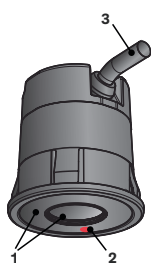


# TOF/Spot - T type

Installation guide  
en/de/fr/es/zh

## Standard and Cat. 2 Safety version

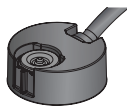
### ► Overview / Übersicht / Vue générale / Sumario / 概要



**1**  
Optical window  
Optisches Fenster  
Fenêtre optique  
Ventana óptica  
光学透光玻璃

**2**  
Status LED  
Status-LED  
État de la LED  
LED Status  
LED状态显示

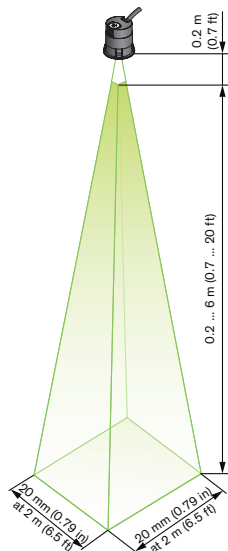
**3**  
Connection cable  
Anschlusskabel  
Cable de conexión  
Cable de conexión  
连接线



#### T type (teach-in button)

Distance setting with teach-in button  
Reichweiteneinstellung mit Teach-in-Taster  
Réglage de la distance avec capteur à apprentissage  
Ajuste del alcance con pulsador „Teach-in“  
距离设置旋钮

### ► Detection area / Erfassungsbereich / Aire de détection / Área de detección / 探测区域



### ► Type description / Typenbeschreibung / Description du type / Descripción del tipo / 类型

#### TOF/Spot - a - bb - c - d - e, ff, range

##### TOF/Spot version

**a** : - Standard  
S Safety

##### Spot size at 2 m range

**bb** : 40 20 mm x 20 mm

##### TOF/Spot type

**c** : T Teach-in

##### Output

**d** : U Universal (relay, PNP, NPN)

##### Housing

**e** : Y Snap-in

##### Supply power

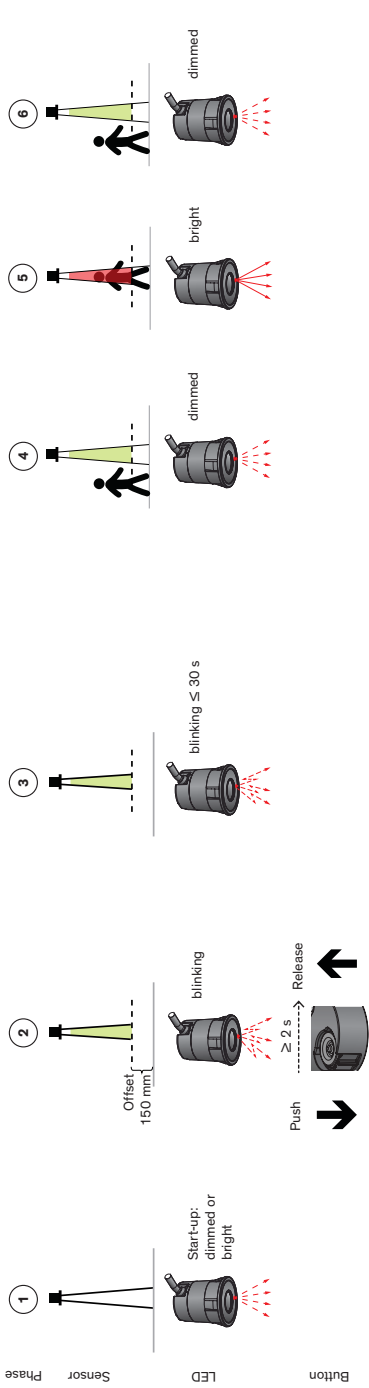
**ff** : DC 10 ... 30 VDC

##### , max. detection range

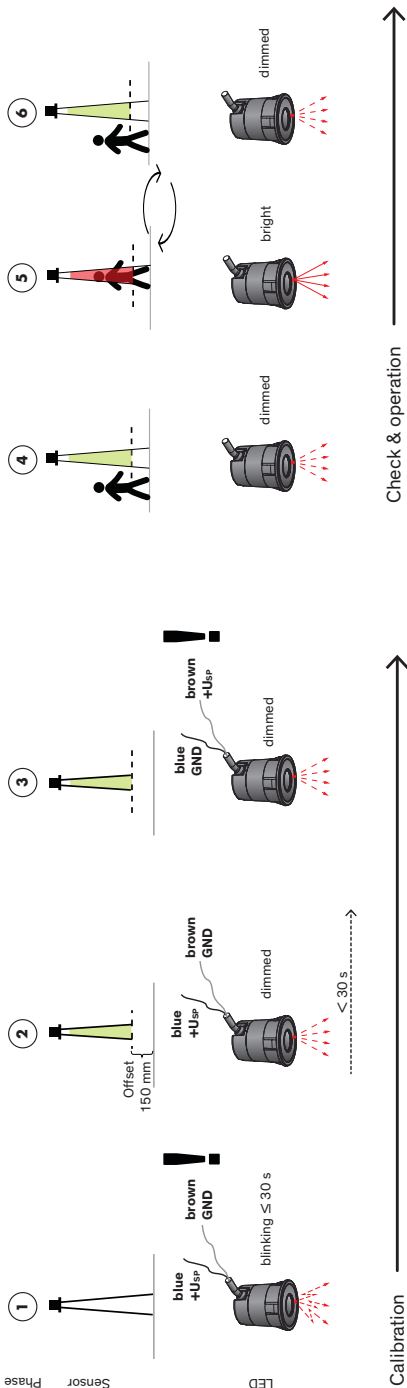
xx Value in m

## ▲ Configuration / Konfiguration / Configuration / Configuración / 外形

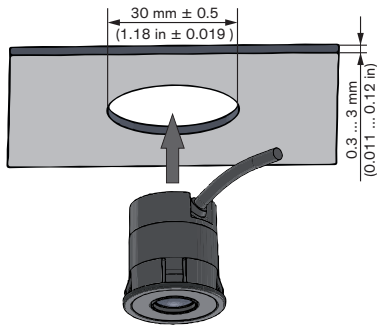
1. possibility: Teach-in button / 1. Möglichkeit: Teach-in-Taster / 1. possibilité : Capteur à apprentissage / 1. posibilidad: Pulsador „Teach-in“ / 可帶有設置旋鈕



2. possibility: Polarity exchange / 2. Möglichkeit: Spannungswechsel / 2. possibilité : Changement de tension / 2. posibilidad: Cambio de polaridad / 输出电压可极性转换



► Installation / Montage / Montage / Instalación / 安装



► Electrical connections / Elektrische Anschlüsse / Connexion électrique / Collegamento elettrico / Conexión eléctrica / 连接

**DC supply - Universal**

**Logic selector:**

NO = U<sub>SP</sub>

NC = GND

\* = If test input not used - connect with U<sub>SP</sub>

Output A = Output B

Any unconnected (n.c.) wires have to be separated and isolated.

TOF/Spot	U <sub>SP</sub> (10 ... 30 VDC)	brown	Controller
	Output A	black	
	Output B	green	
	GND (0 V)	blue	
	Test input* or not used	white	
	Logic selector	gray	

**DC supply - Dynamic universal**

Output A = Output B

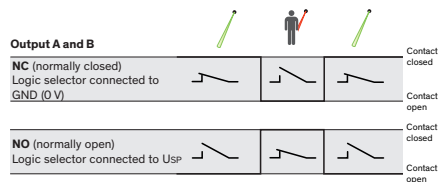
\* = If test input not used - connect with U<sub>SP</sub>

Any unconnected (n.c.) wires have to be separated and isolated.

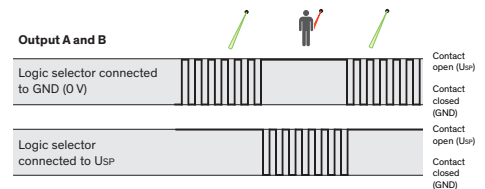
TOF/Spot	U <sub>SP</sub> (10 ... 30 VDC)	brown	Controller	
	Output A	black		10 kΩ
	Output B	green		
	GND (0 V)	blue		
	Test input* or not used	white		
	Logic selector	gray		

► Logic Selector / Einstellbare Ausgangslogik / Logique de sortie / Lógica de salidas / 逻辑选择

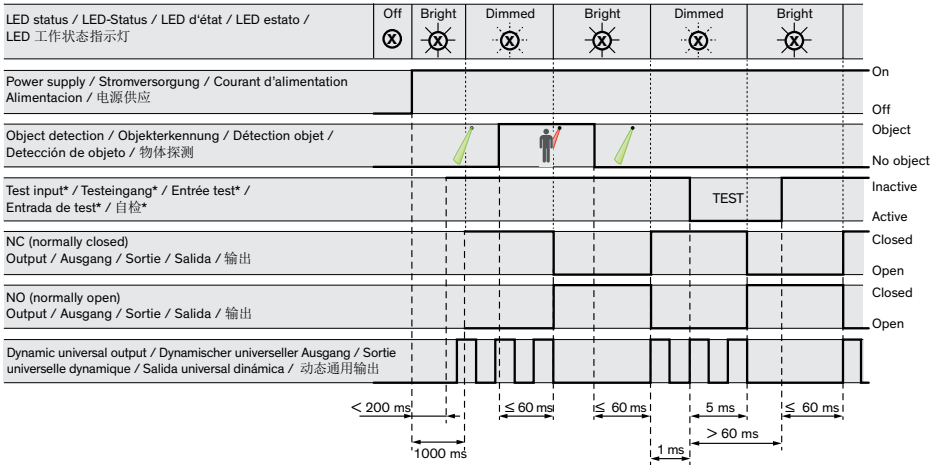
**DC supply - Universal**



**DC supply - Dynamic universal**

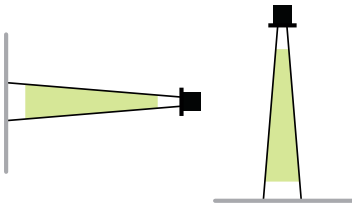


► **Timing diagram / Zeitdiagramm / Diagramme en fonction du temps / Diagrama de tiempos / 时序图**



\* only for safety version available

► **Category 2 operation / Kategorie 2 Betrieb / Sécurité catégorie 2 / Funcionamiento Categoría 2 / 安全等级2级**



- Category 2 safety applications require a test to be carried out within each cycle; TOF/Spot also requires a background within the maximum detection range.
- Kategorie 2 Sicherheitsanwendungen müssen bei jedem Zyklus einen Testlauf durchführen. TOF/Spot benötigt einen Hintergrund innerhalb der maximalen Reichweite.
- Les applications de sécurité catégorie 2 nécessitent un test qui doit être fait pendant chaque cycle; le TOF/Spot a aussi besoin d'un arrière-plan compris dans sa portée maximum de détection.
- En aplicaciones de seguridad categoría 2 debe realizarse un testeo cada ciclo de operación. TOF/Spot requiere de un plano de fondo dentro de su alcance máximo.
- 安全等级2级的应用需每个周期执行一次测试。测试过程中，TOF/Spot的最大探测距离之间需有背景物。



Product information

[www.cedes.com](http://www.cedes.com)

Complete Installation and Operation Manual and further information