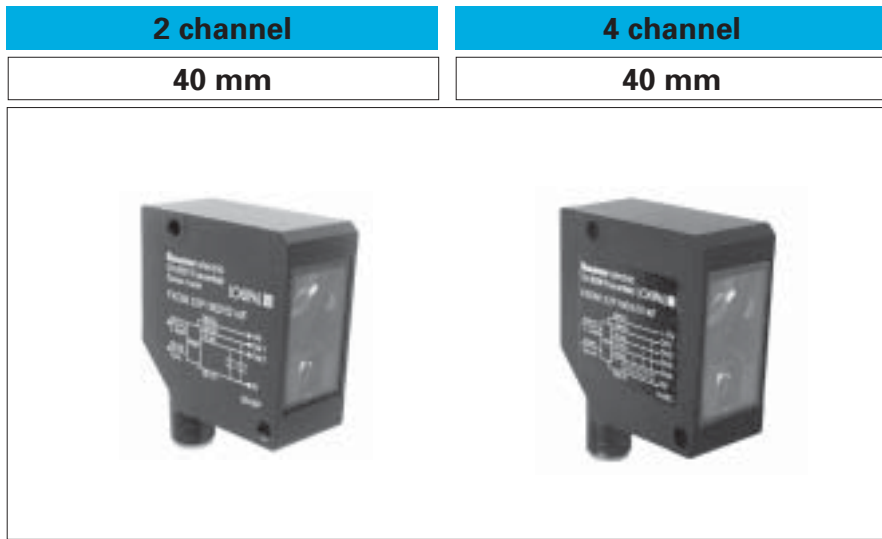
Application criteria

Utilization of the color sensor is as simple as a diffuse photoelectric with the following mounting considerations: ensure that the sensor is tilted approx. 15° to the side when detecting shiny objects.

If you wish to detect very fine differences in color, maintain as accurately as possible a sensing range of 40 mm from the object.

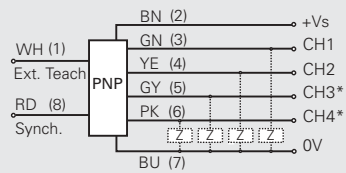
Series 22

- Programmable colors
- Compact housing
- Ready at the press of a button
- 180° rotatable plug
- Very fast response time

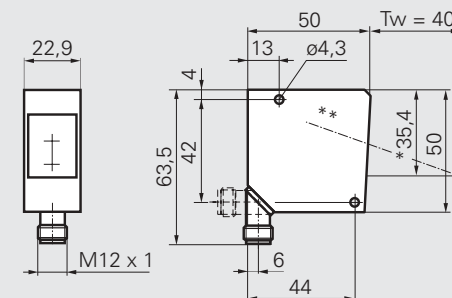


	2 channel	4 channel
PNP	light operate	light operate
NPN	light operate	light operate
	FKDM 22P1902/S14F	FKDM 22P1901/S14F
	FKDM 22N1902/S14F	FKDM 22N1901/S14F
technical data		
sensing range	40 mm	40 mm
size of measuring spot	3 mm x 5 mm	3 mm x 5 mm
sensor channels	2 (teachable)	4 (teachable)
tolerance ranges	5-step teachable (LED's)	5-step teachable (LED's)
channel status display	yellow LED per channel	yellow LED per channel
signal display (Teach)	orange LED	orange LED
function display	green LED	green LED
light source	red / green / blue LED	red / green / blue LED
voltage supply	10 - 30 VDC	10 - 30 VDC
max. supply current	80 mA / 24 VDC	80 mA / 24 VDC
max. switching current	100 mA per channel	100 mA per channel
voltage drop	< 1,8 V	< 1,8 V
response time	340 µs	340 µs
short circuit protection	yes	yes
reverse polarity protection	yes	yes
temperature range	-10...+55 °C	-10...+55 °C
housing material	die-cast zinc	die-cast zinc
device plug	rotatable by 180°	rotatable by 180°
protection class	IP 67	IP 67
synch. input	low active, low: 0 V...1/3 Vs, high: 2/3 Vs...Vs	low active, low: 0 V...1/3 Vs, high: 2/3 Vs...Vs
ext. Teach input	protocol with return signal through channel 1 -output	protocol with return signal through channel 1 -output
accessories		
connectors 8 pin (M12)	ESG 34FP0200B	ESG 34FP0200B
accessory mounting bracket	part no. 126220	part no. 126220
Interface transducer RS 232	SIFK 60G/AL	SIFK 60G/AL

connection diagram



* only in the 4-channel version



* emitter axis
 ** receiver axis (20° slanted in relation to the emitter axis)

Series 22

- Small light spot 0,7 x 1,3 mm
- Very fast response time
- Programmable colors
- Ready at the press of a button
- 180° rotatable plug



PNP	light operate	4 channel	
		FKDM 22P1911/S14F	
NPN	light operate	4 channel	
		FKDM 22N1911/S14F	

technical data		
sensing range	25 mm	
size of measuring spot	0,7 mm x 1,3 mm	
sensor channels	4 teachable	
tolerance ranges	5-step teachable (LED's)	
channel status display	yellow LED per channel	
signal display (Teach)	orange LED	
function display	green LED	
light source	red / green / blue LED	
voltage supply	10 - 30 VDC	
max. supply current	80 mA / 24 VDC	
max. switching current	100 mA per channel	
voltage drop	< 1,8 V	
response time	340 µs	
short circuit protection	yes	
reverse polarity protection	yes	
temperature range	-10...+55 °C	
housing material	aluminum anodized	
device plug	rotatable by 180°	
protection class	IP 67	
accessories		
connectors 8 pin (M12)	ESG 34FP0200B	
accessory mounting bracket	part. no. 126220	
interface transducer RS 232	SIFK 60G/AL	

