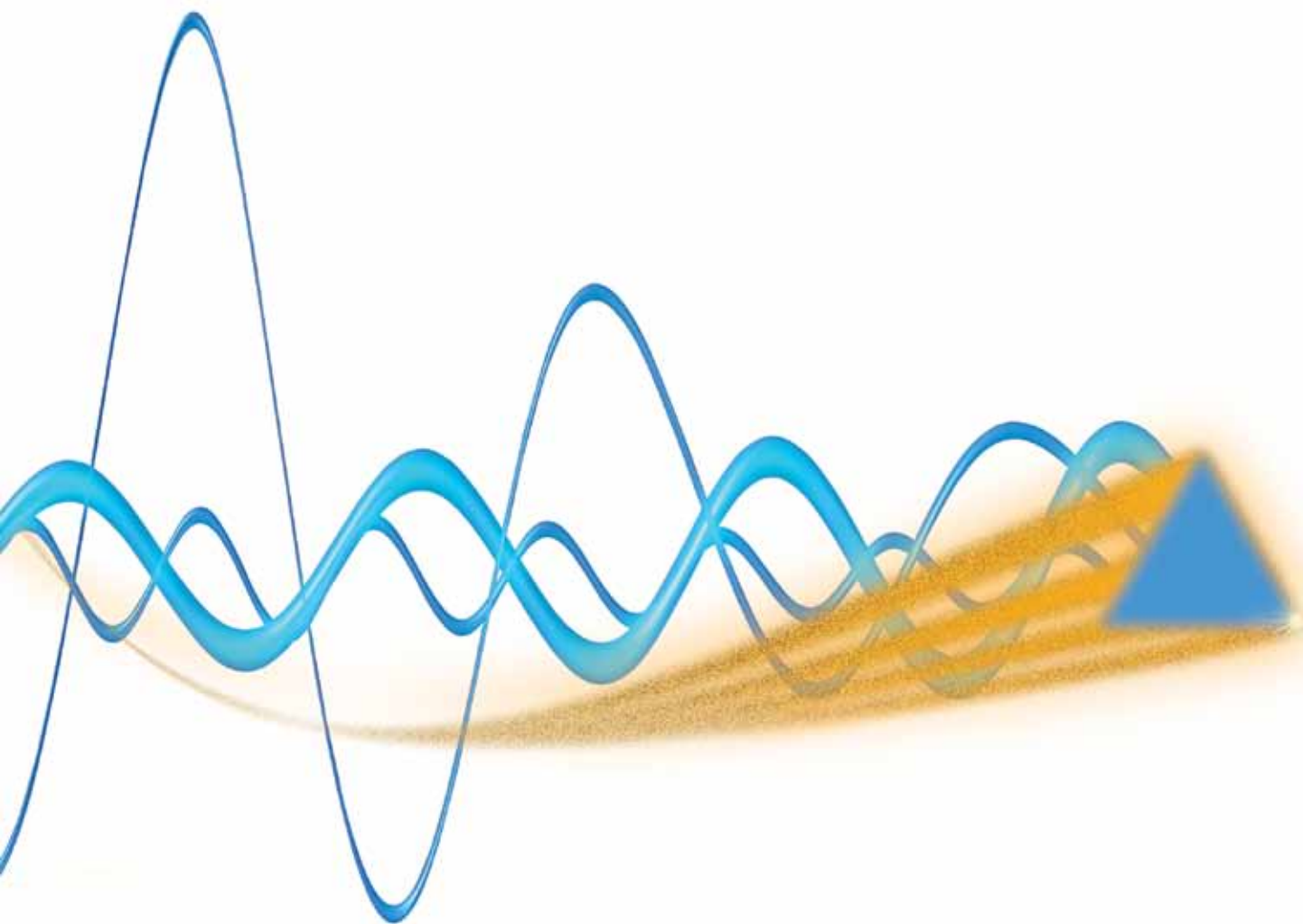


Microphones

VIGIL *Unitouch*

combined data sheets





VOICE ALARM EMERGENCY FIRE MICROPHONES

Microphones



BFM400 is a range of fully monitored emergency fire microphones that provide a wide variety of features to suit any installation. Products in the range include:

BFM401 • BFM404 • BFM408

FEATURES:

- The BFM404 and BFM408 multi-zone microphones communicate with the main control system via an RS485 communications link.
- The single zone BFM401 can be set to connect via RS485 or a parallel hard-wired connection.
- Housed in a sealed (IP66) lockable steel enclosure.
- All buttons and indicators mounted behind a stylish overlay - allowing zone button labels to be inserted and protected.
- 'Zone select' buttons and 'all call' button.
- The first microphone capsule can be set for either monitored or unmonitored use during configuration.
- Option to fit a 'processor bypass' hard-wired press-to-talk switch.
- Option to fit flip-top switches to enable DVA (digital voice announcement) messages to be broadcast.
- 'Zone status' indicators show if a zone is currently selected or in use (BFM404 and BFM408).
- 'Speak now' indicator.
- Simple bar graph display shows the user the current speaking volume, ensuring a clear announcement is made.
- 'Data' and 'DC' indicators confirm the unit is functioning correctly.

- A 'common fault' indicator is included to show the user if a fault is evident on the system.

Cabling:

- Serial: to avoid the possibility of interference between the audio and data we recommend each microphone is connected using one two-core fire rated cable for audio and one four-core for data and power.
- Parallel: six core fire rated cable (BFM401 only).
- Note: Baldwin Boxall recommends using fire rated cable. Enhanced cable may be required in certain large and complex buildings - see below.

BS5839 Part 8: fire resistant cabling:

BS5839 part 8:2008 - enhanced fire resisting cabling required in unsprinklered buildings:

- Needing evacuation in four or more phases.
- Greater than 30m high.
- Where a fire in one area could effect critical cables associated with areas remote from the fire.
- Or, any buildings that a specifier/authority considers that enhanced cabling is necessary.

(Please refer to BS5839 part 8:2008 for a full explanation.)

EMERGENCY MICROPHONE SPECIFICATION:

	BFM401	BFM404 / BFM408
Audio		
Nominal output level	700mV	
Maximum output level (limiter operating)	1.5V	
Output impedance	400 ohms	
Frequency response	150Hz-5kHz	
General		
Power requirement (24V DC)	26mA standby (30mA max)	35mA standby (70mA max)
Dimensions W x H x D mm	300 x 200 x 82	
Bezel overall size W x H mm	340 x 240	
Bezel cutout W x H mm	306 x 206	
Serial data link	RS485 9600 baud	

BALDWIN BOX▲LL

TEL: +44 (0) 1892 664422
FAX: +44 (0) 1892 663146

EMAIL: MAIL@BALDWINBOXALL.CO.UK
WEB: WWW.BALDWINBOXALL.CO.UK

BALDWIN BOXALL COMMUNICATIONS LTD
WEALDEN INDUSTRIAL ESTATE,
FARNINGHAM ROAD, CROWBOROUGH,
EAST SUSSEX, TN6 2JR, UNITED KINGDOM.



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VOICE ALARM BVRD CONTROLLER

Microphones



The BVRD microphone controller has been designed specifically for the voice alarm market and will interface with any of our VIGIL routers. Available in the range:

BVRD8 • BVRD16 • BVRD24 • BVRD32 • BVRD40 • BVRD48 • BVRD56 • BVRD64

FEATURES:

- Available in eight versions - from 8-zone up to 64-zone.
- Performs as a paging or fire microphone with an optional emergency 'all call' bypass facility.
- During an emergency, the BVRD assumes 'emergency control mode'; live broadcasts made using the unit will override any commands from the fire alarm panel. By imitating the state of the local fire alarm panel, the BVRD indicates the current state of emergency and the operator can take control.
- Broadcasts can be either live announcements or pre-recorded message, selected by the operator.
- Different messages can be broadcast to different zones simultaneously - making it possible to alert some areas and evacuate others, with the option for live broadcast announcements to remaining/selected zones.
- Five programmable function keys.
- LCD panel displays provide a clear indication of the status of each zone; name, input source and fault status. Zone input/names can be changed via the USB2 port.
- An LCD panel displays message choice, showing four at a time, the user scrolls through the messages available (up to 30 which are stored on the EVAS router/s).
- Red buttons for emergency messages - operated by key switch.
- Fully monitored using parity checking and handshaking techniques. Faults indicated on the unit include 'system', 'message', 'microphone', 'processor' and 'data link'.
- Group programmable volume adjustment using the BVRD2M remote volume facility.
- Background music selection per zone.
- RJ45/CAT5 connection.

Front panel controls:

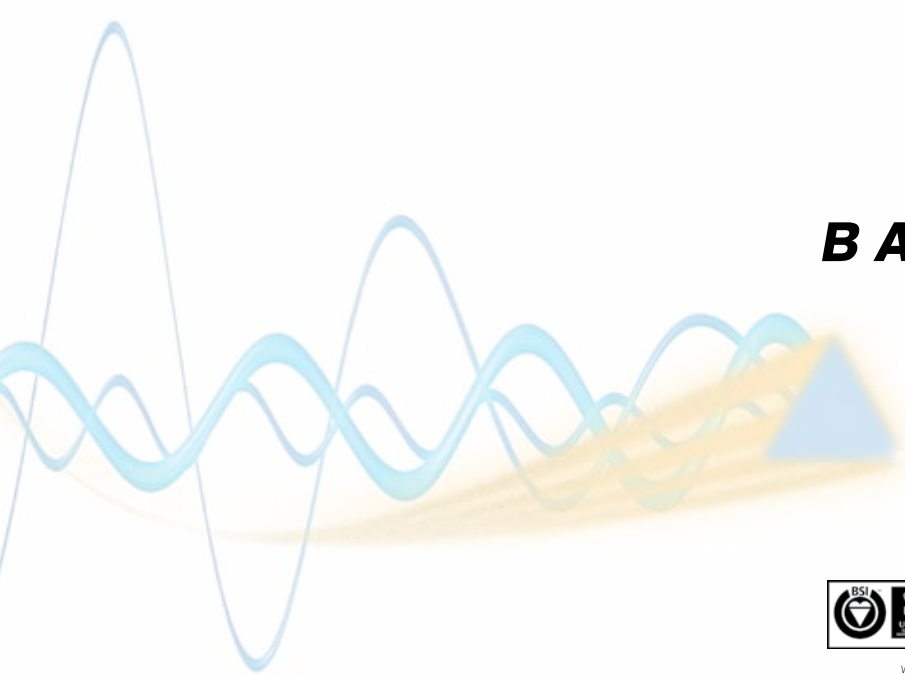
- Message select.
- Message page, home.
- Message scroll up and scroll down.
- Message cancel.
- Press to talk.
- Music select.
- Volume up and volume down.
- Five programmable function keys.
- Zone select (one per zone).
- Fault accept/lamp test.
- Emergency mode select key.
- 'All call' processor bypass button option.

CABLE REQUIREMENTS:

Fire rated cable must be used when installing the BVRD and all related voice alarm system equipment.

BVRD SPECIFICATION:

	BVRD8	BVRD16	BVRD24	BVRD32	BVRD40	BVRD48	BVRD56	BVRD64
Nominal output level	+10dBm							
Max output level limiter operating	+18dBm							
Output impedance	8 ohms							
Frequency response	200Hz-12kHz							
Power requirements (24V DC) (max)	100mA	125mA	150mA	175mA	200mA	225mA	250mA	275mA
Dimensions mm WxHxD	205x48x177	275x48x177	345x48x177	415x48x177	485x48x177	555x48x177	625x48x177	695x48x177
Data serial link	RS485 9600 BR (default)							
Front Panel Indicators								
Microphone output	Four LEDs indicating speech level							
Speak now	Operator can make announcement							
OK	System healthy							
Comms fault	Serial data fault							
Processor fault	Processor fault							
Restart	Processor restart fault indicator							
System fault/accept	System fault LED with 'fault accept/lamp test' button							
Fault	Microphone fault							



BALDWIN BOX▲LL

TEL: +44 (0) 1892 664422
 FAX: +44 (0) 1892 663146

EMAIL: MAIL@BALDWINBOXALL.CO.UK
 WEB: WWW.BALDWINBOXALL.CO.UK

BALDWIN BOXALL COMMUNICATIONS LTD
 WEALDEN INDUSTRIAL ESTATE,
 FARNINGHAM ROAD, CROWBOROUGH,
 EAST SUSSEX, TN6 2JR, UNITED KINGDOM.



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VOICE ALARM PAGING STATION

VIGIL Unitouch



Unitouch touchscreen PC paging technology allows simple intuitive control of an EVAS voice alarm system. By touching the relevant part of the screen the operator can access fire microphones, page any/all zones, select and broadcast background music.

FEATURES:

- Each system is bespoke, designed specifically for the system it is intended. There are two screen display options: 'button' or 'graphic layout' view.
- All screens are menu-driven - enabling the user to quickly understand how to use the many features and operate the system.
- 'Administrator' and 'guest' accounts as standard. Further accounts with user rights can be added.
- The 'administrator' (and any user with the appropriate access rights) is able to:

Select individual zones or groups.

Live broadcast/paging.

Broadcast emergency messages stored on EVAS routers.

Broadcast DVA (.wav) files stored on PC.

Route background music.

Initiate weekly fire alarm test.

- User activity is logged, complete with time and date stamp.
- System fault/busy indicators.
- Fault diagnostics - with time and date stamp - can be emailed with added notes (ie 'engineer called out'). Faults displayed include line (A/B circuit), reserve amplifiers, power supply and charger, ambient noise sensors, messages, fire microphones, paging microphones. The system will also display recommended solution(s).

- State-of-the-art high performance computer and screen all in one unit.
- High definition LCD display with fingertip touch sensitivity.
- Wireless keyboard and mouse.
- Supplied with a slide stand for stability and best viewing angle. Adjustable tilt angle between 10 and 40 degrees from vertical.
- Security lock slot (lock not supplied).

TOUCHSCREEN OPTIONS/ACCESSORIES:

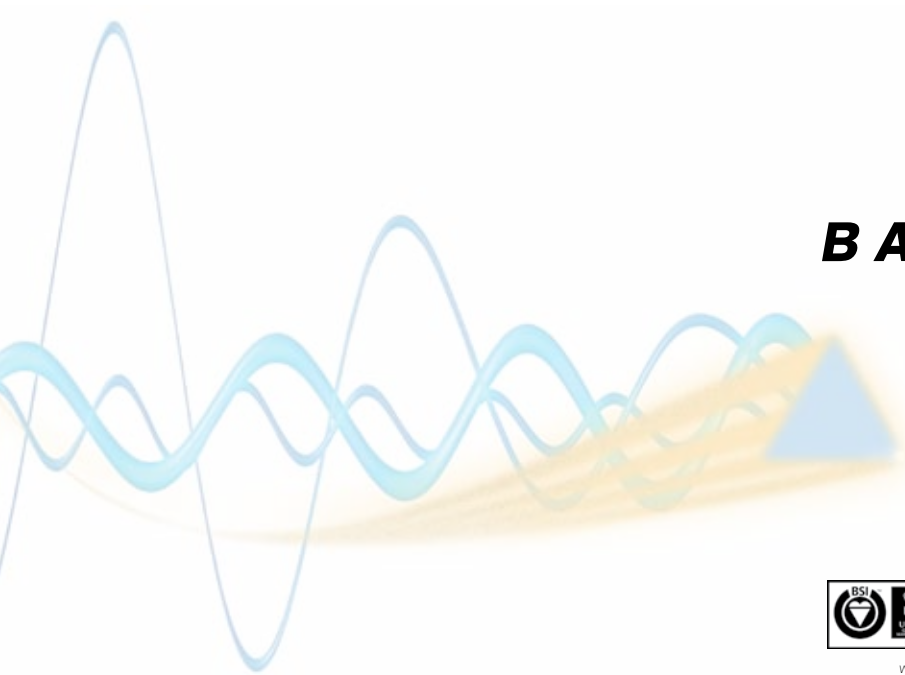
PCTSS	Standard software with button layout
PCTSG	Software with graphic layout design
BDM400TS	Desk microphone for touchscreen system
PCTSS	Remote dial diagnostic software
PCTUPS	UPS power supply for PCTS

CABLE REQUIREMENTS:

Two core screened 1.5mm fire rated - two are required (one for data and one for line out audio port). Each unit is supplied with a cable termination box.

PLEASE NOTE: THE CD/DVD DRIVE, MEMORY CARD READER, BUILT-IN MICROPHONE AND POWER BUTTON ARE DISABLED TO PREVENT ACCIDENTAL SHUT DOWN OR CORRUPTION BY UPLOADING SOFTWARE, ETC.

THE SYSTEM CAN ONLY BE SHUT DOWN BY USE OF A PASSWORD.



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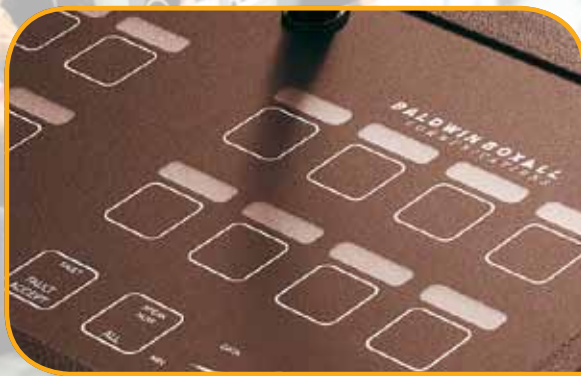
TEL: +44 (0) 1892 664422
FAX: +44 (0) 1892 663146

EMAIL: MAIL@BALDWINBOXALL.CO.UK
WEB: WWW.BALDWINBOXALL.CO.UK

BALDWIN BOXALL COMMUNICATIONS LTD
WEALDEN INDUSTRIAL ESTATE,
FARNINGHAM ROAD, CROWBOROUGH,
EAST SUSSEX, TN6 2JR, UNITED KINGDOM.



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PUBLIC ADDRESS BDM400 RANGE

Microphones



BDM400 is a black and silver range of intelligent microphones designed to provide a wide variety of features to suit any installation. Products in the range include:

BDM401 • BDM404 • BDM408 • BDM416 • BDM424 • BDM432

FEATURES:

- Available in six versions - from one-zone up to 32-zone.
- Communicate with the main control system via an RS485 link.
- A standard RJ45 (CAT5 network) cable is used to carry both audio and serial data.
- Microphones can be linked together (via wall sockets - product code BMS8) and connected to a single input at the control rack.
- The BDM401 can also be operated as a parallel microphone. This option is selected internally by jumpers. (Factory setting is for serial operation.)
- Ergonomic design with all buttons and indicators mounted behind a stylish overlay that allows zone button labels to be inserted and protected.
- The dynamic cardoid microphone capsule can be set for either monitored or unmonitored use during configuration.
- 'Zone status' indicators show if a zone is currently selected or in use.
- 'All call' paging (except BDM401).
- 'Speak now' indicator to show the user when a pre-announcement chime has finished.
- Simple bar graph display shows the user the current speech volume, ensuring a clear announcement is made.
- 'Data' and 'DC' indicators to show the unit is functioning correctly.

- Zonal fault indicators are included to show when a fault is evident on the system.
- Fault accept button.
- Option to fit flip-top switches to enable DVA (digital voice announcement) messages to be broadcast.

INTERFACE SOCKET:

- The BMS8 is a flush mounted wall socket for BDM400 microphones.

OTHER MICROPHONES & CONTROLLERS AVAILABLE:

- BFM400 range of emergency fire microphones.
- BVRD range of voice alarm controllers.
- Unitouch PC touchscreen paging station.
- BDM300 range of paging microphones.
- BVRAMB ambient noise sensing microphone.

SYSTEM DESIGN:

System design is part of our commitment to provide a complete service from the initial planning stage through installation to after-sales technical support.

Our extensive range of standard products has been designed to accommodate most installation requirements. However our experienced design team often cater for projects that require bespoke solutions.

If you require any assistance with our products, or help with system design, please contact sales@baldwinboxall.co.uk.

BDM400 RANGE SPECIFICATION:

	BDM401	BDM404/408	BDM416	BDM424	BDM432
Audio					
Normal output level	700mV				
Maximum output level (limiter operating)	1.5V				
Output impedance	400 ohms				
Frequency response	250Hz-10kHz				
General					
Power requirement (24V DC)	26mA standby (30mA max)	35mA standby (70mA max)	42mA standby (108mA max)	52mA standby (150mA max)	62mA standby (200mA max)
Dimensions mm WxHxD	148x48x177		275x48x177	398x48x177	523x48x177
Sub-membrane 16mm cutouts	3	3	7	9	12
Data serial link	RS485 9600 BR				

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TEL: +44 (0) 1892 664422
FAX: +44 (0) 1892 663146

EMAIL: MAIL@BALDWINBOXALL.CO.UK
WEB: WWW.BALDWINBOXALL.CO.UK

BALDWIN BOXALL COMMUNICATIONS LTD
WEALDEN INDUSTRIAL ESTATE,
FARNINGHAM ROAD, CROWBOROUGH,
EAST SUSSEX, TN6 2JR, UNITED KINGDOM.



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PUBLIC ADDRESS BDM300 RANGE

Microphones



BDM300 microphones can be desk or wall mounted. The tactile membrane switches keep the top surface smooth and a pleasure to use. Products in the range:

BDM300 • BDM301 • BDM304 • BDM308 • BDM316 • BDM332

FEATURES:

- Available in six versions - from one-zone to 32-zone.

BDM300

- Single zone unit fitted with 'press to talk' switch.
- Terminated to a 25-way D connector for connection to a BMS25 socket box (supplied with microphone).

BDM301-BDM332

- Buttons and indicators mounted behind an overlay that allows zone button labels to be inserted.
- Microphones can be supplied with factory fitted 'monitored' function (add M to product code).
- 'Zone status' indicators show if a zone is currently selected or in use.
- 'All call' paging (except BDM301).
- 'Speak now' indicator.
- Speech volume display.
- 'Data' and 'DC' indicators to show the unit is functioning correctly.
- Option to fit flip-top switches to enable DVA (digital voice announcement) messages to be broadcast.
- Terminated to a 25-way D connector for connection to a BMS25 socket box (supplied with microphone).

INTERFACE SOCKETS:

- BMS25 microphone socket box for BDM300 range.
- BMS8 microphone socket box for BDM400 range.

OTHER MICROPHONES & CONTROLLERS AVAILABLE:

- BFM400 range of emergency fire microphones.
- BVRD range of voice alarm controllers.
- Unitouch PC touchscreen paging station.
- BDM400 range of intelligent paging microphones.
- BVRAMB ambient noise sensing microphone.

ANNUNCIATOR PANELS:

We can supply bespoke annunciator interfaces for VIGIL2 voice alarm and OmniCare systems.

Custom designed for each system, the panels enable staff to view the building status throughout an emergency on a floor by floor basis.

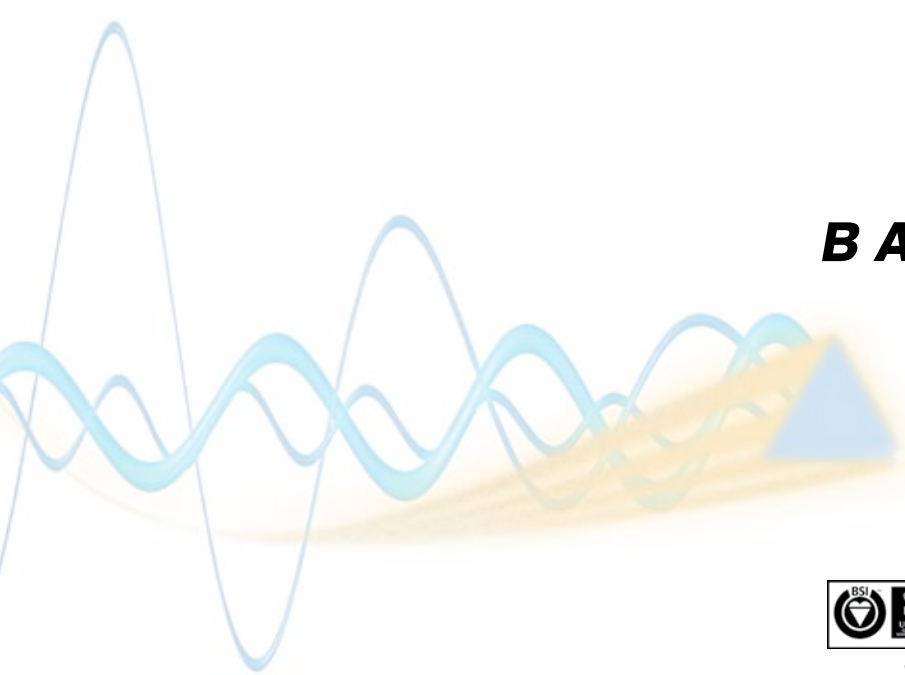
Typically there are four LEDs for each floor on the display panel. The LEDs indicate whether the evacuate or alert message is being broadcast, if a fault is detected and voice select status.

Using the panel, it is also possible to activate the evacuate or alert message manually for each floor. By using the first microphone, live announcements can be broadcast.

For further information contact sales@baldwinboxall.co.uk.

BDM300 RANGE SPECIFICATION:

	BDM300	BDM301	BDM304/308	BDM316	BDM332
Audio					
Normal output level	250mV				
Maximum output level (limiter operating)	700mV				
Output impedance	200 ohms	400 ohms			
Sensitivity	-78dB @ 1 ref OdB				
Frequency response	100Hz-10kHz	250Hz-10kHz			
General					
Power requirement (24V DC)		26mA standby	50mA standby	60mA standby	60mA standby
Dimensions mm WxHxD	148x48x177			275x48x177	500x48x177
Sub membrane cutouts	0	4	4	8	8



BALDWIN BOX▲LL

TEL: +44 (0) 1892 664422
 FAX: +44 (0) 1892 663146

EMAIL: MAIL@BALDWINBOXALL.CO.UK
 WEB: WWW.BALDWINBOXALL.CO.UK

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 WEALDEN INDUSTRIAL ESTATE,
 FARNINGHAM ROAD, CROWBOROUGH,
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MICROPHONES AMBIENT NOISE SENSOR

VIGIL Evas



When designing a voice alarm system for areas of variable levels of ambient noise, which could cause problems with audibility, noise sensor(s) should be included. Correctly placed ambient noise sensors will ensure that all announcements are clearly heard. In the range:

BVRAMB

FEATURES:

- Monitors the ambient noise in a given area.
- Automatically adjusts the power of the amplifiers, depending on noise level.
- When the area is at its quietest the level of the announcements, or music, will reduce.
- During busy/noisy periods the volume level adjusts to suit.
- Used in conjunction with a BVRDCI (CANBUS interface module) which connects to the VIGIL EVAS routers.
- Uses a dynamic microphone capsule, the output of which is amplified and converted to produce a variable current.
- This output is used by the BVRDCI module to produce a voltage that is proportional to the ambient noise.
- Band pass filtering ensures that the system only responds to ambient noise affecting the intelligibility of announcements.
- An on-board surveillance tone generator permanently monitors the microphone capsule. A system fault will be indicated should the microphone capsule or on-board amplifier fail.

- The BVRAMB includes an option to allow one of three response speeds to be selected:
 - SLOW - the system will only respond to an average change of ambient noise.
 - MEDIUM - suitable for most installations.
 - FAST - the system will react to short duration changes in ambient noise.
- Two units can be wired in parallel on the same input to monitor the ambient noise over a larger area.

SYSTEM DESIGN:

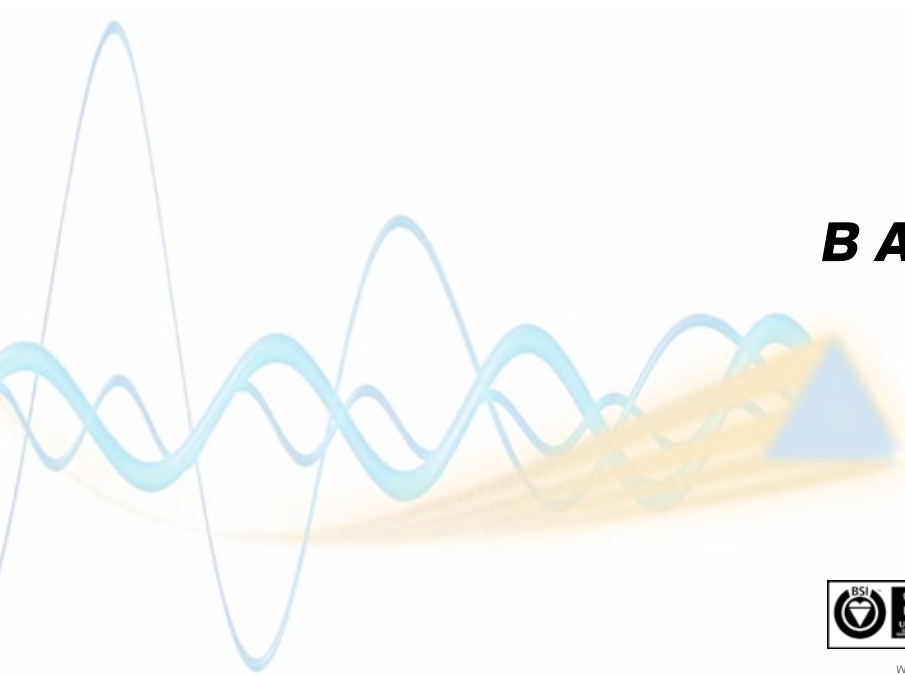
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Our extensive range of standard products has been designed to accommodate most installation requirements. However our experienced design team often cater for projects that require bespoke solutions.

If you require any assistance with our products, or help with system design, please contact sales@baldwinboxall.co.uk.

BVRAMB SPECIFICATION:

Maximum number BVRAMB per input	2	
BVRD2M attenuator increase / decrease time	For 10dB change	For 20dB change
Fast	2 seconds	4 seconds
Medium	9 seconds	18 seconds
Slow	26 seconds	52 seconds
Output pre-set busy freeze detector		
Sensitivity	-48dB	
Release	1.6 seconds	
Surveillance output with no ambient noise	Minimum 250mV DC	
Maximum output	Approx 13V DC	
Power requirements	Nominal 24V DC @ 20mA	
Dimensions mm WxHxD	141 x 81 x 44	

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 FAX: +44 (0) 1892 663146

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