



Your future's safe!



Michon

light curtains for measurement and automation

product catalogue

Watch the video!



Aluminum casing
Anodized

-10 ... +55° C
Operating temperature

Caps
Glass reinforced
polypropylene

Compact size
Only 30 x 28 mm

M12 connectors
Cables easy to source
and replace



Michtron

Measurement and automation light curtains...



IP65 and IP67

Controlled height:
Up to 3 meters

Beam spacing:
5 mm, 10 mm, 25 mm
30 mm, 50 mm, 75 mm

Status indicating display
Including alignment aids

Analogue and Digital readings
2 outputs

Software configuration
Easy to use and extensive
parameters choice



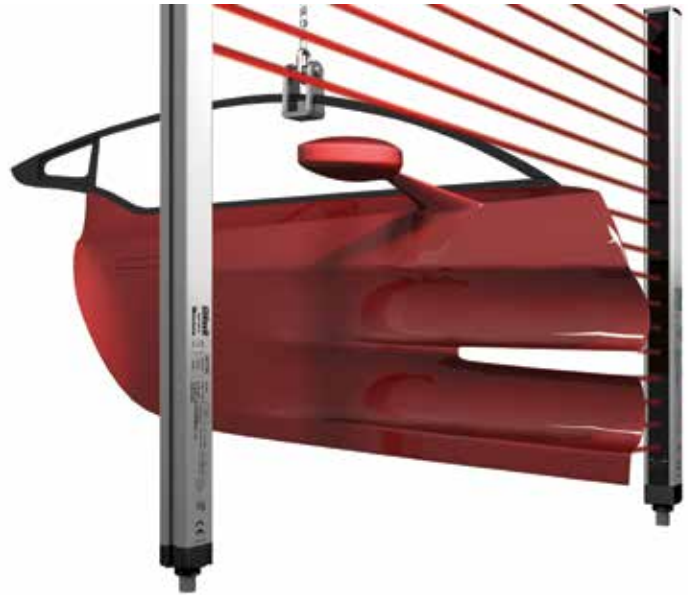
...for industrial and civil applications

OVERVIEW

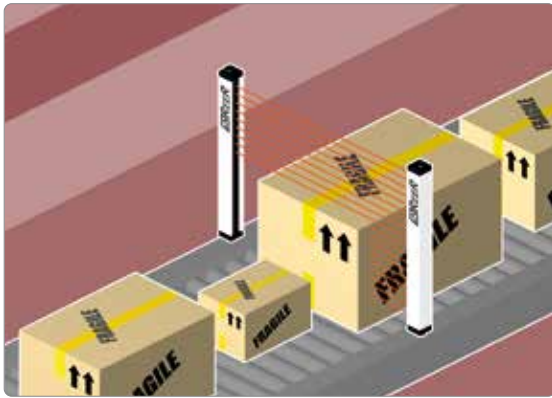
Light curtains for industrial and civil applications where it is necessary to **detect**, **measure**, and **recognise** objects.

Depending on the number and position of the beams engaged by an object, Micron and Metron can provide real time information to a PLC or PC in order to:

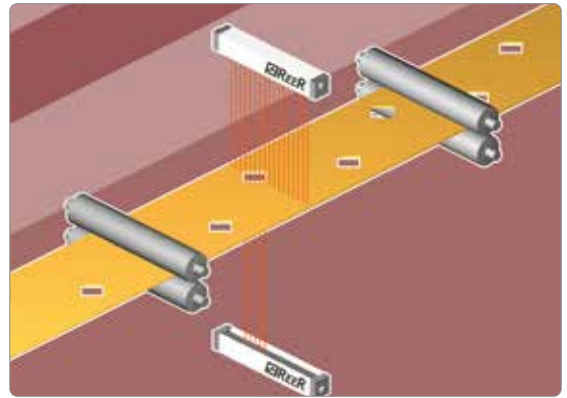
- Detect the presence or absence of objects
- Perform a count
- Detect a position
- Detect a shape or a profile
- Measure dimensions



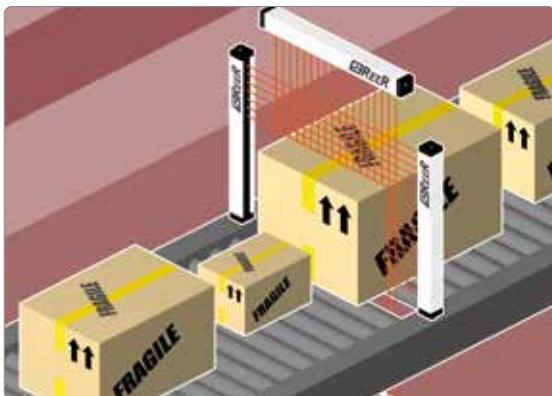
TYPICAL APPLICATIONS



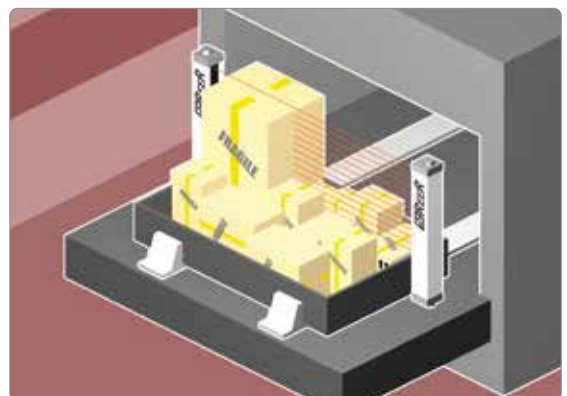
Measurement of the height of objects in transit on conveyor systems



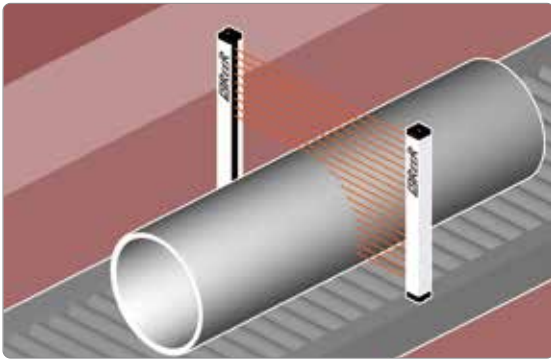
Quality control: verification of presence / absence / position of holes



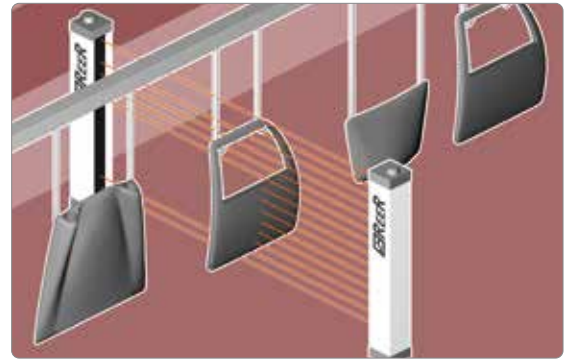
Two-dimensional detection of objects in transit on conveyor systems with use of 2 light curtains. If necessary, the calculation of the volume can be made by means of a third horizontal light curtain, or considering the transit speed



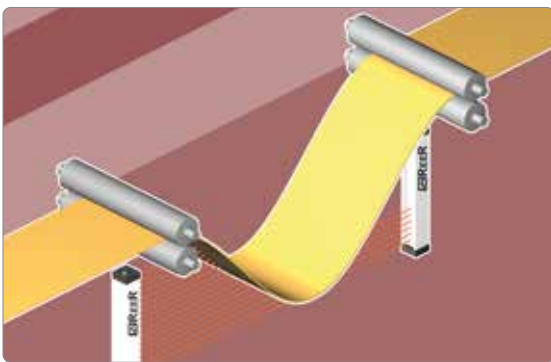
Automatic warehouses: detection of maximum height of the objects present in the boxes for efficient management of the machine's capacity



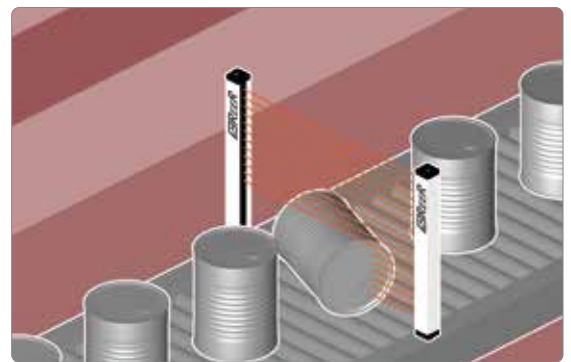
Measurement and identification of cylinders of various sizes



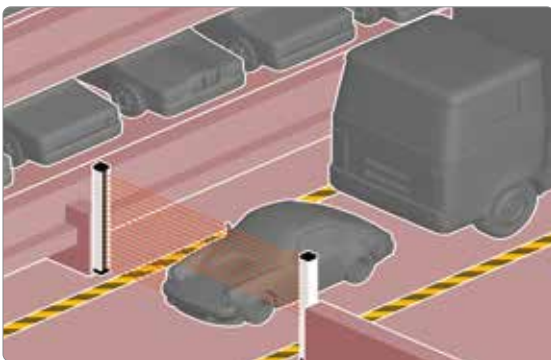
Detection of position and profile of pieces in automatic painting systems



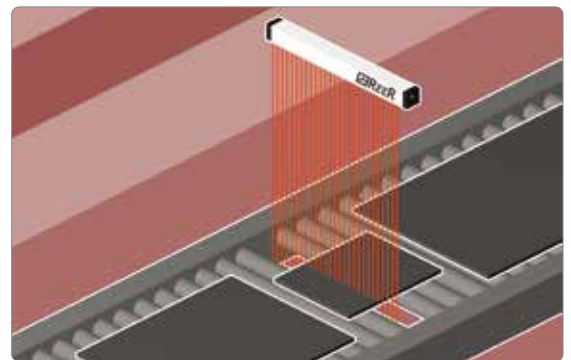
Loop control



Quality control: verification of correct positioning of objects

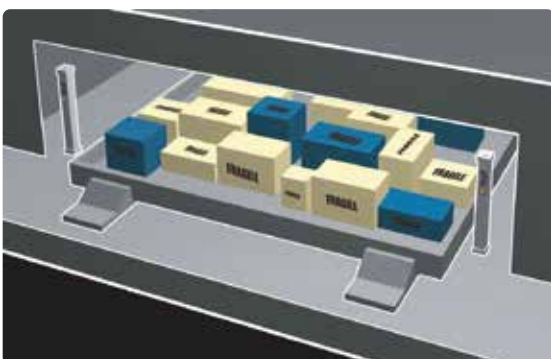


Detection of overall dimensional limits of vehicles for vehicle handling in automatic parking garages



Measurement of the width and position of panels or sheets of material in transit on roller units or conveyor belts

SPECIAL APPLICATION



Automatic warehouses: detection of maximum height of the objects present in the boxes for efficient management of the machine's capacity

Automatic warehouse versions

Special Micron models with beams spacing: 25, 50, 75 mm

The special optics of these light curtains allow detection of small objects in quick motion.

Please contact ReeR for availability and models.

THE MICRON RANGE

| MICRON A | | MICRON B | MICRON C |
|---|---|---|--|
| Models MI AV | Models MI AC | Models MI B | Models MI C |
| Ideal for object measurement and detection of dimensional limits. | | Ideal for dimensional measurement, detection of object profile and position. | Ideal for piece counting and detection of object presence/absence in the controlled field. |
| Two analog outputs (0-10 VDC) with programmable functions. | Two analog outputs (4-20 mA) with programmable functions. | RS 485 serial interface with programmable functions. | Two antivalent solid state outputs. |
| Two programmable digital outputs. | Two programmable digital outputs. | Two programmable digital outputs. | - |
| Solution providing simple measurement with easy interfacing. | | Solution providing complete and detailed information on the status of each beam via the RS 485 serial line and, by means of the two solid state outputs, further on/off information related to the occurrence of the programmed conditions. | Solution providing simple on/off information related to the status of the controlled area. |

NOTE: all Micron models can be provided in WT and WTH watertight enclosure (factory programmed only)

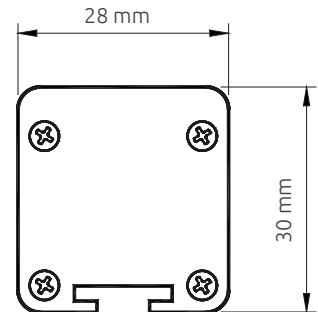
MICRON CERTIFICATION



Operating temperature: -10 ... +55 °C



IP65 and IP67 protection rate



1:1 scale

MICRON A

TECHNICAL FEATURES

| | |
|--|---|
| Max. range (m) | - 2,5 - models with beam spacing 5 mm - 6 - models for automatic warehouses with beams spacing 25, 50, 75 mm - 10 - models with beam spacing 10, 30 mm - 18 - models with beam spacing 25, 50, 75 mm |
| Measurement time | (500 μ s + 70 μ s x n beams) x N Where N = scan cycles (1, 2, 3 selectable) |
| Scan cycles | 1, 2, 3 selectable |
| Inputs (on receiver) | 1 digital with programmable functions - 0 or 24V |
| MI AV (5, 25, 50, 75 mm) Outputs | - 2 analog outputs (0-10 VDC) programmable - 2 solid state programmable digital outputs 0 or 24V (PNP 100 mA 24 VDC) |
| MI AC (5, 25, 50, 75 mm) Outputs | - 2 analog outputs (4-20 mA) programmable - 2 solid state programmable digital outputs 0 or 24V (PNP 100 mA 24 VDC) |
| MI AV (10, 30 mm) Outputs | - 2 analog outputs (0-10 VDC) programmable - 2 solid state programmable digital outputs 0 or 24V (Push-Pull) |
| MI AC (10, 30 mm) Outputs | - 2 analog outputs (4-20 mA) programmable - 2 solid state programmable digital outputs 0 or 24V (Push-Pull) |
| Synchronisation between emitter and receiver | Optical or via cable, selectable |
| Electrical connections | Connector M12 5-pole (emitter) Connector M12 8-pole (receiver) M5 4-pole connector for programming interface |
| Status display | LEDs for operating status and light curtain self-diagnosis |
| Power supply (VDC) | 24 \pm 20% |
| Fastening | Back slot, or to the top and lower end with SFB E180 rotating brackets (optional) |

| Beam spacing (mm) | Analog output | Digital output |
|-----------------------------|---------------|----------------|
| 5 - 10 - 25 30 - 50 - 75 | 2 | 2 |

Models MI AV equipped with two analog outputs (0-10 VDC) with programmable functions and two programmable digital outputs.

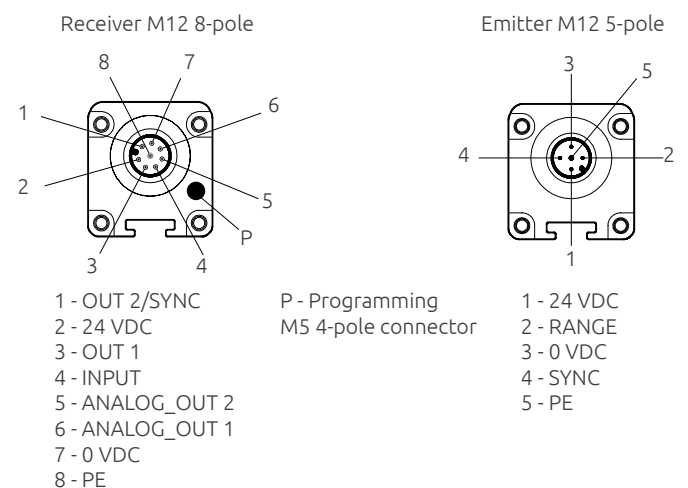
Models MI AC equipped with two analog outputs (4-20 mA) with programmable functions and two programmable digital outputs.

Controlled heights: 150 ... 3000 mm.

Programming interface: USB interface on M5 4-pole connector. See [page 26](#).

Max. length connection cables between light curtain and interface: 100 (m).

CONNECTORS



CABLES NEEDED

- Emitter M12 5-pole. See [page 23](#) (CD x, CD x SB, CD 9x, CDM 9 CDM 99)
- Receiver M12 8-pole. See [page 24](#) (C8D x, C8D x SB, C8D 9x, C8DM 9, C8DM 99, C8DM 11, C8DM 911)

ACCESSORIES

- Support columns. See [page 27](#)
- Laser alignment device. See [page 31](#)
- Vibration dampers. See [page 30](#)
- Brackets. See [page 29](#)

PART NUMBERS

Micron A - Beam spacing 5 mm

| | | | | | | | | | | |
|------------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|
| Beam spacing 5 mm | MI 150AV | MI 300AV | MI 450AV | MI 600AV | MI 750AV | MI 900AV | MI 1050AV | MI 1200AV | MI 1350AV | MI 1500AV |
| Ordering codes | 1250580 | 1250581 | 1250582 | 1250583 | 1250584 | 1250585 | 1250586 | 1250587 | 1250588 | 1250589 |
| Beam spacing 5 mm | MI 150AC | MI 300AC | MI 450AC | MI 600AC | MI 750AC | MI 900AC | MI 1050AC | MI 1200AC | MI 1350AC | MI 1500AC |
| Ordering codes | 1250520 | 1250521 | 1250522 | 1250523 | 1250524 | 1250525 | 1250526 | 1250527 | 1250528 | 1250529 |
| Controlled height (mm) | 145 | 295 | 445 | 595 | 745 | 895 | 1045 | 1195 | 1345 | 1495 |
| Number of beams | 30 | 60 | 90 | 120 | 150 | 180 | 210 | 240 | 270 | 300 |
| Overall height (mm) | 223 | 373 | 523 | 673 | 823 | 973 | 1123 | 1273 | 1423 | 1573 |

Micron A - Beam spacing 10 mm

| | | | | | | | | | | | | |
|------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Beam spacing 10 mm | MI 151AV | MI 301AV | MI 451AV | MI 601AV | MI 751AV | MI 901AV | MI 1051AV | MI 1201AV | MI 1351AV | MI 1501AV | MI 1651AV | MI 1801AV |
| Ordering codes | 1250020 | 1250021 | 1250022 | 1250023 | 1250024 | 1250025 | 1250026 | 1250027 | 1250028 | 1250029 | 1250030 | 1250031 |
| Beam spacing 10 mm | MI 151AC | MI 301AC | MI 451AC | MI 601AC | MI 751AC | MI 901AC | MI 1051AC | MI 1201AC | MI 1351AC | MI 1501AC | MI 1651AC | MI 1801AC |
| Ordering codes | 1250120 | 1250121 | 1250122 | 1250123 | 1250124 | 1250125 | 1250126 | 1250127 | 1250128 | 1250129 | 1250130 | 1250131 |
| Controlled height (mm) | 140 | 290 | 440 | 590 | 740 | 890 | 1040 | 1190 | 1340 | 1490 | 1640 | 1790 |
| Number of beams | 15 | 30 | 45 | 60 | 75 | 90 | 105 | 120 | 135 | 150 | 165 | 180 |
| Overall height (mm) | 213 | 363 | 513 | 663 | 813 | 963 | 1113 | 1263 | 1413 | 1563 | 1713 | 1863 |
| Beam spacing 10 mm | MI 1951AV | MI 2101AV | MI 2251AV | MI 2401AV | MI 2551AV | MI 2701AV | MI 2851AV | MI 3001AV | | | | |
| Ordering codes | 1250032 | 1250033 | 1250034 | 1250035 | 1250036 | 1250037 | 1250038 | 1250039 | | | | |
| Beam spacing 10 mm | MI 1951AC | MI 2101AC | MI 2251AC | MI 2401AC | MI 2551AC | MI 2701AC | MI 2851AC | MI 3001AC | | | | |
| Ordering codes | 1250132 | 1250133 | 1250134 | 1250135 | 1250136 | 1250137 | 1250138 | 1250139 | | | | |
| Controlled height (mm) | 1940 | 2090 | 2240 | 2390 | 2540 | 2690 | 2840 | 2990 | | | | |
| Number of beams | 195 | 210 | 225 | 240 | 255 | 270 | 285 | 300 | | | | |
| Overall height (mm) | 2013 | 2163 | 2313 | 2463 | 2613 | 2763 | 2913 | 3063 | | | | |

Micron A - Beam spacing 25 mm

| | | | | | | | | | | | | |
|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Beam spacing 25 mm | MI 152AV | MI 302AV | MI 452AV | MI 602AV | MI 752AV | MI 902AV | MI 1052AV | MI 1202AV | MI 1352AV | MI 1502AV | MI 1652AV | MI 1802AV |
| Ordering codes | 1250040 | 1250041 | 1250042 | 1250043 | 1250044 | 1250045 | 1250046 | 1250047 | 1250048 | 1250049 | 1250050 | 1250051 |
| Beam spacing 25 mm | MI 152AC | MI 302AC | MI 452AC | MI 602AC | MI 752AC | MI 902AC | MI 1052AC | MI 1202AC | MI 1352AC | MI 1502AC | MI 1652AC | MI 1802AC |
| Ordering codes | 1250140 | 1250141 | 1250142 | 1250143 | 1250144 | 1250145 | 1250146 | 1250147 | 1250148 | 1250149 | 1250150 | 1250151 |
| Controlled height (mm) | 125 | 275 | 425 | 575 | 725 | 875 | 1025 | 1175 | 1325 | 1475 | 1625 | 1775 |
| Number of beams | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 |
| Overall height (mm) | 213 | 363 | 513 | 663 | 813 | 963 | 1113 | 1263 | 1413 | 1563 | 1713 | 1863 |
| Beam spacing 25 mm | MI 1952AV | MI 2102AV | MI 2252AV | MI 2402AV | MI 2552AV | MI 2702AV | MI 2852AV | MI 3002AV | | | | |
| Ordering codes | 1250052 | 1250053 | 1250054 | 12500455 | 1250056 | 1250057 | 1250058 | 1250059 | | | | |
| Beam spacing 25 mm | MI 1952AC | MI 2102AC | MI 2252AC | MI 2402AC | MI 2552AC | MI 2702AC | MI 2852AC | MI 3002AC | | | | |
| Ordering codes | 1250152 | 1250153 | 1250154 | 1250155 | 1250156 | 1250157 | 1250158 | 1250159 | | | | |
| Controlled height (mm) | 1925 | 2075 | 2225 | 2375 | 2525 | 2625 | 2825 | 2975 | | | | |
| Number of beams | 78 | 84 | 90 | 96 | 102 | 108 | 114 | 120 | | | | |
| Overall height (mm) | 2013 | 2163 | 2313 | 2463 | 2613 | 2763 | 2913 | 3063 | | | | |

Micron A - Beam spacing 30 mm

| | | | | | | | | | | | | |
|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Beam spacing 30 mm | MI 153AV | MI 303AV | MI 453AV | MI 603AV | MI 753AV | MI 903AV | MI 1053AV | MI 1203AV | MI 1353AV | MI 1503AV | MI 1653AV | MI 1803AV |
| Ordering codes | 1250060 | 1250061 | 1250062 | 1250063 | 1250064 | 1250065 | 1250066 | 1250067 | 1250068 | 1250069 | 1250070 | 1250071 |
| Beam spacing 30 mm | MI 153AC | MI 303AC | MI 453AC | MI 603AC | MI 753AC | MI 903AC | MI 1053AC | MI 1203AC | MI 1353AC | MI 1503AC | MI 1653AC | MI 1803AC |
| Ordering codes | 1250160 | 1250161 | 1250162 | 1250163 | 1250164 | 1250165 | 1250166 | 1250167 | 1250168 | 1250169 | 1250170 | 1250171 |
| Controlled height (mm) | 120 | 270 | 420 | 570 | 720 | 870 | 1020 | 1170 | 1320 | 1470 | 1620 | 1770 |
| Number of beams | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 |
| Overall height (mm) | 213 | 363 | 513 | 663 | 813 | 963 | 1113 | 1263 | 1413 | 1563 | 1713 | 1863 |
| Beam spacing 30 mm | MI 1953AV | MI 2103AV | MI 2253AV | MI 2403AV | MI 2553AV | MI 2703AV | MI 2853AV | MI 3003AV | | | | |
| Ordering codes | 1250072 | 1250073 | 1250074 | 1250075 | 1250076 | 1250077 | 1250078 | 1250079 | | | | |
| Beam spacing 30mm | MI 1953AC | MI 2103AC | MI 2253AC | MI 2403AC | MI 2553AC | MI 2703AC | MI 2853AC | MI 3003AC | | | | |
| Ordering codes | 1250172 | 1250173 | 1250174 | 1250175 | 1250176 | 1250177 | 1250178 | 1250179 | | | | |
| Controlled height (mm) | 1920 | 2070 | 2220 | 2370 | 2520 | 2670 | 2820 | 2970 | | | | |
| Number of beams | 65 | 70 | 75 | 80 | 85 | 90 | 95 | 100 | | | | |
| Overall height (mm) | 2013 | 2163 | 2313 | 2463 | 2613 | 2763 | 2913 | 3063 | | | | |

Micron A - Beam spacing 50 mm

| | | | | | | | | | | | | |
|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Beam spacing 50 mm | MI 155AV | MI 305AV | MI 455AV | MI 605AV | MI 755AV | MI 905AV | MI 1055AV | MI 1205AV | MI 1355AV | MI 1505AV | MI 1655AV | MI 1805AV |
| Ordering codes | 1250080 | 1250081 | 1250082 | 1250083 | 1250084 | 1250085 | 1250086 | 1250087 | 1250088 | 1250089 | 1250090 | 1250091 |
| Beam spacing 50 mm | MI 155AC | MI 305AC | MI 455AC | MI 605AC | MI 755AC | MI 905AC | MI 1055AC | MI 1205AC | MI 1355AC | MI 1505AC | MI 1655AC | MI 1805AC |
| Ordering codes | 1250180 | 1250181 | 1250182 | 1250183 | 1250184 | 1250185 | 1250186 | 1250187 | 1250188 | 1250189 | 1250190 | 1250191 |
| Controlled height (mm) | 100 | 250 | 400 | 550 | 700 | 850 | 1000 | 1150 | 1300 | 1450 | 1600 | 1750 |
| Number of beams | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 | 36 |
| Overall height (mm) | 213 | 363 | 513 | 663 | 813 | 963 | 1113 | 1263 | 1413 | 1563 | 1713 | 1863 |
| Beam spacing 50 mm | MI 1955AV | MI 2105AV | MI 2255AV | MI 2405AV | MI 2555AV | MI 2705AV | MI 2855AV | MI 3005AV | | | | |
| Ordering codes | 1250092 | 1250093 | 1250094 | 1250095 | 1250096 | 1250097 | 1250098 | 1250099 | | | | |
| Beam spacing 50mm | MI 1955AC | MI 2105AC | MI 2255AC | MI 2405AC | MI 2555AC | MI 2705AC | MI 2855AC | MI 3005AC | | | | |
| Ordering codes | 1250192 | 1250193 | 1250194 | 1250195 | 1250196 | 1250197 | 1250198 | 1250199 | | | | |
| Controlled height (mm) | 1900 | 2050 | 2200 | 2350 | 2500 | 2650 | 2800 | 2950 | | | | |
| Number of beams | 39 | 42 | 45 | 48 | 51 | 54 | 57 | 60 | | | | |
| Overall height (mm) | 2013 | 2163 | 2313 | 2463 | 2613 | 2763 | 2913 | 3063 | | | | |

Micron A - Beam spacing 75 mm

| | | | | | | | | | | | | |
|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Beam spacing 75 mm | MI 157AV | MI 307AV | MI 457AV | MI 607AV | MI 757AV | MI 907AV | MI 1057AV | MI 1207AV | MI 1357AV | MI 1507AV | MI 1657AV | MI 1807AV |
| Ordering codes | 1250100 | 1250101 | 1250102 | 1250103 | 1250104 | 1250105 | 1250106 | 1250107 | 1250108 | 1250109 | 1250110 | 1250111 |
| Beam spacing 75 mm | MI 157AC | MI 307AC | MI 457AC | MI 607AC | MI 757AC | MI 907AC | MI 1057AC | MI 1207AC | MI 1357AC | MI 1507AC | MI 1657AC | MI 1807AC |
| Ordering codes | 1250200 | 1250201 | 1250202 | 1250203 | 1250204 | 1250205 | 1250206 | 1250207 | 1250208 | 1250209 | 1250210 | 1250211 |
| Controlled height (mm) | 75 | 225 | 375 | 525 | 675 | 825 | 975 | 1125 | 1275 | 1425 | 1575 | 1725 |
| Number of beams | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| Overall height (mm) | 213 | 363 | 513 | 663 | 813 | 963 | 1113 | 1263 | 1413 | 1563 | 1713 | 1863 |
| Beam spacing 75 mm | MI 1957AV | MI 2107AV | MI 2257AV | MI 2407AV | MI 2557AV | MI 2707AV | MI 2857AV | MI 3007AV | | | | |
| Ordering codes | 1250112 | 1250113 | 1250114 | 1250115 | 1250116 | 1250117 | 1250118 | 1250119 | | | | |
| Beam spacing 75mm | MI 1957AC | MI 2107AC | MI 2257AC | MI 2407AC | MI 2557AC | MI 2707AC | MI 2857AC | MI 3007AC | | | | |
| Ordering codes | 1250212 | 1250213 | 1250214 | 1250215 | 1250216 | 1250217 | 1250218 | 1250219 | | | | |
| Controlled height (mm) | 1875 | 2025 | 2175 | 2325 | 2475 | 2625 | 2775 | 2925 | | | | |
| Number of beams | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | | | | |
| Overall height (mm) | 2013 | 2163 | 2313 | 2463 | 2613 | 2763 | 2913 | 3063 | | | | |

The following models available on request, contact ReeR for details.

Automatic warehouses models - Beams spacing 25, 50, 75 mm

Models with beams spacing 20 mm

AH Models - Beams spacing 10 and 30 mm with maximum range up to 18 m

MICRON B

TECHNICAL FEATURES

| | |
|--|---|
| Max. range (m) | - 2,5 - models with beam spacing 5 mm - 6 - models for automatic warehouses with beams spacing 25, 50, 75 mm - 10 - models with beam spacing 10, 30 mm - 18 - models with beam spacing 25, 50, 75 mm |
| Measurement time | (500 μs + 70 μs x n beams) x N Where N = scan cycles (1,2,3 selectable) |
| Scan cycles | 1, 2, 3 selectable |
| Inputs (on receiver) | 1 digital with programmable functions - 0 or 24V |
| MI B (5, 25, 50, 75 mm) Outputs | - RS 485 Serial line - 2 solid state programmable digital outputs 0 or 24V (PNP 100 mA 24 VDC) |
| MI B (10, 30 mm) Outputs | - RS 485 Serial line (up to 3 nodes) - 2 solid state programmable digital outputs 0 or 24V (Push-Pull) |
| Synchronisation between emitter and receiver | Optical or via cable, selectable |
| Electrical connections | Connector M12 5-pole (emitter) Connector M12 8-pole (receiver) M5 4-pole connector for programming interface |
| Status display | LEDs for operating status and light curtain self-diagnosis |
| Power supply (VDC) | 24 ± 20% |
| Fastening | Back slot, or to the top and lower end with SFB E180 rotating brackets (optional) |



| Beam spacing (mm) | Serial output | Digital output |
|-----------------------------|--------------------|----------------|
| 5 - 10 - 25 30 - 50 - 75 | RS 485 serial line | 2 |

Models MI B equipped with an RS 485 serial interface with programmable functions and two programmable digital outputs.

Controlled heights: 150 ... 3000 mm.

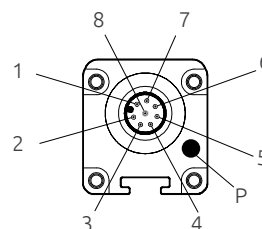
Programming interface: USB interface on M5 4-pole connector.

Max. length connection cables between light curtain and interface: 100 (m).

Possibility of connection of up to 3 Micron B light curtains as nodes of an RS 485 serial line for simultaneous detection of multiple dimensions and complex measurements. In this application could be necessary shielded cables for the connections.

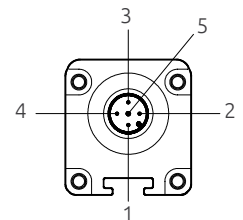
CONNECTORS

Receiver M12 8-pole



- 1 - OUT 2/SYNC
- 2 - 24 VDC
- 3 - OUT 1
- 4 - INPUT
- 5 - LINE - (A)
- 6 - LINE + (B)
- 7 - 0 VDC
- 8 - PE

Emitter M12 5-pole



- P - Programming
M5 4-pole connector

- 1 - 24 VDC
- 2 - RANGE
- 3 - 0 VDC
- 4 - SYNC
- 5 - PE



CABLES NEEDED

- Emitter M12 5-pole. See [page 23](#) (CD x, CD x SB, CD 9x, CDM 9 CDM 99)
- Receiver M12 8-pole. See [page 24](#) (C8D x, C8D x SB, C8D 9x, C8DM 9, C8DM 99, C8DM 11, C8DM 911)

ACCESSORIES

- Support columns. See [page 27](#)
- Laser alignment device. See [page 31](#)
- Vibration dumpers. See [page 30](#)
- Brackets. See [page 29](#)

PART NUMBERS

Micron B - Beam spacing 5 mm

| Beam spacing 5 mm | MI 150B | MI 300B | MI 450B | MI 600B | MI 750B | MI 900B | MI 1050B | MI 1200B | MI 1350B | MI 1500B |
|------------------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|
| Ordering codes | 1250540 | 1250541 | 1250542 | 1250543 | 1250544 | 1250545 | 1250546 | 1250547 | 1250548 | 1250549 |
| Controlled height (mm) | 145 | 295 | 445 | 595 | 745 | 895 | 1045 | 1195 | 1345 | 1495 |
| Number of beams | 30 | 60 | 90 | 120 | 150 | 180 | 210 | 240 | 270 | 300 |
| Overall height (mm) | 223 | 373 | 523 | 673 | 823 | 973 | 1123 | 1273 | 1423 | 1573 |

Micron B - Beam spacing 10 mm

| Beam spacing 10 mm | MI 151B | MI 301B | MI 451B | MI 601B | MI 751B | MI 901B | MI 1051B | MI 1201B | MI 1351B | MI 1501B | MI 1651B | MI 1801B |
|------------------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Ordering codes | 1250220 | 1250221 | 1250222 | 1250223 | 1250224 | 1250225 | 1250226 | 1250227 | 1250228 | 1250229 | 1250230 | 1250231 |
| Controlled height (mm) | 140 | 290 | 440 | 590 | 740 | 890 | 1040 | 1190 | 1340 | 1490 | 1640 | 1790 |
| Number of beams | 15 | 30 | 45 | 60 | 75 | 90 | 105 | 120 | 135 | 150 | 165 | 180 |
| Overall height (mm) | 213 | 363 | 513 | 763 | 813 | 963 | 1113 | 1263 | 1413 | 1563 | 1713 | 1863 |

| Beam spacing 10 mm | MI 1951B | MI 2101B | MI 2251B | MI 2401B | MI 2551B | MI 2701B | MI 2851B | MI 3001B |
|------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Ordering codes | 1250232 | 1250233 | 1250234 | 1250235 | 1250236 | 1250237 | 1250238 | 1250239 |
| Controlled height (mm) | 1940 | 2090 | 2240 | 2390 | 2540 | 2690 | 2840 | 2990 |
| Number of beams | 195 | 210 | 225 | 240 | 255 | 270 | 285 | 300 |
| Overall height (mm) | 2013 | 2163 | 2313 | 2463 | 2613 | 2763 | 2913 | 3063 |

Micron B - Beam spacing 25 mm

| Beam spacing 25 mm | MI 152B | MI 302B | MI 452B | MI 602B | MI 752B | MI 902B | MI 1052B | MI 1202B | MI 1352B | MI 1502B | MI 1652B | MI 1802B |
|------------------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Ordering codes | 1250240 | 1250241 | 1250242 | 1250243 | 1250244 | 1250245 | 1250246 | 1250247 | 1250248 | 1250249 | 1250250 | 1250251 |
| Controlled height (mm) | 125 | 275 | 425 | 575 | 725 | 875 | 1025 | 1175 | 1325 | 1475 | 1625 | 1775 |
| Number of beams | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 |
| Overall height (mm) | 213 | 363 | 513 | 663 | 813 | 963 | 1113 | 1263 | 1413 | 1563 | 1713 | 1863 |

| Beam spacing 25 mm | MI 1952B | MI 2102B | MI 2252B | MI 2402B | MI 2552B | MI 2702B | MI 2852B | MI 3002B |
|------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Ordering codes | 1250252 | 1250253 | 1250254 | 1250255 | 1250256 | 1250257 | 1250258 | 1250259 |
| Controlled height (mm) | 1925 | 2075 | 2225 | 2375 | 2525 | 2625 | 2825 | 2975 |
| Number of beams | 78 | 84 | 90 | 96 | 102 | 108 | 114 | 120 |
| Overall height (mm) | 2013 | 2163 | 2313 | 2463 | 2613 | 2763 | 2913 | 3063 |

Micron B - Beam spacing 30 mm

| | | | | | | | | | | | | |
|------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Beam spacing 30 mm | MI 153B | MI 303B | MI 453B | MI 603B | MI 753B | MI 903B | MI 1053B | MI 1203B | MI 1353B | MI 1503B | MI 1653B | MI 1803B |
| Ordering codes | 1250260 | 1250261 | 1250262 | 1250263 | 1250264 | 1250265 | 1250266 | 1250267 | 1250268 | 1250269 | 1250270 | 1250271 |
| Controlled height (mm) | 120 | 270 | 420 | 570 | 720 | 870 | 1020 | 1170 | 1320 | 1470 | 1620 | 1770 |
| Number of beams | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 |
| Overall height (mm) | 213 | 363 | 513 | 663 | 813 | 963 | 1113 | 1263 | 1413 | 1563 | 1713 | 1863 |
| Beam spacing 30 mm | MI 1953B | MI 2103B | MI 2253B | MI 2403B | MI 2553B | MI 2703B | MI 2853B | MI 3003B | | | | |
| Ordering codes | 1250272 | 1250273 | 1250274 | 1250275 | 1250276 | 1250277 | 1250278 | 1250279 | | | | |
| Controlled height (mm) | 1920 | 2070 | 2220 | 2370 | 2520 | 2670 | 2820 | 2970 | | | | |
| Number of beams | 65 | 70 | 75 | 80 | 85 | 90 | 95 | 100 | | | | |
| Overall height (mm) | 2013 | 2163 | 2313 | 2463 | 2613 | 2763 | 2913 | 3063 | | | | |

Micron B - Beam spacing 50 mm

| | | | | | | | | | | | | |
|------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Beam spacing 50 mm | MI 155B | MI 305B | MI 455B | MI 605B | MI 755B | MI 905B | MI 1055B | MI 1205B | MI 1355B | MI 1505B | MI 1655B | MI 1805B |
| Ordering codes | 1250280 | 1250281 | 1250282 | 1250283 | 1250284 | 1250285 | 1250286 | 1250287 | 1250288 | 1250289 | 1250290 | 1250291 |
| Controlled height (mm) | 100 | 250 | 400 | 550 | 700 | 850 | 1000 | 1150 | 1300 | 1450 | 1600 | 1750 |
| Number of beams | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 | 36 |
| Overall height (mm) | 213 | 363 | 513 | 663 | 813 | 963 | 1113 | 1263 | 1413 | 1563 | 1713 | 1863 |
| Beam spacing 50 mm | MI 1955B | MI 2105B | MI 2255B | MI 2405B | MI 2555B | MI 2705B | MI 2855B | MI 3005B | | | | |
| Ordering codes | 1250292 | 1250293 | 1250294 | 1250295 | 125029 | 1250297 | 1250298 | 1250299 | | | | |
| Controlled height (mm) | 1900 | 2050 | 2200 | 2350 | 2500 | 2650 | 2800 | 2950 | | | | |
| Number of beams | 39 | 42 | 45 | 48 | 51 | 54 | 57 | 60 | | | | |
| Overall height (mm) | 2013 | 2163 | 2313 | 2463 | 2613 | 2763 | 2913 | 3063 | | | | |

Micron B - Beam spacing 75 mm

| | | | | | | | | | | | | |
|------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Beam spacing 75 mm | MI 157B | MI 307B | MI 457B | MI 607B | MI 757B | MI 907B | MI 1057B | MI 1207B | MI 1357B | MI 1507B | MI 1657B | MI 1807B |
| Ordering codes | 1250300 | 1250301 | 1250302 | 1250303 | 1250304 | 1250305 | 1250306 | 1250307 | 1250308 | 1250309 | 1250310 | 1250311 |
| Controlled height (mm) | 75 | 225 | 375 | 525 | 675 | 825 | 975 | 1125 | 1275 | 1425 | 1575 | 1725 |
| Number of beams | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| Overall height (mm) | 213 | 363 | 513 | 663 | 813 | 963 | 1113 | 1263 | 1413 | 1563 | 1713 | 1863 |
| Beam spacing 75 mm | MI 1957B | MI 2107B | MI 2257B | MI 2407B | MI 2557B | MI 2707B | MI 2857B | MI 3007B | | | | |
| Ordering codes | 1250312 | 1250313 | 1250314 | 1250315 | 1250316 | 1250317 | 1250318 | 1250319 | | | | |
| Controlled height (mm) | 1875 | 2025 | 2175 | 2325 | 2475 | 2625 | 2775 | 2925 | | | | |
| Number of beams | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | | | | |
| Overall height (mm) | 2013 | 2163 | 2313 | 2463 | 2613 | 2763 | 2913 | 3063 | | | | |

The following models available on request, contact ReeR for details.

Automatic warehouses models - beams spacing 25, 50, 75 mm

Models with beams spacing 20 mm

BH Models - Beams spacing 10 and 30 mm with maximum range up to 18 m

MICRON C

TECHNICAL FEATURES

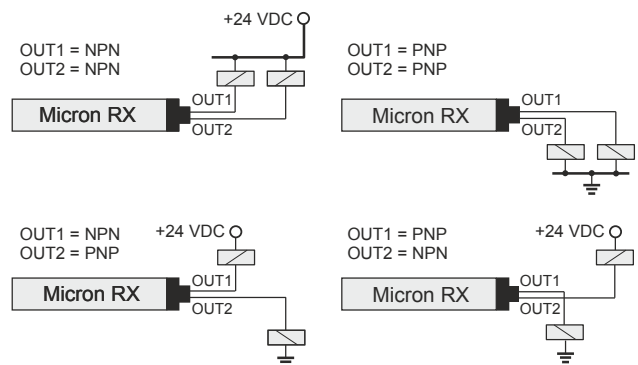
| | |
|--|---|
| Max. range (m) | - 2,5 - models with beam spacing 5 mm - 6 - models for automatic warehouses with beams spacing 25, 50, 75 mm - 10 - models with beam spacing 10, 30 mm - 18 - models with beam spacing 25, 50, 75 mm |
| Measurement time | (500 μ s + 70 μ s x n beams) x N Where N = scan cycles (1,2,3 selectable) |
| Scan cycles | 1, 2, 3 selectable |
| Micron MI C (5, 25, 50, 75 mm) outputs | 2 - solid state 0 or 24V antivalent (PNP 100 mA at 24 VDC) |
| Micron MI C (10, 30 mm) outputs | 2 - solid state 0 or 24V antivalent (Push-Pull). See the following image |
| Synchronisation between emitter and receiver | Optical or via cable, selectable |
| Electrical connections | 2 M12 5-pole connectors (emitter and receiver) |
| Status display | LEDs for operating status and light curtain self-diagnosis |
| Power supply (VDC) | 24 \pm 20% |
| Fastening | Back slot, or to the top and lower end with SFB E180 rotating brackets (optional) |

| Beam spacing (mm) | Digital output |
|-----------------------------|----------------|
| 5 - 10 - 25 30 - 50 - 75 | 2 |

Models MI C equipped with two antivalent solid state outputs.

Controlled heights: 150 ... 3000 mm.

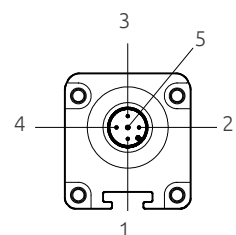
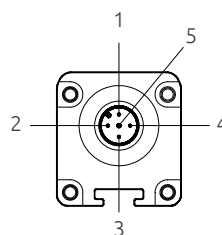
Max. length connection cables between light curtain and interface: 100 (m).



CONNECTORS

Receiver M12 5-pole

Emitter M12 5-pole



- 1 - 24 Vcc
- 2 - OUT 2
- 3 - 0 Vcc
- 4 - OUT 1
- 5 - PE

- 1 - 24 Vcc
- 2 - RANGE
- 3 - 0 Vcc
- 4 - SYNC
- 5 - PE



CABLES NEEDED

- Emitter M12 5-pole. See [page 23](#) (CD x, CD x SB, CD 9x, CDM 9 CDM 99)
- Receiver M12 5-pole. See [page 23](#) (CD x, CD x SB, CD 9x, CDM 9 CDM 99)

ACCESSORIES

- Support columns. See [page 27](#)
- Laser alignment device. See [page 31](#)
- Vibration dumpers. See [page 30](#)
- Brackets. See [page 29](#)

PART NUMBERS

Micron C - Beam spacing 5 mm

| Beam spacing 5 mm | MI 150C | MI 300C | MI 450C | MI 600C | MI 7510 | MI 900C | MI 1050C | MI 1200C | MI 1350C | MI 1500C |
|------------------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|
| Ordering codes | 1250560 | 1250561 | 1250562 | 1250563 | 1250564 | 1250565 | 1250566 | 1250567 | 1250568 | 1250569 |
| Controlled height (mm) | 145 | 295 | 445 | 595 | 745 | 895 | 1045 | 1195 | 1345 | 1495 |
| Number of beams | 30 | 60 | 90 | 120 | 150 | 180 | 210 | 240 | 270 | 300 |
| Overall height (mm) | 223 | 373 | 523 | 673 | 823 | 973 | 1123 | 1273 | 1423 | 1573 |

Micron C - Beam spacing 10 mm

| Beam spacing 10 mm | MI 151C | MI 301C | MI 451C | MI 601C | MI 751C | MI 901C | MI 1051C | MI 1201C | MI 1351C | MI 1501C | MI 1651C | MI 1801C |
|------------------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Ordering codes | 1250320 | 1250321 | 1250322 | 1250323 | 1250324 | 1250325 | 1250326 | 1250327 | 1250328 | 1250329 | 1250330 | 1250331 |
| Controlled height (mm) | 140 | 290 | 440 | 590 | 740 | 890 | 1040 | 1190 | 1340 | 1490 | 1640 | 1790 |
| Number of beams | 15 | 30 | 45 | 60 | 75 | 90 | 105 | 120 | 135 | 150 | 165 | 180 |
| Overall height (mm) | 213 | 363 | 513 | 763 | 813 | 963 | 1113 | 1263 | 1413 | 1563 | 1713 | 1863 |

| Beam spacing 10 mm | MI 1951C | MI 2101C | MI 2251C | MI 2401C | MI 2551C | MI 2701C | MI 2851C | MI 3001C |
|------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Ordering codes | 1250332 | 1250333 | 1250334 | 1250335 | 1250336 | 1250337 | 1250338 | 1250339 |
| Controlled height (mm) | 1940 | 2090 | 2240 | 2390 | 2540 | 2690 | 2840 | 2990 |
| Number of beams | 195 | 210 | 225 | 240 | 255 | 270 | 285 | 300 |
| Overall height (mm) | 2013 | 2163 | 2313 | 2463 | 2613 | 2763 | 2913 | 3063 |

Micron C - Beam spacing 25 mm

| Beam spacing 25 mm | MI 152C | MI 302C | MI 452C | MI 602C | MI 752C | MI 902C | MI 1052C | MI 1202C | MI 1352C | MI 1502C | MI 1652C | MI 1802C |
|------------------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Ordering codes | 1250340 | 1250341 | 1250342 | 1250343 | 1250344 | 1250345 | 1250346 | 1250347 | 1250348 | 1250349 | 1250350 | 1250351 |
| Controlled height (mm) | 125 | 275 | 425 | 575 | 725 | 875 | 1025 | 1175 | 1325 | 1475 | 1625 | 1775 |
| Number of beams | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 |
| Overall height (mm) | 213 | 363 | 513 | 663 | 813 | 963 | 1113 | 1263 | 1413 | 1563 | 1713 | 1863 |

| Beam spacing 25 mm | MI 1952C | MI 2102C | MI 2252C | MI 2402C | MI 2552C | MI 2702C | MI 2852C | MI 3002C |
|------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Ordering codes | 1250352 | 1250353 | 1250354 | 1250355 | 1250356 | 1250357 | 1250358 | 1250359 |
| Controlled height (mm) | 1925 | 2075 | 2225 | 2375 | 2525 | 2625 | 2825 | 2975 |
| Number of beams | 78 | 84 | 90 | 96 | 102 | 108 | 114 | 120 |
| Overall height (mm) | 2013 | 2163 | 2313 | 2463 | 2613 | 2763 | 2913 | 3063 |

Micron C - Beam spacing 30 mm

| | | | | | | | | | | | | |
|------------------------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|
| Beam spacing 30 mm | MI 153C | MI 303C | MI 453C | MI 603C | MI 753C | MI 903C | MI 1053C | MI 1203C | MI 1353C | MI 1503C | MI 1653C | MI 1803C |
| Ordering codes | 1250360 | 1250361 | 1250362 | 1250363 | 1250364 | 1250365 | 1250366 | 1250367 | 1250368 | 1250369 | 1250370 | 1250371 |
| Controlled height (mm) | 120 | 270 | 420 | 570 | 720 | 870 | 1020 | 1170 | 1320 | 1470 | 1620 | 1770 |
| Number of beams | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 |
| Overall height (mm) | 213 | 363 | 513 | 663 | 813 | 963 | 1113 | 1263 | 1413 | 1563 | 1713 | 1863 |

| | | | | | | | | |
|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Beam spacing 30 mm | MI 1953C | MI 2103C | MI 2253C | MI 2403C | MI 2553C | MI 2703C | MI 2853C | MI 3003C |
| Ordering codes | 1250372 | 1250373 | 1250374 | 1250375 | 1250376 | 1250377 | 1250378 | 1250379 |
| Controlled height (mm) | 1920 | 2070 | 2220 | 2370 | 2520 | 2670 | 2820 | 2970 |
| Number of beams | 65 | 70 | 75 | 80 | 85 | 90 | 95 | 100 |
| Overall height (mm) | 2013 | 2163 | 2313 | 2463 | 2613 | 2763 | 2913 | 3063 |

Micron C - Beam spacing 50 mm

| | | | | | | | | | | | | |
|------------------------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|
| Beam spacing 50 mm | MI 155C | MI 305C | MI 455C | MI 605C | MI 755C | MI 905C | MI 1055C | MI 1205C | MI 1355C | MI 1505C | MI 1655C | MI 1805C |
| Ordering codes | 1250380 | 1250381 | 1250382 | 1250383 | 1250384 | 1250385 | 1250386 | 1250387 | 1250388 | 1250389 | 1250390 | 1250391 |
| Controlled height (mm) | 100 | 250 | 400 | 550 | 700 | 850 | 1000 | 1150 | 1300 | 1450 | 1600 | 1750 |
| Number of beams | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 | 36 |
| Overall height (mm) | 213 | 363 | 513 | 663 | 813 | 963 | 1113 | 1263 | 1413 | 1563 | 1713 | 1863 |

| | | | | | | | | |
|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Beam spacing 50 mm | MI 1955C | MI 2105C | MI 2255C | MI 2405C | MI 2555C | MI 2705C | MI 2855C | MI 3005C |
| Ordering codes | 1250392 | 1250393 | 1250394 | 1250395 | 1250396 | 1250397 | 1250398 | 1250399 |
| Controlled height (mm) | 1900 | 2050 | 2200 | 2350 | 2500 | 2650 | 2800 | 2950 |
| Number of beams | 39 | 42 | 45 | 48 | 51 | 54 | 57 | 60 |
| Overall height (mm) | 2013 | 2163 | 2313 | 2463 | 2613 | 2763 | 2913 | 3063 |

Micron C - Beam spacing 75 mm

| | | | | | | | | | | | | |
|------------------------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|
| Beam spacing 75 mm | MI 157C | MI 307C | MI 457C | MI 607C | MI 757C | MI 907C | MI 1057C | MI 1207C | MI 1357C | MI 1507C | MI 1657C | MI 1807C |
| Ordering codes | 1250400 | 1250401 | 1250402 | 1250403 | 1250404 | 1250405 | 1250406 | 1250407 | 1250408 | 1250409 | 1250410 | 1250411 |
| Controlled height (mm) | 75 | 225 | 375 | 525 | 675 | 825 | 975 | 1125 | 1275 | 1425 | 1575 | 1725 |
| Number of beams | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| Overall height (mm) | 213 | 363 | 513 | 663 | 813 | 963 | 1113 | 1263 | 1413 | 1563 | 1713 | 1863 |

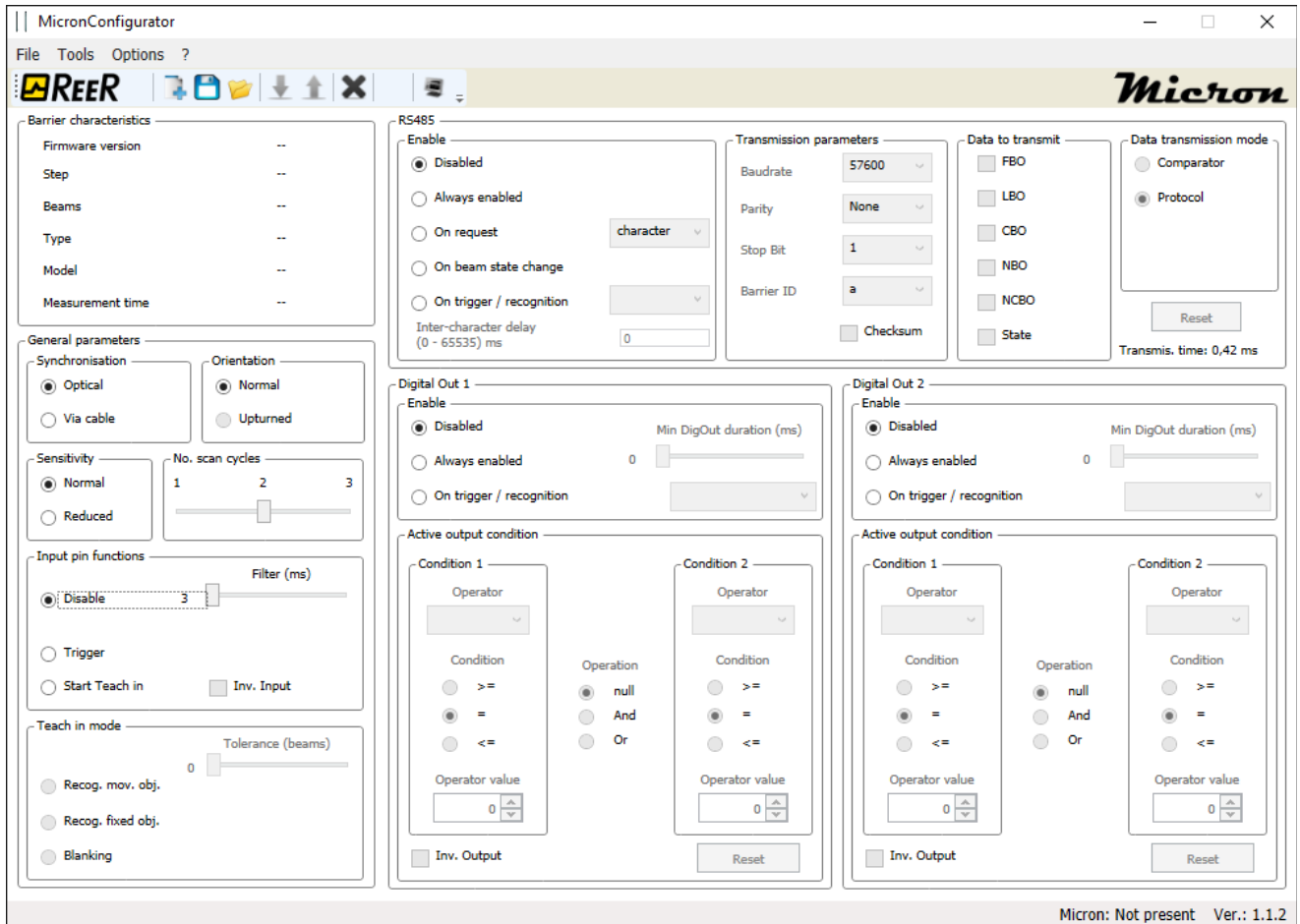
| | | | | | | | | |
|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Beam spacing 75 mm | MI 1957C | MI 2107C | MI 2257C | MI 2407C | MI 2557C | MI 2707C | MI 2857C | MI 3007C |
| Ordering codes | 1250412 | 1250413 | 1250414 | 1250415 | 1250416 | 1250417 | 1250418 | 1250419 |
| Controlled height (mm) | 1875 | 2025 | 2175 | 2325 | 2475 | 2625 | 2775 | 2925 |
| Number of beams | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 |
| Overall height (mm) | 2013 | 2163 | 2313 | 2463 | 2613 | 2763 | 2913 | 3063 |

The following models available on request, contact Reer for details.

Models with beams spacing 20 mm

CH Models - Beams spacing 10 and 30 mm with maximum range up to 18 m

CONFIGURATOR SOFTWARE



Software for PC, with graphic user interface, is supplied with each light curtain (Micron models A and B only).

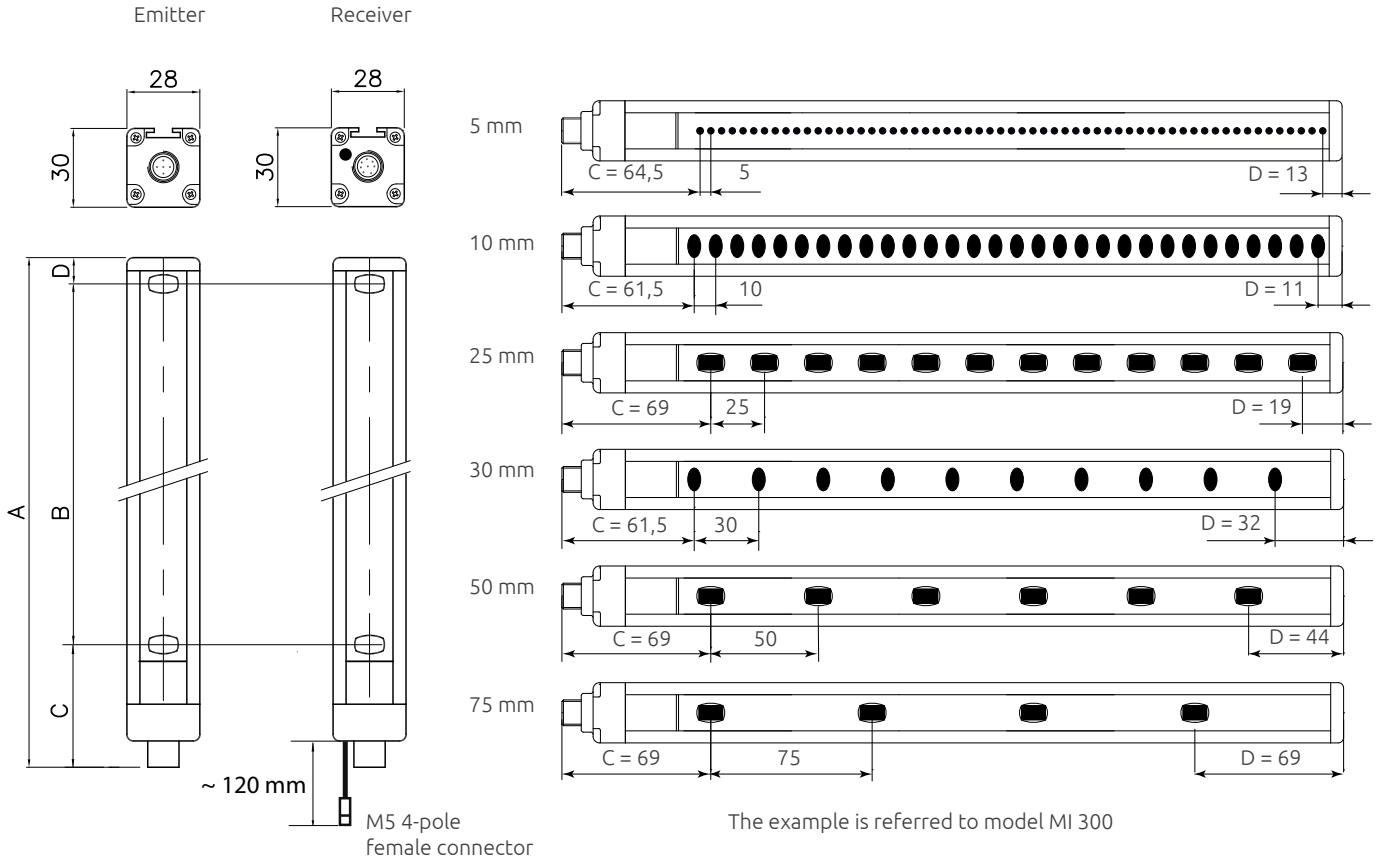
Micron models A and B are provided with an M5 4-pole connector for parameter configuration and monitoring of the light curtain to be connected to a PC using the CSU M5 cable.

“MicronConfigurator” CHARACTERISTICS

Possibility for on-line display on PC screen during operation: (via USB) Status of each individual beam and solid state outputs

Configurable parameters Operating logic (conditions for output activation)
Parameters of the RS 485 serial line (transmission method, baud rate, parity, start-stop characters, binary, hex, ascii format, measurement time, etc.)

MECHANICAL DATA



Dimension: mm

| | | | | | | | | | | | |
|-----------------------------------|--|-----|-----|-----|-----|-----|------|------|------|------|------|
| Model MI | 150 | 300 | 450 | 600 | 750 | 900 | 1050 | 1200 | 1350 | 1500 | 1650 |
| A (5 mm Models) | 223 | 373 | 523 | 673 | 823 | 973 | 1123 | 1273 | 1423 | 1573 | |
| A (10, 25, 30, 50, 75 mm models) | 213 | 363 | 513 | 663 | 813 | 963 | 1113 | 1263 | 1413 | 1563 | 1713 |
| B (controlled height) | B = (number of beams - 1) x beam spacing | | | | | | | | | | |
| C (1 st beam position) | 64,5 (for 5 mm models) - 61,5 (for 10 and 30 mm models) - 69 (for 25, 50 and 75 mm models) | | | | | | | | | | |

| | | |
|----------|--|--|
| Mounting | Complete set of 4 LE type brackets included in the package | Complete set of 6 LE type brackets included in the package |
|----------|--|--|

| | | | | | | | | | |
|-----------------------------------|---|------|------|------|------|------|------|------|------|
| Model MI | 1800 | 1950 | 2100 | 2250 | 2400 | 2550 | 2700 | 2850 | 3000 |
| A | 1863 | 2013 | 2163 | 2313 | 2463 | 2613 | 2763 | 2913 | 3063 |
| B (controlled height) | B = (number of beams - 1) x beam spacing | | | | | | | | |
| C (1 st beam position) | 61,5 (for 10 and 30 mm models) - 69 (for 25, 50 and 75 mm models) | | | | | | | | |
| Mounting | Complete set of 6 LE type brackets included in the package | | | | | | | | |



BACKLIT TOP COVER WITH STATUS LED

Through-beam barrier type photocell with 5 beams.

With a compact metal housing and a polycarbonate protective front window it offers the right degree of robustness ideal also in the most demanding environments.

STATUS DISPLAY

| | LED | State | Description |
|----------|-----|-------|---|
| Emitter | | ON | Beam emitted |
| | | OFF | No beam |
| Receiver | | ON | Controlled area is free |
| | | ON | Break condition (controlled area is obstructed) |



Operating temperature -30 ... 55 °C



IP65 protection rate



M⁵

MULTI-BEAM PHOTOCELL

TECHNICAL FEATURES

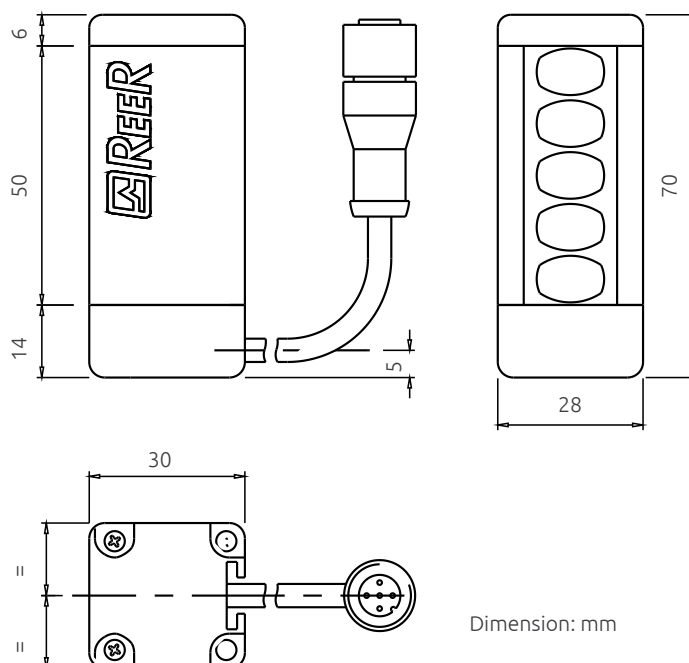
| | |
|------------------------------------|---|
| Max. range (m) | 0 ... 3,5 (0 ... 5 H model) |
| Measurement time (ms) | < 100 |
| Power supply (VDC) | 24 ± 20% |
| Power consumption at 24 VDC (W) | 1 |
| Number of beams | 5 |
| Beam spacing (mm) | 10 |
| Outputs on receiver | 0 or 24V (PNP 100 mA 24 VDC) dark-on |
| Immunity to the ambient light (lx) | > 10000 (solar) |
| Emission angle | ± 5° |
| Emission wavelength (nm) | 940 modulated infrared |
| Electrical connections | Pigtail cable with M12 5-pole (emitter and receiver) |
| Fastening | Back slot |
| Dimension h x w x d (mm) | 70 x 28 x 30 |

PART NUMBERS

M⁵ (A coding): 1250910 M⁵H (A coding): 1250916
M⁵ (B coding): 1250911 M⁵H (B coding): 1250917

Note: The use of different coding is recommended for the installation of two M⁵ sensors next to each other in order to avoid interference.

DIMENSIONS



Dimension: mm

RETRO-REFLECTOR PHOTOCELL

TECHNICAL FEATURES

| Operative range (m) | Retro-reflector | M TRX | M TRX G |
|--|----------------------------------|-----------|-----------|
| <i>It varies depending on the model of the retro-reflector</i> | C3F10 | 0 ... 2,5 | 0 ... 1,5 |
| | C3F8 | 0 ... 3,5 | 0 ... 2 |
| | CD8 | 0 ... 5 | 0 ... 3 |
| Measurement time (ms) | 65 | | |
| Power supply (VDC) | 24 ± 20% | | |
| Power cons. at 24 VDC (W) | 0,2 | | |
| Number of beams | 1 | | |
| Outputs | 0 or 24 VDC (PNP 100 mA dark-on) | | |
| Emission angle | ± 5° | | |
| Emission wavelength (nm) | 660 (modulated infrared) | | |
| Electrical connections | Pigtail cable with M12 5-pole | | |
| Fastening | Back slot with L bracket | | |
| Dimension h x w x d (mm) | 70 x 28 x 30 | | |
| Cable length (mm) | 900 | | |

PART NUMBERS

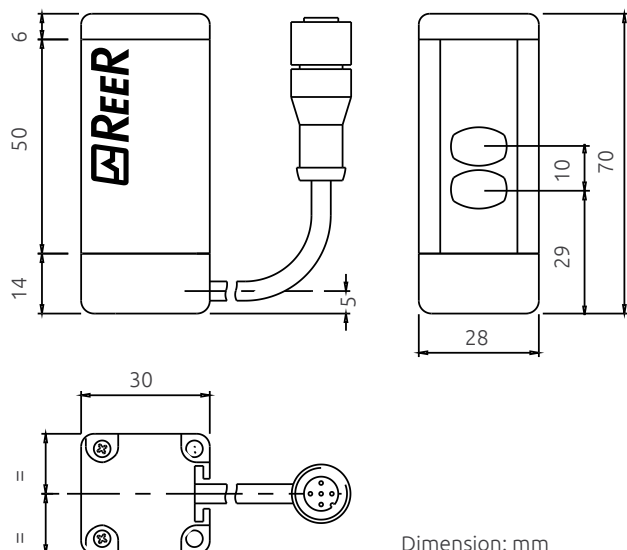
M^{TRX} (A coding): 1250912
M^{TRX} (B coding): 1250913

M^{TRX G} (A coding): 1250914
M^{TRX G} (B coding): 1250915

NOTE: The use of different coding is recommended for the installation of two M^{TRX} photocells next to each other in order to avoid interference.

Retro-reflectors. [See page 40](#)

DIMENSIONS



Dimension: mm



Backlit top cover with status LED

Single-beam retro-reflection photocell, consisting of:

- Active TX/RX
- Retro-reflector (to be ordered separately)

With a compact metal housing and a polycarbonate protective front window, it offers the right degree of robustness ideal also in the most demanding environments.

Two models are available: M^{TRX} and M^{TRX} GLASS with low scanning range to optimise correct and consistent detection of transparent materials (i.e. glass).

The integrated status signaling lamp allows to easily verify the status of the system.

STATUS DISPLAY

| | LED | State | Description |
|----------------|-----|----------|---|
| Active element | | ON | Controlled area is free |
| | | ON | Break condition (controlled area is obstructed) |
| | | Blinking | Fault detect |



Operating temperature: -30 ... +55 °C

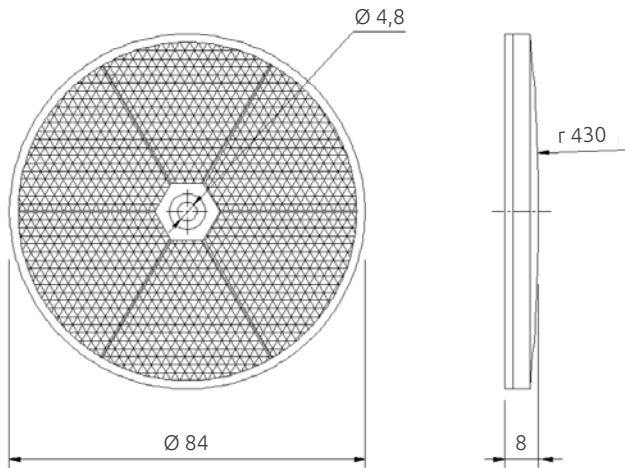


Protection rate: IP65



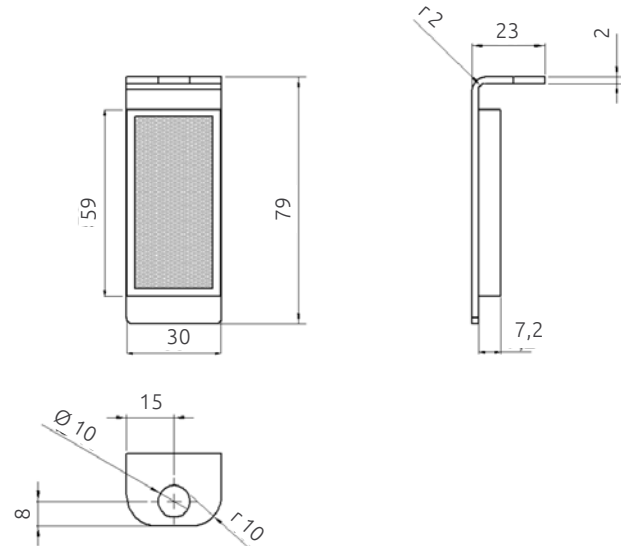
RETRO-REFLECTOR

Retro-reflector CD8



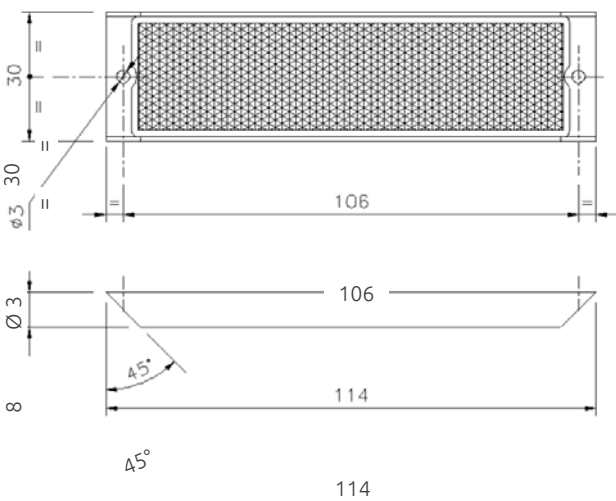
Mounting: with fixing screws (not provided)
Operative range (m): 0 ... 5

Retro-reflector C3F8



Mounting: with provided brackets
Operative range (m): 0 ... 3,5

Retro-reflector C3F10



Mounting: with fixing screws (not provided)
Operative range (m): 0 ... 2,5

PART NUMBERS

Retro-reflector CD8: 1210032

Retro-reflector C3F8: 1210221

Retro-reflector C3F10: 1210035

MI - Bs

FIELD BUS INTERFACES FOR MICRON

Expansion unit for connect Micron light curtain to the most common industrial Field-bus systems for diagnostics and data communication.

APPLICATION EXAMPLE

In all applications where it is required a communication between the Micron light curtains and PLC control.

TECHNICAL FEATURES

| | |
|----------------------------|---|
| Ports | RS 485 serial ports for I/O BUS expansion USB port for configuration |
| Connection to Micron | Via Micron cable |
| Power supply (VDC) | 24 ± 20% |
| Operating temperature (°C) | -10 ... +55 °C |
| Storage temperature (°C) | -20 ... +85 °C |
| Protection rating | IP20 for housing IP2X for terminal block |
| Fastening | DIN rail fastening according to EN 50022-35 standard |
| Connection | Removable terminal blocks, screw contacts |
| Dimensions h x w x d (mm) | 99 x 22,5 x 114 |

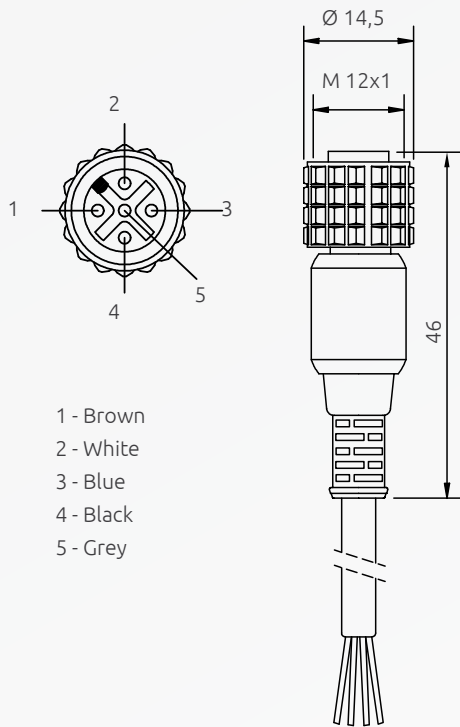
PART NUMBERS

| | |
|---------|---|
| 1250500 | MI - BP Profibus DP interface module |
| 1250501 | MI - BD DeviceNet interface module |
| 1250502 | MI - BC CANopen interface module |
| 1250503 | M - BEI Ethernet IP interface module |
| 1250504 | MI - BEC EtherCAT interface module |
| 1250505 | MI - BEP PROFINET interface module |
| 1250506 | MI - BU Universal Serial Bus interface module |
| 1250507 | MI - BMR ModBus RTU interface module |
| 1250508 | MI - BEM ModBus TCP/IP interface module |



These modules allow the connection of the Micron measurement light curtains with the following industrial field bus:

- MI - BP - Profibus DP
- MI - BD - DeviceNET
- MI - BC - CANopen
- MI - BEC - EtherCAT
- MI - BEI - Ethernet IP
- MI - BEP - PROFINET
- MI - BMR - ModBus RTU
- MI - BEM - ModBus TCP/IP
- MI - BU - USB Universal Serial Bus



- 1 - Brown
- 2 - White
- 3 - Blue
- 4 - Black
- 5 - Grey

CD x

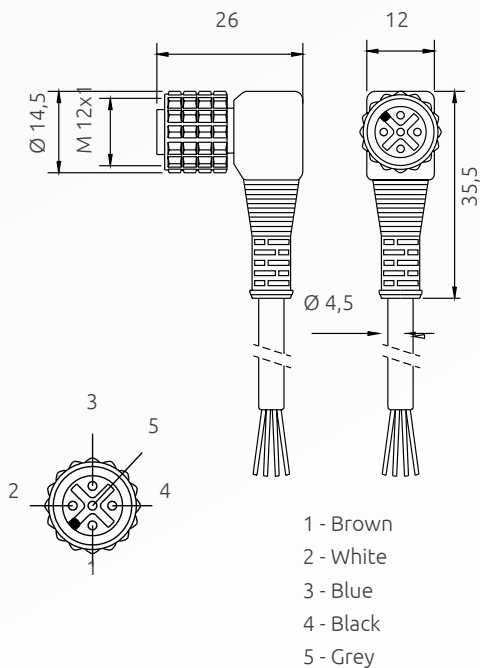
M12 STRAIGHT CONNECTOR 5-POLE

| Models | Codes | Description |
|--------|---------|----------------------|
| CD 5 | 1330950 | Pre-wired cable 5 m |
| CD 10 | 1330956 | Pre-wired cable 10 m |
| CD 15 | 1330952 | Pre-wired cable 15 m |
| CD 20 | 1330957 | Pre-wired cable 20 m |
| CD 25 | 1330949 | Pre-wired cable 25 m |
| CD 50 | 1330965 | Pre-wired cable 50 m |

CD x SB

M12 STRAIGHT CONNECTOR 5-POLE, SHIELDED

| Models | Codes | Description |
|----------|---------|-------------------------------|
| CD 5 SB | 1330850 | Pre-wired shielded cable 5 m |
| CD 10 SB | 1330856 | Pre-wired shielded cable 10 m |
| CD 15 SB | 1330852 | Pre-wired shielded cable 15 m |

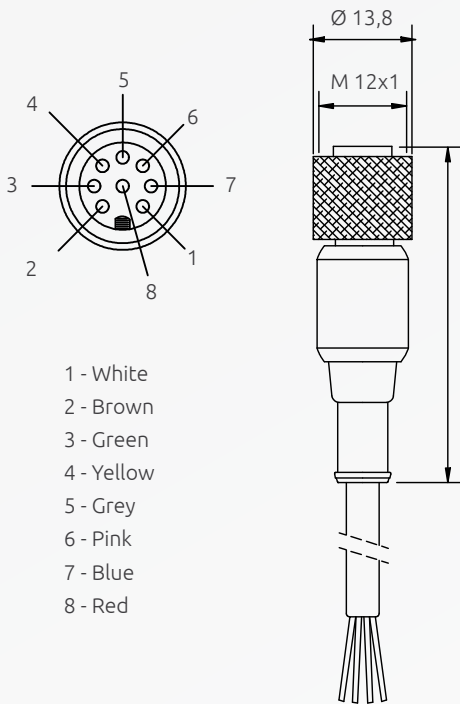


- 1 - Brown
- 2 - White
- 3 - Blue
- 4 - Black
- 5 - Grey

CD 9x

M12 90° ANGLE CONNECTOR 5-POLE

| Models | Codes | Description |
|--------|---------|----------------------|
| CD 95 | 1330951 | Pre-wired cable 5 m |
| CD 910 | 1330958 | Pre-wired cable 10 m |
| CD 915 | 1330953 | Pre-wired cable 15 m |



C8D x

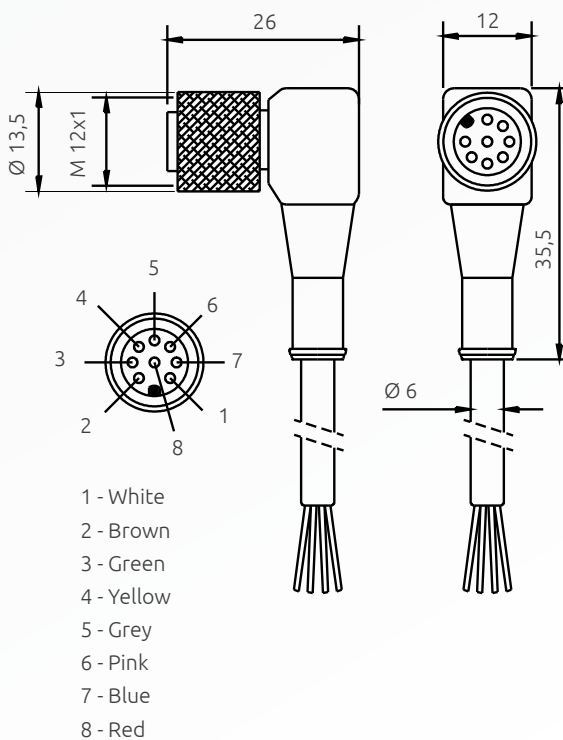
M12 STRAIGHT CONNECTOR 8-POLE

| Models | Codes | Description |
|--------|---------|----------------------|
| C8D 5 | 1330980 | Pre-wired cable 5 m |
| C8D 10 | 1330981 | Pre-wired cable 10 m |
| C8D 15 | 1330982 | Pre-wired cable 15 m |
| C8D 25 | 1330967 | Pre-wired cable 25 m |
| C8D 40 | 1330966 | Pre-wired cable 40 m |

C8D x SB

M12 STRAIGHT CONNECTOR 8-POLE, SHIELDED

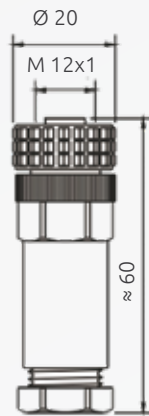
| Model | Codes | Description |
|-----------|---------|-------------------------------|
| C8D 5 SB | 1330880 | Pre-wired shielded cable 5 m |
| C8D 10 SB | 1330881 | Pre-wired shielded cable 10 m |
| C8D 15 SB | 1330882 | Pre-wired shielded cable 15 m |



C8D 9x

M12 90° ANGLE CONNECTOR 8-POLE

| Models | Codes | Description |
|---------|---------|----------------------|
| C8D 95 | 1330983 | Pre-wired cable 5 m |
| C8D 910 | 1330984 | Pre-wired cable 10 m |
| C8D 915 | 1330985 | Pre-wired cable 15 m |



CDM 9

M12 STRAIGHT CONNECTOR 5-POLE
SCREW TERMINAL, PG9 CABLE GLAND

| Model | Code |
|-------|------|
|-------|------|

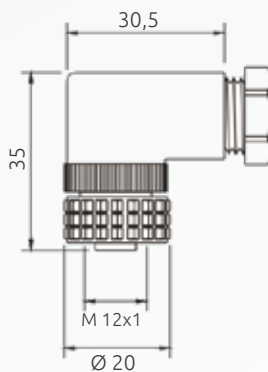
| | |
|-------|---------|
| CDM 9 | 1330954 |
|-------|---------|

C8DM 9

M12 STRAIGHT CONNECTOR 8-POLE
SCREW TERMINAL, PG9 CABLE GLAND

| Model | Code |
|-------|------|
|-------|------|

| | |
|--------|---------|
| C8DM 9 | 1330986 |
|--------|---------|



CDM 99

M12 STRAIGHT CONNECTOR 5-POLE
SCREW TERMINAL, PG9 CABLE GLAND

| Model | Code |
|-------|------|
|-------|------|

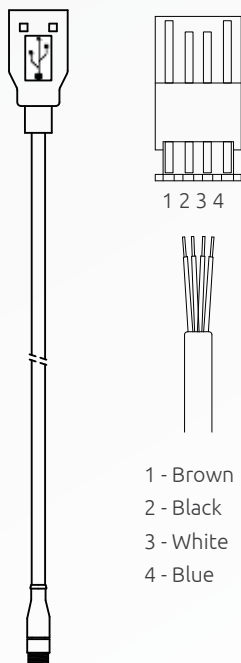
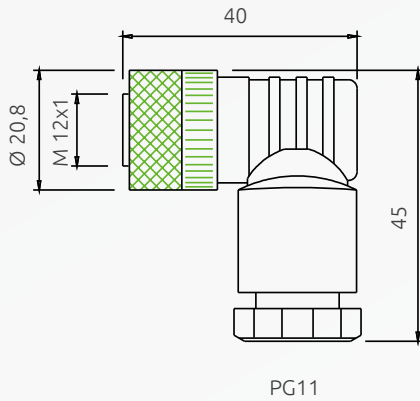
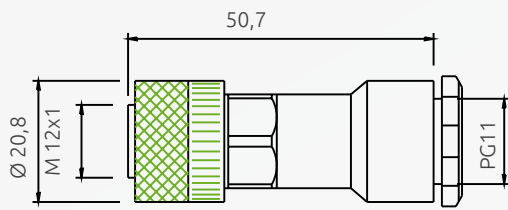
| | |
|--------|---------|
| CDM 99 | 1330955 |
|--------|---------|

C8DM 99

M12 STRAIGHT CONNECTOR 8-POLE
SCREW TERMINAL, PG9 CABLE GLAND

| Model | Code |
|-------|------|
|-------|------|

| | |
|---------|---------|
| C8DM 99 | 1330987 |
|---------|---------|



C8DM 11

M12 STRAIGHT CONNECTOR 8-POLE
SCREW TERMINAL, PG11 CABLE GLAND

| Model | Code |
|---------|---------|
| C8DM 11 | 1330978 |

C8DM 911

M12 90° ANGLE CONNECTOR 8-POLE
SCREW TERMINAL, PG11 CABLE GLAND

| Model | Code |
|----------|---------|
| C8DM 911 | 1330979 |

CSU M5

MICRON PROGRAMMING CABLE

| Model | Code | Description |
|--------|---------|---|
| CSU M5 | 1250900 | 2 meters cable, for connecting light curtain and PC for system configuration, equipped with one M5 4-pole connector and one USB A connector |

FMC EB / FMC EBR FLOOR SUPPORT COLUMNS

PART NUMBERS

Columns

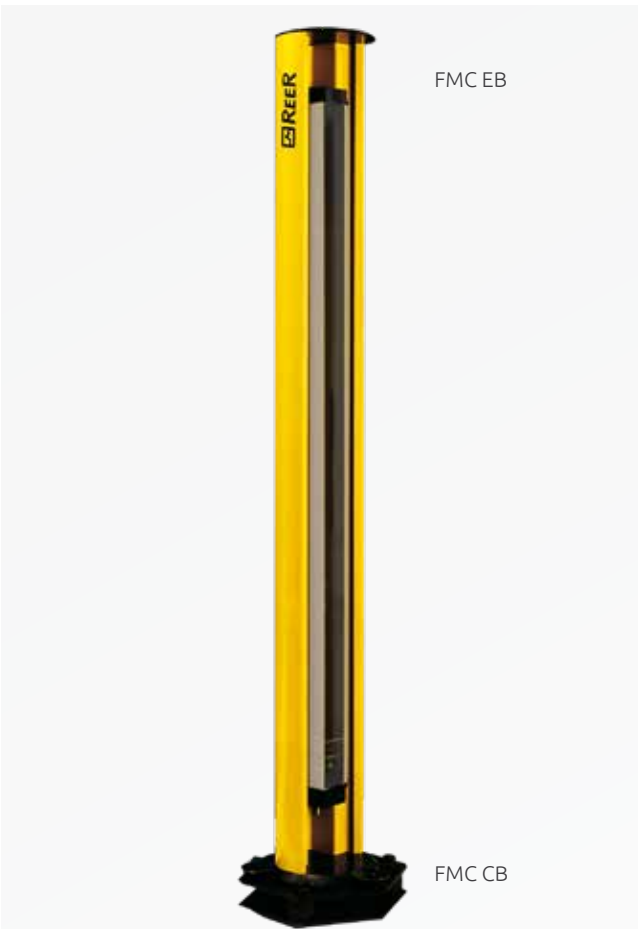
| Standard models | FMC EB 2 | FMC EB 4 | FMC EB 1700 | FMC EB 2000 |
|--|------------|------------|---------------|---------------|
| Ordering codes | 1207814 | 1207815 | 1207816 | 1207817 |
| Models with PG11 rear union for cable sheath | FMC EB 2 R | FMC EB 4 R | FMC EB 1700 R | FMC EB 2000 R |
| Ordering codes | 1207824 | 1207825 | 1207826 | 1207827 |
| A - Height (mm) | 1000 | 1200 | 1670 | 1970 |
| B - Overall height with FMC CB base (mm) | 1055 | 1255 | 1725 | 2025 |
| B - Overall height with FMC CBL base (mm) | 1037 | 1237 | 1707 | 2007 |

Bases for columns

| Models | FMC CB | FMC CBL |
|----------------|-----------------|-------------------------------------|
| Ordering codes | 1200500 | 1200501 |
| Description | Base for column | Base for column with reduced height |
| Height (mm) | 55 | 37 |

Note for ordering

The column ordering codes does not include the base which must be ordered separately (CB FMC and FMC CBL models).



Support columns for Reer safety light curtains, designed to provide secure fastening to the floor, fast installation, and a simple and precise adjustment of the optical alignment of the system.



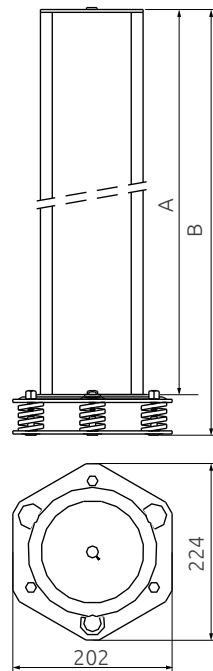
Steel base with springs for a perfect adjustment of the column vertical axis.

FMC BR models for light curtains complete with PG11 rear union for light curtain cable sheath.

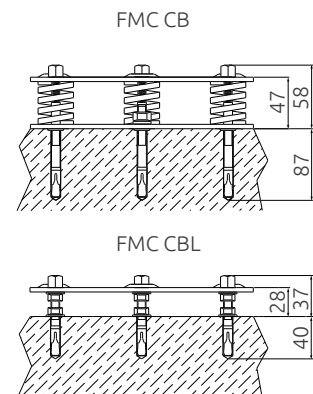
Columns made by aluminium extrusion poles, with adjustable angular orientation. Easy assembling and disassembling of the light curtain with easy adjustment of the first beam's height.

Steel foundation inserts included with the product.

Built-in spirit level for a correct positioning of the vertical axis.



A: Column height (mm)
B: Column height with base FMC CB or FMC CBL



FMC B12 / B18 SUPPORT COLUMNS

PART NUMBERS

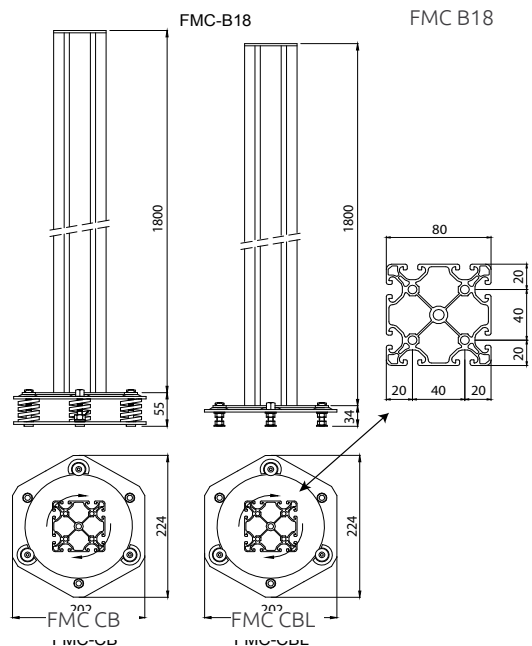
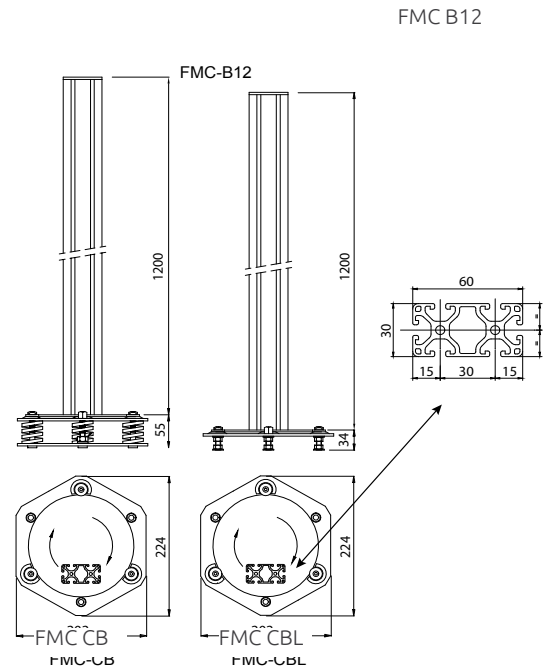
| Model | FMC B12 | FMC B18 |
|---------------------------------------|---------|---------|
| Ordering codes | 1200502 | 1200505 |
| Dimensions (mm) | 60 x 30 | 80 x 80 |
| Height (mm) | 1200 | 1800 |
| Overall height with FMC CB base (mm) | 1255 | 1255 |
| Overall height with FMC CBL base (mm) | 1237 | 1237 |



Simplified version support columns for Reer safety light curtains,

Note for ordering

The column ordering codes does not include the base which must be ordered separately (CB FMC and FMC CBL models)





The SFB 4E / SFB 6E swivel brackets allow the rotation of the light curtain around its longitudinal axis, as well as the adjustment of its vertical and horizontal position.

SFB E180



The SFB E180 swivel brackets allow the 180° rotation of the light curtain around its longitudinal axis, as well as the adjustment of its vertical and horizontal position..



The FE 4 brackets, with a thickness of only 4 mm, allow proper fastening of Micron light curtains.

SFB 4E / SFB 6E MICRON SWIVEL BRACKETS

PART NUMBERS

| Model | Ordering codes | Description |
|--------|----------------|--|
| SFB 4E | 1310976 | Set of 4 swivel brackets for Micron with length \leq 1200 mm |
| SFB 6E | 1310977 | Set of 6 swivel brackets for Micron with length \geq 1200 mm |

One set must be ordered for each pair of light curtain (emitter + receiver)

SFB E180 MICRON 180° SWIVEL BRACKETS

PART NUMBERS

| Model | Ordering code | Description |
|----------|---------------|--|
| SFB E180 | 1310980 | Set or 4 180° swivel brackets for Micron |

One set must be ordered for each pair of light curtain (emitter + receiver)

FLAT FE 4 MICRON FLAT BRACKETS

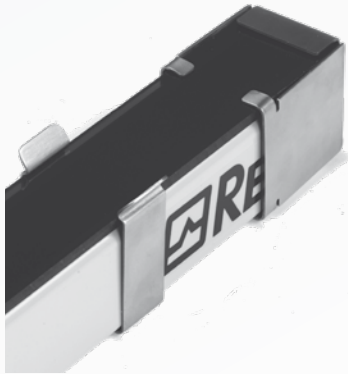
PART NUMBERS

| Model | Ordering code | Description |
|-------|---------------|-----------------------------------|
| FE 4 | 1310997 | Set of 4 flat brackets for Micron |

One set must be ordered for each pair of light curtain (emitter + receiver)



The SAV vibration dampers have been designed to avoid mechanical damage to the light curtains installed in those applications with have a high level of vibrations.



PSE is a polycarbonate protective screen that preserves the light curtain's front screen from damages due to welding sparks or due to the presence of acids in the workspace.

Protective screens can be quickly replaced thanks to the fast and easy stainless steel clamping system.

SAV 4E, SAV 8E, SAV 12E MICRON VIBRATION DAMPERS

PART NUMBERS

| Model | Ordering codes | Description | For light curtains with protected height mm / beams |
|---------|----------------|---------------------------|---|
| SAV 4E | 1310972 | Set 4 vibrations dampers | 160 |
| SAV 8E | 1310973 | Set 8 vibrations dampers | 310 ... 1050 |
| SAV 12E | 1310974 | Set 12 vibrations dampers | 1210 ... 1810 / 2,3,4 |

One set must be ordered for each pair of light curtain (emitter + receiver)

SFS - PSE MICRON PROTECTIVE SCREEN

PART NUMBERS

Each kit includes:

- SFS E (ordering code **1310981**) - 1 set of stainless steel clamps for one safety light curtain (emitter and receiver)
- PSEx (ordering codes from **1310982** to **1310995** according to the length of light curtain) - 4 protective screens (2 as spare parts)

For each pairs of safety light curtain (emitter and receiver) it's necessary orderd both codes.

| Models | PSE 150 | PSE 300 | PSE 450 | PSE 600 | PSE 750 | PSE 900 |
|----------------|----------|----------|----------|----------|----------|----------|
| Ordering codes | 1310982 | 1310983 | 1310984 | 1310985 | 1310986 | 1310987 |
| Models | PSE 1050 | PSE 1200 | PSE 1350 | PSE 1500 | PSE 1650 | PSE 1800 |
| Ordering codes | 1310988 | 1310989 | 1310990 | 1310991 | 1310992 | 1310996 |
| Models | PSE 2B | PSE 3B | PSE 4B | | | |
| Ordering codes | 1310993 | 1310994 | 1310995 | | | |



LAD 4 laser alignment device allows a fast and reliable optical alignment of Reer safety light curtains; also compatible with the use of the FMC floor mounting columns.

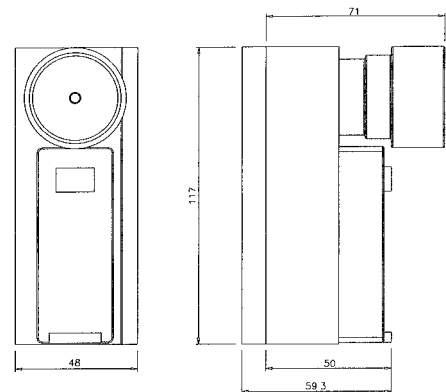
LAD 4 device emit a laser beam with visible red light with useful range up to 100 m

LAD 4

LASER ALIGNEMENT DEVICE

TECHNICAL FEATURES

| | |
|---------------------------|---------------------------------------|
| Light source | Laser diode – wavelength 650 nm |
| Class light source | II – EN 60825-1 |
| Range m | 100 |
| Beam divergence (mrd) | < 0,5 |
| Max. power (mW) | 1 |
| Power supply (VDC) | 3 (2 AAA batteries) |
| Fastening | Quick fastening to the light curtains |
| Dimensions h x w x d (mm) | 117 x 48 x 80 - LAD 2 - LAD 4 |



PART NUMBERS

Includes multi-language instruction manual.

Ordering code: 1220301



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