Leuze electronic

the sensor people

SMART
SENSOR
BUSINESS

LIGHT CURTAINS

Measuring and switching light curtains for a wide variety of applications

www.leuze.com

ПРОМЭЛЕКТРОНИКА / sales@prom-elec.com

THE CHOICE IS YOURS

Our extensive product family provides you with switching or measuring light curtains.

ALWAYS THE EXACT FUNCTIONALITY THAT YOU NEED.

Regardless of whether you are monitoring the discharge of a system, monitoring protrusions, heights or lengths or detecting holes – we can provide a professional solution for any requirement with our extensive product portfolio of light curtains. Depending on the application, switching or measuring devices can be used that either just output a hardware signal or transfer a differentiated measurement value to the controller. The appropriate operating principle for the application can be selected on a case-by-case basis due to the identical housing of the CML and CSL devices, without having to re-design the mounting system and the alignment. Some variants are even certified for use in potentially explosive areas, zone 2 (gas) and zone 22 (dust).

FOUR MODEL SERIES AND NUMEROUS ADVANTAGES

Even if our CML, CSL and CSR light curtains are designed for different applications, they all have basic advantages that can only be found at Leuze electronic.

integrated connectivity.

Measuring light curtain CML 700i

Integrated interfaces

easy handling.

Switching light curtain CSL 710

Operation via display

power reserve.

Switching light curtain CSR 780

Resolution 1 mm, reaction time of 2 ms

Switching light curtain CSL 505

Narrow profile – less space required

JUST THE JOB WHEN YOU WANT TO MEASURE

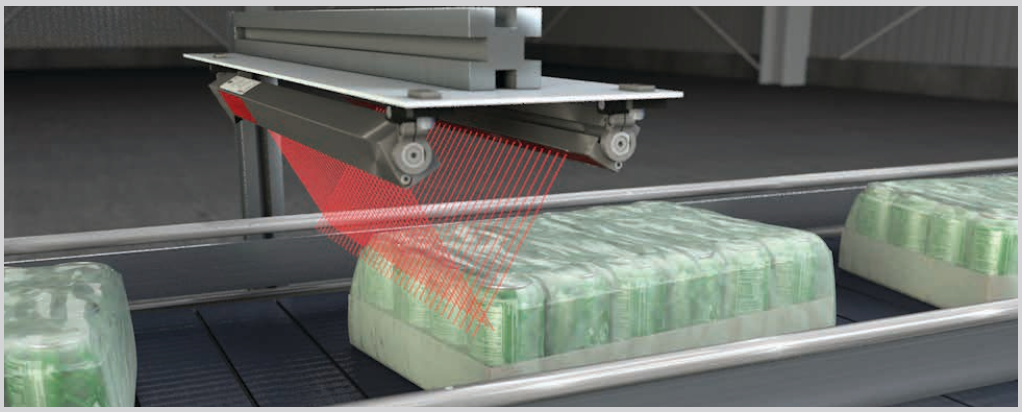
As well as well sophisticated installation solutions, the CML 700i measuring light curtain also provides a large quantity of integrated interfaces.

FLEXIBILITY INSIDE

Both the control unit and the interfaces are integrated in the receiver unit in the CML 700i – making additional devices superfluous. Configuration is carried out directly via the large display, using Leuze Sensor Studio or via the controller, which saves all of the settings and makes it possible for devices to be replaced without having to re-configure.
Numerous interfaces are already integrated.

Technical data	CML 720i	CML 730i
Operating range limit (dependent on beam spacing)	0.1 – 8 m	0.1 – 10 m
Measurement field length	150 – 2,960 mm	
Beam spacing	5 / 10 / 20 / 40 mm	
Response time / beam	30 µs	10 µs
Voltage	18 – 30 V DC	
Display	2-line display in 5 languages + LED	
Interfaces	PROFIBUS, RS485, IO-Link, CANopen, ANALOG, PROFINET	
Outputs	Analog current and voltage 2 or 4 inputs/outputs, configurable	
Atex zone 2 (gas) / 22 (dust)	Yes	No
Connection	M12	
Transparent media	No	Yes
Protection class	IP 65	
Approval	CSA / UL	

Detection of objects of same height in packaging process



integrated connectivity.

- Integrated interfaces
- Integrated control and evaluation unit
- No additional connection box required

think modular.

- Different measurement field lengths
- Various resolutions
- Two response times
- Different interfaces available
- Axial or rear connection

easy handling.

- Direct mounting using sliding blocks or comprehensive mounting material
- Alignment aid and simple configuration using the 5-language display
- Teach function at the push of a button

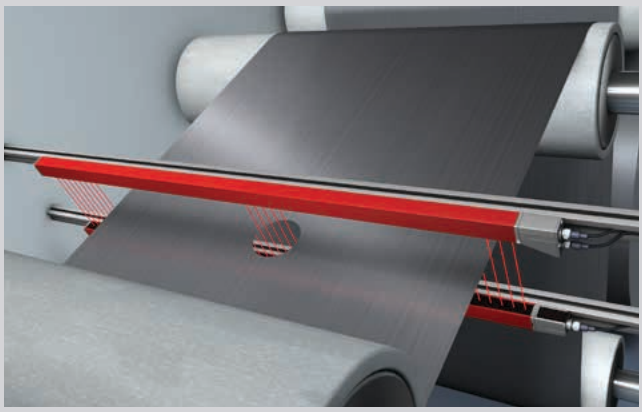
power reserve.

- Robust, warp-resistant metal housing (like CSL 710)
- Operating range up to 10 m
- Detection of transparent media
- Very short cycle times

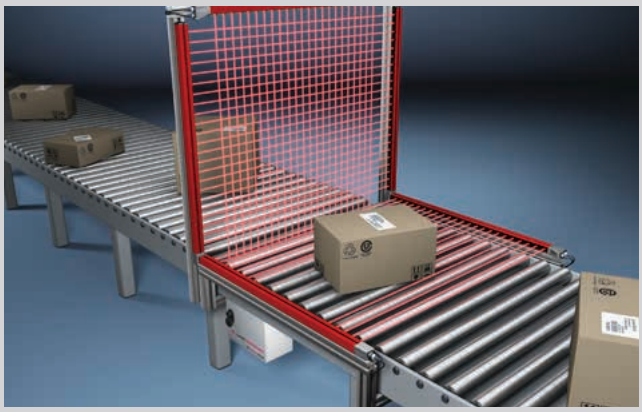
availability control.

- Prefailure message in the event of soiling via an output, display or interface

Detection of interruptions



Contour detection of objects



FAST SWITCHING

The CSL 710 switching light curtain convinces with short response times and easy configuration.

MUCH MORE THAN ONES AND ZEROS

The CSL 710 switching light curtain can do much more than a standard light curtain, and is therefore the right solution for many applications. Smoothing, block evaluation of up to eight beam areas, power-up teaching and noise suppression can be configured via the display. Various height checks can be taught in easily and assigned to one of the four switching outputs. Furthermore, both device models are fastened with the same mounting bracket and are adjusted identically due to the use of the same housing as the CML 720 / 730i measuring light curtains.

Technical data	CSL 710
Operating range limit (dependent on beam spacing)	0.1 – 8 m
Measurement field length	160 – 2,960 mm
Beam spacing	5 / 10 / 20 / 40 mm
Response time / beam	30 µs
Voltage	18 – 30 V DC
Display	2-line display in 5 languages + LED
Interfaces	IO-Link
Outputs	4 inputs/outputs, configurable
Connection	M12
Protection class	IP 65
Approval	CSA

*think*modular.

- Different measurement field lengths
- Selectable resolution

*easy*handling.

- Direct mounting using sliding blocks or comprehensive mounting material
- Alignment aid and simple configuration using the 5-language display
- Teach function at the push of a button
- IO-Link as process and service interface for simple configuration
- Plug and Play: pre-configured digital IOs for quick operation

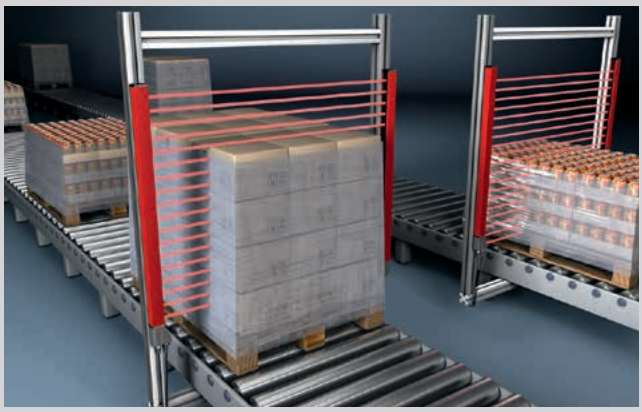
*power*reserve.

- Robust, warp-resistant metal housing (like CML 700i)
- Operating range up to 8 m
- Short cycle time

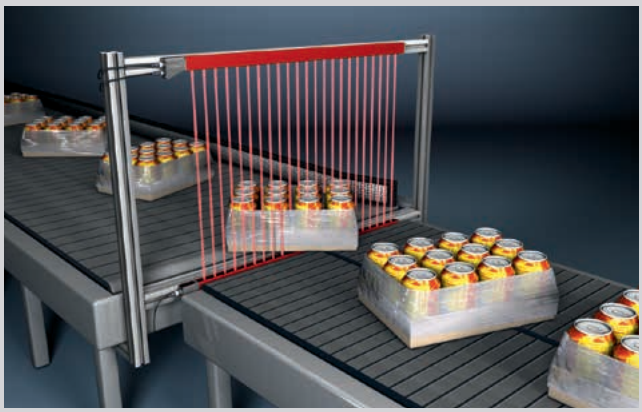
*availability*control.

- Prefailure message in the event of soiling via an output, display

Stack height measurement



Width measurement



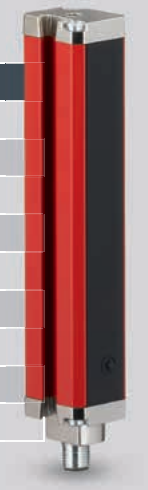
VERY FAST AND EXTREMELY PRECISE

The CSR 780 switching light curtain is predestined for object counting and ejection monitoring on machines.

TRANSMITTER AND RECEIVER IN ONE

Unlike any of the usual light curtains, the CSR 780 switching light curtain works according to the reflection principle. It is therefore a transmitter and receiver in one and does not require a mutually opposing light curtain, only a reflector. It is specialized for object counting on machines or discharge monitoring because of its high resolution and fast response time.

Technical data	CSR 780
Measurement range	0 – 0.7 m
Measurement field length	96 and 432 mm
Object resolution	1 mm
Response time / beam	2 ms
Voltage	18 – 30 V DC
Display	4 x LED
Outputs	1 signal / 1 warning output
Connection	M12
Reflector	Model OCS



think modular.

- Two measurement field lengths available

power reserve.

- Resolution of 1 mm
- Short cycle time

easy handling.

- Simple alignment using teach mode
- Standard M12 connection

availability control.

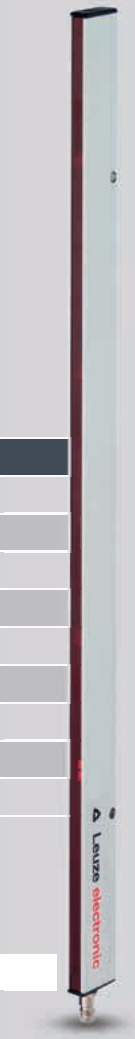
- Prefailure message in the event of soiling via an output or LED

ESPECIALLY SPACE-SAVING

The CSL 505 switching light curtain is the cost-optimized, space-saving alternative for simple applications.

INEXPENSIVE, VARIABLE AND EXTREMELY COMPACT

The cost-optimized, CSL 505 switching light curtain is specially designed for simple applications. With its slim design, integrated evaluation unit and large opening angle for quick and simple alignment, is can be used for projection monitoring, free field monitoring and object detection.



Technical data	CSL 505
Measurement range	0.3 – 5 m
Measurement field length	35 – 3,100 mm
Beam spacing	5 / 12.5 / 25 / 50 / 100 mm
Response time / beam	1 ms (+ one-time 4 ms)
Voltage	24 V DC (± 10 %)
Display	LED
Outputs	2x push-pull
Connection	M8 or cable outlet
Protection class	IP 65

think modular.

- Different measurement field lengths
- Selectable resolution
- M8 or cable variant

power reserve.

- Operating range up to 5 m
- Short cycle time

easy handling.

- Factory configuration
- Slim housing
- Simple M8 connection

availability control.

- Prefailure message in the event of soiling via an output, display and LED

RELIABLY MOUNTED – IN AN INSTANT

Our ***easy***handling claim starts with mounting and alignment.

ACCESSORIES AND MOUNTING SYSTEMS

In order to mount the different light curtains reliably and easily we have developed appropriate accessories for various installation situations, with which our devices cannot only be easily mounted but also aligned.

BT-2R1 mounting device
for the mounting of the CML 700i and CSL 710

BT-SB10 mounting bracket
for CML 700i, CSL 710

BT-SB10-S mounting bracket
for the mounting of the CML 700i, CSL 710

BT-2L through-hole mounting
for CSL 710 and CML 700i

BT-10NC60 sliding blocks
for mounting the CSR 780

MD 748i IO-Link master
for integration in the PROFINET

Self-supporting UDC device column
for standing mounting and alignment of the CML 700i and CSL 710

Large selection of straight or angled connection and interconnection cables
with M8 and M12 connectors, also with LED

OUR PROMISE TO YOU

SMARTER **PRODUCT USABILITY**

With regard to our product developments, we systematically place emphasis on the especially good usability of all devices. To this end, simple mounting and alignment are taken into account – just as the uncomplicated integrability of the sensors in existing field bus systems and easy configuration, e.g. via a web browser, are.

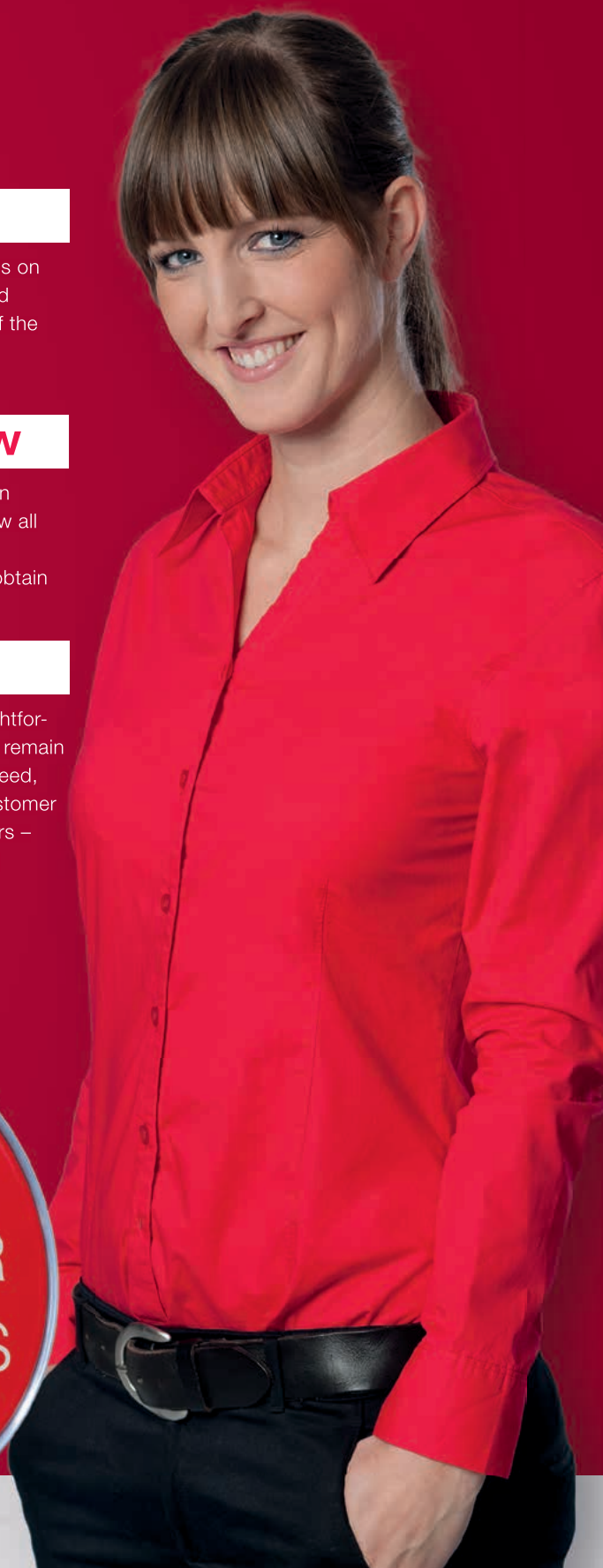
SMARTER **APPLICATION KNOW-HOW**

Whoever can do it all, can do nothing right. Which is why we concentrate on selected target sectors and applications. There, we are specialists and know all aspects inside out. For this purpose, we optimize our solutions and offer a comprehensive product range that makes it possible for our customers to obtain the absolute best solutions from a single source.

SMARTER **CUSTOMER SERVICE**

The technical and personal proximity to our customers, and a skilled, straightforward handling of queries and problems, are among our strengths – and will remain so. Consequently, we will continue to expand our service offerings and, indeed, also forge ahead in new directions to persistently redefine the utmost in customer service. Whether on the phone, on the Internet or on-site with our customers – regardless of when and where the expertise of the sensor people is needed at any time.

Info at: **www.leuze.com**



Katrin Rieker,
Sales Methods, Processes, Tools

Switching Sensors
Optical Sensors
Ultrasonic Sensors
Fiber Optic Sensors
Inductive Switches
Forked Sensors
Light Curtains
Special Sensors

Measuring Sensors
Distance Sensors
Sensors for Positioning
3D Sensors
Light Curtains
Forked Sensors

Products for Safety at Work
Optoelectronic Safety Sensors
Safe Locking Devices, Switches and Proximity Sensors
Safe Control Components
Machine Safety Services

Identification
Bar Code Identification
2D-Code Identification
RF Identification

Data Transmission / Control Components
MA Modular Connection Units
Data Transmission
Safe Control Components
Signaling Devices
Connection Technology and Passive Distribution Boxes

Industrial Image Processing
Light Section Sensors
Smart Camera

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Subject to modifications and errors