

# PROTECTION DEVICES: CLB22-10

ETHERNET / VIDEO COAXIAL CABLE PROTECTION

DATAPRO



## Introduction

In LAN networks, video, CATV and other coaxial cable applications, the coaxial cable can provide an alternative earth return path for transient overvoltage disturbances either introduced on the cable itself or on the mains anywhere in the network.

The Novaris DATAPRO ethernet / video range of coaxial protectors is designed to protect against such disturbances.

## Protection

There are two ways that a transient can cause damage to an ethernet card. Firstly a transient overvoltage appearing between the inner conductor of the coaxial cable and its screen can directly damage line driver and receiver chips on the network card.

Secondly an overvoltage between the coaxial cable screen and the terminal's frame ground can cause damage to either the network card or other parts of the terminal via ground or power supply coupling. Often the coaxial cable screen is not directly earthed to the terminal's frame or mains safety earth. The purpose of this configuration is to prevent unwanted earth currents flowing in the coaxial cable screens.

The Novaris ethernet protector provides protection for both possible damage mechanisms.

## Operation

The Novaris ethernet protector consists of an in line enclosure with a variety of coaxial connectors on either end. Protection is provided for both line to screen and screen to ground disturbances.

The unit consists of a two-stage protector incorporating a gas filled arrester in combination with a fast transient suppression circuit between line and coaxial screen. The device is configured to minimise circuit capacitance so that performance up to at least 20MB/s is assured.

A low capacitance gas filled arrester is provided between the cable screen and frame ground via a green/yellow flying lead for applications where the screen is not directly grounded.

## Installation

Connect the protector in line, with the "eqpt" side facing the equipment to be protected. The T connector version (cat no. CLB221-10T) is designed to replace the standard BNC T connector on thin wire ethernet.

Connect the green/yellow earth wire to a suitable position on the terminal's frame. Any screw in the rear of the terminal may be used. If it can be confirmed that the outer of the connector is earthed the green/yellow earth lead need not be connected and may be cut off or simply left unconnected. This case would apply for CATV and video applications.

## Specifications

Description:	Multistage overvoltage surge protector for coaxial LAN, CATV and video systems.
Clamping Voltage:	10V line to screen
Protection modes:	Transverse and common mode
Protection stages:	Gas arrester / series impedance / Transorbs
Surge withstand 8/20us:	10kA line to screen 10kA screen to ground
Energy:	200 joules
Insertion loss:	<1dB at 20MHz
Cable Impedance:	Suitable for 50 and 75 ohm systems
Maximum data speed:	20MB
Operating temperature:	65°C MAX
Dimensions:	90mm x 25mm x 25mm

## Options

Cat No.	Connectors	Applications
CLB12-10	BNC male/BNC female	10Base2/video
CLB22-10	BNC female/BNC female	10Base2/video
CLN12-10	N male/N female	10Base5/video
CLN22-10	N female/N female	10Base5/video
CLU22-10	UHF female/UHF female	Video
CLB221-10T	BNC female/BNC female/ BNC male T	10Base2

Available in Australia from



Available in New Zealand from

