

T210 Electronic Outreader



The T210 provides accurate remote readings for digital/pulse registers while adding convenience and safety for the reader.

Features

- Reduced meter reading costs
- High integrity pulse counting
- User configurable, via PSR140
- 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
- Selectable up to 8 digits displayed
- Supports bi-directional pulsers
- Installed away from pit meters, improving access safety
- Installed in easy to access location to deal with difficult to access meters.

Tampering and leak alarm

The T210 can be configured with the PSR140 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 the pulse probe.

The T210 can also be configured with the PSR140 to look for leaks, providing a warning when long periods of continuous flow are detected. The warning is transferred with the meter reading at the time the meter is read and the warning is reset.

Additional features

- The T210 incorporates fully sealed electronics with a permanently connected battery for readability. The unit IS NOT submersible
- A sophisticated combination of digital signal processing and current pulse techniques provides high-integrity pulse counting
- The T210 is compatible with all major handheld meter reading computers with communication via the Versaprobe Universal probe. It may also be read and programmed by Elster AMCO Water's PSR140
- The T210 has an 8 digit liquid crystal display (LCD). The 1/4" character height makes the display easy to read. With careful design and selection materials, the display can survive temperatures as low as -22°F. 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.

Reduced meter reading costs

The T210 (ScanCounter II) electronic outreader is designed specifically for accurate counting of water meter pulse outputs. It incorporates an easy to read display. The T210 is a cost effective solution to meter reading access problems because it can be installed in a location easily accessed by the meter reader. Using a wired connection, the T210 accumulates pulses from the water meter and stores the reading.

The meter reading and serial number is recorded, via the PSR140 Reader/Programmer or the Versaprobe universal meter probe. This enables utilities to simply, and cost effectively, migrate their system from visual to electronic reading.

Fully configurable

The display can be set by the user to display 4 to 8 digits, enabling either the full meter reading or any billing units. An activity icon on the display indicates when pulses are received by the T210, simplifying installation and testing.

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. The meter reading is easily preset at the time of installation. Using an Elster PSR140 reader/programmer, the T210 can be programmed with a specific serial number or customer account at the time of installation.

Note: The PSR140 refers to the T210 as a 'ScanCounter II'.

Environmental

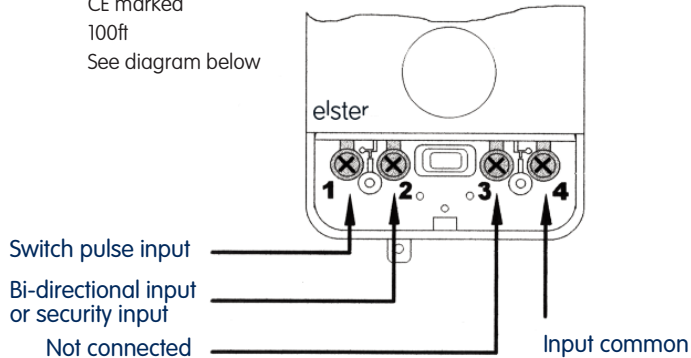
Sealing	IP67 (electronics enclosure) IP44 (terminal enclosure, can be IP67 with non-corrosive silicon gel or sealant applied over the terminals on installation)
Operating temperature	-22°F to +158°F (-30°C to +70°C)
Operating humidity	95% RH

Physical

Housing	High impact polycarbonate
Drop test	3.25ft 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 not affected by number of pulses counted. This product contains lithium batteries which must be disposed of by a qualified disposal agency. Under no circumstance should they be crushed or incinerated.
Battery low indicator	On LCD if fitted and in data output
Maximum input frequency	40Hz
Duty cycle	12-75% (reed switch), 30-70% (open collector)
Low pass cut frequency	12.5kHz
Software watchdog	1 sec
Approvals	CE marked
Distance	100ft
Wiring	See diagram below



Note: connections to reed-switch pulsers, such as Elster AMCO Water's T-probe for the V100 (red and blue wires), are made to pins 1 and 4. The security input requires a loop connection to the common input (between pin 2 and pin 4). A direction flag input is required for pin 2 and pulse input to pin 1 when used in a bi-directional mode.

User configuration options

- Number of digits displayed (4, 5, 6, 7)
- Scale factor 1 to 2,000
- Programmable 10 alpha numeric serial number
- Programmable initial meter reading
- Leak monitor
- Security/Tamper - non usage, wire cut, magnetic field interference
- Choice of units - USG, USG x 1000, CuFt x 100, litres, klitres, m3
- Choice of inputs: volt-free (reed switch) or open-collector
- Compatible with all Elster AMCO Water meters providing low resolution pulse output.



United States
Elster AMCO Water, LLC
10 SW 49th Avenue, Bldg. 100
Ocala, FL 34474
T +1 352 369 6500
F +1 352 368 1950
watermeters@elster.com

Canada
Elster Canadian Meter Company Inc.
1100 Walker's Line, Suite 101
Burlington, Ontario L7N 2G3
T +1 866 703 7581
F +1 905 634 6705
watermeters@elster.com

Caribbean
Elster AMCO Water, Inc.
P.O. Box 225, Carretera 112 KM 2.3
Isabella, PR 00662
T +1 787 872 2006
F +1 787 872 5427
prwatermeters@elster.com

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Lit Ref: 8516A73156-02-16