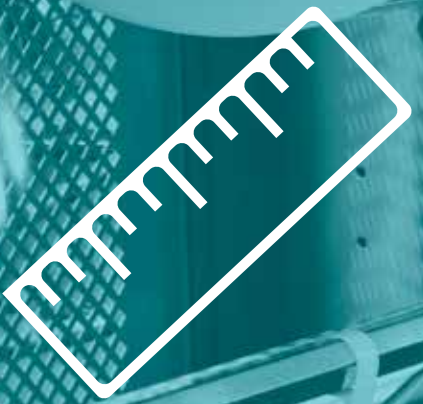
DUOmetric

measure // detect

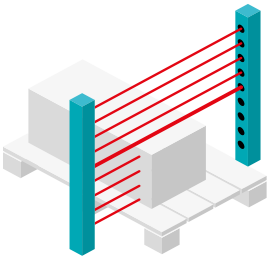
MEASURING LIGHT GRIDS



» positioning
» measuring
» sensing
» commissioning
» ...

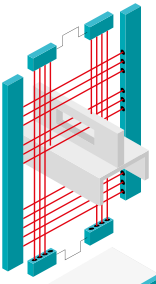
EXPERIENCED I POWERFUL I SOLUTION ORIENTED
Your partner for industrial opto sensors.

APPLICATIONS



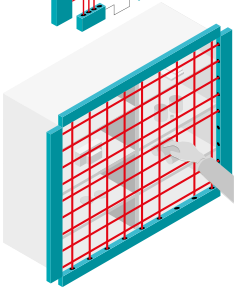
HEIGHT MEASUREMENT

Our products provide a precise measurement of objects in height, length and width.



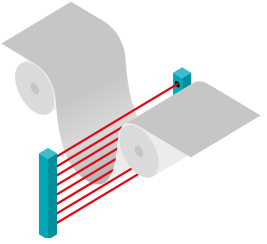
CONTOUR SURVEILLANCE

The segmented system is often used in automated industrial painting systems to minimize overspray.



POKA YOKE

Measuring light grids detect access to and picking out of shelf systems. They also help to avoid picking / placing errors in manufacturing, commissioning and warehouse logistics.



POSITION DETECTION

Especially large production machinery, for example in paper and fabric manufacturing, benefit from using our measuring light grids for slack and sag sensing or edge guidance.

Industrial light grids from DUOmetric
are efficient control devices for factory-, logistics- and process-automation.

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LVE / LVX-SYSTEM

LI-LIGHT GRIDS

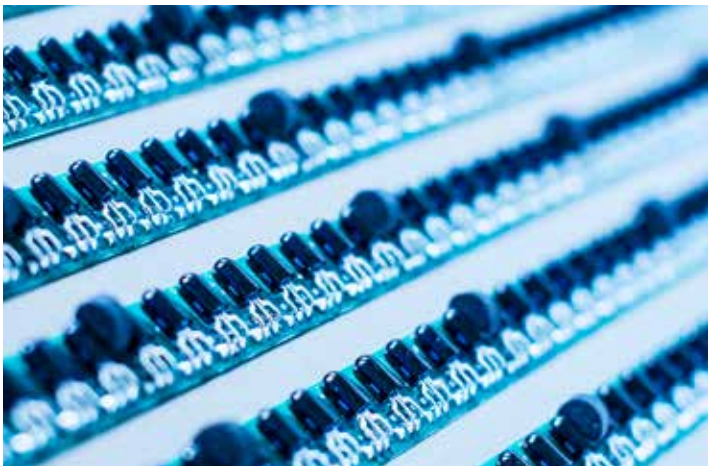
These light grids are optimized for measuring and fast object detection applications. LI light grids need to be combined with an external controller, which minimizes the blind spot and offers a wide range of system options. The controller has an integrated RS232 interface which is used for diagnosis and configuration.

OPTICAL DATA

Monitoring height	35 ... 5812 mm
Range	0,25 ... 6 m
Beam spacing	2,5 ... 112 mm
Light source IR-LED	880 nm
Base cycle time	please refer to Controller
Per beam cycle timel	please refer to Controller
Controller	external: LVE / LVX / LVB / LVR

ENVIRONMENTAL DATA

Ambient temperature	-30 ... +55°C (operational) -20 ... +40 °C (cCSAus-Version)
Humidity	< 90 % relative / operational
Protection class	IP20 / IP54 / IP65 / (IP69K)
Compliance	ROHS / REACH / CE / cCSAus



LVE-CONTROLLER

In its standard configuration, the LVE controller has one RS232 communication interface as well as several digital I/Os. With these interfaces, a multitude of predefined measurement values can be transferred. The system stands out for its high reliability, versatility and number of options as well as an unbeatable price-performance ratio.

SYSTEM TYPES

INTERFACE TYPE	INTERFACE DATA
LVE	RS232
LVE-016	1x 16 dig. OUT / 2x 8 dig. OUT
LVE-ALX	2x analog OUT (0.. .10 VDC)
LVE-ALM	RS232
LVE-PBI	Profibus-Gateway
LVE-PNI	ProfiNet-Gateway
LVE2-PNI	ProfiNet-Gateway
LVE-ECI	EtherCAT-Gateway
LVE2-ECI	EtherCAT-Gateway
LVE-ALM-PBI	Profibus-Gateway
LVE-ALM-PNI	ProfiNet-Gateway

Note: Optional LED-lists can be used in combination with the ALM- versions

SYSTEM DATA

Profile pairs	1 (LVE) / 2 (LVX)
Number of beams (physical)	max. 500
Number of beams (logical)	max. 1200
Per beam cycle time	from 30 µs
Interface parameters	115200 bps / 8n1
In-/Outputs	1 x dig_IN /1 x dig_OUT 3 x dig_I/O

MECHANICAL DATA

Enclosure	DIN rail module
Enclosure material	ABS
Mounting	Snap action

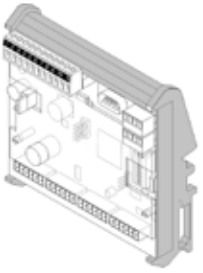
ELECTRICAL DATA

Power supply	24 VDC (18 ... 030 VDC) / 5 % ripple
Power consumption	~ 4,2 W
Connection	COMBICON-clamp
Input	24 VDC / 12 mA / 3 kHz
Output	24 VDC / 250 mA / PNP

ENVIRONMENTAL DATA

Ambient temperature	-25 ... +40°C
Humidity	< 90 % relativ / non condensing
Protection class	IP20
Compliance	ROHS / REACH / CE / cCSAus

LVX-CONTROLLER



The LVX controller can be configured with various parameters to fit customized applications and meet unique customer requirements. Several extension modules and a second pair of LI type light grids can be connected to the controller to extend its functionality. The integrated status LEDs are very helpful for support and configuration tasks.

SYSTEM TYPES

INTERFACE TYPE	INTERFACE DATA
LVX	RS232 / CAN
LVX-016	1x 16 dig. OUT / 2x 8 dig. OUT
LVX-ALX	2x analog OUT
LVX-ALM	RS232
LVX-PBI	Profibus-Gateway
LVX-PNI	ProfiNet-Gateway
LVX2-PNI	ProfiNet-Gateway
LVX-ECI	EtherCAT-Gateway
LVX-ALM-PBI	Profibus-Gateway
LVX-ALM-PNI	ProfiNet-Gateway

Note: Optional LED-lists can be used in combination with the ALM- versions

ENVIRONMENTAL DATA

Ambient temperature	-25 ... +40°C (operational)
Humidity	< 90 % relativ / non condensing
Protection class	IP00
Compliance	ROHS / REACH / CE / cCSAus

Note: SYSTEM- / MECHANIK- and ELEKTRIK DATA please prefer LVE-Informations.

FAW-SYSTEM

LF-LIGHT GRIDS

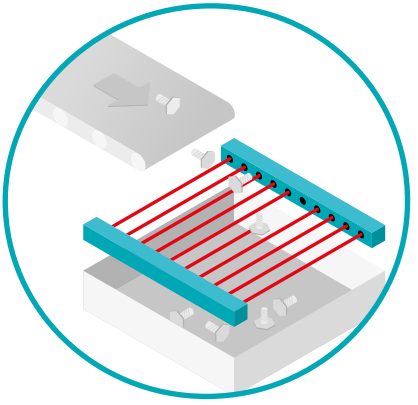
The key advantage of the LF-profiles is in their internal electronics which enable extremely short beam cycle times of only 6 µs. In dimensional and mechanical aspects they are identical to the LI-profiles.

OPTICAL DATA

Monitoring height	35 … 5812 mm
Range	0,2 ... 1 m
Beam spacing	2,5 … 25 mm
Light source IR-LED	880 nm
Base cycle time	from 6 µs
Controller	external: FAW

ENVIRONMENTAL DATA

Ambient temperature	-20 °C … +40 °C
Humidity	< 90 % relativ / non condensing
Protection class	IP20 / IP54 / IP65
Compliance	ROHS / REACH / CE / cCSAus



SMALL PARTS DETECTION

The FAW-system has been specifically developed for fast, automated industrial processes, as an example commissioning of small parts.

More application examples for our measuring light grids can be found on page 7!

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.

Our products have key benefits.
Simple installation and set-up, long service life, highest quality and many more.

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