IM-EXP-02/04 RS485 Serial Data Telemetry Expander

Iris Telemetry expanders allow control of multiple devices such as PTZ cameras or video switching matrices from multiple control devices, such as the IRIS516 controller or IRIS80x series DVR's.

The EXP-02/04 features 2 x RS485 inputs for connecting controllers, and 4 x RS485 outputs for connecting PTZ cameras. There is an additional RS232 Serial Input that allows control via an RS232 device such as a PC. All RS485 connections are via 2 way screw terminal blocks. The RS232 input is a D Sub 9 Connector.

The Expander manages the data flow so that only one controller at a time communicates with a uniquely address camera. This prevents cross talk and over-runs when controlling cameras. This doesn't prevent two controllers from using the same camera at once, but merely ensures data sentences transmitted to the camera are handled appropriately. The unit also handles noise on the data lines which helps to prevent control discrepancies, and terminates each data line appropriately.

Power

The unit is powered from a 9~24VDC supply and draws no more than 300mA. A 2.5mm DC Jack connector is provided for the power supply. Ensure the unit is powered from a suitably rated fuse, spur or breaker.

Inputs

The two RS485 inputs are located at the top of the rear panel of the device, left of the RS232 input and DC power connector.
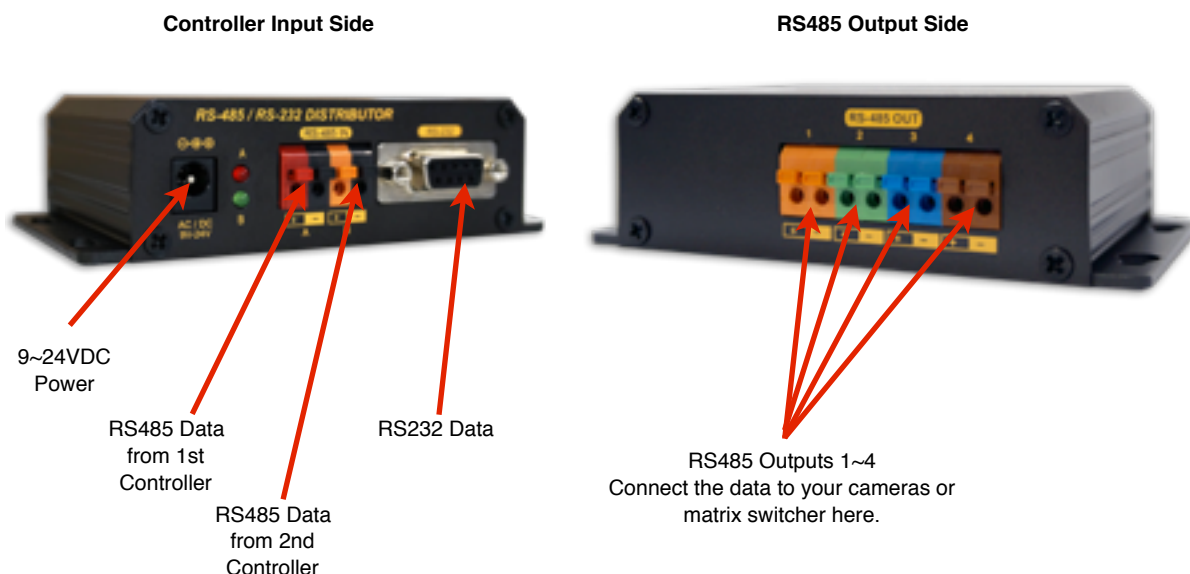
Outputs

The four RS485 outputs are located along the bottom of the rear panel of the device.

Polarity

Each input has an RS485+ and RS485- terminal. Ensure correct polarity is observed in accordance with the camera instructions. Although, in accordance with the RS485 specifications incorrect polarity will not damage the camera or expander, control will not be available.

Cables

It is recommended to use one twisted pair cable per device (input or output). CAT5 cable can also be used. The maximum connection range for each device is 1200 meters.

Controller Input Side

RS485 Output Side

9~24VDC Power

RS485 Data from 1st Controller

RS485 Data from 2nd Controller

RS232 Data

RS485 Outputs 1~4
Connect the data to your cameras or matrix switcher here.

Expansion Options

If you need to control more than 4 devices (PTZ cameras and/or video matrix switchers for example) then IRIS offer two additional models:
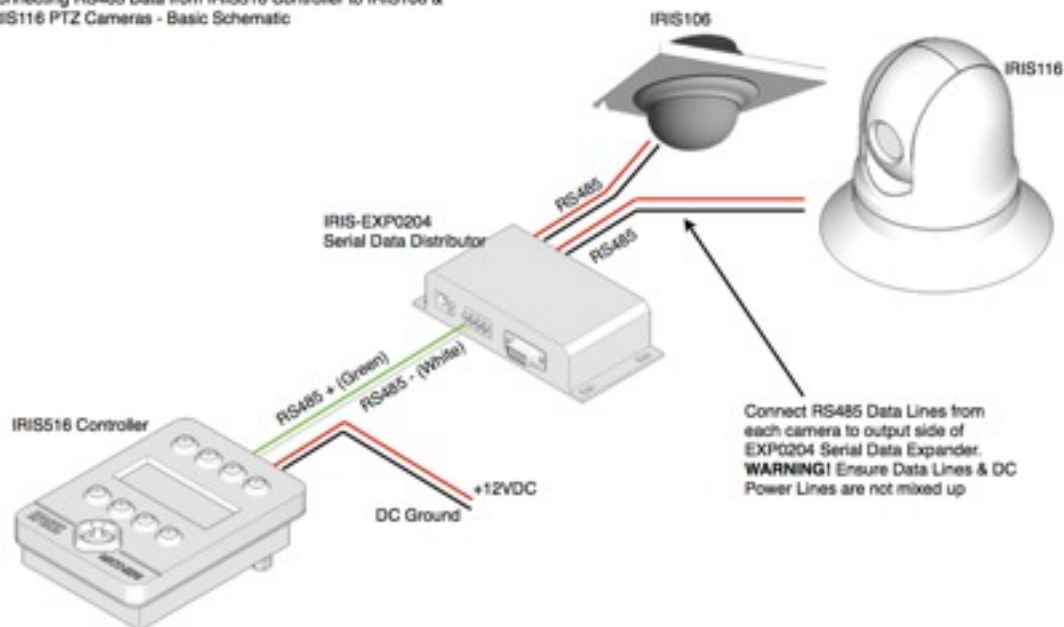
IRIS-EXP0208:   2 Control Inputs / 8 Device Outputs

IRIS-EXP0216:   2 Control Inputs / 16 Device Outputs

If you have more than 2 control devices, it is possible to 'daisy chain' IRIS expanders to facility the required number of inputs. For example, to facilitate 3 control devices you will need 3 x EXP0204's. Route 2 x controllers into the first expander and the 3rd controller into a second expander. Then take an output from each of these expanders and route into the inputs from a third expander. Connect your cameras etc to the output side of the third expander.

Typical Application Diagram:

For Product Support contact your local dealer.
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