

RS-485
Communication
(Modbus)

Address Select
DIP Switch

Serial Number/QC
Label

Observe polarity if VDC is used.

Dedicated Class 2, 12-30 VAC transformer is recommended for AC supply.

- Any small transformer is capable of powering the unit. Install primary fuse (or fuses) as per local electrical code requirements.
- Do not ground secondary of the transformer. The RTU ground establishes system grounding. If possible, all components of the system should be grounded at one point only.

Specifications:

Excitation: 12-30 VAC/VDC

CT Interface: sensing resistor (0.03 Ω for 5 A CT, 0.75 Ω for Elkor CTs)
established by CTs (typically at 600 VAC insulation level)

I/O Isolation: 45 to 65 Hz

Base frequency: 45 to 65 Hz
Accuracy: 0.1% of reading plus error of CTs, TRMS calculations
(valid between 1% and 110% of full scale)

Mounting: DIN ready enclosure (95 x 50 x 60 mm), to be used inside electrical panel

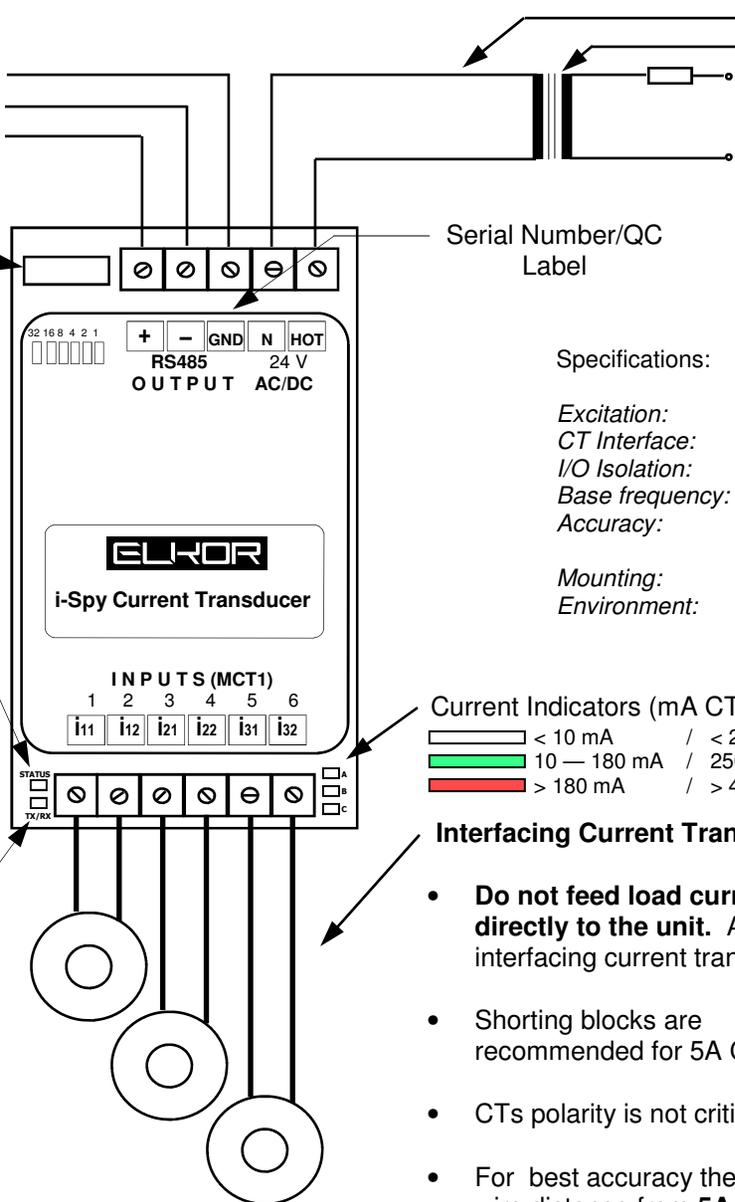
Environment: standard issue: -40 C to +70 C, indoor, non-condensing

Status Indicator

- Normal
- Address 0
- Malfunction

Comm. Indicator

- Receiving
- Transmitting



Current Indicators (mA CTs/5A CTs)

< 10 mA / < 250 mA
10 — 180 mA / 250 mA — 4.5A
> 180 mA / > 4.5 A

Interfacing Current Transformers

- Do not feed load current directly to the unit. Always use interfacing current transformers.
- Shorting blocks are recommended for 5A CTs.
- CTs polarity is not critical
- For best accuracy the maximum wire distance from 5A CTs to the transducer should be as per table. MCT/MSCTx mA CTs allow much longer distance.

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

VA 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

Maximum distance between MCT/MSCTs and the i-Spy transducer depends on full load calibration and the MCT/MSCT size.

In general, for AWG#18 wires it is about 300 ft (90 m).
Consult Elkor for other wire sizes and extra long feeders.

! DO NOT GROUND CTs !

i-Spy - WIRING