BMHP BM series BMM

MICROWAVE BARRIERS

Long distance electronic protection

Digital & Analog range

All weather conditions

SERVIACOM PROACCESS - 4, allée des Sorbiers - Nancy Porte Sud - Site des Erables - 54180 HEILLECOURT Tél. : 03.83.17.08.08 - Fax : 03.83.17.08.09 - HotLine : 0890 031 115 - info@serviacom.fr - www.serviacom.fr

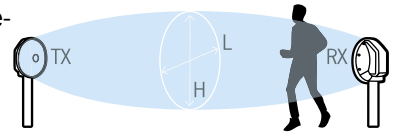
Range

AVS ELECTRONICS produces electronic alarm solutions in Italy since 1974 and introduces BM series, a range of 10 microwave barriers, the M and HP series.

BM M / BM HP	M Analog range				HP Digital range					
	BM60M	BM120M	BM200M	BM60M WS	BM60HP	BM120HP	BM200HP	BM60HP VAC	BM120 HP VAC	BM200 HP VAC
Maximum detection range (mt)	60	120	200	60	60	120	200	60	120	200
Supplying	13,8 Vdc			230 Vac	13,8 Vdc			230 Vac		
Connection	Normally closed (NC)			868 Mhz wireless	Normally closed (NC) and R485 bus					

Concept

BM is composed of 2 units – **1 transmitter (TX) and 1 receiver (RX)** - installed at a maximum distance of 60, 120 or 200 meters. The transmitter emits continuously the microwave in direction of the receiver. The intruder who passes through the 2 units reduces consecutively the received signal, up to reach the alarm level and generate the alarm. The perimeter protection is achieved by installing multiple barriers in single thread.



Benefits

HIGHER SECURITY The security area is genuinely **so width and high** (up to 4 x 3 meters) that it is impossible to cross without generating an alarm and provides a **higher security** compared to other technologies.

LOWER FALSE ALARM RATE Setting a **pet immunity** is easy: the alarm level is programmed to ignore small animals and generate less unwanted alarms.

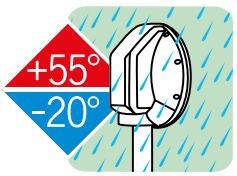
INTEGRATION CIRCUIT The **security** may **be increased automatically** thanks to its build-in integration circuit which amplifies the possible conditions for an alarm and triggers more easily.

DISQUALIFICATION BM distinguish a real alarm from a **disqualification** situation (like a van parked between the barriers).

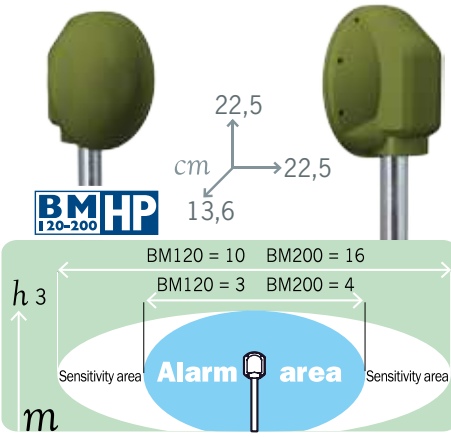
COMMON INTERFACE AND INSTALLATION With the poles, BM are only 120 cm high: it is easy and quick to install them, so the cost of installation is lower compared to other technologies. It is also simple to set perfectly thanks to few trimmers and dip-switches. Finally, thanks to its regular NC outputs, BM works **with all alarm and CCTV systems**.

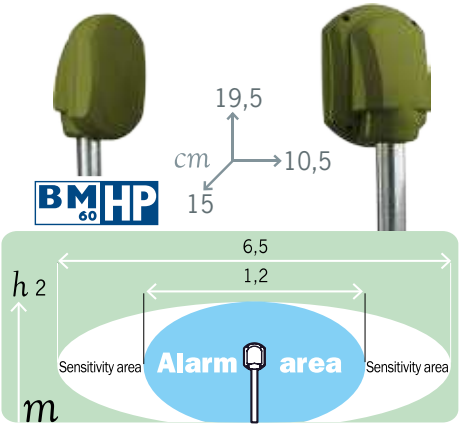
MICROWAVE PLANAR ANTENNA Since 2003, BMs integrate planar antennas which **reduce of 20% the sensibility area** compared to former parabolic antennas. Longer distances BM can be installed for the same perimeters and costs are saved. In addition, to be protected from rain, the parabolic antennas use big expansive difficult-to-handle waterproof housings when the **BM's planar antennas are highly protected** by tropicalization and installed in high resistant protective cover that avoid the condensation and its consecutive rust development.

CLIMATIC ENVIRONMENT BM operate in **all weather conditions** (snow, rain, fog) without distances reduction, unlike the active infrared barriers. If the temperature reaches less than -5°C, it is possible to place a TERM1 heating kit. BM temperature range is -20/+55°C.



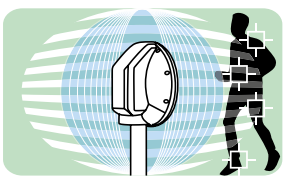
Pictures of the BM HP barriers with their transversal view of the sensibility and alarm area



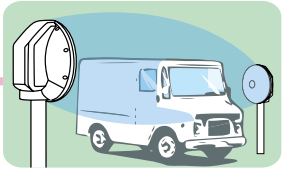


Pictures of the BM M analog barriers

SENSITIVITY AREA



EXAMPLE OF DISQUALIFICATION



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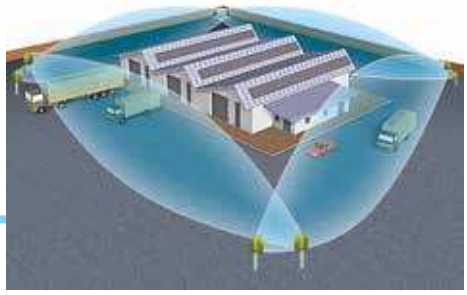
POWER FEED BM M and BM HP are **13,8 Vdc** powered. VAC series is directly feed by the main (**220 Vac**) and include an optional backup battery to compensate an electricity absence. Main power feeding simplifies the wirings and decrease the installation cost.

MARKETS BM are **perfect for all the perimeters**: gardens, houses, borders, **warehouses**, airports, commercial resorts, car and trucks parks, **civilian, industrial, military, nuclear** and electrical plants.



Example of typical installation

Digital BM HP advantages

AUTOMATIC GAIN CONTROL (AGC) The environmental variations may improve or deteriorate the microwaves level reception over time. An Automatic Gain Control circuit automatically **optimizes the level** to maintain it flat: the settings are easier, the security is higher.

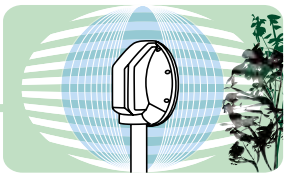
REDUCTION OF THE SENSIBILITY AREA BM HP may reduce digitally of up to 30% the area of sensibility and then ignore the movements in the **peripheral objects** (i.e. from fences or **trees**) which are the origin of unwanted alarms.

FALSE ALARM FILTER BM HP barriers records automatically up to 3600 events it is possible to classify between good and false alarms. BM HP verifies then the new events according to this database and **stop the unwanted alarms**.

DIGITAL INTERFACE Additionally to the NC outputs and other regular settings, BM HP present a USB and a **RS485 port** to be coupled to a RS485 hub or an AVS ELECTRONICS' control panel.

SOFTWARE Thanks to the local USB port or remotely by PSTN, **GSM or IP**, HPWIN software shows all the parameters, an **oscilloscope**, the 3600 last alarm events (with date and time) and proposes all the tools to set the barriers.

DIGITAL ANALYSIS ELIMINATES PERIPHERAL MOVEMENTS.



Software oscilloscope

RS485 Connection

USB

POLES AND OPTIONALS

SB 20
Wall mounting 20 cm pole

SB 60
Wall mounting 60 cm pole

SB 120
Floor standing 120 cm pole

SB 130
Buried 130 cm pole

TERM 1
Heating kit

AMP
Vertical sensor for tamper

RS485 OPTIONAL INTERFACE

XSAT HP
RS485 HUB

RS485 Connection

HPWIN
Software for advanced settings and visualization

XTREAM
RS485, IP, PSTN & GPRS control panel

OUTSPIDER
RS 485 Pet & Trees immune outdoor sensor

OutSpider

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TECHNICAL FEATURES	BM60HP - BM60HPVAC	BM120HP - BM120HPVAC	BM200HP - BM200HPVAC
Maximum range	60 meters	120 meters	200 meters
Nominal tension	12V	12V	12V
Minimum tension	11,5 V	11,5 V	11,5 V
Maximum tension	15 V	15 V	15 V
Supplied power pack Only BM..HP VAC	Input voltage: 230Vac - Current: 1 A - Power: 15 W - Out Voltage: 13.8Vdc		
Allocable battery - not supplied Only BM..HP VAC	12V – 0,8 Ah - Mod. NP 0,8 - 12		
Standy consumption	TX : 31 mA - RX : 100 mA		
Consumption during alarm	TX : 31 mA - RX : 100 mA		
Size (D x L x H)	150 x 105 x 195 Vers. VAC: 136 x 225 x 225	136 x 225 x 225	136 x 225 x 225
Block input	Thought dedicated “B” input		
Additional input	Negative input for detector		
Alarm output	Normally closed exchange		
Disqualification output	Normally closed output for information of disqualification		
Tamper output	Normally closed exchange		
Optional kit for anti-removal (AMP)	No	Yes	yes
Serial output RS485		yes	
Number os selectable RS485 addresses	Max 32		
Events’ memory	3600 events memorized with curve, date, time, power		
Memorization stop at disarmed system	yes		
False alarms filter	yes		
Test Point output	For control of the signal received		
Microwave working frequency	10.525 GHz (+/- 20MHz)		
Modulation	In 5 different channels, to select via dip-switch		
Irradiated RF power	25 dBm peak		
Working temperature	From – 20°C to + 55°C For installation outdoor the use of optional heating kit (mod Term1) is suggested		
IP level	IP34		
Equipped with	Bracket for fixation on 40 mm. pole		

TECHNICAL FEATURES	BM60M	BM120M	BM200M	BM60MWS
Maximum range	60 meters	120 meters	200 meters	60 meters
Nominal tension	12 V	12 V	12 V	12 V
Minimum tension	11.5 V	11.5 V	11.5 V	11.5 V
Maximum tension	15 V	15 V	15 V	15 V
Supplied power pack	-	-	-	Input tension:230 V Current: 300 mA Power 6 VA Tension out: 13,8 V
Battery location	-	-	-	12V 0,8 Ah mod. NP 0,8 - 12
Standy consumption	Tx = 31 mA Rx = 70 mA	Tx = 31 mA Rx = 70 mA	Tx = 31 mA Rx = 70 mA	Tx = 31 mA Rx = 70 mA
Consumption during alarm	Tx = 31 mA Rx = 70 mA	Tx = 31 mA Rx = 70 mA	Tx = 31 mA Rx = 70 mA	Tx = 31 mA Rx = 100 mA
Size (DxLxH)	150x105x195	136x225x225	136x225x225	136x225x225
Transmission frequency	-			FM 868 Mhz
Supervision wireless transmission	no			yes
Block input	Thought dedicated “B” input			-
Alarm output	Normally closed exchange with 500 mA range at 12V			-
Tamper output	Normally closed output			-
Optional anti-removal kit	No	Yes	Yes	no
Disqualification output	Normally closed output for information of disqualification			
Test point output	For control of the signal received			
Microwave working frequency	10.525 GHz (+/-20 MHZ)			
Modulation	In 5 different cannels to select via dip-switch			
Irradiated RF power	25 dBm peak			
Working temperature	From – 20°C to + 55°C For the installation outdoor the use of the optional heating kit is suggested (Term2)			
IP degree	IP34			
Equipped with	Bracket for fixation on 40 mm pole			

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