



Low-Power-SIGNAL optoelectronic safety edge

- automatic operating mode recognition spiral cable/battery
- extremely low current consumption
- automatic adapted output frequency
- 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

Technical data

Range	1...12m
Operating voltage	battery mode: 3...6V spiral cable mode: 9...16V resistant against voltage reversal and short-circuits
Current consumption	battery mode: typ. 1.6mA spiral cable mode: typ. 3.8mA
Output	transistor output max. load 20mA, short-circuit proofed
Output signal	rectangular signal low level 0-0.5V high level 2.5-4V
Output-frequency	automatic recognition battery mode: typ. 400Hz spiral cable mode: typ. 900Hz
Type of light	infrared, 880nm pulsed
Diagnostics display	yellow ring-shaped LED for safety edge diagnosis
Operating display	yellow ring-shaped LED LED switched on when safety edge is triggered
Housing material	Transmitter, plastic PA6 Receiver, Lexan, IR transparent
Wire	3x0,14mm ² , ø 3,4mm, PUR, halogen free, acid- and oil-resistant
Degree of protection	IP 67 according to EN60529, filled with epoxy resin
Operating temperature	-25°... +75°C
Storage temperature	-25°... +85°C
Weight	approx. 21g with 1m cable approx. 155g with 10.5m cable
Size	ø12x39mm

Declaration of conformity

EMC directive 2004/108/EEC
EN 61000-6-2 and EN 61000-6-4
Safety devices for power operated
doors and gates
EN 12978



Diagnostics interpretation

The „Low-Power-SIGNAL" safety edge has a new diagnostic system innovatively integrated. To realise this, the transmitter has got an all around visible yellow ring LED. For battery powered wireless transmission systems the highest priority for the sensors is the very low current consumption. Our low power sensors still have the integrated diagnostic display as well as the display for the switching state. Therefore the LED indication happens by short flash impulses.

Always after switching on the power supply the optical values of the rubber profile will be measured. Thereafter the Low-Power-SIGNAL switches into the operation mode. Now safety edge interruptions will be indicated.

Always after disconnecting the power supply this diagnostic function takes place.

Display values

1 flash	= flashes = optimal condition
2 flash	= flashes = good condition
3 flash	= flashes = operational limit reached
static display	= safety edge activated

Ordering details

Low-Power-SIGNAL 12

Version with open ends	Order number	
Transmitter (standard cable lengths: 0,5m / 1,0m)	Low-Power-SIGNAL12T	1.114 450/Xm
Receiver (standard cable lengths: 0,5m / 1,0m / 10,5m)	Low-Power-SIGNAL12R	1.114 460/Xm
Version with Molex connector	Order number	
Transmitter (standard cable lengths: 0,5m / 1,0m)	Low-Power-SIGNAL12T	1.114 455/Xm
Receiver (standard cable lengths: 0,5m / 1,0m / 10,5m)	Low-Power-SIGNAL12R	1.114 465/Xm

Sample:

Low-Power-SIGNAL 12 transmitter with 1m cable	Low-Power-SIGNAL12T	1.114 450/010
Low-Power-SIGNAL 12 receiver with 10,5m (Molex)	Low-Power-SIGNAL12R	1.114 465/105

The entire SIGNAL series can be supplied in series with other cable lengths.