

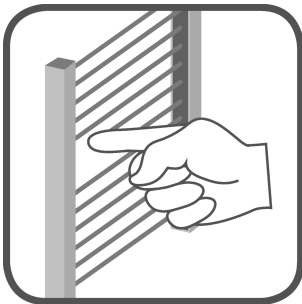
LCA-4TR-M-14-1210-AP-156596 (Order no. 156596)

Light curtain LCA-4TR-M-14-1210

- ▶ Light curtain master
- ▶ For cascading (series connection)
- ▶ Resolution 14 mm
- ▶ Protective field height 1210 mm
- ▶ Range 6 m
- ▶ With plug connector M12
- ▶ 2 safety outputs (OSSD)
- ▶ Installation material is included with the product

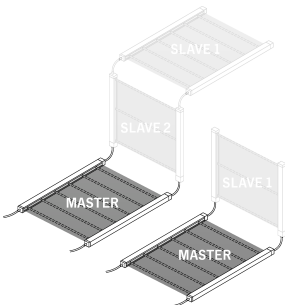


Protective function



Finger protection

Cascading (series connection)



Following combinations are possible:

Variant A: Master-slave 2-slave 1

Variant B: Master-slave 1

LED function display



Transmitter



Receiver

- LED OK Normal operation
- LED ERROR Error
- LED STOP Stop
- LED TEST Test function
- LED START Start/restart
- LED SIGNAL LOW Weak signal

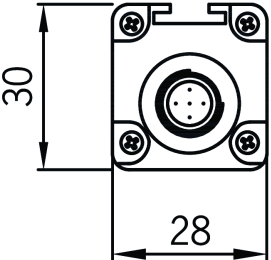
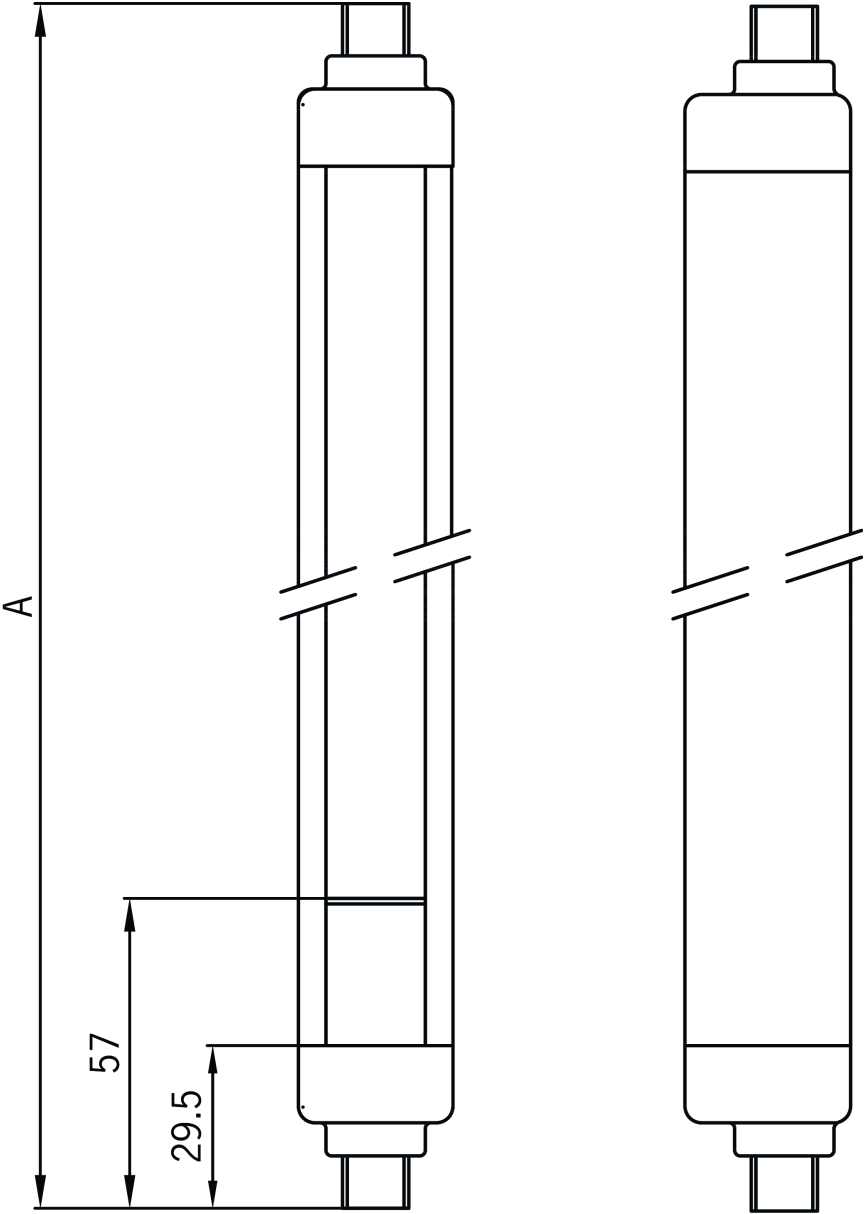
Connector assignment, transmitter

Plug connector (view of connection side)	Pin	Designation	Function	Connecting cable conductor coloring
	1	24 V DC	Operating voltage, 24 V DC	BN
	2	RANGE 0	Device configuration, corresponds to the standard EN 61131-2	WH
	3	0 V DC	Operating voltage, 0 V DC	BU
	4	RANGE 1	Device configuration, corresponds to the standard EN 61131-2	BK
	5	FE	Functional earth (must be connected to meet the EMC requirements)	GY

Connector assignment, receiver

Plug connector (view of connection side)	Pin	Designation	Function	Connecting cable conductor coloring
	1	FO1A	Safety output, channel 1	WH
	2	24 V DC	Operating voltage, 24 V DC	BN
	3	FO1B	Safety output, channel 2	GN
	4	K1_K2/ RESTART	Feedback external contactors	YE
	5	SEL_A	Device configuration	GY
	6	SEL_B	Device configuration	PK
	7	0 V DC	Operating voltage, 0 V DC	BU
	8	FE	Functional earth (must be connected to meet the EMC requirements)	RD

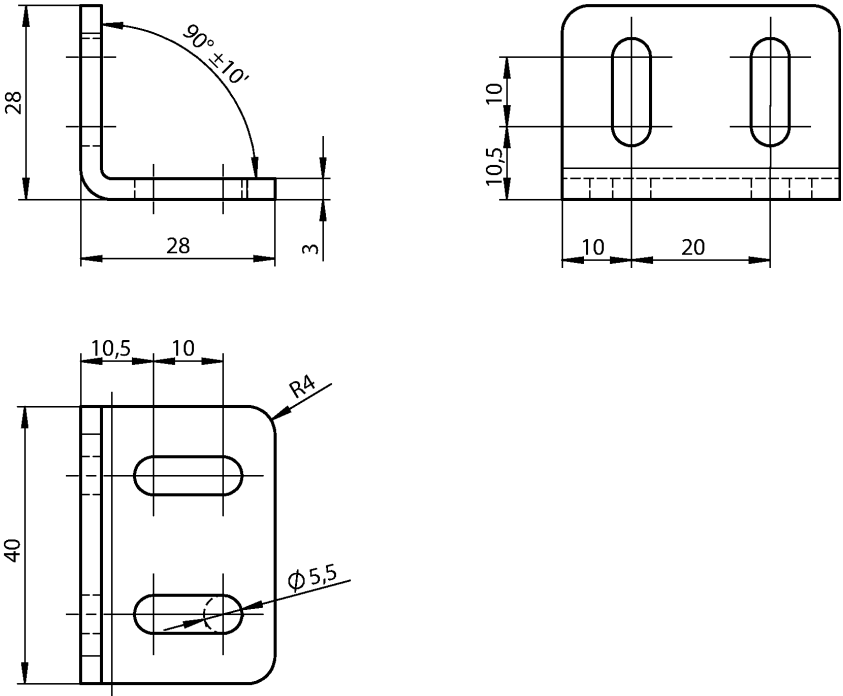
Dimensional drawings



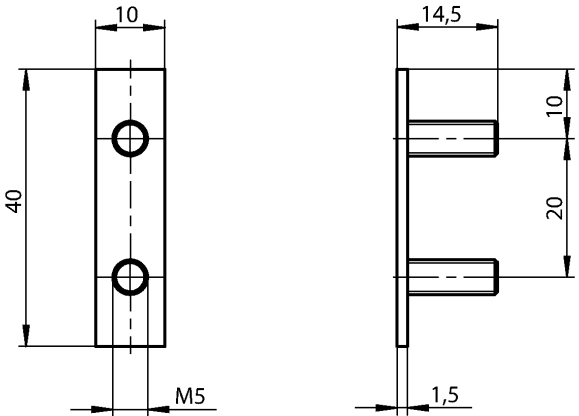
A = Height of the sensor (see technical data)

Dimensional drawings

A:



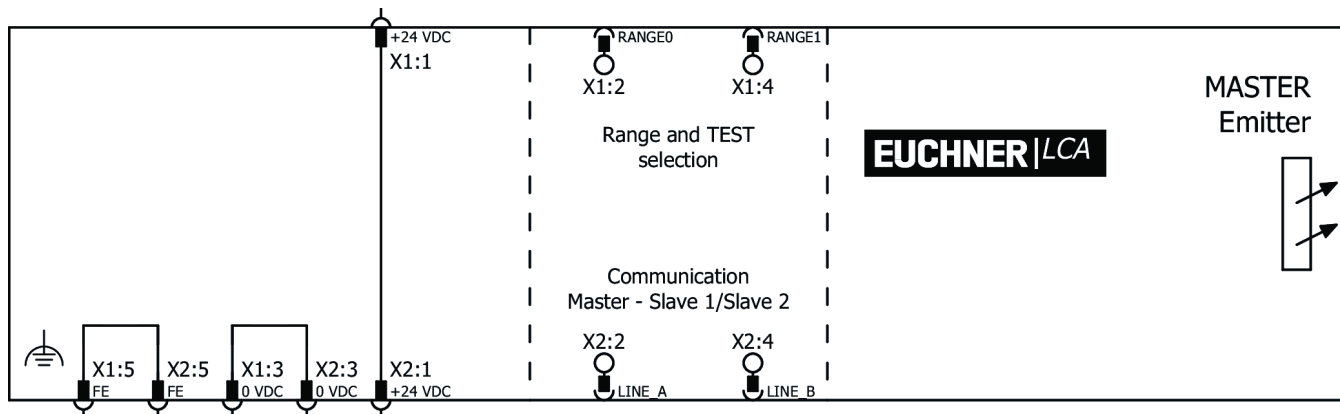
B:



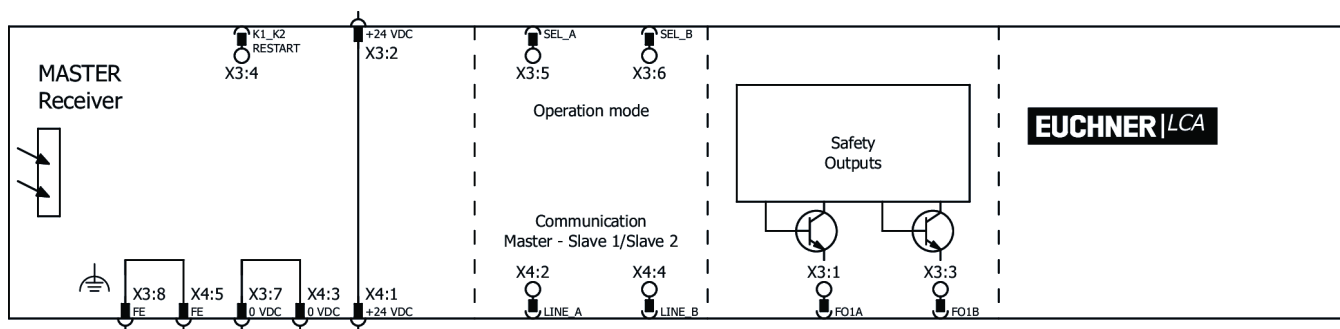
A Fastening bracket

B Mounting plate

Connection examples



Connection examples



Technical data

Approvals



Operating and display elements

LED display yes
(Self-diagnostics and status)

Electrical connection values

Receiver power consumption	2 W
Transmitter power consumption	1 W
Operating voltage DC	24 V DC -20% ... +20%
Cascadable	yes (max. 50 m connecting cable between master and slaves)
Muting possible	in combination with external sensors and an evaluation unit
Current consumption	400 mA

Mechanical values and environment

Dimensions	28x30 mm (in cross-section)
Connection type	Plug connector M12 (5-pin transmitter/8-pin receiver) (Master-slave1 and master-slave2-slave1 connections are 2x M12, 5-pin)
Number of safety outputs	2 static, self-monitoring PNP safety outputs (with short-circuit and overload protection)
Resolution	14 mm
Installation orientation	any (Optional: adjustable holders)
Height of the protective field	1210 mm
Height of the sensor	1286 mm
maximum length of connecting cables	100 m
Range of the protective field	6000 mm
Degree of protection	IP65/IP67

Ambient temperature -20 ... +55 °C

Characteristic values according to EN ISO 13849-1 and EN IEC 62061

Safety Integrity Level SIL 3 / SILCL 3

Characteristic values according to EN ISO 13849-1 and EN IEC 62061

	PL	Maximum SIL	PFH _D	Category	Mission time
Monitoring of the protective field	PL e	3	2.04x10 ⁻⁸	4	20 y

Miscellaneous

ESPE type 4
(according to EN 61496-1)

Downloads

All documentation for this material can be found on our website:

<https://www.euchner-usa.com/en-us/a/156596/?#downloads-tab>

Ordering data

Ordernumber	156596
Item designation	LCA-4TR-M-14-1210-AP-156596
Gross weight	3,891kg
Customs tariff number	85365019000
ECLASS	27-27-09-10 Light curtain

Accessories

Connection accessories

Connecting cable for cascading M12, 0.3 m



156926

C-M12F05-05X025PV0,30-M12F05-156926

- ▶ Connecting cable for cascading
- ▶ 2 x M12 female plug, 5-pin
- ▶ Straight plug connector
- ▶ PVC cable
- ▶ Cable length 0.3 m

Connecting cable for cascading M12, 10 m



156929

C-M12F05-05X025PV10,0-M12F05-156929

- ▶ Connecting cable for cascading
- ▶ 2 x M12 female plug, 5-pin
- ▶ Straight plug connector
- ▶ PVC cable
- ▶ Cable length 10 m

Connecting cable for cascading M12, 25 m



156930

C-M12F05-05X025PV25,0-M12F05-156930

- ▶ Connecting cable for cascading
- ▶ 2 x M12 female plug, 5-pin
- ▶ Straight plug connector
- ▶ PVC cable
- ▶ Cable length 25 m

Connecting cable for cascading M12, 3 m



156927

C-M12F05-05X025PV03,0-M12F05-156927

- ▶ Connecting cable for cascading
- ▶ 2 x M12 female plug, 5-pin
- ▶ Straight plug connector
- ▶ PVC cable
- ▶ Cable length 3 m

Connecting cable for cascading M12, 5 m



156928

C-M12F05-05X025PV05,0-M12F05-156928

- ▶ Connecting cable for cascading
- ▶ 2 x M12 female plug, 5-pin
- ▶ Straight plug connector
- ▶ PVC cable
- ▶ Cable length 5 m

Connecting cable with 2 plug connectors M12, 5-pin, 10 m



119947

C-M12F05-05X034PU10,0-M12M05-119947

- ▶ M12 female plug to M12 plug connector, 5-pin
- ▶ Straight female plug and plug connector
- ▶ PUR cable
- ▶ Cable length 10 m



100181

C-M12F05-05X034PV10,0-M12M05-100181

- ▶ M12 female plug to M12 plug connector, 5-pin
- ▶ Straight female plug and plug connector
- ▶ PVC cable
- ▶ Cable length 10 m

Connecting cable with 2 plug connectors M12, 5-pin, 20 m



100182

C-M12F05-05X034PV20,0-M12M05-100182

- ▶ M12 female plug to M12 plug connector, 5-pin
- ▶ Straight female plug and plug connector
- ▶ PVC cable
- ▶ Cable length 20 m



119971

C-M12F05-05X034PU20,0-M12M05-119971

- ▶ M12 female plug to M12 plug connector, 5-pin
- ▶ Straight female plug and plug connector
- ▶ PUR cable
- ▶ Cable length 20 m

Connecting cable with 2 plug connectors M12, 5-pin, 5 m



100180

C-M12F05-05X034PV05,0-M12M05-100180

- ▶ M12 female plug to M12 plug connector, 5-pin
- ▶ Straight female plug and plug connector
- ▶ PVC cable
- ▶ Cable length 5 m



119932

C-M12F05-05X034PU05,0-M12M05-119932

- ▶ M12 female plug to M12 plug connector, 5-pin
- ▶ Straight female plug and plug connector
- ▶ PUR cable
- ▶ Cable length 5 m

Connecting cable with 2 plug connectors M12, 8-pin, 1 m



123430

C-M12M08-08X025PV01,0-M12F08-123430

- ▶ 8-pin M12 male plug, straight
- ▶ 8-pin M12 female plug, straight
- ▶ PVC cable
- ▶ Cable length 1 m

Connecting cable with 2 plug connectors M12, 8-pin, 10 m



123433

C-M12M08-08X025PV10,0-M12F08-123433

- ▶ 8-pin M12 male plug, straight
- ▶ 8-pin M12 female plug, straight
- ▶ PVC cable
- ▶ Cable length 10 m

Connecting cable with 2 plug connectors M12, 8-pin, 2 m



123431

C-M12M08-08X025PV02,0-M12F08-123431

- ▶ 8-pin M12 male plug, straight
- ▶ 8-pin M12 female plug, straight
- ▶ PVC cable
- ▶ Cable length 2 m

Connecting cable with 2 plug connectors M12, 8-pin, 5 m



123432

C-M12M08-08X025PV05,0-M12F08-123432

- ▶ 8-pin M12 male plug, straight
- ▶ 8-pin M12 female plug, straight
- ▶ PVC cable
- ▶ Cable length 5 m

Connecting cable with plug connector M12, 8-pin, 10 m



115113

C-M12F08-08X025PU10,0-MA-115113

- ▶ M12 female plug, 8-pin
- ▶ Straight plug connector
- ▶ PUR cable
- ▶ Cable length 10 m
- ▶ With flying lead



100178

C-M12F08-08X025PV10,0-MA-100178

- ▶ M12 female plug, 8-pin
- ▶ Straight plug connector
- ▶ PVC cable
- ▶ Cable length 10 m
- ▶ With flying lead

Connecting cable with plug connector M12, 8-pin, 20 m



100179

C-M12F08-08X025PV20,0-MA-100179

- ▶ M12 female plug, 8-pin
- ▶ Straight plug connector
- ▶ PVC cable
- ▶ Cable length 20 m
- ▶ With flying lead



115114

C-M12F08-08X025PU20,0-MA-115114

- ▶ M12 female plug, 8-pin
- ▶ Straight plug connector
- ▶ PUR cable
- ▶ Cable length 20 m
- ▶ With flying lead

Connecting cable with plug connector M12, 8-pin, 30 m



115257

C-M12F08-08X025PU30,0-MA-115257

- ▶ M12 female plug, 8-pin
- ▶ Straight plug connector
- ▶ PUR cable
- ▶ Cable length 30 m
- ▶ With flying lead



115116

C-M12F08-08X025PV30,0-MA-115116

- ▶ M12 female plug, 8-pin
- ▶ Straight plug connector
- ▶ PVC cable
- ▶ Cable length 30 m
- ▶ With flying lead

Connecting cable with plug connector M12, 8-pin, 5 m



115112

C-M12F08-08X025PU05,0-MA-115112

- ▶ M12 female plug, 8-pin
- ▶ Straight plug connector
- ▶ PUR cable
- ▶ Cable length 5 m
- ▶ With flying lead



100177

C-M12F08-08X025PV05,0-MA-100177

- ▶ M12 female plug, 8-pin
- ▶ Straight plug connector
- ▶ PVC cable
- ▶ Cable length 5 m
- ▶ With flying lead

Connecting cable with straight plug connector M12, 5-pin, 10 m



113640

C-M12F05-05X034PU10,0-MA-113640

- ▶ M12 female plug, 5-pin
- ▶ Straight plug connector
- ▶ PUR cable
- ▶ Cable length 10 m
- ▶ With flying lead



100184

C-M12F05-05X034PV10,0-MA-100184

- ▶ M12 female plug, 5-pin
- ▶ Straight plug connector
- ▶ PVC cable
- ▶ Cable length 10 m
- ▶ With flying lead

Connecting cable with straight plug connector M12, 5-pin, 20 m



113682

C-M12F05-05X034PU20,0-MA-113682

- ▶ M12 female plug, 5-pin
- ▶ Straight plug connector
- ▶ PUR cable
- ▶ Cable length 20 m
- ▶ With flying lead



100185

C-M12F05-05X034PV20,0-MA-100185

- ▶ M12 female plug, 5-pin
- ▶ Straight plug connector
- ▶ PVC cable
- ▶ Cable length 20 m
- ▶ With flying lead

Connecting cable with straight plug connector M12, 5-pin, 30 m



122784

C-M12F05-05X034PU30,0-MA-122784

- ▶ M12 female plug, 5-pin
- ▶ Straight plug connector
- ▶ PUR cable
- ▶ Cable length 30 m
- ▶ With flying lead

Connecting cable with straight plug connector M12, 5-pin, 5 m



100183

C-M12F05-05X034PV05,0-MA-100183

- ▶ M12 female plug, 5-pin
- ▶ Straight plug connector
- ▶ PVC cable
- ▶ Cable length 5 m
- ▶ With flying lead



113620

C-M12F05-05X034PU05,0-MA-113620

- ▶ M12 female plug, 5-pin
- ▶ Straight plug connector
- ▶ PUR cable
- ▶ Cable length 5 m
- ▶ With flying lead

Function expansion

Deflection mirror for protective field height 1,210 mm



156910

AE-OS-S-1210-156910

- ▶ Deflection mirror with adjustable holder for light curtains LCA
- ▶ For protective field height 1,210 mm

Mounting pillar with deflection mirror for protective field heights from 1060 to 1360 mm



156897

AE-OS-SC-1670-156897

- ▶ Mounting pillar with deflection mirror for light grids and light curtains LCA
- ▶ For protective field heights of 1060 to 1,360 mm
- ▶ Protects against damage
- ▶ Straightforward adjustment using spherical circular level in the cover

Mounting accessories

12 x vibration damper for protective field heights of 1,210 to 1,810 mm or 2- to 4-beam light grids



156918

AM-OS-D-V12-156918

- ▶ Vibration damper for light grids and light curtains LCA
- ▶ For protective field heights 1210 – 1810 mm or 2-4 beams
- ▶ Packaging unit 12 pcs.
- ▶ For reducing vibration
- ▶ Protects against damage
- ▶ Installation either on the product or on mounting pillar

4 x adjustable holder



156919

AM-OS-B-A1-V04-156919

- ▶ Set of 4 holders for light grids and light curtains LCA
- ▶ For protective field heights up to 1210 mm
- ▶ Adjustable horizontally / vertically
- ▶ Quick mounting using two screws
- ▶ Can be mounted directly on LCA

4 x adjustable holder 180°



156921

AM-OS-B-A2-V04-156921

- ▶ Set of 4 holders for light grids and light curtains LCA
- ▶ Can be rotated by 180°
- ▶ Adjustable horizontally / vertically
- ▶ Quick mounting using two screws
- ▶ Can be mounted directly on LCA

6 x adjustable holder



156920

AM-OS-B-A1-V06-156920

- ▶ Set of 6 holders for light grids and light curtains LCA
- ▶ For protective field heights from 1210 mm
- ▶ Adjustable horizontally / vertically
- ▶ Quick mounting using two screws
- ▶ Can be mounted directly on LCA

Mounting pillar for protective field heights from 1210 to 1360 mm



156888

AM-OS-C-A1-1670-156888

- ▶ Mounting pillar for light grids and light curtains LCA
- ▶ For protective field heights of 1,210 to 1,360 mm
- ▶ Protects against damage
- ▶ Straightforward adjustment using spherical circular level in the cover

Mounting pillar with cable gland for protective field heights from 1210 to 1360 mm



156892

AM-OS-C-A1-M-1670-156892

- ▶ Mounting pillar for light grids and light curtains LCA
- ▶ For protective field heights of 1,210 to 1,360 mm
- ▶ With integrated cable gland PG11
- ▶ Protects against damage
- ▶ Straightforward adjustment using spherical circular level in the cover

Socket for mounting pillars 202 x 224 x 34 mm



156885

AM-OS-P-AB-156885

- ▶ Socket for mounting pillars
- ▶ Adjustable via adjusting screws
- ▶ Height 34 mm

Socket for mounting pillars 202 x 224 x 55 mm



156884

AM-OS-P-AA-156884

- ▶ Socket for mounting pillars
- ▶ Spring-mounted floor plate made of steel
- ▶ Improved compensation of unevenness
- ▶ Adjustable via adjusting screws
- ▶ Height 55 mm

miscellaneous accessories

Laser alignment aid



156915

AY-OS-LSR-156915

- ▶ Laser alignment aid for light grids and light curtains LCA
- ▶ Light source: laser diode - wavelength 650 nm
- ▶ Laser class 2
- ▶ Usable range 100 m
- ▶ Straightforward clamping on the transmitter

Test rod Ø 14 mm



156922

AY-OS-FTR-14-156922

- ▶ Test rod for light curtains LCA
- ▶ Used for function test
- ▶ Ø 14 mm
- ▶ Cylinder with matte surface