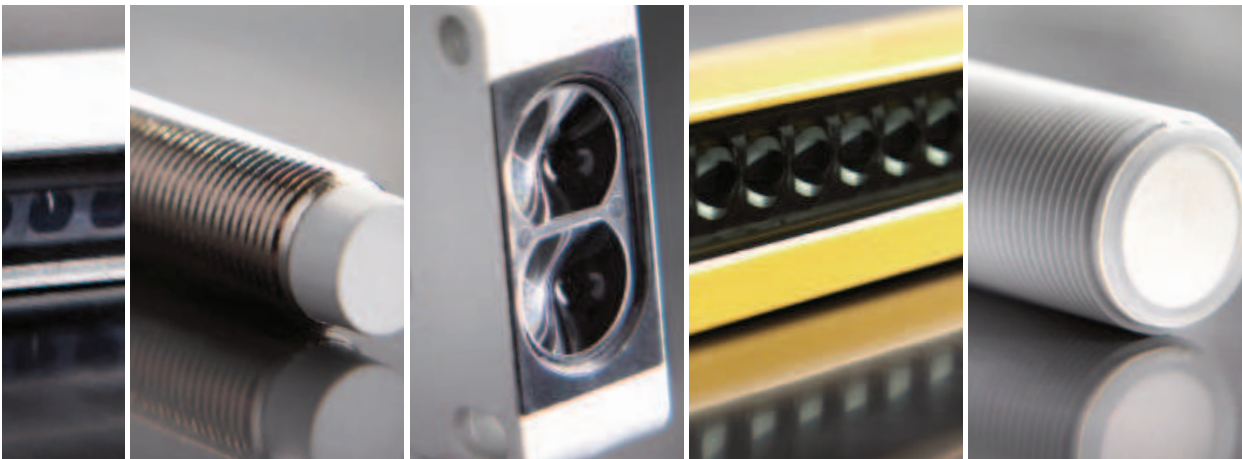


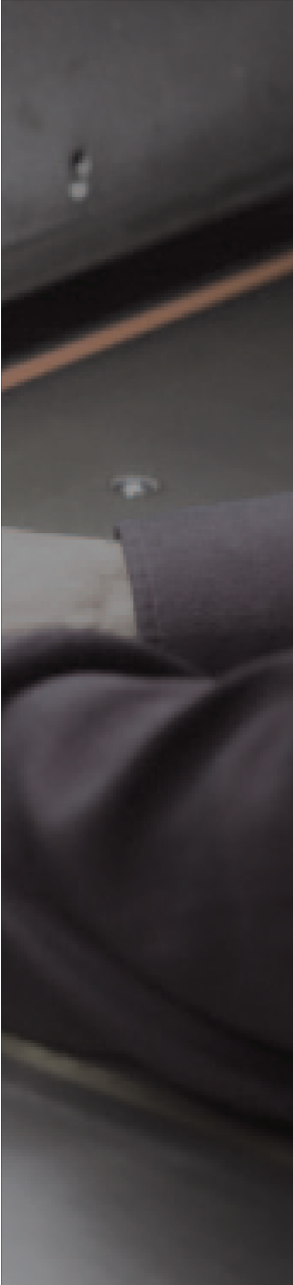


Micro Detectors

Italian Sensors Technology



short form
Catalogue



Safety

- Control units Type 2
- Single beam Photocells Type 2 and Type 4
- Safety light curtains Type 2
- Safety light curtains Type 2


Control units Type 2

SBCR03









dimensions	84x76x110 mm	
sensing distance	—	
controlled area height	—	
resolution	—	
optics step	—	
optics number	up to 6	
available functions	automatic restart	•
	manual restart	•
	EDM	•
	double muting	•
type	2 (EN 61496) PLd (EN ISO 13849 -1) SIL CL 2 (EN 62061)	
supply voltage	Vdc	•
	Vac	—
output type	2 relay	—
	2 PNP	•
	totem pole	—
temperature range	-20°C...+60°C	
protection degree	IP20	
housing material	ABS	
head material	—	
output	cable	—
	M12 plug	—
	terminals	•
ATEX	—	
other certifications		

Single beam Photocells Type 2 and Type 4

SH	TH	SH-IC	TH-IC
			
M18	M30	M18	M30
10 m	30 m 60 m	10 m (axial) 5 m (right angle)	60 m
—	—	—	da 500 mm a 900 mm
—	—	—	—
—	—	—	—
connected to SBCR03 unit	connected to SBCR03 unit	connected to external unit cat. 2 and cat. 4	connected to external unit cat. 2 and cat. 4
connected to SBCR03 unit	connected to SBCR03 unit	connected to external unit cat. 2 and cat. 4	connected to external unit cat. 2 and cat. 4
connected to SBCR03 unit	connected to SBCR03 unit	connected to external unit cat. 2 and cat. 4	connected to external unit cat. 2 and cat. 4
connected to SBCR03 unit	connected to SBCR03 unit	connected to external unit cat. 2 and cat. 4	connected to external unit cat. 2 and cat. 4
2	2	2/4 (IEC 61496) SIL CL1/SIL CL3 (EN62061) PL c/PL e (EN ISO 13849)	2/4 (IEC 61496) SIL CL1/SIL CL3 (EN62061) PL c/PL e (EN ISO 13849)
●	●	—	—
—	—	—	—
—	—	—	—
—	—	—	—
●	●	●	●
-25°C...+60°C	-25°C...+60°C	-20°C...+55°C	-20°C...+55°C
IP67	IP67	—	—
plastic / metallic	metallic	nickel plated brass/plastic	nickel plated brass
PMMA	glass	glass	glass
—	—	●	—
●	●	●	●
—	—	—	—
—	—	—	—
			







Safety light curtains Type.2

		LS2	LS2_K e LS2_H
			
dimensions		cubic 28x30 mm	cylindrical ø 56 mm
sensing range		0..4/0..12 m select.	0..3/0..10 m
controlled area height		from 160 to 1,510 mm	from 160 to 1,510 mm
resolution		hand, body, access	hand, access
optics step		30 mm, 50 mm, 90 mm, 300 mm, 400 mm, 500 mm	30 mm, 300 mm, 400 mm, 500 mm
optics number		depending to height	depending to height
available functions	automatic restart	●	●
	manual restart	●	●
	EDM	●	●
	integrated connections for muting sensors	—	—
	sensitivity adjustment	●	●
	extended range	—	—
	master	●	—
	intermediate slave	●	—
	final slave	●	—
	with passive element	—	—
type		2 (EN 61496-1) SIL CL 2 (EN 62061) PL d (EN ISO 13849-1)	3 (EN 61496-1) SIL CL 2 (EN 62061) PL d (EN ISO 13849-1)
supply voltage	Vdc	●	●
	Vac	—	—
output type	2 relays	—	—
	2 PNP	●	●
temperature range		-10°C...+55°C	0°C...+55°C (LS2_K) -20°C...+60°C (LS2_H)
protection degree		IP67	IP69K
housing material		aluminium	PMMA, POM-C, stainless steel
optic material		PMMA	PMMA
output	cable	—	●
	M12 plug, 5 wires	emitter and master/slave	—
	M12 plug, 8 wires	single receiver and master	—
	M23 plug, 19 wires	—	—
ATEX		—	—
other certifications			







		SBA
		
dimensions		cubic
sensing distance		10 m 40 m 60 m
controlled area height		from 500 mm to 900 mm
resolution		body
optics step		300 mm (2 optics) 400 mm (3 optics) 300 mm (4 optics)
optics number		2 3 4
available functions	automatic restart	connected to SBCR03 control unit
	manual restart	connected to SBCR03 control unit
	EDM	connected to SBCR03 control unit
	double muting	connected to SBCR03 control unit
tipo		2
alimentazione	Vdc	●
	Vac	—
tipo di uscita	2 relay	—
	2 PNP	—
	totem pole	●
temperature range		0°C...+55°C
protection degree		IP65
housing material		metallic
optic material		PC
output	cable	●
	M12 plug	—
	terminals	●
ATEX		—
other certifications		

Safety

Safety light curtains Type 4



		LS4	LS4_K e LS4_H	LP4ER
				
dimensions		cubic 28x30 mm	cylindrical ø 56 mm	cubic 50x60 mm
sensing distance		0..3/1..16 m sel. (ris.14 mm); 0..4/0..12 m e 0..10/3..20 m selez.	0..2/1..5 m (ris.14 mm); 0..8/3..17 m selez.	0..6/1..16 m selez.; 8..30/18..60 m selez.; 18..45/25..80 m selez.
controlled area height		from 144 to 1,510 mm	from 160 to 1,510 mm	510 mm, 610 mm, 810 mm, 910 mm, 1,210 mm
resolution		finger, hand, body, access	finger, hand, access	access
optics step		14 mm, 30 mm, 50 mm, 90 mm, 300 mm, 400 mm, 500 mm	14 mm, 30 mm, 300 mm, 400 mm, 500 mm	40 mm, 300 mm, 400 mm, 500 mm
optics number		depending on height	depending on height	depending on height
available functions	automatic restart	●	●	●
	manual restart	●	●	●
	EDM	●	●	●
	integrated connections for muting sensors	—	—	—
	sensitivity adjustment	●	—	●
	extended range	●	—	●
	master	●	—	—
	intermediate slave	●	—	—
	final slave	●	—	—
with passive element	—	—	—	
type		4 (EN 61496-1) SIL CL 3 (EN 62061) PL e (EN ISO 13849-1)	4 (EN 61496) SIL CL 3 (EN 62061) PL e (EN ISO 13849-1)	4 (EN 61496) SIL CL 3 (EN 62061) PL e (EN ISO 13849-1)
supply voltage	Vdc	●	●	●
	Vac	—	—	—
output type	2 relays	—	—	—
	2 PNP	●	●	●
temperature range		-10°C...+55°C	0°C...+55°C (LS2_K) -25°C...+55°C (LS2_H)	-10°C...+55°C
protection degree		IP67	IP69K	IP65
housing material		aluminium	PMMA, POM-C, stainless steel	aluminium
optic material		PMMA	PMMA	PMMA
output	cable	—	●	—
	M12 plug, 5 wires	emitter	—	emitter
	M12 plug, 8 wires	single receiver and master	—	—
	M23 plugs, 19 wires	—	—	receiver
ATEX		—	—	—
other certifications				

New serie

	LP4PF	LP4ER_M	LP4PT
			
	cubic 50x60 mm	cubic 50x60 mm	cubic 50x60 mm
	0..6m	0..6 / 1...16 m sel.; 8..30 / 18...60 m sel.	0..6m
	510 mm, 810 mm, 910 mm	from 310 to 1,810 mm	510 mm, 810 mm, 910 mm
	access	hand, body, access	access
	300 mm, 400 mm, 500 mm	30 mm, 40 mm, 90 mm, 300 mm, 400 mm, 500 mm	300 mm, 400 mm, 500 mm
	depending on height	depending on height	depending on height
	●	●	●
	●	●	●
	●	●	●
	—	●	●
	—	●	—
	—	●	—
	—	—	—
	—	—	—
	●	—	●
	4 (EN 61496) SIL CL 3 (EN 62061) PL e (EN ISO 13849 -1)	4 (EN 61496) SIL CL 3 (EN 62061) PL e (EN ISO 13849 -1)	4 (EN 61496) SIL CL 3 (EN 62061) PL e (EN ISO 13849 -1)
	●	●	●
	—	—	—
	—	—	—
	●	●	●
	-10°C...+55°C	-10°C...+55°C	-10°C...+55°C
	IP65	IP65	IP65
	aluminium	aluminium	aluminium
	PMMA	PMMA	PMMA
	—	—	—
	—	emitter and muting sensors	muting sensors
	active element	—	—
	—	receiver	active element
			

Safety

Safety light curtains Type 4

		SBH	SBM
			
dimensions		Cubic	Cubic
sensing range		0...6 m 2.5...19 m	0...2,5 m 1.5 m (14 mm) 0...6 m (30 mm)
controlled area height		from 150 mm to 1,800 mm	from 150 mm to 1,200 mm
resolution		hand	hand - finger
optics step		30 mm	14 mm 30 mm
optics number		depending on height	depending on height
available functions	automatic restart	●	●
	manual restart	●	●
	EDM	●	●
	double muting	—	—
type		2 (EN 61496 -1) SIL CL2 (EN62061) PL d (EN ISO 13849 - 1)	4 (EN 61491 -1) SIL CL3 (EN62061) PL e (EN ISO 13849 - 1)
supply voltage	Vdc	●	●
	Vac	—	—
output type	2 relays	—	—
	2 PNP	●	●
	totem pole	—	—
temperature range		0°C...+55°C	0°C...+55°C
protection degree		IP65	IP65
housing material		metallic	metallic
optic material		PC	PC
output	cable	—	—
	M12 plug	●	●
	terminals	—	—
ATEX		—	—
other certifications		