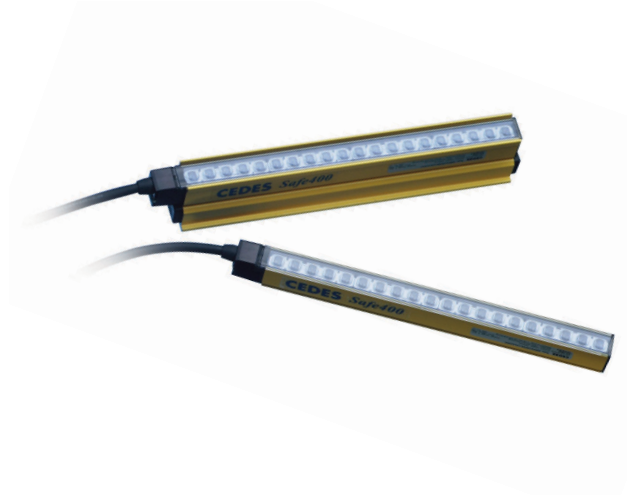


... never found a smaller
safety light curtain



ISO 9001: 2000



Features

- Small profile of just 15 x 20 mm
- Resolution 14 mm (finger) and 30 mm (hand)
- Perimeter with 2, 3 and 4 beams according EN 999 [1998]
- Up to 3 casacades possible
- Blanking
- Safety prevention
- Muting
- Very cost effective
- Fast response time
- Easy installation and commissioning
- Suitable for connection of E-Stop and door switches
- Various mounting kits available
- Ideal for protection on presses, paper cutting machines, robot cells, manufacturing lines and many more

Technical Data

Optical

Operating range	0 ... 5 m
Protection height	50 ... 2'200 mm
No. of beams	2 ... 250
Resolution	14 mm / 30 mm (finger / hand)

Electrical

Supply voltage ¹⁾	+24 V (0.85 ... 1.15 U _N)
Supply current	Typ. 140 mA ²⁾
	Typ. 500 mA ³⁾
Equipment Class	III VDE 0106 part 100
Test input	Yes ²⁾
Output	PNP and / or relay ¹⁾

Mechanical

Dimensions	15 x 20 mm (standard alu. profile) 30 x 40 mm (robust alu. profile)
Length	70 ... 2'224 mm
Pigtail cable length	500 mm
Connection cable length	2, 3, 5 and 8 m
Max. system length from controller to last emitting or receiving element	10 m
Enclosure rating	IP65
Optical window	Polycarbonate
Enclosure treatment	Polyester powder coated, silcon free

Response times

Response time 2 beams	3.7 ms (typ ⁴⁾), ≤ 11.3 ms (max ⁵⁾)
Response time 20 beams	6.6 ms (typ ⁴⁾), ≤ 15.9 ms (max ⁵⁾)
Response time 50 beams	11.4 ms (typ ⁴⁾), ≤ 23.7 ms (max ⁵⁾)
Turn on time (incl. selftest)	<5 s

Standards

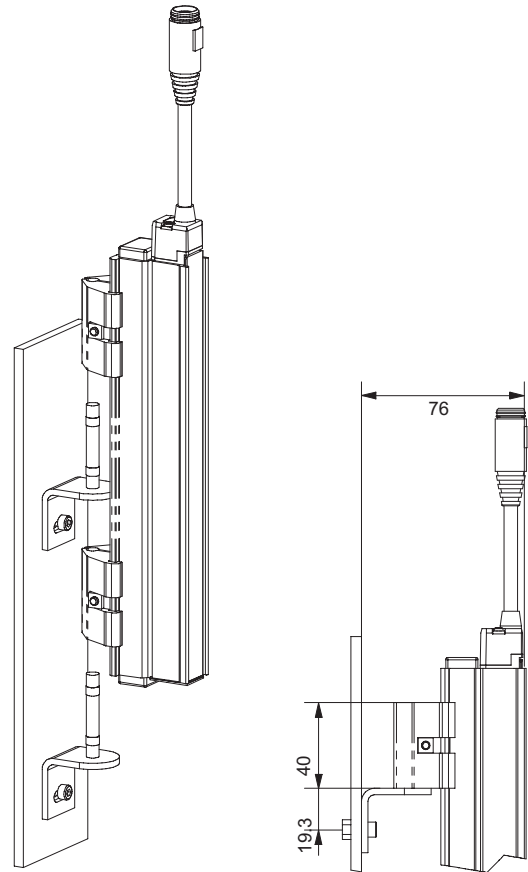
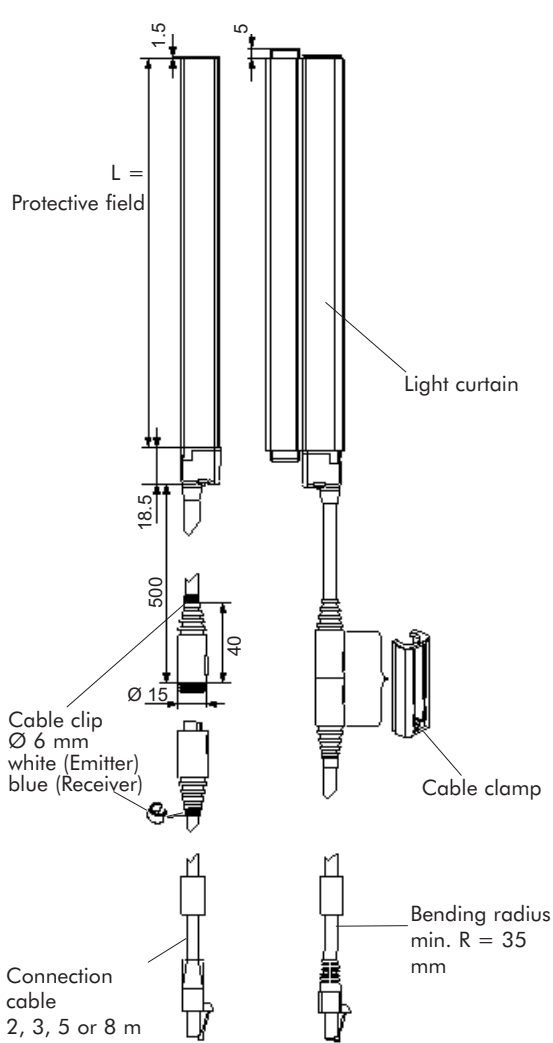
Safety category	Cat. 4 according EN 954-1
Safety Integrity Level	SIL 3 according EN 61508 ⁶⁾
Approvals	CE, ISO 9001:2000 TÜV, CSA, UL EN 61496-1 and EN 61496-2 IEC 61496 part 1 and 2, EN 999
EMC	IEC 61496 part 1

General

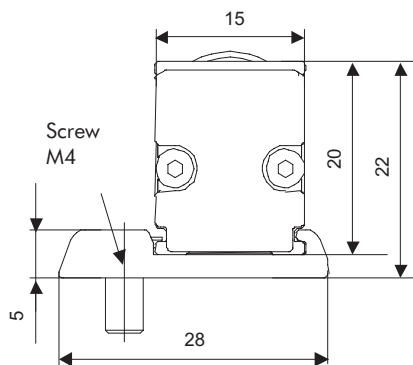
Operation temperature range	0° ... +55°C
Storage and transport temperature range	-20° ... +70°C
Relative air humidity	15 ... 95 %
¹⁾ The light curtain must be connected to a CEDES safety control unit	
²⁾ CEDES safety control unit SafeCIS3, including Safe400, without output load	
³⁾ CEDES safety control unit SafeC 400, including Safe400, without output load	
⁴⁾ Response time for Safe400 with SafeCIS3 (config. with manual start, no GPIO func.)	
⁵⁾ Response times are max. values. Times depend on controller type and configuration.	
⁶⁾ Safe400 in conjunction with CEDES safety control unit SafeCIS3	

Safe400 Standard- / Robust profile

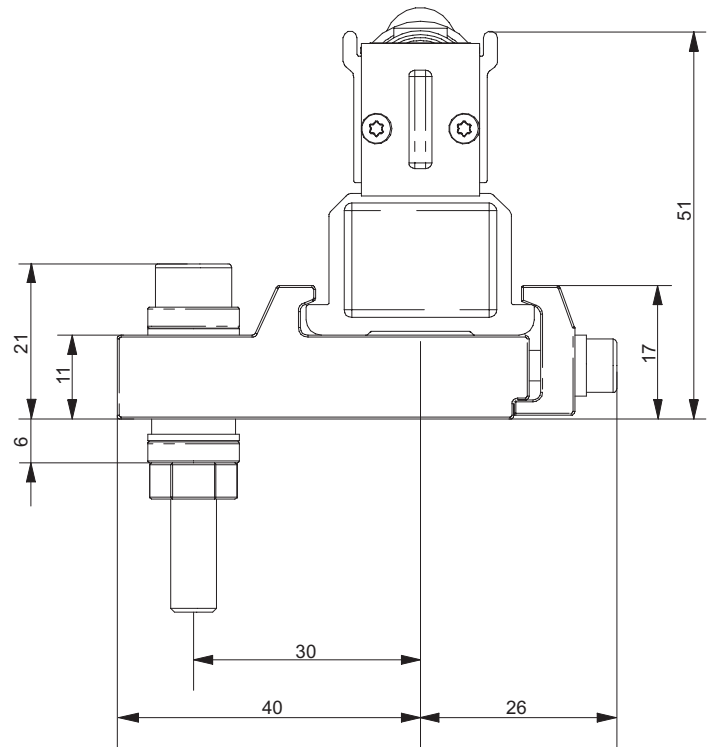
Dimensions



Mounting kit 180° Robust profile



Mounting kit wide, Standard profile

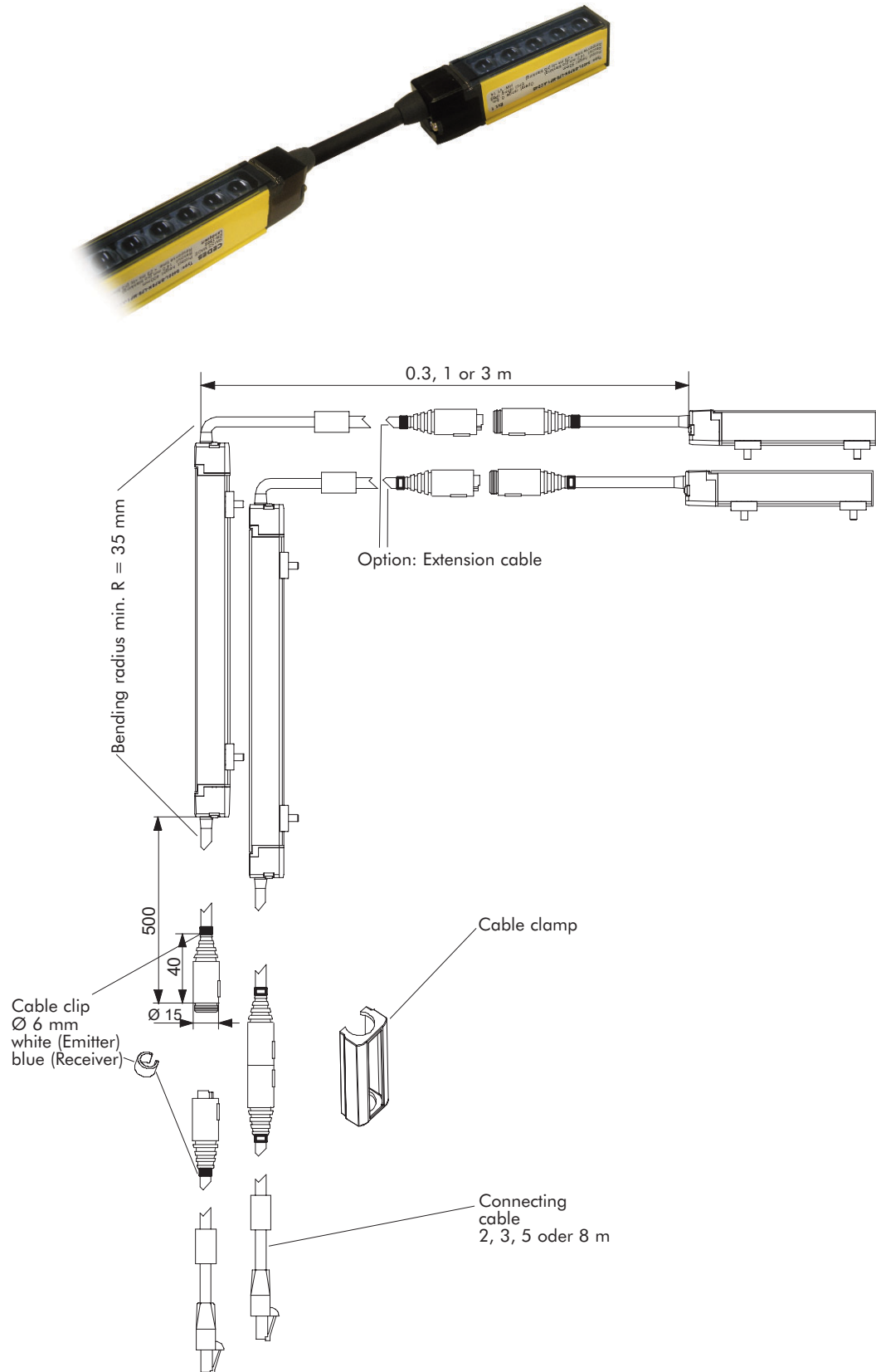


Standard mounting kit, Robust profile

(All dimensions in mm)

Cascading using extension modules

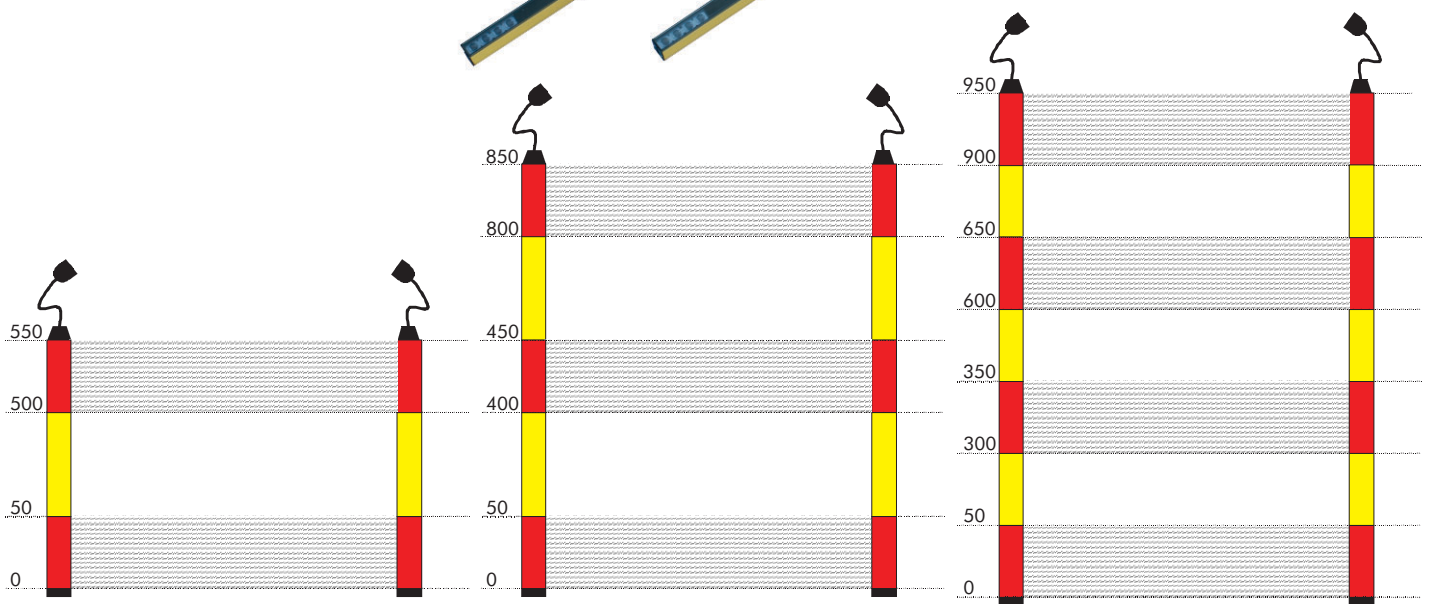
For simpler connection between neighbouring protective fields, the Safe400 light curtain can be easily cascaded using extension modules



Safe400 Perimeter

Perimeter systems

Safe400 as 2, 3 or 4 beam Perimeter (according standard EN 999) is suitable for vertical entry safeguarding systems.



(All dimensions in mm)

Ordering information

Part No.	Type	Description (Protection height, Resolution, Profile)	Order Code
105 566 0000	Safe400 Standard	According CEDES Configuraton Tool	According CEDES Configuraton Tool
105 567 0000	Safe400 Cascading	According CEDES Configuraton Tool	According CEDES Configuraton Tool
103 568 0001	Safe400 Perimeter 2 Beam	P-0550-2, 05m, Profile Standard	S400P-KSF5N-LH1P9H1-ACD5C
103 568 0002	Safe400 Perimeter 3 Beam	P-0850-3, 05m, Profile Standard	S400P-KSF5N-LH1P7H1P7H1-ACD4C
103 568 0003	Safe400 Perimeter 4 Beam	P-0950-4, 05m, Profile Standard	S400P-KSF5N-LH1P5H1P5H1P5H1-ACD50
103 568 0004	Safe400 Perimeter 2 Beam	P-0550-2, 05m, Profile Robust	S400P-KSF5N-LH1P9H1-CCD5E
103 568 0005	Safe400 Perimeter 3 Beam	P-0850-3, 05m, Profile Robust	S400P-KSF5N-LH1P7H1P7H1-CCD4E
103 568 0006	Safe400 Perimeter 4 Beam	P-0950-4, 05m, Profile Robust	S400P-KSF5N-LH1P5H1P5H1P5H1-CCD52
Accessories			
103 510	Connection cable	Length 2 m, blue (receiver)	
103 511	Connection cable	Length 2 m, white (emitter)	
103 512	Connection cable	Length 3 m, blue (receiver)	
103 513	Connection cable	Length 3 m, white (emitter)	
103 514	Connection cable	Length 5 m, blue (receiver)	
103 515	Connection cable	Length 5 m, white (emitter)	
104 967	Connection cable	Length 8 m, blue (receiver)	
104 968	Connection cable	Length 8 m, blue (receiver)	
102 792	Extension cable	Length 1m with 8-pole Mini DIN plug for cascaded systems, plug diameter: 15 mm	
102 793	Extension cable	Length 3 m with 8-pole Mini DIN plug for cascaded systems (other lengths upon request)	

Standard- and Special configurations available according CEDES Configuration Tool (see www.cedes.com) or on request.

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CEDES reserves the right to modify or change technical data without prior notice.