



M40S-042202AU0

M4000 Standard

SAFETY MULTIBEAM SENSORS

SICK
Sensor Intelligence.



Ordering information

| Type | part no. |
|----------------|----------|
| M40S-042202AU0 | 1200086 |

Other models and accessories → www.sick.com/M4000_Standard

Illustration may differ



Detailed technical data

Features

| | |
|-----------------------------|--|
| Specialty | Actuator Sensor Interface replaces the system connection |
| Functional principle | Sender/receiver |
| System part | Sender |
| Scanning range | 0.5 m ... 70 m, configurable |
| Low scanning range | 0.5 m ... 20 m |
| Great scanning range | 9 m ... 70 m |
| Number of beams | 4 |
| Beam separation | 220 mm |
| Synchronization | Optical synchronization |

Safety-related parameters

| | |
|---|---------------------------------------|
| Type | Type 4 (IEC 61496-1) |
| Safety integrity level | SIL 3 (IEC 61508) |
| Category | Category 4 (EN ISO 13849) |
| Performance level | PL e (EN ISO 13849) |
| PFH_D (mean probability of a dangerous failure per hour) | 6.6 x 10 ⁻⁹ (EN ISO 13849) |
| T_M (mission time) | 20 years (EN ISO 13849) |

Functions

| | Functions | Delivery status |
|------------------------------------|-----------|-----------------|
| Beam coding | ✓ | Uncoded |
| Configurable scanning range | ✓ | |

Interfaces

| | |
|----------------------------------|---|
| Actuator Sensor Interface | ✓ |
|----------------------------------|---|

| | |
|-----------------------------|---------------------------|
| System connection | Male connector M12, 4-pin |
| Configuration method | Configuration buttons |
| Display elements | LEDs 7-segment display |

Electronics

| | |
|--|-------------------------|
| Protection class | III (IEC 61140) |
| Supply voltage V_s | (26 V DC ... 31.6 V DC) |
| Power consumption | ≤ 0.2 A |

Mechanics

| | |
|------------------------------|--|
| Dimensions | See dimensional drawing |
| Housing cross-section | 52 mm x 55.5 mm |
| Material | |
| Housing | Aluminum alloy ALMGSI 0.5, powder coated |
| Front screen | Polycarbonate, scratch-resistant coating |

Ambient data

| | |
|--------------------------------------|-------------------------------------|
| Enclosure rating | IP65 (EN 60529) |
| Ambient operating temperature | -30 °C ... +55 °C |
| Storage temperature | -30 °C ... +70 °C |
| Air humidity | 15 % ... 95 %, Non-condensing |
| Vibration resistance | 5 g, 10 Hz ... 55 Hz (EN 60068-2-6) |
| Shock resistance | 10 g, 16 ms (EN 60068-2-27) |

Other information

| | |
|--------------------|--------|
| Wave length | 850 nm |
|--------------------|--------|

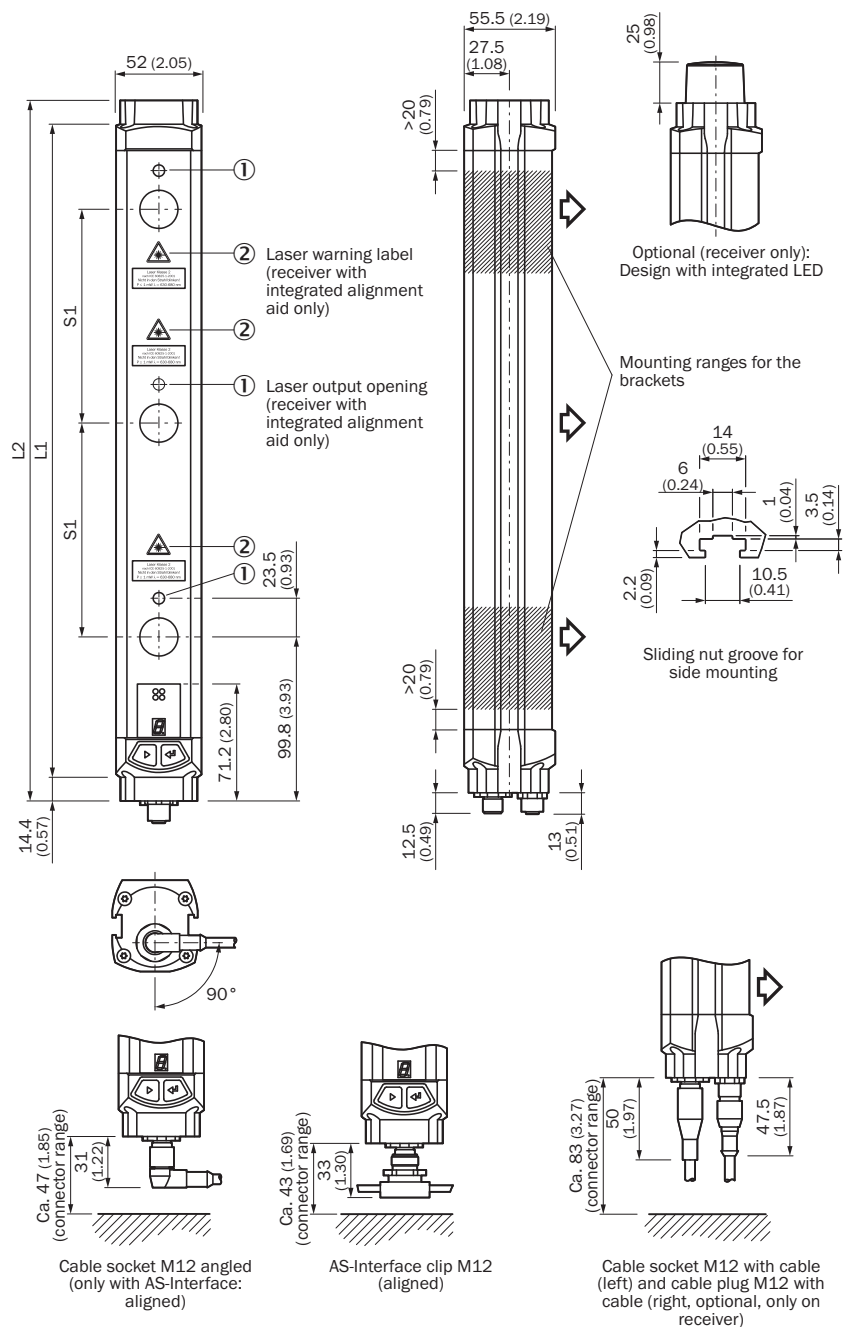
Classifications

| | |
|-----------------------|----------|
| ECLASS 5.0 | 27272703 |
| ECLASS 5.1.4 | 27272703 |
| ECLASS 6.0 | 27272703 |
| ECLASS 6.2 | 27272703 |
| ECLASS 7.0 | 27272703 |
| ECLASS 8.0 | 27272703 |
| ECLASS 8.1 | 27272703 |
| ECLASS 9.0 | 27272703 |
| ECLASS 10.0 | 27272703 |
| ECLASS 11.0 | 27272703 |
| ECLASS 12.0 | 27272703 |
| ETIM 5.0 | EC001832 |
| ETIM 6.0 | EC001832 |
| ETIM 7.0 | EC001832 |
| ETIM 8.0 | EC001832 |
| UNSPSC 16.0901 | 46171620 |

Certificates

| | |
|--|---|
| EU declaration of conformity | ✓ |
| UK declaration of conformity | ✓ |
| ACMA declaration of conformity | ✓ |
| Moroccan declaration of conformity | ✓ |
| China RoHS | ✓ |
| cTUVus certificate | ✓ |
| EC-Type-Examination approval | ✓ |
| Information according to Art. 3 of Data Act (Regulation EU 2023/2854) | ✓ |

Dimensional drawing



Dimensions in mm (inch)
 illustration sender (receiver mirror image)

| Number of beams | Beam separation S1 | L1 | L2 |
|-----------------|--------------------|---------------|---------------|
| 2 | 500 (19.69) | 643 (25.31) | 672 (26.46) |
| | 600 (23.62) | 743 (29.25) | 772 (30.39) |
| 3 | 220 (8.66) | 583 (22.95) | 612 (24.09) |
| | 400 (15.75) | 943 (37.13) | 972 (38.27) |
| | 450 (17.72) | 1,043 (41.06) | 1,072 (42.20) |
| 4 | 220 (8.66) | 803 (31.61) | 832 (32.76) |

| Number of beams | Beam separation S1 | L1 | L2 |
|-----------------|--------------------|---------------|---------------|
| 5 | 300 (11.81) | 1,043 (41.06) | 1,072 (42.20) |
| | 220 (8.66) | 1,023 (40.28) | 1,052 (41.42) |
| 6 | 220 (8.66) | 1,243 (48.94) | 1,272 (50.08) |
| 7 | | 1,462 (57.56) | 1,491 (58.70) |
| 8 | | 1,682 (66.22) | 1,711 (67.36) |

Recommended accessories

Other models and accessories → www.sick.com/M4000_Standard

| | Brief description | Type | part no. |
|---|--|------------------------|----------|
| Mounting systems | | | |
|  | <ul style="list-style-type: none"> Description: Mounting kit 6, side bracket, rotatable Material: Zinc diecast Details: Zinc diecast Packing unit: 4 pieces Suitable for: All protective field heights | BEF-1SHABAZN4 | 2019506 |
|  | <ul style="list-style-type: none"> Description: Mounting kit 1, mounting bracket, rigid, L-shaped, including fixing screws and washers Packing unit: 4 pieces Suitable for: All protective field heights | BEF-3WNGBAST4 | 7021352 |
|  | <ul style="list-style-type: none"> Description: Mounting kit 12, rotatable, swivel mount Packing unit: 4 pieces Suitable for: All protective field heights | BEF-2SMGEAKU4 | 2030510 |
| Commissioning aids and test equipment | | | |
|  | <ul style="list-style-type: none"> Product: Alignment aids Dimensions (W x H x L): 19 mm 67.3 mm 66.9 mm Description: Laser alignment aid for various sensors, laser class 2 (IEC 60825). Do not look into the beam! | AR60 | 1015741 |
|  | <ul style="list-style-type: none"> Product: Alignment aids Description: Adapter AR60 for M4000 and M4000 Curtain | AR60 adapter, M4000 | 4040006 |

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We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

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