Dimensions

41.8
29
SW 7
LED red
50
13 13
Lowering for M4
100 (field height)
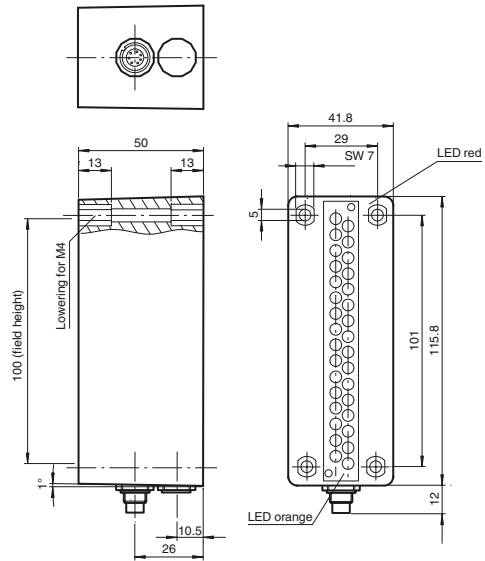5
101
115.8
1°
LED orange
10.5
26
12

Model Number

PR32-030-P-2-F-S
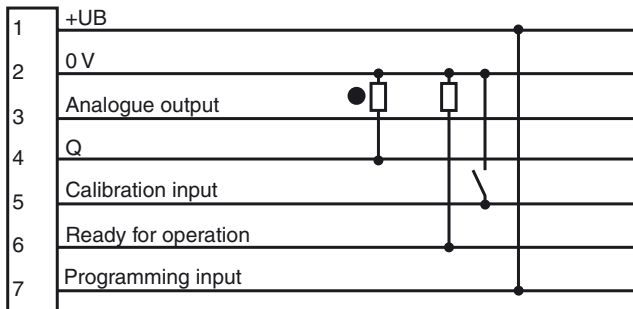
Light grid

connector V37 (M9 x 0.5), 7-pin

Features

- High-resolution light grid
- Detects transparent materials
- Detecting any object shapes
- 32 parallel light beams
- Resolution 1.5 mm (0.059 in)

Electrical connection

Connector version

Pin	
1	+UB
2	0 V
3	Analogue output
4	Q
5	Calibration input
6	Ready for operation
7	Programming input

Subject to modifications without notice

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776-4411
fa-info@pepperl-fuchs.com

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

Copyright Pepperl+Fuchs

PEPPERL+FUCHS
SENSING YOUR NEEDS

1

Technical data

General specifications

Effective detection range	300 ... 500 mm
Threshold detection range	500 mm
Sensing range	300 ... 500 mm
Light source	IRED
Light type	modulated infrared light
Approvals	CE
Field height	100 mm
Target size	1.5 mm
Beam spacing	3.2 mm
Number of beams	32
Ambient light limit	20000 Lux
Resolution	1.5 mm , Parallel

Indicators/operating means

Function display	LED yellow, functional readiness, LED red, switching state, lights up when the beam field is interrupted

Electrical specifications

Operating voltage	U_B	24 ... 28 V DC
Ripple		5 %

Input

Function input	Calibration input > 10 ms, ground active, fixed saving the switching threshold

Output

Switching type		Dark on
Signal output		1 PNP output, short-circuit proof, protected from reverse polarity, open collector
Switching voltage		max. 28 V DC
Switching current		100 mA
Measurement output		4 ... 20 mA
Switching frequency	f	20 Hz
Response time		4 ms

Standard conformity

Standards	EN 60947-5-2

Ambient conditions

Ambient temperature	-10 ... 50 °C (14 ... 122 °F)
Storage temperature	-20 ... 70 °C (-4 ... 158 °F)

Mechanical specifications

Protection degree	IP65
Connection	connector V37 (M9 x 0.5), 7-pin
Material	
Housing	ABS
Optical face	PMMA
Mass	Emitter: 150 g , Receiver: 180 g

Additional Information

Functional description

The device is a single path light grid, i.e. the transmitter and the receiver are located in separate housings.
The receiver housing contains an orange LED to signal operating readiness and a red LED to signal the status.
The red LED lights when the light grid is interrupted.

Calibration

During the calibration process, the orange and red LED are switched off.

• DURING THIS TIME ENSURE THAT NO OBJECT ENTERS THE PROTECTED AREA!

Otherwise unwanted transmitter and receiver characteristics will be included in the calibration.

• THE DISTANCE BETWEEN THE TRANSMITTER AND THE RECEIVER MUST NO LONGER BE CHANGED AFTER THE CALIBRATION!

After calibration, the orange LED lights permanently.
Under normal conditions, the red LED lights in the case of a new installation. That is, the old calibration values first have to be overwritten by a new CAL command before commissioning.
It is recommended to carry out a calibration on a daily basis.

Factory settings

1. Calibration version [F]

PEPPERL+FUCHS
SENSING YOUR NEEDS

Calibration is only carried out by a command via the orange CAL connecting cable (= fixed in memory). These calibration values are retained even when the light grid is switched off and are available again after the device is switched on.
It is recommended to carry out a calibration on a daily basis.

2. Sensitivity [2]
Suitable for highly transparent foils.

3. Beam evaluation [P]
The beams are evaluated in parallel [P].

General tips
The brown connecting cable is used for programming and must be used for normal operation at an operating voltage of +24 VDC.
Current is output at the analog output (blue cable strand). The analog output must be connected via a resistor (0 - 400 Ohm) to ground (GND).

If several light grids are installed, it must be ensured that a receiver only receives the light beams from its cooperating emitter.

Any light beam reflections must be excluded. The devices may only be installed and put into operation by qualified personnel.
It is essential that the electrical and mechanical limit values are adhered to in accordance with data sheet to ensure that the device works properly. The device may be destroyed if operated beyond these limits. Any warranty claim is void in the case of such damage.

Subject to modifications without notice

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776-4411
fa-info@pepperl-fuchs.com

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

Copyright Pepperl+Fuchs

PEPPERL+FUCHS
SENSING YOUR NEEDS

3