



Specifications

Optical data

Operating range/scanning range ¹⁾
Light source
Wavelength

Throughbeam operation

1000mm
LED (modulated light)
880nm (infrared)

Scanner operation

80mm

Timing

Switching frequency ²⁾
Response time

1000Hz
0.5ms

Electrical data

Operating voltage U_B
Residual ripple
Bias current
Switching output
Function characteristics
Signal voltage high/low
Output current
Sensitivity

10 ... 30VDC (incl. residual ripple)
 $\leq 10\%$ of U_B
 ≤ 50 mA
PNP transistor output
light/dark switching via selector switch
 $\geq (U_B - 2V) / \leq 2V$
max. 100mA
adjustable through potentiometer

Multicolour display

LED red

LED red flashing

light path free/reflection
(with performance reserve)
light path free/reflection
(without performance reserve)

Mechanical data

Housing
Weight
Cable connection
Fibre optic cable connection

aluminium
320g
screw terminals
screw connection

Environmental data

Ambient temp. (operation/storage)
Protective circuit ³⁾
Protection class

-20°C ... +60°C / -30°C ... +70°C
2, 3
IP 65

Options

Activation input activ
Transmitter active/not active
Activation/disable delay
Input resistance

$\geq 8V / \leq 2V$ or not connected
 ≤ 0.5 ms
47kOhm $\pm 10\%$

Warning output autoControl warn
Signal voltage high/low
Output current

PNP transistor, counting principle
 $\geq (U_B - 2V) / \leq 2V$
max. 100mA

1) Scanning range relative to white 90%

2) With a duty cycle of 1:1

3) 2=polarity reversal protection, 3=short-circuit protection for all outputs

Order guide

Designation	Part No.
ILVS 9/4.8	500 14601

The standard device is expandable through add-on time modules (even at a later point).

- **Transient pulses** (blue module order code ZK 7810)
slow operation and pulse length separately adjustable (each 100ms ... 5s)
- **Slow operation and slow release** (green module order code ZK 7820)
separately adjustable from 200ms ... 10s

Tables

Throughbeam operation

Type	Operating range
GF 500/1 LS-...	200mm
GF 500/4 LS-...	600mm
GF 1000/1 LS-...	200mm
GF 1000/4 LS-...	1000mm

Scanner operation

Type	Scanning range ¹⁾
GF 500/1 RT-...	0 ... 50mm
GF 500/4 RT-...	0 ... 80mm
GF 1000/4 RT-...	0 ... 80mm
GF 500/1 RT-MS.1	0 ... 10mm

1) Relative to white 90%

Diagrams

Remarks

- The activation input of the transmitter allows function control and logical linking of several systems using the appropriate switching. If this function is not used, this terminal must be connected directly with $+U_B$.
- autoControl is a counting principle. The photoelectric sensor is counting switching cycles with reduced performance reserve. After three consecutive cycles with reduced performance reserve (LED flashing), the separate warning output is activated and remains active until corresponding measures (cleaning, alignment etc.) have provided optimum performance reserve.