



# SH4 Cascade

957920042

SH4-14-2250-C-5-5

TYPE 4 SAFETY LIGHT CURTAIN FOR SERIES  
CONNECTION WITH SH4 STANDARD MUTING OR SH4  
ADVANCED

## OVERVIEW

- Cascade model, to be used with SH4 STANDARD MUTING or SH4 ADVANCED
- Finger protection (14 mm)
- Improved operating range: 10 m
- Basic functions: alignment, automatic restart
- Extended monitored height up to 2250 mm
- Compact profile (35 x 40 mm), common to all SH4 line
- Installation eased by LEDs indications of beam intensity
- Optical synchronization with 2 beams
- IP67 Protection
- -30 ... +55 °C Operating temperature
- Zero dead zone
- Complete couple and angular bracket included in the package
- Anti-interference codes
- Cascade cables up to 10 m

## TECHNICAL FEATURES

### Detection properties

|                          |              |
|--------------------------|--------------|
| Nominal sensing distance | 0.2 ... 10 m |
| Resolution               | 14 mm        |
| controlled height        | 2250 mm      |

|                          |                      |
|--------------------------|----------------------|
| number of rays           | 225                  |
| Effective Aperture Angle | $\leq \pm 2.5^\circ$ |

Application

|                     |                                                                         |
|---------------------|-------------------------------------------------------------------------|
| Function Principle  | Emitter + Receiver                                                      |
| Available functions | Cascade Slave Unit, to be used with SH4 STANDARD MUTING or SH4 ADVANCED |
| Description         | Compact no-dead-zone CASCADE                                            |
| Functions           | Finger protection res. 14 mm slave                                      |

Safety parameters

|       |                                  |
|-------|----------------------------------|
| Type  | Type 4 safety light curtain (SI) |
| SIL   | 3                                |
| SILCL | 3                                |
| PL    | e                                |
| MTTFd | 43 years                         |
| SFF   | 99,50%                           |

Electrical data

|                   |                                  |
|-------------------|----------------------------------|
| Operating Voltage | 24 Vdc $\pm$ 20%                 |
| Load current      | $\leq$ 250mA each output         |
| Emission          | Infrared LED (850 nm wavelength) |
|                   |                                  |

|                                                |                          |
|------------------------------------------------|--------------------------|
| Interference to external light                 | According to IEC 61496-2 |
| Power Consumption - Receiver                   | ≤ 4W (no load)           |
| Power Consumption - Emitter                    | ≤ 3,5W                   |
| Capacitive Load                                | ≤ 1μF                    |
| Cabel Length (Power Supply/Output)             | ≤ 30 m                   |
| Cable Length for Master Slave Interconnections | ≤ 10 m                   |

**Mechanical data**

|                     |                                                                                 |
|---------------------|---------------------------------------------------------------------------------|
| Material            | Painted aluminum / MAKROLON AR 7099 Clear PC / PBT                              |
| Connections         | M12-5 poles pigtail (emitter) M12-5 poles pigtail (receiver)                    |
| Storage temperature | -30 ...+70 °C                                                                   |
| Vibrations          | 10 mm / 3 g, 5 ... 150 Hz frequency (EN 60068-2-6 / Class 3M7 IEC TR 60721-4-3) |
| Shocks              | 25 g x 6 ms x 600 (EN 60068-2-27 / Class 3M7 IEC TR 60721-4-3)                  |

**Test/Approvals**

|                       |                                                                                                                                              |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Approvals             | CE, cULus, TÜV, UKCA                                                                                                                         |
| EMC compatibility     | According to 2014/30/EU Directive                                                                                                            |
| Shocks and vibrations | 10 mm / 3g, 5 to 150 Hz frequency (EN 60068-2-6 / Class 3M7 IEC TR 60721-4-3); 25g x 6 ms x 600 (EN 60068-2-27 / Class 3M7 IEC TR 60721-4-3) |

**Accessories**

|                      |                                           |
|----------------------|-------------------------------------------|
| Supplied Accessories | Standard "L" Mounting Brackets: 6 pcs kit |
|----------------------|-------------------------------------------|

Accessories to be ordered separately

Top-bottom rotating mounting bracket ST-K4ROT-SH

#### Generical Data

Dimensions

35x40x2259 mm

Operating Temperature

-30...+55°C

Humidity

15 ... 95 % (no condensation)

Mechanical Protection

IP65, IP 67 (EN 60529)

#### UNASSIGNED

Disegno 2D PDF

8,40E-09

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