

Interface Technology Group, Inc.



Model DA-422-15T

RS-422 Distribution Amplifier

Operation and Maintenance Manual

**Interface Technology Group, Inc.
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Specifications:

Power Input:..... 90 – 265 VAC 47-470 Hz.
.....IEC Input connector 10W Nominal

Fuse:.....1 Amp

Dimensions:..... 19” Wide X 1.75” High (1 RU) X 10.25 Deep

Weight:.....4.1 Pounds

Operating Environment:..... 32° F to 100° F, 0 – 95% RH Non condensing

Signal Inputs:

RS-232 or RS-422 Simplex (Input only) Using DB-9 Female connector

Signal Outputs:

15 RS-422 Simplex outputs Using TWINAX Connectors

DB-9 Female connector – RS-232 or RS422 Status Alarm

Overview:

The model DA-422-15T is designed to accept either an RS-232 signal or a RS-422 signal input and amplify and send to 16 outputs the same signal with the same or very closely the same delay characteristics. Input source selection is done via a miniature toggle switch located above the DB-9 Female input connector on the rear panel.

Monitoring of the signal input and outputs is done to determine fault conditions. In the RS-232 mode, no input fault monitoring is done. Status of both inputs and outputs are displayed via 16 2-color LEDs on the front panel. Faults cause the LED to glow red while no faults are displayed as green. No power to the unit is indicated by no light coming from the LED's.

Faults are also reported via the serial port on the rear panel of the unit. Faults are reported when they happen and are reported again every 2 minutes. It is possible to mask out continuing faults. A message is sent when the fault is cleared.

Operation:

Connect a suitable AC mains power source to the rear IEC connector. Connect a RS-232 signal or a RS-422 signal to the DB-9 RS-422 input connector and select the desired mode with the toggle switch. Turn on the AC power switch on the rear panel.

Rear Panel Connections:

Inputs (RS-422 or RS-232): DB-9 Female. Toggle switch mode selected.

RS-422 Pin 4=D+, Pin 8=D-, Pin 5= Gnd.

RS-232 Pin 3=R, Pin 5=Gnd.

Outputs RS-422: (15) TWINAX connectors. Center pin= D+

Status Port RS-422 or RS-232: DB-9 Female. Toggle switch mode selected

RS-422 Pin 4=D+R, Pin 8=D-R, Pin 5= Gnd. ; Pin 7=D+T, Pin 9=D-T

RS-232 Pin 2=T, Pin 3=R, Pin 5=Gnd.

AC INPUT: AC mains voltage is applied through the IEC connector.
90– 265 VAC 47-470 Hz.

Power Supply:

The distribution amplifier uses a “Universal Input” switching power supply for cool and reliable operation. The power supply accepts any common voltage between 90 and 265 VAC or 100 to 370 Volts DC without any adjustment. A separate line filter is built into the DA-422-15T for an additional measure of EMI suppression. The Power supply used is UL listed and approved by several other agencies.

Remote Status:

Connecting a computer running a terminal program such as Hyperterminal set up as 9600-N-8-1 allows control and status information to be passed from or to the distribution amplifier. Connections for RS-232 and RS-422 are described in the section above.

Hitting Enter (C/R) will cause the DA-422-15T to respond with: DA-422-15 #XXXX>
Where XXXX is the serial number of the unit.

KEYWORDS:

The following are keywords or words that are used by the DA-422-15T to receive status or issue commands to the unit. The keywords may be upper or lower case. The words must be typed correctly without back spacing or making corrections. Incorrect typing or misunderstood words are returned as typed followed by a question mark.

STATUS (C/R) Returns the status of the distribution amplifier.

MASK (C/R) Masks current alarms from being reported every 2 minutes

UNMASK (C/R) Unmasks all alarms.

Entering the keyword "Status" results in the DA-422-15T displaying the current status including the input source (RS-232 or RS-422).

If a fault is detected, the DA-422-15T will output a fault message identifying the fault. Every two minutes, the message will be repeated unless the fault is cleared. When the fault clears, the DA-422-15T will output a message stating the fault has cleared.

If two minute fault reminders are not desired, typing the command MASK will cause the DA-422-15T to mask all current faults and stop reporting every two minutes. If a fault that was masked is cleared, the fault clear message will be sent. If the fault re-occurs, the masking for that port will not be set and the fault will be reported every 2 minutes.

Typing the command "Unmask" will remove all fault reporting masking.

Routine Maintenance:

Remove dust from the cabinet when it accumulates. The front panel may be cleaned with a soft cotton cloth. Use only a small amount of mild soap and water solution to dampen the cloth if necessary.

No routine checks or adjustments are required.