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TECHNICAL DATA

Security Technology
## BUS-IR Motion Detectors IR/XB and IR/XC

• Detector for Indoor Surveillance

Description of product

The IR/X is a bus motion detector designed for indoor applications and intended for connection to an ABB Intrusion Alarm Panel. The detector features proven passive infrared technology. It facilitates monitoring of an area with an IR range of up to 15 m. The device states are indicated on the detector by 1 or 2 LEDs which are externally visible. Furthermore, the detector features an alarm memory, a remote controlled walk test as well as anti-masking monitoring (IR/XC).

Volumetric plan view
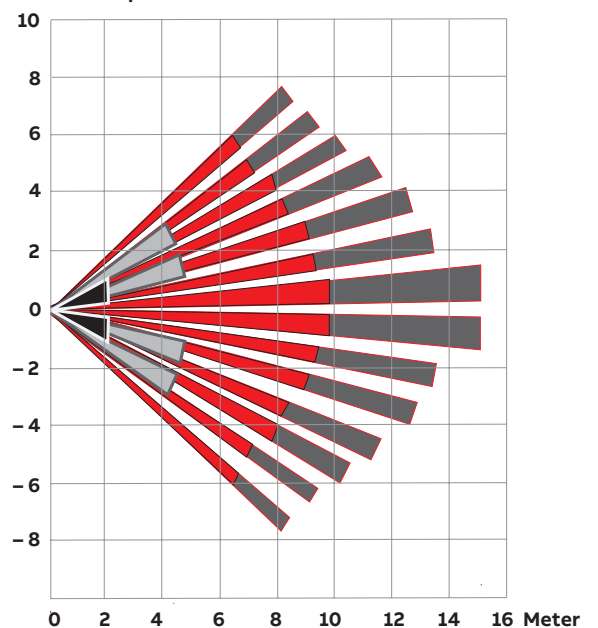
Volumetric side view
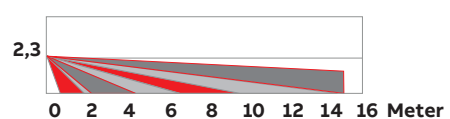
Installation location
The recommended mounting height is 2.3 m.
The unit can be mounted between 2.1 m and 2.5 m without adjustment when mounted on a vertical surface.

It should only be mounted on permanent, vibration-free walls. Large objects situated before the detector obstruct the detection range. The detector should not be subject to direct sunlight, heat sources and strong draughts (e.g. fans of air-conditioning systems) to avoid false alarms.

To prevent false operation of the anti-mask monitoring, no objects should be placed within a 1 m radius zone extending in front and below the detector. For example, do not mount the detector over a cupboard or door.

Preparation and mounting
To remove the cover the screw must be loosened (do not unscrew fully). Then insert a flat screwdriver into the slot underneath the screw and twist it. When the detector is opened the electronic circuit board can be unlatched via the two catches at the top of the circuit board and removed simultaneously from the plug-in socket. On the lower housing section the selected cable entry points and mounting apertures can be knocked out.

Please note that mounting hole no. 6 must be used with the off the wall anti-tamper cup.

Introduce the cables, connect them and provide strain relief using the enclosed cable ties.

Completion of Assembly
The electronics are reinstalled after mounting the lower section.

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CAUTION
During all work the light-sensitive sensor may not be touched.

To refit the cover engage the upper half into the two catches and push both halves together (there will be an audible click) and then tighten the screws.

Connection of the bus see figure next page

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CAUTION
For all other settings – please consult the Intrusion Alarm System manual!

**Please note for detectors with antimasking (IR/XC):**
To prevent false operation of the anti-mask monitoring, no objects should be placed within a 1m radius zone extending in front and below the detector. For example, do not mount the detector over a cupboard or door.

Stay at least 2 metres from the unit for 2 minutes while the AM system is calibrating.
Detector instantly calibrates at power up.

Mounting

Bus connection
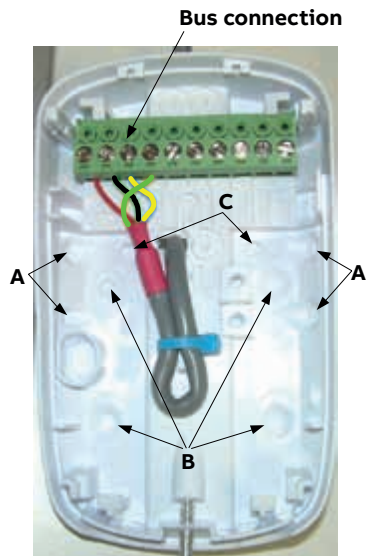
A = Knockout for corner mounting
B = Knockout for wall mounting
C = Knockout for mounting bracket
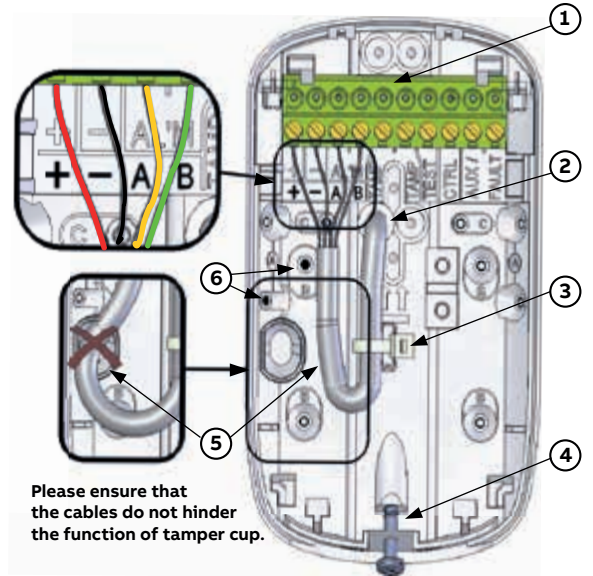
1 = Terminal block
2 = Cable entry point
3 = Cable attachment point for cable tie
4 = Cover screw (loosen only – do not remove)
5 = Observe cable entry
6 = Position of mounting screws for wall – or corner mounting.
(Use is mandatory in conjunction with the off the wall tamper cup detection)

Please ensure that the cables do not hinder the function of tamper cup.
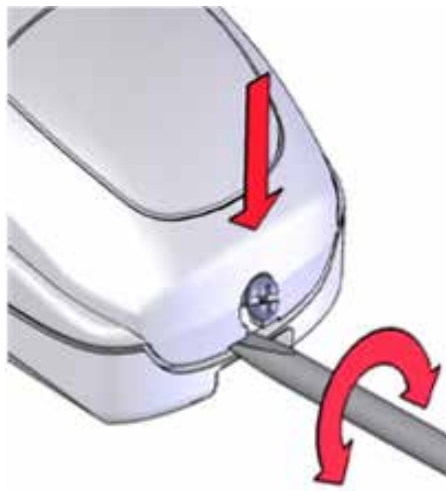
LED displays

When programmed compliant to VdS.

System set: No LED displays

System unset: LEDs activated with
[Walk test] or via [Alarm]

Displays	
⚪ 🔴 ⚪	Alarm trigger and undervoltage indications
⚪ ⚪ 🟡	Infrared (PIR) indications
Indications after Power Up	
⚪ ⚪ 🌟	Active IR Anti-mask system calibration - one flash every 3 s (only IR/XC)
All other indications are fully active after 60 s after Power Up	
Indications of technical faults	
Displayed when unit is UNSET	
⚪ ⚪ 🌟	Active IR Anti-mask system calibration fail - flickers quickly (only IR/XC)
⚪ 🌟 ⚪	Undervoltage Fault - flashing at 1 Hz
⚪ 🔴 ⚪	Infrared fault - continuously lit
Indications when walk test enabled	
⚪ 🔴 ⚪	Unit alarm triggered - lit for 3 s (zone input triggered for 3 s)
⚪ ⚪ 🌟	AM system has identified the PIR is masked - flashing at 3 Hz (only IR/XC)
Indications from memory function	
Displayed when unit is UNSET	
⚪ 🔴 ⚪	Alarm triggered while last set - continuously lit (not in walk test mode)

Approvals
The BUS-IR Dual Motion Detectors IR/XB and IR/XC are compliant to EN 50131 part 1.

CE

Intended purpose: Intrusion detection within closed buildings.

Safety instructions: The supply voltage must be protected by a separate fuse that is rated < 5 A.

Technical data	
Voltage	12 V (9 V … 16 V DC)
Current IR/XB	Quiescent: 6 mA Alarm without LED: 6 mA Alarm with LED: 9 mA
Current IR/XC	Quiescent: 8 mA Alarm without LED: 8 mA Alarm with LED: 11 mA
Connection	Security bus
IR detection range	Adjustable via the programming menu of the Intrusion Alarm System
Effective range at mounting height of 2.3 m	Angle = 86° Range = 15 m Zones = 17 on 4 levels
Temperature range	-10 °C to +55 °C, environmental class II
Weight	150 g
Dimensions	110 x 66 x 42
VdS approval	
IR/XB IR/XC (anti mask)	Class B No.: G110506 Class C No.: G110062

Ordering details					
Device type	Product Name	Order No.	bbn 40 16779 EAN	Weight 1 pcs. [kg]	Packaging [pcs.]
IR/XB	BUS Infrared Motion Detector, 15 m, VdS class B VdS-No. G110506	2CDG230023R0011	67877 3	0.15	1
IR/XC	BUS Infrared Motion Detector, 15 m, VdS class C VdS-No. G110062	2CDG230024R0011	67878 0	0.15	1
MW	Mounting Bracket	GHV9230039V0020	66580 6	0.03	1

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