



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

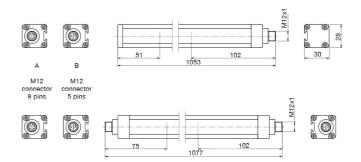
- Compact housing (28 x 30 mm) and no dead zone on cap side
- Resolution 30, 40, 50, 90 mm for hand protection and presence control and 2, 3, 4 beams for body protection/access control
- Controlled distance up to: 3, 4,10, 12 m
- Base, Standard versions and Master, Slave version to connect up to 3 sets in cascade configuration
- Selectable Automatic/Manual Restart and EDM integrated functions (Standard models)
- Selectable controlled distance
- IP69K protection models (LS2_K) and models with integrated heating system to reach -25°C operating temperature (LS2_H)
- Standard M12 da 5 and 8 poles connectors







Indicative image



Detection properties

Effective Aperture Angle

Nominal sensing distance
≤ 12m

Resolution
300mm

controlled height
900mm

number of rays
4

±5°

Application

Function Principle Emitter + Receiver

State Parameters 1 1 1 1 1 1 1 1 1	Available functions	Manual/Automatic Restart, EDM
Type 2 SL 1 SLCL 1 FL 0 PFHd 2.02E-08 Deavy 94.20% MTTFd 100 CFF 80% Output type 2 x PNP-NO (CSSD safety cutput) Response time 5.6ms Electrical data Ceparating Veltage Lacid durrent Ceparating Veltage Lacid durrent A 400mA Time delay before availability 2 interference to external light according to IEC 87498-2 Power Consumption - Receiver Power Consumption - Receiver Equivalent Resistive Load Equivalent Resistive Load Equivalent Resistive Load Cabe Lampth (Power Supply/Cutput) Equivalent Resistive Load Cabe Lampth (Power Supply/Cutput) Cabe Lampth (Power Supply/Cutput) <td>Safety parameters</td> <td></td>	Safety parameters	
SILCL 1 PEHd c Deavg 84,20% MTFFd 100 CFF 80% Output by 2 × PNP-NO LOSSD safety output) Response time 3,5ms Electrical data 18,7 78,8 Ven Load current < 4,00mA		2
PFHd	SIL	1
PFHd 2,02F-D8	SILCL	1
Decay \$4,20% MTTFid 100 CFF	PL	С
MTFed 80% Outputs 80% Output type 2 x PNP-NO (OSSD safety output) Response time 3.5mis Electrical data 9 perasting Voltage 19,2 28,8 Vcc 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 - Fmitter IW Equivalent Resistive Load ≥ 60 Ω Capacitive Load ≥ 0.82 μF Cabe Length (Power Supply/Output) < 100m Cabe Length (Power Supply/Output) < 100m Cabe Length for Meater Slave Interconnections ≤ 50m Mechanical data Dimensions 28mm (front)x 30mm Connections M12-6 poles femitter)M12-8 poles freceiver) Operating temperature -10°C + 56°C (no condensation) Storage temperature -25°C + 70°C (no condensation) Numidity 95% (no condensation) Test/Approvals CF, ettl us, TÜV EMC compatibility According to 2014/30/EU Diractive <td>PFHd</td> <td>2,02E-08</td>	PFHd	2,02E-08
Outputs Output type 2 x PNP-NO (OSSD sefety output) Response time 3,5ms Electrical data Operating Voltage 19,2 28,8 Vcc Load current < 4,00mA	Dcavg	94,20%
Outputs Output type	MTTFd	100
Output type 2 x PNP-NQ (OSSD safety output) Response time 3.5ms Electrical data Fig. 2 28,8 Vcc 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 1W Equivalent Resistive Load ≥ 80 Ω Capacitive Load ≥ 0,82 μF Cabel Length (Power Supply/Output) ≤ 100m Gable Length for Master Slave interconnections × 50m Mechanical data 28mm (front) x 30mm Connections M12-5 poles (emitter) M12-8 poles (receiver) Operating temperature -10°C + 455°C (no condensation) Storage temperature -25°C + 70°C (no condensation) hundity 95% (no condensation) Test/Approvals CE, cULus, TÜV EMC compatibility According to 2014/30/EU Directive	CFF	80%
Output type 2 x PNP-NQ (OSSD safety output) Response time 3.5ms Electrical data Fig. 2 28,8 Vcc 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 1W Equivalent Resistive Load ≥ 80 Ω Capacitive Load ≥ 0,82 μF Cabel Length (Power Supply/Output) ≤ 100m Gable Length for Master Slave interconnections × 50m Mechanical data 28mm (front) x 30mm Connections M12-5 poles (emitter) M12-8 poles (receiver) Operating temperature -10°C + 455°C (no condensation) Storage temperature -25°C + 70°C (no condensation) hundity 95% (no condensation) Test/Approvals CE, cULus, TÜV EMC compatibility According to 2014/30/EU Directive	Outputs	
Electrical data Operating Voltage Load current ≤ 400mA Time delay before availability 2s Interference to external light Power Consumption - Receiver Power Consumption - Receiver 2W (no load) Power Consumption - Emitter IW Equivalent Resistive Load ≥ 80 Ω Capacitive Load ≥ 0.82 μF Cabel Length (Power Supply/Output) Cable Length for Master Slave Interconnections **Hechanical 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) **Test/Approvals** Approvals Ce, cULus, TŪV EMC compatibility According to 2014/30/EU Directive		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 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 ≥ 50m Mechanical 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) Test/Approvals Approvals CE, cULus, TÜV EMC compatibility According to 2014/30/EU Directive	Response time	3,5ms
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Interference to external light according to IEC 61498-2 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 Mechanical 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) Test/Approvals CE, cULus, TÜV EMC compatibility According to 2014/30/EU Directive	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) ≤ 100m Cable Length for Master Slave Interconnections ≤ 50m Mechanical 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) Test/Approvals CE, cULus, TÜV EMC compatibility According to 2014/30/EU Directive	Time delay before availability	2s
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Equivalent Resistive Load 2 0.82 μF Cabel Length (Power Supply/Output) Cable Length for Master Slave Interconnections Mechanical 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) Test/Approvals Approvals Approvals CE, cULus, TÜV EMC compatibility According to 2014/30/EU Directive	Power Consumption - Receiver	2W(no load)
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Cable Length (Power Supply/Output) Cable Length for Master Slave Interconnections Mechanical 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) Test/Approvals Approvals CE, cULus, TÜV EMC compatibility According to 2014/30/EU Directive	Equivalent Resistive Load	≥ 60 Ω
Cable Length for Master Slave Interconnections ≤ 50m Mechanical data 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) Test/Approvals Approvals CE, cULus, TÜV EMC compatibility According to 2014/30/EU Directive	Capacitive Load	≥ 0,82 µF
Interconnections Mechanical 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) Test/Approvals Approvals CE, cULus, TÜV EMC compatibility According to 2014/30/EU Directive	Cabel Length (Power Supply/Output)	≤ 100m
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Approvals CE, cULus, TÜV EMC compatibility According to 2014/30/EU Directive	humidity	95% (no condensation)
Approvals CE, cULus, TÜV EMC compatibility According to 2014/30/EU Directive	Test/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

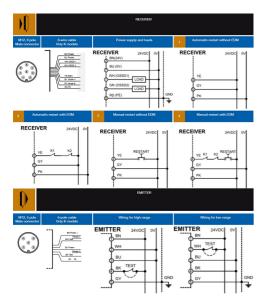
Dimensions 28mm (front) x 30mm

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

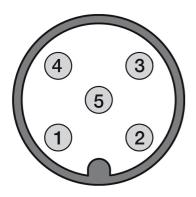
Humidity 95% (no condensation)

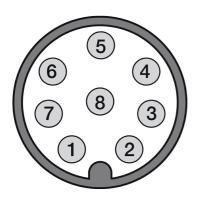
Mechanical Protection IP65, IP67

ELECTRICAL DIAGRAMS OF THE CONNECTIONS



CONNECTOR





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