IPF ELECTRONIC
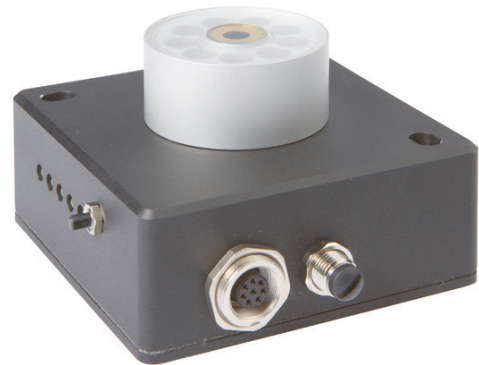
OF659140
OPTICAL SENSORS • COLOR SENSORS

sensor optical, color, 42x65x65mm, White light, True color, Sn: 10-100, 22-26V DC, 5x PNP/NPN Push-pull, Connector M9 8pin, IP64, Aluminum Anodized+Glass, ΔE >= 0.5, 40kHz, 31 colors

MECHANICAL FEATURES

Ambient temperature	-20 °C ... 55 °C
Degree of protection (IP)	IP64
Degree of protection (IP) of evaluation electronics	IP64
Degree of protection (IP), front side	IP67
For damp environments	+
Housing coating	Anodized
Housing design	Cuboid
Housing material	Aluminum
Material of optical surface	Glass
Sensor height	42 mm
Sensor length	65 mm
Sensor width	65 mm
Storage temperature	-20 °C ... 85 °C

ELECTRICAL FEATURES

EMC test in acc. with	DIN EN 60947-5-2
Equipment protection class	Protection class 3
Max. number of measurements for averaging	32768
Measurement frequency in alternating light operation	20000 Hz
Measurement frequency in constant light operation	35000 Hz
Measurement frequency in flash mode	5000 Hz
No-load current	220 mA
Number of digital inputs	1
Number of LEDs	5
Number of pins	8
Number of pins of the communication interface	4
Number of switching outputs	5
Operating voltage	21.6 V ... 26.4 V
Overload protection	+
Pulse stretching (MAX)	100 ms
Rated control supply voltage Us at DC	21.6 V ... 26.4 V
Rated switching current	100 mA
Reverse polarity protection	+

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ELECTRICAL FEATURES

Selectable amplifier stages	8
Sensing range	10 mm ... 100 mm
Setting procedure	Parameterization
Standard for interfaces	RS-232
Switching frequency	40000 Hz
Temperature drift	ΔX/ΔT; ΔY/ΔT typ. 0.2 digits/°C (< 0.01% / °C)
Type of communication interface	Connector M5
Type of electrical connection	Connector M9
Type of plug-in contact, communication interface	Female (socket)
Type of switching function	Push-pull
Type of switching output	PNP/NPN
Voltage type	DC
With communication interface, RS-232	+
With external teach	+
With external trigger	+
With LED display	+
With time function	+

OPTICAL FEATURES

Measuring method for color detection	Active tristimulus method
Light source	White light
Light spot	314.16 mm²
Nominal sensing range	50 mm
Light spot diameter	20 mm
Diffuse	+
True color	+
Max. ambient light	5000 lx
Alternating light operation	+
Constant light operation	+
Flash mode	+
Color distance	ΔE >= 0.5
Color spaces	X Y INT siM (Lab)

Other

Packaging dimensions	0.0mm x 0.0mm x 0.0mm
Shipping weight	0.15kg
Tariff code	85365019

Classification

ipf product group	999
eClass 8.0	27270907
eClass 9.0	27270907
eClass 9.1	27270907
ETIM-5.0	EC001817
ETIM-6.0	EC001817
ETIM-7.0	EC001817

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Connection

supply / signals

Pin	Color	Description
2	brown	L+
3	green	ext. input
4	yellow	PNP NO / NC programmable
5	gray	PNP NO / NC programmable
6	pink	PNP NO / NC programmable
7	blue	PNP NO / NC programmable
8	red	PNP NO / NC programmable
1	white	L-

programming connection

Pin	Description
1	L+
3	RxD
4	TxD
2	L-
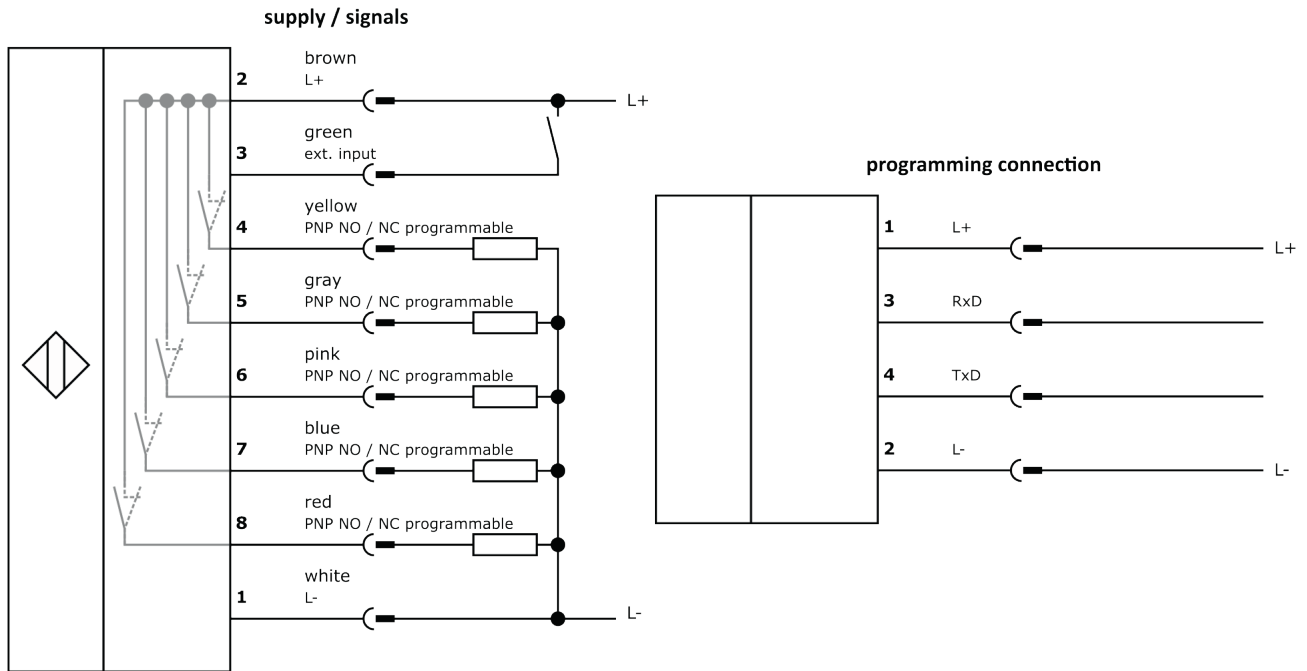
Dimensional drawing

Installation

Mounting / installation may only be carried out by a qualified electrician!

Disposal

Software
Any software, drivers or IODD files that may be required to operate your device can be downloaded free of charge from our homepage: www.ipf-electronic.com

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.
LED lighting systems can generate intensive UV radiation, which can damage your eyes in case of improper use. The manufacturer cannot be held responsible for damages that result from improper use or connection.