Model Number

RL39-54/32/40a/82a/116
Retroreflective sensor with terminal compartment

Features

- Glare protected with polarization filter
- Visible red light
- Light/dark ON, switchable
- Degree of protection IP67

Dimensions

Electrical connection

Option:

1. +UB
2. Alarm
3. 0 V
4. Q

Refer to “General Notes Relating to Pepperl+Fuchs Product Information”.

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### Technical data

#### General specifications
- **Effective detection range**: 0 ... 5 m
- **Reflector distance**: 0.1 ... 5 m
- **Threshold detection range**: 6 m
- **Reference target**: H50 reflector
- **Light source**: LED red
- **Light type**: modulated visible red light
- **Polarization filter**: yes
- **Ambient light limit**: IEC / EN 60947-5-2, 10000 Lux

#### Functional safety related parameters
- **MTTFd**: 800 a
- **Mission Time (T_M)**: 20 a
- **Diagnostic Coverage (DC)**: 0 %

#### Indicators/operating means
- **Function indicator**: LED yellow: switching state
- **LED red**: pre-fault indication
- **Control elements**: Sensing range adjuster, light-on/dark-on changeover switch

#### Electrical specifications
- **Operating voltage**: $U_B = 10 \ldots 30$ V DC
- **Ripple**: 10 %
- **No-load supply current**: $I_0 \leq 20$ mA
- **Time delay before availability**: $t_v \leq 300$ ms

#### Output
- **Pre-fault indication output**: 1 PNP, active when falling short of the stability control
- **Switching type**: light/dark on
- **Signal output**: 1 PNP output, short-circuit protected, reverse polarity protected, open collector
- **Switching voltage**: max. 30 V DC
- **Switching current**: max. 200 mA, resistive load
- **Voltage drop**: $U_d \leq 3$ V
- **Switching frequency**: $f \leq 300$ Hz
- **Response time**: $\leq 1.5$ ms

#### Ambient conditions
- **Ambient temperature**: -25 ... 55 °C (-13 ... 131 °F)
- **Storage temperature**: -40 ... 70 °C (-40 ... 158 °F)

#### Mechanical specifications
- **Housing width**: 25 mm
- **Housing height**: 64 mm
- **Housing depth**: 75 mm
- **Degree of protection**: IP67
- **Connection**: terminal compartment PG9, $\leq 2.5$ mm²
- **Material**: Housing PBT, Optical face PMMA

#### General information
- **Scope of delivery**: Mounting aid, reflector

#### Compliance with standards and directives

#### Approvals and certificates
- **CCC approval**: CCC approval / marking not required for products rated $\leq$ 36 V
- **Approvals**: CE
Curves/Diagrams

Characteristic response curve

Relative received light strength

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".