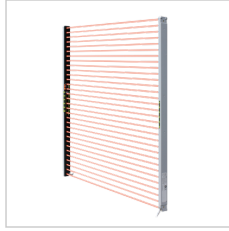




SF2C-H20-P | Ultra-slim Light Curtain [Type2 PLc SIL1] SF2C



※Photo may vary from actual product.



| | |
|----------------|---|
| Product Number | SF2C-H20-P |
| Part Number | SF2C-H20-P |
| Product | Ultra-slim Light Curtain [Type 2 PLc SIL1] |
| Details | Hand protection type Min. sensing object ϕ 25 mm ϕ 0.984 in (20 mm 0.787 in beam pitch) |
| Product name | Ultra-slim Light Curtain [Type2 PLc SIL1] SF2C |
| Features | Introducing Type 2 Ultra-slim Light Curtains! Featuring easy installation and reduced wiring |

Spec Detail

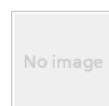
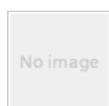
As of October 09, 2018

Specifications and design of the products are subject to change without notice for the product improvement.

| Item | Specifications |
|---|---|
| Product Number | SF2C-H20-P |
| Part Number | SF2C-H20-P |
| CE marking directive compliance | Machinery Directive, EMC Directive, RoHS Directive |
| No. of beam channels | 20 |
| Protective height | 400 mm 15.748 in |
| Current consumption:Large multipurpose indicator lights off | Emitter: 35 mA or less Receiver: 35 mA or less |
| Current consumption:Large multipurpose indicator lights up | Emitter: 40 mA or less Receiver: 40 mA or less |
| PFH _D | 3.79 × 10 ⁻⁹ (Note) Probability of dangerous failure per hour. |
| MTTF _D | 100 years or more (Note) Mean time to dangerous failure. |
| Net weight (Total of emitter and receiver) | 460 g approx. |
| Applicable standards:International standard | IEC 61496-1 / 2 (Type 2), ISO 13849-1 (Category 2, PLc), IEC 61508-1 to 7 (SIL 1) |
| Applicable standards:Japan | JIS B 9704-1 / 2 (Type 2), JIS B 9705-1 (Category 2), JIS C 0508 (SIL 1) |
| Applicable standards:Europe (EU) | EN 61496-1 (Type 2), EN ISO 13849-1 (Category 2, PLc), EN 61508-1 to 7 (SIL 1), EN 55011, EN 50178, EN 61000-6-2 (Note) Regarding EU Machinery Directive, a Notified Body, TUV SUD, has certified with the type examination certificate. |
| Applicable standards:North America | ANSI / UL 61496-1 / 2 (Type 2), ANSI / UL 508, CAN / CSA 61496-1 / 2 (Type 2), CAN / CSA C22.2 No. 14, ANSI / RIA 15.06 (Note) With regard to the standards in US / Canada, TUV SUD, has certified for cTUVus Mark. |
| Operating range | 0.1 to 3 m 0.328 to 9.843 ft |
| Beam pitch | 20 mm 0.787 in |
| Min. sensing object | ϕ 25 mm ϕ 0.984 in opaque object |
| Effective aperture angle | plus or minus 5°C or less [for an operating range exceeding 3 m 9.843 ft (conforming to IEC 61496-2 / ANSI/UL 61496-2)] |
| Power voltage | 24 V DC plus or minus 20 % Ripple P-P 10 % or less |

| | |
|---|---|
| Control output(OSSD) | <ul style="list-style-type: none"> - Maximum source current: 200mA - Applied voltage: same as supply voltage (between the control output and +V) - Residual voltage: 2.5V or less (source current 200mA, when using 10m length cable) - Leakage current: 200micro A or less (power supply OFF condition) - Maximum load capacity: 2.2micro F (No load to maximum output current) - Load wiring resistance: 3Ω or less |
| Control output(OSSD):Operation mode | ON when all beam channels are received, OFF when one or more beam channels are interrupted (OFF also in case of any malfunction in the safety light curtain or the synchronization signal) |
| Control output(OSSD):Protection circuit | Incorporated |
| Response time | OFF response: 20 ms or less ON response: 80 to 100 ms |
| Lockout output(SSD) | <ul style="list-style-type: none"> - Maximum sink current: 60mA - Applied voltage: same as supply voltage (between the lockout output and +V) - Residual voltage: 2.5V or less (source current 60mA, when using 10m length cable) - Leakage current: 200micro A or less (power supply OFF condition) - Maximum load capacity: 2.2micro F (No load to maximum output current) - Load wiring resistance: 3Ω or less |
| Lockout output(SSD):Operation mode | ON during normal operation, OFF during lockout (Note) If the emitter enters a lockout state, and light from the emitter enters the receiver, lockout information will be transmitted and lockout output (SSD) will turn OFF. |
| Lockout output(SSD):Protection circuit | Incorporated |
| Interference prevention function | Incorporated |
| Test input function | Incorporated |
| Large multi-purpose indicator function | Incorporated |
| Pollution degree | 3 |
| Operating altitude | 2,000 m 6561.680 ft or less (Note) Do not use or store in an environment pressurized to atmospheric pressure or higher at an altitude of 0 m. |
| Environmental resistance:Degree of protection | IP65, IP67 (IEC) |
| Ambient temperature | -10 to +55 °C +14 to +131 °F (No dew condensation or icing allowed), Storage: - 25 to +60 °C - 13 to +140 °F |
| Ambient humidity | 30 to 85 % RH, Storage: 30 to 85 % RH |
| Ambient illuminance | Incandescent light: 5,000 lx or less at the light-receiving face |
| Insulation resistance | 20 MΩ , or more, with 500 V DC megger between all supply terminals connected together and enclosure |
| Vibration resistance | 10 to 55 Hz frequency, 0.75 mm 0.030 in double amplitude in X, Y and Z directions for two hours each |
| Shock resistance | 300 m / s ² acceleration (30 G approx.) in X, Y and Z directions three times each |
| Emitting element | Infrared LED (Peak emission wavelength: 850 nm 0.034 mil) |
| Cable | 0.16 mm ² 5-core heat-resistant PVC cable, 3 m 9.842 ft long |
| Cable extension | Extension up to total 50m is possible for 0.3mm ² or more, cable |
| Material | Enclosure: Polycarbonate alloy Sensing surface: Polycarbonate alloy MS-SFC-1 (Standard mounting bracket): Stainless steel (SUS) |
| Accessories | MS-SFC-1 (Standard mounting bracket): 1 set SF4C-TR25 (Test rod): 1 No. |

Accessories



| | |
|----------------|---|
| Product Number | MS-SFC-1 |
| Part Number | MS-SFC-1 |
| Product name | Ultra-slim Safety Light Curtain Type 4 PLe SIL3 SF4C |



| | |
|----------------|-------------------------|
| Product Number | MS-SFC-4 |
| Part Number | MS-SFC-4 |
| Product name | Mounting bracket |



| | |
|----------------|---|
| Product Number | SF4C-TR25 |
| Part Number | SF4C-TR25 |
| Product name | Ultra-slim Safety Light Curtain Type 4 PLe SIL3 SF4C |

| | |
|----------------|-------------------------|
| Product Number | MS-SFC-2 |
| Part Number | MS-SFC-2 |
| Product name | Mounting bracket |



| | |
|----------------|------------------------------|
| Product Number | MS-SFCH-20 |
| Part Number | MS-SFCH-20 |
| Product name | Metal protection case |

| | |
|----------------|-------------------------|
| Product Number | MS-SFC-3 |
| Part Number | MS-SFC-3 |
| Product name | Mounting bracket |



| | |
|----------------|---|
| Product Number | SF-C13 |
| Part Number | SF-C13 |
| Product | Exclusive Control Unit for Safety Light Curtain |
| Details | Slim type control unit |
| Product name | Exclusive Control Unit for Safety Light Curtain SF-C10 |