# LS4ER/30-015BL

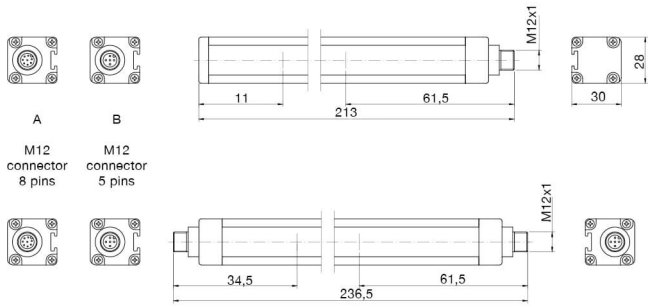
LS4



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 | 30mm |
| controlled height | 160mm |
| number of rays | 8 |
| Effective Aperture Angle | ±5° |

## Application

| | |
|---|---|
| Function Principle | Emitter + Receiver |

| | |
|---|---|
| Available functions | Automatic Restart |

### Safety parameters

| | |
|---|---|
| Type | 4 |
| SIL | 3 |
| SILCL | 3 |
| PL | e |
| PFHd | 9,13E-09 |
| Dcavg | 95,70% |
| MTTFd | 100 |
| CFF | 80% |

### Outputs

| | |
|---|---|
| Output type | 2 x PNP-NO (OSSD safety output) |
| Response time | 3ms |

### Electrical 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 | 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) M12-5 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 |
| Degree of protection | IP65, IP67 |

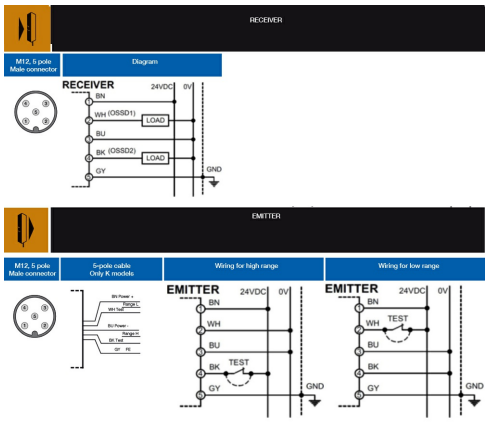
### Accessories

| | |
|---|---|
| Supplied Accessories | ST 204 4S |

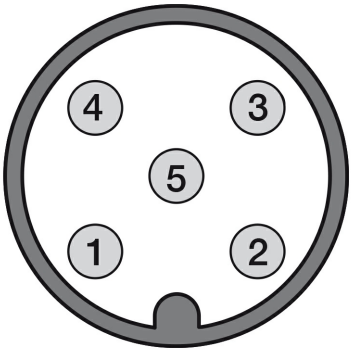
### Generical Data

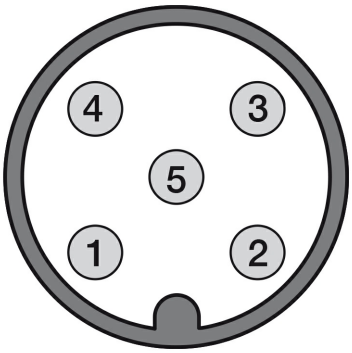
| | |
|---|---|
| Dimensions | 28mm (front) x 30mm |
| Operating Temperature | -10°C ÷ +55°C (no condensation) |
| Humidity | 95% (no condensation) |
| Mechanical Protection | IP65, IP67 |

## ELECTRICAL DIAGRAMS OF THE CONNECTIONS




## CONNECTOR



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