

TECHNICAL INFORMATION

Operating Voltage: 12V DC

Power Consumption: <2W

Ambient Temperature: 0 - 40°C

Dimensions: 90 x 40 x 20mm

Weight: 43 gram



AVINTCDR



Installation and Commissioning Instructions

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Made in EC



32319029-001 Rev B

OVERVIEW

The AVINTCDR is an RS232 or RS485 interface to an MLS Connect Digital Intelligent LCM (or CD Box) which expands the scope of the MLS system such that it can be controlled via AV equipment.

The AVINTCDR is compatible with the RS232/RS485 protocol used by AV systems (Dynet protocol).

When the interface receives a command from the AV system, LED1 will flash RED then Green. The decoded signal is then sent to the CD Box where it is translated and forwarded on to the MLS Bus.

A command can recall scenes 1 to 6 of a zone in the range 1 to 100.

INSTALLATION

Only suitably qualified personnel should install this equipment.

The AVINTCDR is supplied in a protective enclosure which should be placed where it is readily accessible for commissioning purposes.

CONNECTION

The AVINTCDR requires 12V DC power which it obtains from the CD Box. Connection to the CD Box is achieved by a standard RJ45 patch lead, up to 10 metres, plugged into any detector port.

For RS485 Mode:

Connections at the 9-way D-type should be wired to the AV system preferably at the end of the data line (due to the terminal size of the supplied connector) using suitable screened twisted pair cable (recommend stranded). For 120 Ohm end of line termination ensure that the 'Terminator' jumper (JP7) is fitted.

For RS232 Mode:

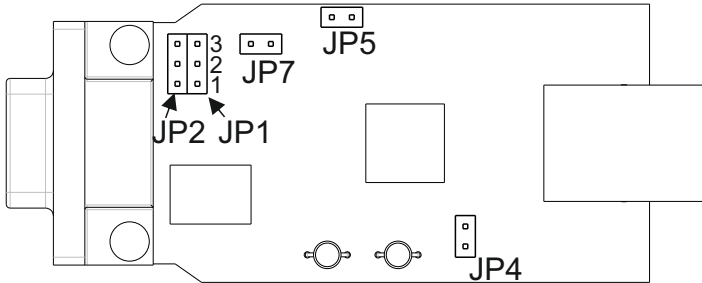
Connections at the 9-way D-type should be wired to the AV system using suitable RS232 data cable.

Changing the jumpers will require opening the enclosure.

Please use a slotted screw driver to gently prise the enclosure.

Factory Default Jumper Settings Summary

JP1 1-2	RS485 Mode
JP2 1-2	RS485 Mode
JP4 ON	RS485 Mode select
JP5 OFF	12V not supplied to Pin 9 on the D-type
JP7 OFF	Data line NOT terminated for RS485



Option to provide 12V to D type connector

When JP5 is made the AVINTCDR can provide 12V DC to pin 9 of the D-Type connector. This function is only available in RS232 mode.

LED Status:

LED1 Red = Receiving signal from AV system
Green = Received Data Ok

LED2 Red = Error
Green = Ready to receive signal

PROTOCOL INFORMATION

The interface uses a subset of the Dynet 8-byte strings. The AVINTCDR does not transmit a reply and there are no downloadable settings.

Termination Resistors for RS485 Mode

Operation of RS485 systems requires that the data lines be terminated. Provision is made to connect this 120R terminator using jumper, JP7.

JP7 Link Function

JP7 ON	Data line terminated
JP7 OFF	Data line NOT terminated

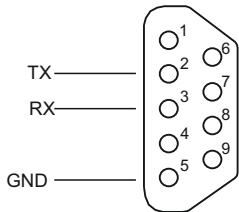
COMMUNICATION MODES

Format:

9600 Baud, 8 bit data. 1 start bit, 1 stop bit, no parity.

RS232 Mode 9-Way Port Info;

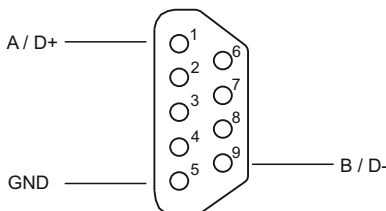
In RS232 mode connections are made via the 9-way D-type connector on the interface. The onboard connector is female and configured as a DCE.



JP1 2-3
JP2 2-3
JP4 OFF

RS485 Mode 9-Way Port Info;

In RS485 mode connections are made via the 9-way D-type connector on the interface. The onboard connector is female and the supplied mating socket has screw terminals. (Do not over tighten the screws.)



JP1 1-2
JP2 1-2
JP4 ON

AV system configuring

The AV system needs to transmit packets to communicate the desired scene and the target MLS zone. This will be in the format of the Dynet protocol. The second byte (Byte1) is the zone and fourth (Byte3) will be the scene.

8-byte packet. Checksum = Negative 8 bit 2's complement sum of bytes 0-6. All numbers in hexadecimal, example zone 12 will be 0C. XX = Not applicable although normally zero.

Select Current Scene:

Byte 0: 1C
Byte 1: MLS zone
Byte 2: 64
Byte 3: Scene: 00=s1, 01=s2, 02=s3, 03=s4, 0A=s5, 0B=s6
Byte 4: XX
Byte 5: XX
Byte 6: FF
Byte 7: Checksum

Example: Select Scene 4 in MLS zone 1

[1C] [01] [64] [03] [00] [00] [00] [7C]

Note: Many AV/Architectural dimming systems like to use scene 4 for "OFF". If desired, the MLS system can be aligned with that by simply programming scene 4 in the MLS system to mean "OFF".