

Datasheet

V17-018 Coaxial DC Block F male to F female

- F Male to F female 75Ω
- Nickel plated turned brass body
- 30V maximum
- 5 to 2400MHz
- Typical insertion loss 0.5dB
- Return loss >15dB



The V17-018 is a coaxial DC block for preventing up to 30V passing along a coaxial cable. These DC blocks are ideal in commercial, IRS or domestic installations where power in one section of a system needs to be separated from another part of a system to avoid overload or backward powering. The DC block is also useful in domestic installations to ensure no DC voltage is short circuited in other equipment such as an aerial dipole or TV tuner.

The turned brass body ensures excellent screening and stability in systems where reliability is paramount. The high quality F connector ensures low insertion loss and high return loss for linear performance across a wide range of frequencies in both terrestrial and satellite systems.

Note: In domestic aerial systems a log-periodic aerial or Yagi dipole often presents a short-circuit across the coaxial cable. Of course at 75Ω in TV & Radio frequencies the aerial is not short-circuit, but at DC it is. In many cases, where other equipment has DC line power (e.g. for a masthead amplifier) with an auto shut-down circuit, the shut-down does not completely switch off the DC voltage.

This often means a small amount of current flows through the dipole or across the cable connection of a log-periodic aerial. This DC current flow can cause slow electrolysis of the balun or cable connection, especially where dissimilar metals are used and accelerated by moisture and a mildly acid environment. This electrolysis will over time, eventually corrode the aerial terminals causing a complete signal failure.

Many IRS installations are powered along the trunk cables by 12 to 18V DC. Where a power supply has a maximum powering capability there is a limit to the number of devices that can be powered from that power supply. In this instance V17-018 DC Block is ideal to isolate one part of the system from another so that additional power can be introduced.

It is never recommended to have two power supplies supplying voltage on the same cable. The two power supplies will have a differential voltage and may “fight” each other causing one to fail. Therefore V17-018 is essential to separate them. In the case of a 5-wire IRS installation, voltage is often shared across all five cables. One DC block is required for each coaxial cable in the trunk.

IMPORTANT: V17-018 is only suitable for DC voltages up to 30V. V17-018 is not a galvanic isolator for the isolation of AC voltages. Consult your aerial and satellite wholesaler where galvanic isolators are required.