Color Sensor

OFPS742

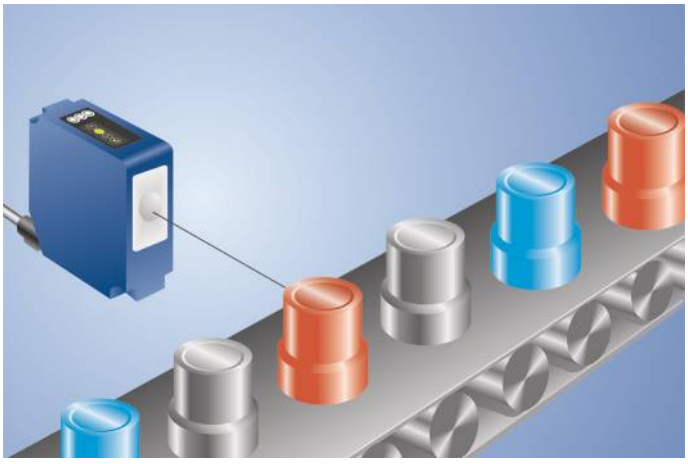
Part Number

True Color Sensor



- **Extremely fine color nuances can be recognized**
- **Reflex mode operation**
- **Teach-in and external teach-in**

This color sensor is capable of evaluating up to three colors simultaneously. A small spot and a large working range are made possible thanks to single-lens optics. All sensor settings can be selected by means of teach-in, as well as via the RS-232 interface. Values generated by the sensor can be read out via the interface or digital switching outputs. The sensor has 3 switching outputs and supplies RGB, XYZ and HSL color values via the interface.



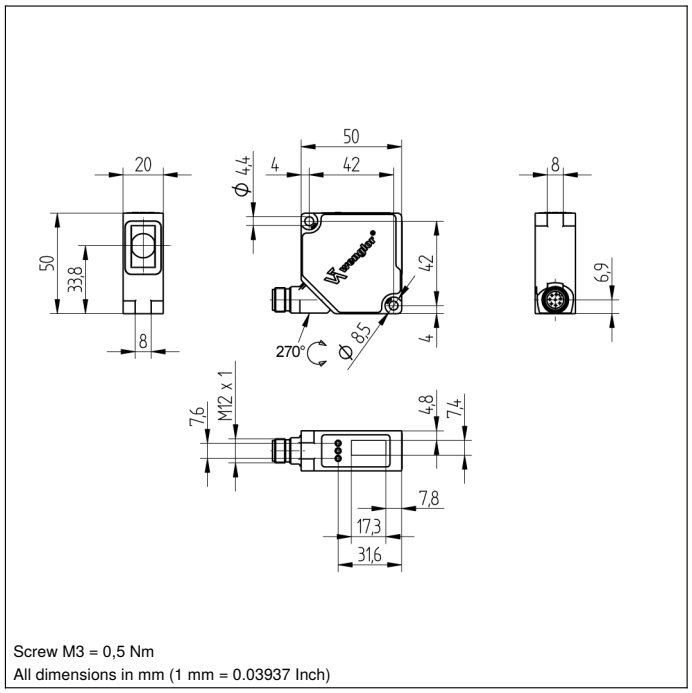
Technical Data

Optical Data	
Working Range	30...40 mm
Working Distance	35 mm
Light Source	White Light
Service Life (T = +25 °C)	100000 h
Max. Ambient Light	10000 Lux
Light Spot Diameter	3 mm
Electrical Data	
Supply Voltage	10...30 V
Current Consumption (Ub = 24 V)	< 80 mA
Switching Frequency	1,8 kHz
Response Time	300 µs
Temperature Range	-25...60 °C
Number of Switching Outputs	3
Switching Output Voltage Drop	1,5 V
PNP Switching Output/Switching Current	100 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Teach Mode	FT
Interface	RS-232
Number of Digital Inputs	2
Protection Class	III
Mechanical Data	
Setting Method	Menu (OLED)
Housing Material	Plastic, ABS
Housing Material	Plastic, PC
Optic Cover	Plastic, PMMA
Degree of Protection	IP68
Connection	M12 × 1; 8-pin
Switchable to NC/NO	●
Configurable as PNP/NPN/Push-Pull	●
RS-232 Interface	●
Error Output	●
Contamination Output	●
External teach-in input	●
Connection Diagram No.	196
Control Panel No.	X2
Suitable Connection Equipment No.	89
Suitable Mounting Technology No.	380

Display brightness may decrease with age. This does not result in any impairment of the sensor function.

Complementary Products

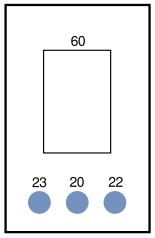
Fieldbus Gateway ZAGxxxN01, EPGG001
Interface Cable S232W3
Protective Housing ZSV-0x-01
Set Protective Housing ZSP-NN-02



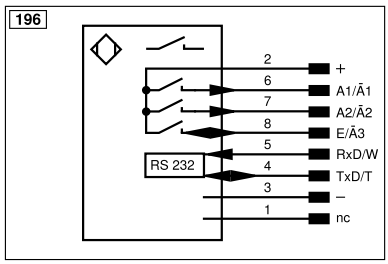
Screw M3 = 0,5 Nm
All dimensions in mm (1 mm = 0.03937 Inch)

Ctrl. Panel

X2



20 = Enter key
22 = Up key
23 = Down key
60 = display



Legend					
+	Supply Voltage +	nc	Not connected	ENBRS422	Encoder B/B̄ (TTL)
–	Supply Voltage 0 V	U	Test Input	ENA	Encoder A
~	Supply Voltage (AC Voltage)	Ū	Test Input inverted	ENB	Encoder B
A	Switching Output (NO)	W	Trigger Input	AMIN	Digital output MIN
Ā	Switching Output (NC)	W–	Ground for the Trigger Input	AMAX	Digital output MAX
V	Contamination/Error Output (NO)	O	Analog Output	AOK	Digital output OK
V̄	Contamination/Error Output (NC)	O–	Ground for the Analog Output	SY In	Synchronization In
E	Input (analog or digital)	BZ	Block Discharge	SY OUT	Synchronization OUT
T	Teach Input	AMV	Valve Output	OLT	Brightness output
Z	Time Delay (activation)	a	Valve Control Output +	M	Maintenance
S	Shielding	b	Valve Control Output 0 V	rsv	Reserved
RxD	Interface Receive Path	SY	Synchronization	Wire Colors according to DIN IEC 60757	
TxD	Interface Send Path	SY–	Ground for the Synchronization	BK	Black
RDY	Ready	E+	Receiver-Line	BN	Brown
GND	Ground	S+	Emitter-Line	RD	Red
CL	Clock	⏚	Grounding	OG	Orange
E/A	Output/Input programmable	SnR	Switching Distance Reduction	YE	Yellow
	IO-Link	Rx+/–	Ethernet Receive Path	GN	Green
PoE	ower over Ethernet	Tx+/–	Ethernet Send Path	BU	Blue
IN	Safety Input	Bus	Interfaces-Bus A(+)/B(–)	VT	Violet
OSSD	Safety Output	La	Emitted Light disengageable	GY	Grey
Signal	Signal Output	Mag	Magnet activation	WH	White
BI_D+/–	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation	PK	Pink
EN0 RS422	Encoder 0-pulse 0/0̄ (TTL)	EDM	Contactor Monitoring	GNYE	Green/Yellow
PT	Platinum measuring resistor	ENARS422	Encoder A/Ā (TTL)		

Specifications are subject to change without notice V0-09.09.2025