

Low-Power-SIGNAL
optoelectronic safety edge



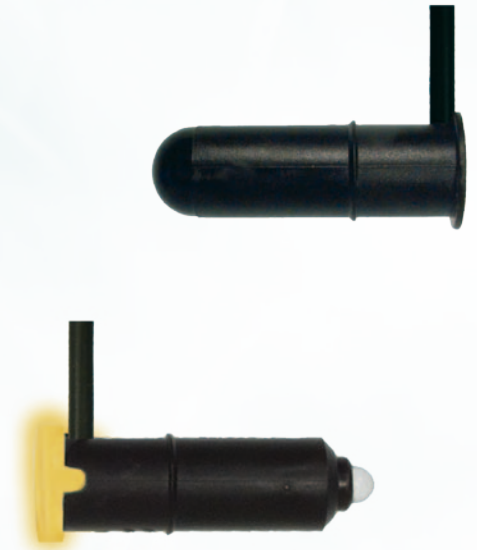
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Optoelectronic systems

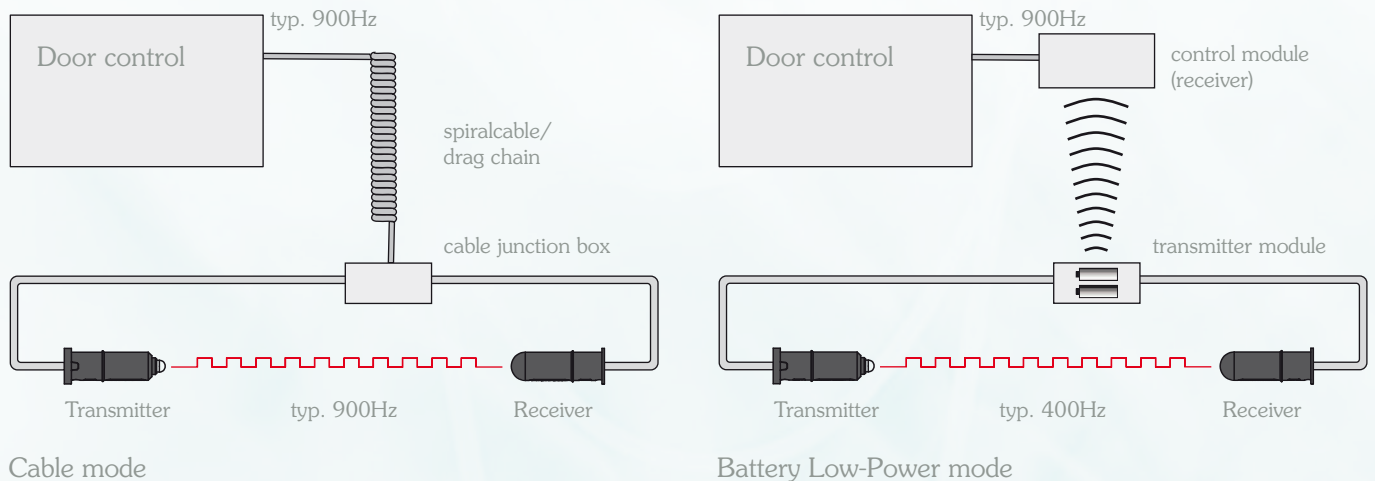
Operating gates safely

The new Low-Power-SIGNAL with automatic operating mode selection.

- ◇ Automatic operating mode recognition spiral cable/battery
- ◇ Extremely low current consumption
- ◇ Integrated diagnostic system with a visual display
- ◇ LED indicator for switching state
- ◇ Larger gate-width possible
- ◇ Less sensitive to wind load and bending
- ◇ High electromagnetic interference immunity
- ◇ Resistant against voltage reversal and short-circuits
- ◇ Regulated transmit power
- ◇ Compatible with all common door controls



Functional description of the dual operating mode



The Low-Power-SIGNAL chooses the output frequency automatically according to the respective conditions. For a lower current consumption in battery mode the output frequency will be reduced to 400Hz. This results in more life time for the batteries. The wireless transmitted safety signals will be processed in the control module which then gives out the required output frequency for the door control.

With a direct connection of the Low-Power-SIGNAL to the door control, using the spiral cable, a standard output frequency of typ. 900Hz will be created. This is essential to assure compatibility to all common door controls on the market.

In the area of energy efficiency and integrated diagnostic function the Low-Power-SIGNAL sets new benchmarks.

Functional Description

Diagnostic system with a visual display:

The safety edge Low-Power-SIGNAL is testing the rubber profile for its optical quality after engaging. The optical quality results from the rubber mixture, door width, bending, soiling etc.. The optical values of the rubber profile are indicated with a flash code of 1...3 impulses. One impulse is the best value, 3 impulses the worst.

LED indicator for switching state:

The activated safety edge is indicated with the constant illuminated yellow LED.

Larger gate width possible:

The Low-Power-SIGNAL was developed using a new optical system, thereby allowing considerable larger gate widths.

Less sensitive to wind load and bending:

The Low-Power-SIGNAL shows an improved switching behaviour in difficult conditions due to the optical characteristics and the new regulation method.

High electromagnetic interference immunity:

The Low-Power-SIGNAL has a very high electromagnetic interference immunity. In this way the requirements can be fulfilled, despite the use of frequency inverter controls and static discharges of PVC curtains.

Resistant against voltage reversal and short-circuits:

The Low-Power-SIGNAL is immune to wrong wiring. It is practically indestructible at the power supply.

Regulated transmit power:

The improved transmit power regulation results in approximately equal closing forces at different gate-widths.

Compatible to all common safety edge systems:

The Low-Power-SIGNAL is compatible with all common door controls and safety processing units and can be connected without problems.

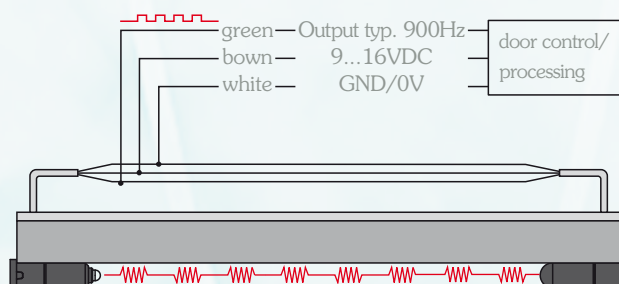
Diagnostic interpretation

Always after switching on the power:

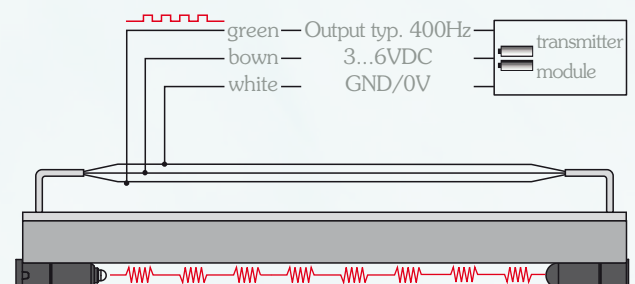
- 1 flashes = optimal condition
- 2 flashes = good condition
- 3 flashes = operational limit reached

Terminal Assignments

Cable mode



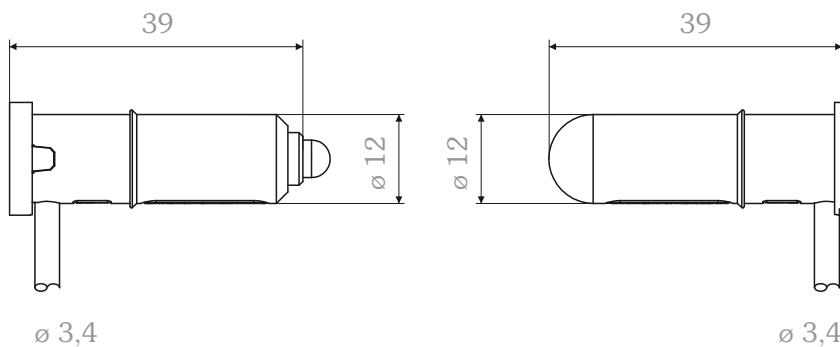
Battery mode



Technical Data

Range	1...12m	Operation display	yellow ring-shaped LED is on when safety edge is triggered
Operating voltage	battery mode: 3...6V cable mode: 9...16V polarity reversal proofed	Housing material	transmitter, plastic PA6 receiver, Lexan, IR transparent
Current consumption	battery mode: typ. 1.6mA cable mode: typ. 3.8mA	Wire	3x0.14mm ² , ø 3.4mm, PUR, halogen free, acid- and oil-resistant
Output	transistor-output, max. load 20mA, short-circuit-proofed	Degree of protection	IP67 according to EN60529, filled with 2K-epoxy resin
Output frequency	automatic recognition battery mode: typ. 400Hz cable mode: typ. 900Hz	Operating temperature	-25...+75°C
Output signal	rectangular signal low-level 0-0.5V high-level 2.5-4V	Storage temperature	-25...+75°C
Type of light	infrared, 880nm pulsed	Weight	approx. 21g with 1m cable approx. 155g with 10.5m cable
Diagnostic display	yellow ring-shaped LED for rubber profile diagnostic	Size	ø12x39mm

Size



Optoelectronic systems direct from the manufacturer

- Development
- Design
- Manufacture
- Sales

We make only optoelectronics – and we do it right



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