

Using the RS-232 Option with A3 ALPHA® Meter/Collectors

General

The RS-232 option board may be provided on A3 ALPHA meter/collectors. This option board provides a method for connecting the collector to another device for point-to-point communications up to 19.2 kbps. As an example, the RS-232 option may be used to connect the meter to an external modem. The maximum cable length in RS-232 communications paths is 25 feet (7.6 meters).

For more information about the A3 ALPHA meter, see the A3 ALPHA meter technical manual (TM42-2190B or later). For more information about the collector, see the A3 ALPHA meter/collector product guide (PG42-1005C or later).

▲ WARNING

Use authorized utility procedures to install and service metering equipment. Dangerous voltages are present. Equipment damage, personal injury, or death can result if safety precautions are not followed.

Use circuit closing devices on current transformer secondaries. Dangerous currents and voltages are present. Equipment damage, personal injury, or death can result if circuit closing devices are not used.

RS-232 Option Board

The RS-232 option board is a single board design providing a cable connector for the RS-232 communication connections. This communication board may also be provided with two or four relays. See the meter's technical manual for information on configuring the relays. These relays are optional and must be specified at the time of order entry.

The RS-232 option board connects directly to the main circuit board of the A3 ALPHA meter using the 20-pin connector (J4). See Figure 1 for an illustration of the mounting of the RS-232 option board on a meter. The ILC1 option board connects to the RS-232 option board using the 20-pin connector (J5).

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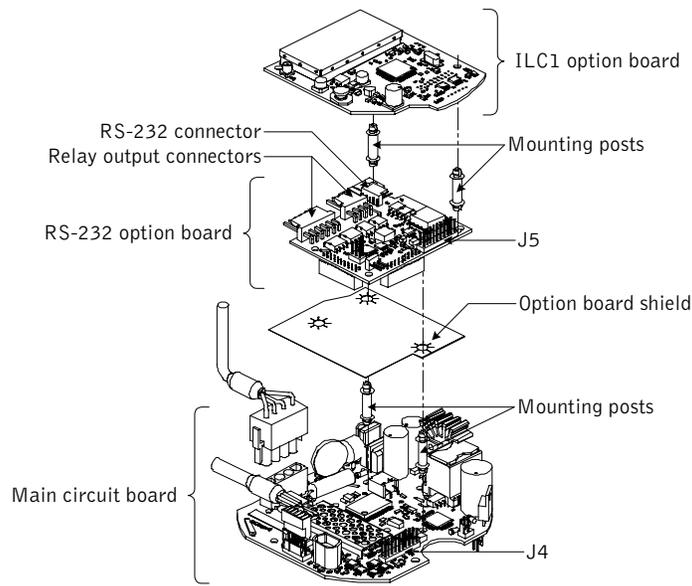


Figure 1. A3 ALPHA meter/collector with RS-232 option board

External Connections

The RS-232 cable exits through the option cable opening in the meter base. This cable terminates in an RJ-11 jack. There is a wire marker, 6 inches from the RJ-11 end, with “RS 232” printed on it for identifying this option. An additional “interface adapter,” which is ordered separately, is also required and is available in the following styles:

- Style 1C11637H01: a male, 25-pin connector on one end and an RJ-11 termination on the other
- Style 1C11731H01: a male, 9-pin connector on one end and an RJ-11 termination on the other

The RS-232 connections are shown in Figure 2; Figure 3 shows the interface adapters.

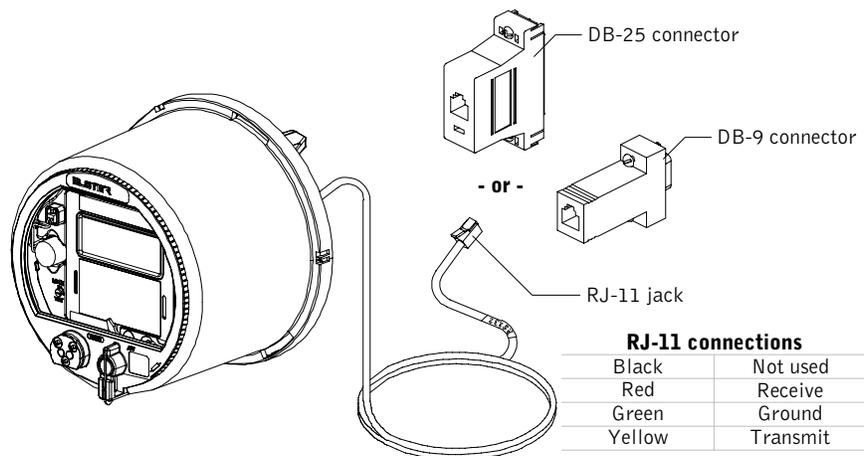


Figure 2. Collector with RS-232 cable and connectors

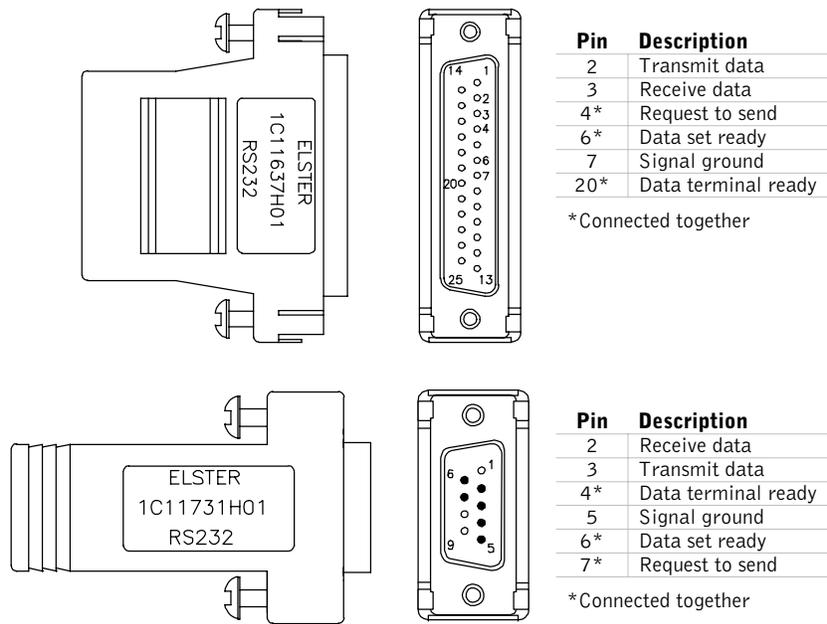


Figure 3. Interface adapters

Programming

If the RS-232 option is used for connection to an external telephone modem, the meter must be programmed to support this type of communication using an appropriate Remote Definitions developed by Elster Electricity meter support software.

Relay Options

The pulse output relays (when present) are brought out of the meter base via a cable on the A3 ALPHA meter. There can be 2 or 4 relays provided with the RS-232 option board.

The relay output cable uses the color coding below. Reference Figure 4 and Figure 5 to identify pulse output.



Figure 4. 2-relay output color coding

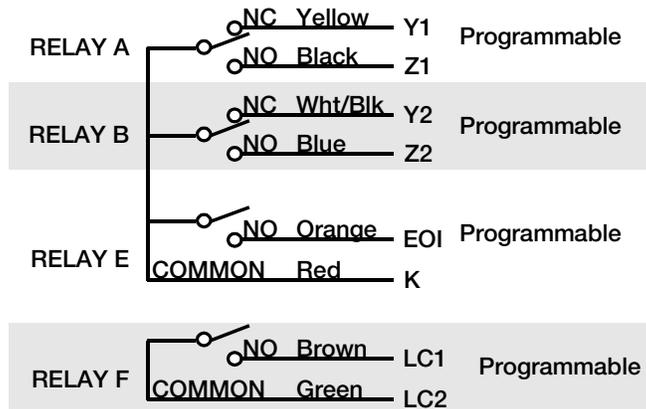


Figure 5. 4-relay output color coding

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