



Compact outdoor detector

**fit series**

**WIRED MODEL**

FTN-ST	Standard model with 2 PIRs
FTN-AM	FTN-ST with anti-masking

- Compact design
- Digital anti-masking (AM model)
- 190° adjustable bracket
- Wall tamper (option)
- Intelligent AND logic

**CONTENTS**

<b>1</b> INTRODUCTION		
1-1 BEFORE INSTALLATION	1	
1-2 PARTS IDENTIFICATION	2	
1-3 DETECTION AREA	2	
<b>2</b> INSTALLATION		
2-1 INSTALLATION	3	
<b>3</b> WALK TEST		
3-1 WALK TEST	5	
<b>4</b> DIP SWITCH SETTING		
4-1 LED	5	
		4-2 ALARM OUTPUT ..... 5
		4-3 PIR SENSITIVITY ..... 5
		4-4 ANTI-MASKING..... 6
		<b>5</b> OTHERS
		5-1 WALL TAMPER (OPTION) CONNECTION ..... 6
		5-2 EXAMPLE OF EOL WIRING ..... 7
		5-3 LED LIGHT PATTERN ..... 7
		<b>6</b> SPECIFICATIONS
		6-1 SPECIFICATIONS..... 8
		6-2 DIMENSIONS..... 8

**1 INTRODUCTION**

**1-1 BEFORE INSTALLATION**

<b>Warning</b>	Failure to follow the instructions provided with this indication and improper handling may cause death or serious injury.
<b>Caution</b>	Failure to follow the instructions provided with this indication and improper handling may cause injury and/or property damage.

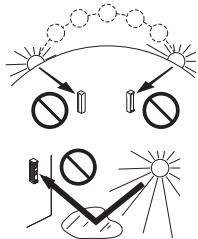
The check mark indicates recommendation. The nix sign indicates prohibition.

<b>Warning</b>	<b>Caution</b>	<b>Caution</b>
Do not remove the PCB.	Do not touch the PCB except for the DIP switch.	Mounting height.

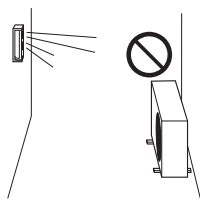
Keep the detector parallel to the ground.	Consider the direction of the intruder, for the setting of the detection area.

Install the detector in a place where it is free from false alarm factors. For example:

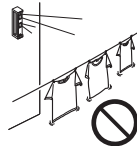
• Sunlight and reflection



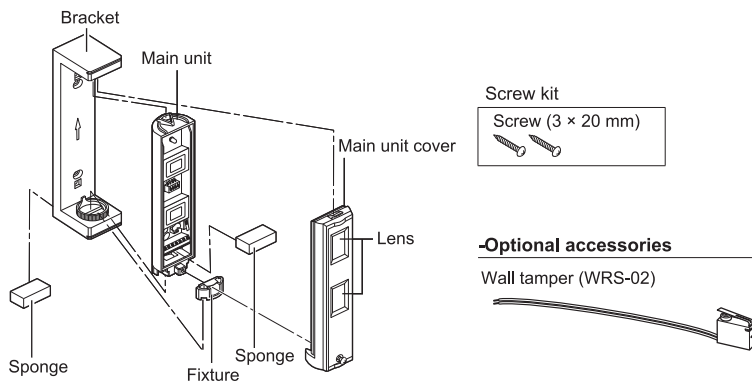
• Heat source



• Objects moving in the wind

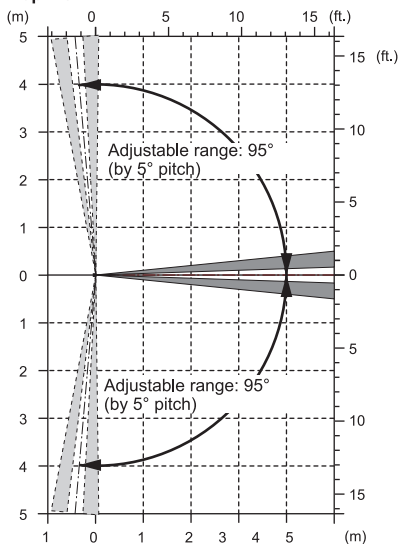


## 1-2 PARTS IDENTIFICATION

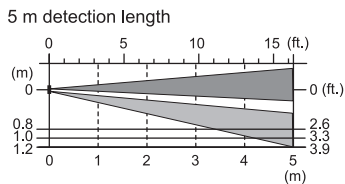


## 1-3 DETECTION AREA

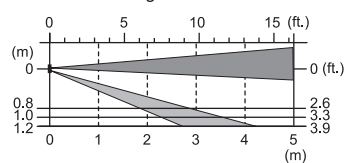
Top view



Side view



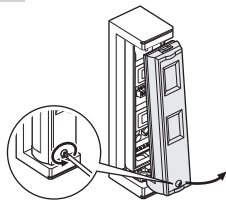
2 m detection length



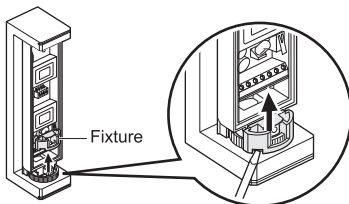
## 2 INSTALLATION

### 2-1 INSTALLATION

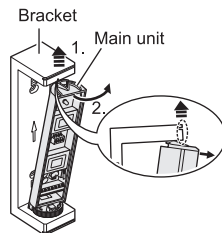
1 Open the main unit cover.



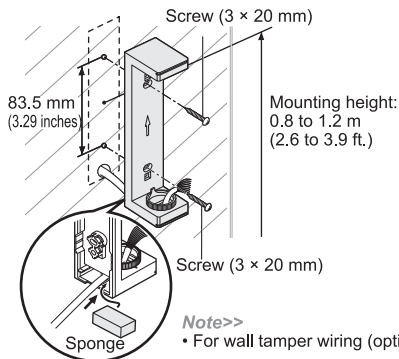
2 Remove the fixture.



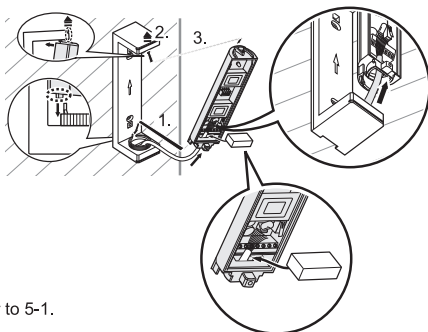
3 Hold the top of the bracket lifted and remove the main unit.



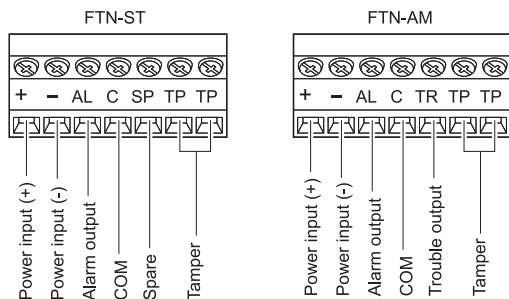
4 Put the wire extending from the wall through the wiring hole in the bottom of the bracket, and mount the bracket on the wall.



5 Pull the wire through the main unit. Lift the top of the bracket slightly and mount the main unit to the bracket.



6 Wire terminal connections.



Notes>>

- Anti-masking output is recognized as TROUBLE.
- For EOL, refer to 5-2.

#### -Power cable length

The power cable should be limited to the following length.

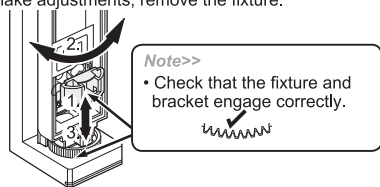
Unit: m (ft.)

Cable diameter	FTN-ST		FTN-AM	
	12 V	14 V	12 V	14 V
AWG22 (0.33 mm <sup>2</sup> )	340 (1120)	730 (2400)	290 (950)	620 (2030)
AWG20 (0.52 mm <sup>2</sup> )	530 (1740)	1160 (3810)	450 (1480)	980 (3220)
AWG18 (0.83 mm <sup>2</sup> )	850 (2790)	1850 (6070)	720 (2360)	1570 (5150)

- 7 Determine the horizontal detection angle and attach the fixture.

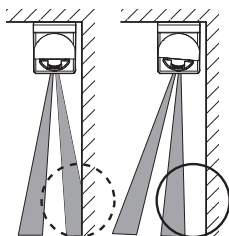
**Note>>**

- To make adjustments, remove the fixture.

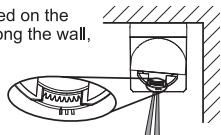


**Note>>**

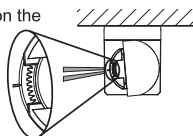
Align the detection area parallel to the wall to reduce interference with the wall.



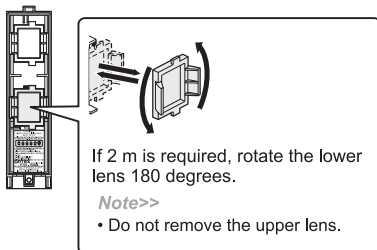
- When the unit is mounted on the corner to look ahead along the wall, choose the guide-mark located on the opposite side of the wall.



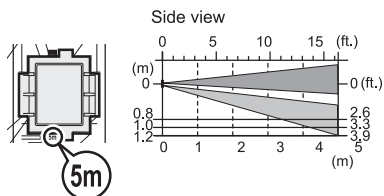
- When the unit is mounted on the wall to look transversely, choose the guide-mark engraved.



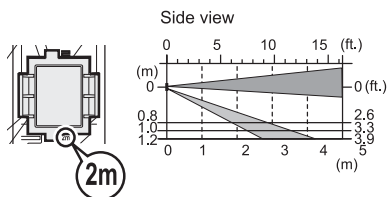
- 8 Determine the detection length. (2 m or 5 m)



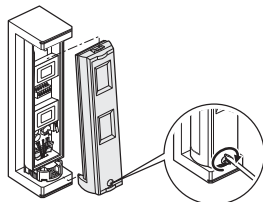
**5 m detection length (Factory default)**



**2 m detection length**



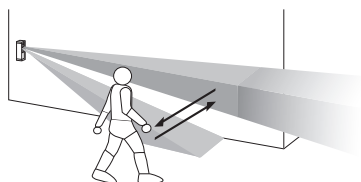
- 9 Attach the main unit cover.



**Note>>**

- To prepare for walk test, check that DIP switch 1 (WALK TEST MODE) is set to "ON (TEST)" before attaching main unit cover.

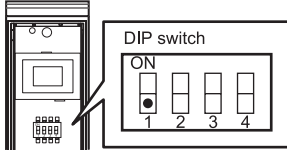
- 10 Perform walk test.



### 3 WALK TEST

#### 3-1 WALK TEST

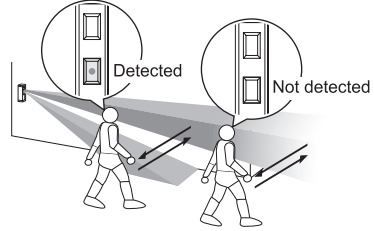
1 Set DIP switch 1 (LED) to "ON".



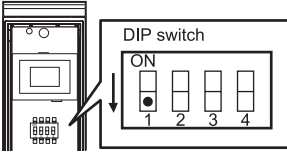
Note>>

• The switch is set to "ON" by factory default.

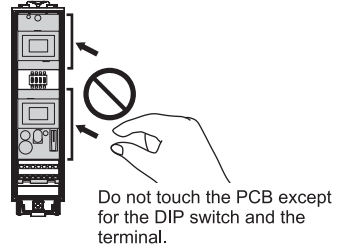
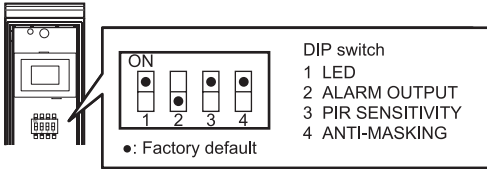
2 Check that LED lights for 2 seconds when the intended object is detected.



3 If the LED does not need to be turned on at all times, set the DIP switch 1 (LED) to "OFF".

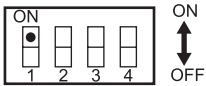


### 4 DIP SWITCH SETTING



#### 4-1 LED

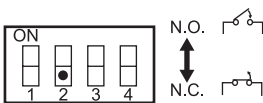
DIP switch 1 FTN-ST FTN-AM



Position	Function
ON (Factory default)	LED ON
OFF	LED OFF

#### 4-2 ALARM OUTPUT

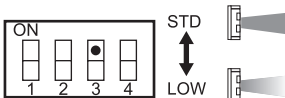
DIP switch 2 FTN-ST FTN-AM



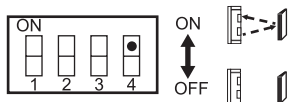
Position	Function
N.O.	N.O. output
N.C. (Factory default)	N.C. output

#### 4-3 PIR SENSITIVITY

DIP switch 3 FTN-ST FTN-AM



Position	Function
STD (Factory default)	Normal sensitivity
LOW	Low sensitivity

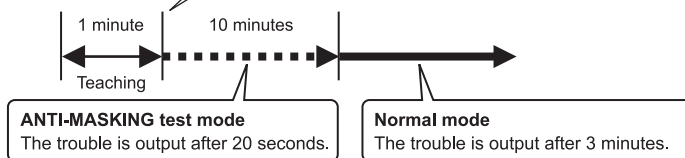


Position	Function
ON (Factory default)	ANTI-MASKING ON
OFF	ANTI-MASKING OFF

### -ANTI-MASKING function

When masking condition continues more than 3 minutes, TROUBLE will be generated. TROUBLE is generated after 20 seconds under the anti-masking test mode.

Please close the main unit cover before turning on the power supply. "Teaching mode" will begin immediately after the power is supplied. Re-starting the power is necessary if the power has been applied prior to the closing. Please be careful not to leave any object within 1 m from the unit.



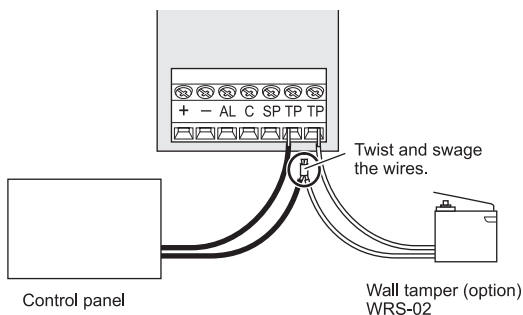
*Note>>*

- If a trouble is output (mal-detection of anti-masking) immediately after the operation has started, set the DIP switch 4 (ANTI-MASKING) to "OFF" and then to "ON", and close the cover.

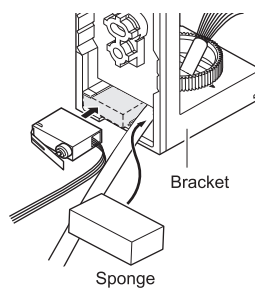
## 5 OTHERS

### 5-1 WALL TAMPER (OPTION) CONNECTION

Connect the tamper lead as shown below when connecting a wall tamper (option).



#### -Mounting position



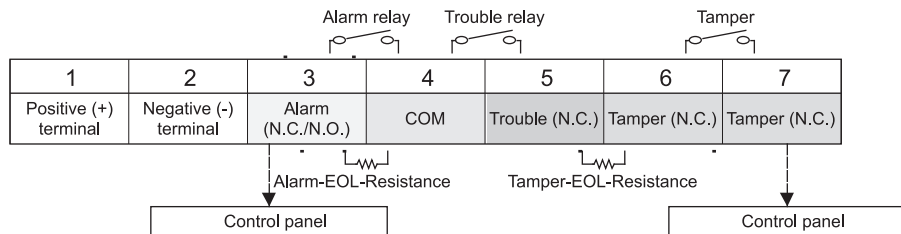
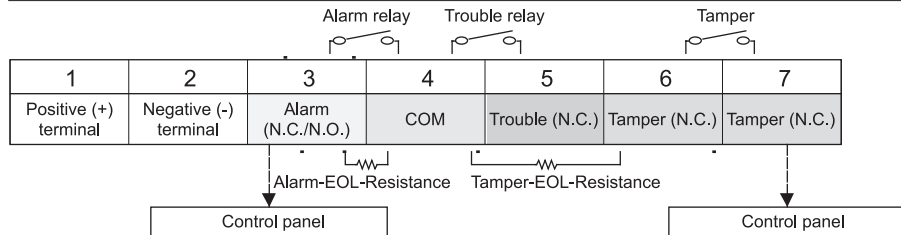
*Note>>*

- Pull the wire through the bracket before installing the wall tamper (option).

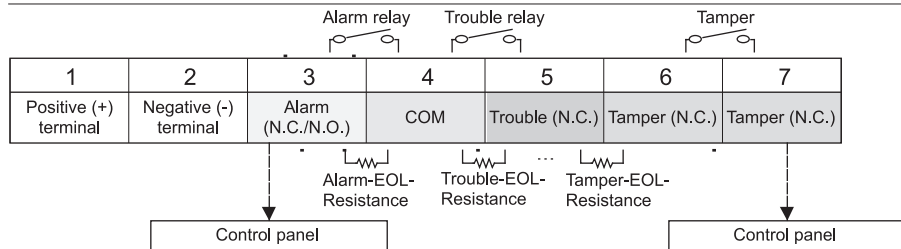
### 5-2 EXAMPLE OF EOL WIRING

Since the alarm and trouble outputs share the COM terminal, the wire connection should be made for the fit series detector according to the following diagram.

#### -Double EOL



#### -Triple EOL



### 5-3 LED LIGHT PATTERN

The following explains the LED light pattern.



LED



Blink



Light



OFF

Detector condition	LED indicator
Warm-up <i>Note&gt;&gt;</i> • The LED blinks even if the DIP switch 1 (LED) is set to "OFF".	 Blinks for approx. 60 seconds.
Alarm	 Lights for 2 seconds.
Masking detection (FTN-AM only) <i>Note&gt;&gt;</i> • The LED blinks even if the DIP switch 1 (LED) is set to "OFF".	 Blinks 3 times and then repeats.

## 6 SPECIFICATIONS

### 6-1 SPECIFICATIONS

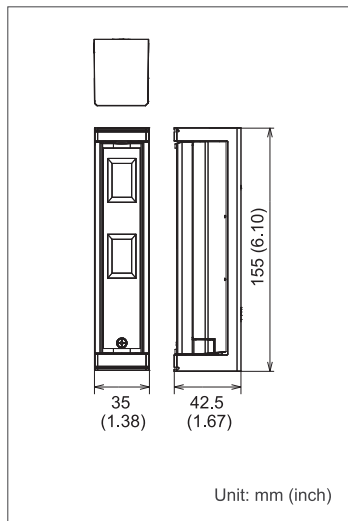
Model	FTN-ST	FTN-AM
Detection method	Passive infrared	
PIR coverage	5 × 1 m (16.4 × 3.3 ft.)	
Detection length limit	2 m, 5 m (6.6 ft., 16.4 ft.)	
Detectable speed	0.3 to 1.5 m/s (1 to 4.9 ft./s)	
Sensitivity	2.0°C (at 0.6 m/s) (3.6°F (at 2 ft./s))	
Operation voltage	9.5 to 18 VDC	
Current draw	17 mA (max.) (at 12 VDC)	20 mA (max.) (at 12 VDC)
Alarm period	2.0 ±1.0 sec.	
Warm-up period	Approx. 60 sec. (LED blinks)	
Alarm output	N.C./N.O. Selectable 28 VDC 0.1 A (max.)	
Trouble output	-	N.C. 28 VDC 0.1 A (max.)
Tamper output	N.C. 28 VDC 0.1 A (max.) open when the cover is removed	
LED indicator	Light/Blink: Warm-up, alarm, masking detection (FTN-AM only)	
Operation temperature	-20°C to +60°C (-4°F to +140°F)	
Environment humidity	95% max.	
Weatherproof	IP55	
Mounting	Wall (Outdoor, Indoor)	
Mounting height	0.8 to 1.2 m (2.6 to 3.9 ft.)	
Weight	100 g (3.5 oz.)	
Accessories	Screw (3 × 20 mm) × 2	

\* Specifications and design are subject to change without prior notice.

#### Note>>

- These units are designed to detect an intruder and activate an alarm control panel. Being only a part of a complete system, we cannot accept responsibility for any damages or other consequences resulting from an intrusion. These products conform to the EMC Directive 2004/108/EC.

### 6-2 DIMENSIONS



**OPTEX CO., LTD. (JAPAN)**

URL: <http://www.optex.net/>

**OPTEX INC. (U.S.)**

URL: <http://www.optexamerica.com/>

**OPTEX DO BRASIL LTDA. (Brazil)**

URL: <http://www.optex.net/br/es/sec/>

**OPTEX (EUROPE) LTD. / EMEA HQ (U.K.)**

URL: <http://www.optexeurope.com/>

**OPTEX TECHNOLOGIES B.V. (The Netherlands)**

URL: <http://www.optex.eu/>

**OPTEX SECURITY SAS (France)**

URL: <http://www.optex-security.com/>

**OPTEX SECURITY Sp.z o.o. (Poland)**

URL: <http://www.optex.com.pl/>

**OPTEX PINNACLE INDIA, PVT., LTD. (India)**

URL: <http://www.optex.net/in/en/sec/>

**OPTEX KOREA CO., LTD. (Korea)**

URL: <http://www.optexkorea.com/>

**OPTEX (DONGGUAN) CO., LTD. SHANGHAI OFFICE (China)**

URL: <http://www.optexchina.com/>




 Détecteur compact  
d'extérieur

**fit series**
**MODELE FILAIRE**

FTN-ST	Modèle standard avec 2 PIR
FTN-AM	FTN-ST avec anti-masquage

- Apparence compact
- Rotule réglable 190°
- Intelligent AND Logic
- Fonction anti-masquage numérique (uniquement pour AM)
- Autoprotection murale (option)

## SOMMAIRE

<b>1</b> INTRODUCTION	
1-1 AVANT L'INSTALLATION .....	1
1-2 IDENTIFICATION DES PIÈCES .....	2
1-3 ZONE DE DÉTECTION .....	2
<b>2</b> INSTALLATION	
2-1 INSTALLATION .....	3
<b>3</b> TEST DE MARCHÉ	
3-1 TEST DE MARCHÉ .....	5
<b>4</b> RÉGLAGE DES INTERRUPTEURS DIP	
4-1 LED .....	5
4-2 SORTIE D'ALARME .....	5
4-3 SENSIBILITÉ DE PIR .....	5
4-4 ANTI-MASQUAGE NUMÉRIQUE .....	6
<b>5</b> DIVERS	
5-1 CONNECTION D'AUTOPROTECTION MURALE (OPTION) .....	6
5-2 EXEMPLE DU CABLAGE D'EOL .....	7
5-3 FORME DE LUMIÈRE LED .....	7
<b>6</b> SPECIFICATIONS	
6-1 SPECIFICATIONS .....	8
6-2 DIMENSIONS .....	8

## 1 INTRODUCTION

### 1-1 AVANT L'INSTALLATION

Avertissement	Le non respect des instructions données avec ce signe et une mauvaise manipulation peuvent causer la mort ou des blessures graves.
Attention	Le non respect des instructions données avec ce signe et une mauvaise manipulation peuvent causer des blessures et/ou des dommages aux biens.

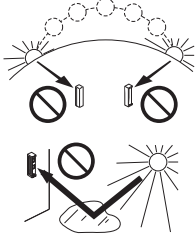
Le signe de coche ✓ indique une recommandation. Le signe de négation ⊘ indique une interdiction.

Avertissement	Attention	Attention
Ne pas enlever le PCB. 	Ne pas toucher le PCB sauf les interrupteurs DIP. 	Hauteur de montage. ✓ Entre 0.8 et 1.2 m (Entre 2,6 et 3,9 ft.) Parallèle 

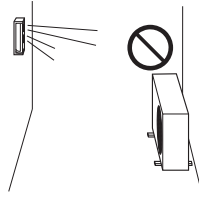
Maintenir le détecteur parallèle au sol. 	Tenir compte de la direction d'approche d'une personne de même que de la zone de détection. 
--	---

Installer le détecteur dans un emplacement ne présentant pas de cause de fausses alarmes. Par exemple:

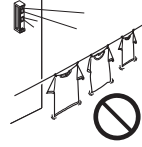
• Lumière solaire et réflexion



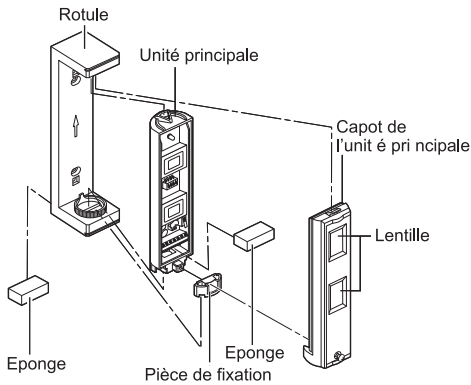
• Source de chaleur



• Objets bougeant au vent



## 1-2 IDENTIFICATION DES PIÈCES



Les vis  
Vis (3 x 20 mm)

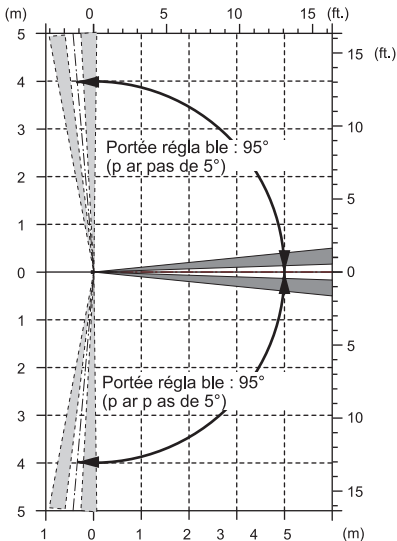
### -Accessoires en option

Autoprotection murale (WRS-02)



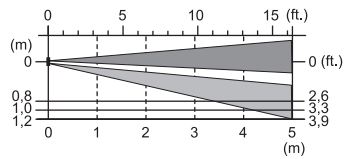
## 1-3 ZONE DE DETECTION

### Vue de dessus

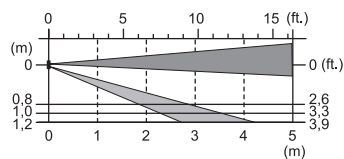


### Vue de côté

D istance de détection 5 m



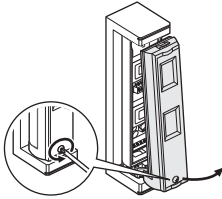
D istance de détection 2 m



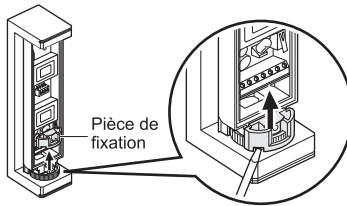
# 2 INSTALLATION

## 2-1 INSTALLATION

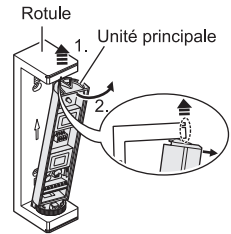
1 Ouvrir le capot de l'unité principale.



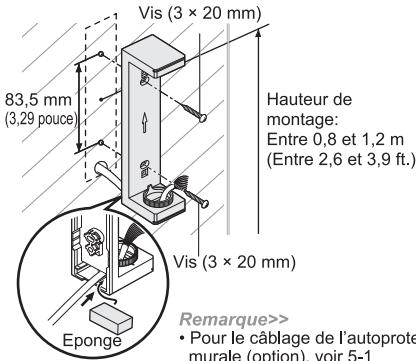
2 Enlever la pièce de fixation.



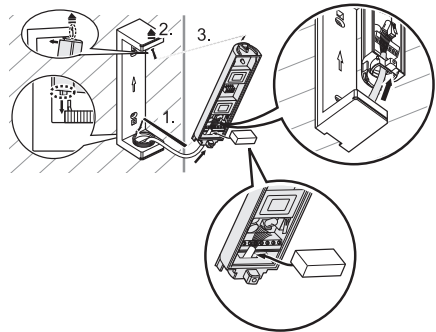
3 Maintenir le dessus de la rotule et retirer l'unité principale.



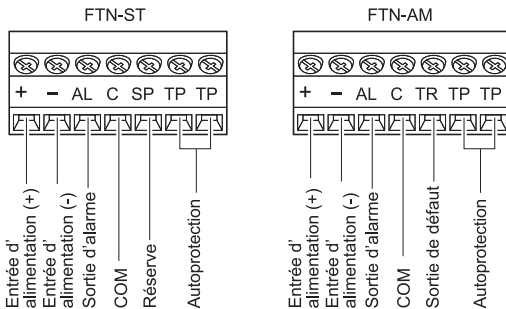
4 Mettre le fil sortant du mur à travers la découpe pour câblage au fond de la rotule, et monter la rotule au mur.



5 Tirer le fil à travers l'unité principale. Maintenir la partie supérieure de la rotule et monter l'unité principale.



6 Connexion aux bornes.



Remarques>>

- La sortie anti-masquage est indiquée comme TROUBLE.
- Pour EOL, voir 5-2.

### -Longueur de câble d'alimentation

Le câble d'alimentation devrait être limité à la longueur suivante.

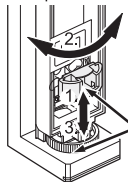
Unité : mètre (pied)

Diamètre du câble	FTN-ST		FTN-AM	
	12 V	14 V	12 V	14 V
AWG22 (0,33 mm <sup>2</sup> )	340 (1120)	730 (2400)	290 (950)	620 (2030)
AWG20 (0,52 mm <sup>2</sup> )	530 (1740)	1160 (3810)	450 (1480)	980 (3220)
AWG18 (0,83 mm <sup>2</sup> )	850 (2790)	1850 (6070)	720 (2360)	1570 (5150)

- 7 Déterminer l'angle horizontal de détection et attacher la fixation.

**Remarque>>**

- Enlever la pièce de fixation pour faire des réglages.



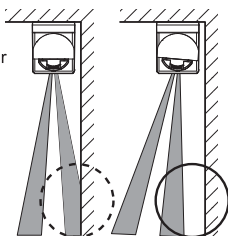
**Remarque>>**

- Vérifier le bon engagement de la pièce de fixation et de la rotule.

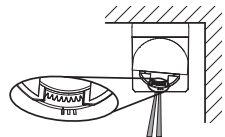


**Remarques>>**

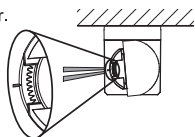
Aligner la zone de détection parallèle au mur pour réduire l'interférence du mur.



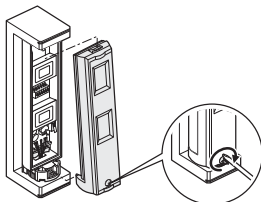
- Installation au coin.



- Installation parallèle au mur.



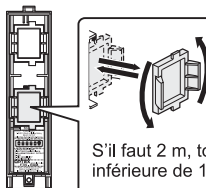
- 9 Fixer le capot de l'unité principale.



**Remarque>>**

- Pour préparer le test de marche, vérifier que l'interrupteur DIP 1 (LED) est mis sur ON avant de remettre le capot de l'unité principale.

- 8 Déterminer la distance de détection. (2 m ou 5 m)

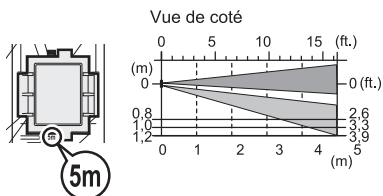


S'il faut 2 m, tourner la lentille inférieure de 180 degrés.

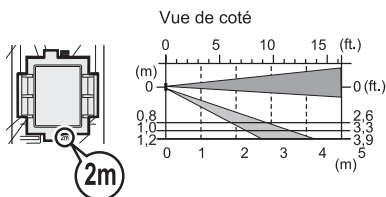
**Remarque>>**

- Ne pas enlever la lentille supérieure.

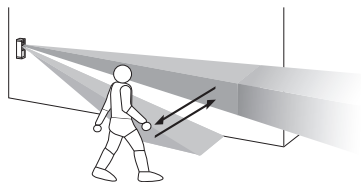
**Distance de détection 5 m (Réglage d'usine)**



**Distance de détection 2 m**



- 10 Réaliser le test de marche.  
Voir 3-1 pour les détails.



### 3 TEST DE MARCHÉ

ENGLISH

FRANÇAIS

DEUTSCH

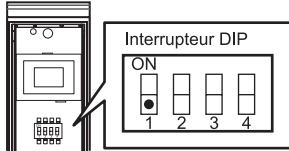
ITALIANO

ESPAÑOL

PORTUGUÊS

#### 3-1 TEST DE MARCHÉ

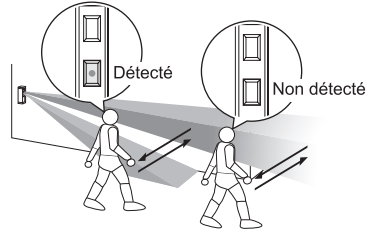
1 Mettre l'interrupteur DIP 1 (LED) sur ON.



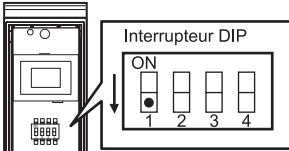
Remarque>>

• L'interrupteur est sur ON par réglage usine.

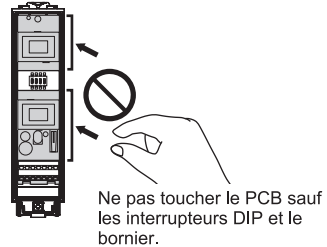
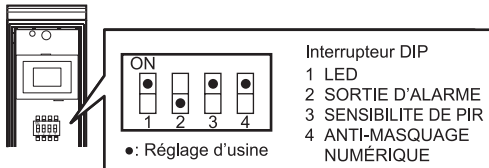
2 Vérifier que la LED s'allume pendant 2 secondes quand l'objet prévu est détecté.



3 Si on n'a pas besoin d'avoir la LED allumée à chaque fois, mettre l'interrupteur DIP 1 (LED) sur OFF.



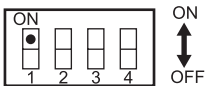
### 4 REGLAGE DES INTERRUPTEURS DIP



Ne pas toucher le PCB sauf les interrupteurs DIP et le bornier.

#### 4-1 LED

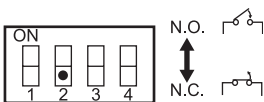
Interrupteur DIP 1 FTN-ST FTN-AM



Position	Fonction
ON (Réglage d'usine)	LED ON
OFF	LED OFF

#### 4-2 SORTIE D'ALARME

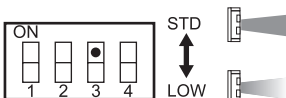
Interrupteur DIP 2 FTN-ST FTN-AM



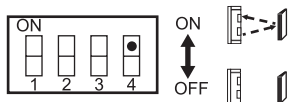
Position	Fonction
N.O.	N.O. sortie
N.C. (Réglage d'usine)	N.C. sortie

#### 4-3 SENSIBILITE DE PIR

Interrupteur DIP 3 FTN-ST FTN-AM



Position	Fonction
STD (Réglage d'usine)	Sensibilité normale
LOW	Sensibilité faible

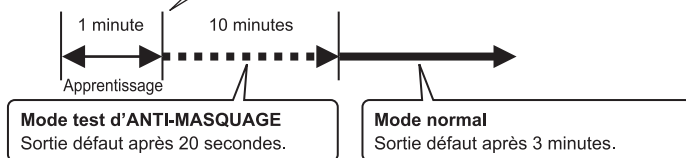


Position	Fonction
ON (Réglage d'usine)	ANTI-MASQUAGE ON
OFF	ANTI-MASQUAGE OFF

### -Fonction ANTI-MASQUAGE numérique

Si un masquage dure plus de 3 minutes, un DEFAULT sera émis.  
Un Défaut est émis après 20 secondes en mode de test d'anti-masquage.

Fermer le capot de l'unité principale avant de mettre le courant électrique.  
Le "mode apprentissage" commencera immédiatement après la mise en marche.  
Il faut couper et remettre le courant s'il a été mis avant la fermeture.  
Prendre soin de ne laisser aucun objet à moins de 1 m de l'unité.



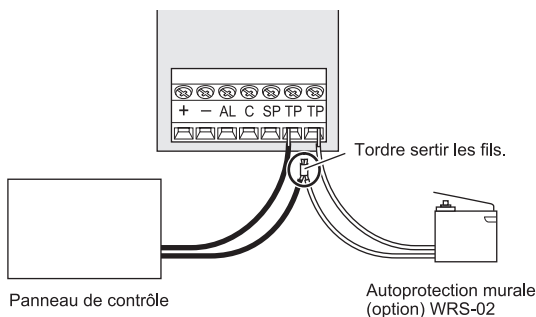
#### Remarque>>

- S'il y a une sortie défaut (mauvaise détection de l'anti-masquage) immédiatement après le démarrage de l'opération, régler l'interrupteur DIP 4 (ANTI-MASQUAGE) sur "OFF" puis sur "ON" et fermer le capot.

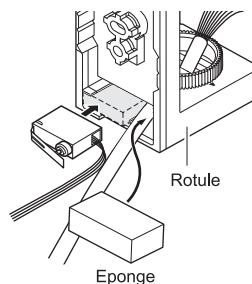
## 5 DIVERS

### 5-1 CONNEXION D'AUTOPROTECTION MURALE (OPTION)

Raccorder le connecteur d'autoprotection comme indiqué ci-dessous pour connecter une autoprotection murale (option).



#### -Position de montage



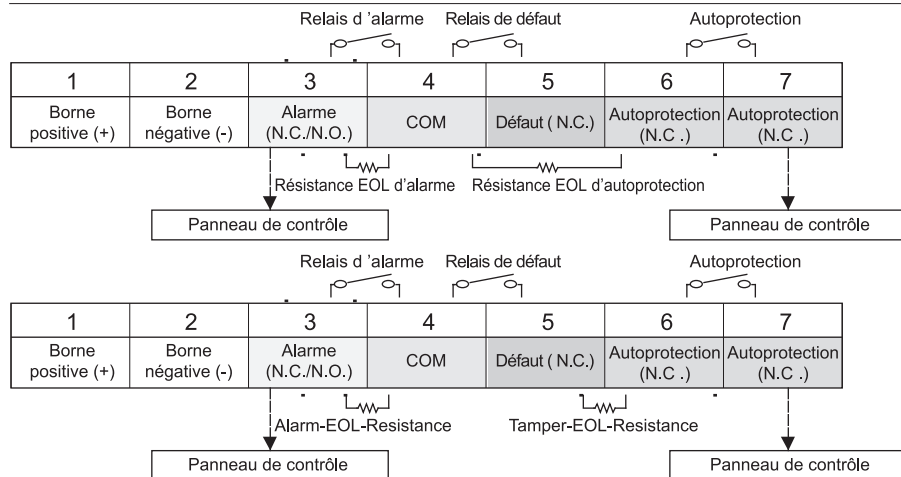
#### Remarque>>

- Tirer le fil à travers la rotule avant d'installer l'autoprotection murale (option).

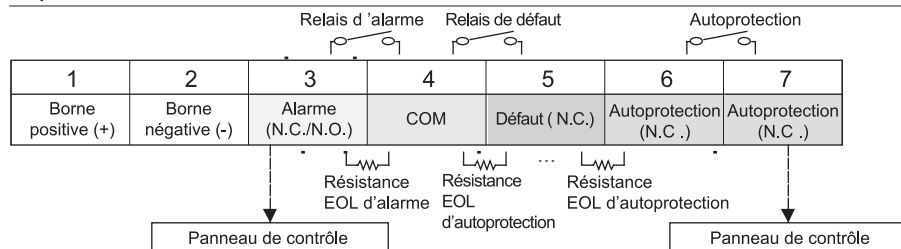
## 5-2 EXEMPLE DU CABLAGE D'EOL

Comme les sorties alarme et défaut partagent la même borne COM, le raccordement des fils pour les modèles de détecteur fit devrait être fait selon le schéma suivant.

### -Double EOL



### -Triple EOL



## 5-3 FORME DE LUMIERE LED

Ci-après le fonctionnement de la LED.



Condition du détecteur	Voiant LED
Préparation <i>Remarque&gt;&gt;</i> • La LED clignote si l'interrupteur DIP 1 (LED) est mis sur OFF.	 Clignote environ 60 secondes.
Alarme	 S'allume pendant 2 secondes.
Détection de masquage (FTN-AM uniquement) <i>Remarque&gt;&gt;</i> • La LED clignote si l'interrupteur DIP 1 (LED) est mis sur OFF.	 Clignote 3 fois et puis recommence.

## 6 SPECIFICATIONS

### 6-1 SPECIFICATIONS

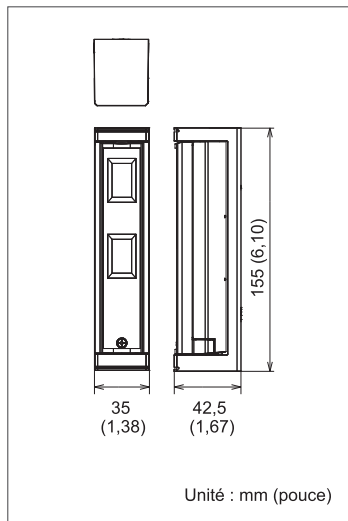
Modèle	FTN-ST	FTN-AM
Méthode de détection	Infrarouge passif	
Couverture PIR	5 × 1 m (16,4 × 3,3 ft.)	
Distances limites	2 m, 5 m (6,6 ft., 16,4 ft.)	
Vitesse détectable	Entre 0,3 et 1,5 m/s (Entre 1 et 4,9 ft./s)	
Sensibilité	2,0°C (à 0,6 m/s) (3,6°F (à 2'/s))	
Tension de fonctionnement	Entre 9,5 et 18 VDC	
Alimentation	17 mA (max.) (à 12 VDC)	20 mA (max.) (à 12 VDC)
Période d'alarme	2,0 plus/moins 1,0 sec.	
Période de chauffe	Approx. 60 sec. (LED clignotante)	
Sortie alarme	N.C./N.O. Sélectionnable 28 VDC 0,1 A (max.)	
Sortie défaut	-	N.C. 28 VDC 0,1 A (max.)
Sortie autoprotection	N.C. 28 VDC 0,1 A (max.), active quand le capot est enlevé.	
Indications LED	Clignote : Préparation, alarme, Détection de masquage (FTN-AM uniquement)	
Température de fonctionnement	Entre -20°C et +60°C (Entre -4°F et +140°F)	
Humidité	95% max.	
Étanchéité	IP55	
Montage	Mur (Extérieur, Intérieur)	
Hauteur de montage	Entre 0,8 et 1,2 m (Entre 2,6 et 3,9 ft.)	
Poids	100 g (3,5 oz.)	
Accessoires	Vis (3 × 20 mm) × 2	

\* Les spécifications et le design sont sujets à modifications sans préavis.

#### Remarque>>

- Ces unités sont conçues pour détecter un intrus et actionner un panneau de contrôle d'alarme. Comme elles font partie d'un système complet, nous ne pouvons pas accepter de responsabilité pour aucun dommage ou autres conséquences suite à une intrusion. Ces produits sont conformes à la Directive EMC 2004/108/EC.

### 6-2 DIMENSIONS



**OPTEX CO., LTD. (JAPAN)**

URL: <http://www.optex.net/>

**OPTEX INC. (U.S.)**

URL: <http://www.optexamerica.com/>

**OPTEX DO BRASIL LTDA. (Brazil)**

URL: <http://www.optex.net/br/es/sec/>

**OPTEX (EUROPE) LTD. / EMEA HQ (U.K.)**

URL: <http://www.optexeurope.com/>

**OPTEX TECHNOLOGIES B.V. (The Netherlands)**

URL: <http://www.optex.eu/>

**OPTEX SECURITY SAS (France)**

URL: <http://www.optex-security.com/>

**OPTEX SECURITY Sp.z o.o. (Poland)**

URL: <http://www.optex.com.pl/>

**OPTEX PINNACLE INDIA, PVT., LTD. (India)**

URL: <http://www.optex.net/in/en/sec/>

**OPTEX KOREA CO., LTD. (Korea)**

URL: <http://www.optexkorea.com/>

**OPTEX (DONGGUAN) CO., LTD. SHANGHAI OFFICE (China)**

URL: <http://www.optexchina.com/>





Kompakter Außenmelder

**iii-Serie**
**MODELL MIT KABEL**

FTN-ST	Standardmodell mit 2 PIRs
FTN-AM	FTN-ST mit Anti-Masking

- Kompaktes Design
- 190° einstellbare Halterung
- Intelligent UND logisch
- Digitales Anti-Masking (AM-Modell)
- Wandsabotage (optional)

## INHALTSVERZEICHNIS

<b>1</b> EINLEITUNG	
1-1 VOR DER INSTALLATION.....	1
1-2 TEILEKENNZEICHNUNG .....	2
1-3 ERKENNUNGSBEREICH .....	2
<b>2</b> INSTALLATION	
2-1 INSTALLATION .....	3
<b>3</b> GEHTEST	
3-1 GEHTEST .....	5
<b>4</b> DIP-SCHALTER EINSTELLEN	
4-1 LED .....	5
4-2 ALARMAUSGANG .....	5
4-3 PIR-EMPFINDLICHKEIT .....	5
4-4 ANTI-MASKING .....	6
<b>5</b> SONSTIGES	
5-1 WANDSABOTAGE (OPTIONAL) ANSCHLUSS ....	6
5-2 BEISPIEL FÜR EOL-VERKABELUNG .....	7
5-3 LED BLINKMUSTER .....	7
<b>6</b> SPEZIFIKATIONEN	
6-1 SPEZIFIKATIONEN .....	8
6-2 ABMESSUNGEN .....	8

# 1 EINLEITUNG

## 1-1 VOR DER INSTALLATION

<b>Warnung</b>	Die Nichteinhaltung der Anweisungen in diesem Handbuch und falsche Handhabung können zum Tod oder zu schweren Verletzungen führen.
<b>Vorsicht</b>	Die Nichteinhaltung der Anweisungen mit diesem Warnsymbol und falsche Handhabung können zu Verletzungen und/oder Sachschäden führen.

Die Markierung bedeutet Empfehlung.

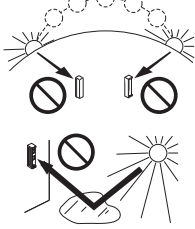
Das Nix-Symbol zeigt Unzulässigkeit an.

<b>Warnung</b>	<b>Vorsicht</b>	<b>Vorsicht</b>
Entfernen Sie nicht die Leiterplatte. 	Berühren Sie nicht die Leiterplatte, außer für den DIP-Schalter. 	Montagehöhe 

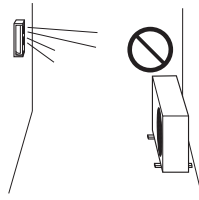
Halten Sie den Melder parallel zum Boden. 	Berücksichtigen Sie die Richtung, aus der sich eine Person nähert, sowie den Erkennungsbereich. 
---	---

Installieren Sie den Melder an einem Standort, der frei von Fehlalarmfaktoren ist. Beispielsweise:

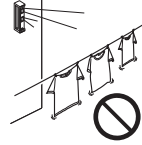
- Sonneneinstrahlung und Reflektion



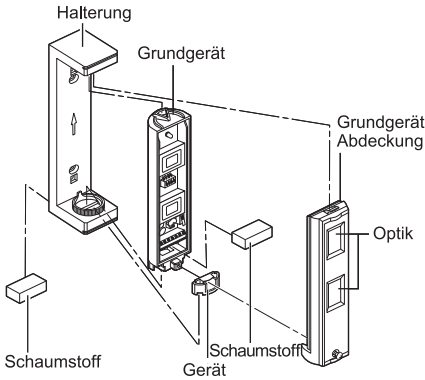
- Wärmequelle



- Gegenstände, die sich im Wind bewegen



1-2 TEILEKENNZEICHUNG



- Schraubensatz  
Schraube (3 × 20 mm)
- 

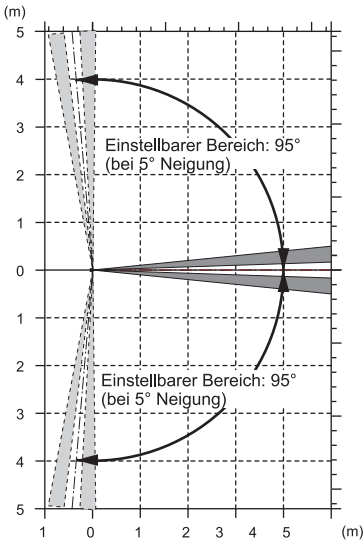
-Optionales Zubehör

Wandsabotage (WRS-02)



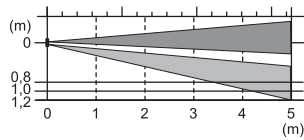
1-3 ERKENNUNGSBEREICH

Draufsicht

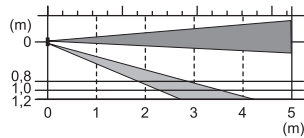


Seitenansicht

5 m Erkennungsreichweite



2 m Erkennungsreichweite



# 2 INSTALLATION

ENGLISH

FRANÇAIS

DEUTSCH

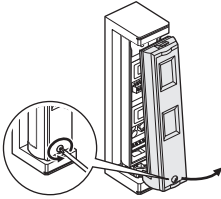
ITALIANO

ESPAÑOL

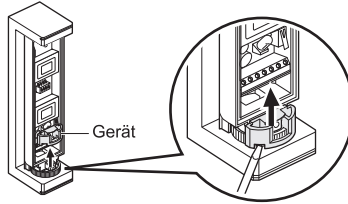
PORTUGUÊS

## 2-1 INSTALLATION

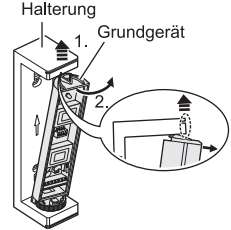
1 Öffnen Sie die Abdeckung des Grundgeräts.



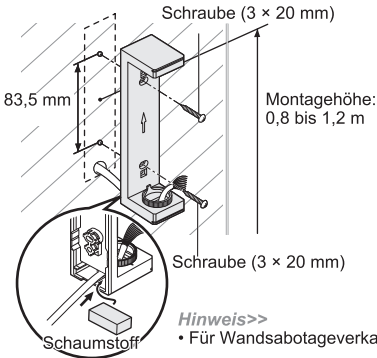
2 Nehmen Sie das Gerät ab.



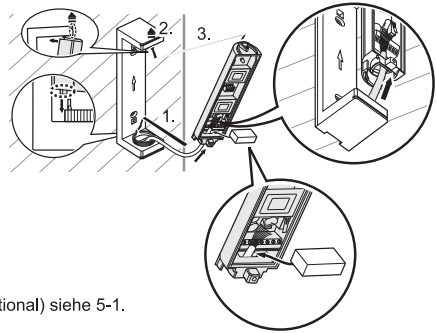
3 Halten Sie die Halterung oben fest und nehmen Sie das Grundgerät heraus.



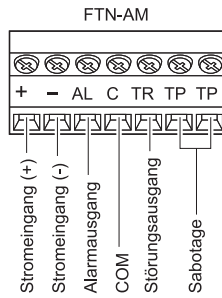
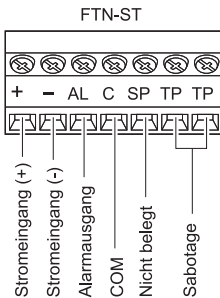
4 Ziehen Sie das Kabel von der Wand durch die Kabelöffnung unten in der Halterung und montieren Sie die Halterung auf der Wand.



5 Fädeln Sie das Kabel durch das Grundgerät. Heben Sie die Halterung oben etwas an und montieren Sie das Grundgerät auf der Halterung.



6 Kabelanschlüsse.



**Hinweise>>**

- Der Anti-Masking-Ausgang wird als STÖRUNG erkannt.
- Für EOL siehe 5-2.

**-Länge des Stromkabels**

Das Stromkabel darf folgende Länge nicht überschreiten.

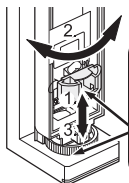
Einheit: m

Kabelquerschnitt	FTN-ST		FTN-AM	
	12 V	14 V	12 V	14 V
AWG22 (0,33 mm <sup>2</sup> )	340	730	290	620
AWG20 (0,52 mm <sup>2</sup> )	530	1160	450	980
AWG18 (0,83 mm <sup>2</sup> )	850	1850	720	1570

- 7 Legen Sie den horizontalen Erkennungswinkel fest und montieren Sie das Gerät.

**Hinweis>>**

- Nehmen Sie das Gerät ab, um Einstellungen vorzunehmen.



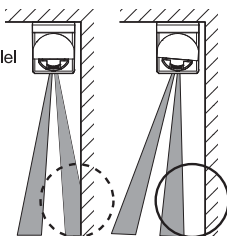
**Hinweis>>**

- Vergewissern Sie sich, dass Gerät und Halterung korrekt miteinander verbunden sind.



**Hinweis>>**

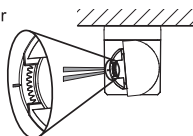
Richten Sie den Erkennungsbereich parallel zur Wand aus, um Störungen, die von der Wand ausgehen, auszuschließen.



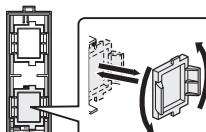
- Ist das Gerät auf einer Ecke montiert, um an einer Wand entlang zu sehen, so verwenden Sie die Richtmarkierung auf der gegenüberliegenden Seite der Wand.



- Ist das Gerät auf einer einer Wand montiert, um schräg zu sehen, so verwenden Sie die eingravierte Richtmarkierung.



- 8 Legen Sie die Reichweite des Erkennungsbereichs fest. (2 m oder 5 m)



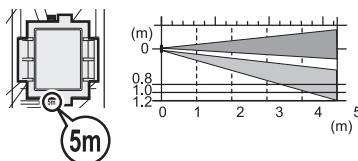
Sind 2 m erforderlich, so drehen Sie die untere Optik um 180°.

**Hinweis>>**

- Entfernen Sie nicht die obere Optik.

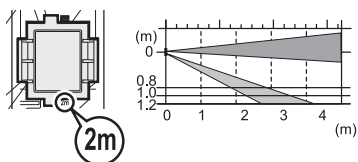
**5 m Erkennungsreichweite (Werkseinstellung)**

Seitenansicht

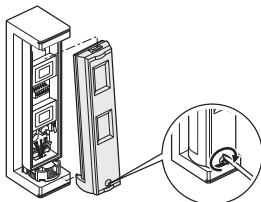


**2 m Erkennungsreichweite**

Seitenansicht



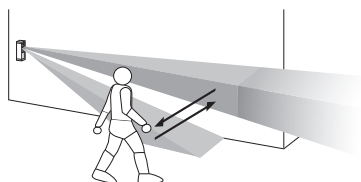
- 9 Schließen Sie das Gerätegehäuse.



**Hinweis>>**

- Zur Vorbereitung des Gehtests vergewissern Sie sich, dass DIP-Schalter 1 (LED) auf „ON“ eingestellt ist, bevor Sie die Abdeckung des Grundgeräts installieren.

- 10 Gehtest durchführen.  
Für Einzelheiten siehe 3-1.



### 3 GEHTEST

ENGLISH

Français

DEUTSCH

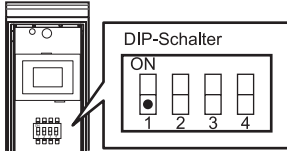
ITALIANO

ESPAÑOL

Português

#### 3-1 GEHTEST

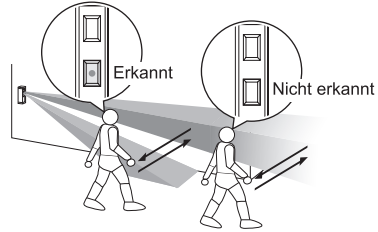
1 Stellen Sie DIP-Schalter 1 (LED) auf „ON“.



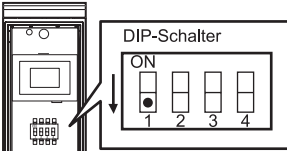
Hinweis>>

• Der Schalter ist werkseitig auf „ON“ eingestellt.

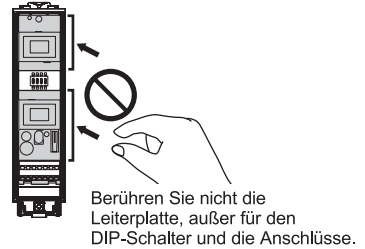
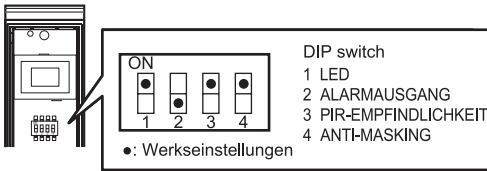
2 Vergewissern Sie sich, dass die LED für 2 Sekunden leuchtet, wenn das beabsichtigte Objekt erkannt wird.



3 Falls die LED nicht jedes Mal aufleuchten muss, stellen Sie DIP-Schalter 1 (LED) auf „OFF“.



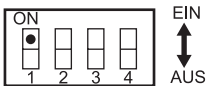
### 4 DIP-SCHALTER EINSTELLEN



Berühren Sie nicht die Leiterplatte, außer für den DIP-Schalter und die Anschlüsse.

#### 4-1 LED

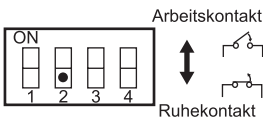
DIP-Schalter 1 FTN-ST FTN-AM



Position	Funktion
EIN (Werkseinstellung)	LED EIN
AUS	LED AUS

#### 4-2 ALARM OUTPUT

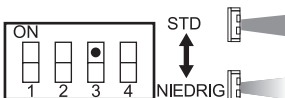
DIP-Schalter 2 FTN-ST FTN-AM



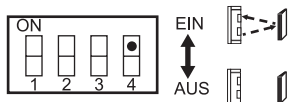
Position	Funktion
Arbeitskontakt	Arbeitskontakt Ausgang
Ruhekontakt (Werkseinstellung)	Ruhekontakt Ausgang

#### 4-3 PIR SENSITIVITY

DIP-Schalter 3 FTN-ST FTN-AM



Position	Funktion
STD (Werkseinstellung)	Normale Empfindlichkeit
NIEDRIG	Geringe Empfindlichkeit

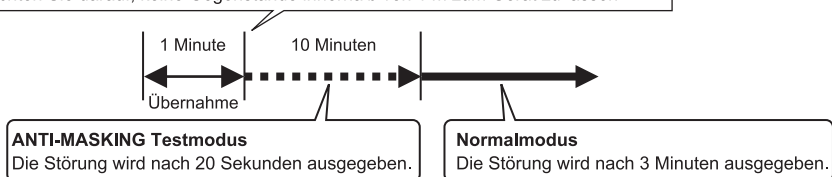


Position	Funktion
EIN (Werkseinstellung)	ANTI-MASKING EIN
AUS	ANTI-MASKING AUS

### -ANTI-MASKING Funktion

Besteht der Masking-Zustand länger als 3 Minuten, so wird eine STÖRUNG ausgelöst. Eine STÖRUNG wird nach 20 Sekunden im Anti-Masking-Testmodus ausgelöst.

Schließen Sie das Gehäuse des Grundgeräts, bevor Sie es einschalten. Der „Übernahmemodus“ startet, sobald Spannung anliegt. Erneutes Einschalten ist notwendig, wenn Strom vor dem Schließen anlag. Achten Sie darauf, keine Gegenstände innerhalb von 1 m zum Gerät zu lassen.



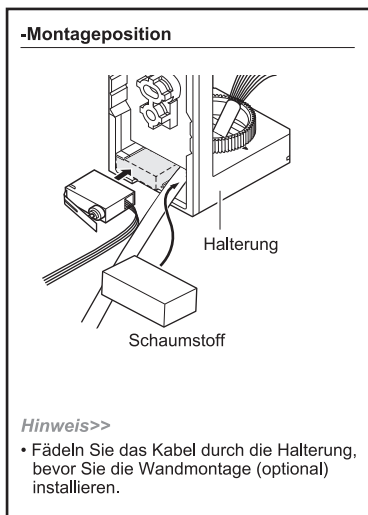
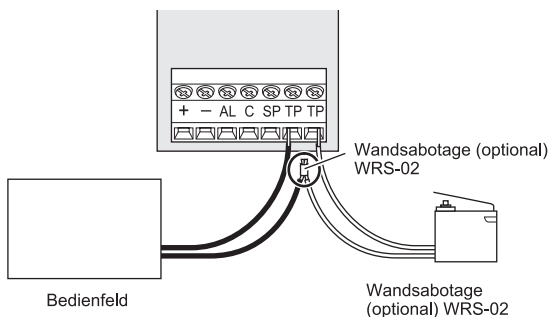
#### Hinweis>>

- Wird gleich nach Inbetriebnahme eine Störung angezeigt (Fehlererkennung Anti-Masking), so stellen Sie DIP-Schalter 4 (ANTI-MASKING) auf „OFF“ und dann wieder auf „ON“, dann schließen Sie das Gehäuse.

## 5 SONSTIGES

### 5-1 WANDSABOTAGE (OPTIONAL) ANSCHLUSS

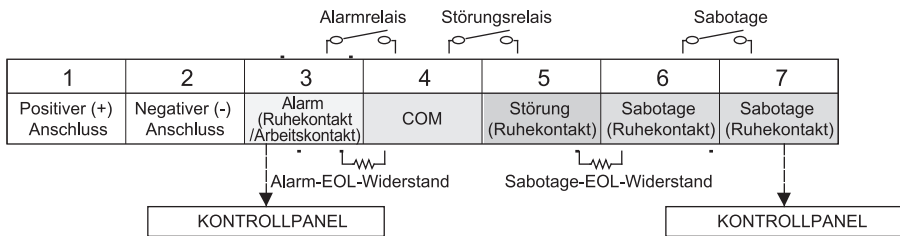
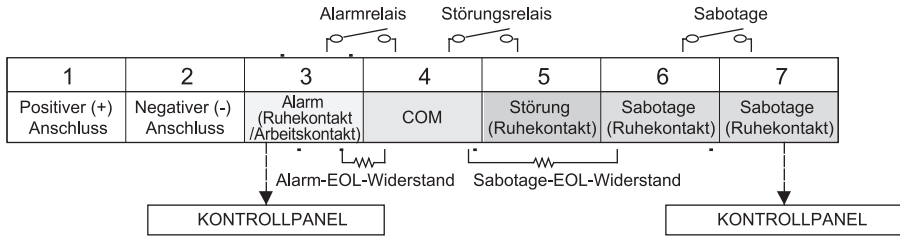
Schließen Sie das Sabotagekabel bei Anschluss der Wandsabotage (optional) an, wie nachstehend dargestellt.



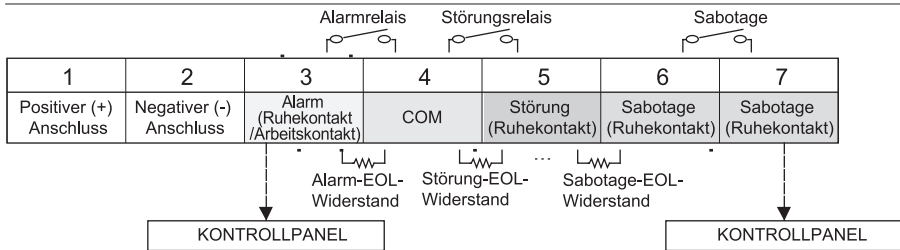
## 5-2 BEISPIEL FÜR EOL-VERKABELUNG

Da der Alarm- und Störungsausgang den COM-Anschluss gemeinsam nutzen, muss der Anschluss für Melder der fit-Serie gemäß nachstehendem Diagramm erfolgen.

### -Doppel-EOL

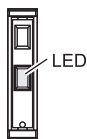


### -Dreifach-EOL



## 5-3 LED BLINKMUSTER

Nachstehend wird das LED-Leuchtmuster beschrieben.



Melderzustand	LED-Anzeige
Aufwärmen <i>Hinweis&gt;&gt;</i> • Die LED blinkt, selbst wenn DIP-Schalter 1 (LED) auf „OFF“ eingestellt ist.	Blinkt für ca. 60 Sekunden.
Alarm	Leuchtet für 2 Sekunden.
Masking-Erkennung (nur FTN-AM) <i>Hinweis&gt;&gt;</i> • Die LED blinkt, selbst wenn DIP-Schalter 1 (LED) auf „OFF“ eingestellt ist.	Blinkt 3 Mal, dann Wiederholung.

## 6 TECHNISCHE DATEN

### 6-1 TECHNISCHE DATEN

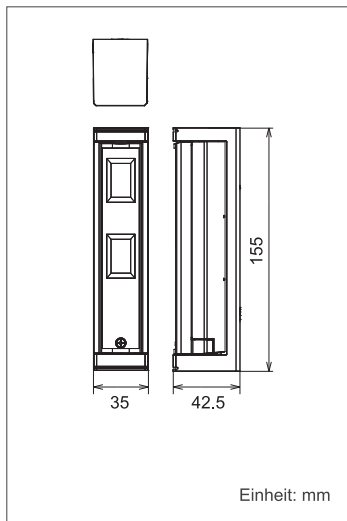
Modell	FTN-ST	FTN-AM
Erkennungsverfahren	Passiv Infrarot	
PIR-Abdeckung	5 × 1 m	
Reichweite des Erkennungsbereichs	2 m, 5 m	
Erkennbare Geschwindigkeit	0,3 bis 1,5 m/s	
Empfindlichkeit	2,0°C (bei 0,6 m/s)	
Betriebsspannung	9,5 bis 18 VDC	
Stromaufnahme	17 mA (max.) (bei 12 VDC)	20 mA (max.) (bei 12 VDC)
Alarmdauer	2,0 ± 1,0 sec.	
Aufwärmzeitraum	Ca. 60 s (LED blinkt)	
Alarmausgang	Ruhekontakt/Arbeitskontakt Umschaltbar 28 VDC 0,1 A (max.)	
Störungsausgang	-	Ruhekontakt 28 VDC 0,1 A (max.)
Sabotageausgang	Ruhekontakt 28 VDC 0,1 A (max.), offen wenn ie Abdeckung entfernt ist.	
LED-Anzeige	Leuchtet/Blinkt: Aufwärmen, Alarm, Masking-Erkennung (nur FTN-AM)	
Betriebstemperatur	-20°C bis +60°C	
Luftfeuchtigkeit	95% (max.)	
Wetterschutz	IP55	
Montage	Wand (Außenmontage, Innenmontage)	
Montagehöhe	0,8 bis 1,2 m	
Gewicht	100 g	
Zubehör	Schraube (3 × 20 mm) × 2	

\* Änderung der technischen Daten und des Designs vorbehalten.

### Hinweis>>

- Diese Geräte sind so konzipiert, dass sie einen Eindringling erkennen und einen Alarm auf dem Bedienfeld auslösen. Da diese nur ein Teil eines Gesamtsystems sind, übernehmen wir keine Haftung für Schäden oder sonstige Konsequenzen, die durch einen Eindringling entstehen. Diese Produkte erfüllen die EMC-Richtlinie 2004/108/EC.

### 6-2 ABMESSUNGEN



OPTEX CO., LTD. (JAPAN)

URL: <http://www.optex.net/>

OPTEX INC. (U.S.)

URL: <http://www.optexamerica.com/>

OPTEX DO BRASIL LTDA. (Brazil)

URL: <http://www.optex.net/br/es/sec/>

OPTEX (EUROPE) LTD. / EMEA HQ (U.K.)

URL: <http://www.optexeurope.com/>

OPTEX TECHNOLOGIES B.V.  
(The Netherlands)

URL: <http://www.optex.eu/>

OPTEX SECURITY SAS (France)

URL: <http://www.optex-security.com/>

OPTEX SECURITY Sp.z o.o. (Poland)

URL: <http://www.optex.com.pl/>

OPTEX PINNACLE INDIA, PVT., LTD. (India)

URL: <http://www.optex.net/in/en/sec/>

OPTEX KOREA CO., LTD. (Korea)

URL: <http://www.optexkorea.com/>

OPTEX (DONGGUAN) CO., LTD.  
SHANGHAI OFFICE (China)

URL: <http://www.optexchina.com/>




 Rivelatore all'aperto  
compatto

**Serie fit**
**MODELLO CABLATO**

FTN-S	Modello standard con 2 PIR
FTN-AM	FTN-ST con antimascheramento

- Design compatto
- Staffa regolabile a 190°
- Intelligente E logico
- Antimascheramento digitale (modello AM)
- Elemento antimanomissione a parete (opzionale)

**INDICE**

<b>1</b> INTRODUZIONE		
1-1 PRIMA DELL'INSTALLAZIONE.....	1	
1-2 DESCRIZIONE DELLE PARTI.....	2	
1-3 AREA DI RILEVAMENTO .....	2	
<b>2</b> INSTALLAZIONE		
2-1 INSTALLAZIONE.....	3	
<b>3</b> TEST DI DEAMBULAZIONE		
3-1 TEST DI DEAMBULAZIONE .....	5	
<b>4</b> IMPOSTAZIONI DIP SWITCH		
4-1 LED.....	5	
4-2 USCITA ALLARME.....	5	
		4-3 SENSIBILITÀ PIR..... 5
		4-4 ANTIMASCHERAMENTO..... 6
		<b>5</b> ALTRI
		5-1 COLLEGAMENTO ELEMENTO ANTIMANOMISSIONE (OPZIONALE)..... 6
		5-2 ESEMPIO DI CABLAGGIO RESISTENZA DI FINE LINEA..... 7
		5-3 SEQUENZA LUCE LED .....
		<b>6</b> SPECIFICHE
		6-1 SPECIFICHE .....
		6-2 DIMENSIONI .....

**1 INTRODUZIONE**
**1-1 PRIMA DELL'INSTALLAZIONE**

	<b>Pericolo</b>	La mancata osservanza delle istruzioni fornite in corrispondenza di questa indicazione e l'uso improprio possono causare la morte o lesioni gravi.
	<b>Avvertenza</b>	La mancata osservanza delle istruzioni fornite in corrispondenza di questa indicazione e l'uso improprio possono causare lesioni e/o danni materiali.

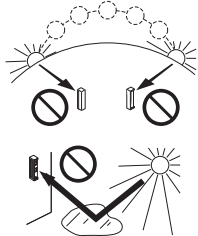
Il segno di spunta ✓ indica una raccomandazione. Il simbolo di divieto ⚡ indica un divieto.

Non rimuovere la scheda. 	Non toccare la scheda, ad eccezione del DIP switch. 	Altezza di montaggio 

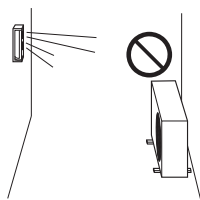
Tenere il rivelatore parallelo al suolo. 	Si consideri la direzione di una persona che si avvicina e l'area di rilevamento. 
--	---

Installare il rilevatore in un luogo in cui non siano presenti possibili cause di falso allarme. Ad esempio:

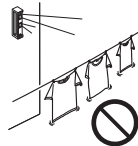
• Luce del sole e riflessi



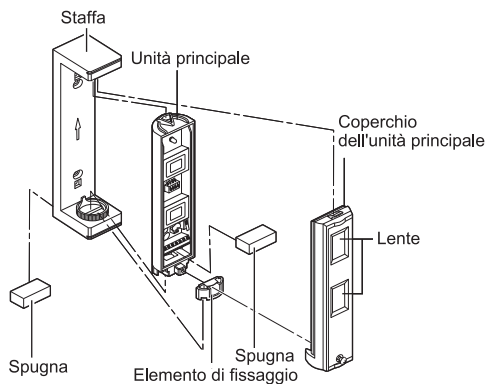
• Fonte di calore



• Oggetti in movimento nel vento



## 1-2 DESCRIZIONE DELLE PARTI



Kit di viti

Vite (3 × 20 mm)



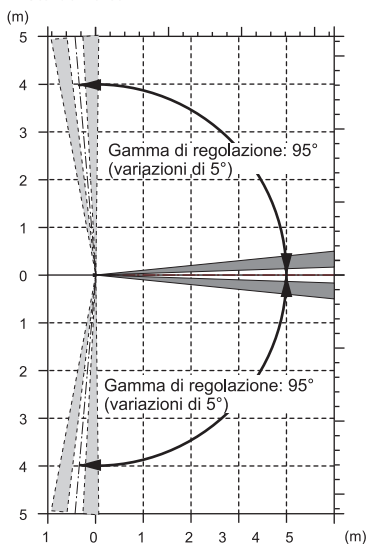
**-Accessori opzionali**

Elemento antimanomissione a parete (WRS-02)



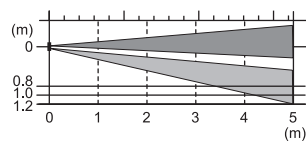
## 1-3 AREA DI RILEVAMENTO

**Vista dall'alto**

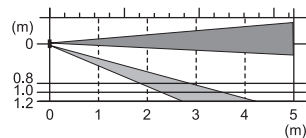


**Vista laterale**

Portata di rilevamento 5 m



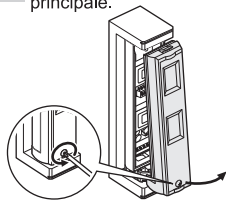
Portata di rilevamento 2 m



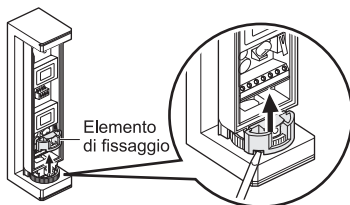
## 2 INSTALLAZIONE

### 2-1 INSTALLAZIONE

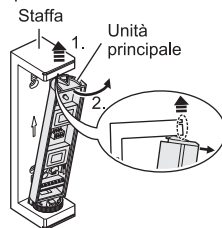
- 1 Aprire il coperchio dell'unità principale.



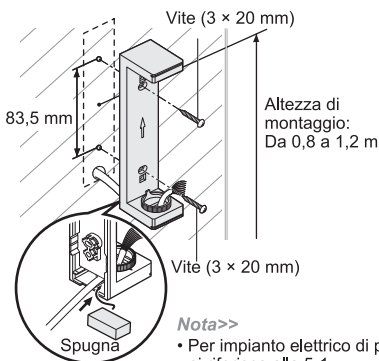
- 2 Rimuovere l'elemento di fissaggio.



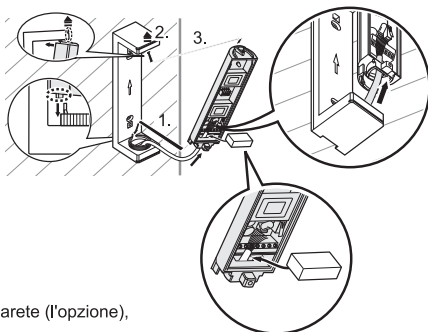
- 3 Tenere sollevata la parte superiore della staffa e rimuovere l'unità principale.



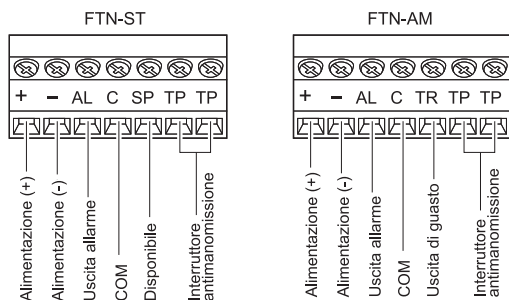
- 4 Inserire il filo proveniente dalla parete nel foro per il cablaggio, sul fondo della staffa, quindi montare la staffa sulla parete.



- 5 Tirare il filo attraverso l'unità principale. Sollevare leggermente la parte superiore della staffa e montare l'unità principale sulla staffa.



- 6 Collegamenti dei morsetti.



**Nota>>**

- L'uscita antimascheramento viene riconosciuta come GUASTO.
- Per la resistenza di fine linea, consultare 5-2.

#### -Lunghezza del cavo di alimentazione

La lunghezza del cavo di alimentazione non deve superare i seguenti valori.

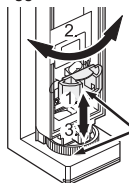
Unità: m

Diametro del cavo	FTN-ST		FTN-AM	
	12 V	14 V	12 V	14 V
AWG22 (0,33 mm <sup>2</sup> )	340	730	290	620
AWG20 (0,52 mm <sup>2</sup> )	530	1160	450	980
AWG18 (0,83 mm <sup>2</sup> )	850	1850	720	1570

- 7 Determinare l'angolo di rilevamento orizzontale e collegare l'elemento di fissaggio.

**Nota>>**

- Per effettuare le regolazioni, rimuovere l'elemento di fissaggio.



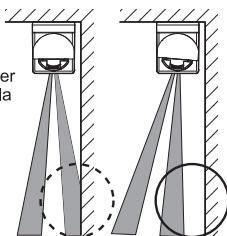
**Nota>>**

- Verificare che l'elemento di fissaggio e la staffa si incastrino correttamente.

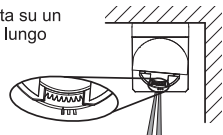


**Nota>>**

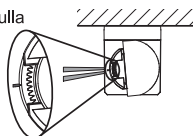
Allineare l'area di rilevamento in modo che sia parallela alla parete per ridurre l'interferenza con la parete.



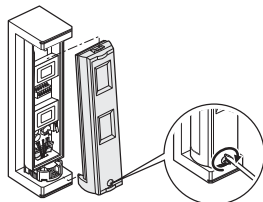
- Quando l'unità è montata su un angolo, rivolta in avanti lungo la parete, scegliere il contrassegno guida posto sul lato opposto della parete.



- Quando l'unità è montata sulla parete, rivolta in senso trasversale, scegliere il contrassegno guida inciso.



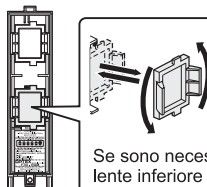
- 9 Fissare il coperchio dell'unità principale.



**Nota>>**

- Per prepararsi al test di transito, controllare che il DIP switch 1 (LED) sia impostato su "ON" prima di fissare il coperchio dell'unità principale.

- 8 Determinare la portata di rilevamento. (2 m o 5 m)



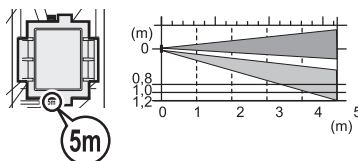
Se sono necessari 2 m, ruotare la lente inferiore di 180 gradi.

**Nota>>**

- Non rimuovere la lente superiore.

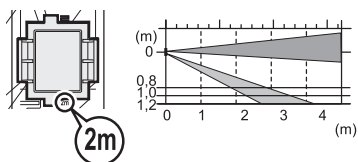
#### Portata di rilevamento 5 m (impostazione predefinita)

Vista laterale

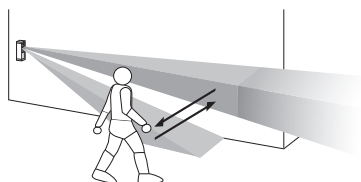


#### Portata di rilevamento 2 m

Vista laterale



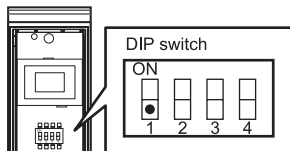
- 10 Eseguire il test di transito.  
Per i dettagli, consultare 3-1.



### 3 TEST DI DEAMBULAZIONE

#### 3-1 TEST DI DEAMBULAZIONE

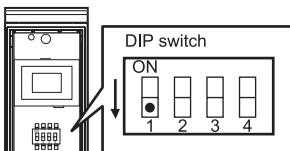
1 Impostare il DIP switch 1 (LED) su "ON".



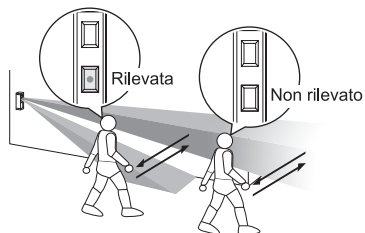
Nota>>

• L'interruttore è impostato su "ON" per impostazione predefinita.

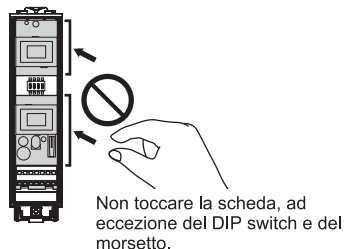
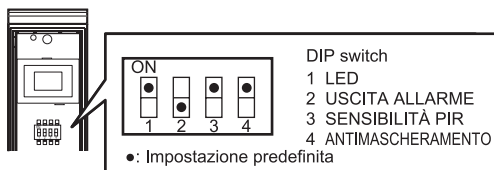
3 Se non è necessario che il LED si accenda sempre, impostare il DIP switch 1 (LED) su "OFF".



2 Verificare che il LED si illumini per 2 secondi quando viene rilevato l'oggetto desiderato.

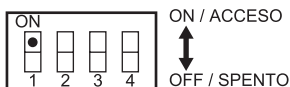


### 4 IMPOSTAZIONI DIP SWITCH



#### 4-1 LED

DIP switch 1 FTN-ST  
FTN-AM



Posizione	Funzioni
ON (impostazione predefinita)	LED ACCESO
OFF	LED SPENTO

#### 4-2 USCITA ALLARME

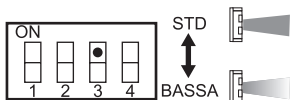
DIP switch 2 FTN-ST  
FTN-AM



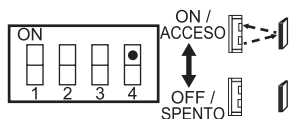
Posizione	Funzioni
N.A.	Uscita N.A.
N.C. (impostazione predefinita)	Uscita N.C.

#### 4-3 SENSIBILITÀ PIR

DIP switch 3 FTN-ST  
FTN-AM



Posizione	Funzioni
STD (impostazione predefinita)	Sensibilità normale
BASSA	Bassa sensibilità



Posizione	Funzioni
ON (impostazione predefinita)	ANTIMASCHERAMENTO ATTIVATO
OFF	ANTIMASCHERAMENTO DISATTIVATO

### -Funzione ANTIMASCHERAMENTO

Se la condizione mascheramento persiste per oltre 3 minuti, verrà generato un segnale di GUASTO. Il segnale di guasto viene generato dopo 20 secondi, in modalità di test antimascheramento.

Chiudere il coperchio dell'unità principale prima di inserire l'alimentazione.

Quando si inserisce l'alimentazione, l'unità passa immediatamente alla "modalità di apprendimento".

Se l'alimentazione è stata applicata prima della chiusura, è necessario interromperla e applicarla nuovamente. Prestare attenzione a non lasciare alcun oggetto entro 1 m di distanza dall'unità.



#### Modalità di prova ANTIMASCHERAMENTO

Il segnale di guasto viene emesso dopo 20 secondi.

#### Modalità normale

Il segnale di guasto viene emesso dopo 3 minuti.

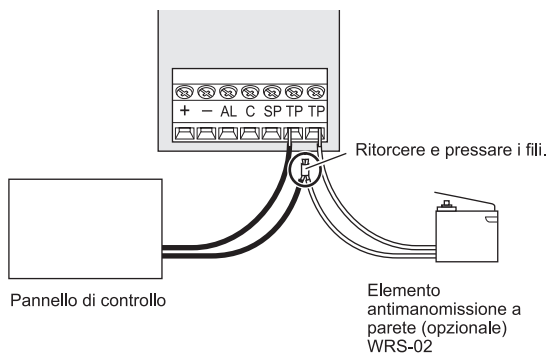
#### Nota>>

- Se viene emessa un'uscita di guasto (rilevamento non corretto del mascheramento) immediatamente dopo la messa in funzione, impostare il DIP switch 4 (ANTIMASCHERAMENTO) su "OFF", quindi su "ON", dopodiché chiudere il coperchio.

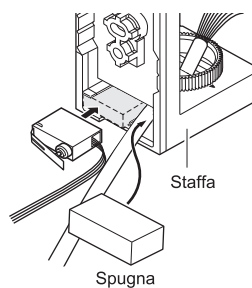
## 5 ALTRI

### 5-1 COLLEGAMENTO ELEMENTO ANTIMANOMISSIONE (OPZIONALE)

Collegare il filo antimanomissione come illustrato di seguito, se si collega un elemento antimanomissione a parete (opzionale).



#### -Posizione di montaggio



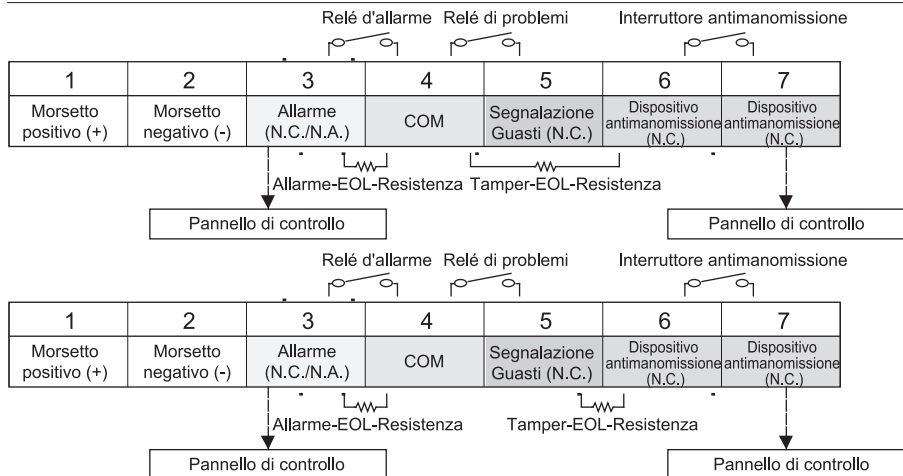
#### Nota>>

- Tirare il filo attraverso la staffa prima di installare l'elemento antimanomissione a parete (opzionale).

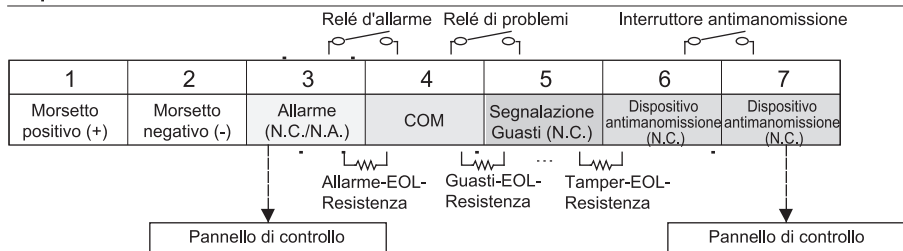
## 5-2 ESEMPIO DI CABLAGGIO RESISTENZA DI FINE LINEA

Poiché le uscite di allarme e di guasto condividono il morsetto COM, è necessario collegare il filo per il rivelatore serie fit attenendosi al seguente schema.

### -Doppio EOL



### -Triplo EOL



## 5-3 SEQUENZA LUCE LED

Di seguito è illustrata la sequenza di illuminazione del LED.



LED



Lampeggiante



Illuminato



SPENTO

Condizioni rilevatore	Indicator LED
Riscaldamento <i>Nota&gt;&gt;</i> • Il LED lampeggia anche se l'interruttore DIP 1 (LED) è impostato su "OFF".	Lampeggia per circa 60 secondi.
Allarme	Si illumina per 2 secondi.
Rilevamento mascheramento (solo FTN-AM) <i>Nota&gt;&gt;</i> • Il LED lampeggia anche se l'interruttore DIP 1 (LED) è impostato su "OFF".	Lampeggia 3 volte e poi ripete la sequenza.

## 6 SPECIFICHE

### 6-1 SPECIFICHE

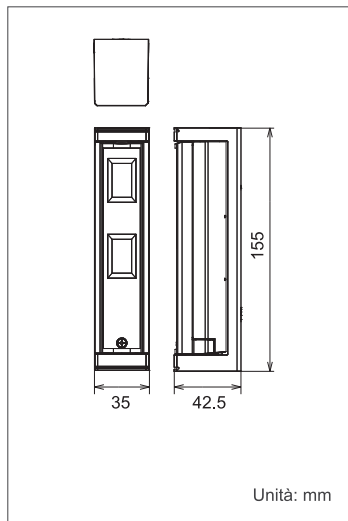
Modello	FTN-ST	FTN-AM
Metodo di rilevamento	A infrarossi, passivo	
Copertura PIR	5 × 1 m	
Limite lunghezza di rilevamento	2 m, 5 m	
Velocità rilevabile	Da 0,3 a 1,5 m/s	
Sensibilità	2,0°C (a 0,6 m/s)	
Tensione di esercizio	Da 9,5 a 18 VDC	
Assorbimento di corrente	17 mA (max.) (a 12 VDC)	20 mA (max.) (a 12 VDC)
Durata allarme	2,0 ± 1,0 s	
Periodo di riscaldamento	Circa 60 secondi (il LED lampeggia)	
Uscita allarme	N.C./N.A. 28 VDC 0,1 A (max) selezionabili	
Uscita di guasto	-	N.C. 28 VDC 0,1 A (max)
Uscita manomissione	N.C. 28 VDC 0,1 A (max), aperto quando il coperchio è rimosso.	
Indicatore LED	Illuminato/Lampeggiante: Riscaldamento, allarme, rilevamento mascheramento (solo FTN-AM)	
Temperatura di esercizio	Da -20°C a +60°C	
Umidità ambientale	95% (max)	
Resistente agli agenti atmosferici	IP55	
Montaggio	Parete (all'esterno, all'interno)	
Altezza di montaggio	Da 0,8 a 1,2 m	
Peso	100 g	
Accessori	Vite (3 × 20 mm) × 2	

\* Caratteristiche tecniche e design sono soggetti a modifiche senza preavviso.

#### Nota>>

- Queste unità sono progettate per rilevare un intruso e attivare un pannello di controllo che emette un allarme. Poiché il dispositivo è solo una parte di un sistema completo, il produttore non assume alcuna responsabilità per eventuali danni o altre conseguenze derivanti da un'intrusione. Questi prodotti sono conformi alla Direttiva EMC 2004/108/CE.

### 6-2 DIMENSIONI



**OPTEX CO., LTD. (JAPAN)**

URL: <http://www.optex.net/>

**OPTEX INC. (U.S.)**

URL: <http://www.optexamerica.com/>

**OPTEX DO BRASIL LTDA. (Brazil)**

URL: <http://www.optex.net/br/es/sec/>

**OPTEX (EUROPE) LTD. / EMEA HQ (U.K.)**

URL: <http://www.optexeurope.com/>

**OPTEX TECHNOLOGIES B.V. (The Netherlands)**

URL: <http://www.optex.eu/>

**OPTEX SECURITY SAS (France)**

URL: <http://www.optex-security.com/>

**OPTEX SECURITY Sp.z o.o. (Poland)**

URL: <http://www.optex.com.pl/>

**OPTEX PINNACLE INDIA, PVT., LTD. (India)**

URL: <http://www.optex.net/in/en/sec/>

**OPTEX KOREA CO., LTD. (Korea)**

URL: <http://www.optexkorea.com/>

**OPTEX (DONGGUAN) CO., LTD. SHANGHAI OFFICE (China)**

URL: <http://www.optexchina.com/>





Detector compacto de exteriores

Serie **iii**

**MODELO CON CABLE**

FTN-ST	Modelo estándar con dos PIRs
FTN-AM	Igual que el FTN-ST pero con anti enmascaramiento

- Diseño compacto
- Soporte ajustable a 190°
- Lógica inteligente AND
- Anti enmascaramiento digital (sólo modelos AM)
- Tamper de pared (opcional)

**ÍNDICE**

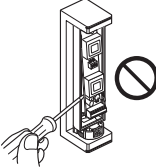
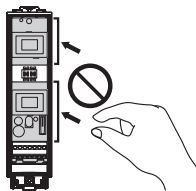
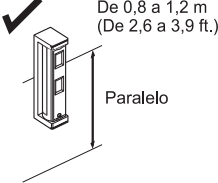
<b>1</b> INTRODUCCIÓN	
1-1 ANTES DE LA INSTALACIÓN	1
1-2 IDENTIFICACIÓN DE LAS PARTES	2
1-3 ÁREA DE DETECCIÓN	2
<b>2</b> INSTALACIÓN	
2-1 INSTALACIÓN	3
<b>3</b> PRUEBA DE FUNCIONAMIENTO (WALK TEST)	
3-1 PRUEBA DE FUNCIONAMIENTO	5
<b>4</b> AJUSTE CONMUTADOR DIP	
4-1 LED	5
4-2 SALIDA DE ALARMA	5
4-3 PIR SENSIBILIDAD	5
4-4 ANTI ENMASCARAMIENTO	6
<b>5</b> OTROS	
5-1 CONEXIÓN TAMPER DE PARED (OPCIÓN)	6
5-2 EJEMPLO DE CABLEADO "EOL"	7
5-3 DISPOSICIÓN DE LAS LUCES LED	7
<b>6</b> ESPECIFICACIONES	
6-1 ESPECIFICACIONES	8
6-2 DIMENSIONES	8


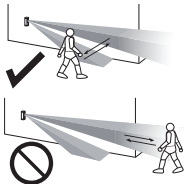
**1 INTRODUCCIÓN**

**1-1 ANTES DE LA INSTALACIÓN**

<b>⚠ Advertencia</b>	Respete estas instrucciones de seguridad para prevenir serios daños o incluso la muerte.
<b>⚠ Precaución</b>	Siga estas precauciones para prevenir heridas potenciales o daños materiales.

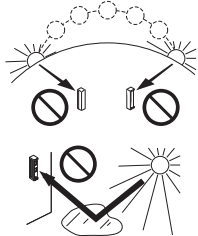
El signo **✓** indica Recomendación. El signo **⊘** indica Prohibición.

<b>⚠ Advertencia</b>	<b>⚠ Precaución</b>	<b>⚠ Precaución</b>
No retire el PCB.	No toque el PCB excepto para em conmutador DIP.	Altura de montaje.
		

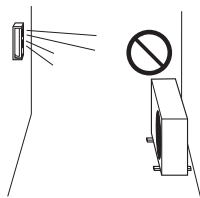
Mantenga el detector paralelo al suelo.	Considere la dirección de una persona aproximándose al sensor, así como el área de detección.
	

Instale el sensor en un lugar adecuado evitando que se produzcan falsas alarmas. Por ejemplo evite:

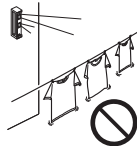
• Luz solar directa o reflejada



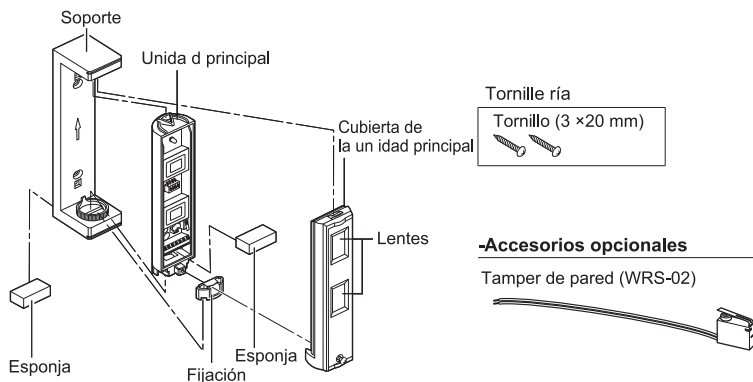
• Fuente de calor



• Objetos que se mueven con el viento

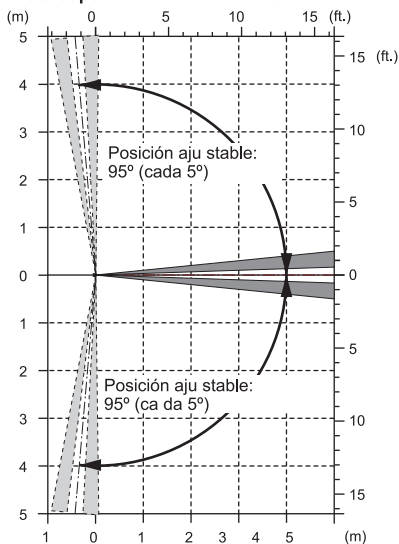


## 1-2 IDENTIFICACIÓN DE LAS PARTES

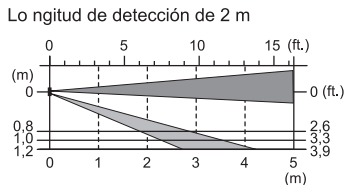
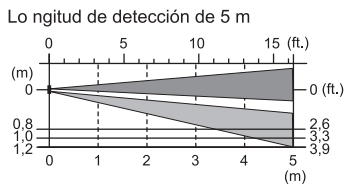


## 1-3 ÁREA DE DETECCIÓN

Vista superior del área de detección



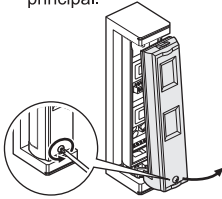
Vista lateral del área de detección



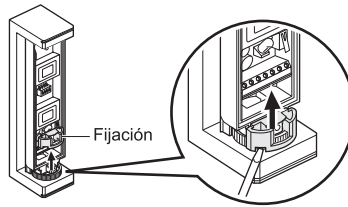
## 2 INSTALACIÓN

### 2-1 INSTALACIÓN

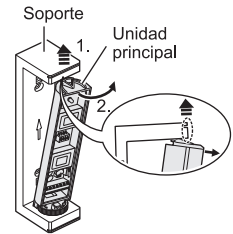
- 1 Abra la cubierta de la unidad principal.



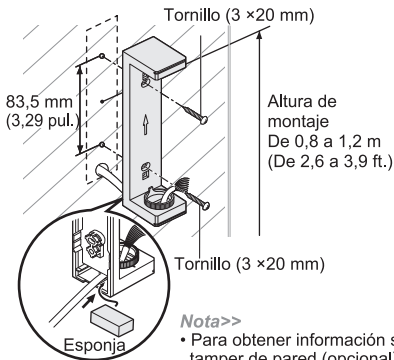
- 2 Retire la fijación.



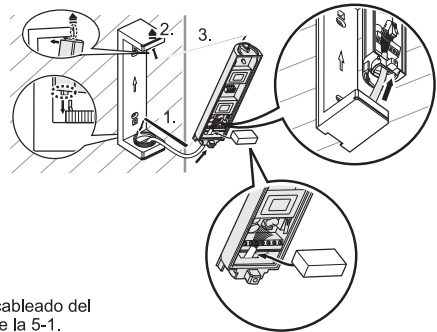
- 3 Sostenga la parte superior del soporte levantado y retire la unidad principal.



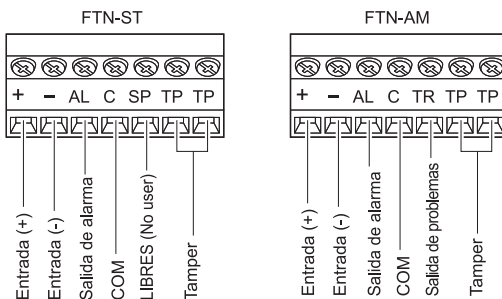
- 4 Extienda el cable desde la pared a través del orificio del cableado que hay en la parte inferior del soporte, y monte el soporte en la pared.



- 5 Tire del cable a través de la unidad principal. Eleve la parte superior del soporte ligeramente y monte la unidad principal en el soporte.



- 6 Conexiones de la terminal del cable.



**Nota>>**

- La salida anti enmascaramiento es reconocida como PROBLEMA.
- Para EOL, consulte la 5-2.

**-Longitud del cable de encendido**

El cable de encendido deberá tener como máximo la siguiente longitud.

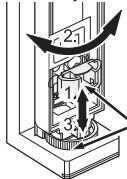
Unidad: m (ft.)

Diámetro del cable	FTN-ST		FTN-AM	
	12 V	14 V	12 V	14 V
AWG22 (0,33 mm <sup>2</sup> )	340 (1120)	730 (2400)	290 (950)	620 (2030)
AWG20 (0,52 mm <sup>2</sup> )	530 (1740)	1160 (3810)	450 (1480)	980 (3220)
AWG18 (0,83 mm <sup>2</sup> )	850 (2790)	1850 (6070)	720 (2360)	1570 (5150)

- 7 Determine el ángulo horizontal de detección y ajuste la fijación.

**Nota>>**

- Para realizar ajustes, retire la seguro de fijación.



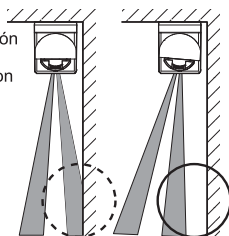
**Nota>>**

- Compruebe que la fijación y el soporte se ajusten correctamente.



**Nota>>**

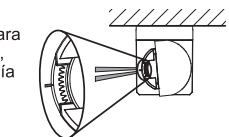
Alinee el área de detección paralela a la pared para reducir la interferencia con la pared.



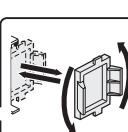
- Cuando la unidad es montada en una esquina para mirar hacia el frente de la pared, seleccione la marca-guía ubicada en el lado opuesto de la pared.



- Cuando la unidad es montada en la pared para mirar transversalmente, seleccione la marca-guía inscrita.



- 8 Determine la longitud de detección. (2 m ó 5 m)

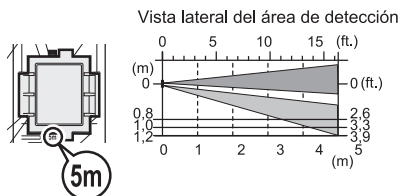


Si se selecciona 2 m, gire las lentes inferiores 180 grados.

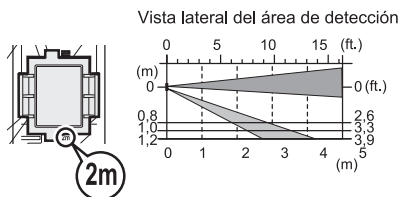
**Nota>>**

- No retire las lentes superiores.

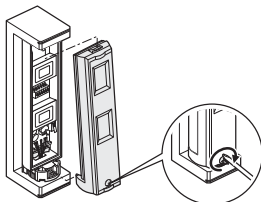
#### Longitud de detección 5 m (Preajuste de fábrica).



#### Longitud de detección 2 m.



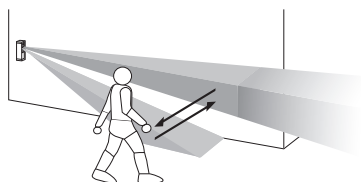
- 9 Ajuste la cubierta de la unidad principal.



**Nota>>**

- Para realizar una prueba de funcionamiento, compruebe que el conmutador DIP 1 (LED) está ajustado en "ON" antes de ajustar la cubierta de la unidad principal.

- 10 Realice la prueba de funcionamiento. Para obtener más detalles, consulte la 3-1.

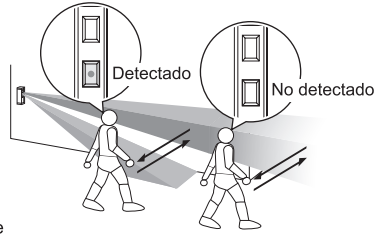
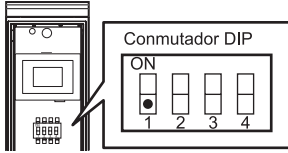


### 3 PRUEBA DE FUNCIONAMIENTO

#### 3-1 PRUEBA DE FUNCIONAMIENTO

1 Ajuste el conmutador DIP 1 (LED) a la 2 posición de "ON".

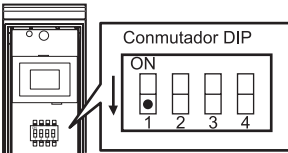
2 Compruebe las luces LED durante 2 segundos cuando el objeto deseado haya sido detectado.



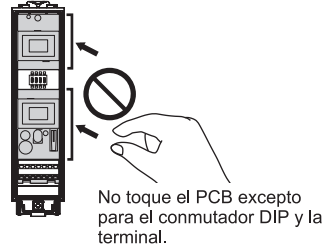
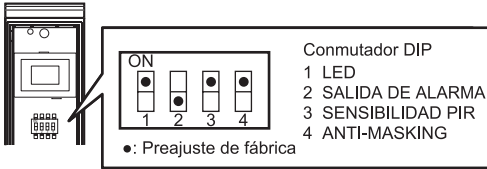
Nota>>

• El interruptor está ajustado en la posición "ON" como preajuste de fábrica.

3 Si la LED no necesita ser activada todo el tiempo, ajuste el conmutador DIP 1 (LED) a la posición de "OFF".

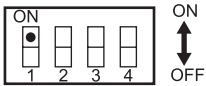


### 4 AJUSTE CONMUTADOR DIP



#### 4-1 LED

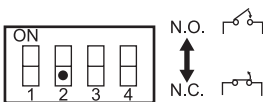
Conmutador DIP 1 FTN-ST FTN-AM



Posición	Función
ON (por defecto)	LED ON
OFF	LED OFF

#### 4-2 SALIDA DE ALARMA

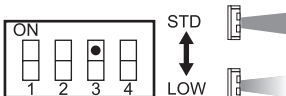
Conmutador DIP 2 FTN-ST FTN-AM



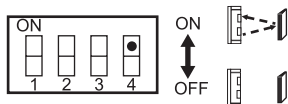
Posición	Función
N.O.	Salida N.O.
N.C. (por defecto)	Salida N.C.

#### 4-3 PIR SENSIBILIDAD

Conmutador DIP 3 FTN-ST FTN-AM



Posición	Función
STD (por defecto)	Sensibilidad Normal
LOW	Sensibilidad Baja

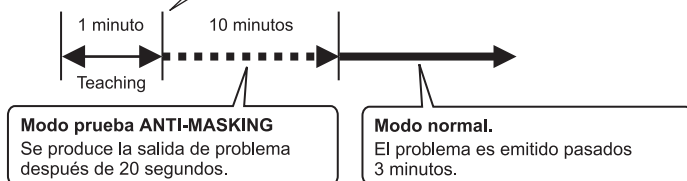


Posición	Función
ON (por defecto)	ANTI-MASKING ON
OFF	ANTI-MASKING OFF

### -Función ANTI-MASKING

Cuando la condición de enmascarado continua durante más de 3 minutos, se genera un PROBLEMA. El PROBLEMA se genera después de transcurran 20 segundos bajo el modo de prueba de anti-masking.

Por favor cierre la cubierta de la unidad principal antes de activar el suministro de corriente. El "Modo Teaching" comenzará inmediatamente después de que se suministre corriente. Reiniciar la corriente es necesario si se activado la corriente antes del cierre. Por favor tenga cuidado y no deje ningún objeto a una distancia inferior a 1 m desde la unidad.



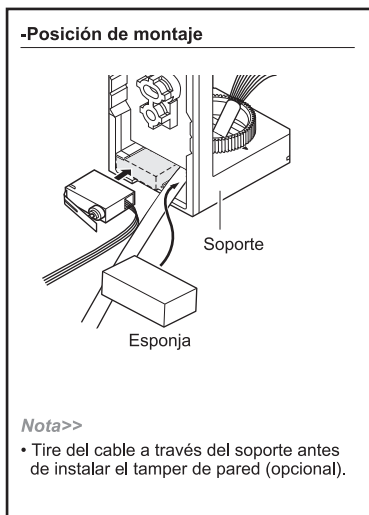
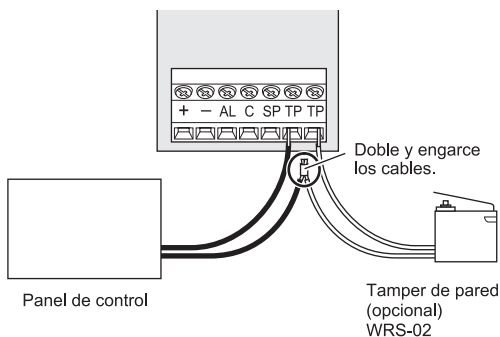
#### Nota>>

- Si se produce la salida de un problema (detección mal de antimasking) inmediatamente después de que la operación ha empezado, ajuste el conmutador DIP 4 (ANTI-MASKING) a la posición "OFF" y después a "ON", y cierre la cubierta.

## 5 OTROS

### 5-1 CONEXIÓN TAMPER DE PARED (OPCIÓN)

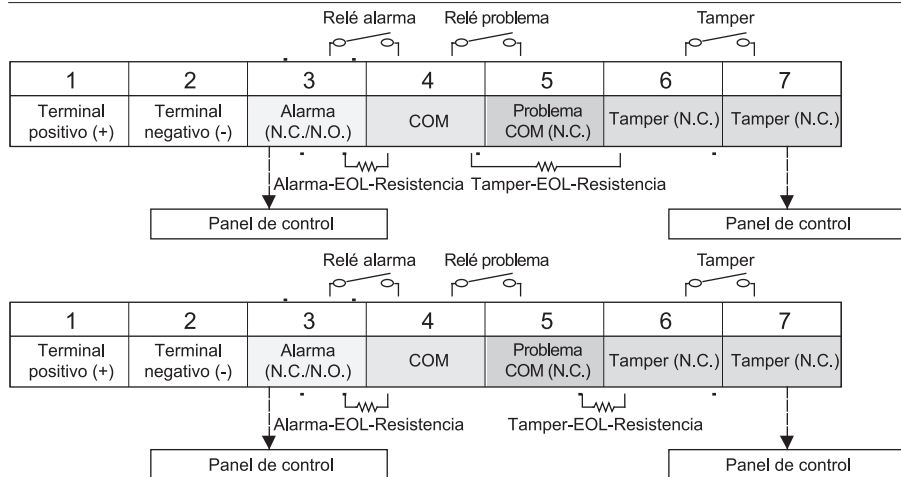
Conecte el cable tamper como se muestra debajo cuando conecte el tamper de pared (opcional).



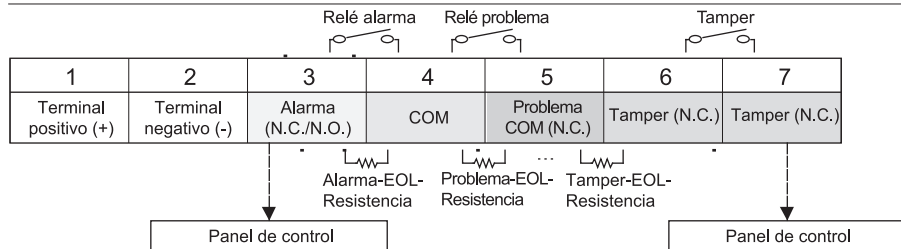
### 5-2 EJEMPLO DE CABLEADO EOL

Debido a que las salidas de alarma y problema comparten el terminal COM, la conexión del cableado debe ser hecha de acuerdo con el siguiente esquema:

#### -Double EOL



#### -Triple EOL



### 5-3 DISPOSICIÓN DE LAS LUCES LED

La siguiente información explica las indicaciones de las luces LED.



LED



Parpadeo



Encendida



Apagado

Condición de detección	Indicador LED
Calentamiento <i>Nota&gt;&gt;</i> • Las LED parpadean aunque el conmutador DIP 1 (LED) esté ajustado en posición de "OFF".	 Parpadea durante aproximadamente 60 segundos.
Alarma	 Se enciende fijo durante 2 segundos.
Antienmascaramiento (Sólo FTN-AM) <i>Nota&gt;&gt;</i> • Las LED parpadean aunque el conmutador DIP 1 (LED) esté ajustado en posición de "OFF".	 Parpadea 3 veces y después se repite.

## 6 SPECIFICATIONS

### 6-1 SPECIFICATIONS

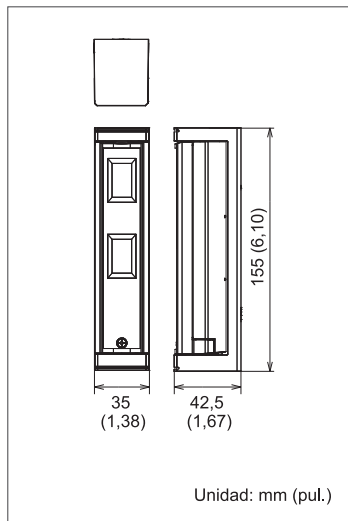
Modelo	FTN-ST	FTN-AM
Método de detección	Infrarrojos pasivos	
Cobertura PIR	5 × 1 m (16,4 × 3,3 ft.)	
Límite de la longitud de detección	2 m, 5 m (6,6 ft., 16,4 ft.)	
Velocidad de detección	De 0,3 a 1,5 m/s (De 1 a 4,9 ft./s)	
Sensibilidad	2,0°C (a 0,6 m/s) (3,6°F (a 2'/s))	
Voltaje de operación	De 9,5 a 18 VDC	
Consumo de corriente	17 mA (máx) (a 12 VDC)	20 mA (máx) (a 12 VDC)
Periodo de alarma	2,0 ±1,0 sec.	
Periodo de restablecimiento	60 seg. Aprox. (el indicador LED parpadea)	
Salida de alarma	N.C./N.O. Seleccionable 28 VDC 0,1 A (máx.)	
Salida de problemas	-	N.C. 28 VDC, 0,1 A (máx.)
Salida de sabotaje	N.C. 28 VDC, 0,1 A (máx.) N.C. abierto al quitar la cubierta	
Indicador LED	Encendido/Parpadeo: Calentamiento, alarma, detección masking (Sólo FTN-AM).	
Temperatura de trabajo	De -20°C a +60°C (De -4°F a +140°F)	
Humedad ambiente	Máx. 95%	
Resistente al agua	IP55	
Montaje	Pared (Exteriores, Interiores)	
Altura de montaje	De 0,8 a 1,2 m (De 2,6 a 3,9 ft.)	
Peso	100 g (3,5 oz.)	
Accesorios	Tornillo (3 ×20 mm) × 2	

Nota: Las especificaciones y el diseño están sujetas a cambio sin previo aviso.

#### Nota>>

- Estas unidades han sido diseñadas para detectar intrusos y activar una alarma en un panel de control. Debido a que sólo es una parte de un sistema completo, nosotros no podemos aceptar ninguna responsabilidad en caso de que se produzcan daños u otras consecuencias que sean resultado de una intrusión. Estos productos cumplen la directiva de EMC 2004/108/EC.

### 6-2 DIMENSIONES



**OPTEX CO., LTD. (JAPAN)**

URL: <http://www.optex.net/>

**OPTEX INC. (U.S.)**

URL: <http://www.optexamerica.com/>

**OPTEX DO BRASIL LTDA. (Brazil)**

URL: <http://www.optex.net/br/es/sec/>

**OPTEX (EUROPE) LTD. / EMEA HQ (U.K.)**

URL: <http://www.optexeurope.com/>

**OPTEX TECHNOLOGIES B.V. (The Netherlands)**

URL: <http://www.optex.eu/>

**OPTEX SECURITY SAS (France)**

URL: <http://www.optex-security.com/>

**OPTEX SECURITY Sp.z o.o. (Poland)**

URL: <http://www.optex.com.pl/>

**OPTEX PINNACLE INDIA, PVT., LTD. (India)**

URL: <http://www.optex.net/in/en/sec/>

**OPTEX KOREA CO.,LTD. (Korea)**

URL: <http://www.optexkorea.com/>

**OPTEX (DONGGUAN) CO.,LTD. SHANGHAI OFFICE (China)**

URL: <http://www.optexchina.com/>





Detector compacto  
para ambientes externos

Série III

**MODELO COM FIOS**

FTN-ST	Modelo padrão com 2 PIRs
FTN-AM	FTN-ST com antimascaramento

- Design compacto
- Suporte ajustável a 190°
- Lógico E inteligente
- Antimascaramento digital (modelo AM)
- Tamper para montagem na parede (opcional)

## CONTEÚDO

<b>1</b> INTRODUÇÃO		
1-1 ANTES DA INSTALAÇÃO	1	4-3 SENSIBILIDADE DO PIR ..... 5
1-2 IDENTIFICAÇÃO DAS PARTES	2	4-4 ANTI-MASCARAMENTO ..... 6
1-3 ÁREA DE DETECÇÃO	2	<b>5</b> OUTROS
<b>2</b> INSTALAÇÃO		5-1 CONEXÃO DO TAMPER PARA MONTAGEM NA PAREDE (OPCIONAL)..... 6
2-1 INSTALAÇÃO	3	5-2 EXEMPLO DE FIAÇÃO EOL ..... 7
<b>3</b> TESTE DE CAMINHADA		5-3 COMPORTAMENTO DA LUZ DO LED..... 7
3-1 TESTE DE CAMINHADA	5	<b>6</b> ESPECIFICAÇÕES
<b>4</b> AJUSTE DAS CHAVES DIP		6-1 ESPECIFICAÇÕES ..... 8
4-1 LED	5	6-2 DIMENSÕES ..... 8
4-2 SAÍDA DE ALARME	5	

## 1 INTRODUÇÃO

### 1-1 ANTES DA INSTALAÇÃO

<b>Advertência</b>	Não seguir as instruções fornecidas com esta indicação e uma manipulação inadequada pode causar ferimentos graves ou até a morte.
<b>Cuidado</b>	Não seguir as instruções fornecidas com esta instalação e uma manipulação inadequada pode causar ferimentos e/ou danos à propriedade.

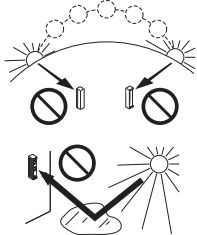
A marca de verificação indica que há recomendações. O sinal indica que há uma proibição.

<b>Advertência</b>	<b>Cuidado</b>	<b>Cuidado</b>
Não remova a PLACA DE CIRCUITO IMPRESSO. 	Não toque na PLACA DE CIRCUITO IMPRESSO exceto para ajustes das chaves DIP. 	Altura da montagem 

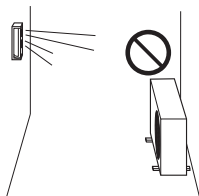
Mantenha o detector paralelo ao solo. 	Considere a direção pela qual uma pessoa está se aproximando, bem como a área de detecção. 
---	--

Instale o detector em um local onde não possam existir fatores geradores de alarmes falsos. Por exemplo:

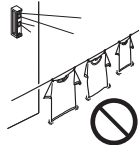
• Luz solar e reflexão



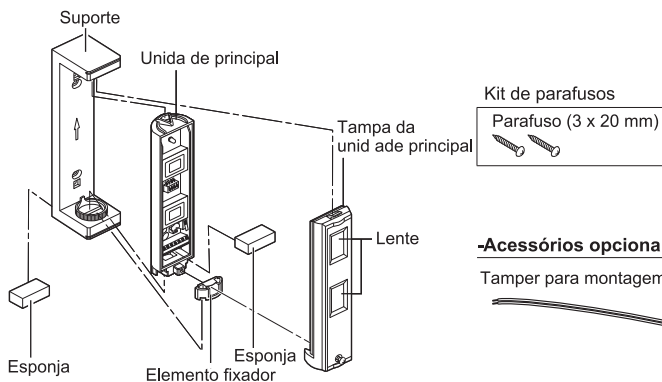
• Fonte de calor



• Objetos se movendo com o vento



## 1-2 IDENTIFICAÇÃO DAS PARTES



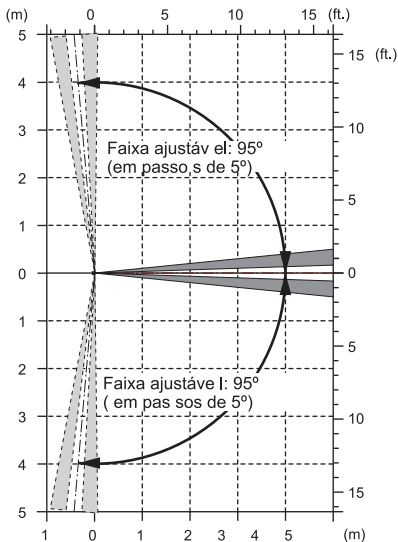
**-Acessórios opcionais**

Tamper para montagem na parede (WRS-02)



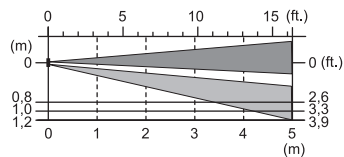
## 1-3 ÁREA DE DETECÇÃO

**Vista de cima**

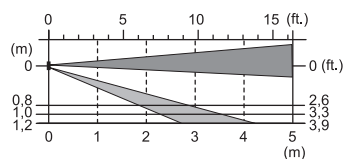


**Vista lateral**

A lãncã de detecção de 5 m



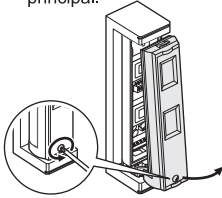
A lãncã de detecção de 2 m



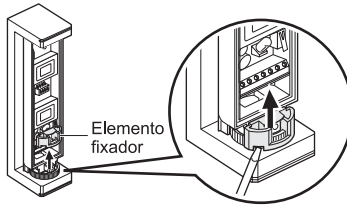
## 2 INSTALAÇÃO

### 2-1 INSTALAÇÃO

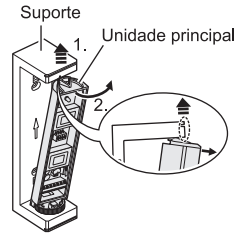
- 1 Abra a tampa da unidade principal.



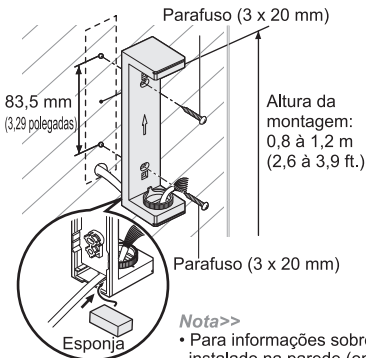
- 2 Remova o elemento fixador.



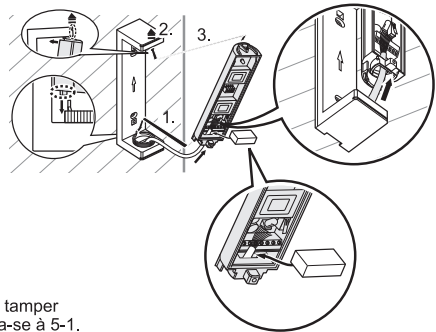
- 3 Segure a parte superior do suporte levantado e remova a unidade principal.



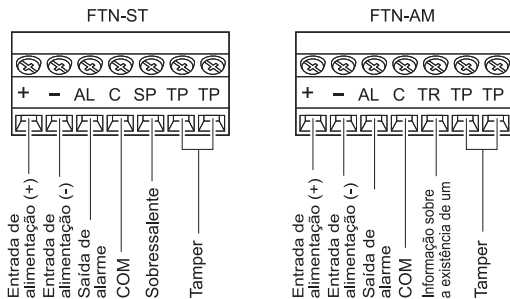
- 4 Coloque o cabo estendido-o-o da parede através de seu orifício da fição localizado na parte inferior do suporte e monte o suporte na parede.



- 5 Puxe o cabo pela unidade principal. Levante a parte superior do suporte levemente e monte a unidade principal no suporte.



- 6 Conexões terminais do cabo.



**Nota>>**

- A saída antimascaramento é reconhecida como TROUBLE (PROBLEMA).
- Para EOL, refira-se à 5-2.

**-Comprimento do cabo de força**

O cabo de força deve estar limitado ao comprimento indicado a seguir.

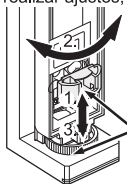
Unidade: m (ft.)

Diamètre du câble	FTN-ST		FTN-AM	
	12 V	14 V	12 V	14 V
AWG22 (0,33 mm <sup>2</sup> )	340 (1120)	730 (2400)	290 (950)	620 (2030)
AWG20 (0,52 mm <sup>2</sup> )	530 (1740)	1160 (3810)	450 (1480)	980 (3220)
AWG18 (0,83 mm <sup>2</sup> )	850 (2790)	1850 (6070)	720 (2360)	1570 (5150)

- 7 Determine o ângulo de detecção horizontal e acople o elemento fixador.

**Nota>>**

- Para realizar ajustes, remova o elemento fixador.



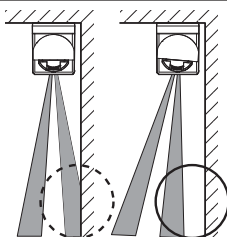
**Nota>>**

- Verifique se o elemento fixador e o suporte estão encaixados corretamente.

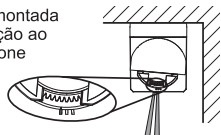


**Nota>>**

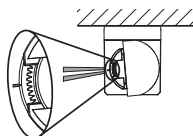
Alinha a área de detecção paralela à parede para reduzir a interferência com a parede.



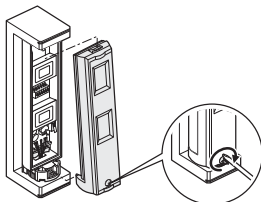
- Quando a unidade for montada no canto para visualização ao longo da parede, selecione a marca de guia localizada no lado oposto da parede.



- Quando a unidade for montada na parede para visualizar de forma transversal, selecione a marca de guia impressa.



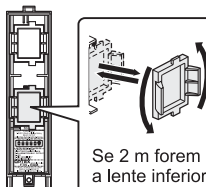
- 9 Acople a tampa da unidade principal.



**Nota>>**

- Para preparar-se para o teste de caminhada, verifique se a chave DIP 1 (LED) está ajustada para "ON" antes de acoplar a tampa da unidade principal.

- 8 Determine o alcance de detecção. (2 m ou 5 m)

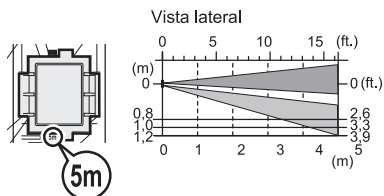


Se 2 m forem necessários, gire a lente inferior em 180 graus.

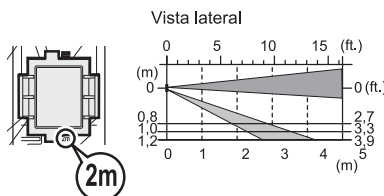
**Nota>>**

- No retire las lentes superiores.

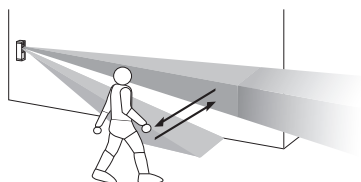
#### Alcance de detecção de 5 m (padrão de fábrica)



#### Alcance de detecção de 2 m



- 10 Realizar teste de caminhada.  
Para detalhes, refira-se à 3-1.



### 3 TESTE DE CAMINHADA

ENGLISH

FRANÇAIS

DEUTSCH

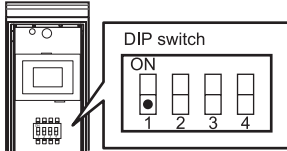
ITALIANO

ESPAÑOL

PORTUGUÊS

#### 3-1 TESTE DE CAMINHADA

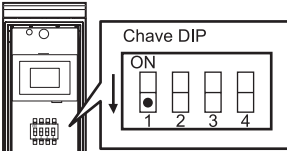
1 Ajuste a chave DIP 1 (LED) para "ON".



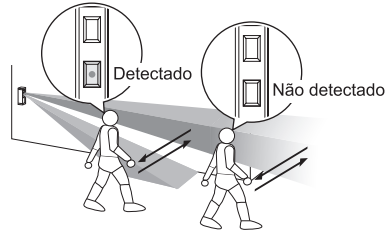
Nota>>

• A chave será ajustada para "ON" como padrão de fábrica.

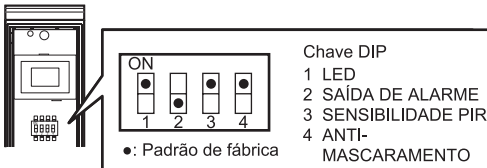
3 Se não houver necessidade de acender o LED continuamente, ajuste a chave DIP 1 (LED) para "OFF".



2 Verifique se o LED é aceso durante 2 segundos quando o objeto pretendido é detectado.



### 4 AJUSTE DAS CHAVES DIP

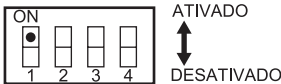


- Chave DIP
- 1 LED
- 2 SAÍDA DE ALARME
- 3 SENSIBILIDADE PIR
- 4 ANTI-MASCARAMENTO



#### 4-1 LED

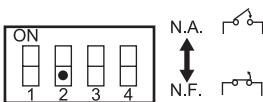
Chave DIP 1 FTN-ST FTN-AM



Posição	Função
ATIVADO (padrão de fábrica)	LED ACESO
DESATIVADO	LED APAGADO

#### 4-2 SAÍDA DE ALARME

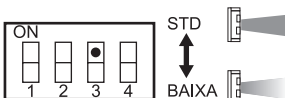
Chave DIP 2 FTN-ST FTN-AM



Posição	Função
N.A.	Saída N.A.
N.F. (padrão de fábrica)	Saída N.F.

#### 4-3 SENSIBILIDADE DO PIR

Chave DIP 3 FTN-ST FTN-AM



Posição	Função
STD (padrão de fábrica)	Sensibilidade normal
BAIXA	Baixa sensibilidade



Posição	Função
ATIVADO (padrão de fábrica)	ANTI-MASCARAMENTO ON (ATIVADO)
DESATIVADO	ANTI-MASCARAMENTO OFF (DESATIVADO)

### -Função ANTI-MASCARAMENTO

Quando a condição de mascaramento continuar durante mais de 3 minutos, um TROUBLE (PROBLEMA) será gerado.

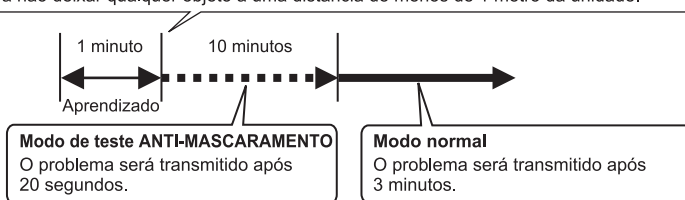
UM PROBLEMA é gerado após 20 segundos sob o modo de teste de antimascaramento.

Feche a tampa da unidade principal antes de ativar a fonte de alimentação.

O modo "Teaching mode" (Modo de aprendizagem) será iniciado imediatamente após a ativação da alimentação.

A reinicialização da alimentação é necessária se a alimentação tiver sido aplicada antes do fechamento.

Cuidado para não deixar qualquer objeto à uma distância de menos de 1 metro da unidade.



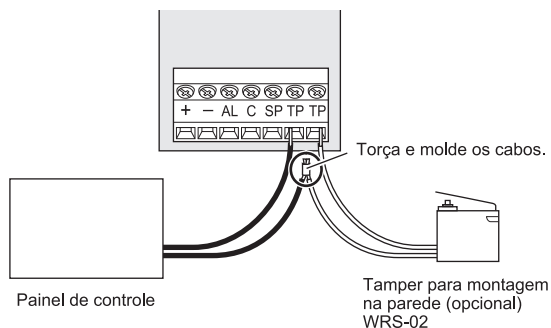
Nota>>

- Se um problema for informado (má detecção da função de antimascaramento) imediatamente após o início da operação, ajuste a chave DIP 4 (ANTIMASCARAMENTO) para "OFF" e em seguida para "ON" e feche a tampa.

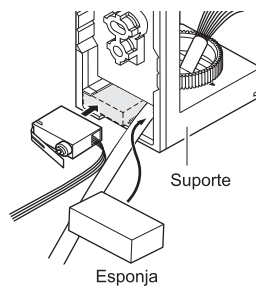
## 5 OUTROS

### 5-1 CONEXÃO DO TAMPER PARA MONTAGEM NA PAREDE (OPCIONAL)

Conecte o condutor do tamper como indicado abaixo quando conectar um dispositivo anti-vaolação montado na parede (opcional).



#### -Posição de montagem



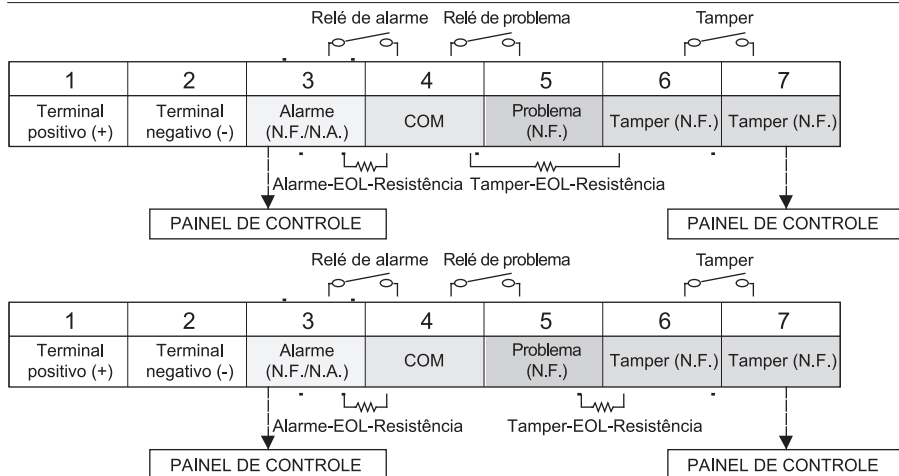
Nota>>

- Puxe o cabo pelo suporte antes de instalar o tamper na parede (opcional).

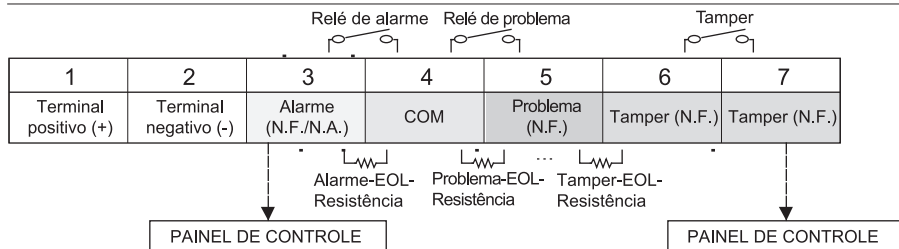
## 5-2 EXEMPLO DE FIAÇÃO EOL

Considerando que as saídas de alarme e a informação da existência de um problema compartilham o terminal COM, a conexão do cabo deverá ser realizada para o detector da série FIT de acordo com o diagrama a seguir.

### -Duplo EOL



### -Triple EOL



## 5-3 COMPORTAMENTO DA LUZ DO LED

A indicação a seguir explica o comportamento da luz do LED.



LED



Pisca



Luz



DESATIVADO

Con dição do detector	LED indicador
Aquecimento <i>Nota&gt;&gt;</i> • O LED pisca mesmo quando a chave DIP 1 (LED) estiver ajustado para "OFF" (DESLIGADO)	Pisca por aproximadamente 60 segundos
Alarme	Acende por 2 segundos
Detecção de mascaramento (somente FTN-AM) <i>Nota&gt;&gt;</i> • O LED pisca mesmo quando a chave DIP 1 (LED) estiver ajustado para "OFF" (DESLIGADO)	Pisca 3 vezes e repete.

## 6 ESPECIFICAÇÕES

### 6-1 ESPECIFICAÇÕES

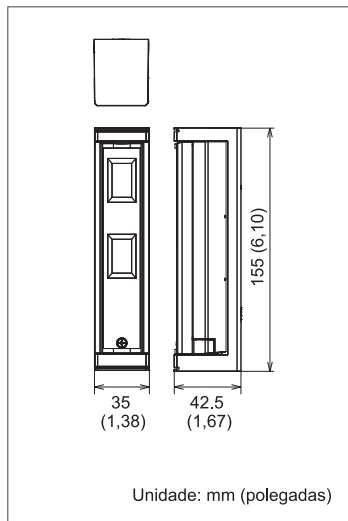
Modelo	FTN-ST	FTN-AM
Método de detecção	Infravermelho passivo	
Coertura PIR	5 × 1 m (16,4 × 3,3 ft.)	
Limite do alcance de detecção	2 m, 5 m (6,6 ft., 16,4 ft.)	
Velocidade detectável	0,3 à 1,5 m/s (1 à 4,9 ft./s)	
Sensibilidade	2,0°C (a 0,6 m/s) (3,6°F (a 2'/s))	
Tensão operacional	9,5 à 18 VDC	
Consumo de corrente	17 mA (máximo) (a 12 VDC)	20 mA (máximo) (a 12 VDC)
Período de alarme	2,0 ± 1,0 sec.	
Período de aquecimento	Aprox. 60 seg. (o LED pisca)	
Saída de alarme	N.F. / N.A. 28 VDC 0,1 A (máximo) selecionável	
Informação sobre a existência de um problema	-	N.F. 28 VDC 0,1 A (máximo)
Saída de tamper	N.F. 28 VDC 0,1 A (máximo), abra quando a tampa for removida.	
LED indicador	Aceso/Piscando: Aquecimento, alarme, detecção de mascaramento (somente FTN-AM).	
Temperatura operacional	-20°C à +60°C (-4°F à +140°F)	
Umidade ambiental	95% no máximo	
À prova de intempéries	IP55	
Montagem	Parede (Ambiente externo, interno)	
Altura da montagem	0,8 à 1,2 m (2,6 à 3,9 ft.)	
Peso	100 g (3,5 oz.)	
Acessórios	2 parafusos (3 x 20 mm)	

\* As especificações e o projeto estão sujeitos a modificação sem prévio aviso.

#### Nota>>

- Estas unidades são projetadas para detectar um intruso e ativar um painel de controle de alarme. Sendo somente parte de um sistema completo, não podemos aceitar qualquer responsabilidade por quaisquer danos ou outras consequências resultantes de uma intrusão. Estes produtos estão em conformidade com a Diretiva EMC 2004/108/EC.

### 6-2 DIMENSÕES



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