

## OF349142

### OPTICAL SENSORS • COLOR SENSORS

sensor optical, color, M34x1.5 130long, White light, Focused, True color, Sn: 10-150, 22-26V DC, 5x PNP/NPN Push-pull, Connector M9 8pin, IP64, Aluminum Anodized+Glass,  $\Delta E \geq 0.5$ , 60kHz, 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                                      | Cylinder, screw-thread |
| Housing material                                    | Aluminum               |
| Material of optical surface                         | Glass                  |
| Sensor diameter                                     | 34 mm                  |
| Sensor length                                       | 130 mm                 |
| Storage temperature                                 | -20 °C ... 85 °C       |
| Thread pitch  | 1.5 mm                 |
| Thread size, metric                                 | 34                     |

#### 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 $U_s$ at DC             | 21.6 V ... 26.4 V  |
| Rated switching current                              | 100 mA             |

**ELECTRICAL FEATURES**

|  |   |
|--|---|
| Reverse polarity protection                      | +   |
| Selectable amplifier stages                      | 8   |
| Sensing range                                    | 10 mm ... 150 mm  |
| Setting procedure                                | Parameterization  |
| Standard for interfaces                          | RS-232  |
| Switching frequency                              | 60000 Hz  |
| Temperature drift                                | $\Delta X/\Delta T$ ; $\Delta Y/\Delta T$ 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                           | 113.1 mm <sup>2</sup>     |
| Nominal sensing range                | 50 mm                     |
| Light spot diameter                  | 12 mm                     |
| Focused                              | +                         |
| True color                           | +                         |
| Max. ambient light                   | 5000 lx                   |
| Light focus distance                 | 50                        |
| Alternating light operation          | +                         |
| Constant light operation             | +                         |
| Flash mode                           | +                         |
| Color distance                       | $\Delta E \geq 0.5$       |
| Color spaces                         | X Y INT siM (Lab)         |

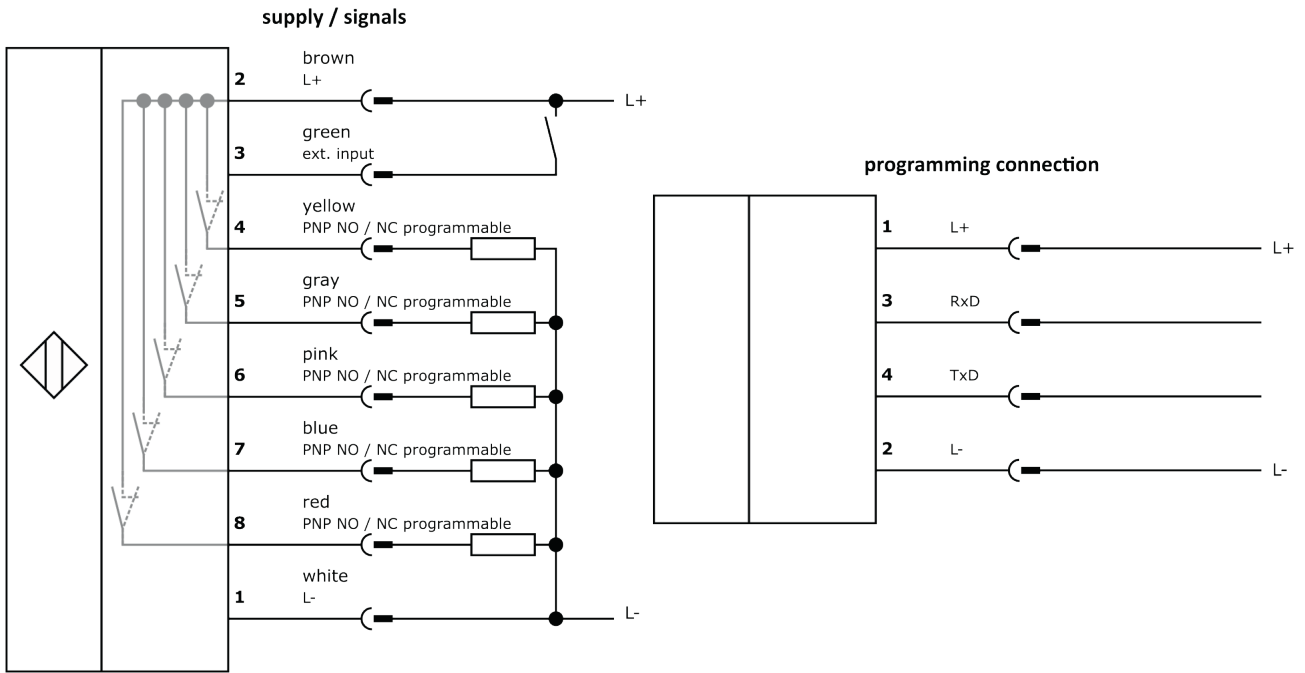
**Other**

|                      |                       |
|----------------------|-----------------------|
| Packaging dimensions | 99.0mm x 60mm x 160mm |
| Shipping weight      | 0.19kg                |
| Tariff code          | 85365019              |

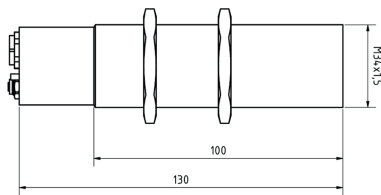
**Classification**

|                   |          |
|-------------------|----------|
| ipf product group | 104      |
| eClass 8.0        | 27270907 |
| eClass 9.0        | 27270907 |
| eClass 9.1        | 27270907 |
| ETIM-5.0          | EC001817 |
| ETIM-6.0          | EC001817 |
| ETIM-7.0          | EC001817 |

**Connection**



**Dimensional drawing**



**Installation**



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

**Disposal**



**Software**

Any software, drivers or IOOD files that may be required to operate your device can be downloaded free of charge from our homepage: [www.ipf-electronic.com](http://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.

