

OsiSense® XUM

Miniature Photoelectric Sensors





High performance in a small package

Offering long sensing distances and
resistance to interference and light
sources

> Easy to install

Contributes to machine compactness
Wider adjustment range

> Economical

Increases profitability

> Readily available

Contributes to machine performance

Contents

Miniature diffuse, polarized retroreflective, thru-beam dedicated models and multimode photoelectric sensors

| | |
|--------------------------------------|-------------|
| Introduction | p 2 and 3 |
| Three-wire, plastic dedicated models | p 4 to 7 |
| Three-wire, metal dedicated models | p 8 to 11 |
| Three-wire, plastic multimode | p 12 and 13 |

NOTE: Sensors described in this catalog are designed to be used for standard industrial presence sensing applications. These sensors do not include the self-checking redundant circuitry necessary to allow for their use in safety applications.

> Contributes to machine compactness

Easy to install:

Compact product, the most commonly used standard size

- Long sensing distances: up to 5 m (16.40 ft) retroreflective, 15 m (49.21 ft) thru-beam, and 1 m (3.28 ft) diffuse
- High insensitivity to light sources: withstands up to 40,000 lux natural light/10,000 lux incandescent light
- Good resistance to severe environments: -30 to 60 °C (-22 to 140 °F) with IP67 degree of protection rating (IP69 K or IP67 G available)

50%

50% energy consumption: twice as many sensors can be placed on the same power supply

> Increases profitability

Economical and Simple:

- NO/NC configuration switch located on the bottom of the sensor for protection against accidental adjustment
- Output LED on the front face of thru-beam sensors for easier alignment during installation

> Selection guide XUM photoelectric sensors

Miniature, Plastic

3-wire DC



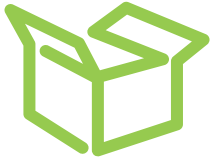
| System | Diffuse | | Polarized Retroreflective | | Thru-Beam |
|--------------------------|--|------------|---------------------------|------------|------------------------|
| | with adjustable sensitivity | | | | transmitter + receiver |
| Connection | 2 m cable | M8 | 2 m cable | M8 | 2 m cable |
| Function | NO/NC configurable par switch | | | | |
| Sensing Range Sn, m (ft) | 1 (3.28) | | 5 (16.40) | | 15 (49.21) |
| Supply | 12–24 Vdc with protection against reverse polarity | | | | |
| Degree of Protection | IP65, IP67 | | | | |
| Transmitter only | | | | | XUM2AKCNL2T |
| NO or NC PNP output | XUM5APCNL2 | XUM5APCNM8 | XUM9APCNL2 | XUM9APCNM8 | XUM2APCNL2R |
| NO or NC NPN output | XUM5ANCNL2 | XUM5ANCNM8 | XUM9ANCNL2 | XUM9ANCNM8 | XUM2ANCNL2R |
| Multimode PNP* | XUM0APSAL2 for pre-cabled; XUM0APSAM8 for M8 connector | | | | |
| Multimode NPN* | XUM0ANSAL2 for pre-cabled; XUM0ANSAM8 for M8 connector | | | | |

* For multimode thru-beam applications, see page 12 for appropriate transmitter and receiver selection.

> Contributes to machine performance

Readily available:

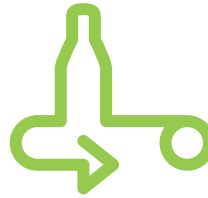
- Robust products designed to meet your needs
- Particularly well suited for machines used in the assembly and packaging sectors, the automotive industry, conveying, etc.



Packaging



Automotive



Materials handling



100%

availability
throughout
the world

Miniature, Metal

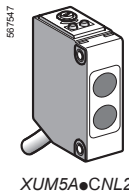
3-wire DC



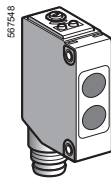
| Multimode | | System | Diffuse | Polarized Retroreflective | Thru-Beam |
|-------------|-------------------------------------|--|--|------------------------------------|------------------------|
| | | | with adjustable sensitivity | | transmitter + receiver |
| M8 | | Connection | 2 m cable | 2 m cable | 2 m cable |
| | | Function | Fixed NO or NC, PNP or NPN | | |
| | 0...10 (32.81) depending on mode | Sensing Range S _n , m (ft) | 0.77 (2.53) | 5 (16.40) with reflector XUZC50 | 15 (49.21) |
| | | Supply | 12–24 Vdc with protection against reverse polarity | | |
| | | Degree of Protection | IP67, IP69 K, IP67 G | | |
| XUM2AKCNM8T | | Transmitter Only | | | XUM2BKCNL2T |
| XUM2APCNM8R | | NO | XUM5BPANL2 | XUM9BPANL2 | XUM2BPANL2R |
| XUM2ANCNM8R | | NPN | XUM5BNANL2 | XUM9BNANL2 | XUM2BNANL2R |
| | | NC | XUM5BPBNL2 | XUM9BPBNL2 | XUM2BPBNL2R |
| | | NPN | XUM5BNBNL2 | XUM9BNBNL2 | XUM2BNBNL2R |

OsiSense® Photoelectric sensors

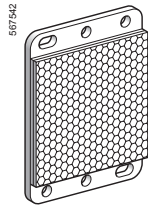
Optimum
Miniature design, plastic
Three-wire DC solid-state output
NO/NC configuration switch



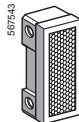
XUM5A●CNL2



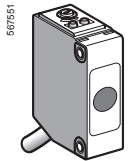
XUM5A●CNM8



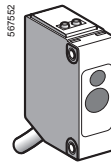
XUZC50



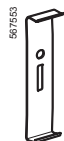
XUZC08



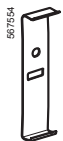
XUM2AKCNL2T



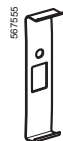
XUM2A●CNL2R



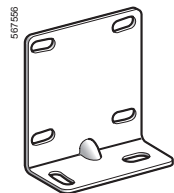
XUZMSV●



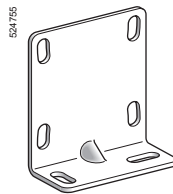
XUZMSH●



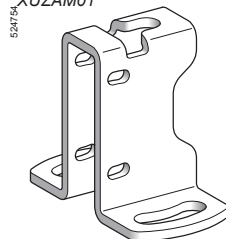
XUZMU01



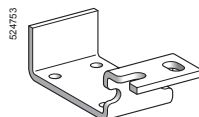
XUZAM01



XUZAM04



XUZAM02



XUZAM03

| Sensing distance Sn, m (ft) | Function | Output Connection | Catalog Number | Weight kg (lb) |
|-----------------------------|----------|-------------------|----------------|----------------|
|-----------------------------|----------|-------------------|----------------|----------------|

| Diffuse system with adjustable sensitivity | | | | |
|--|----------------------------|----------------------|-------------------------|-------------------------|
| 1 (3.28) | NO/NC configuration switch | PNP | Pre-cabled (L = 2 m) | XUM5APCNL2 0.063 (0.14) |
| | | | M8 connector | XUM5APCNM8 0.010 (0.02) |
| | NPN | Pre-cabled (L = 2 m) | XUM5ANCNL2 0.063 (0.14) | |
| | | M8 connector | XUM5ANCNM8 0.010 (0.02) | |

| Polarized retroreflective system with adjustable sensitivity | | | | |
|--|----------------------------|-----|----------------------|-------------------------|
| 5 (16.40) with reflector XUZC50 | NO/NC configuration switch | PNP | Pre-cabled (L = 2 m) | XUM9APCNL2 0.063 (0.14) |
| | | | M8 connector | XUM9APCNM8 0.010 (0.02) |
| 2 (6.56) with reflector XUZC08 | NO/NC configuration switch | NPN | Pre-cabled (L = 2 m) | XUM9ANCNL2 0.063 (0.14) |
| | | | M8 connector | XUM9ANCNM8 0.010 (0.02) |

| Reflectors | | | | |
|---------------------------------|---|---|--------|--------------|
| Universal reflector 50 x 50 mm | – | – | XUZC50 | 0.020 (0.04) |
| Lateral reflector 8.6 x 29.5 mm | – | – | XUZC08 | 0.006 (0.01) |

| Thru-beam system (transmitter + receiver) with adjustable sensitivity | | | | |
|---|----------------------------|----------------------|-------------------------|-------------------------|
| 15 (49.21) | NO/NC configuration switch | PNP | Pre-cabled (L = 2 m) | XUM2APCNL2 0.119 (0.26) |
| | | | M8 connector | XUM2APCNM8 0.019 (0.04) |
| | NPN | Pre-cabled (L = 2 m) | XUM2ANCNL2 0.119 (0.26) | |
| | | M8 connector | XUM2ANCNM8 0.019 (0.04) | |

| Transmitter only | | | | |
|------------------|--|--|----------------------|--------------------------|
| 15 (49.21) | | | Pre-cabled (L = 2 m) | XUM2AKCNL2T 0.063 (0.14) |
| | | | M8 connector | XUM2AKCNM8T 0.010 (0.02) |

| Receiver only | | | | |
|---------------|----------------------------|----------------------|--------------------------|--------------------------|
| 15 (49.21) | NO/NC configuration switch | PNP | Pre-cabled (L = 2 m) | XUM2APCNL2R 0.063 (0.14) |
| | | | M8 connector | XUM2APCNM8R 0.010 (0.02) |
| | NPN | Pre-cabled (L = 2 m) | XUM2ANCNL2R 0.063 (0.14) | |
| | | M8 connector | XUM2ANCNM8R 0.010 (0.02) | |

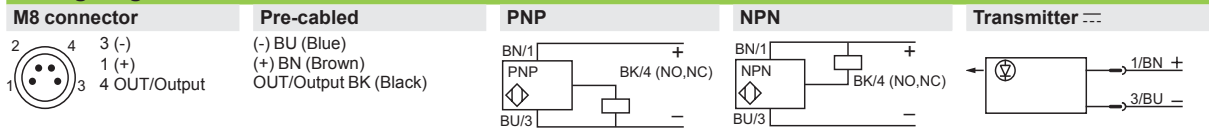
| Accessories for thru-beam system | | | | |
|---|---------------|--------------------------|----------------|----------------|
| Description | Dimensions mm | Sensing distance m, (ft) | Catalog Number | Weight kg (lb) |
| Vertical diaphragm Sold in lots of 2 | 0.5 x 6.4 | 1.2 (3.94) | XUZMSV05 | 0.002 (0.004) |
| | 1 x 6.4 | 3 (9.84) | XUZMSV10 | 0.002 (0.004) |
| | 1.5 x 6.4 | 4 (13.12) | XUZMSV15 | 0.002 (0.004) |
| | 2 x 6.4 | 5 (16.40) | XUZMSV20 | 0.002 (0.004) |
| Horizontal diaphragm Sold in lots of 2 | 0.5 x 6.4 | 1.2 (3.94) | XUZMSH05 | 0.002 (0.004) |
| | 1 x 6.4 | 3 (9.84) | XUZMSH10 | 0.002 (0.004) |
| | 1.5 x 6.4 | 4 (13.12) | XUZMSH15 | 0.002 (0.004) |
| | 2 x 6.4 | 5 (16.40) | XUZMSH20 | 0.002 (0.004) |
| Anti-interference filter Sold in lots of 4 | – | 7 (22.97) | XUZMU01 | 0.006 (0.013) |

| Mounting accessories | | |
|---|----------------|----------------|
| Description | Catalog Number | Weight kg (lb) |
| Base mounting bracket | XUZAM01 | 0.017 (0.04) |
| Side mounting bracket | XUZAM04 | 0.026 (0.06) |
| Vertical mounting bracket with protective cover | XUZAM02 | 0.062 (0.14) |
| Horizontal mounting bracket with protective cover | XUZAM03 | 0.026 (0.06) |

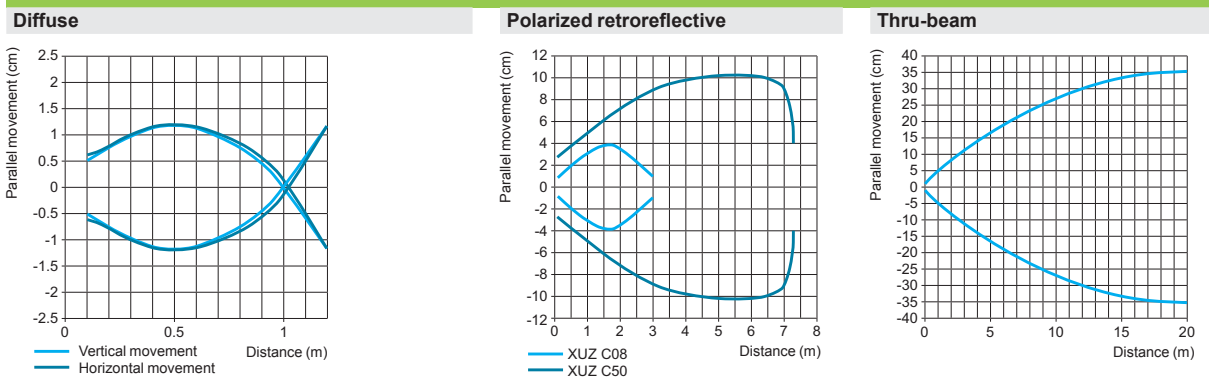
Specifications

| Sensor type | | XUM●A●●●M8 | XUM●A●●●L2 |
|--|------------------------------|--|---|
| Product certifications | | CE, cULus, CTick | |
| Connection | Connector | M8 | — |
| | Pre-cabled | — | Length: 2 m |
| Sensing distance nominal Sn (excess gain = 2) | m (ft) | 1 (3.28), diffuse system with adjustable sensitivity | |
| | m (ft) | 5 (16.40), polarized retroreflective with adjustable sensitivity | |
| | m (ft) | 15 (49.21), thru-beam with adjustable sensitivity | |
| Type of transmission | | Red, except diffuse system (Infrared) | |
| Degree of protection | Conforming to IEC 60529 | IP 65, IP 67 | |
| Storage temperature | | °C -40 to +70 (-40 to +158 °F) | |
| Operating temperature | | °C -30 to +60 (-22 to +140 °F) | |
| Materials | Case | PBT | |
| | Lens | PMMA | |
| | Cable | — | PVC (black for transmitter, gray for other versions) |
| Vibration resistance | Conforming to IEC 60068-2-6 | 10 to 55 Hz, amplitude ± 1.5 mm, 2 hours in each direction X, Y, and Z | |
| Shock resistance | Conforming to IEC 60068-2-27 | 500 m/s ² 10 x in each direction X, Y and Z | |
| Indicator lights | Output state | Orange LED (excluding transmitter) | |
| | Stability | Green LED | |
| | Transmitter | Orange LED: supply on | |
| | Receiver | Red LED: light received; green LED: supply on | |
| Rated supply voltage | | Vdc | 12–24 with protection against reverse polarity |
| Voltage limits (including ripple) | | Vdc | 10–30 |
| Current consumption, no-load | | mA | 16 for XUM5; 13 for XUM9; 11 for transmitter XUM2; 13 for receiver XUM2 |
| Switching capacity | | mA | ≤ 100 with overload and short-circuit protection |
| Voltage drop, closed state | | V | ≤ 3 |
| Maximum switching frequency | | Hz | 1000 |
| Delays | First-up | ms | < 100 |
| | Response | ms | 0.5 |
| | Recovery | ms | 0.5 |

Wiring diagrams



Detection curves



Optimum

Miniature design, plastic

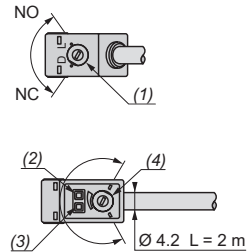
Three-wire DC solid-state output

NO/NC configuration switch

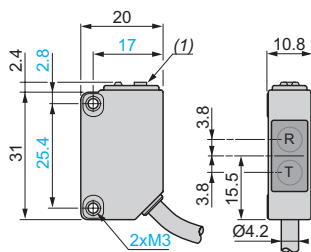
Diffuse system, polarized retroreflective system (mm)

Pre-cabled version

Description - XUM5A●CNL2, XUM9A●CNL2



Dimensions - XUM5A●CNL2, XUM9A●CNL2

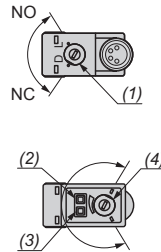


- (1) Configuration switch
- (2) Output state LED
- (3) Stability and power-on LED
- (4) Adjustment potentiometer

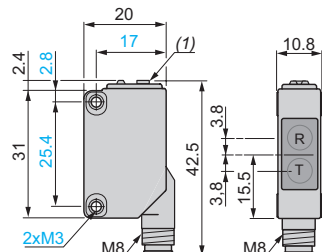
R: Reception, T: Transmission
(1) Potentiometer

Connector version

Description - XUM5A●CNM8, XUM9A●CNM8



Dimensions - XUM5A●CNM8, XUM9A●CNM8



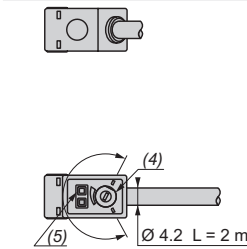
- (1) Configuration switch
- (2) Output state LED
- (3) Stability and power-on LED
- (4) Adjustment potentiometer

R: Reception, T: Transmission
(1) Potentiometer

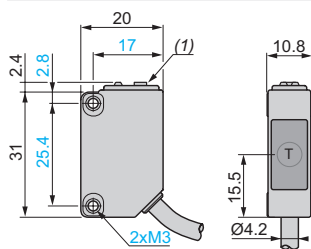
Thru-beam system (mm)

Pre-cabled version

Description - XUM2AKCNL2T



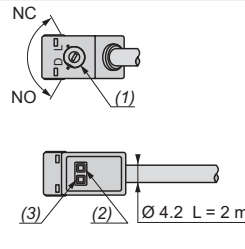
Dimensions - XUM2AKCNL2T



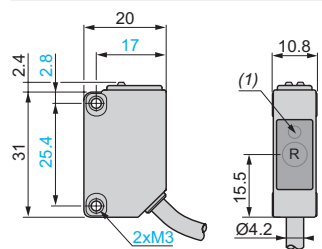
- (4) Adjustment potentiometer
- (5) Power-on LED

T: Transmission
(1) Potentiometer

Description - XUM2A●CNL2R



Dimensions - XUM2A●CNL2R

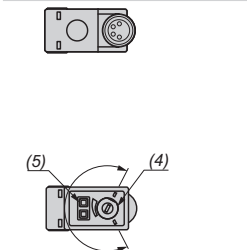


- (1) Configuration switch
- (2) Output state LED
- (3) Stability and power-on LED

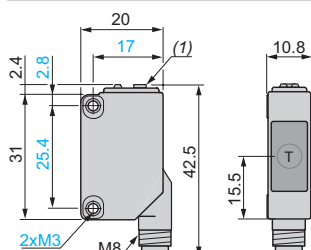
R: Reception
(1) Output state LED on front face

Connector version

Description - XUM2AKCNM8T



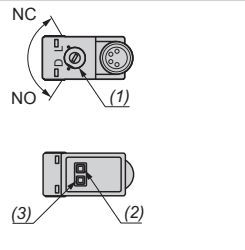
Dimensions - XUM2AKCNM8T



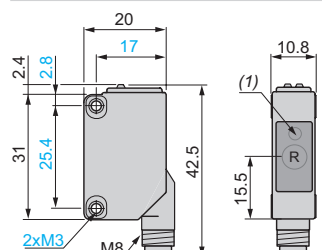
- (4) Adjustment potentiometer
- (5) Power-on LED

T: Transmission
(1) Potentiometer

Description - XUM2A●CNM8R



Dimensions - XUM2A●CNM8R



- (1) Configuration switch
- (2) Output state LED
- (3) Stability and power-on LED

R: Reception
(1) Output state LED on front face

Optimum

Miniature design, plastic

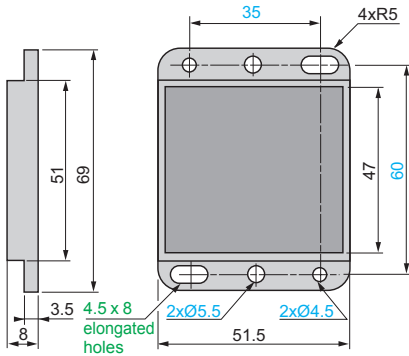
Three-wire DC solid-state output

NO/NC configuration switch

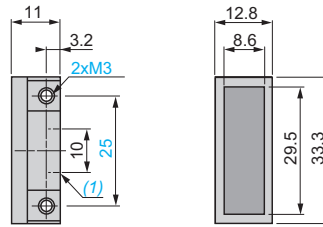
Accessories (mm)

Reflectors

XUZC50



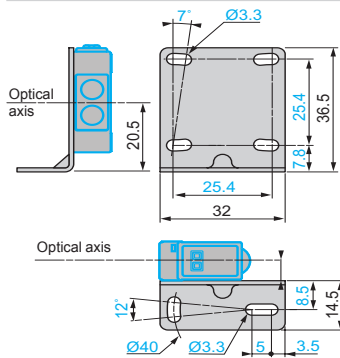
XUZC08



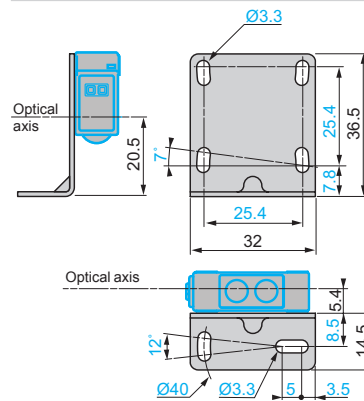
1) 2 x M3

Mounting brackets

XUZAM01

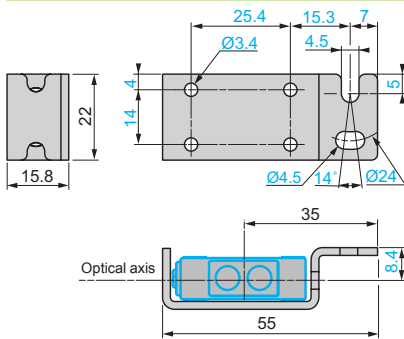


XUZAM04

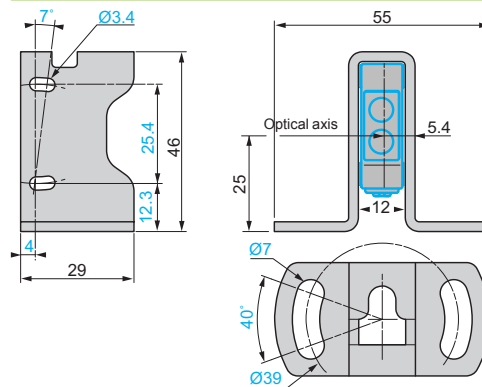


Mounting bracket with protective cover

XUZAM03

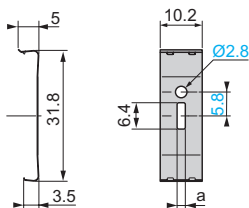


XUZAM02

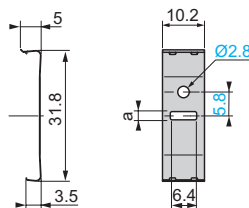


Diaphragms

XUZMSV●●



XUZMSH●●



| XUZ | a |
|-------|-----|
| MSV05 | 0.5 |
| MSV10 | 1 |
| MSV15 | 1.5 |
| MSV20 | 2 |
| MSH05 | 0.5 |
| MSH10 | 1 |
| MSH15 | 1.5 |
| MSH20 | 2 |

MSV05 0.5

MSV10 1

MSV15 1.5

MSV20 2

MSH05 0.5

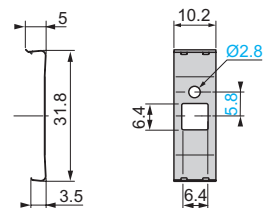
MSH10 1

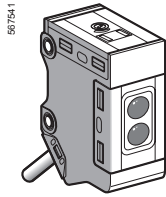
MSH15 1.5

MSH20 2

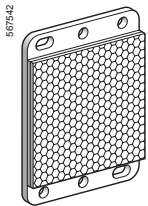
Filter

XUZMU01

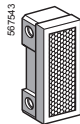




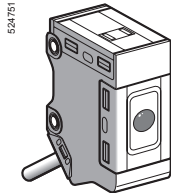
XUM 5B●●NL2



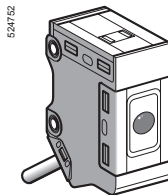
XUZ C50



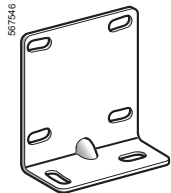
XUZ C08



XUM 2B2KCL2T



XUM 2B●●NL2R



XUZ AM81

| Sensing distance Sn, m (ft) | Function | Output Connection | Catalog Number | Weight kg (lb) |
|---|----------|--------------------------|----------------|----------------|
| Diffuse system with adjustable sensitivity | | | | |
| 0.77 (2.53) | NO | PNP Pre-cabled (L = 2 m) | XUM5BPANL2 | 0.128 (0.28) |
| | | NPN Pre-cabled (L = 2 m) | XUM5BNANL2 | 0.128 (0.28) |
| | NC | PNP Pre-cabled (L = 2 m) | XUM5BPPNL2 | 0.128 (0.28) |
| | | NPN Pre-cabled (L = 2 m) | XUM5BNBNL2 | 0.128 (0.28) |

| Polarized retroreflective system | | | | |
|---|----|--------------------------|------------|--------------|
| 5 (16.40) with reflector XUZ C50 | NO | PNP Pre-cabled (L = 2 m) | XUM9BPANL2 | 0.128 (0.28) |
| | NC | NPN Pre-cabled (L = 2 m) | XUM9BNANL2 | 0.128 (0.28) |
| 2 (6.56) with reflector XUZ C08 | NO | PNP Pre-cabled (L = 2 m) | XUM9BPPNL2 | 0.128 (0.28) |
| | NC | NPN Pre-cabled (L = 2 m) | XUM9BNBNL2 | 0.128 (0.28) |

| Reflectors | | | | |
|---------------------------------|---|---|--------|--------------|
| Universal reflector 50 x 50 mm | – | – | XUZC50 | 0.020 (0.04) |
| Lateral reflector 8.6 x 29.5 mm | – | – | XUZC08 | 0.006 (0.01) |

| Thru-beam system (transmitter + receiver) | | | | |
|--|----|--------------------------|------------|--------------|
| 15 (49.21) | NO | PNP Pre-cabled (L = 2 m) | XUM2BPANL2 | 0.237 (0.52) |
| | | NPN Pre-cabled (L = 2 m) | XUM2BNANL2 | 0.237 (0.52) |
| | NC | PNP Pre-cabled (L = 2 m) | XUM2BPPNL2 | 0.237 (0.52) |
| | | NPN Pre-cabled (L = 2 m) | XUM2BNBNL2 | 0.237 (0.52) |

| Transmitter only | | | | |
|-------------------------|--|----------------------|-------------|--------------|
| 15 (49.21) | | Pre-cabled (L = 2 m) | XUM2BKCNL2T | 0.128 (0.28) |

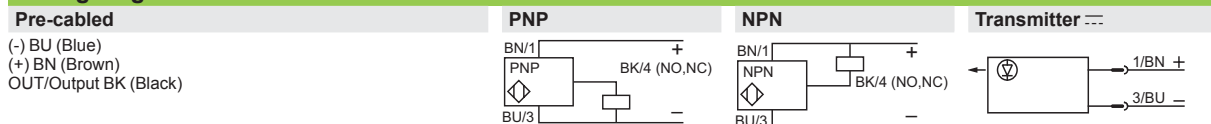
| Receiver only | | | | |
|----------------------|----|--------------------------|-------------|--------------|
| 15 (49.21) | NO | PNP Pre-cabled (L = 2 m) | XUM2BPANL2R | 0.128 (0.28) |
| | | NPN Pre-cabled (L = 2 m) | XUM2BNANL2R | 0.128 (0.28) |
| | NC | PNP Pre-cabled (L = 2 m) | XUM2BPPNL2R | 0.128 (0.28) |
| | | NPN Pre-cabled (L = 2 m) | XUM2BNBNL2R | 0.128 (0.28) |

| Mounting accessory | | | | |
|---------------------------|----------------|----------------|--|--|
| Description | Catalog Number | Weight kg (lb) | | |
| Base mounting bracket | XUZAM81 | 0.020 (0.04) | | |

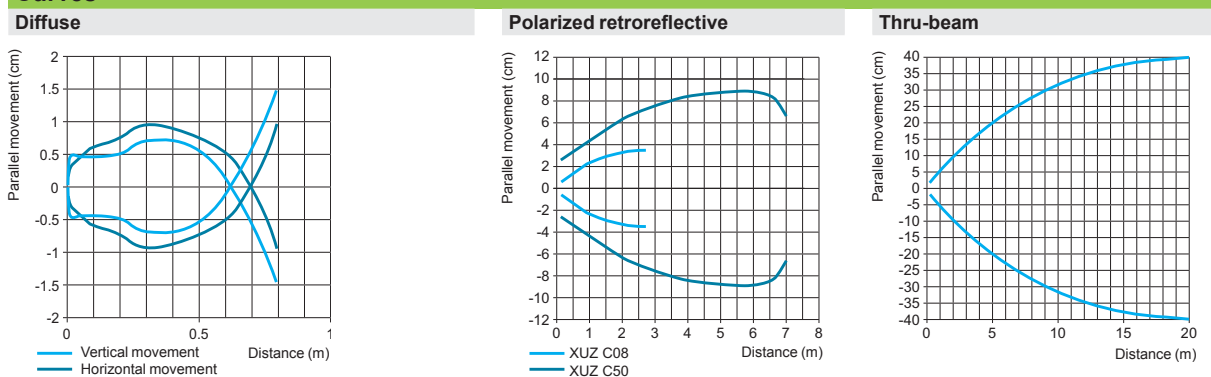
Specifications

| Sensor type | | XUM•B•NL2 |
|-----------------------------------|------------------------------|--|
| Product certifications | | CE, cULus, CTick |
| Connection | Pre-cabled | Length: 2 m |
| Sensing distance | | |
| nominal Sn (excess gain = 2) | | m (ft) 0.77 (2.53), diffuse system with adjustable sensitivity |
| | | m (ft) 5 (16.40), polarized retroreflective |
| | | m (ft) 15 (49.21), thru-beam |
| Type of transmission | | Red, except diffuse system (Infrared) |
| Degree of protection | | IP67 |
| | | IP69 K, IP67 G |
| Storage temperature | | °C -40 to +70 (-40 to +158 °F) |
| Operating temperature | | °C -30 to +60 (-22 to +140 °F) |
| Materials | | |
| Case | | Zamak and stainless steel |
| Lens | | Glass |
| Cable | | – PVC (black for transmitter, gray for other versions) |
| Vibration resistance | Conforming to IEC 60068-2-6 | 10 to 55 Hz, amplitude ± 1.5 mm, 2 hours in each direction X, Y, and Z |
| Shock resistance | Conforming to IEC 60068-2-27 | 500 m/s ² 10 x in each direction X, Y and Z |
| Indicator lights | | |
| Output state | | Orange LED (excluding transmitter) |
| Stability | | Green LED |
| Transmitter | | Orange LED: supply on |
| Receiver | | Red LED: light received; green LED: supply on |
| Rated supply voltage | | Vdc 12–24 with protection against reverse polarity |
| Voltage limits (including ripple) | | Vdc 10–30 |
| Current consumption, no-load | | mA 16 for XUM5; 13 for XUM9; 11 for transmitter XUM2; 13 for receiver XUM2 |
| Switching capacity | | mA ≤ 100 with overload and short-circuit protection |
| Voltage drop, closed state | | V ≤ 3 |
| Maximum switching frequency | | Hz 1000 |
| Delays | | |
| First-up | | ms < 100 |
| Response | | ms 0.5 |
| Recovery | | ms 0.5 |

Wiring diagrams

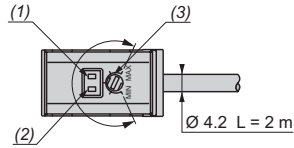


Curves

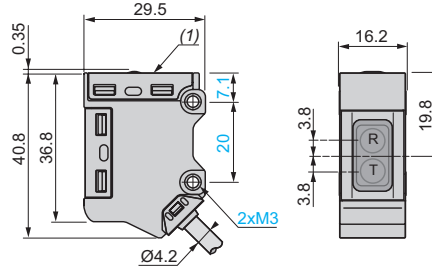


Diffuse system (mm)

Description - XUM 5B●●NL2



Dimensions - XUM 5B●●NL2

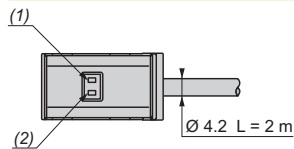


- (1) Output state LED.
- (2) Stability and power-on LED.
- (3) Adjustment potentiometer.

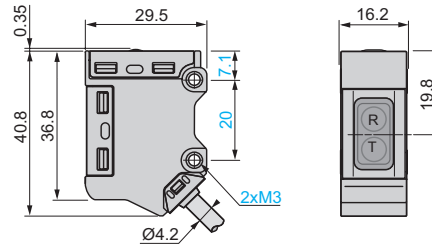
- (1) Potentiometer.
- R: Reception, T: Transmission.

Polarized retroreflective system (mm)

Description - XUM 9B●●NL2



Dimensions - XUM 9B●●NL2

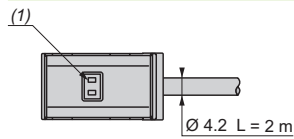


- (1) Output state LED.
- (2) Stability and power-on LED.

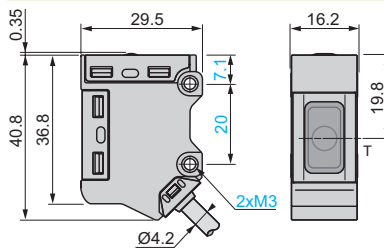
- R: Reception, T: Transmission.

Thru-beam system (mm)

Description - XUM 2BKCNL2T



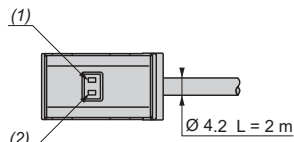
Dimensions - XUM 2BKCNL2T



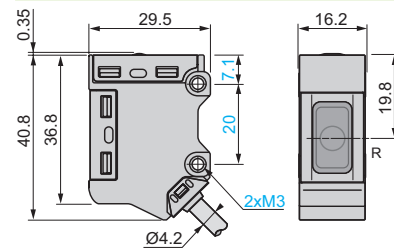
- (1) Output state LED.

- T: Transmission.

Description - XUM 2B●●NL2R



Dimensions - XUM 2B●●NL2R



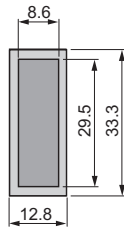
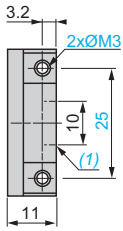
- (1) Output state LED.
- (2) Stability and power-on LED.

- R: Reception

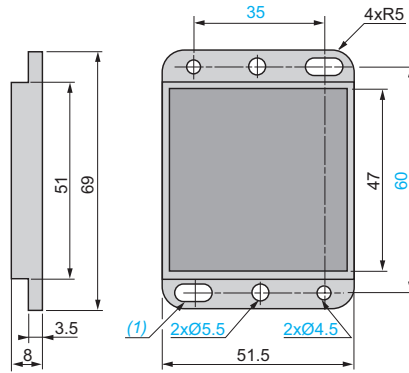
Accessories (mm)

Reflectors

XUZ C08

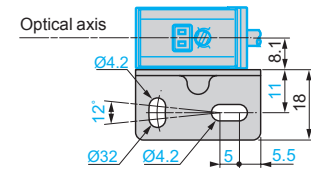
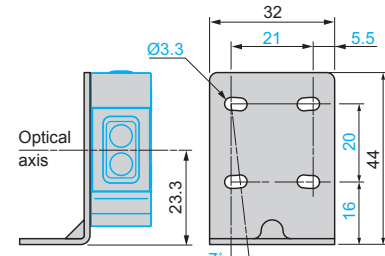


XUZ C50



Mounting bracket

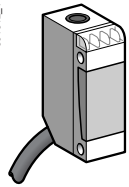
XUZ AM81



(1) 2 x M3

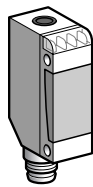
(1) Elongated holes 4.5 x 8

501542_1



XUM0A●●●L2

501543_1

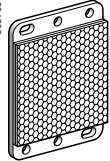


XUM0A●●●M8

Miniature design, DC supply

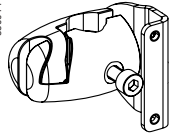
| Sensing distance Sn, m (ft) | Function | Output | Connection | Catalog Number | Weight kg (lb) |
|--|---------------------------|--------|--------------------------|----------------|----------------|
| 0...10 (0... 32.81) depending on whether accessories are used | N/O or N/C by programming | PNP | Pre-cabled (L = 2 m) (1) | XUM0APSAL2 | 0.050 (0.11) |
| | | | M8 connector | XUM0APSAM8 | 0.035 (0.08) |
| | | NPN | Pre-cabled (L = 2 m) (1) | XUM0ANSAL2 | 0.050 (0.11) |
| | | | M8 connector | XUM0ANSAM8 | 0.035 (0.08) |

802799



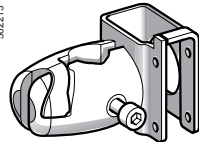
XUZC50

850014



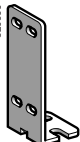
XUZ M2003

862213



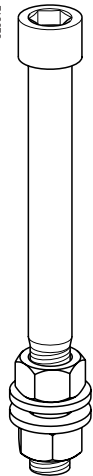
XUZ M2004

520580



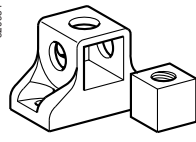
XUZA50

520312



XUZ2001

520584



XUZ 2003

Accessories

| Description | Connection | Catalog Number | Weight kg (lb) |
|-------------------------|--------------------------|----------------|----------------|
| Thru-beam transmitter | Pre-cabled (L = 2 m) (1) | XUM0AKSAL2T | 0.050 (0.11) |
| | M8 connector | XUM0AKSAM8T | 0.035 (0.08) |
| Reflector 50 x 50 mm | — | XUZC50 | 0.020 (0.04) |

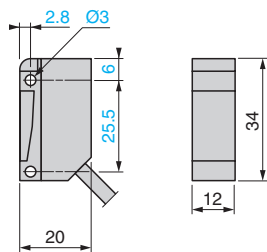
Mounting accessories

| Description | Catalog Number | Weight kg (lb) |
|---|----------------|----------------|
| 3D mounting kit for use on M12 rod for XUM or XUZ C50 | XUZM2003 | 0.140 (0.31) |
| 3D mounting kit for use on M12 rod and with protective cover for XUM | XUZM2004 | 0.155 (0.34) |
| M12 rod | XUZ2001 | 0.050 (0.11) |
| Support for M12 rod | XUZ2003 | 0.150 (0.33) |
| Mounting bracket | XUZA50 | 0.015 (0.03) |

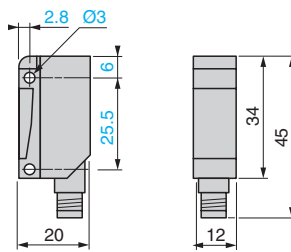
(1) For a 5 m cable, replace L2 with L5.
Example: XUM0APSAL2 becomes XUM0APSAL5.

Dimensions (mm)

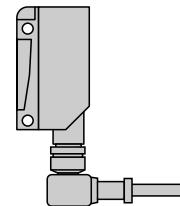
XUM0A●●●L2



XUM0A●●●M8

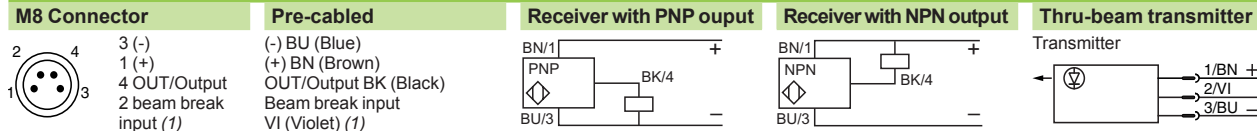


Elbowed connector



| Specifications | | XUM●●●●●M8 | XUM●●●●●L2 |
|--|---------------------------------------|--|---|
| Sensor type | | | |
| Product certifications | | UL, CSA, CE | |
| Connection | Connector | M8 | — |
| | Pre-cabled | — | Length: 2 m |
| Sensing distance nominal S_n (excess gain = 1) / maximum (excess gain = 2) | m (ft) | 0.11 (0.36) without accessory (diffuse system with background suppression) | |
| | m (ft) | 0.4 (1.31) / 0.55 (1.80) without accessory (diffuse system) | |
| | m (ft) | 3 (9.84) / 4 (13.12) with reflector (polarized retroreflective) | |
| | m (ft) | 10 (32.81) / 14 (45.93) with thru-beam transmitter (thru-beam) | |
| Type of transmission | | Infrared, except for polarized retroreflective (red) | |
| Degree of protection | Conforming to IEC 60529 | IP 65, IP67 | IP65, IP67 |
| Storage temperature range | | °C -40 to +70 (-40 to +158 °F) | |
| Operating temperature range | | °C -25 to +55 (-13 to +131 °F) | |
| Materials | Case | PBT | PBT double insulation ☐ |
| | Lens | PMMA | |
| | Cable | — | PvR |
| Vibration resistance | Conforming to IEC 60068-2-6 | 7 gn, amplitude ± 1.5 mm (f = 10 to 55 Hz) | |
| Shock resistance | Conforming to IEC 60068-2-27 | 30 gn, duration 11 ms | |
| Indicator lights | Output state | Yellow LED (transmission present for XUM0●●●●●T) | |
| | Supply on | Green LED | |
| | Optical alignment aid/Dirt indication | Red LED (except for XUM0●●●●●T) | |
| Rated supply voltage | | Vdc | 12–24 with protection against reverse polarity |
| Voltage limits (including ripple) | | Vdc | 10–30 |
| Current consumption, no-load | | mA | 35 (20 for XUM0●●●●●T) |
| Switching capacity | | mA | ≤ 100 with overload and short-circuit protection |
| Voltage drop, closed state | | V | ≤ 1.5 |
| Maximum switching frequency | | Hz | 250 (200 for diffuse system with adjustable background suppression) |
| Delays | First-up | ms | < 200 |
| | Response | ms | < 2 (< 2.5 for diffuse system with adjustable background suppression) |
| | Recovery | ms | < 2 (< 2.5 for diffuse system with adjustable background suppression) |

Wiring diagrams

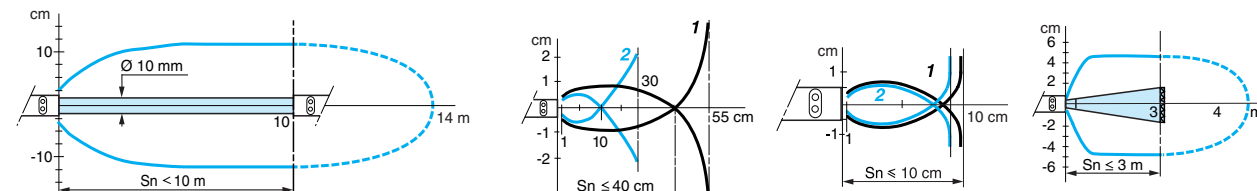


(1) Beam break input on thru-beam transmitter only.

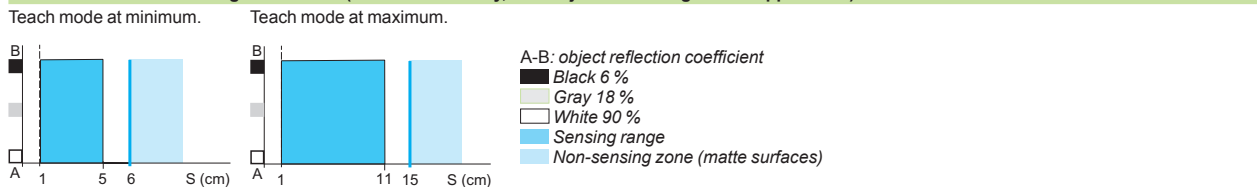
2/VI input:
- not connected: beam made
- connected to -: beam broken

Detection curves

| With thru-beam accessory (thru-beam) | Without accessory (diffuse system) | Without accessory (diffuse system with adjustable background suppression) | With reflector (polarized retroreflective) |
|--------------------------------------|------------------------------------|---|--|
|--------------------------------------|------------------------------------|---|--|



Variation of usable sensing distance S_n (without accessory, with adjustable background suppression)



Schneider Electric USA, Inc.

www.SeSensors.com

Schneider Electric Sensor
Competency Center
1875 Founders Drive
Dayton OH 45420
(800) 435-2121

The information and dimensions in this catalog are provided for the convenience of our customers. While this information is believed to be accurate, Schneider Electric reserves the right to make updates and changes without prior notification and assumes no liability for any errors or omissions.

Design: Schneider Electric
Photos: Schneider Electric

© 2010 Schneider Electric. All Rights Reserved.

April 2010

9006CT1003