

**DUO***metric*

measure // detect

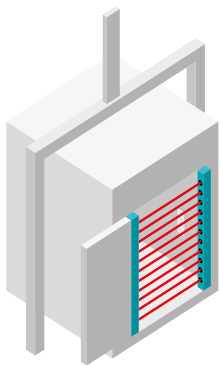
ELEVATOR  
INDUSTRY

READY  
FOR!  
» EN 81-20  
» EN 81-70



EXPERIENCED | POWERFUL | SOLUTION ORIENTED  
Your partner for industrial opto sensors.

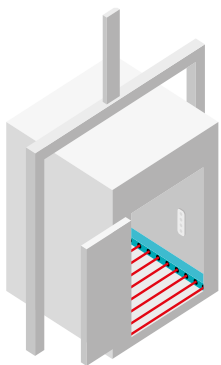
# APPLICATIONS



## ACCESS AREA

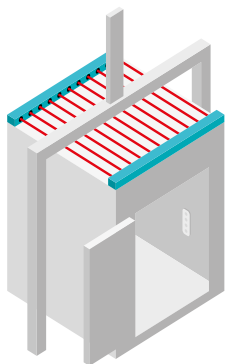
Safeguarding of door clearance is a classical light curtain domain. The LT40 complies with the European standards EN81-20 and EN 81-70:

- » Detecting of objects from 50 mm.
- » Reporting sensor faults to the elevator control system.
- » Integration of door monitoring into the system test.



## PRESENCE SENSING

Specifically in elevators which provide access to protected or private floors, the detection of persons or devices in the cabin is very important. The flexibility and functionality of our light grids ensure gapless surveillance.



## CABIN ROOF AND SERVICE AREA MONITORING

Due to increasingly important safety aspects, the monitoring of hoistway and cabin roof gains in importance.

With our high quality light curtains we are a trusted, long-term partner of the leading elevator manufacturers.

# LT40-LIGHT CURTAINS

The LT40 was specifically developed for use in elevators, doors and gates. It is very easy to install, cost-efficient and available in



the typical monitoring heights. The LT40 complies with the EN81-70 and EN81-20 requirements. Through use of parallel beams, the detection of objects equal to or greater than 50 mm is ensured over the whole monitoring area. The LT40 is fully compatible to its predecessor and can easily be used to modernize existing elevator systems that already utilize DUOmetric products.

## OPTICAL DATA

Monitoring height	1794 mm
Range	0,7 ... 5,0 m
Number of beams	40
Beam spacing	46 mm
Light source IR-LED	880 nm
Base cycle time	4 ms
Per beam cycle time	1 ms
Controller	integrated

## ELECTRICAL DATA

Operating voltage	24 VDC (18 ... 30 VDC) 10% ripple
Power consumption	nominal: 3,1 W
output logic	Semiconductor short circuit-proof PNP/NPN (push-pull)

## ENVIRONMENTAL DATA

Ambient temperature	-30 ... +55°C (operational)
Humidity	<90% relative / non-condensing
Protection class	IP54
Compliance	EN 81-20 & EN 81-70 ROHS / REACH / CE

# LI / LVB-SYSTEM

## LI-LIGHT GRIDS

These light grids have been optimized for fast and reliable object detection. They are connected to an external controller which results in minimal blind spots in the monitoring area and various system options. Through configuration the system functions can be changed and adapted to your specific requirements.

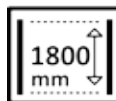
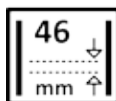
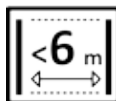


### OPTICAL DATA

Monitoring height	35 ... 5812 mm
Range	0,4 ... 6 m
Beam spacing	2,5 ... 112 mm
Light source IR-LED	880 nm
Per beam cycle time	please refer to Controller
Controller	external: LVE / LVX / <u>LVB</u> / LVR

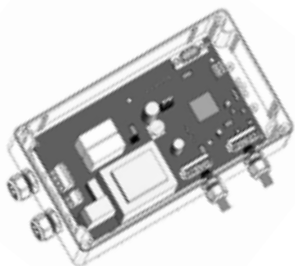
### ENVIRONMENTAL DATA

Ambient temperature	-30 ... +55°C (operational) -20 ... +40 °C (cCSAus-version)
Humidity	< 90 % relativ / non-condensing
Protection class	IP54 / (IP65)
Compliance	ROHS / REACH / cCSAus / CE



# LVB-CONTROLLER

This controller is the ideal addition to our LI light grids. The LVB is designed as an external controller with a plastic enclosure. It has output relays with forcibly guided contacts. The controller can be configured with different parameters according to your applications. The special configurations allow compliance with local requirements.



## SYSTEM DATA

Profile pairs	1
Number of beams (physical)	max. 500
Number of beams (logical)	max. 500
Per beam cycle time	ab 80 $\mu$ s
Interface	RS232
Interface parameters	115200 bps / 8n1

## ELECTRICAL DATA

Power supply	LVB: 230 VAC (+5%.- 10%) LVB-24: 24 VDC (18...30 V)
Power consumption	$\sim$ 3,6 W (mit Leisten)
Connections	spring clamp
Relay contacts	closed with free monitoring area
Switching current	min.10 mA / max. 5 A
Switching capacity	min. 0,1 VA / max. 2000 VA bzw. 0,1 W / 200 W

## ENVIRONMENTAL DATA

Ambient temperature	0 ... +40°C (operational)
Humidity	< 90 % relative / non condensing
Protection class	IP20 (inside)
Compliance	ROHS / REACH / cCSAus (LVB-24 V) / CE

# ABOUT US

We work in close cooperation with our customers and consider the demanding requirements of various industries to provide flexible solutions for your applications.



## Development

Know-how – new and innovative products emerge from the heads of our engineering and development team.



## Manufacturing

Implement ideas- the heart of DUOmetric works with precision manufacturing to ensure the high German quality standard.



## Service

You can count on us- helping hands are ready to support you in the consulting, planning and implementation phase.

You need a customized light grid? No problem! We incorporate your demands. The DUOmetric portfolio is waiting to be explored by you.

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