

Photoelectric sensors

06.2023 / Version 1

O330
Xpress Mode

EN
DE
FR
IT
ES
CN



qTarget®
qTeach®

www.baumer.com

Baumer

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Related Models

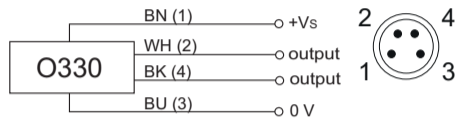
O330 Models with Xpress Teach:
O330.G (Background suppression sensors)

More information related to these products can be found on our website (CAD, Beamcharts, CoC, Drawings, IODDs ...)



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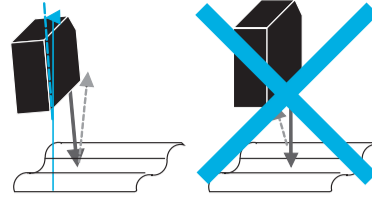
Connection Diagrams



	PNP Complementary	NPN Complementary
1 - Brown BN	+Vs	
2 - White WH	PNP Inverted	NPN Inverted
3 - Blue BU	0 V	
4 - Black BK	PNP	NPN

- Disconnect power before connecting the sensor.
- Voltage supply according UL 1310, Class 2
or device shall be protected by an external R/C or listed fuse, rated max. 30 VAC/3A or 24 VDC/4A

Mounting Instructions



Background suppression sensors

The direct reflection from glossy or reflective objects must not impinge on the receiver. This can be avoided by slightly tilting the sensor.

Sensoren mit Hintergrundaussblendung

Bei glänzenden oder spiegelnden Objekten darf der direkte Reflex nicht auf den Empfänger fallen. Dies kann vermieden werden, indem der Sensor leicht abgekippt wird.

Détecteurs de suppression d'arrière-plan

La réflexion directe d'une surface brillante ou d'objets très réfléchissants ne doit pas parvenir au récepteur. Ceci peut être évité en inclinant un peu le capteur.

Fotocellule a soppressione di sfondo

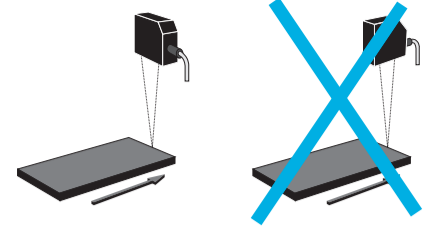
Su superfici lucide e riflettenti è consigliabile inclinare leggermente il sensore per evitare riflessi diretti sul ricevitore.

Sensores con supresión de fondo

La reflexión directa sobre objetos brillantes o reflectantes no debe incidir en el receptor. Ésto se puede evitar inclinando ligeramente el sensor.

带背景抑制漫发射和智能反射传感器

光泽或高反光物体的全反射不得反射到接收器。通过稍微倾斜传感器可以避免这种情况。



It is recommended that the object to be detected approaches the active area of the sensor from the side, which avoids malfunctions caused by deflection of the light beam at edges.
Exception: Sensors with line beam

Es ist zu beachten, dass ein zu erfassendes Objekt sich dem aktiven Bereich des Sensors von der Seite nähern sollte, dadurch werden Fehlschaltungen durch Ablenkungen des Lichtstrahles an Kanten vermieden.
Ausnahme: Sensoren mit linienförmigen Strahl

Il est recommandé que l'objet à détecter adopte une approche latérale, ce qui évite les dysfonctionnements liés à la diffraction du faisceau sur les bords.
Exception: Capteurs à faisceau linéaire

Si raccomanda di installare il sensore in modo che l'oggetto entri lateralmente nel fascio di luce.
Eccezione: Sensori con raggio di linea

Se recomienda que el objeto se aproxime lateralmente al sensor, de éste modo se Evitan errores de detección causados por la reflexión del haz en los bordes.
Excepción: Sensores con rayo de linea

建议被测物从侧面接近传感器的有效区域，这避免了光束在边缘处偏转而引起的故障。
例外：线状光斑

qTarget®
The Baumer design aligns the sensor's light beam to the fixing holes (qTarget®) This allows a fast and easy installation without fine-tuning as well as a fast exchange.

LED Indication



Legend

- LED on
- ① LED flashing 1 Hz
- ② LED flashing 2 Hz
- ⑧ LED flashing 8 Hz

Operating Mode

EN

LED Indicators	Green	Yellow
Power on	●	
Short circuit	①	
Output 1 active		●
Output 1 signal close to threshold		⑧
Teach-In mode	see Teach-In Instruction	

LED Anzeige



Legende

- LED leuchtet
- ① LED blinkt 1 Hz
- ② LED blinkt 2 Hz
- ⑧ LED blinkt 8 Hz

Betriebsmodus

DE

LED Indikatoren	Grün	Gelb
Betriebsanzeige	●	
Kurzschluss	①	
Ausgang 1 aktiv		●
Ausgang 1 Signal nahe der Schwelle		⑧
Teach-In Modus	siehe Teach-In Anweisung	

Teach-In Description

O330.G, Diffuse sensors with background suppression

1-Point Teach

Sets the switchpoint at the position of the object +TPO (Teach point Offset)

TPO: See packaging (typ. 0% or 10%)

Teach-In Beschreibung

O330.G, Reflexions-Lichttaster mit Hintergrundaussblendung

1-Punkt Teach

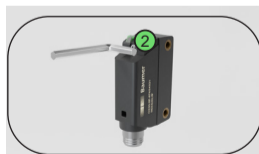
Setzt den Schalterpunkt an der Position des Objektes +TPO (Teach point Offset)

TPO: Siehe Verpackung (typ. 0% or 10%)

Teach-In Instruction

How to activate the Teach-In

- Place ferromagnetic tool as shown right to activate qTeach® or connect Teach-In wire to +Vs
- Green LED flashes with 2 Hz if tool/Teach-In is recognized properly



General Information

- qTeach® locks 5 min after power up*
- In teach mode the output changes to 0V
- During operation the teach wire should be connected to 0V
- For external Teach-In, connect teach wire to +Vs
- External Teach-In is always possible (no locking)

Teach-In Anleitung

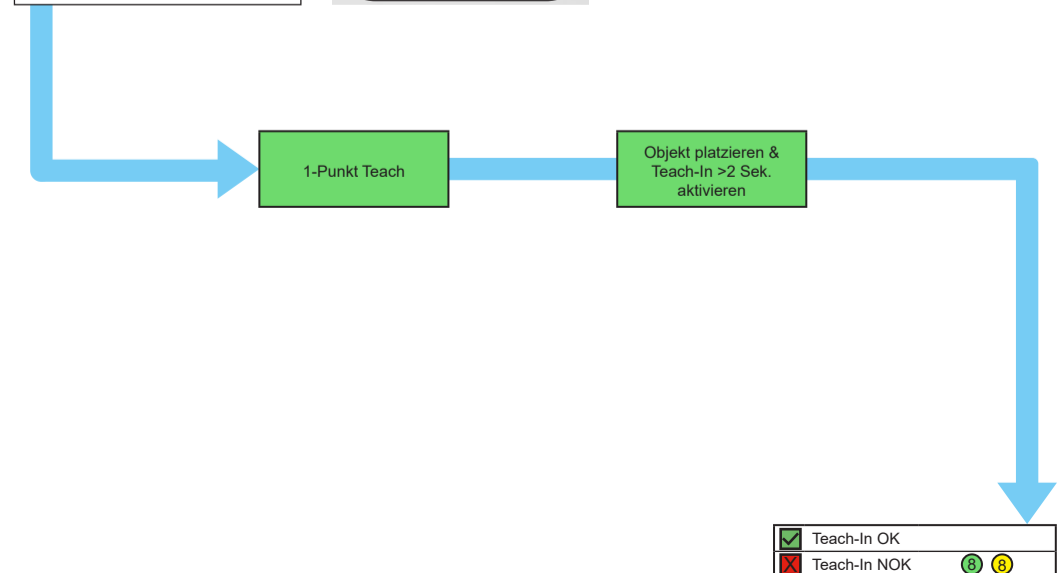
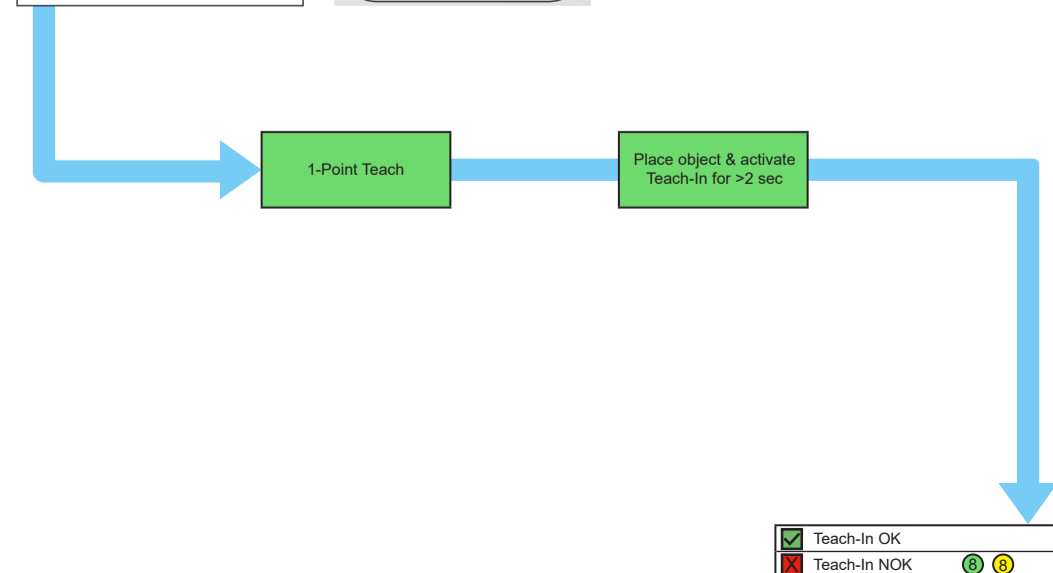
Aktivierung des Teach-In

- Platziere das ferromagnetische Werkzeug wie rechts dargestellt um qTeach® zu aktivieren oder verbinde die Teachleitung mit +Vs
- Die grüne LED blinkt mit 2 Hz, wenn das Werkzeug korrekt erkannt wird



Allgemeine Informationen

- qTeach® verriegelt 5 min nach dem Einschalten
- Im Teachmodus wechselt der Ausgang auf 0V
- Im Normalbetrieb muss die Teachleitung auf 0V gelegt werden
- Für externes Teach-In, Teachleitung entsprechend mit +Vs verbinden
- Externes Teach-In ist immer möglich (keine Verriegelung)



Indication LED



Légende

- LED ON
- ① LED clignotante 1 Hz
- ② LED clignotante 2 Hz
- ⑧ LED clignotante 8 Hz

Mode de fonctionnement FR

Indicateurs LED	Vert	Jaune
Power On	●	
Court-circuit	①	
Sortie 1 activée		●
Sortie 1 signal proche du seuil		⑧
Mode Teach-In	Voir Instructions Teach-In	

Indicazioni LED



Legenda

- LED acceso
- ① LED lampeggia a 1 Hz
- ② LED lampeggia a 2 Hz
- ⑧ LED lampeggia a 8 Hz

Modalità operativa IT

Indicazioni LED	Verde	Giallo
Power On	●	
Corto circuito	①	
Uscita 1 attiva		●
Uscita 1 prossima alla soglia		⑧
Modalità di Teach-In	vedi istruzioni Teach-In	

Description Teach-In

O330.G, Suppression d'arrière-plan

Teach 1-point

Régler le point de commutation à la position de l'objet +TPO (Teach point Offset)

TPO: Voir l'emballage (typ. 0% o 10%)

Descrizione di Teach-In

O330.G, Sensori a soppressione di sfondo

Teach a 1 punto

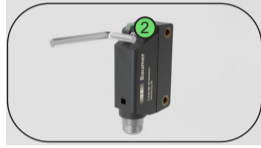
Impostazione del punto di commutazione alla posizione desiderata +TPO (Teach point Offset)

TPO: Vedere imballaggio (typ. 0% o 10%)

Instructions Teach-In

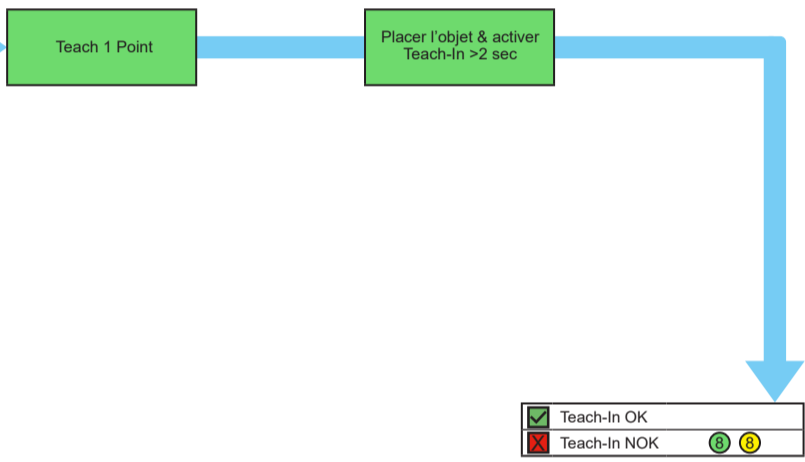
Información Teach-In

- Placer l'outil ferromagnétique comme indiqué ci-contre pour activer qTeach® ou connecter le fil Teach-In au +Vs
- La LED verte clignote à 2 Hz si l'outil/Teach-in est reconnu correctement



Information Générale

- qTeach® se verrouille 5 min après la mise tension
- En mode Teach la sortie est à 0V
- Pour un Teach externe, connecter l'entrée Teach correspondant au +Vs
- Le Teach externe est toujours disponible (Pas de verrouillage)



Istruzioni Teach-In

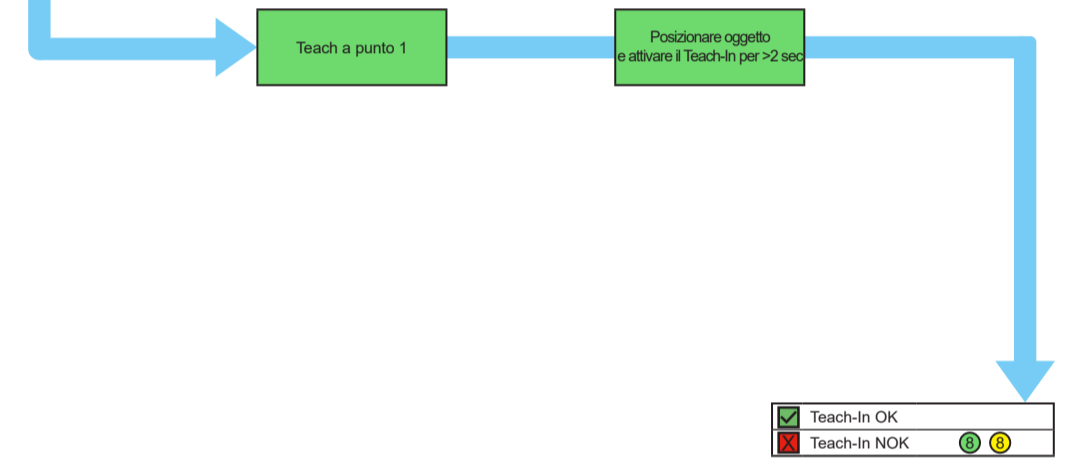
Informazioni relative al Teach-In

- Posizionare l'utensile ferromagnetico come mostrato a destra di attivare qTeach® o collegare il cavo Teach-In a +Vs
- Il LED verde lampeggia a 2 Hz se l'utensile/Teach-In viene riconosciuto correttamente



Informazione generali

- La funzione di qTeach® si disattiva dopo 5min dall'accensione del sensore
- in modalità Teach-In l'output assume un valore pari a 0V
- Durante il funzionamento normale del sensore il cavo Teach-In va messo a 0V
- Per il Teach-In da remoto, connettere il cavo Teach-In a +Vs
- Il Teach-In da remoto è sempre possibile (non si disattiva dopo 5 min)



Información LED



Leyenda

- LED ON
- ① LED parpadeo 1 Hz
- ② LED parpadeo 2 Hz
- ⑧ LED parpadeo 8 Hz

Modo operativo ES

Información LED	Verde	Amarillo
Power On	●	
Cortocircuito	①	
Salida 1 activa		●
Salida 1 señal dentro del intervalo		⑧
Modo Teach-In	Ver instrucciones Teach-In	

LED 指示灯



图例

- LED 亮
- ① LED 闪烁 1 Hz
- ② LED 闪烁 2 Hz
- ⑧ LED 闪烁 8 Hz

操作模式 CN

LED 指示灯	绿	黄
通电	●	
短路	①	
输出 1 激活		●
输出 1 信号接近阈值		⑧
Teach-In 模式	详见 Teach-In 说明	

Descripción Teach-In

O330.G, Sensores de reflexión con supresión de fondo

1-Point Teach

Define el punto de conmutación en la posición del objeto +TPO (TPO, Teach point Offset)

TPO: Ver embalaje (typ. 0% o 10%)

Teach-In 说明 1 级

O330.G,带背景抑制漫反射

1点设定

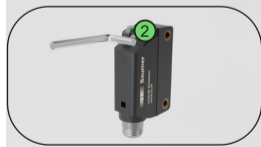
将开关点设置在被测物位置后TPO (Teach point Offset)

TPO: 查看包装 (通常为0%或10%)

Instrucciones Teach-In

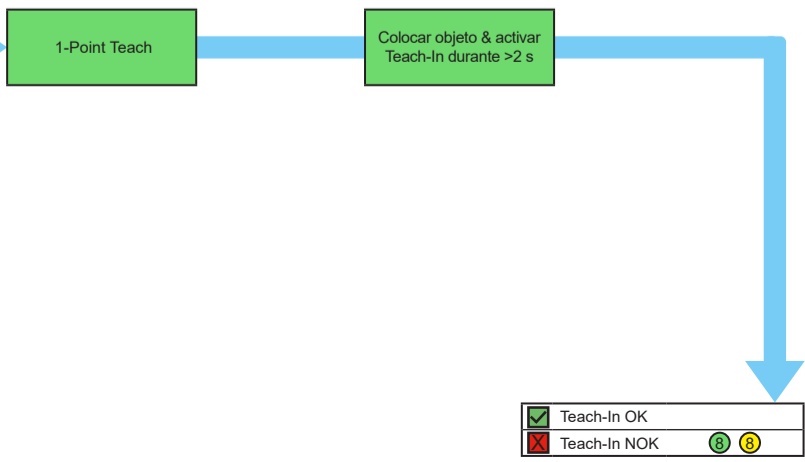
Información Teach-In

- Coloque la herramienta ferromagnética como indica la imagen para activar qTeach® o conectar el cable Teach-In a +Vs
- El LED verde parpadea a 2 Hz se la herramienta/Teach-In se reconoce correctamente



Información general

- qTeach® se bloquea 5 min después de la alimentación
- En modo teach la salida cambia a 0V
- En modo normal el cable deteach se pone a 0V
- Para Teach-In externo, conectar el cable teach a +Vs
- El Teach-In externo está siempre disponible (no se bloquea)



设定说明

设定信息

- 如右图所示放置金属工具或连接设定线至 +Vs
- 如果工具或设定被恰当地识别到, 绿色LED 以2 Hz闪烁



总览:

- qTeach® 开启5分钟后自行锁定
- 在设定模式下输出变至 0V
- 在通常情况下设定先接至 0V
- 对于外部设定, 将设定线连接至 +Vs
- 外部设定线永久有效 (无自锁)

