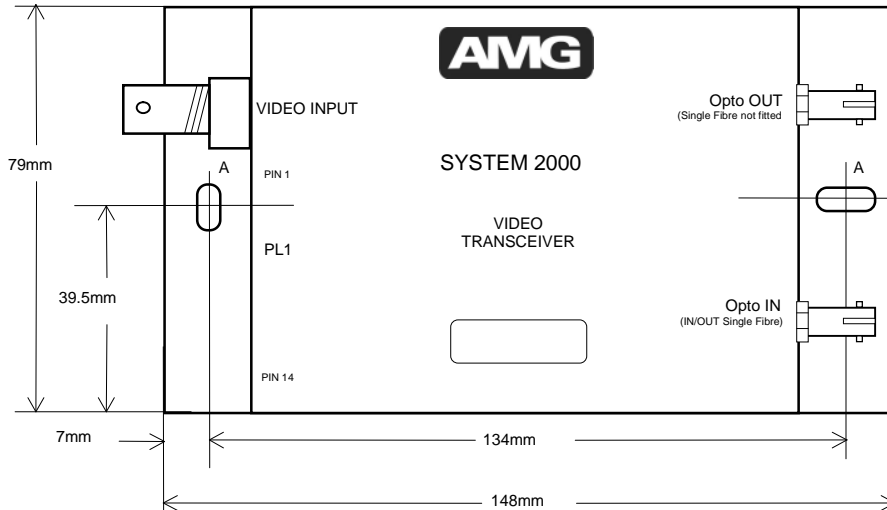




AMG2241 Instruction Sheet

AMG2241 Standalone Video Transmit + Bi-directional Audio + Data RS422/RS485



Video Connection

Connectors 75 ohm BNC Socket.
Input Impedance 75 ohm terminated.
Input Level 1 volt p-p nominal.
Frequency Response 10Hz to 6MHz min.

Optical Connection

Connectors ST Style (2 off)
Opto Out Launch Power
50/125 -20dBm. min.
62.5/125 -17dBm min.
Wavelength 850nm nominal.

Data Connection

Connector Push-in connector strip - 14way
(Solid conductors 0.5mm² (20 awg) can be connected by simply push fitting into the appropriate connection hole. Smaller conductors and wires (up to 0.5mm², 20 awg) are inserted into the connection space whilst depressing the orange lever. Wire or conductors should be stripped back to a length of 11mm. Use a small screwdriver to depress the orange lever to release the connection.)

Pinout See Below – Note Pins number from the BNC connector

Pin No.	Function
1	N/C
2	N/C
3	Power Ground
4	Power Input (+12v to +18v dc)
5	Ground
6	Audio Input
	Data Interface
	RS485 (2 wire)
	RS485/422 (4 wire)
7	Data Ground
8	Data I/O (A)+
9	Data I/O (B)-
10	Data I/O (A)+
11	Data I/O (B)-
12	Audio Out Ground
13	Audio Out +
14	Audio Out -

Power Supply

Supply +12 volt to +18 volt at 250mA
 Connection Connector Strip
 Pin 3 Gnd, Pin 4 Power Input

Dimensions

See Drawing Above

Mounting Details

See Drawing Above

RS422/485 Configuration

Due to the number of options for RS422 and RS485 operation the AMG2241 has to be configured by the use of jumpers JP3 and JP4 on the PCB. The case is removed by removing the 4 screws on the side of the case (2 on each side) and the BNC locking nut.

In common with the majority of other equipment manufactures, the RS485/422 electrical input circuitry provides a bias which holds the input in logic zero state when the bus connected to it is in a tri-state condition. The output at the other end of the fibre optic link will only transmit this logic zero condition for 5us before itself going to a tri-state condition. The bias on the input ensures that pin 9 is positive with respect to pin 8 when driven with a tri-state condition. It is important to align this bias condition to any third party equipment attached to the AMG2241.

RS485 2 wires - The data out transmitter is controlled by the presence of data coming in from the optical fibre. The transmitter is normally off. Incoming data on the optical fibre will turn on the transmitter and it will be held on until all the data has been transmitted. When the transmitter is enabled the receiver is disabled.

RS422 4 wire operation has two modes of operation as follows:

Point-to-Point - In this mode the data out transmitters and the data in receivers are permanently enabled.

Multi-drop - The data out transmitter is controlled by the presence of data coming in from the optical fibre as per RS485 operation.

120 ohm termination - If the line is required to be terminated then a jumper should be fitted between pins 1 and 2 of JP 3.

Factory Default - unless requested to the contrary, AMG2241 product is shipped from the factory as RS485 2 wire.

The jumper settings for the AMG2241 are as illustrated:

