



Safety

Control unit Type 2

Single beam Photoelectric Sensors Type 2 and 4

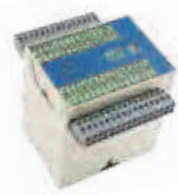
Safety light curtains Type 2


Safety light curtains Type 4

Safety

Control unit Type 2

SBCR03







dimensions		84x76x110 mm
sensing distance		—
controlled area height		—
protection		—
resolution		—
beams number		up to 6
available functions	automatic restart	•
	manual restart	•
	EDM	•
	double muting	•
type		2 (EN 61496-2) PLd (EN ISO 13849-1) SIL CL 2 (EN 62061)
power supply	Vdc	•
	Vac	—
output type	2 relays	—
	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 Photoelectric Sensors 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
—	—	—	—
—	—	—	—
—	—	—	—
connected to SBCR03 unit	connected to SBCR03 unit	connected to external unit type 2 and type 4	connected to external unit type 2 and type 4
connected to SBCR03 unit	connected to SBCR03 unit	connected to external unit type 2 and type 4	connected to external unit type 2 and type 4
connected to SBCR03 unit	connected to SBCR03 unit	connected to external unit type 2 and type 4	connected to external unit type 2 and type 4
connected to SBCR03 unit	connected to SBCR03 unit	connected to external unit type 2 and type 4	connected to external unit type 2 and type 4
2	2	2/4 (IEC 61496-2) SIL CL1/SIL CL3 (EN62061) PL c/PL e (EN ISO 13849)	2/4 (IEC 61496-2) 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	PMMA / glass	glass	glass
—	—	●	—
●	●	●	●
—	—	—	—
—	—	—	—
			

Safety

Safety light curtains Type 2

		LS2	LS2_K & LS2_H
			
dimensions		cubic 28x30 mm	cylindric ø 56 mm
sensing range		0..4/0..12 m sel..	0..3/0..10 m
controlled area height		from 160 to 1,510 mm	from 160 to 1,510 mm
protection		hand, body, access	hand, access
resolution		30 mm, 40 mm, 50 mm, 300 mm, 400 mm, 500 mm	30 mm, 300 mm, 400 mm, 500 mm
beams number		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		2 (EN 61496-2) SILCL 2 (EN 62061) PL d (EN ISO 13849-1)	2 (EN 61496-2) SILCL 2 (EN 62061) PL d (EN ISO 13849-1)
power supply	Vdc	●	●
	Vac	—	—
output type	2 relays	—	—
	2 PNP	●	●
temperature range		-10°C...+55°C	-10°C...+55°C (LS2_K) -25°C...+59°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	
protection	access	
resolution	500 mm (2 beams) 400 mm (3 beams) 300 mm (4 beams)	
beams number	2, 3, 4	
available functions	automatic restart	connected to SBCR03 unit
	manual restart	connected to SBCR03 unit
	EDM	connected to SBCR03 unit
	double muting	connected to SBCR03 unit
type	2	
power supply	Vdc	●
	Vac	—
output type	2 relays	—
	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 & LS4_H	LP4ER
dimensions		cubic 28x30 mm	cylindric ø 56 mm	cubic 50x60 mm
sensing distance		0..3/1..6 m sel. (res.14 mm); 0..4/0..12 m e 0..10/3..20 m sel.	0..2/ 1..5 m (res.14 mm); 0..8/3..17 m sel.	0..6/ 1..16 m sel.; 8..30/ 18..60 m sel.;
controlled area height		from 160 to 1,510 mm	from 160 to 1,510 mm	510 mm, 610 mm, 810 mm, 910 mm, 1,210 mm
protection		finger, hand, body, access	finger, hand, access	hand, access
resolution		14 mm, 20 mm, 30 mm, 40 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
beams 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 61496-2) SILCL 3 (EN 62061) PL e (EN ISO 13849-1)	4 (EN 61496-2) SILCL 3 (EN 62061) PL e (EN ISO 13849-1)	4 (EN 61496-2) SILCL 3 (EN 62061) PL e (EN ISO 13849-1)
power supply	Vdc	●	●	●
	Vac	—	—	—
output type	2 relays	—	—	—
	2 PNP	●	●	●
temperature range		-10°C...+55°C	-10°C...+55°C (LS4_K) -25°C...+55°C (LS4_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 and master / slave	—	emitter
	M12 plug, 8 wires	single emitter and master	—	—
	M23 plug, 19 wires	—	—	receiver
ATEX		—	—	—
other certifications				

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..6 m
510 mm, 810 mm, 910 mm	from 310 to 1,810 mm	510 mm, 810 mm, 910 mm
access	hand, body, access	access
500 mm, 400 mm, 300 mm	30 mm, 40 mm, 90 mm, 300 mm, 400 mm, 500 mm	500 mm, 400 mm, 300 mm
2, 3 and 4 beams	depending on height	2, 3 and 4 beams
●	●	●
●	●	●
●	●	●
—	●	●
—	●	—
—	●	—
—	—	—
—	—	—
—	—	—
●	—	●
4 (EN 61496-2) SILCL 3 (EN 62061) PL e (EN ISO 13849-1)	4 (EN 61496-2) SILCL 3 (EN 62061) PL e (EN ISO 13849-1)	4 (EN 61496-2) SILCL 3 (EN 62061) PL e (EN ISO 13849-1)
●	●	●
—	—	—
—	—	—
●	●	●
-10°C...+55°C	0°C...+55°C	0°C...+55°C
IP65	IP65	IP65
aluminium	aluminium	aluminium
PMMA	PMMA	PMMA
—	—	—
—	emitter and muting sensors (male)	muting sensors (male)
active element	—	—
—	receiver	active element
—	—	—
