

## SmartTalk® Data Logger With Two-Way Communication

The SmartTalk® Data Logger provides a convenient central point for connection of all ModuSat® HIU'S on a communal heating scheme.

ModuSat unit's are linked via a hard wired Modbus RS485 or TCP/IP Ethernet network. This enables the SmartTalk® two-way communication system to deliver instant downloads of billing and consumption data, end user assistance including operation of individual units remotely and uploading of software upgrades.

**SmartTalk® Data Logger is available in 6 standard sizes:-**

### 1 - 4 Control Modules

- 1 – Connection of up to 160 ModuSat® Units
- 2 – Connection of up to 320 ModuSat® Units
- 3 - Connection of up to 480 ModuSat® Units
- 4 - Connection of up to 640 ModuSat® Units

### 5 - 6 Control Modules

- 5 - Connection of up to 800 ModuSat® Units
- 6 - Connection of up to 960 ModuSat® Units

Details of the cabinet sizes for the above data logger models are detailed on the following page.

Note: A maximum of 6 amplifiers per SmartTalk data logger control module.

### SmartTalk® Data Logger



### Features & Benefits

- Up to 960 ModuSat® HIU's / Meters can be connected to a single master panel
- Broadband connection to central supervisor
- IP65 rated enclosure in 2 standard size formats.
- Simple screw down terminal connections
- Amplifier improves signal integrity for long cable runs (Not required for TCP/IP Ethernet networks)
- Enables the system in each apartment to be fully controlled remotely, including timings and settings, and provides remote diagnostic capability and client support
- Remote operation of each unit via data logger panel aids commissioning process and facilitates the fast upload and download of data
- Fault alarms can be checked by testing the operation of components
- Empty apartments can be monitored and controlled without the need to visit site for example un-sold or un-let properties can be left on frost protection and if the unit is sold or let or simply has a viewing then the heating can be turned on from the management office
- Avoids unnecessary call-outs as a result of user error
- Data logging of apartment temperatures
- Improved data integrity and upload and download speeds
- Amplifier ensures signal continuity is maintained within the network (Not required for TCP/IP Ethernet networks)
- Amplifier simplifies the identification of any network issues by subdividing the network down in sections (Not required for TCP/IP Ethernet networks)

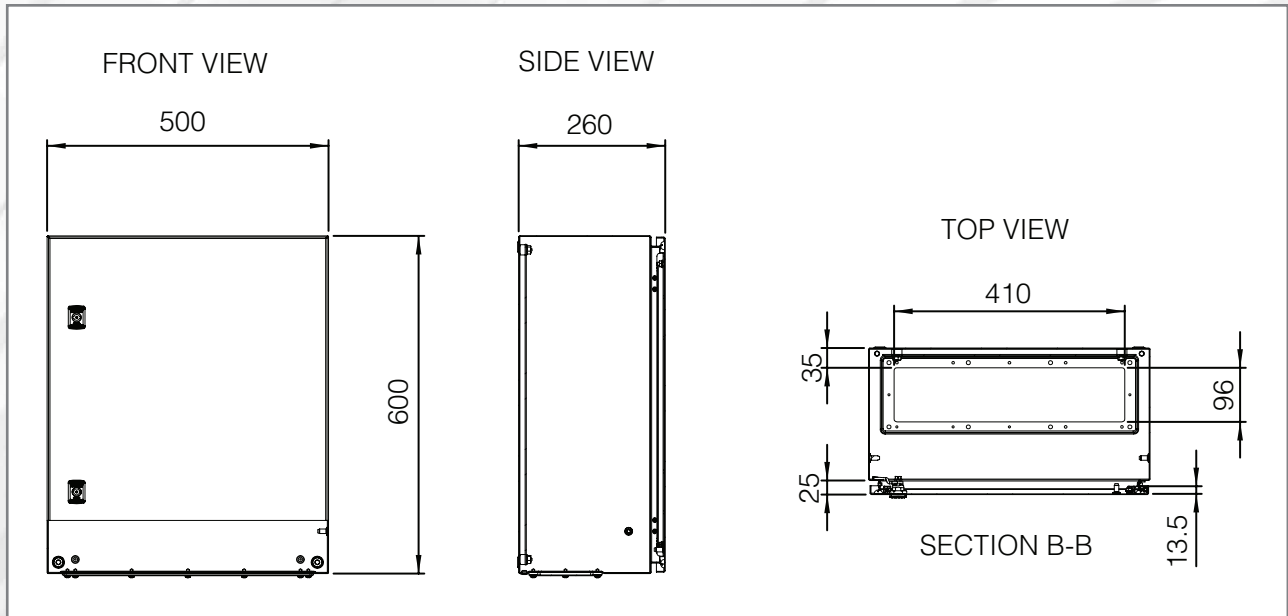
### Amplifier



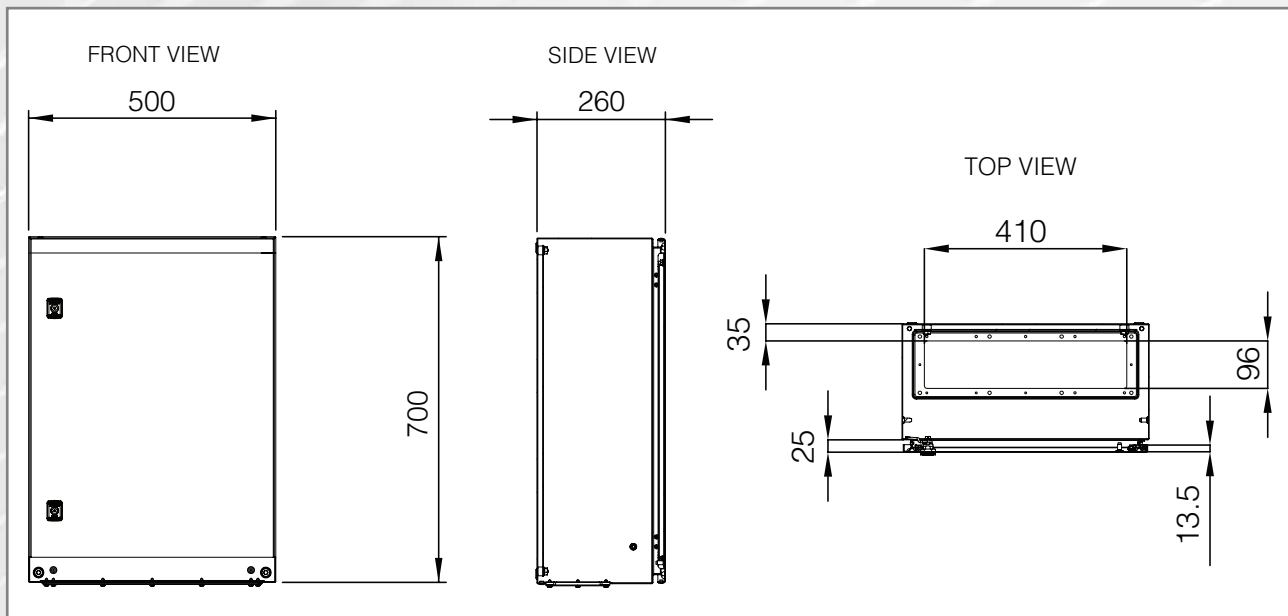
# Dimensions

## SmartTalk® Data Logger With Two-Way Communication

### Dimensions - SmartTalk® Data Logger with 1-4 Control Modules



### Dimensions - SmartTalk® Data Logger with 5-6 Control Modules



Note: All units are to have a static IP address for Broadband connection.

# SmartTalk® Data Logger

## With Two-Way Communication

### SmartTalk® Data Logger Connection Details

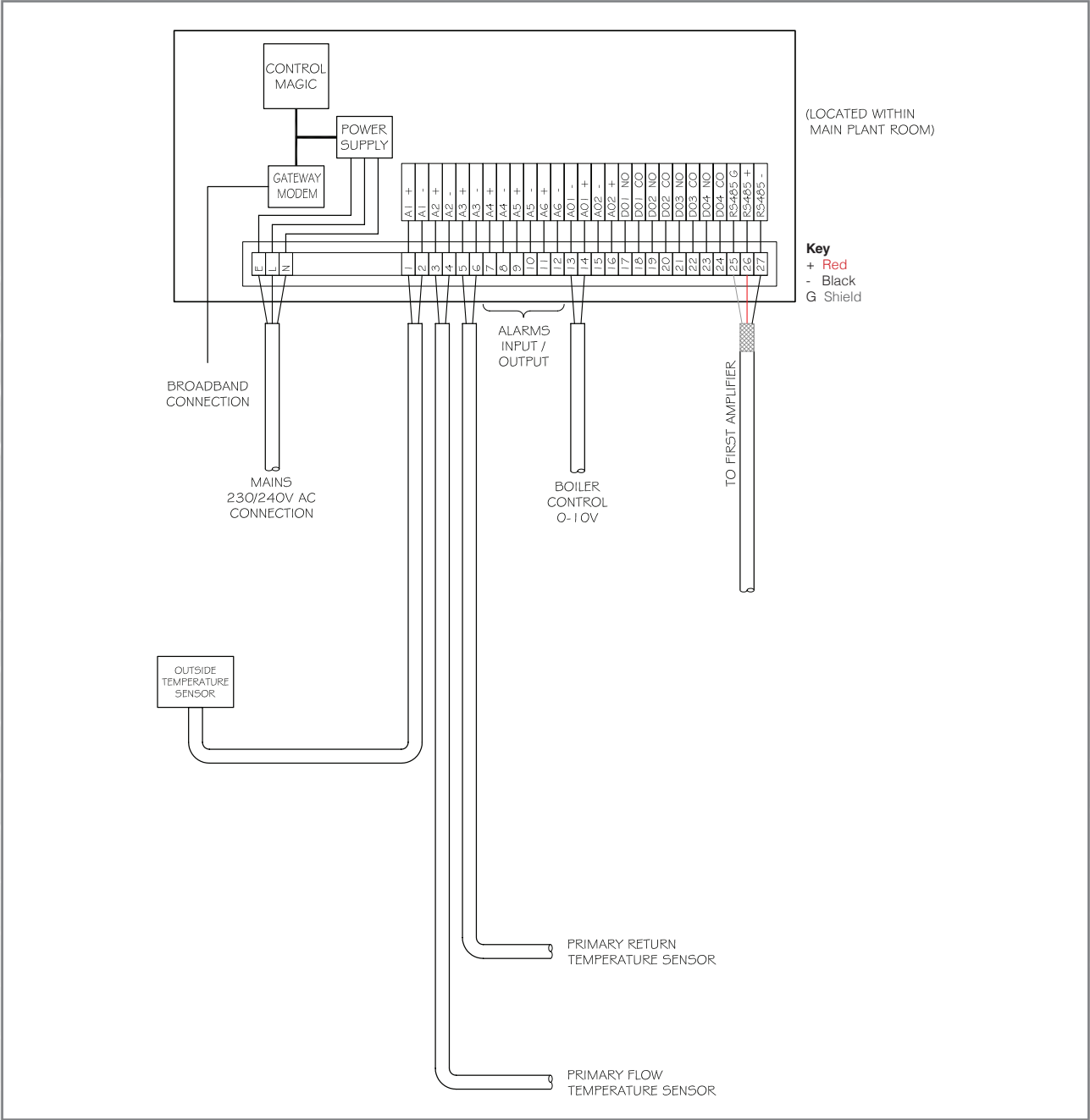
The SmartTalk® data logger can be connected to a remote main supervisor via a broadband connection with static IP.

The SmartTalk® data logger also includes connections for monitoring the primary flow and return temperatures within the plantroom and features connection of an external temperatures sensor.

External temperatures can be uploaded to each individual HIU to enable the units to operate with weather compensation.

The SmartTalk® data logger has provision for boiler volt free control via a 0-10 volt signal and alarm inputs / outputs, which can be programmed for a number of various requirements to suit the specific requirements of the scheme.

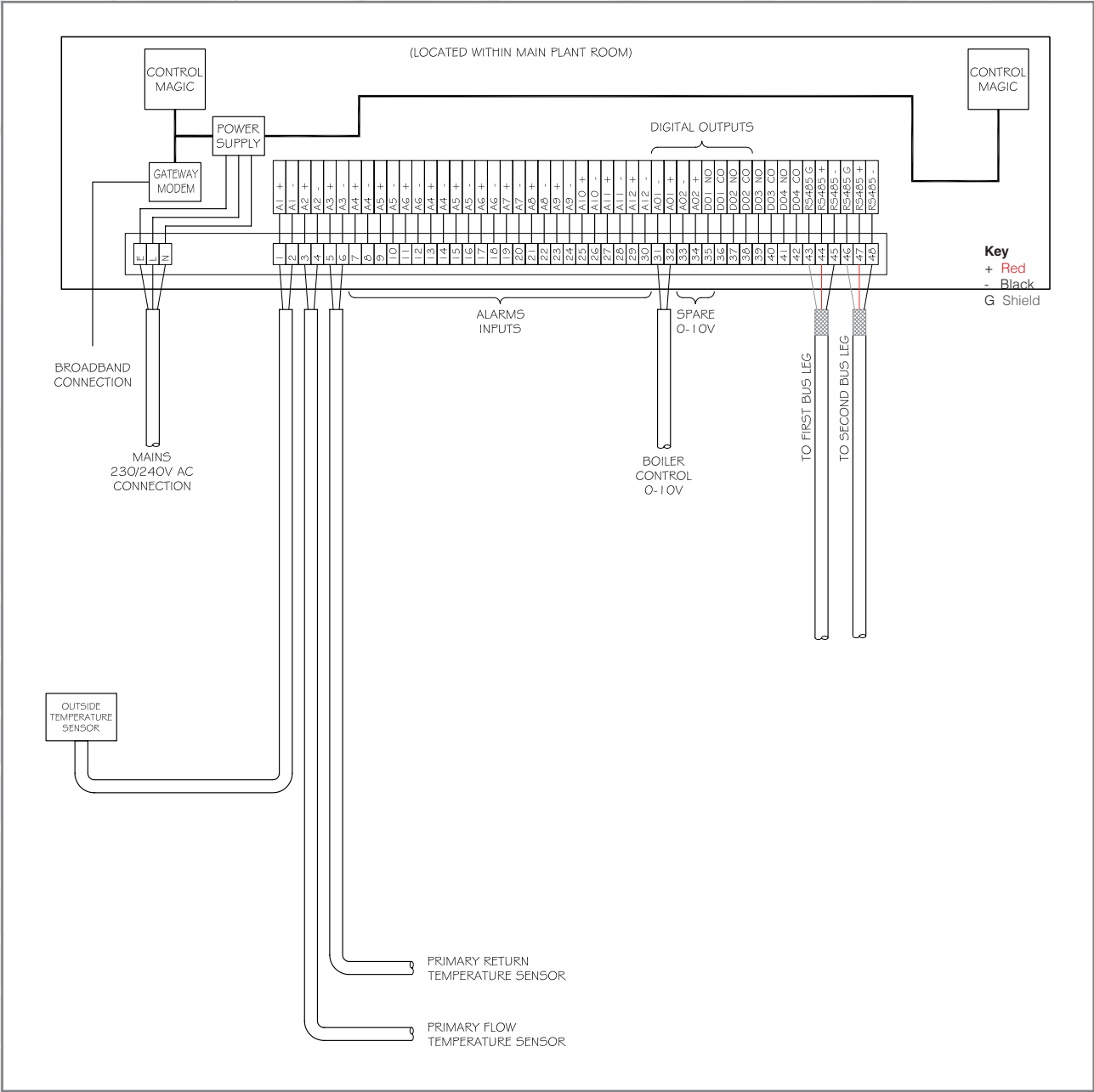
### Typical SmartTalk® Data Logger Panel (1 Control Module)



# SmartTalk® Data Logger

With Two-Way Communication

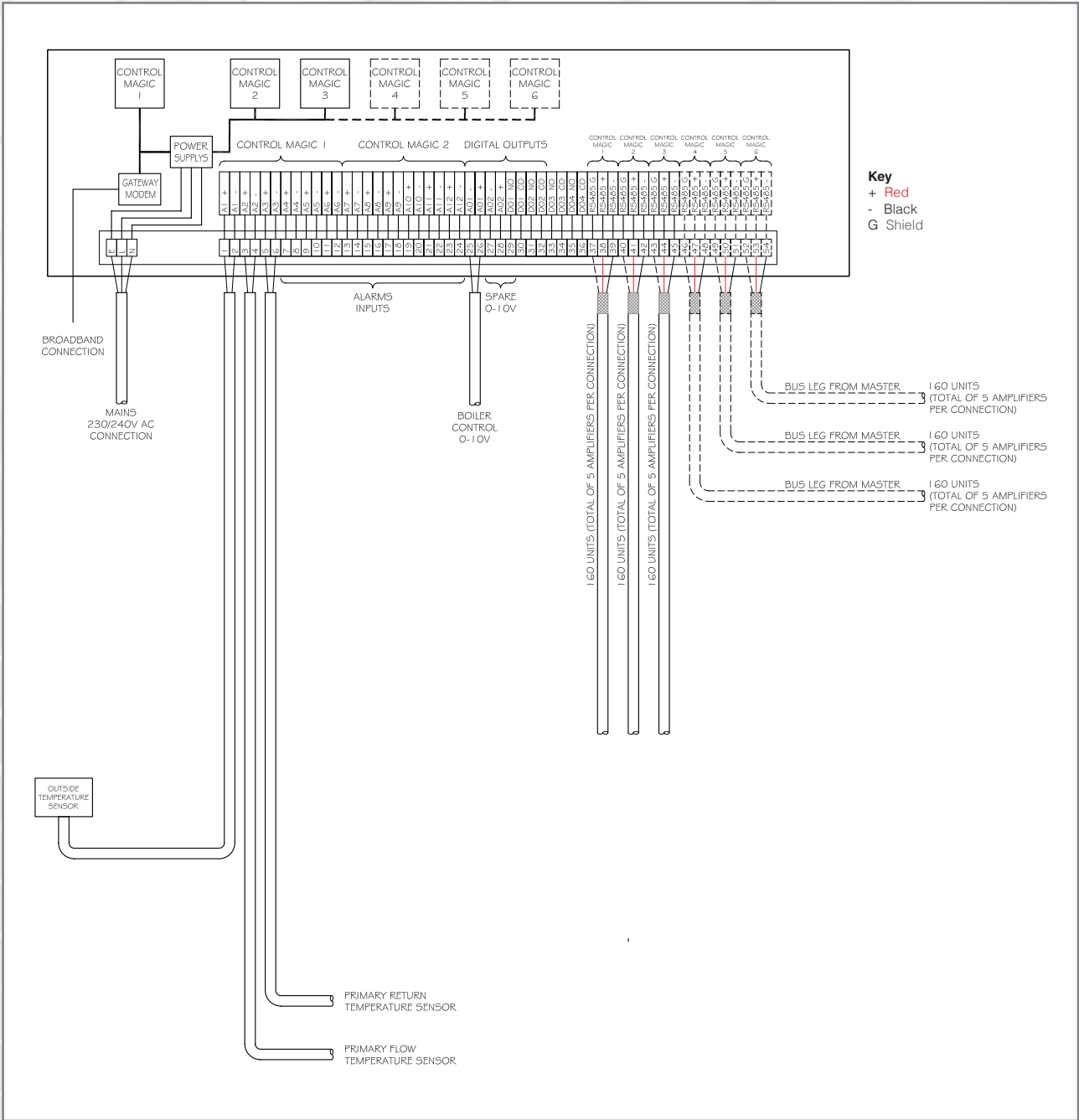
## Typical SmartTalk® Data Logger Panel (2 Control Module)



# SmartTalk® Data Logger

## With Two-Way Communication

### Typical SmartTalk® Data Logger Panel (3-6 Control Modules)



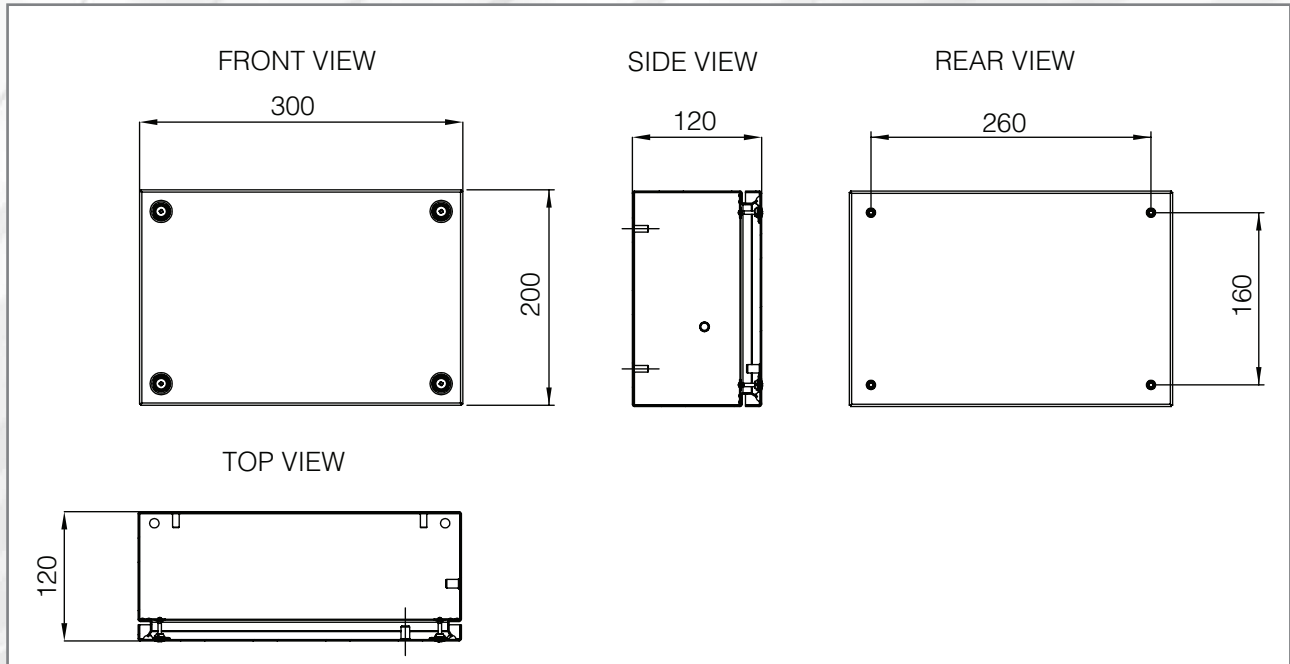


# Amplifier

## SmartTalk® Data Logger With Two-Way Communication

The amplifier ensures that the signal continuity is maintained within the Modbus RS485 network and also simplifies the identification of network issues by subdividing the network down in sections of 32 dwellings / ModuSat's. Amplifiers are not required for TCP/IP Ethernet networks.

### Dimensions



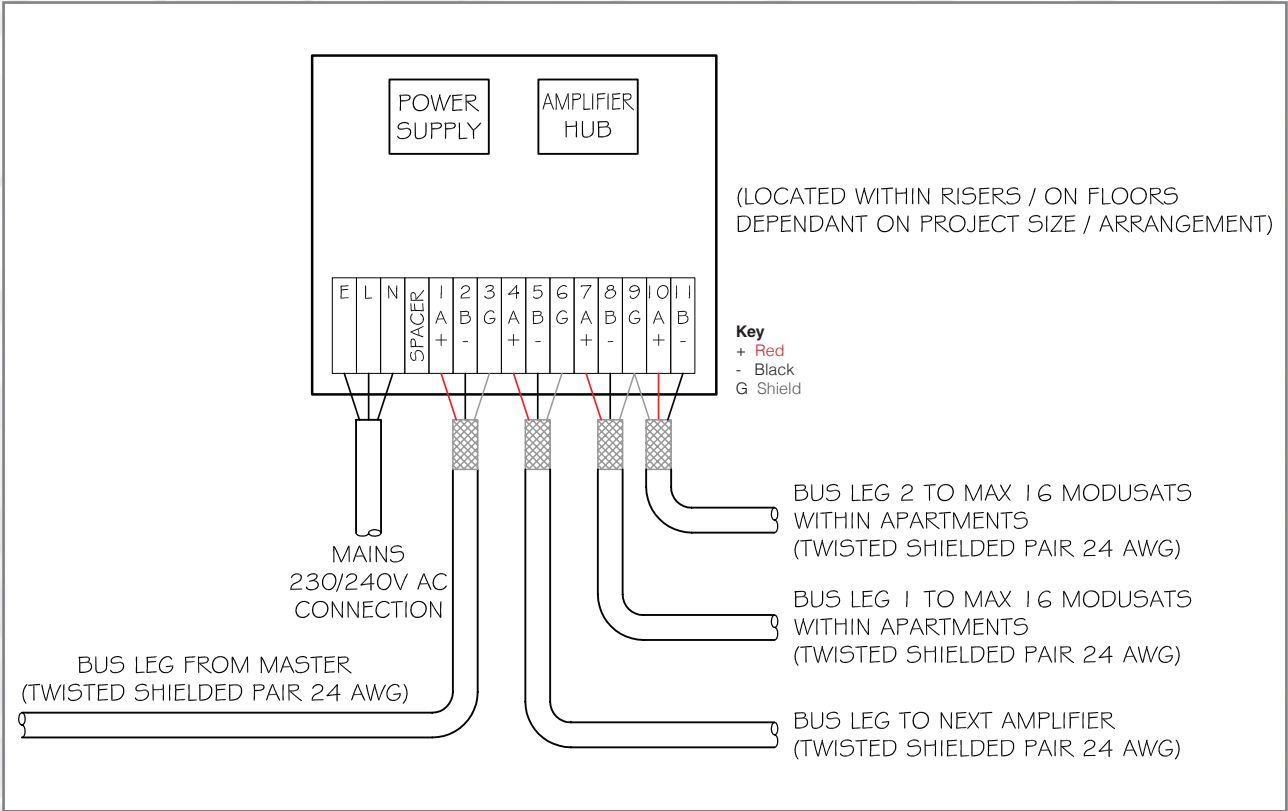
Amplifiers are connected to the SmartTalk® data logger typically in a daisy chain format and these allow for connection of 2 legs of 16 apartments up to a total of 32 apartments / ModuSats per amplifier.

Note: A maximum of 6 amplifiers per SmartTalk® data logger control module.

# Amplifier

## SmartTalk® Data Logger With Two-Way Communication

### Typical Wiring Detail for Amplifier



## Typical Modbus RS485 System Architecture

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