

Safety Light Curtains for point-of-operation protection

	TYPICAL APPLICATIONS	RESOLUTION	APPROVALS	ELECTRICAL CONNECTION	DIMENSIONS OF THE PROTECTED AREA																			
				DIMENSIONS	SCANNING RANGE (m/ft)	PROTECTION HEIGHT (mm/in)	Automatic restart	Start & Restart interlock	Test input	FSD monitoring	Response time	Static outputs	Relay outputs	Self-diagnostic indicator	Output status indicator	Cross-talk reduction	Blanking/Reduced resolution	Muting	Cascading	Single/double stroke	Weld splash protection	Sealing		Voltages
TYPE 4	Compact Type 4 light curtain with static safety outputs	Heavy industry and material conversion <ul style="list-style-type: none">Pressing, moulding and thermoforming machinesConveyors, handling equipment and assembly linesCopying lathes and machining centersDoor and gate, lift and hoist technologyStacking machines, transporting and conveyor technologyTextile, packaging machinesVibrating sieves, sorters and milling machines	 FINGER DETECTION ø14 mm / 0.6 in HAND DETECTION ø30 mm / 1.2 in	 Approved as Type 4 per IEC/EN 61496-1/2	<ul style="list-style-type: none">M12 (5 pin, 8 pin)DIN 43651 plugsBrad Harrison Mini-Change® plugsTerminal strips (cable glands) 60 mm x 42 mm / 2.36 in x 1.65 in	FF-SYA30 20 m/65.6 ft FF-SYA14 6 m/20 ft	320 mm to 1760 mm/ 12.6 in to 56.7 in	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	14 to 18 ms	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	IP 65 NEMA 4 NEMA 13	24 Vdc	FF-SYA14 / FF-SYA30	FF-SYA
	TYPE 4	Compact Type 4 light curtain with static safety outputs	Heavy industry and material conversion <ul style="list-style-type: none">Pressing, moulding and thermoforming machinesElectronic assemblyCopying lathes and machining centersTextile, packaging machines	 FINGER DETECTION ø18 mm / 0.70 in HAND DETECTION ø30 mm / 1.2 in	 Approved as Type 4 per IEC/EN 61496-1/2	<ul style="list-style-type: none">M12 (8 pin) connectors 55 mm x 42 mm / 2.16 in x 1.65 in	FF-SG30 3.5 m / 11.48 ft FF-SG18 / FF-SG30 310 mm to 1470 mm/ 12.21 in to 57.91 in 310 mm to 700 mm/ 12.21 in to 27.58 in	FF-SG18 FF-SG30	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	15 to 21.5 ms	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	IP 65 NEMA 4 NEMA 13	24 Vdc	FF-SG18 / FF-SG30	
TYPE 4	Harsh-duty Type 4 self-contained light curtain with relay outputs	Heavy industry and material conversion <ul style="list-style-type: none">Presses and punches for metals, plastics and leatherDeep-drawing presses, moulding presses and filter pressesMetal forming, milling and drilling machinesSpot-welding machines and fine-boring machines	 FINGER DETECTION ø22 mm / 0.86 in HAND DETECTION ø35 mm / 1.4 in	 For ac versions only Approved as Type 4 per pr EN 50100 - 1/2	<ul style="list-style-type: none">Metal connectors DIN 43652 116 mm x 56 mm / 4.57 in x 2.20 in	FF-SB12 10 m / 32.8 ft FF-SB14 10 m / 32.8 ft 24 m / 78.72 ft Long range version	400 mm to 1400 mm/ 15.76 in to 55.16 in 200 mm to 600 mm/ 7.88 in to 23.6 in	FF-SB12 FF-SB14	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	25 to 45 ms	2 NO 1 NC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	IP 65 NEMA4 NEMA 13	120 Vac/ 240 Vac 24 Vdc/ 48 Vdc	FF-SB12 / FF-SB14	FF-SB
	TYPE 4	Type 4 light curtain with separate control unit and blanking capability	Heavy industry and material conversion <ul style="list-style-type: none">Presses, metalforming, moulding, milling, thermoforming, and assembly machinesStacking, transporting and handling equipment, conveyors and assembly linesCopying lathes and machining centersDoor and gate, lift and hoist technologyRobotic, welding, cutting, and sealingTextile, packaging machinesJigging sieves, sorters and special machines	 HAND DETECTION ø31,75 mm / 1.25 in	 Approved as Type 4 per IEC/EN 61496-1/2	<ul style="list-style-type: none">Sensors: connectorsControl unit: removable terminal strips 53,3 mm x 69,8 mm / 2.1 in x 2.75 in	7.6 m / 25 ft 15,3 m / 50 ft Long range version	146 mm to 1822,5 mm/ 5.75 in to 71.75 in	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	25 to 35 ms	2 NO 1 NC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	IP 65 NEMA 4	120 Vac 240 Vac 24 Vdc	DETECTOR™ 3	

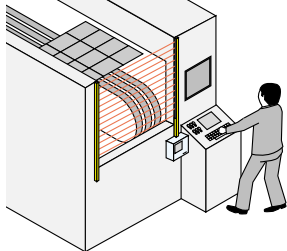








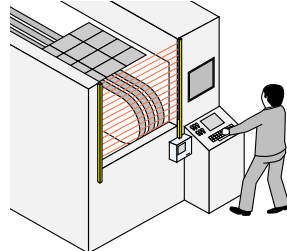







Through external accessory

On specific models, with increased response time

□ Through external accessory

① On specific models, with increased response time

Safety Light Curtains for point-of-operation protection

	TYPICAL APPLICATIONS	RESOLUTION	APPROVALS	ELECTRICAL CONNECTION		DIMENSIONS OF THE PROTECTED AREA																					
				DIMENSIONS		SCANNING RANGE (m/ft)	PROTECTION HEIGHT (mm/in)	Automatic restart	Start & Restart interlock	Test input	FSD monitoring	Response time	Static outputs	Relay outputs	Self-diagnostic indicator	Output status indicator	Cross-talk detection indicator	Blanking/reduced resolution	Muting	Cascading	Single/double stroke	Weld splash protection	Sealing	Voltage			
TYPE 4	<div>Slim line Type 4 light curtain with separate control unit and relay outputs</div> <div></div>	<div>Light industry</div> <ul style="list-style-type: none">Paper cutting machinesPick-and-place robotsLight electronic assembly machinesGoods liftsSmall carousels	<div></div> <div>FINGER DETECTION ø14 mm / 0.55 in</div> <div></div> <div>HAND DETECTION ø30 mm / 1.18 in</div>	<div></div> <div>Approved as Type 4 per pr EN 50100 - 1/2</div>	<div>• M8 connectors</div> <div></div> <div>FF-LS14 23 mm x 35 mm / 0.90 in x 1.38 in</div> <div></div> <div>FF-LS30 19 mm x 12 mm / 0.74 in x 0.47 in</div>	<div></div> <div>3.5 m / 11.48 ft</div> <div>FF-LS14 / FF-LS30</div>	<div></div> <div>200 mm to 1800 mm / 7.88 in to 70.9 in</div> <div>200 mm to 750 mm / 7.88 in to 29.5 in</div> <div>FF-LS14 / FF-LS30</div>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	50 ms	2 NO 1 NC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	IP 65 NEMA 4 NEMA 13	24 Vdc and 24 Vac	<div>FF-LS14 / FF-LS30</div> <div></div>	FF-LS
TYPE 2	<div>Compact Type 2 light curtain with static safety outputs</div> <div></div>	<div>Heavy industry and material conversion</div> <ul style="list-style-type: none">Moulding and thermoforming machinesElectronic assemblyAssembly linesTextile, packaging machines	<div></div> <div>FINGER DETECTION ø18 mm / 0.7 in</div> <div></div> <div>HAND DETECTION ø30 mm/1.2 in</div>	<div></div> <div>Approved as Type 2 per IEC/EN 61496 - 1/2</div>	<div>• M12 (8 pin) connectors</div> <div></div> <div>55 mm x 42 mm / 2.16 in x 1.65 in</div>	<div></div> <div>4 m / 13.12 ft</div> <div>FF-SLG18/FF-SLG30</div>	<div></div> <div>310 mm to 1470 mm/ 12.21 in to 57.91 in</div> <div>310 mm to 700 mm/ 12.21 in to 27.58 in</div> <div>FF-SLG18/FF-SLG30</div>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15 to 21.5ms	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	IP 65 NEMA 4 NEMA 13	24 Vdc	<div>FF-SLG18 / FF-SLG30</div> <div></div> <div>New</div>	FF-SLG	





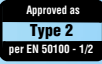
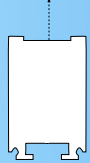
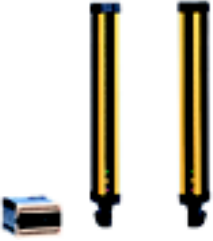
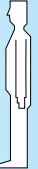


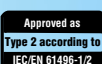

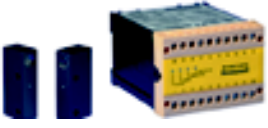
☐ Through external accessory

Multiple Light Beams for Access Detection to Hazardous Areas

	TYPICAL APPLICATIONS		NUMBER OF BEAMS	APPROVALS	ELECTRICAL CONNECTION		DIMENSIONS OF THE PROTECTED AREA															
					DIMENSIONS	SCANNING RANGE (m/ft)			PROTECTION HEIGHT (mm/in)	Automatic restart	Start & Restart interlock	Test input	FSD monitoring	Response time	Static outputs	Relay outputs	Self-diagnostic indicator	Output status indicator	Cross-talk detection reduction	Muting	Weld splash protection	
TYPE 4		Heavy industry and material conversion <ul style="list-style-type: none">Access detection for:<ul style="list-style-type: none">- Robotic and transfer areas- Machinery centers- Palletising areas- Storage and stacking areasMax. length of a U-shaped perimeter: 64 m / 210 ft	2, 3 or 4 beams	 Approved as Type 4 per IEC/EN 61496-1/2	<ul style="list-style-type: none">• M12 (5 pin, 8 pin)• DIN 43651 plugs• Brad Harrison Mini-Change® plugs• Terminal strips (cable glands) 60 mm x 42 mm / 2.36 in x 1.65 in	0,5 m to 80 m / 1.64 ft to 262.46 ft	500 mm to 900 mm / 19.7 in to 35.46 in	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	12 ms	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	IP 65 NEMA 4 NEMA 13	24 Vdc		FF-SYA234	
TYPE 4		Heavy industry and material conversion <ul style="list-style-type: none">Access detection for:<ul style="list-style-type: none">- Robotic and transfer areas- Machinery centers- Palletising areas- Storage and stacking areasMax. length of a U-shaped perimeter: 19 m / 62.32 ft	2, 3 or 4 beams ø235 mm / 9.25 in	 Approved as Type 4 per pr EN 50100 - 1/2	<ul style="list-style-type: none">• Metal connectors DIN 43652 116 mm x 56 mm / 4.57 in x 2.20 in	3 m to 24 m / 9.84 ft to 78.72 ft	600 mm to 1400 mm / 23.64 in to 55.16 in	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	25 to 27 ms	2 NO + 1 NC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	IP 65 NEMA 4	120 Vac/ 240 Vac 24 Vdc/ 48 Vdc		FF-SB15		
TYPE 4		Heavy industry and material conversion <ul style="list-style-type: none">Access protection on palletising areasAccess detection of areas containing robots or automatic machinesDetection of automatic guided vehiclesThermoforming, agglomerating and moulding pressMax. length of a U-shaped perimeter: 27 m / 88.56 ft	2 to 8 beams	 Approved as Type 4 per pr EN 50100 - 1/2	<ul style="list-style-type: none">• Connectors Hirschmann ELWIKA 99 mm x Ø18 mm / 3.90 in x 0.70 in	25 m / 82 ft 33 m / 108 ft Long range version	2 to 8 beams	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	30 ms	2 NO + 1 NC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Sensors: IP 67 NEMA 6	120 Vac 230 Vac 24 to 48 Vdc		FF-SCAN		
TYPE 4		Heavy industry and material conversion <ul style="list-style-type: none">Access detection of perimeter protection around a robot zone, trip device at the entrance and the exit of a paint shop, etc.Access detection at the rear of a press brakeMax. length of a U-shaped perimeter: 19 m / 62.32 ft	1 beam	 Approved as Type 4 per pr EN 50100 - 1/2	<ul style="list-style-type: none">• Metal connector DIN 43652• Terminal strips 120 mm x 50 mm / 4.72 in x 0.02 in	40 m / 131.2 ft 75 m / 246 ft Long range version	1 beam	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	20 ms	2 NO + 1 NC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	IP 67 NEMA 6 ① IP 65 NEMA 4 ②	120 Vac 230 Vac 24 Vdc		FF-SPS4		
TYPE 4		Heavy industry and material conversion <ul style="list-style-type: none">Access detection for perimeter protection around a robot zone, trip device at the entrance and the exit of a paint shop, etc.Access detection at the rear of a press brakeMax. length of a U-shaped perimeter: 60 m / 196.8 ft	2 or 3 beams	 Approved as Type 4 per pr EN 50100 - 1/2	<ul style="list-style-type: none">• Metal connector DIN 43652 a 1170 46.09 b 200 7.88 c 128 5.04 d 133.2 5.24	2 beam systems 0 to 20 m / 0 to 65.6 ft 5 m to 75 m / 16.4 ft to 246 ft 3 beam systems 0 to 8 m / 0 to 26.24 ft 5 m to 75 m / 16.4 ft to 246 ft	500 mm to 800 mm / 19.7 in to 31.52 in	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	20 ms	2 NO + 1 NC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	IP 65 NEMA 4			FF-SPS4 systems		

□ Through external accessory ① FF-SPS4□TR□ terminal strip version, FF-SPS4□QR□ Brad Harrison Minichange version • ② FF-SPS4□CR□ connector version







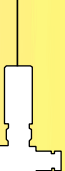
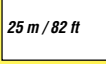
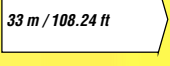

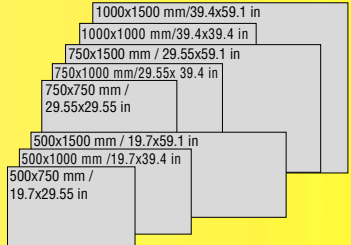


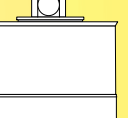
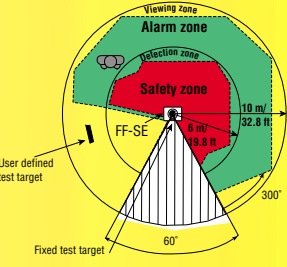
Multiple Light Beams for Access Detection into Low Risk Areas

	TYPICAL APPLICATIONS		RESOLUTION	APPROVALS	ELECTRICAL CONNECTION	DIMENSIONS OF THE PROTECTED AREA														
					DIMENSIONS			Automatic restart	Start & Restart interlock	Test input	FSD monitoring	Response time	Relay outputs	Self-diagnostic indicator	Output status indicator	Muting	Cascading	Sealing	Voltage	
TYPE 2	Type 2 light curtain with separate control unit and relay outputs	Light industry and material conversion, transportation and storage: <ul style="list-style-type: none">Access detection for robotic areasAccess detection in transfer areasPerimetric protectionMax. length of a U-shaped perimeter: 8 m / 26.2 ft	3 to 9 beams  BODY DETECTION ø184 mm/7.24 in	   	• Hirschmann connector  70 mm x 50 mm / 2.75 in x 1.97 in	12 m / 39.4 ft	600 mm to 1100 mm / 23.64 in to 43.34 in	■	■	■	■	28 to 30 ms	2 NO + 1 NC	■	■	□	■	IP 65 NEMA 4	Sensors: 24 Vac/dc	FF-SLC18 
TYPE 2	Type 2 single beam with separate control unit and relay outputs	Light industry and material conversion, transportation and storage: <ul style="list-style-type: none">Access detection for robotic areas :Packaging OEMsTextile Machinery IndustriesAutomated industrial warehousing systemsHandling, palletising/de-palletising systemsAssembly lines	1 to 4 beams  BODY DETECTION according to EN 999	  	• M8 connector  25 mm x 15 mm / 0.98 in x 0.59 in	0.8 m to 6 m / 2.6 ft to 16.7 ft	1 to 4 beams	■	■	■	■	28 to 30 ms	2 NO + 1 NC	■	■	□	■	IP 65 NEMA 4	Sensors: 24 Vdc	FF-SLB 

□ Through external accessory

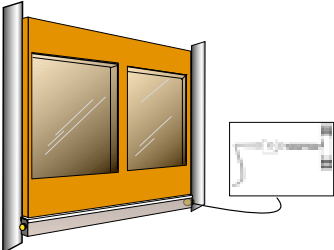
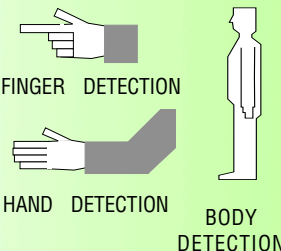

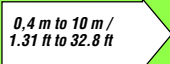











Electro-Sensitive Protective Equipment for Presence Detection

in Hazardous Areas

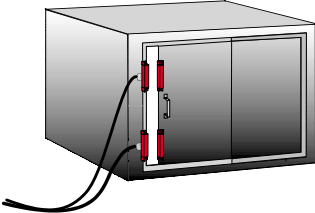














TYPICAL APPLICATIONS		RESOLUTION	APPROVALS	ELECTRICAL CONNECTION	DIMENSIONS OF THE PROTECTED AREA																		
					SCANNING RANGE (m/ft)	PROTECTION HEIGHT (mm/in)	Automatic restart	Start & Restart interlock	Test input	FSD monitoring	Response time	Static outputs	Relay outputs	Self-diagnostic	Output status indicator	Cross-talk indicator	Muting	Cascading	Weld splash protection	Sealing	Voltage		
TYPE 4	Compact Type 4 light curtain with static safety outputs	Heavy industry and material conversion		<ul style="list-style-type: none">• M12 (5 pin, 8 pin)• DIN 43651 plugs• Brad Harrison Mini-Change® plugs• Terminal strips (cable glands)  60 mm x 42 mm/ 2.36 in x 1.65 in			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	14 ms to 23 ms	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	IP 65 NEMA 4	24 Vdc	FF-SYA60 
	Type 4 modular light curtain with M18 sensors and separate control unit with relay outputs	Heavy industry and material conversion						<ul style="list-style-type: none">• Connectors Hirschmann ELWIKA  99 mm x Ø18 mm/ 3.9 in x 0.7 in	 	2 to 8 beams	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	30 ms	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CAT.3 / CAT.4	Category 3 Pressure sensitive mat and separate control unit with relay outputs	Heavy industry and material conversion		<ul style="list-style-type: none">• Terminal strips (cable glands) for control unit• Fiber optic cables for safety mat <ul style="list-style-type: none">• Max. surface per control unit: 6 m²/64.5 ft²• Width: ≤ 20 mm/0.78 in• Dimensions of the control unit: 211 x 211 x 96 mm/ 8.31 x 8.31 x 3.78 in	Standard dimensions available: 		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	25 ms	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Sensor: IP 67 Control unit: IP 65	120 Vac 240 Vac 24 Vdc	FF-SM 
	TYPE 3	Category 3 laser scanner with relay outputs			Light industry		<ul style="list-style-type: none">• Binder cordset (5 m/ 16.4 ft) for power and signal• Binder RS232 cordset (3 m/9.84 ft) for PC connection  172 x 176 x 107 mm/ 6.77 x 6.93 x 4.21 in		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	280 ms	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	IP 65

☐ Through external accessory

Safety Sensitive Edges

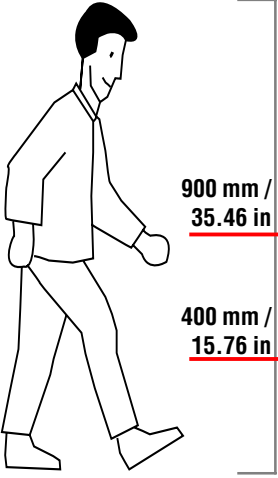


CATEGORY 4	TYPICAL APPLICATIONS		DETECTION CAPABILITY	APPROVALS	ELECTRICAL CONNECTION	DIMENSIONS OF THE PROTECTED ZONE SCANNING RANGE (m/ft)													FF-SD	
					DIMENSIONS															
	Safety Sensitive Edges 	<ul style="list-style-type: none">Industrial doors (sectional doors, sliding doors, etc.)- Machine guards and doors- Auto-Guided vehicle- Automatic handling systems or manipulators (robots, material feeding systems, etc.)	 FINGER DETECTION HAND DETECTION BODY DETECTION	 Suitable for interfaces up to CATEGORY 4 per EN 954-1	Electrical Connection: 3 wires • Sensors: 37 mm x 11,5 mm / 145 in x 0.45 in • Control unit: 22,5 mm x 11 mm x 120 mm / 0.88 in x 0.43 in x 0.02 in						32 ms	1	2 NO							

Non Contact Safety Switches

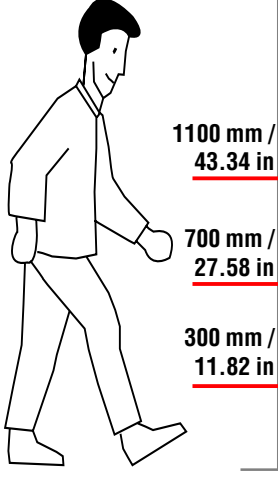


CATEGORY 3	TYPICAL APPLICATIONS		DETECTION CAPABILITY	APPROVALS	ELECTRICAL CONNECTION	FUNCTION													
					DIMENSIONS														
	Safety magnetic multi-sensor system 	<ul style="list-style-type: none">Interlocking guards for non-locked mechanical screens offering free accessMachine door or casing position detectionGuard-in-place detection, gate or access door detectionControl of mechanical screens used in addition to a safety light curtainMeet the requirements of the following industries: Food & Beverage	Operating range: 5 mm - 7 mm / 0.20 in - 0.27 in ON, 8 mm - 12 mm / 0.32 in - 0.47 in OFF	   	Electrical Connection: 2 wires • FF-SNC200R2/ FF-SNC1EXT W: 22,5/0.88 H: 84/3.30 D: 119/4.68 • FF-SNC400R2/ FF-SNC400RE W: 75/2.95 H: 74/2.91 D: 119/4.68	<ul style="list-style-type: none">Tamper resistant keyed magnetic field actuated sensorsMulti-sensor safety control module			NA		15 ms	NA	2 NO + 1 NC						FF-SNC  
														Sensors: IP 67 Control unit: IP 40			24 Vac/Vdc 110 Vac		

ACCESS DETECTION

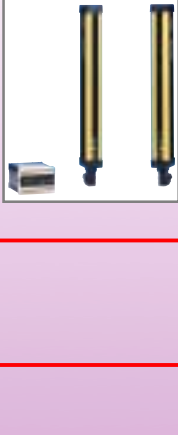


2 BEAMS (OR EQUIVALENT) ACCESS DETECTION SOLUTIONS (EN 999 STANDARD)

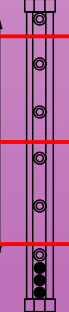


Body detection	Integrated safety light curtain FF-SYA60	Integrated multibeam safety light curtain FF-SB15
Advantages	<ul style="list-style-type: none">• Compact housing• Static outputs• Good cross-talk immunity	<ul style="list-style-type: none">• Integrated advanced functions• Robust
Type according to IEC/EN 61496-1	Type 4	Type 4
		
References	FF-SYA60064C2 (24 Vdc)	FF-SB15E/R064-S2 (24 V) FF-SB15E/R06K-S2 (120/240 V)
Scanning range (straight line)	20 m / 65 ft	24 m / 78.72 ft
L-shaped mirror for perimetric protection	1x FF-SLC06MIR (range: 14 m / 45.9 ft) 1x FF-SBSMIR06 (range: 18 m / 59.04 ft)	1x FF-SBZ02MIR (range: 21,5 m / 70.52 ft) 1x FF-SBSMIR06 (range: 21,5 m / 70.52 ft)
U-shaped mirror for perimetric protection	2x FF-SLC06MIR (range: 10 m / 32.8 ft) 2x FF-SBSMIR06 (range: 16 m / 52.48 ft)	2x FF-SBZ02MIR (range: 19,5 m / 63.96 ft) 2x FF-SBSMIR06 (range: 19,5 m / 63.96 ft)

3 BEAMS (OR EQUIVALENT) ACCESS DETECTION SOLUTIONS (EN 999 STANDARD)

		
References	FF-SYA60096C2 (24 Vdc)	FF-SB15E/R104-S2 (24 V) FF-SB15E/R10K-S2 (120/240 V)
L-shaped mirror for perimetric protection	1x FF-SLC09MIR (range: 14 m / 45.9 ft) 1x FF-SBSMIR10 (range: 18 m / 59.04 ft)	1x FF-SBZ03MIR (range: 21,5 m / 70.52 ft) 1x FF-SBSMIR10 (range: 21,5 m / 70.52 ft)
U-shaped mirror for perimetric protection	2x FF-SLC09MIR (range: 10 m / 32.8 ft) 2x FF-SBSMIR10 (range: 16 m / 52.48 ft)	2x FF-SBZ03MIR (range: 19,5 m / 63.96 ft) 2x FF-SBSMIR10 (range: 19,5 m / 63.96 ft)
Options	Interface control module FF-SRS59392 Muting FF-SRM100P2	Muting FF-SRM100P2

IN DANGEROUS AREAS

Multibeam safety light curtain FF-SLC18 and separate control unit	Safety single beam FF-SPS4 + mirrors	FF-SPS4 Columns
<ul style="list-style-type: none">• Low cost solution• Compact housing	<ul style="list-style-type: none">• Small housing• Long range• Flexible placement	<ul style="list-style-type: none">• Robust• Floor mounting• Easy alignment
Type 2	Type 4	Type 4
		
FF-SLC18062 + FF-SLU100R2 (24 V)	FF-SPS44TR2 (24 V) FF-SPS44TRE (120 V) FF-SPS44TRG (240 V)	FF-SPS4ERX□□ + FF-SPZ12MIR (20 m / 65.6 ft) FF-SPS4EEX□□-1 + FF-SPS4RRX□□-1 (75 m / 246 ft)
12 m / 39.4 ft	40 m or 75 m / 131.2 ft or 246 ft	8 m, 20 m or 75 m / 26.24 ft, 65.6 ft or 246 ft
1x FF-SLC06MIR (range: 9 m / 29.52 ft) 1x FF-SBSMIR06 (range: 11 m / 36.08 ft)	1x FF-SCZ02MIR (range: up to 56 m / 183.68 ft)	1x FF-SCZ02MIR (range: up to 56 m / 183.68 ft)
2x FF-SLC06MIR (range: 7 m / 22.96 ft) 2x FF-SBSMIR06 (range: 9,5 m / 31.16 ft)	2x FF-SCZ02MIR (range: up to 42 m / 137.76 ft)	2x FF-SCZ02MIR (range: up to 42 m / 137.76 ft)

		
FF-SLC18092 + FF-SLU100R2 (24 V)	FF-SPS44TR2 (24 V) FF-SPS44TRE (120 V) FF-SPS44TRG (240 V)	FF-SPS4EM1□□ + FF-SPS4RM1□□ (8 m / 26.24 ft) FF-SPS4RER□□-1 + FF-SPS4ERE□□-1 (75 m / 246 ft)
1x FF-SLC09MIR (range: 9 m / 29.52 ft) 1x FF-SBSMIR10 (range: 11 m / 36.08 ft)	1x FF-SCZ03MIR (range: up to 56 m / 183.68 ft)	1x FF-SCZ03MIR (range: up to 56 m / 183.68 ft)
2x FF-SLC09MIR (range: 7 m / 22.96 ft) 2x FF-SBSMIR10 (range: 9,5 m / 31.16 ft)	2x FF-SCZ03MIR (range: up to 42 m / 137.76 ft)	2x FF-SCZ03MIR (range: up to 42 m / 137.76 ft)
Muting FF-SLM200R2 (replaces the FF-SLU100R2)	Muting FF-SRM100P2 Mirror FF-SPZ01MIR (10 % scanning range reduction) Mirror FF-SPZ11MIR (25 % scanning range reduction)	Muting FF-SRM100P2