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## Datasheet

VISION

EV5-255 5-Core AC/DC GALVANIC ISOLATOR

- 2kV DC or AC isolation
- Ideal for isolating trunk cables across different phases of the mains
- Stops balancing current travelling along coaxial cables
- Can be used to block DC in separate IRS sections and power supply overload
- Isolates inner and outer conductors of coaxial cable.
- Bulkhead fixing, earth post and safety cable sleeves
- Frequency 85 2400MHz <2dB Insertion Loss

The EV5-255 is a compact 5 cable, safety critical device, AC/DC Galvanic Isolator, for IRS installations where separate sections of the system require being electrically isolated from each other. This is especially important where different parts of a system are powered and earthed on different phases of the mains electrical supply. This is a very important safety consideration, especially where different blocks are joined by coaxial cables and powered by different electricity mains supply. AC current will not pass the EV5-255 galvanic isolator in any direction.

EV5-255 can also be used to isolate or block DC power in different parts of a system. Where power consumption in a section of a system exceeds that of the power supply the EV5-255 can isolate one power source from another. This is especially important where adding power hungry devices to an existing system. For example dSCR multiswitches are notoriously power hungry and may overload a system if connected directly to the trunk cables carrying power to the rest of the system. DC current will not pass the EV5-255 galvanic isolator in any direction.

EV5-255 Galvanic Isolator is built into a die-cast alloy housing for extreme interference immunity with F connectors designed to plug onto the same connector pitch as other EV5 components. EV5-255 is supplied with five safety sleeves to protect the user from exposed cable connectors across a different earth potential.





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### EV5-255 5-Core AC/DC GALVANIC ISOLATOR

### FOR AC GALVANIC ISOLATION

#### Where EV5-255 is used as an AC current Galvanic Isolator

EV5-255 makes an ideal safety critical, galvanic isolator where coaxial cables join two or more buildings together that are connected to different phases of the mains supply. This can cause a potential difference at the earth. Joining these buildings together, may cause extremely high balancing currents to flow along the coaxial cable/s.

When used as an AC galvanic isolator, DO NOT bridge the earth wire of the trunk cable going to the next building across the body of the galvanic isolator. Only earth the system and galvanic isolator in its local building. Earth the coaxial cables in each building separately to the MET of that building.

The cable safety sleeves MUST BE fitted to the F connectors of the output cables to protect the user/installer of the installation.





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VISION

Input Earth Wire

## EV5-255 5-Core AC/DC GALVANIC ISOLATOR

### FOR DC-BLOCK CONFIGUATION

#### Where EV5-255 is used as a 5-Core DC Block

EV5-255 can be used as a convenient and compact 5-core DC block when a system is powered at DC in different sections or where the current demand requires additional power supplies. Joining two or more power supplies on the same coaxial cable may cause one of the power supplies to fail prematurely.

When using EV5-255 to DC-Block the trunk cables it is essential to join the earth wire of output trunk cables to the earth post of the input trunk cables so as to maintain the integrity of the earth of the coaxial cables in the system in one building.

Any added component such as an additional dSCR multiswitch must have its subscriber cables earthed to the MET of that building.

The cable safety sleeves are not essential when using in a DC-Block configuration and therefore can be omitted.

## Important information

Where dwellings or separate residences are joined together electrically all coaxial cables in a multi-dwelling unit (MDU) MUST BE earth-bonded to the MET of the building for safety. The installer should use 4mm<sup>2</sup> colour coded earth-wire.

It is the installer's responsibility to ensure that the safety earth is made in accordance with current legislation and codes of practice. This is designed to protect the installation technician and any resident user of the system from the dangerous effects of electrical malfunction.

If in doubt about earth-bonding, earth continuity or connection to the MET of the building, please consult a qualified electrician.





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