



#### Indicative image

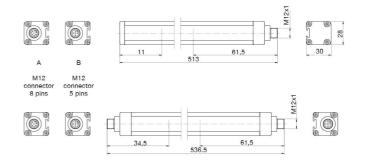






# LIGHT CURTAINS TYPE 4 ACCORDING TO IEC 61496-1 AND IEC 61496-2

- 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	≤ 20m	
Resolution	20mm	
controlled height	460mm	
number of rays	45	
Effective Aperture Angle	±5°	

Emitter + Receiver

#### **Application**

Function Principle

Safety parameters           Type         4           SIL 0         3           SILCL 3         3           PL e         e           PFHd 1.52E-08         0           Dcavg 94,50%         94,50%           MTTFd 100         100           CFF 80%         80%           Output type         2 × PNP-NO (OSSD safety output)           Response time         7.5ms           Electrical data           Operating Voltage         19.2 28.8 Vcc           Load current         ≤ 400mA           Time delay before availability         2s           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	
Type 4 SiL 3 SiLCL 3 SiLCL 3 FL e PFHd 1.52E-08 Dcavg 94,50% MTTFd 100 CFF 80%  Outputs Output type 2 x PNP-NO (OSSD safety output) Response time 7.5ms  Flectrical data 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 Equivalent Resistive Load ≥ 60 Ω	
SILCL 3 PL e PFHd 1,52E-08  Dcavg 94,50%  MTTFd 100  CFF 80%  Outputs  Output type 2 x PNP-NO (OSSD safety output)  Response time 7,5ms  Electrical data Operating Voltage 19,2 28,8 Vcc  Load current $\leq$ 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 $\geq$ 80 $\Omega$	
PL e  PFHd 1,52E-08  Dcavg 94,50%  MTTFd 100  CFF 80%  Outputs  Outputs  Output type 2 x PNP-NO (OSSD safety output)  Response time 7,5ms  Electrical data  Operating Voltage 19,2 28,8 Vcc  Load current $\leq 400 \text{mA}$ 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 $\geq 60 \Omega$	
PFHd 1,52E-08  Deavg 94,50%  MTTFd 100  CFF 80%  Outputs  Output type $2 \times PNP-N0 \text{ (OSSD safety output)}$ Response time 7,5ms  Electrical data  Operating Voltage 19,2 28,8 Vcc  Load current $\leq 400 \text{mA}$ Time delay before availability 2s  Interference to external light according to IEC 61496-2  Power Consumption - Receiver $2W(\text{no load})$ Power Consumption - Emitter $1W$ Equivalent Resistive Load $\geq 60 \Omega$	
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CFF       80%         Output type $2 \times PNP-NO (OSSD safety output)$ Response time $7.5 ms$ Electrical data         Operating Voltage $19.2 \dots 28.8 \text{ Vcc}$ Load current $\leq 400 \text{mA}$ Time delay before availability $2 \text{s}$ Interference to external light       according to IEC 61496-2         Power Consumption - Receiver $2 \text{W} (\text{no load})$ Power Consumption - Emitter $1 \text{W}$ Equivalent Resistive Load $\geq 60 \Omega$	
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Equivalent Resistive Load $\geq 60 \Omega$	
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	
Shocks and vibrations according to IEC 61496-1	

IP65, IP67

Degree of protection

Supplied Accessories ST 204 4S

#### **Generical Data**

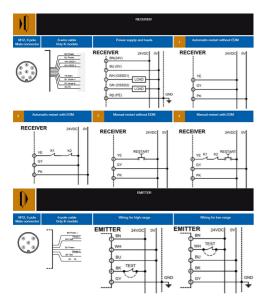
Dimensions 28mm (front) x 30mm

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

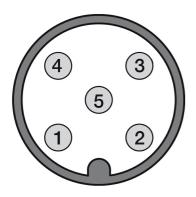
Humidity 95% (no condensation)

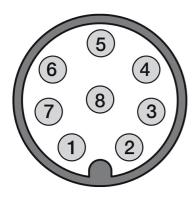
Mechanical Protection IP65, IP67

### **ELECTRICAL DIAGRAMS OF THE CONNECTIONS**



## **CONNECTOR**





#### **Datasensing S.r.l.**

Strada S.Caterina, 235 41122 Modena (MO) Tel. 059 420411 Fax 059 253973 E-mail info@datasensing.com

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