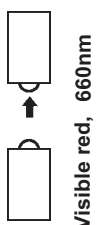





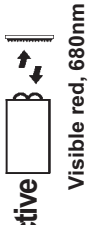



















MINIATURE-BEAM2 SENSORS SELECTION GUIDE

| Sensing Mode | Connection | Supply Voltage | Output Mode | Part Number |
|--|---|----------------|-------------|----------------------|
| Opposed mode  Visible red, 660nm Sensing distance: 4m | 2m cable  | 10-30V DC | Emitter | UP-T4000D-EX6C3L2 |
| | | | NPN | UP-T4000N-CX6C4U2 |
| | | | PNP | UP-T4000P-CX6C4U2 |
| | 4 Pin PICO-style 6" Pigtail QD  | 10-30V DC | Emitter | UP-T4000D-EX6P4LP |
| | | | NPN | UP-T4000N-CX6P4UP |
| | | | PNP | UP-T4000P-CX6P4UP |
| Retroreflective  Visible red, 660nm Sensing range: 2m | 2m cable  | 10-30V DC | NPN | UP-L2000N-CX6C4U2 |
| | | | PNP | UP-L2000P-CX6C4U2 |
| | | | — | — |
| | 4 Pin PICO-style 6" Pigtail QD  | 10-30V DC | NPN | UP-L2000N-CX6P4UP |
| | | | PNP | UP-L2000P-CX6P4UP |
| | | | — | — |
| Polarized Retroreflective  Visible red, 680nm Sensing range: 1m | 2m cable  | 10-30V DC | NPN | UP-L1000N-CX6C4U2-PF |
| | | | PNP | UP-L1000P-CX6C4U2-PF |
| | | | — | — |
| | 4 Pin PICO-style 6" Pigtail QD  | 10-30V DC | NPN | UP-L1000N-CX6P4UP-PF |
| | | | PNP | UP-L1000P-CX6P4UP-PF |
| | | | — | — |

MINIATURE-BEAM2 SENSORS SELECTION GUIDE

| Sensing Mode | Connection | Supply Voltage | Output Mode | Part Number |
|--|---|----------------|-------------|---------------------|
|  <p>Diffuse mode Sensing range:200mm Visible red, 680nm</p> | 2m cable  | 10-30V DC | NPN | UP-D0200N-CX6C4U2 |
| | | | PNP | UP-D0200P-CX6C4U2 |
| | | | — | — |
| | 4 Pin PICO-style 6" Pigtail QD  | 10-30V DC | NPN | UP-D0200N-CX6P4UP |
| | | | PNP | UP-D0200P-CX6P4UP |
| | | | — | — |
|  <p>Diffuse (flush-Front Profile) Sensing range:200mm Visible red, 680nm</p> | 2m cable  | 10-30V DC | NPN | UP-D0200N-CX6C4U2-F |
| | | | PNP | UP-D0200P-CX6C4U2-F |
| | | | — | — |
| | 4 Pin PICO-style 6" Pigtail QD  | 10-30V DC | NPN | UP-D0200N-CX6P4UP-F |
| | | | PNP | UP-D0200P-CX6P4UP-F |
| | | | — | — |
|  <p>Divergent (wide-angle)Diffuse Sensing range:50mm Visible red, 660nm</p> | 2m cable  | 10-30V DC | NPN | UP-D0050N-CX6C4U2-W |
| | | | PNP | UP-D0050P-CX6C4U2-W |
| | | | — | — |
| | 4 Pin PICO-style 6" Pigtail QD  | 10-30V DC | NPN | UP-D0050N-CX6P4UP-W |
| | | | PNP | UP-D0050P-CX6P4UP-W |
| | | | — | — |

MINIATURE-BEAM2 SENSORS SELECTION GUIDE

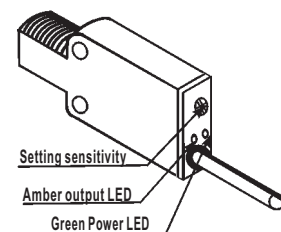
| Sensing Mode | Connection | Supply Voltage | Output Mode | Part Number | |
|---|--|----------------|-------------|-------------------|---|
|  <p>Convergent mode Sensing range: 10mm Spot size at Focus: 1mm Visible red, 660nm</p> | 2m cable  | 10-30V DC | NPN | UP-C0010N-CX6C4U2 | |
| | | | PNP | UP-C0010P-CX6C4U2 | |
| | | | — | — | |
| | 4 Pin PICO-style 6" Pigtail QD  | 10-30V DC | NPN | UP-C0010N-CX6P4UP | |
| | | | PNP | UP-C0010P-CX6P4UP | |
| | | | — | — | |
|  <p>Convergent mode Sensing range: 20mm Spot size at Focus: 1.75mm Visible red, 680nm</p> | 2m cable  | 10-30V DC | NPN | UP-C0020N-CX6C4U2 | |
| | | | PNP | UP-C0020P-CX6C4U2 | |
| | | | — | — | |
| | 4 Pin PICO-style 6" Pigtail QD  | 10-30V DC | NPN | UP-C0020N-CX6P4UP | |
| | | | PNP | UP-C0020P-CX6P4UP | |
| | | | — | — | |
| | | | — | — | |
| | | | — | — | |
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| | | | | — | — |
| | | | | — | — |
| | | | | — | — |

MINIATURE-BEAM2 SENSORS SPECIFICATIONS

| | |
|-----------------------------|---|
| Supply Voltage | 10 to 30V dc (10% maximum ripple) at less than 25mA, exclusive of load |
| Supply Protection Circuitry | Protected against reverse polarity and transient voltages |
| Output configuration | Solid state complementary (SPDT):NPN or PNP (current sinking or sourcing) output models available |
| Output Rating | 150mA maximum each output at 25°C OFF- state leakage current: less than 10 μ A@ 30Vdc On-state saturation voltage: less than 2.0V@150mA |
| Output Protection Circuitry | Protected against false pulse on power-up and continuous overload or short circuit of outputs |
| Output Response | Opposed Mode: 8milliseconds ON, 4 milliseconds OFF All others: 1.5 milliseconds NOTE: 500millisecond delay on power-up, outputs do not conduct During this time |
| Repeatability | Opposed Mode: 1 millisecond All others: 175 microseconds |
| Adjustments | 1-turn slotted GAIN(sensitivity) Adjustment Potentiometer |
| Indicators | 2 LEDs, visible from back and sides of sensor: 1green, 1 amber Green steady: power ON Amber steady: light sensed |
| Construction | Black polycarbonate/ABS alloy housing; totally encapsulated circuitry |
| Environmental Rating | IEC IP 67 |
| Connections | 2 M 4-wire PVC Cable, 9 m PVC cable, or 4 pin pico-style 150mm pigtail QD |
| Operating Conditions | Temperature: -20°to +55°C Relative Humidity: 90%@50 C (non-condensing) |
| EMC | IEC 60947-5-2, Parts 7.2.6.1. 2. 3 or RFI>3V/m(in 30-1000MHZ), EFT>1KV, ESD>4KV(contact) |
| Voltage Withstand Ability | IEC 60947-5-2, Part 8.3.3.4 or 500VDC for one min, between all supply terminals connected together and enclosure |
| Insulation Resistance | >20M Ω , with 500V DC megger between all supply terminals connected together and enclosure |
| Vibration Resistance | IEC 60947-5-2, Part 7.4.2 or 10-55HZ, 1.0mm amplitude in x , y and z directions for 30 min |
| Shock Resistance | IEC 60947-5-2, Part 7.4.1 or 30g, 11ms in x , y and z directions for six time each |
| Mounting Bracket | Miniature-beam2-A1(See page U-01) |
| Certifications | CE |
| cable | 2M 3.4 ϕ 4X0.15 (Emitter :3X0.15) PUR. |
| Pigtail Tpye | See page Q-01 for cable and connect at pigtail |

MINI-BEAM2 Features

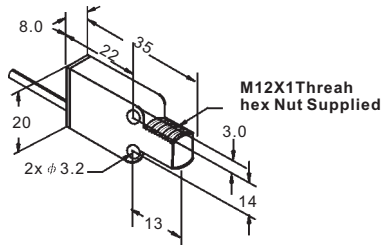
- Designed after the popular MINI-BEAMR , but only one-third the size of the original.
- 12mm threaded barrel on most models.
- Uses advanced miniaturized microprocessor-based circuitry.
- Available for opposed, retro reflective, diffuse, and convergent sensing modes.
- 10 to 30V dc operation.
- Complementary outputs (one normally open and one normally closed), each with 150mA switching capacity.
- IP 67 and NEMA 6 environmental ratings.
- Status indicators.
- Models with either integral, unterminated cable or 150mm pigtail with 4-pin Pico-style connector .



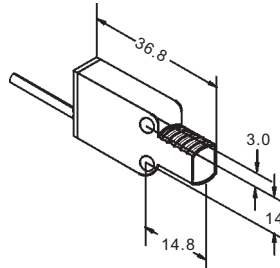
MINIATURE-BEAM2 DIMENSIONS

MINI-BEAM2 Dimensions

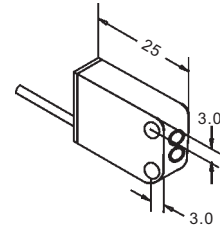
Retroreflective and Diffuse Modes



Emitter, Receiver and Convergent Modes

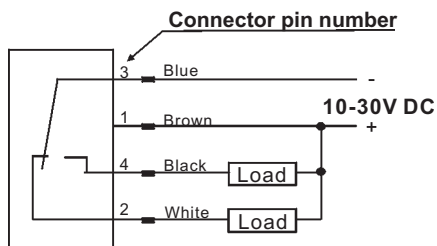


Diffuse and Divergent diffuse Modes



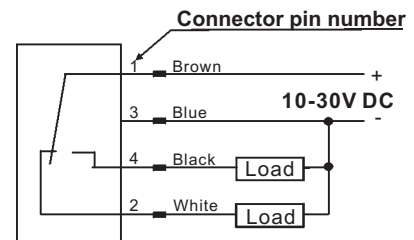
MINI-BEAM2 Hookups

MINI BEAM2 Sensors With NPN Outputs

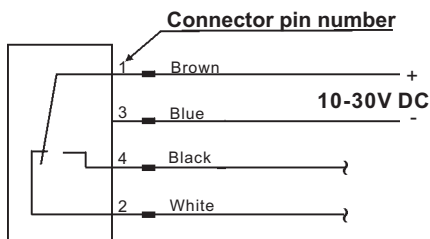


DC Emitters (4 Pin Pico-Style)

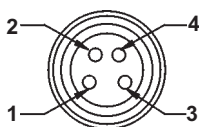
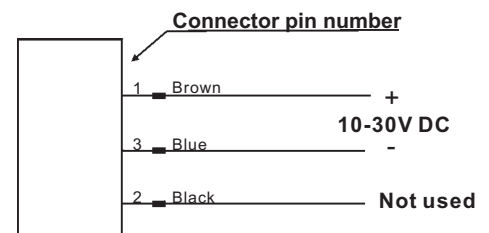
MINI BEAM2 Sensors With PNP Outputs



DC Emitters

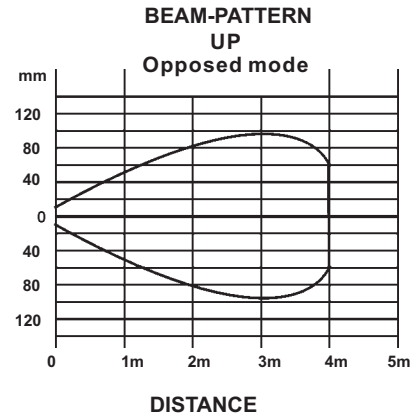
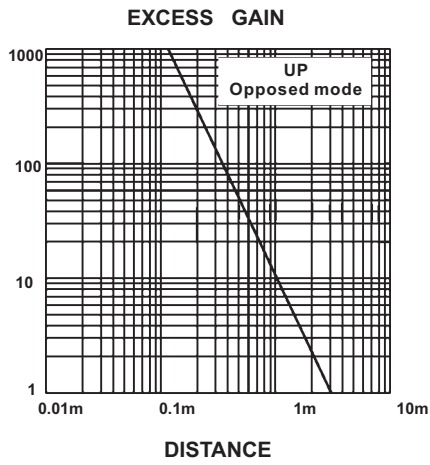


4-Pin Pico-Style

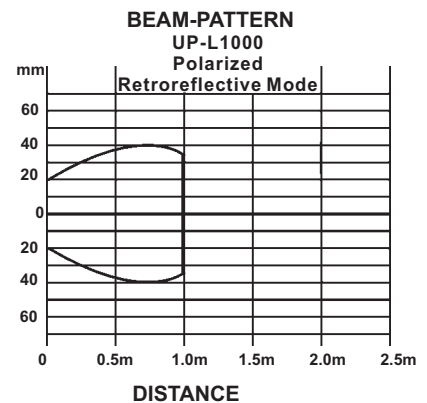
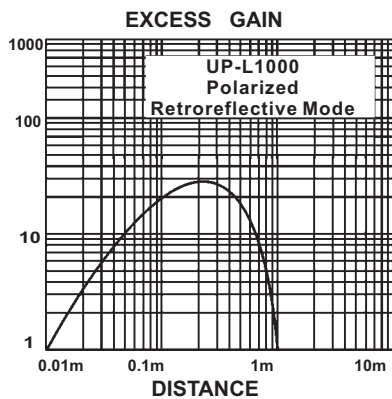
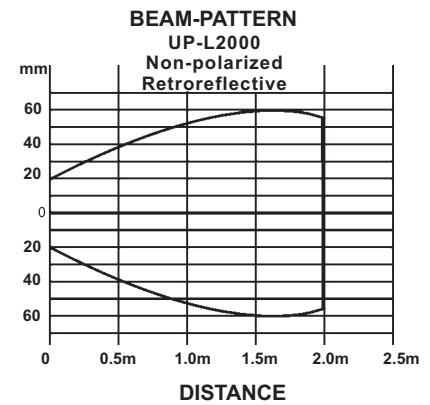
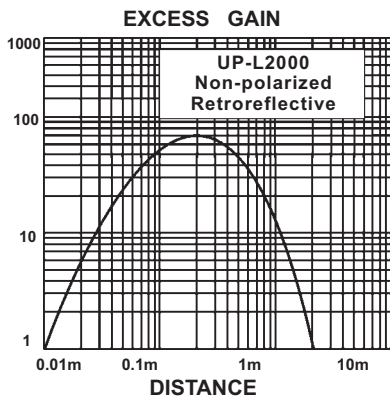


MINIATURE-BEAM2 SENSING FIELDS (TYPICAL)

Opposed Mode

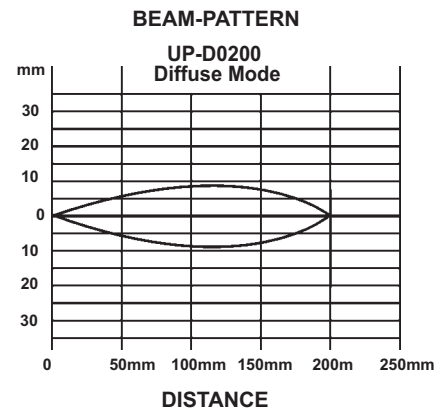
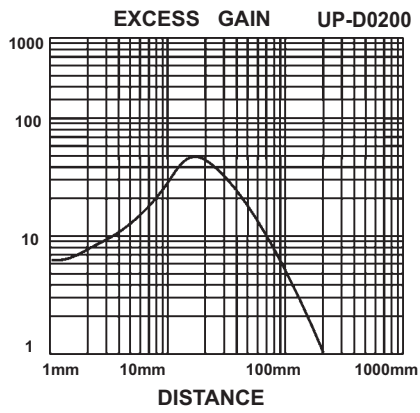


Retroreflective

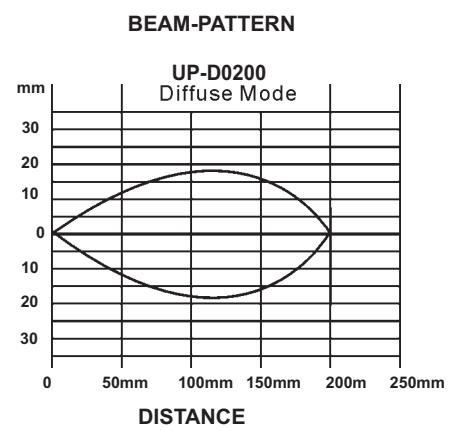
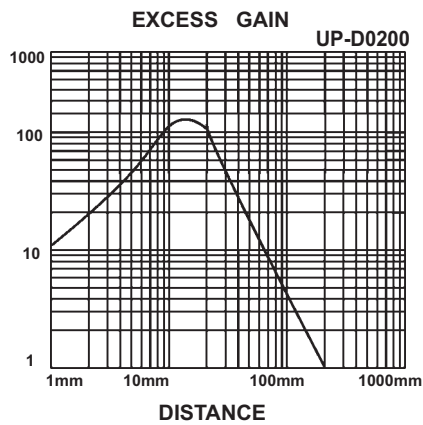


MINIATURE-BEAM2 SENSING FIELDS (TYPICAL)

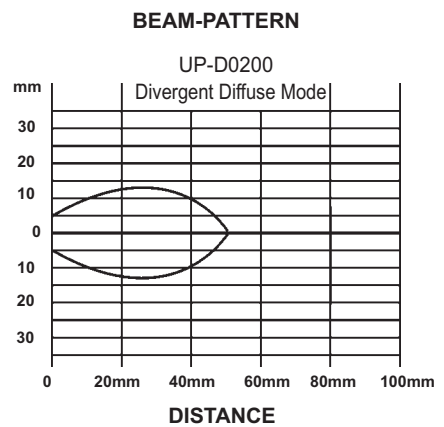
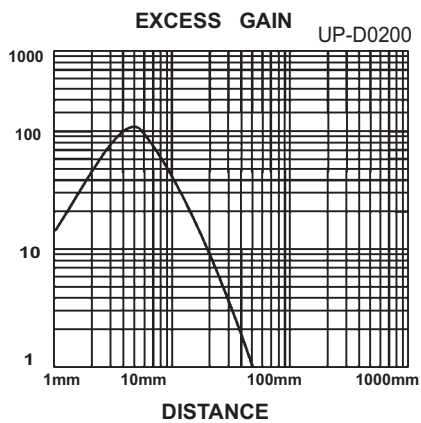
Diffuse Mode



Diffuse (Flush-Front Profile)



Divergent (Wide-Angle) Diffuse



MINIATURE-BEAM2 SENSING FIELDS (TYPICAL)

Convergent mode

