

T210 Electronic Outreader



- *Reduced Meter Reading Costs*
- *High Integrity Pulse Counting*
- *Fully Configurable*
- *Long Battery Life*
- *Operates at -22°F to +158°F (-30°C to +70°C)*
- *Leak Detection*
- *"Touch Free" Reading*
- *Display Meter Reading*
- *Holds last read value*
- *"Bypass" & "Main" display icon*
- *8 digits displayed*
- *Supports bi-directional pulsers*
- *Incorporates a watchdog*
- *Installed away from pit meters improving access safety*
- *Installed in easy to access location to deal with difficult to access meters*

Customer Service

The T210 can also be configured to detect suspected fraud, for example the cutting of pulse input wires, and can also indicate if no water has been consumed for 30 days, indicating potential meter stoppages or removal of pulse probes.

Providing a warning when long periods of continuous flow are detected, the T210 can also be configured to look for leaks. The warning is transmitted with the meter reading every time the meter is read.

Additional Features

T210 incorporates fully sealed electronics with a permanently connected battery for reliability.

A sophisticated combination of digital signal processing and current pulse techniques provides integrity pulse counting.

T210 is compatible with all major handheld meter reading computers with communication via the SR100 "Touch Free" probe. It may also be read by Elster AMCO Water's T450 Mini-Reader.

T210 has a 8 digit liquid crystal display (LCD). The 1/4" character height makes the display easy to read and following careful selection of materials, the LCD is designed to survive temperatures as low as -22°F.

The number of digits displayed can be set to between 4 and 8, enabling the display to show the full meter reading or only billing units. An activity icon on the display indicates when

Reduced Meter Reading Costs.

The ScanCounter T210 electronic outreader is designed specifically for accurate counting of water meter pulse outputs. It incorporates an easy to read display. Inexpensive and reliable, the ScanCounter T210 is a cost effective solution to meter reading access problems. The ScanCounter T210 is installed in a location easily accessed by the meter reader. Connected to the water meter pulse output by wire, the T210 accumulates pulses from the water meter and stores the reading.

The meter reading and serial number is recorded, via the T450 Mini-Reader using Elster AMCO Water's "Touch Free" inductive reading technology pioneered in Elster AMCO Water's proven encoder register. This enables utilities to simply and cost effectively migrate their system from visual to electronic reading, secure in the knowledge that by installing T210 to read visually today, the investment is maintained as the system progresses towards fuller implementation of electronic meter reading systems.



Environmental

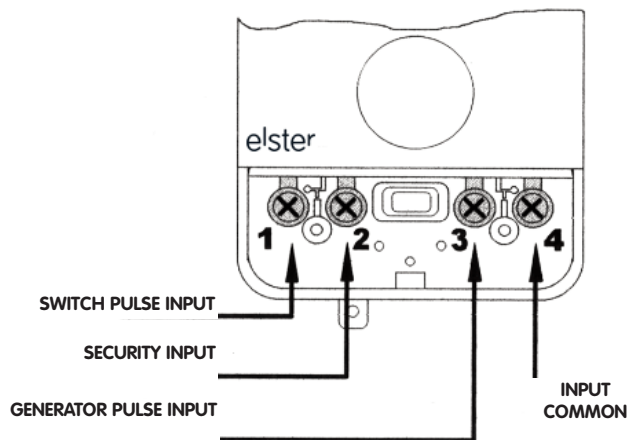
Sealing:	IP67 (electronics enclosure) IP44 (terminal enclosure, can be IP67 with non-corrosive silicon gel or sealant applied over the terminals on installation)
Operating Temperature:	-22°F to +158°F (-30°C to +70°C)
Operating Humidity:	95% RH

Physical

Housing:	High Impact Polycarbonate
Drop Test:	3.25 ft drop on concrete
Dimensions:	4.75" (H) x 2.75" (W) x 1.5" (D)
Weight:	5.3 oz.

Electrical

Power Source:	3.6V Lithium Battery Operating life is not affected by the number of pulses counted.
Battery Low Indicator:	On LCD if fitted and in data output
Maximum Input Frequency:	40Hz
Worst case mark-space ratio:	12-75% (Reed switch) 30-70% (Open collector)
Low pass cut frequency:	12.5Khz
Software Watchdog:	1 sec
Approvals:	CE marked.
Wiring:	See diagram below.



Note: Connections to reed switch pulsers such as AMCO Water Metering Systems' LRP (on the T3000) and T-probe for the V100 (red and blue wires) are made to pins 1 and 4. Similarly, generator pulse connections are made to pins 3 and 4. Call for instructions on utilizing the security input (pin 2).

Configuration Options.

- No. of digits displayed (4,5,6, 7 or 8)
- Scale Factor 1 to 2,000
- Programmable 10 alpha numeric serial number
- Programmable initial meter reading
- Leak monitor
- Tamper - non usage, wire cut, magnetic supplies
- Choice of units - m3, gallons, litres, Cu Ft, kl
- Choice of inputs: Volt Free (reed switch), Pulse Generator
- Compatible with all Elster AMCO Water water meters providing low resolution pulse output.

The T210 is part of the ScanRead System, enabling all types of pulse meters to be read by the same electronic meter reading system.

Fully Configurable.

T210 can be used with any meter with pulse output. The meter reading is easily pre-set at time of installation. To reduce time and errors in the field, configuration is carried out using an Elster programmer. The T210 is programmed with a specific serial number or customer account number at the time of installation. pulses are received by the T210, simplifying installation and testing. A cover is provided to protect the LCD from high levels of ultraviolet light, and also to provide shade to facilitate reading in high sunlight conditions.

Additionally, the display can be configured to indicate tampers and the possibility of leaks in the customer's system. A location is provided on the housing for a meter serial number label.

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