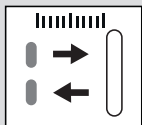




PHOTOELECTRIC SENSOR

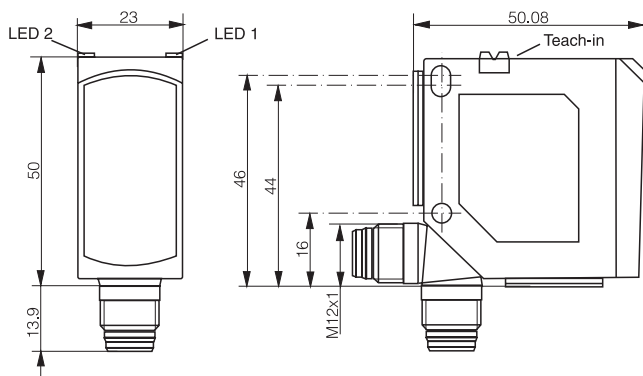
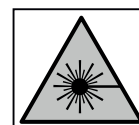
DISTANCE

DTL-C55PA-TM



5'000 mm

- ✓ Time-of-flight (TOF)
- ✓ Laser emission
- ✓ High precision
- ✓ Settable outputs
- ✓ Reliable measurement of tilted objects



| OPTICAL DATA | | INTERFACE | |
|----------------------------|----------------------------------|-----------------------|-----------------------------|
| Measurement range | 100...5'000 mm ¹ | Adjustment | Teach button or teach input |
| Resolution | < 5 mm | Indicator LED, green | Supply voltage state |
| Linearity | ± 30 mm ¹ | Indicator LED, yellow | Sensing state |
| Repeatability | see diagram | IO-Link | No |
| Light source | Laser class 1, red 650 nm | | |
| Light spot size (distance) | 5 x 4 mm ² (3'000 mm) | | |

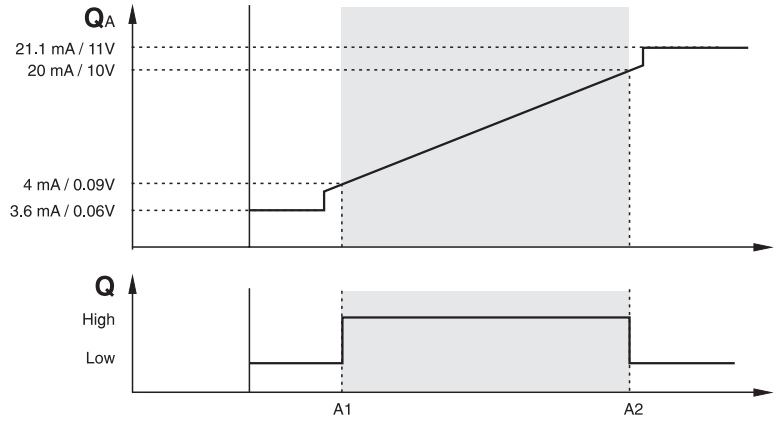
¹Object with 18%...90% reflectance (standard gray to white paper)

| ELECTRICAL DATA | | MECHANICAL DATA | |
|--|--|-------------------------------|---------------|
| Supply voltage range (U _b) | 18...30 VDC | Enclosure rating | IP67 & IP69K |
| Analog output (current version) | 4...20 mA, max. load 500 Ohms | Ambient temperature operation | -40...+60°C |
| Analog output (voltage version) | 0...10 V, min. load 4k Ohms | Shock and vibration | IEC 60947-5-2 |
| Output current | ≤ 100 mA | Weight (connector version) | 125 g |
| Signal PNP high/low | ≤ (U _b -2.0 V)/ approx. 0 V | Weight (cable version) | - |
| Signal NPN high/low | Approx. U _b / ≤ 2.0 V | Housing material | ABS |
| Power consumption (no load) | ≤ 60 mA | Window material | PMMA |
| Response time (analog) | 2 ms | Connection cable | - |
| Switching frequency | ≤ 250 Hz | Connector type | M12 5-pin |
| Short circuit protection | ✓ | | |
| Voltage reversal protection | ✓ | | |

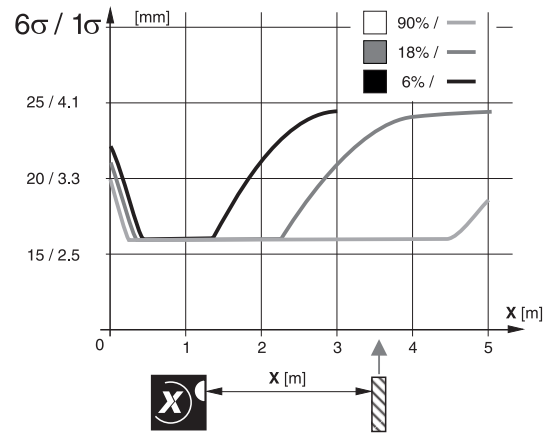
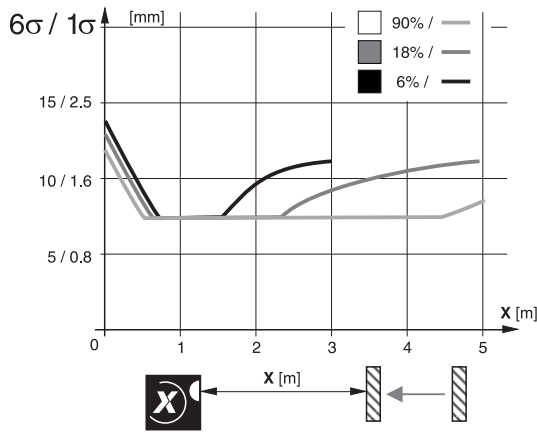
MEASUREMENT RANGE

CHARACTERISTIC CURVE (INVERTIBLE & ADJUSTABLE)

| Target | Measurement range |
|--------|-------------------|
| 90% | 100...5'000 mm |
| 18% | 100...5'000 mm |
| 6% | 100...3'000 mm |



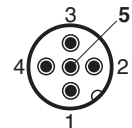
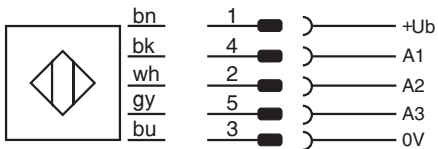
REPEATABILITY¹



¹At constant ambient conditions

WIRING DIAGRAM

PIN ASSIGNMENT

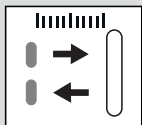


AVAILABLE TYPES

| Part number | Part reference | Polarity | Connection | Output (A1) | Output (A2) | Input (A3) |
|-------------|-----------------------|---------------------|---------------------|---------------|-------------|------------|
| 628 000 698 | DTL-C55PA-TMS-119-502 | PNP/NPN auto-detect | Connector M12 5-pin | Light/Dark-on | 4...20 mA | Teach |
| 628 000 699 | DTL-C55PA-TMS-119-503 | PNP/NPN auto-detect | Connector M12 5-pin | Light/Dark-on | 0...10 V | Teach |

Note: additional suffix can appear to indicate a revision version or a special version.

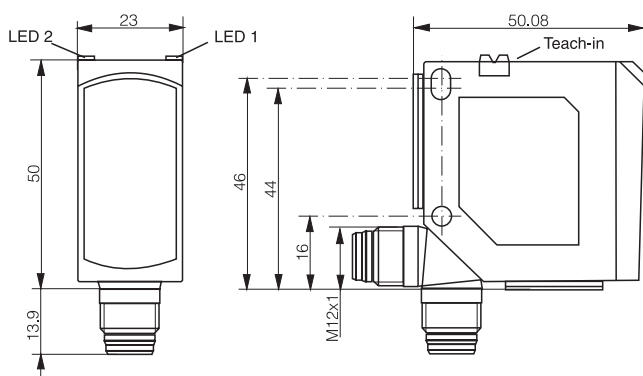
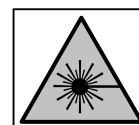
These proximity switches **must not be used** in applications where the **safety of people** is dependent on their functioning. Terms of delivery and rights to change design reserved.



5'000 mm

- ✓ Time-of-flight (TOF)
- ✓ Émission laser
- ✓ Haute précision

- ✓ Sorties réglables
- ✓ Détection fiable d'objets inclinés



DONNÉES OPTIQUES

| | |
|-----------------------------------|----------------------------------|
| Domaine de mesure | 100...5'000 mm ¹ |
| Résolution | < 5 mm |
| Linéarité | ± 30 mm ¹ |
| Répétabilité | voir schéma |
| Source lumineuse | Laser classe 1, rouge 650 nm |
| Taille tache lumineuse (distance) | 5 x 4 mm ² (3'000 mm) |

¹Objet avec 18%...90% de réflectance (papier gris...blanc standard)

INTERFACE

| | |
|-----------------------|-----------------------------------|
| Réglage | Bouton 'teach' ou entrée 'teach' |
| Indicateur LED, vert | État de la tension d'alimentation |
| Indicateur LED, jaune | État de détection |
| IO-Link | Non |

DONNÉES ÉLECTRIQUES

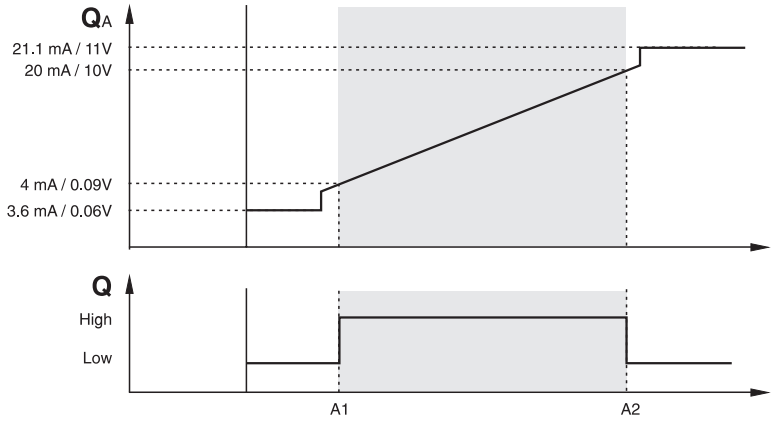
| | |
|--|-------------------------------------|
| Tension d'alimentation (U _b) | 18...30 VDC |
| Sortie analogique (version courant) | 4...20 mA, charge max. 500 Ohms |
| Sortie analogique (version tension) | 0...10 V, charge min. 4k Ohms |
| Courant de sortie | ≤ 100 mA |
| Signal PNP high/low | ≤ (U _b -2.0 V)/ env. 0 V |
| Signal NPN high/low | env. U _b / ≤ 2.0 V |
| Consommation (hors charge) | ≤ 60 mA |
| Temps de réponse (analogique) | 2 ms |
| Fréquence de commutation | ≤ 250 Hz |
| Protection contre les courts circuits | ✓ |
| Protection contre les inversions | ✓ |

DONNÉES MÉCANIQUES

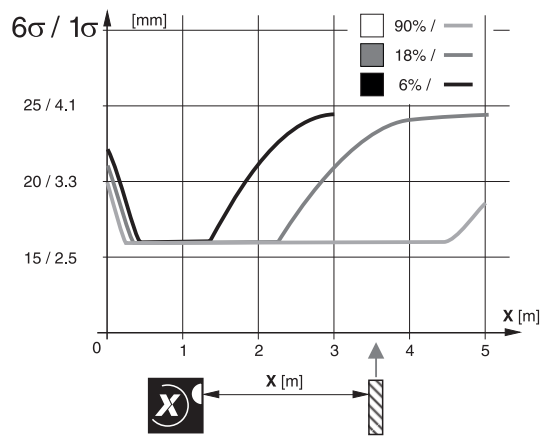
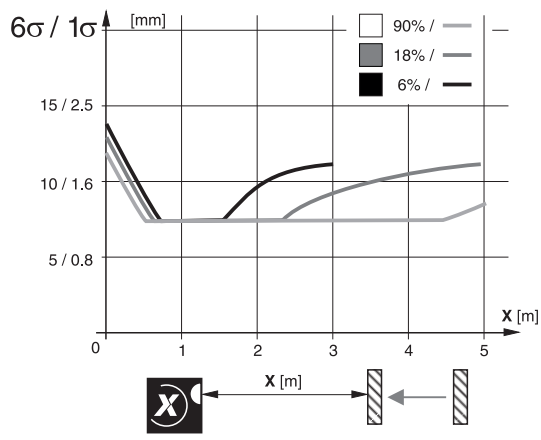
| | |
|------------------------------|---------------|
| Indice de protection | IP67 & IP69K |
| Temp. ambiante d'utilisation | -40...+60°C |
| Chocs et vibrations | IEC 60947-5-2 |
| Poids (version connecteur) | 125 g |
| Poids (version câble) | - |
| Matériau du boîtier | ABS |
| Matériau de la fenêtre | PMMA |
| Câble de raccordement | - |
| Type de connecteur | M12 5 pins |

DOMAINE DE MESURE | **CARACTÉRISTIQUE DE LA COURBE (INVERSIBLE & RÉGLABLE)**

| Cible | Domaine de mesure |
|-------|-------------------|
| 90% | 100...5'000 mm |
| 18% | 100...5'000 mm |
| 6% | 100...3'000 mm |

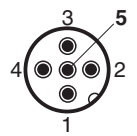
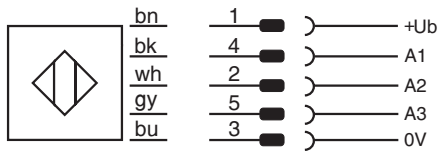


RÉPÉTABILITÉ¹



¹At constant ambient conditions

SCHÉMA DE RACCORDEMENT | **ATTRIBUTION DES PINS**

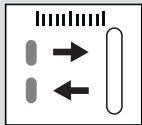


TYPES DISPONIBLES

| No. d'article | Désignation | Polarité | Raccordement | Sortie (A1) | Sortie (A2) | Entrée (A3) |
|---------------|-----------------------|----------------------|---------------------|-----------------|-------------|-------------|
| 628 000 698 | DTL-C55PA-TMS-119-502 | PNP/NPN détect. auto | Connect. M12 5 pins | en/sans récept. | 4...20 mA | Teach |
| 628 000 699 | DTL-C55PA-TMS-119-503 | PNP/NPN détect. auto | Connect. M12 5 pins | en/sans récept. | 0...10 V | Teach |

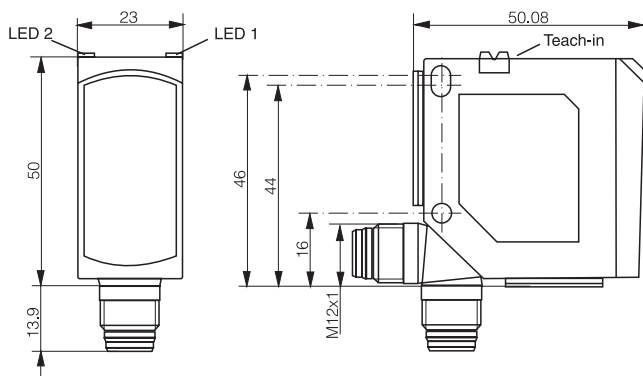
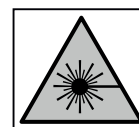
Remarque: la présence d'un suffixe supplémentaire indique une version révisée ou une version spéciale.

Ces détecteurs **ne peuvent être utilisés** dans des applications où la **protection** ou la **sécurité** de **personnes** est concernée. Sous réserve de modifications et de possibilités de livraison.



5'000 mm

- ✓ Time-of-flight (TOF)
- ✓ Laseremission
- ✓ Hohe Präzision
- ✓ Ausgänge einstellbar
- ✓ Zuverlässiges Erkennen gekippter Objekten



| OPTISCHE DATEN | | INTERFACE | |
|-------------------------------|----------------------------------|-------------------|-----------------------------|
| Messbereich | 100...5'000 mm ¹ | Einstellung | Teach-Taste oder -Eingang |
| Auflösung | < 5 mm | Anzeige-LED, grün | Versorgungsspannungs-Status |
| Linearität | ± 30 mm ¹ | Anzeige-LED, gelb | Erfassungsstatus |
| Wiederholgenauigkeit | siehe Schema | IO-Link | Nein |
| Lichtquelle | Laserklasse 1, rot 650 nm | | |
| Lichtfleckgrösse (Entfernung) | 5 x 4 mm ² (3'000 mm) | | |

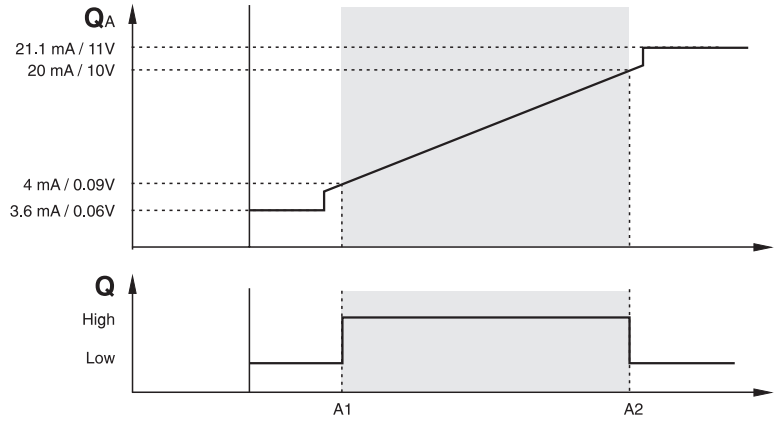
¹Objekt mit 18...90% Reflexion (standardgraues...-weisses Papier)

| ELECTRISCHE DATEN | | MECHANISCHE DATEN | |
|--------------------------------|-------------------------------|-----------------------------|---------------|
| Versorgungsspannungsber. (Ub) | 18...30 VDC | Schutzart | IP67 & IP69K |
| Analogausgang (Stromversion) | 4...20 mA, max. Last 500 Ohms | Umgebungstemperatur Betrieb | -40...+60°C |
| Analogausg. (Spannungsversion) | 0...10 V, min. Last 4k Ohms | Schocks und Vibrationen | IEC 60947-5-2 |
| Ausgangsstrom | ≤ 100 mA | Gewicht (Steckerversion) | 125 g |
| PNP-Signal high/low | ≤ (Ub-2.0 V)/ ca. 0 V | Gewicht (Kabelversion) | - |
| NPN-Signal high/low | ca. Ub/ ≤ 2.0 V | Gehäusematerial | ABS |
| Stromaufnahme (ohne Last) | ≤ 60 mA | Fenstermaterial | PMMA |
| Ansprechzeit (analog) | 2 ms | Anschlusskabel | - |
| Schaltfrequenz | ≤ 250 Hz | Anschlusstecker | M12 5-Pin |
| Kurzschlusschutz | ✓ | | |
| Verpolungsschutz | ✓ | | |

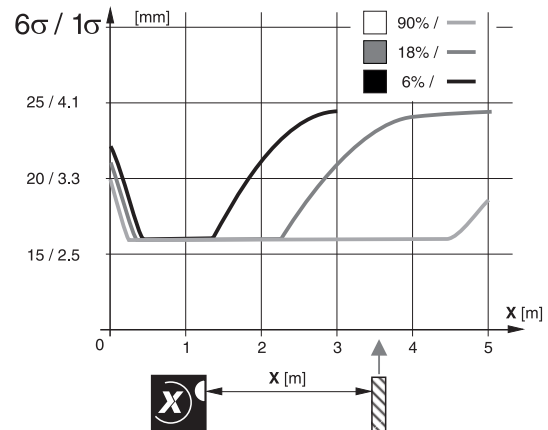
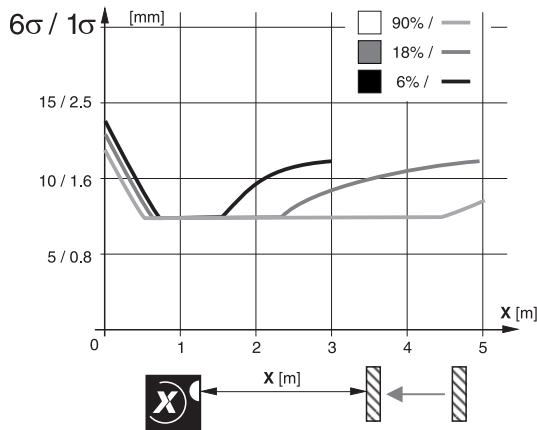
MESSBEREICH

KENNLINIE (INVERTIERBAR UND EINSTELLBAR)

| Objekt | Messbereich |
|--------|----------------|
| 90% | 100...5'000 mm |
| 18% | 100...5'000 mm |
| 6% | 100...3'000 mm |



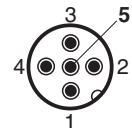
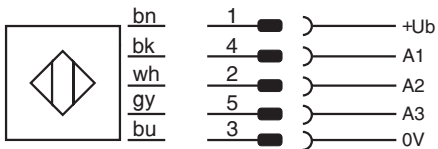
WIEDERHOLGENAUIGKEIT¹



¹At constant ambient conditions

ANSCHLUSSSCHEMA

STECKERBELEGUNG



VERFÜGBARE TYPEN

| Art.-Nummer | Bezeichnung | Polarität | Anschluss | Ausgang (A1) | Ausgang (A2) | Eingang (A3) |
|-------------|-----------------------|---------------------|-------------------|------------------|--------------|--------------|
| 628 000 698 | DTL-C55PA-TMS-119-502 | PNP/NPN Auto-Detect | Stecker M12 5-Pin | hell-/dunkelsch. | 4...20 mA | Teach |
| 628 000 699 | DTL-C55PA-TMS-119-503 | PNP/NPN Auto-Detect | Stecker M12 5-Pin | hell-/dunkelsch. | 0...10 V | Teach |

Hinweis: Im Fall einer überarbeiteten Version oder Sonderausführung kann die Bezeichnung auch durch eine Endung ergänzt werden.

Der Einsatz dieser Geräte in Anwendungen, wo die **Sicherheit von Personen** von deren Funktion abhängt, ist **unzulässig**. Änderungen und Liefermöglichkeiten vorbehalten.