

PERTRONIC INDUSTRIES LTD

DATASHEET

Audio Distribution Module

ADM-4



*Distributes one audio line to multiple switchable channels
A short circuit on one channel does not disable the other channels
80 Watt per channel switching capacity*

Overview

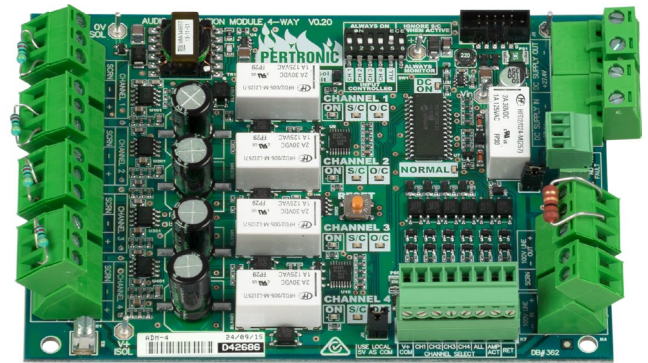
The Pertronic Audio Distribution Module 4-Way (ADM-4) provides multiple independently controlled and monitored 100 V rms audio lines (channels). This simplifies audio system installations by allowing multiple spurs from a single 100 volt audio line without compromising the fault supervision system.

A system built with ADM-4 modules will continue operating even if some channels develop faults. If any channel becomes short circuited, the shorted channel will be disconnected, but the output continues on the unaffected channels after a brief interruption (about 20 seconds). The module continues to monitor any shorted channels, and it will automatically reconnect a channel if the fault is cleared.

The built-in supervision system continually monitors the 100 volt output lines for open circuit or short circuit conditions, irrespective of whether the system is broadcasting an evacuation message, broadcasting non-urgent audio such as background music, or idling with no signal. Each channel may be permanently enabled using the local DIP switch, or enabled/disabled by a remote control signal.

The Audio Distribution Module independently supervises the output channels and signals a fault condition to the amplifier or evacuation generator in the event of a fault condition. The module also includes a form C clean contact fault relay for connection to monitoring equipment.

The ADM-4 is compatible with the EA60 and EA120, AS 4428.16, Grade 3 amplifiers. For compliant use of the ADM-4 with these amplifiers, an ADM-4's outputs should be directed to a single zone.



Audio Distribution Module 4-Way (ADM-4)

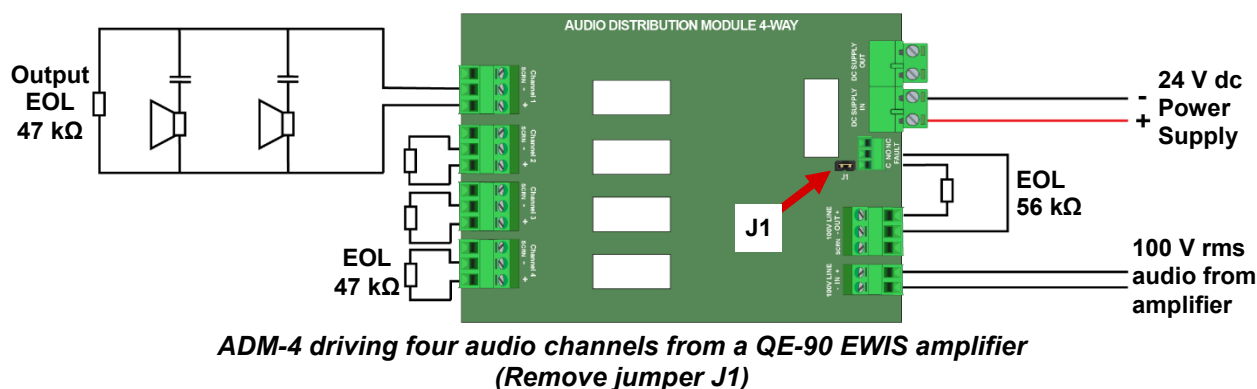
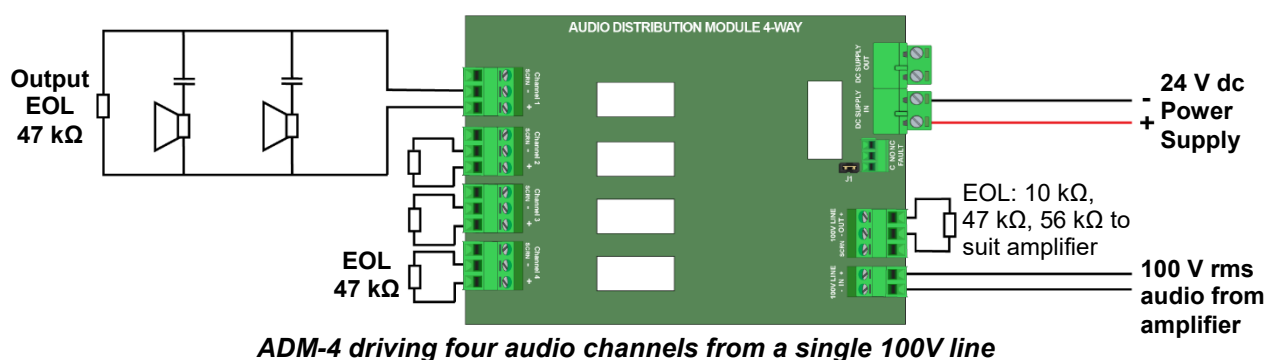
Features

- Simplifies installation of audio evacuation systems by providing multiple monitored audio channels
- A short circuit on one channel will be isolated allowing audio transmission over the other channels
- This product assists compliance with the fault isolation requirements in AS 1670.1:2024, 2.6 and AS 4428.16:2020, 15.5.2
- Channel Select input provides individual channel switching
- Superior 80 watt per channel switching capacity
- On-board DIP switch allows individual channels to be permanently selected
- Fault relay with form C clean contact
- Separate open circuit and short circuit fault indicators for each channel
- Control inputs can be isolated from the on-board circuitry
- User selectable end of line (EOL) input resistor to suit amplifier specifications
- Compatible with the Pertronic EA60, EA120, other Pertronic evacuation amplifiers, and amplifiers controlled by the Pertronic EVAC Generator

Specification

| | | | |
|-------------------------------|---------------------------------------|----------------------------------------|------------------------------------------------------------------------|
| Supply Voltage | 18 V dc to 30 V dc | Power per Channel | 80 W (100 V rms line) |
| Quiescent Current | 16 mA @ 27.4 V dc | Maximum Power | 250 W total per ADM-4 module |
| Maximum Fault Current | 25 mA @ 27.4 V dc | Recovery Time | Approx. 20 sec. after detecting short circuit on any channel |
| Fault Relay | 2 A @ 30 V dc Form C clean contact | Input End of Line | 10 kΩ 2 W, 47 kΩ 0.5 W, or 56 kΩ 0.5 W, as required by amplifier |
| PCB Dimensions | 140 L x 98 W x 27 D mm | | |
| Operating Temperature | -10°C to +50°C | Operating Humidity | ≤ 95% RH (non-condensing) |
| Control Inputs | | 100 V Supervised Output Channel | |
| External Drive Voltage | 5 V dc to 30 V dc | Maximum Voltage | 100 V rms |
| Current Per Input | 5 mA to 8 mA | Output End Of Line | 47 kΩ, 0.5 W for each channel |
| | | Supervision (Output) | Continuously supervised for open circuit and short circuit conditions |

Typical Connections



Ordering Information

| Product Code | Description |
|--------------|----------------------------------|
| ADM-4 | Audio Distribution Module, 4-Way |

This information must not be treated as partial or complete instructions for the design, construction, installation, commissioning, or maintenance of fire detection, fire alarm, or building evacuation systems. Fire and evacuation systems must be designed and installed by properly qualified persons, in accordance with all regulatory requirements. Unless explicitly stated otherwise, typical specifications and nominal dimensions are provided. Actual product performance and dimensions may vary.

All information in this document is subject to change. Please consult Pertronic Industries or visit our web site for up to date information.

PERTRONIC® is a registered trademark of Pertronic Industries Limited.