



ENGLISH

The BWare DT AM detector is the ultimate motion detector for professional installations, incorporating both Anti-Mask and Anti-Cloak™ Technologies (ACT™) and includes built-in end-of-line (EOL) resistors to simplify installation. The detector employs K-Band microwave providing reduced wall penetration.

Installation / Maintenance

Mounting - The BWare DT AM can be mounted either on a flat surface or on a wall corner (corner mounting).

1. Remove detector's front cover using a suitable tool (as described in Figure 1).

2. Using a suitable tool, open the following knockouts on the detector's base (see Figure 2).

Note: If a back tamper is to be used it is mandatory to screw the tamper back plate to the wall (or wall corner).

3. Select the correct vertical adjustment position for wide angle lens, use the scale on the bottom right hand side of the PCB cover as follows:

Mounting height and scale position based on room size:

Mounting Height	L - LONG	S - SHORT
2.1m-2.7m (6'11"-8'10")	15m (50')	6m (20')

4. Set jumpers (see Jumper Setting section).

Note: Reset the detector after each change made to the settings.

5. Install the front cover back to its place (in a reverse sequence of the removal).

6. Perform a Walk test (see Walk Test section below).

Terminal Wiring (see Figure 5)

Terminal	Description
- 12 +	12VDC Input
ALARM	N.C. Relay
TAMPER	N.C. Tamper switch
FAULT/AM	Normally Closed Relay: The FAULT/AM relay opens in the following events: • Detector is masked (Alarm relay is also opened) • Self test failed • Input voltage is lower than 8VDC
LED	LED operation remote control When an "Activation Signal"** is applied to the LED input terminal, all LEDs will be disabled. LEDs are enabled if nothing is connected (unless LED jumper is OFF) or 0V/12V is applied (according to the LED/SET Input Jumper position, 12V or 0V).
SET	Remote SET/UNSET control SET: If an "Activation Signal"** is applied, anti-mask detection is disabled (for Grade 2 configuration). UNSET: If nothing is connected or 0V/12V is applied (according to the LED/SET Input Jumper position, 12V or 0V) anti-mask detection is enabled (see also "Green Line" and "Remote Self Test")

**Activation Signal-
If 12VDC is applied, and the LED/SET Input Jumper is on 12V position (Default position)

- Or -
0V is applied and LED/SET Input Jumper is on 0V position

Jumper Settings

Jumper	Function
SW1-1: LED	Used to determine the operation of the detector's LEDs
ON: (Default)	LEDs are enabled, allowing LED control via the LED input terminal
OFF:	LEDs are disabled
SW1-2: ACT	Used to determine if ACT mode is enabled or disabled
ON	ACT Enabled Important: Do not use ACT™ mode if you are expecting that there will be moving objects outside the required protected area, a corridor for example.
OFF (Default)	ACT Disabled.
SW1-3: Green Line	The BWare DT AM includes a Green Line feature that follows environmental guidelines. This feature disables the MW channel when the alarm system is "Unset", thus eliminating surplus MW emission while the premises is occupied.
ON	Green Line feature is enabled: To deactivate the MW module during "UNSET", the LEDs must also be remotely disabled by the LED terminal. Note: When 'Green Line' is on (Microwave off), the detector will still activate (PIR only)
OFF (Default)	Green Line feature is disabled: MW is constantly in use.
SW1-4: Self Test	Used to test detection technologies.
ON	(Local Self Test): If there is no alarm detection in the PIR channel for a period of one hour, the detector will self-test. If the local self test fails, the FAULT/AM Relay will activate.
OFF (Default)	(Remote Self Test): Remote Self Test is activated when the SET terminal is switched from SET to UNSET mode. For remote self test ass., the Alarm Relay will activate for 5 seconds.
J1 - Alarm EOL J2 - Tamper EOL J3 - FAULT/AM EOL	Jumpers J1 and J2 allow the selection of Tamper and Alarm resistance (1K, 2.2K, 4.7K, 5.6K, 6.8K) according to the control panel (see Figure 4) Jumper J3 allows the selection of 12K for Fault/Anti-Mask. Follow the terminal block connection diagram in Figure 4 when connecting the detector to a Double/Triple End Of Line (DEOL/TEOL) Zone.
J4 - LED/SET INPUT	Used to determine the polarity of the external input.
12V (Default)	See Terminal Wiring section, LED and SET Terminals
0V	See Terminal Wiring section, LED and SET Terminals

Walk Test
Important: The detector cover must be closed when applying power or within 30 seconds after applying power, otherwise AM calibration will fail.
1. Two minutes after applying power (warm-up period), walk test the Detector over the entire protected area to verify proper operation of the unit (see Figure 7).
2. The K-Band MW range must be adjusted using the potentiometer located on the PCB. It is important to set the potentiometer to the lowest possible setting that will still provide enough coverage for the inner boundary protected area (see Figure 5).

U.S. Patent Number:

This product is protected under Patent No. US 7,126,476 B2.
Other patents pending.

CE Compliance Section:

Risco Ltd. hereby declares that this equipment is in compliance with the essential requirement and other relevant provisions of Directive 1999/5/EC. For the EC Declaration of Conformity please refer to our website: www.riscogroup.com

EN 50131-1
EN 50131-2-4
Grade 3
Environmental Class II

Contains FCC ID UXS-IPM165F

BWare RK515DTG3 FCC Compliance Section:

FCC Part 15 Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician.

FCC Warning:

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

RISCO Group Limited Warranty

RISCO Group and its subsidiaries and affiliates ("Seller") warrants its products to be free from defects in materials and workmanship under normal use for 24 months from the date of production. Because Seller does not install or connect the product and because the product may be used in conjunction with products not manufactured by the Seller, Seller cannot guarantee the performance of the security system which uses this product. Seller's obligation and liability under this warranty is expressly limited to repairing and replacing, at Seller's option, within a reasonable time after the date of delivery, any product not meeting the specifications. Seller makes no other warranty, expressed or implied, and makes no warranty of merchantability or of fitness for any particular purpose.

In no case shall seller be liable for any consequential or incidental damages for breach of this or any other warranty, expressed or implied, or upon any other basis of liability whatsoever.

Seller's obligation under this warranty shall not include any transportation charges or costs of installation or any liability for direct, indirect, or consequential damages or delay.

Seller does not represent that its product may not be compromised or circumvented; that the product will prevent any personal injury or property loss by burglary, robbery, fire or otherwise; or that the product will in all cases provide adequate warning or protection.

Seller, in no event shall be liable for any direct or indirect damages or any other losses occurred due to any type of tampering, whether intentional or unintentional such as masking, painting or spraying on the lenses, mirrors or any other part of the detector.

Buyer understands that a properly installed and maintained alarm may only reduce the risk of burglary, robbery or fire without warning, but is not insurance or a guarantee that such event will not occur or that there will be no personal injury or property loss as a result thereof.

Consequently seller shall have no liability for any personal injury, property damage or loss based on a claim that the product fails to give warning. However, if seller is held liable, whether directly or indirectly, for any loss or damage arising under this limited warranty or otherwise, regardless of cause or origin, seller's maximum liability shall not exceed the purchase price of the product, which shall be complete and exclusive remedy against seller.

No employee or representative of Seller is authorized to change this warranty in any way or grant any other warranty.

WARNING: This product should be tested at least once a week.

CAUTION: risk of explosion if battery is replaced by an incorrect type.

Dispose of used batteries according to local regulations.

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RISCO Group Contacting Info

RISCO Group is committed to customer service and product support. You can contact us through our website (www.riscogroup.com) or at the following telephone and fax numbers:

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NEDERLANDS

De BWare DT AM detector is de ultieme bewegingsmelder voor professionele installaties, met integratie van beide technologieën Anti-Masking en Anti-Cloak™ (ACT™) met ingebouwde end-of-line (EOL) weerstanden voor een eenvoudige installatie.

De detector maakt gebruik van de K-Band microwave om muur penetratie te verminderen.

Installatie / Onderhoud

Montage - De BWare DT AM kan op een vlakke oppervlakte worden gemonteerd, of op een muurhoek (hoekmontage)

1. Verwijder het voorste lid met het juiste gereedschap (zoals beschreven in Afbeelding 1).
2. Met een passend gereedschap open de volgende uitwerpers op de basis van de detector (zie Afbeelding 2).

Opmerking: Als een achterstamper wordt gebruikt, is het verplicht om de achterplaat van de stamper op de muur (of muurhoek) vast te schroeven.

3. Om voor de brede hoeklenzen de juiste verticale afstelpositie te selecteren, gebruik de schaal op de rechts onderkant van de PCB lid. U doet dit als volgt:

Montagehoogte en schaalpositie op basis van kamergrootte:

Montagehoogte	L - LANG	C - KORT
2.1m-2.7m	15m	6m

Opmerking: Voor installaties in een hal selecteert u de positie naar 'LANG' en monteert u de detector op een hoogte van 2,5 m/8'2".

4. Jumpers instellen (zie sectie Jumperinstellingen).

Opmerking: Stel na elke wijziging aan de instellingen, de detector opnieuw in.

5. Installeer het voorste lid terug op zijn plaats (in omgekeerde volgorde van de verwijdering).
6. Voer een looptest uit (zie sectie Looptest hieronder).

Bedrading terminal (zie Afbeelding 5)

Terminal	Beschrijving
- 12 +	12 VDC-ingang
ALARME	N.C. relais
TAMPER	N.C. Sabotageschakelaar
FAULT/AM	Normaal gesloten relais: De relais STORING/AM wordt bij de volgende gebeurtenissen geopend: • Detectorschakeling wordt ingeschakeld (Relais alarm wordt ook geopend) • Zelf-test is mislukt • Ingangsspanning is lager dan 8VDC
LED	LED-werking afstandsbediening Als op de LED van de ingangsterminal een "Activeringsignal"** wordt toegepast, worden alle LED's uitgeschakeld. LED's worden ingeschakeld als niks is aangesloten (tenzij LED-jumper op UIT is ingesteld) of 0V/12V wordt toegepast (volgens de LED/INSTELLING positie van de ingangjumper, of 0V of 12V).
SET	Externe besturing INSTELLEN/NIET INSTELLEN INSTELLEN: als een "activeringsignal"** wordt toegepast, wordt de antimaskingdetectie uitgeschakeld (voor configuratie Klasse 2). NIET INSTELLEN: Als niks is aangesloten of als 0 V/12 V wordt toegepast (volgens de LED/INSTELLING)

"Activeringsignal-
Als 12 VDC wordt toegepast en de ingangjumper LED/INSTELLEN is op positie 12V (standaardpositie)

-Of-

0 V wordt toegepast en ingangjumper LED/INSTELLEN is op positie 0 V

Jumperinstellingen

Jumper	Functie
<

Looptest

Belangrijk: De detector behuizing moet gesloten worden binnen de 30 seconden na het toepassen van de stroom, zo niet zal de AM-kalibratie mislukken.

- Twee minuten na het toepassen van voeding (opwarmingsperiode), voert u over het hele beschermde gebied van de detector de looptest uit om goede werking van de eenheid te verifiëren (zie Afbeelding 7).
- Het MW-bereik kan worden afgesteld door de potentiometer op de PCB te gebruiken. Het is belangrijk dat de potentiometer op de laagst mogelijke instelling wordt ingesteld om het binnenvaste beschermde grensgebied voldoende dekking te bieden (zie Afbeelding 5).

Display LED's

LED	Status	Beschrijving
Geel	Aan	PIR-detectie
	Knipperen	Storing in PIR-kanaal
Groen	Aan	MW-detectie
	Knipperen	Storing in MW-kanaal
Blauw	Aan	ALARM
	Knipperen	Storings-/anti-maskeringsdetectie
	Opmerking:	Anti-maskeringsdetectie is alleen in de modus "Niet instellen" werkzaam (zie sectie Bediening terminal, terminal INSTELLEN).
Alle LED's	Knipperen achtereenvolgend	Bij het opstarten, zullen de LED's achtereenvolgens knipperen tot het einde van de opwarmingsperiode (2-3 minuten). Op het einde van de opwarmingsperiode zal de RODE LED blijven knipperen tot het einde van de AM kalibratie.

Opmerking: AM- en Storingsindicaties gaan door totdat de masking word verwijderd of de storing wordt gecorrigeerd.

Technische specificaties

Elektrisch	
Stroomverbruik	16mA bij 12VDC (typisch) 41mA bij 12VDC (max.)
Spanningsvereisten	9-16VDC
Alarmcontacten	24VDC, 0,1A
Sabotagecontactencontacten	24VDC, 0,1A
STORING/AM-contacten	24VDC, 0,1A
Omgeving	
RF-immunititeit	Volgens EN50130-4
Bedrijfstemperatuur	-10C tot 55C
Opslagtemperatuur	-20C tot 60C
Optisch	
Filtrering	Wit licht-bescherming
Fysiek	
Grootte	127,6 x 64,2 x 46,6 mm
Gewicht	120 gr.

ESPAÑOL

El detector BWare DT AM es lo último en detectores de movimiento para instalaciones profesionales, incorporando las tecnologías de Anti-Enmascaramiento y Anti-Cloak™ (Anti-Camufilaje), e incorporando resistencias de final de línea para facilitar la instalación.

El detector emplea la Banda K de microondas, que proporciona una menor penetración a través de las paredes.

Instalación / Mantenimiento

Montaje - El BWare DT AM puede montarse en una superficie plana o en un rincón de pared (montaje en rincón).

- Quitar la tapa del detector utilizando una herramienta adecuada (como se indica en la Figura 1)
- Usando una herramienta apropiada, abra los siguientes agujeros pre-marcados en la base del detector (ver Figura 2).

Nota: Si se va a usar un tamper posterior, es obligatorio atornillar la placa posterior del tamper a la pared (o al rincón de la pared).

- Seleccione la posición de ajuste vertical correcta para la lente de gran angular, usar la escala que hay en la parte inferior derecha de la PCB, según se indica a continuación:

Altura de montaje y posición de la escala según el tamaño de la habitación:

Altura de Montaje	L - LONG	S - SHORT
2.1m-2.7m (6'11"-8'10")	15m (50')	6m (20')

4. Configure los puentes (ver la sección Configuración de Puentes).

Nota: Reinicie el detector después de que se haga un cambio en las configuraciones.

5. Coloque de nuevo la tapa delantera en su lugar (de modo inverso al de extracción).

6. Realice una prueba de Movimiento (ver la sección Prueba de Movimiento).

Cableado del Terminal (ver Figura 5)

Terminal	Descripción
-12 +	Entrada de 12VCC
ALARME	Relé N.C.
TAMPER	Interruptor del Tamper N.C.
FAULT/AM (Fallo/AM)	Relé Normalmente Cerrado: El relé FALLO/AM se abre en los siguientes casos: • El detector está enmascarado (el relé de Alarma también se abre) • Fallo en el auto test • El voltaje de entrada es inferior a 8VCC
LED	Control remoto del funcionamiento del LED
SET	Control remoto del Armado/Desarmado (SET/UNSET)

Armado (SET): Si se aplica una "Señal de Activación***", la detección de anti-enmascaramiento se desactiva (para configuraciones de Grado 2). **Desarmado (UNSET):** Si no hay nada conectado o se aplican 0V/12V (según la posición del Puente LED/SET Input, 12V o 0V) se habilita el anti-enmascaramiento (ver también el apartado "Green Line" y el "Auto Test Remoto" en la tabla Configuración de los Puentes).

**Señal de Activación-

Si se aplican 12VCC, y el puente (jumper) LED/SET INPUT está en la posición 12V (posición por defecto)

- O -

Se aplican 0V y el puente (jumper) LED/SET INPUT está en la posición 0V.

Configuración de los Puentes

Puente	Funció
SW1-1: LED	Se utiliza para definir el funcionamiento de los LEDs del detector.
ON (Predetermin)	Los LEDs están habilitados, permitiendo el control del LED a través del terminal de entrada del LED
OFF	Los LEDs están deshabilitados.
SW1-2: ACT	Usado para determinar si el modo ACT está habilitado o deshabilitado
ON	ACT Habilitado Importante: No use el modo ACT™ si usted espera que haya objetos en movimiento fuera del área protegida requerida, p.ej. un pasillo.
OFF (Predetermin)	ACT Deshabilitado.
SW1-3: Green Line	El BWare DT AM incluye la característica Green Line que sigue las directivas medioambientales evitando un exceso de emisión. Esta característica deshabilita el canal MW cuando el sistema de alarma está "DESARMADO", eliminando así la emisión excedente de MW mientras las instalaciones estén ocupadas.
ON	La característica Green Line está habilitada: Para desactivar el módulo de MW en el periodo de "Desarmado", los LEDs también deben deshabilitarse remotamente mediante el terminal LED.
OFF (Predetermin)	Nota: Cuando el 'Green Line' está activado (MW desactivado), el detector seguirá activo (sólo con el PIR).
SW1-4: SELF TEST (Auto Test)	Usado para probar las tecnologías de detección.
ON	(Auto Test Local): Si no hay detección de alarma en el canal PIR durante una hora, el detector hará un auto-test. Si el auto test local falla, se activará el Relé FAULT/AM (FALLO/AM).
OFF (Predetermin)	(Auto Test Remoto): El Auto Test Remoto se activa cuando el terminal SET se cambia del modo SET (Armado) a UNSET (Desarmado). Si el auto test remoto se realiza correctamente, se activará el Relé ALARM (Alarma) durante 5 segundos. En caso de fallo del auto test remoto, se activará el Relé FAULT/AM (FALLO/AM).
J1 - Alarm EOL	Los puentes J1 y J2 permiten la selección de la resistencia del Tamper y de la Alarma (1K, 2.2K, 4.7K, 5.6K, 6.8K) en función de a central (ver Figura 4). El puente J3 permite la selección de 12K para el Fallo/Anti-Enmascaramiento.
J2 - Tamper EOL	Siga el diagrama de conexión del bloque de terminales de la Figura 4 cuando conecte el detector a una Zona de Doble/Triple Fin-de-Línea (DEOL/TEOL)
J3 - FAULT/AM EOL	Usado para determinar la polaridad de la entrada externa.
J4 - LED/SET INPUT (ENTRADA LED/SET)	Ver la sección Cableado del Terminal, Terminales LED y SET
12V (Predetermin)	Ver la sección Cableado del Terminal, Terminales LED y SET
0V	Ver la sección Cableado del Terminal, Terminales LED y SET

PORTUGUÊS

O detector BWare DT AM é a última palavra em detector de movimento para instalações profissionais, incorporando a tecnologia Anti-máscara e Anti-Cloak™ (ACT™ - Tecnologia Anti-camufilagem), acondendo às novas diretrizes amistosas ao meio-ambiente.

O detector BWare DT AM é disponibilizado em 15m, e incluem resistências embutidas de fin-de-linha (EOL) para simplificar a instalação.

Nota: Todos os detectores da RISCO Group que possuem o sistema de anti-máscara através de Infravermelho Ativo, possuem uma proteção contra luz branca diretamente em cima do sensor pirolétrico, isso não é uma proteção para transporte. Não retire a proteção contra luz branca, pois isso além de não melhorar o desempenho, torna o detector passivo de disparos falsos gerados por rajadas de luz.

Instalação / Manutenção

Montagem - O BWare DT AM pode ser montado numa superfície plana ou num canto da parede (montagem de canto).

- Retire a tampa da frente do detector usando a ferramenta adequada (conforme descrito na Figura 1).
- Usando uma ferramenta apropriada, abra os seguintes furos pré-marcados na base do detector (ver Figura 2).

Nota: Se um tamper de parede precisa ser usado, é obrigatório parafusar a parte plástica traseira na parede (ou ao canto da parede).

- Para usar a posição correta de ajuste vertical para lentes de ângulo aberto, use a escala localizada no lado direito inferior da tampa do PCB, como segue:

Altura de montagem e posição da escala baseada no tamanho do local:

Altura de Montagem	L - LONGA	C - CURTA
2.1m-2.7m (6'11"-8'10")	15m (50')	6m (20')

- Configure os jumpers (ver a seção Configuração de Jumpers).

Nota: Reajuste o detector depois de cada modificação feita nas configurações.

- Recoleoque a tampa dianteira em seu lugar (na sequência contrária à da remoção)

6. Realize uma prova de Caminhada (ver abaixo a seção Prova de Caminhada).

Terminais de Fiação (ver. Figura 5)

Terminal	Descrição
-12 +	Entrada de 12VDC
ALARME	Relé N.F.
TAMPER	Chave do tamper N.F.
FALHA/AM	Relé Normalmente Fechado: O relé FALHA/AM se abre nos seguintes eventos: • O detector é Mascaramento (O relé de Alarma também se abre) • Falha no auto teste • A voltagem de entrada é inferior a 8VDC
LED	Controle remoto da operação do LED
SET	Controle remoto do SET/UNSET

Prueba de Movimiento

Importante: La tapa del detector debe estar cerrada cuando se le da alimentación, o cerrarse antes de que pasen 30 segundos tras dar alimentación. Si no, se producirá un error en la calibración del AM.

- Los minutos después de la puesta en marcha (periodo de calentamiento), haga la prueba de movimiento al detector en toda la área protegida para verificar el correcto funcionamiento de la unidad (ver Figura 7).

2. El rango de la Banda K del MW puede ajustarse mediante el potenciómetro situado en el PCB (placa de circuito impreso). Es importante ajustar el potenciómetro a la configuración más baja posible que aún pueda proporcionar suficiente cobertura al límite interno del área protegida (ver Figura 5).

Nota: La indicaciones de AM y Problema continúan hasta que se elimina el enmascaramiento o se soluciona el problema.

Especificaciones Técnicas

Electrísticas		
Consumo de corrente	16mA a 12VCC (Típico)	41mA a 12VDC (Máx.)
Requisitos de voltaje	9-16VCC ***	
Contactos de Alarma	24VDC, 0,1A	
Contactos de Tamper	24VCC, 0,1A	
Contactos de FALLO/AM	24VCC, 0,1A	
Ambientais		
Inmunidade a RF	Segundo EN50130-4	
Temperatura de funcionamiento	-10C a 55C (14F a 131F)	
Temperatura de almacenamiento	-20C a 60C (-4F a 140F)	
Óptica		
Filtrado	Proteção contra luz branca	
Físicas		
Tamaño	127.6 x 64.2 x 46.6 mm (5 x 2.5 x 1.84 pul)	
Peso	120 gr. (4.2 oz.)	

****Sinal de Accionamiento-** Se 12VDC é aplicado, e o Jumper de Entr