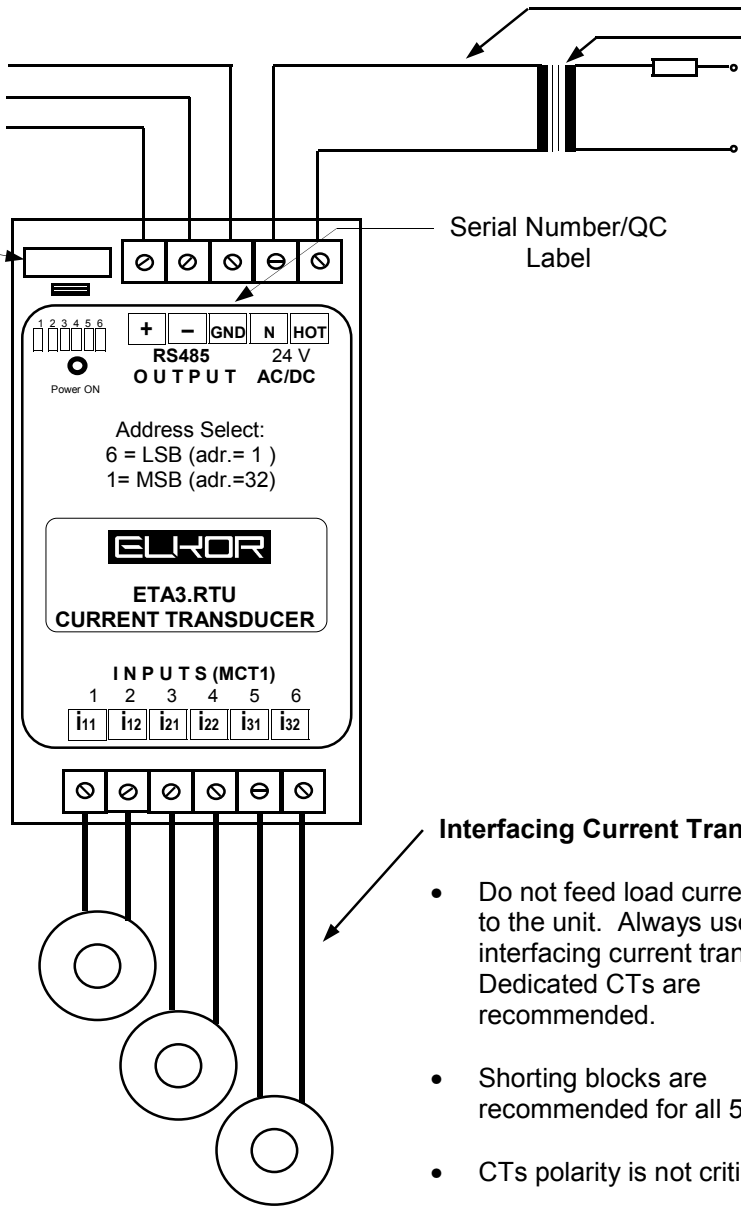


RS-485  
Communication  
(Modbus)

Address Select  
Header



Observe polarity if 24 VDC is used.  
Dedicated Class 2 xxx/18 to 24 VAC transformer (3 VA min.)  
is recommended for AC supply.

- Any small transformer is capable of powering the unit. Primary fuse (or fuses) as per local electrical code requirements.
- **DO NOT ground** secondary of the transformer. The RTU ground establishes system grounding. **All components of the system should be grounded at one point only.**

Specifications:

- Excitation:* 18 VAC to 24 VAC or DC (max. 3 VA required)
- CT Interface:* sensing resistor (0.03 R for 5 A CT), >500R for Elkor CTs
- I/O Isolation:* established by CTs (typically at 600 VAC insulation level)
- Input current frequency:* 45 to 65 Hz
- Accuracy:* 0.5 % FS, TRMS calculations
- Mounting:* DIN ready enclosure (95 x 50 x 60 mm) to be used inside an electrical panel
- Environment:* standard issue 0 C to +70 C, indoor, non-condensing; industrial temp. version available for outdoor installations (in weather proof enclosure)

**Maximum distance between 5 A CTs and the ETA3 (in meters/feet). (transducer's burden = 0.75 VA)**

| VA<br>AWG | 2.0      | 7.5    | 10.0   | 15.0   | 25.0   | 35.0    |
|-----------|----------|--------|--------|--------|--------|---------|
| 20        | 0.7/2.3  | 3.9/13 | 5.4/18 | 8.4/27 | 14/47  | 20/66   |
| 18        | 1.1/3.8  | 6.3/20 | 8.6/28 | 13/43  | 22/74  | 32/105  |
| 16        | 1.9/6.2  | 10/33  | 14/46  | 21/71  | 36/121 | 52/171  |
| 14        | 3/10     | 16/53  | 22/72  | 33/110 | 57/188 | 81/266  |
| 12        | 4.7/15.5 | 25/83  | 35/114 | 44/145 | 91/300 | 130/423 |

Interfacing Current Transformers

- Do not feed load current directly to the unit. Always use interfacing current transformers. Dedicated CTs are recommended.
- Shorting blocks are recommended for all 5A CTs.
- CTs polarity is not critical
- For best accuracy the maximum wire distance from the CT to the units should be as per the table.

**! DO NOT GROUND CTs !**

**Maximum distance between MCT/MSCTs and the ETA3 transducer depends on full load calibration and the MCT/MSCT size. In general, for AWG#18 wires it is about 100 ft (30 m). Consult Elkor for other wire sizes and extra long feeders.**

**ETA3.RTU - WIRING**