



The Choice of Professionals Worldwide.

PHOTO ELECTRIC BEAM ENCLOSURE
(BEAM TOWER) 360°

BT - 100
- 150
- 200
SERIES - 300

TAKEX

CHARACTERISTICS

TOTAL FLEXIBILITY

The BT Series Dual Sided towers are able to contain TAKEX photoelectric products, providing single or multiple beam options with external ranges of up to 200 meters (660ft). (dependant upon beam specifications).

The photoelectric beams can be fixed at any height thanks to the adjustable fixings included in each tower. To enhance mounting options and obtain 360° protection, beams can be mounted back to back at any height.

The 100, 150, 200 and 300cm (3' 3.4"; 4' 11"; 6' 6.7" and 9' 10") standard can be adjusted to most situations required by our customers. However, in particular situations, special sizes can be manufactured.

MOUNTING HARDWARE

The towers can either be mounted directly onto the floor or using the optional floor bracket (BT-FB) designed to be set into concrete, or for wall mounting there is the optional wall-mounted bracket BT-WB. Each column is delivered with detailed documentation and instructions, making installation easy and less time consuming.

TAMPER PROTECTION

The tops are supplied with a tamper switch as standard. There is an optional pressure sensing (anti climb) top available (BT-PS).

HEATERS

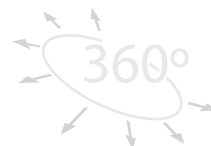
In order to obtain optimal performance in external environments with low temperature conditions and condensation risk, the tower should be fitted with at least one heater.

MOUNTING KIT

A mounting kit including expandable bolts is included with every BT tower: Stainless screws, nylock nuts, sealing strips, expanding bolts, etc.

The BT Dual Sided Beam Tower is a robust and discreet enclosure, resistant to vandal acts. This special design allows a 360° protection range, giving the beams the possibility to be mounted back to back at any height within the tower.

The BT Series has been designed to allow the use of any TAKEX twin or quad based photoelectric beam. (The BT-WM Wall Mount Series is also available as a single sided tower that mounts directly to a flat surface).



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PHOTO ELECTRIC BEAM ENCLOSURE
(BEAM TOWER) 360°

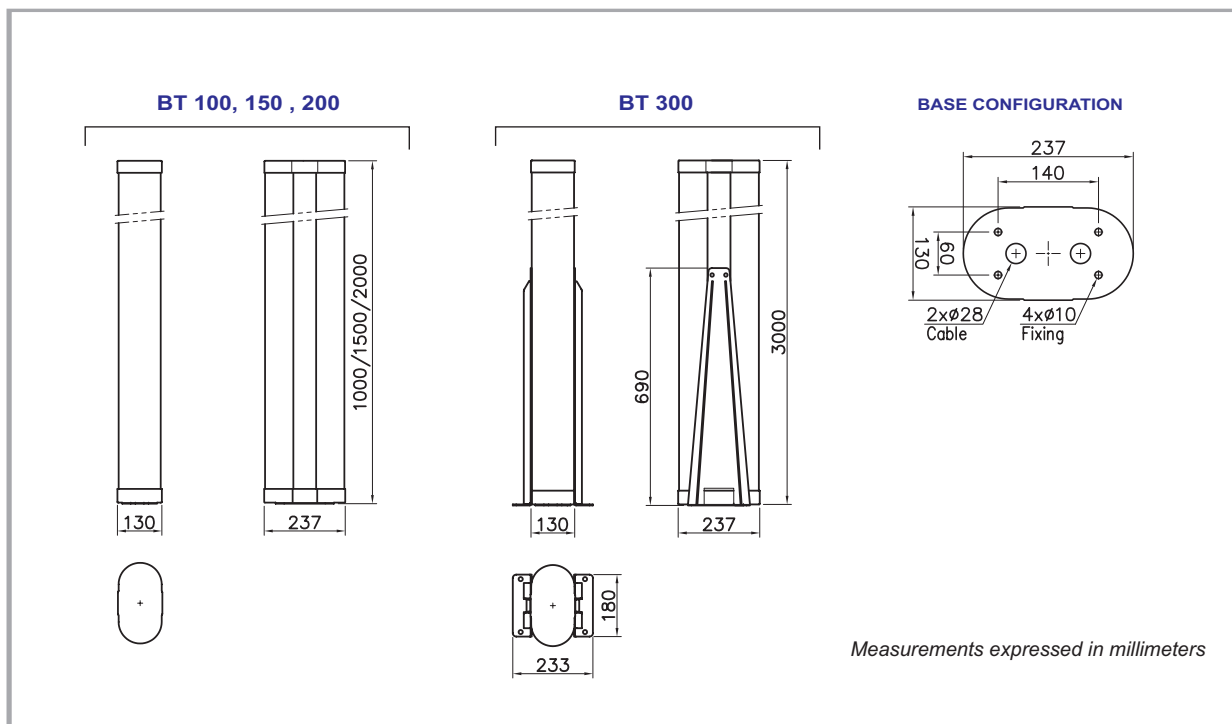
BT - 100
- 150
- 200
- 300
SERIES

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DUAL SIDED BEAM TOWERS



DIMENSIONS

Width : 13cm. (5.12").
Depth : 23.7cm. (9.33").
Height: 100, 150, 200 and 300cm**
 (3' 3.4"; 4' 11"; 6' 6.7" and 9' 10").

****BT-300 (300cm)** includes BT-3SB
 (70cm - 27.56" side brackets).

OPTIONAL ACCESSORIES

BT-FB: Floor Bracket.
BT-PS: Pressure switch.Top Cap
BT-HK12: Heater Kit
BT-WB: Wall bracket.

MATERIALS

- **Structure:** Anodized black aluminium.
- **Shields:** Polycarbonate with UV treatment.
- **Floor base:** Aluminium.
- **Top cover:** Polyamide with UV treatment.
- **Sealing strip:** EPDM.



Due to on going product improvements, specifications may change without notice.

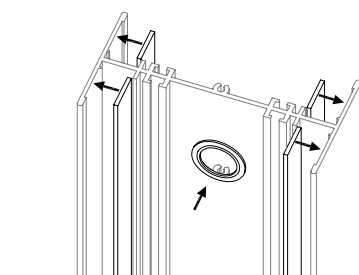
Note: This sensor is designed to detect movement and to trigger a relay. It is not a burglar-preventing device. TAKEX is not responsible for damages or losses caused by accidents, thefts, acts of God (including inductive lightning), abuse, misuse, abnormal use, faulty installation or improper maintenance.

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TAKEX JAPAN	Kyoto, Japan	Phone: (075) 594-7211	Fax: (075) 501-2085		international@takex-eng.co.jp

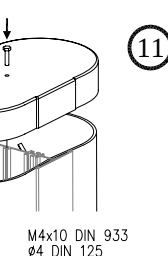
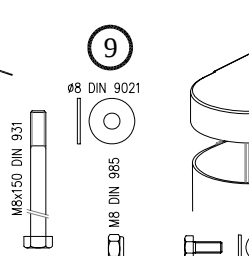
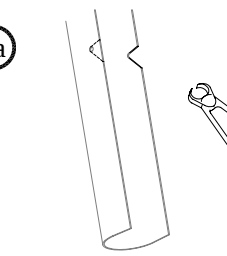
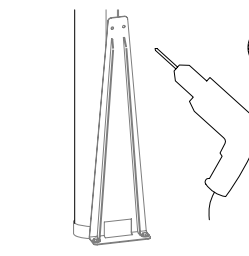
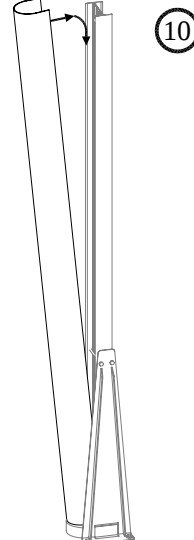
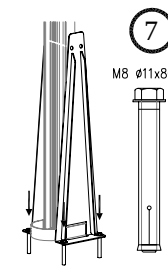
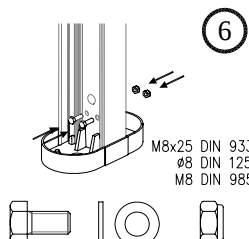
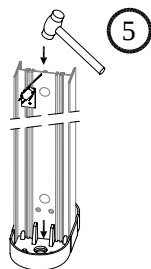
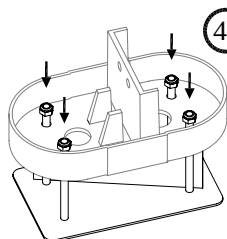
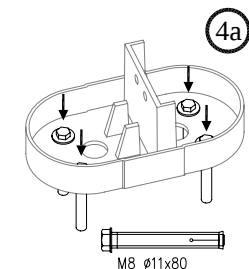
1 INSTALACIÓN

Quitar la tapa superior, el perfil de policarbonato y la base de la columna.

- (1) Fijar los 2 ojales de goma a los agujeros de cableado.
En emplazamientos extremos, aplicar las juntas adhesivas a los bordes interiores del aluminio.
- (2) A la altura requerida, fijar la placa posterior de la barrera IR al aluminio con 2 tornillos puestos en cruz como se muestra en el diagrama.
- Si se va a usar calefactores y termostato véase la sección 2 en la página siguiente antes de continuar.**
- (3) Fijar el tamper suministrado al aluminio. Asegúrese que la palanca del interruptor quede sobre la línea superior del aluminio.



- (4) Fijar la base al suelo (insertando cables por el orificio de la base) con: (4a) los tacos de anclaje provistos o (4b) la base de enterrar opcional (usar un nivel).
- (5) Atestar el aluminio en la base.
- (6) Asegurar el aluminio a la base usando los tornillos suministrados.
- (7) Sujetar soportes laterales al suelo usando los tornillos suministrados.
- (8) Para un ajuste preciso, presentar como en (10) y (8a) taladre policarbonato y aluminio. Quitar los perfiles y (8b) cortar con tijeras desde el borde hacia el agujero para permitir un ajuste exacto.
- (9) Atornillar el aluminio a los soportes laterales usando los tornillos provistos. Instalar los sensores sobre las placas traseras, realizar las conexiones electricas pertinentes y alinear los sensores.
- *Insertar los tapones de goma presionando tamper/control de ganancia en los Rx.
- NO USAR carcasa original del sensor.**
- (10) Fijar los perfiles de policarbonato.
- (11) Fijar la tapa superior usando el tornillo suministrado.

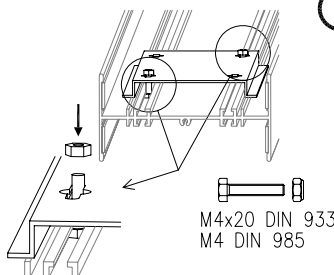


INSTALLATION

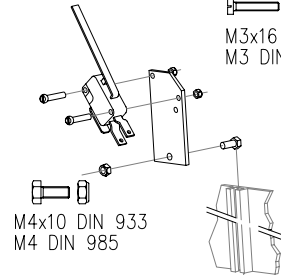
Begin by removing the top cover, polycarbonate fascias and base from the tower.

- (1) Insert the rubber grommets to the 2 wiring holes. In extreme environments it is necessary to apply the sealing strip to the inside edges of the aluminium.
- (2) Attach the back plates from the beam units at the required height using 2 bolts in opposing corners as shown in the diagram.
- If you are using heaters and thermostat please refer to section 2 on next page before continuing.**
- (3) Fix the supplied tamper switch to aluminium. Ensure that the arm of the switch rests above the top line of the aluminium.

1

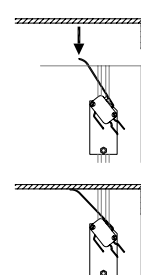


2



M3x16 DIN 84
M3 DIN 934

3

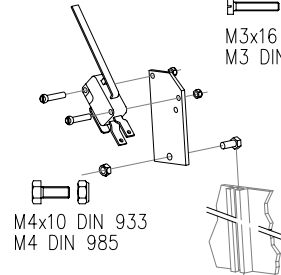


- (4) Fix the base to the ground using (with inserted cables): (4a) the supplied anchor bolts or (4b) the optional floor bracket (be sure to use a level).
- (5) Insert the extrusion into the base.
- (6) Secure extrusion to the base using the supplied bolts.
- (7) Fasten the side brackets to the floor using the supplied bolts.
- (8) For precise adjustment, present as in (10) and (8a) drill through both polycarbonate and aluminium. Remove fasciae and (8b) cut with shears from the border towards the hole to allow exact fitting with the side bracket bolt.
- (9) Fix aluminium to the side brackets with the supplied bolts. You can now attach the beam units to the back plates. Once the beams have been aligned, *insert the rubber bungs into the tamper/gain switch (Rx).
- DO NOT fit the original beam covers to the beam units.**
- (10) Replace the polycarbonate fascia.
- (11) Attach the top cover using the supplied screw.

Retirer le couvercle supérieur, profile de polycarbonate et la base de la colonne.

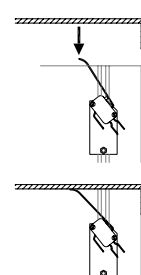
- (1) Fixer les œillets en caoutchouc aux trous de câblage. Dans des lieux extrêmes, appliquez les membranes adhésives aux bords intérieurs de l'aluminium.
- (2) Attacher à l'hauteur exigée les plaques des faisceaux à l'aluminium avec les deux boulons en croix comme montre le diagramme.
- Si vous employez chauffeurs et thermostat voir section 2 de la suivante page avant de continuer.**
- (3) Fixer à l'aluminium le tamper fourni. Assurez-vous que le bras du tamper repose au-dessus de la ligne supérieure de l'aluminium.

1



M3x16 DIN 84
M3 DIN 934

3

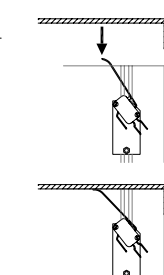


- (4) Fixer la base au sol (avec cables insérer) avec: (4a) les boulons d'ancrage fournis ou (4b) la plaque de fixation facultative (employer un niveau).
- (5) Insérer l'aluminium dans la base.
- (6) Fixer l'aluminium à la base à l'aide des boulons fournis.
- (7) Attacher les supports latéraux au sol à l'aide des boulons fournis.
- (8) Pour un ajustement précis, présentez comme en (10) et (8a) percer polycarbonate et aluminium. Retirer les profils et (8b) coupez avec des cisailles du bord vers le trou pour permettre la mise en place précise aux latéraux.
- (9) Fixer l'aluminium aux supports latéraux avec les boulons fournis. Vous pouvez maintenant attacher les faisceaux aux plaques. Une fois que les faisceaux ont été alignés, insérez les boudons en caoutchouc fournis au tamper.
- NE PAS placer les couvertures originales.**
- (10) Replacer profils de polycarbonate.
- (11) Attacher couvercle supérieur à l'aide de la vis fournie

Togliere la testa superiore, il profilato di policarbonato e la base della colonna.

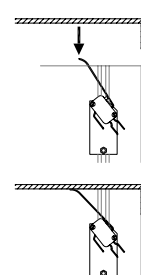
- (1) Fissare i passaparete di gomma ai fori per il cablaggio. In casi estremi, applicare le membrane adesive nelle guide del profilato.
- (2) All'altezza richiesta, fissare la placca posteriore della barriera IR all'alluminio con 2 viti alternate come indicato nel disegno.
- Se si utilizzano riscaldatori e termostato vedere la sezione 2 nella pagina seguente prima di proseguire.**
- (3) Fissare il tamper all'alluminio. Assicurarsi che la leva dell'interruttore oltrepassi la fine del profilato di alluminio.

1



M3x16 DIN 84
M3 DIN 934

3



- (4) Fissare la base al pavimento (inserendo i cavi attraverso il foro della base) con: (4a) tasselli metallici o (4b) la staffa per cementare opzionale (in questo caso, usare una livella).
- (5) Piantare l'alluminio nella base.
- (6) Avvitare l'alluminio alla base usando i bulloni forniti.
- (7) Fissare le staffe laterali al suolo
- (8) Per un aggiustaggio preciso, presentare il policarbonato (10) e (8a) forare Policarbonato ed Alluminio; togliere i profilati e (8b) tagliare dal bordo verso il foro per permettere il giusto montaggio.
- (9) Avvitare l'alluminio alle staffe laterali usando le viti fornite
- Installare i sensori sulle placche posteriori, connettere ed allineare i sensori.*Inserire i tappi di gomma attivando tamper/controllo del guadagno nei Rx.**
- NON USARE la carcassa originale del sensore.**
- (10) Montare i profilati di policarbonato.
- (11) Fissare testa superiore usando la vite fornita.

Para mantener el funcionamiento óptimo en ambientes externos con bajas temperaturas y riesgo de condensación, **cada columna debe incluir un calefactor por sensor, y un solo termostato**. P.e.: una columna que contenga 4 sensores requerirá 4 calefactores y 1 solo termostato. Cada calefactor consume 250 mA en 12VDC. Se recomienda alimentar los sensores y los calefactores por separado, salvo que se instale una fuente de alimentación independiente por columna.

LOS CALEFACTORES ESTÁN DISEÑADOS PARA FUNCIONAR A 12VDC.

Solamente pueden funcionar a 24VDC si se ponen en serie según las indicaciones del diagrama.

In order to maintain optimal performance in environments with low temperatures and condensation risk, **each tower must be equipped with one heater per beam unit, and a single thermostat switch**. I.e.: a tower containing 4 beam units will require 4 heaters and 1 thermostat switch.

Each heater unit will draw 250 mA at 12VDC. For large installations it may be necessary to run the beams and heaters on separate power loops, unless PSU's are installed in each tower.

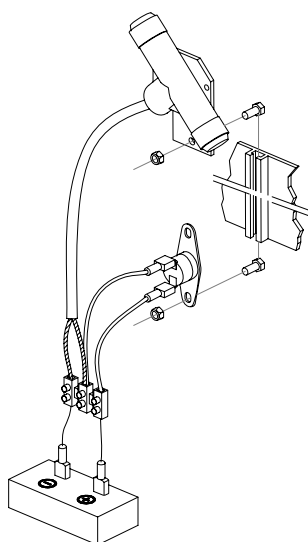
THE HEATERS ARE DESIGNED TO OPERATE ON 12VDC. If 24VDC is required, it is necessary to pair the heaters in series as shown in the diagram below.

Afin de maintenir un fonctionnement optimal dans des milieux externes avec températures basses et risque de condensation, **chaque colonne doit être équipée d'un chauffe par faisceau, et d'un thermostat**. P.e. : une tour avec 4 faisceaux exigera 4 chauffeurs et 1 thermostat. Chaque chauffe consomme 250 mA à 12VDC. Barrières et chauffeurs doivent fonctionner sur des sources d'alimentations séparées, à moins que ceux-ci soient installés dans chaque colonne.

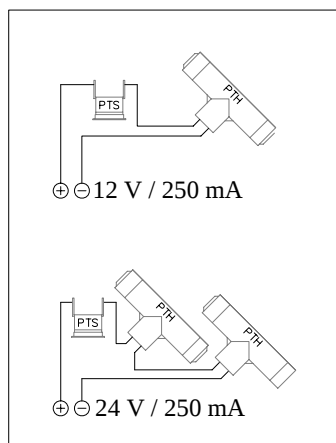
LES CHAUFFEURS SONT CONÇUS POUR OPÉRER A 12VDC. Il est seulement possible de courir les chauffeurs sur 24VDC s'ils sont appareillés en série suivant les indications du diagramme ci-dessous.

Per mantenere un funzionamento ottimale in ambienti esterni con basse temperatura e rischio di condensa, **ogni colonna deve includere un riscaldatore per sensore, ed un solo termostato**. Es.: una colonna che contenga 4 sensori richiederà 4 riscaldatori ed 1 solo termostato. Ogni riscaldatore consuma 250 mA a 12vDC. Si raccomanda alimentare i sensori ed i riscaldatori per separato, a non essere che si installi una fonte di alimentazione indipendente per colonna.

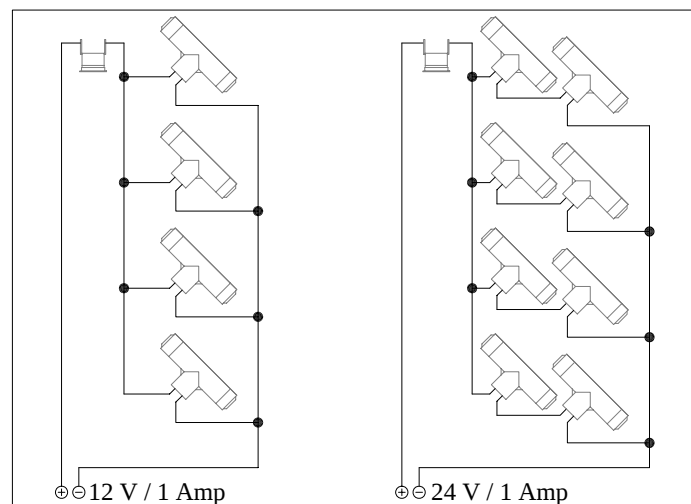
I RISCALDATORI SONO PROGETTATI PER FUNZIONARE A 12VDC. Solo possono funzionare a 24VDC se si collegano in serie come indica il disegno.



Simple setting



Series setting



A parte del los **calefactores y termostato** (sección 2), a la columna se puede incorporar un **tamper anti-escalo opcional**. Las columnas se pueden montar sobre el **soporte opcional diseñado para ser fijado en cemento**. Se incluye con cada columna un kit completo de fijación: tornillos inoxidables, tuercas y tacos de anclaje.

Other than **heaters and thermostat** (section 2), an **optional pressure sensing anti-climb tamper** can be incorporated. The towers can be mounted onto the **optional floor bracket designed to be set into concrete**. A full fixing kit is included with every tower: stainless screws, nylock nuts, sealing strips and expandable bolts.

Outre des **chauffeurs et thermostat** (section 2), un **détecteur de pression anti-escalade optionel** peut être incorporé. Les colonnes peuvent être montées sur la **plaque de fixation optionelle pour béton**. Un kit de montage complet est inclus avec chaque tour : vis inoxydables, écrous de nylock, bandes de scellage et boulons extensibles

A parte dei **riscaldatori e termostato** (sezione 2), alla colonna si può incorporare una **copertura anti-scavalcamento opzionale**. Le colonne si possono fissare sulla **staffa opzionale progettata per essere cementata**. Si include in ogni colonna un kit completo di fissaggio: viti inox, dadi e tasselli metallici.

Tenga especial cuidado al anclar a suelos desnivelados: **use un nivel**. Asegúrese que la distancia entre los equipos sea menor a la distancia de alcance recomendado por el fabricante; así se evitarán alarmas no deseadas. El perfil de Policarbonato se debe limpiar regularmente con un paño húmedo para evitar la acumulación de la suciedad. **Usar únicamente agua y jabón neutro**.

Special attention is required when anchoring to uneven grounds. **Be sure a level is used**. Ensure that the distance between the equipment is smaller than the distance recommended by the manufacturer in order to prevent undesired alarms. Polycarbonate cover should be cleaned on a regular basis with a damp cloth in order to avoid accumulation of dirt. **Only use water and neutral soap**.

Faites attention lors de l'ancrage aux sols inégaux: **utiliser un niveau**. Faites attention que la distance entre les équipements est inférieure que la distance de portée recommandée par le fabricant ; on évitera ainsi des alarmes non souhaitées. Les profiles de polycarbonate doivent être nettoyées de façon régulière avec un tissu humide afin d'éviter l'accumulation de pollution. **Utiliser seulement de l'eau et du savon neutre**.

Fare attenzione al fissare il prodotto su di un suolo non piano: **usare una livella**. Assicurarsi che la distanza tra i sensori sia minore alla distanza raccomandata dal fabbricante; in questo modo si eviteranno falsi allarmi. Il profilato di Policarbonato si deve pulire regolarmente con un panno umido per evitare l'accumulo di sporcizia. **Usare unicamente acqua e sapone neutro**.