



Indicative image

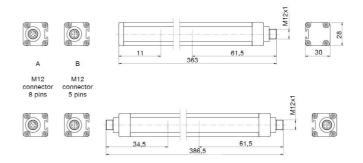






LIGHT CURTAINS TYPE 4 ACCORDING TO IEC 61496-1 AND IEC 61496-2

- Compact housing (28 x 30 mm) and no dead zone on cap side
- Resolution 14 mm for finger protection, 20, 30, 40 mm for hand protection, 50, 90 mm for presence control and 2, 3, 4 beams for body protection/access control
- Controlled distance up to: 3, 4, 6, 10, 12 m
- Base, Standard versions and Master, Slave version to connect up to 3 sets in cascade configuration
- Selectable Automatic/Manual Restart and EDM integrated functions (Standard models)
- Selectable controlled distance
- IP69K protection models (LS4_K) and models with integrated heating system to reach -25°C operating temperature (LS4_H)
- Standard M12 da 5 and 8 poles connectors



Detection properties

Nominal sensing distance	≤ 12m	
Resolution	50mm	
controlled height	310mm	
number of rays	8	
Effective Aperture Angle	±5°	

Application

Function Principle

Type 4 SILC 3 SILCL 3 PL 0 PFHd 7.16E-09 Deavg 95.80% MTTFd 100 CFF 80% Integral 2 x PNP-NCIOSSID safety aurput) Response time 4ms Integral data 400mA 10 parating Voltage 19.2 26.8 Vcc Load current 4 400mA 1 me delay before availability 2s 1 me delay before availability 2s 2 mer Consumption - Receiver 2Wino load) 2 mer Consumption - Emitter 1W Equivalent Resistive Load 2 0.82 µF Cabel Length (Power Supply/Output) < 100m Cabel Length (Power Supply/Output) < 100m Cabel Length (Power Supply/Output) < 50m Intersormonoctions 28mm (front) x 30mm Connections M12-5 poles femiliter/M12-8 poles (receiver) Operating temperature -10°C + +55°C (no condensation) Number of temperature -10°C + +55°C (no condensation) <th>Available functions</th> <th>Manual/Automatic Restart, EDM</th>	Available functions	Manual/Automatic Restart, EDM
SILCL	Safety parameters	
PL	Туре	4
PL e PFHd 7.18E-08 Deavg 98,80% MTFd 100 CFF 80% Interest 80% Interest 4ms Response time 4ms Response time 4ms Interior data 2monthly Voltage Load current ≤ 400mA Time delay before availability 78 Interference to external light eccording to IEC 61498-2 Power Consumption - Receiver 2W (no load) Power Consumption - Emitter IW Equivalent Resistive Load ≥ 800 Ω Capacitive Load ≥ 800 Ω Capacitive Load ≥ 800 Ω Cabel Length For Master Slave Interconnections ± 500 m Interconnections MI2-5 poles (mitter) MI2-8 poles (receiver) Operating temperature -10°C + 455°C (no condensation) CetAlprovale 2 × 70°C (no condensation) CetAlprovale CE - ULus, TÜV Cet (Compatibility) According to 2014/30/EU Directive	SIL	3
PFHd 7,16F-06 Deavg 98,80% MTTFd 1000 CFF 80% utputs Utput yoe 2 x FNF-N0 (0SSD safety output) Response time 4 ms Description of the same time 4 ms Description of the same time 4 ms Description of the same time 4 ms 1 ms delay before availability 2 ms 2 ms 1 ms delay before availability 2 ms 2 ms 2 ms <	SILCL	3
Design \$8,80% MTTFd 1000 DEFF	PL	е
### MTFI	PFHd	7,16E-09
CFF 80% Autputs Autputs Output type 2 × PNP-NO (OSSD safety output) Response time 4ms Recponse time 4ms Recommendations 2s Interference to external light according to IEC 61486-2 Power Consumption - Receiver 2W(no load) Power Consumption - Emitter tiW Equivalent Resistive Load > 60 Ω Capacitive Load > 60 Ω Cabel Length (Power Supply/Output) ≤ 100 m Cabel Length for Master Slave Interconnections 28mm (front) × 30 mm Rechanical data 2mm (front) × 30 mm Connections M12-5 poles (emitter) M12-8 poles (receiver) Operating temperature -10°C + +55°C (no condensation) Storage temperature -25°C + +70°C (no condensation) estApprovals CF, cULus, TÜV	Dcavg	96,80%
Dutput bype 2 × PNP-NO (OSSD safety output) Response time 4 ms Rectrical data 4 ms Deparating Voltage 19,2 28,8 Vcc Load current < 400 mA Time delay before availability 2s Interference to external light according to IEC 61496-2 Power Consumption - Receiver 2W (no load) Power Consumption - Emitter 1W Equivalent Resistive Load > 60 Ω Capacitive Load ≥ 0.82 μF Cabel Length (Power Supply/Output) ≤ 100 m Cable Length for Master Slave interconnections < 50 m Interconnections M12-5 poles (emitter) M12-8 poles (receiver) Operating temperature -10°C + +55°C (no condensation) Storage temperature -25°C +70°C (no condensation) est/Approvals CF, cUL us, TÜV EMC compatibility According to 2014/30/EU Directive	MTTFd	100
Output type 2 x PNP-NO (OSSD safety output) Response time 4ms Response time 4ms Rectrical data 4ms Operating Voltage 19.2 28.8 Voc Load current ≤ 400mA Time delay before availability 2s Interference to external light according to IEC 61496-2 Power Consumption - Receiver 2W (no load) Power Consumption - Emitter IW Equivalent Resistive Load ≥ 60 Ω Capacitive Load ≥ 60 Ω Cabel Length (Power Supply/Output) ≤ 100m Cabel Length (Power Supply/Output) ≤ 100m Cabel Length for Master Slave Interconnections ≥ 80m Interconnections 28mm (front) × 30mm Cennections M12-5 poles (emitter) M12-8 poles (receiver) Operating temperature -10°C + +56°C (no condensation) Storage temperature -25°C + 70°C (no condensation) est/Approvals CE, cULus, TÜV EMC compatibility According to 2014/30/EU Directive	CFF	80%
Output type 2 x PNP-NO (OSSD safety output) Response time 4ms Response time 4ms Rectrical data 4ms Operating Voltage 19.2 28.8 Voc Load current ≤ 400mA Time delay before availability 2s Interference to external light according to IEC 61496-2 Power Consumption - Receiver 2W (no load) Power Consumption - Emitter IW Equivalent Resistive Load ≥ 60 Ω Capacitive Load ≥ 60 Ω Cabel Length (Power Supply/Output) ≤ 100m Cabel Length (Power Supply/Output) ≤ 100m Cabel Length for Master Slave Interconnections ≥ 80m Interconnections 28mm (front) × 30mm Cennections M12-5 poles (emitter) M12-8 poles (receiver) Operating temperature -10°C + +56°C (no condensation) Storage temperature -25°C + 70°C (no condensation) est/Approvals CE, cULus, TÜV EMC compatibility According to 2014/30/EU Directive	Outputs	
Description Section Section	Output type	2 x PNP-NO (OSSD safety output)
Operating Voltage 19,2 28,8 Vcc Load current ≤ 400mA Time delay before availability 2s Interference to external light according to IEC 81498-2 Power Consumption - Receiver 2W (no load) Power Consumption - Emitter 1W Equivalent Resistive Load ≥ 60 Ω Capacitive Load ≥ 0.82 μF Cabel Length (Power Supply/Output) ≤ 100m Cable Length for Master Slave Interconnections \$50m Interconnections 28mm (front) x 30mm Connections M12-5 poles (emitter) M12-8 poles (receiver) Operating temperature -10°C ÷ +55°C (no condensation) Storage temperature -25°C + +70°C (no condensation) humidity 95% (no condensation) cext/Approvals CE, cULus, TÜV EMC compatibility According to 2014/30/EU Directive	Response time	4ms
Load current Image delay before availability 2s Interference to external light according to IEC 61496-2 Power Consumption - Receiver 2W(no load) Power Consumption - Emitter IW Equivalent Resistive Load ≥ 60 Ω Capacitive Load ≥ 0.82 μF Cabel Length (Power Supply/Output) Cable Length for Master Slave Interconnections M12-5 poles (emitter) M12-8 poles (receiver) Operating temperature -10°C + +55°C (no condensation) Storage temperature -25°C + +70°C (no condensation) Storage temperature -25°C + +70°C (no condensation) Storage temperature -25°C + +70°C (no condensation) Storage temperature -25°C + +70°C (no condensation) Storage temperature -25°C + +70°C (no condensation) Storage temperature -25°C + +70°C (no condensation) Storage temperature -25°C + +70°C (no condensation) Storage temperature -25°C + +70°C (no condensation) Storage temperature -25°C + +70°C (no condensation) Storage temperature -25°C + +70°C (no condensation) Storage temperature -25°C + +70°C (no condensation) Storage temperature -25°C + +70°C (no condensation) Storage temperature -25°C + +70°C (no condensation) Storage temperature -25°C + +70°C (no condensation) Storage temperature -25°C + +70°C (no condensation) Storage temperature -25°C + +70°C (no condensation) Storage temperature -25°C + +70°C (no condensation) Storage temperature -25°C + +70°C (no condensation) Storage temperature -25°C + +70°C (no condensation)	Electrical data	
Time delay before availability 2s Interference to external light according to IEC 61496-2 Power Consumption - Receiver 2W (no load) Power Consumption - Emitter 1W Equivalent Resistive Load ≥ 60 Ω Capacitive Load ≥ 0.82 μF Cabel Length (Power Supply/Output) ≤ 100m Cable Length for Master Slave Interconnections 28mm (front) × 30mm Dimensions 28mm (front) × 30mm Connections M12-5 poles (emitter) M12-8 poles (receiver) Operating temperature -10°C + +55°C (no condensation) Storage temperature -25°C +70°C (no condensation) set/Approvals CE, cULus, TÜV EMC compatibility According to 2014/30/EU Directive	Operating Voltage	19,2 28,8 Vcc
Interference to external light Power Consumption - Receiver 2W (no load) Power Consumption - Emitter IW Equivalent Resistive Load ≥ 60 Ω Capacitive Load ≥ 0.82 μF Cabel Length (Power Supply/Output) Cable Length for Master Slave Interconnections Capacitive Load ≥ 50m	Load current	≤ 400mA
Power Consumption - Receiver 2W (no load) Power Consumption - Emitter 1W Equivalent Resistive Load ≥ 60 Ω Capacitive Load ≥ 0.82 μF Cabel Length (Power Supply/Output) ≤ 100 m Cable Length for Master Slave Interconnections ≤ 50 m Idechanical data 28mm (front) x 30 mm Connections M12-5 poles (emitter) M12-8 poles (receiver) Operating temperature -10°C ÷ +55°C (no condensation) Storage temperature -25°C + +70°C (no condensation) instrictions 95% (no condensation) Cest/Approvals CE, cULus, TÜV EMC compatibility According to 2014/30/EU Directive	Time delay before availability	2s
Power Consumption - Emitter Equivalent Resistive Load ≥ 60 Ω Capacitive Load ≥ 0,82 μF Cabel Length (Power Supply/Output) ≤ 100m Cable Length for Master Slave Interconnections Cable Length for Master Slave Interconnections Rechanical data Dimensions 28mm (front) × 30mm Connections M12-5 poles (emitter) M12-8 poles (receiver) Operating temperature -10°C ÷ +55°C (no condensation) Storage temperature -25°C ÷ +70°C (no condensation) humidity 95% (no condensation) est/Approvals Approvals CE, cULus, TŪV EMC compatibility According to 2014/30/EU Directive	Interference to external light	according to IEC 61496-2
Equivalent Resistive Load ≥ 60 Ω Capacitive Load ≥ 0.82 μF Cabel Length (Power Supply/Output) ≤ 100m Cable Length for Master Slave Interconnections Section Connections M12-5 poles (emitter) M12-8 poles (receiver) Operating temperature -10°C ≠ +55°C (no condensation) Storage temperature -25°C ≠ +70°C (no condensation) humidity 95% (no condensation) Sect/Approvals Approvals CE, cULus, TÜV EMC compatibility According to 2014/30/EU Directive	Power Consumption - Receiver	2W (no load)
Capacitive Load ≥ 0.82 μF Cabel Length (Power Supply/Output) ≤ 100 m Cable Length for Master Slave Interconnections ≤ 50 m Idechanical data 28 mm (front) x 30 mm Connections M12-5 poles (emitter) M12-8 poles (receiver) Operating temperature -10 °C ÷ +55 °C (no condensation) Storage temperature -25 °C ÷ +70 °C (no condensation) humidity 95% (no condensation) dest/Approvals CE, cULus, TŪV EMC compatibility According to 2014/30/EU Directive	Power Consumption - Emitter	1W
Cable Length (Power Supply/Output) Cable Length for Master Slave Interconnections Sechanical data Dimensions 28mm (front) × 30mm Connections M12-5 poles (emitter) M12-8 poles (receiver) Operating temperature -10°C ÷ +55°C (no condensation) Storage temperature -25°C ÷ +70°C (no condensation) humidity 95% (no condensation) Sest/Approvals Approvals CE, cULus, TÜV EMC compatibility According to 2014/30/EU Directive	Equivalent Resistive Load	≥ 60 Ω
Cable Length for Master Slave Interconnections Section	Capacitive Load	≥ 0,82 µF
lechanical data Dimensions 28mm (front) x 30mm Connections M12-5 poles (emitter) M12-8 poles (receiver) Operating temperature -10°C ÷ +55°C (no condensation) Storage temperature -25°C ÷ +70°C (no condensation) humidity 95% (no condensation) est/Approvals Approvals CE, cULus, TÜV EMC compatibility According to 2014/30/EU Directive	Cabel Length (Power Supply/Output)	≤100m
Dimensions 28mm (front) x 30mm Connections M12-5 poles (emitter) M12-8 poles (receiver) Operating temperature -10°C ÷ +55°C (no condensation) Storage temperature -25°C ÷ +70°C (no condensation) humidity 95% (no condensation) est/Approvals Approvals CE, cULus, TÜV EMC compatibility According to 2014/30/EU Directive		≤ 50 m
Connections M12-5 poles (emitter) M12-8 poles (receiver) Operating temperature -10°C ÷ +55°C (no condensation) Storage temperature -25°C ÷ +70°C (no condensation) humidity 95% (no condensation) est/Approvals Approvals CE, cULus, TÜV EMC compatibility According to 2014/30/EU Directive	Mechanical data	
Operating temperature -10°C ÷ +55°C (no condensation) Storage temperature -25°C ÷ +70°C (no condensation) humidity 95% (no condensation) est/Approvals Approvals CE, cULus, TÜV EMC compatibility According to 2014/30/EU Directive	Dimensions	28mm (front) x 30mm
Storage temperature -25°C ÷ +70°C (no condensation) humidity 95% (no condensation) est/Approvals Approvals CE, cULus, TÜV EMC compatibility According to 2014/30/EU Directive	Connections	M12-5 poles (emitter) M12-8 poles (receiver)
humidity 95% (no condensation) est/Approvals Approvals CE, cULus, TÜV EMC compatibility According to 2014/30/EU Directive	Operating temperature	-10°C ÷ +55°C (no condensation)
Fest/Approvals Approvals CE, cULus, TÜV EMC compatibility According to 2014/30/EU Directive	Storage temperature	-25°C ÷ +70°C (no condensation)
Approvals CE, cULus, TÜV EMC compatibility According to 2014/30/EU Directive	humidity	95% (no condensation)
EMC compatibility According to 2014/30/EU Directive	Test/Approvals	
	Approvals	CE, cULus, TÜV
Shocks and vibrations according to IEC 61496-1	EMC compatibility	According to 2014/30/EU Directive
	Shocks and vibrations	according to IEC 61496-1

IP65, IP67

Degree of protection

Supplied Accessories ST 204 4S

Generical Data

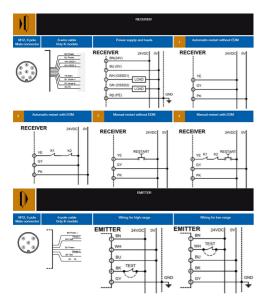
Dimensions 28mm (front) x 30mm

Operating Temperature $-10^{\circ}\text{C} \div +55^{\circ}\text{C}$ (no condensation)

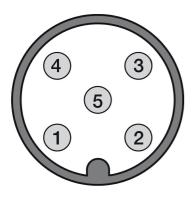
Humidity 95% (no condensation)

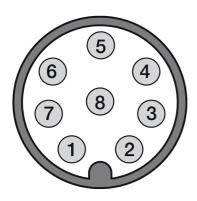
Mechanical Protection IP65, IP67

ELECTRICAL DIAGRAMS OF THE CONNECTIONS



CONNECTOR





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date of printing

29/04/2022 18:21:44