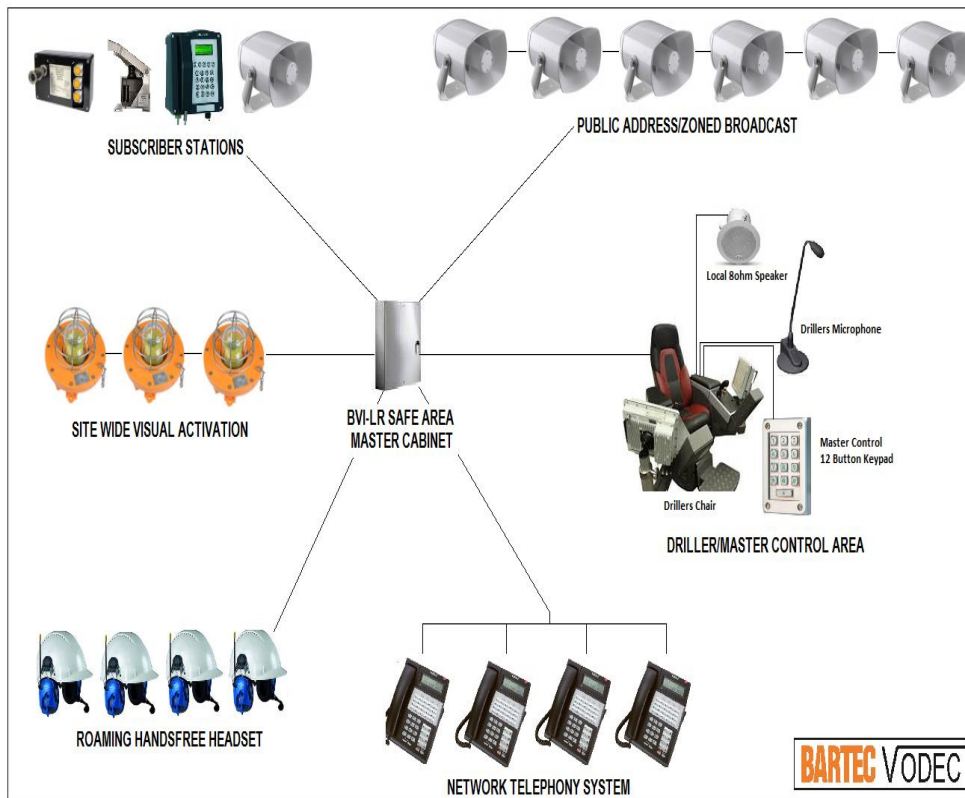


BVI-LR has been designed to deliver advanced voice, data and wireless communications in a single IP platform. The BVI-LR is a flexible digital intercom system with un-paralleled interconnectivity, With built in Media Gateway Interface (MGI), Session Border Controller (SBC), Media Proxy Server (MPS) and Paging ability, it provides a more efficient option with more slot capacity for other interface modules. The BVI-LR services Petrochemical facilities with a requirement of up to 32 users, compatible with analogue, digital or SIP trunk, this system can adapt to the changing communications environment. Designed specifically to fit into today's modern data centric network environments, all connections are presented as standard RJ45 and the system comes in an industry standard wall mounted panel, or it can be put in a 19 inch rack mountable enclosure, reducing installation time and making it easier for a system administrator to maintain and make changes. The BVI-LR has been designed with flexibility at its core; a single chassis provides 2 universal card slots which accept all available interface modules as well as the capability to network up to 1000 sites. The Bartec Vodec policy of using an open architecture in its systems enables interface modules to be common across the whole range, providing investment protection for businesses and simplification for spares holdings. The BVI-LR series allows your system to grow with your requirements

Figure 1: **BVI-LR** overview



Key Features

- 6 paging zones
- Page individual zones or all zones
- Hands free 2 way call
- Hands free conference
- 32 subscribers
- Standard Cat 5 Cabling
- VoIP capabilities
- Radio interface
- Link to Site PBX to transfer calls
- Wireless handset
- IP/Digital/Analogue capability
- Scalable to 9999 subscribers
- Intercom/PBX/PAGA all in one unit
- Multiple hand set options
- Works with industry stand telephony
- Crystal clear voice

Description

The Bartec Vodec BV-LR intercom system facilitates Multiple Voice paths between 32 subscribers (Standard unit) either on an open one to one basis, conference, multi-conference, Page, Zone Page, multi-page.

The subscriber stations are interconnected by a single twisted pair, Standard Ethernet, Fibre optic, which connects in which ever transport medium you need.

Each BV-LR subscriber station incorporates all intercom resources necessary to transmit and receive speech communications without dependence on other stations, with the separate voice paths it is possible to both have a one to one conversation whilst paging into the same area from another subscriber.

A BV-LR package can be totally distributed. There is no single point/common mode failure possibility and connectivity between stations is configured on a multi spur formation to ensure that in event of a catastrophic break down in the interconnecting cable service is maintained to all Zones, so vital communication is maintained

The BV-LR system is designed to operate safely in a Zone 1 hazardous area with no requirement for safe area located apparatus.

As each installation of the BVI-LR is different Bartec Vodec have developed a range of additional integrated features. If you need to restrict access to the drill floor, The BVI-LR can be used to monitor access and only allow entry when the driller permits it.

The BVI-LR will interface seamlessly with any UH/VHF Radio system used. The system can be used to interface with any PBX system so expanding the capability and further integrating it into your systems

Technical Data**Dimensions**

Height 1300mm, Width 1000mm, Depth 300mm

Consumption

105W

Tolerance Voltage

115V/230V AC $\pm 10\%$

Standard number subscribers : 32

Loudspeaker Impedance

8 Ohms

Loudspeaker Voltage

100V

Line output impedance

100 Ohms

Voltage to line

1V RMS

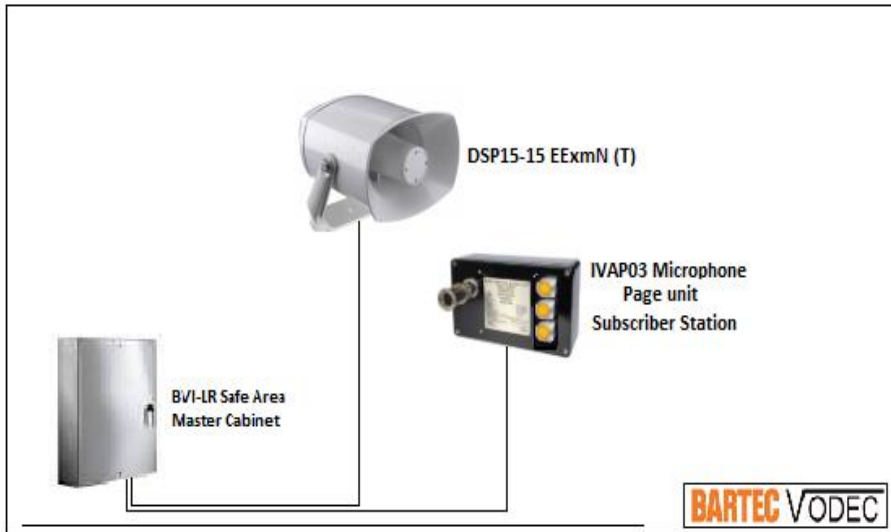
Frequency response

300Hz – 4kHz

Communication basis

Digital, Analogue, Ethernet, SIP

Figure 2: General Configuration distributive spur



BVI-LR Intercom System

The subscriber station comprised of a Call point either IVAP03/ Resistel telephone for hazardous areas or Stainless steel 316L call point, desk mount phone , or drillers chair integrated call point (DCIP)

Each Subscriber has the choice of how many speakers they require up to 300Watts per zone.

The EExd amplifier unit is centrally mounted to assure maximum system security. Though Intuitive multiplex technology (IMT) the amplification power is supplied to each area required, whilst keeping overall power consumption down

The BVI-LR can be fitted with a remote Module for integration into any drillers chair giving seamless hands free communication to any other subscriber

Supervision

The system constantly performs internal system diagnosis, when either a major or minor fault is detected, the system will ring a designated subscriber which has an alarm key assigned, this will then display the description, location, time and date of the fault. A log of the last 100 alarms is kept and this information can be sent to a printer if required.

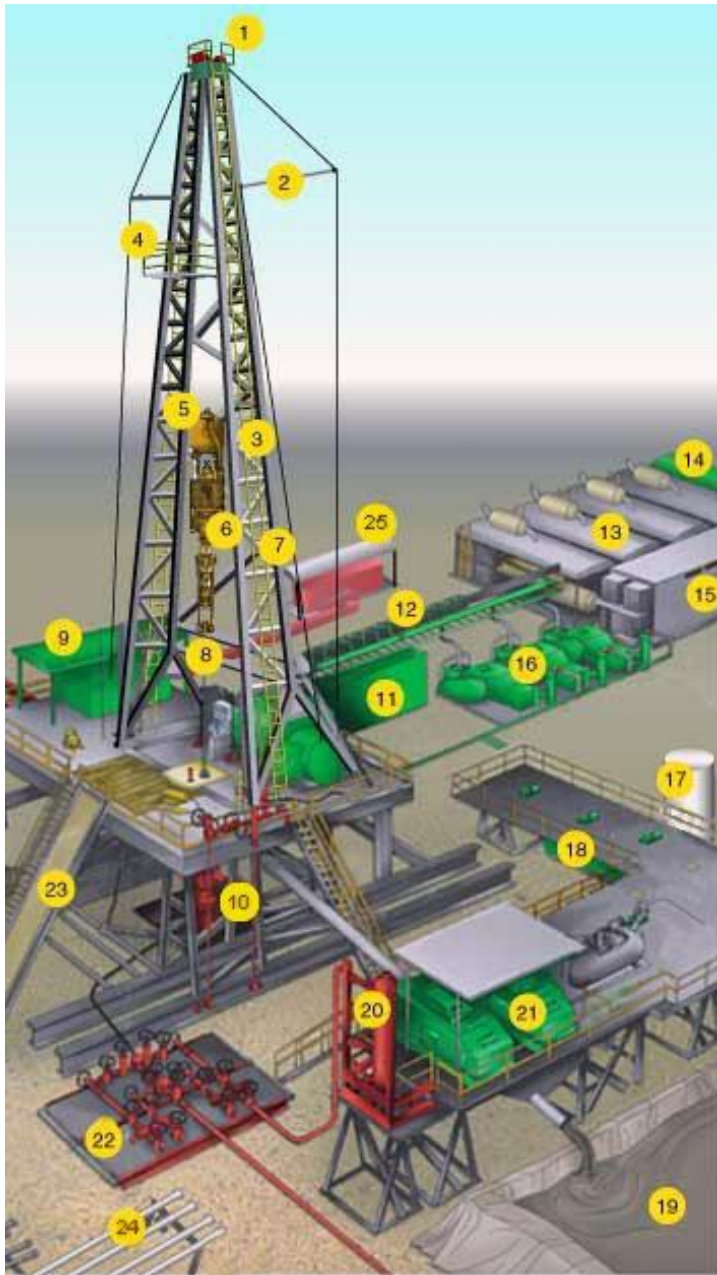
Certification

ATEX certified Zone 1 II B T4

Figure 3: Drillers Configuration



Figure 4 : General land rig layout



1. Crown Block
2. Catline Boom and Hoist Line
3. Drilling Line
4. Monkey board
5. Traveling Block
6. Top Drive
7. Derrick or Mast
8. Drill Pipe
9. Doghouse or drillers shack
10. Blowout Preventer
11. Water Tank
12. Electric Cable Tray
13. Engine Generator Sets
14. Fuel Tanks
15. Electrical Control Room
16. Mud Pump
17. Bulk Mud Components Storage
18. Mud Pits
19. Reserve Pits
20. Mud Gas Separator
21. Shale Shakers
22. Choke Manifold
23. Pipe Ramp
24. Pipe Racks
25. Accumulator

The BVI-LR comes with a standard 32 possible subscribers which will cover the majority of locations required, However the system can be scaled up to over 1000 subscribers should they be required. With Digital voice clarity and the option of 300 Watts of power deliverable to any area, the BVI-LR system ensures your broadcasts are clear and concise in any event.

Integration of the BVI-LR Intercom system into existing facilities couldn't be easier with connectivity to industry standard 70/100V Speakers, telephony & cabling. The standard BVI-LR system can accommodate standard cable lengths up to 400m for Digital, 1000m analogue, Fibre Single mode up to 10Km, Multimode up to 2 Km, Ethernet 100m, ensuring all interfaces are available to achieve a cost effective integration.

System attributes:

- Account Code Entry
- Forced-Verified
- Forced-Not Verified
- Voluntary
- Account Code Key One Touch
- Administrator Program Key
- All Call Voice Page
- Attention Tone
- Audio Message with Alarm (Timer) Reminder
- Audio Ring back Tones
- Authorization Codes
- Forced / Voluntary
- Auto Answer on CO
- Auto Attendant
- Automatic Call Distribution (ACD)
- Automatic Hold
- Background Music
- Branch Group
- Call Activity Display
- Call Centre
- Agent Busy/Manual Wrap Up Key
- Agent PIN (ID) Numbers
- Agent Login & Logout
- Automatic Logout
- Automatic Wrap-Up Timer
- Priority Call Queuing
- Embedded Reporting Package
- Agent Statistics
- Call Statistics
- Group Supervisors
- Printed Reports
- UCD Statistics / UCD Monitoring
- Wall-Style Display Windows
- Call Costing
- Call Forwarding
- All Calls / Busy
- No Answer / Busy/No Answer
- Forward DND / Follow Me
- External / To Voice Mail
- Pre-set Destination
- Pre-set Forward Busy
- Call Hold —Exclusive / System / Remote
- Call Park and Page
- Call Pickup
- Directed / Groups / Established
- Call Recording
- Call Waiting / Camp-On
- Caller ID Features
- Name/Number Display
- Next Call
- Save Caller ID Number
- Store Caller ID Number
- Inquire Park / Hold
- Caller ID Review List
- Investigate
- Abandon Call List
- Caller ID on SMDR
- Number to Name Translation
- Caller ID to PSTN
- Caller ID to Analogue Port
- Caller Identification (CID)
- Caller ID
- Calling Line Identification (CLI)
- PRI
- Centrex / PBX Use
- Chain Dialling
- Chain Forward
- Class of Service
- Common Bell Control
- Computer Telephony Integration (CTI)
- Conference
- Conference Group
- Customer Set Relocation
- Data Security
- Database Printout
- Daylight Savings Time-Auto
- Direct In Lines
- Direct Inward Dialling (DID) T1
- DID Call Limit
- Direct Inward System Access (DISA)
- Direct Trunk Selection
- Directory Names
- DISA Security
- Distinctive Ringing
- Door Lock Release (Programmable)
- Door Phones
- Executive Barge-In (Override)
- With or Without Warning Tone
- Trunk Monitor or Service Observing
- External Music Interfaces
- External Page Interfaces
- Flash Key Operation
- Flexible Numbering
- Group Busy Setting
- Hot Desking (IP Keysets)
- Hot Line
- In Group/Out of Group
- Incoming Call Distribution
- Incoming/Outgoing Service
- Individual Line Control
- IP Keysets
- ISDN Service
- Primary Rate Interface (PRI)
- LAN Interface
- Least Cost Routing

Diagram of BVI-LR Intercom System

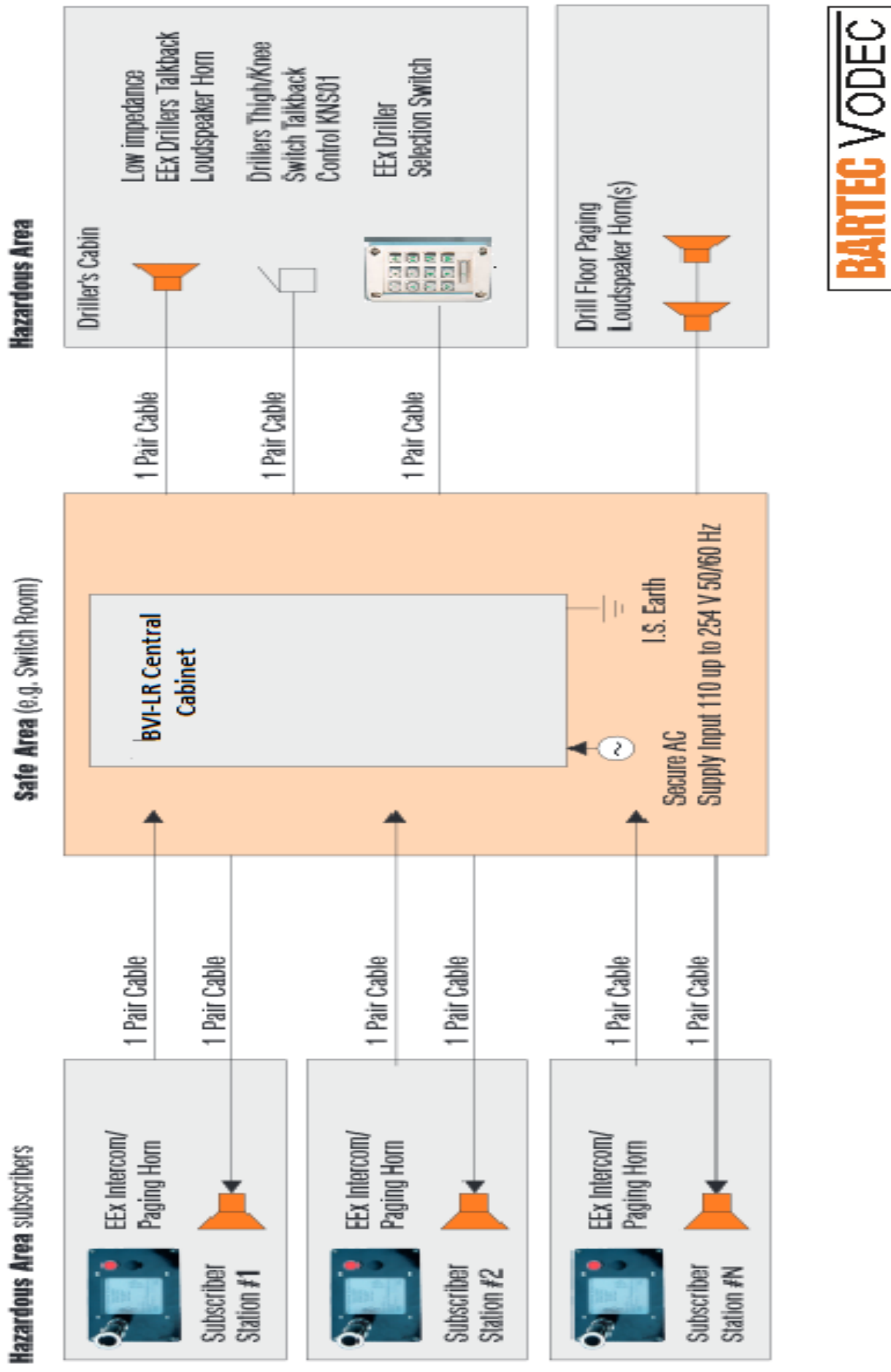


Diagram of BVI-LR Intercom System

