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**MINECOM**

A division of TR Corporation

## SMART REVERSE LAVD AMPLIFIER SERIES

- SMARTDIAGNOSTICS SYSTEM
- AGC (AUTOMATIC GAIN CONTROL)
- SMART REVERSE CAPABILITIES
- HIGH NOISE IMMUNITY
- VOICE, DATA & VIDEO CAPABLE
- SURFACE MOUNT COMPONENTS

### DESCRIPTION

LAVD Line Amplifier is capable of amplifying Voice - Data - Video signals and is packaged in an IP66/NEMA4X heavy duty enclosure. The amplifier is powered from the leaky feeder cable; no special tools are required to splice it into the leaky feeder cable. The LAVD incorporates 3 separate amplifiers (full Duplex), one providing the Voice/data Down-Link or forward path, the second provides the Voice/data Up-Link or reverse path back to the Head End, the third provides the Video Up-Link back to the Head End. AGC (Automatic Gain Control) circuits are used to overcome signal level changes brought about by the number of channels in use at any one time, as well as overcoming variances in the distance between amplifiers.

The SMARTReverse system provides for redundant communications within the main leaky feeder distribution system in the event of a system failure or cable break. Should part of the system lose communications to the master head end, the intelligent SMARTReverse amplifiers will automatically reverse their direction to provide a seamless and immediate redundant path to maintain communications throughout the mine in the event of a system failure.

The LAVD is equipped with both Drive-By Diagnostics® and SMARTDiagnostics®. The SMARTDiagnostics® module contains a MicroPC and a small Data Radio Modem. The MicroPC monitors the voltage, current drain and the signal levels of the amplifier, the resultant data along with the amplifier ID is transmitted via the on board Data Radio Modem back to the Head End SMARTDiagnostics® interface, with the resultant data displayed on a desktop PC monitor using SMARTDiagnostics® software. The amplifier was specifically designed for high speed Data, it utilises four filters whereas some manufacturers only offer 2 filters. The LAVD amplifier offers a high level of sideband immunity, as well as a high level of immunity from external noise.



### SPECIFICATIONS

Frequency Voice/Data:	VHF & UHF
Frequency Video:	20 to 120Mhz (NTSC or PAL standards)
Gain:	350m version – 16dB 500m version – 22dB
Connection:	Brass Screw terminal and Saddle
Impedance:	50 or 75 ohm versions
Through Current Capacity:	1.5 amps Max
Voltage & Current Drain:	12, 24, 48 volt versions - 250mA @12VDC (375mA TX)
Enclosure:	IP66/NEMA4X heavy duty enclosure c/w IP66 brass cable glands
Weight & Dimensions:	1.2Kgs – 190(w) x 60(d) x 75(h) mm