

# Cello XT (I.S.)

## Low cost, modular, multi-sensor wastewater monitor.

LTE data logger with multiple sensor combinations allowing the monitoring of sewer level, flow, temperature and infiltration as well as secondary spill verification channels.

### Key Features

- 2 channels with various sensor combination options
- Compatible with the RS1 low cost radar and AS1 multi-sensor (angle, temperature, flow and spill verification)
- State input option available for float switches or CSA pressure sensor
- User configurable logging and transmission rates
- Multiple alarm levels available in the logger in addition to user definable virtual server-side alarms
- Bluetooth or cabled comms options
- Wireless setup app option
- User replaceable SIM card
- Low power design provides typically > 5 years battery life
- Protected and tested against water ingress to IP68
- Internal antenna with external antenna options
- User replaceable battery





# Technical Specifications

|                          |  |
|--------------------------|--|
| <b>Electrical Inputs</b> | <ul style="list-style-type: none"><li>- 2 x encoder channels (RS1 Radar, AS1 Angle and Flow, Microflow Velocity, Ultrasonic Level)</li><li>- 2 x State input / tamper channel</li></ul>  |
| <b>Modem</b>             | <p><b>Antenna:</b> Internal (optional external variant)</p> <ul style="list-style-type: none"><li>- NB-IoT and LTE Cat M1 frequencies</li></ul> <p><b>SIM:</b> User replaceable SIM card</p>   |
| <b>Data Transmission</b> | <p><b>Type:</b> NB-IoT and LTE Cat M1 networks</p>   |
| <b>Serial Port</b>       | <p><b>Type:</b> Full duplex, asynchronous</p>  |
| <b>Memory</b>            | <p><b>Type:</b> Non-volatile</p> <ul style="list-style-type: none"><li>- Data storage 2000 profile readings and 50 index readings</li></ul>  |
| <b>Clock</b>             | <p><b>Type:</b> Crystal controlled calendar clock with leap year adjustment</p> <ul style="list-style-type: none"><li>- Synchronises clock to local network at regular intervals</li></ul>   |
| <b>Supply</b>            | <p><b>Life:</b> Typical battery life &gt; 5 years (daily transmission)</p> <ul style="list-style-type: none"><li>- Internally powered by a single, user replaceable lithium battery</li><li>- Configuration and data retained during battery replacement</li></ul> |
| <b>Recording</b>         | <p><b>Interval:</b> Programmable between 1 minute and 1 hour in defined increments</p> <p><b>Data storage:</b> Rotating store</p>  |
| <b>Alarm Dial-Out</b>    | <ul style="list-style-type: none"><li>- Programmable high and warning / low alarms</li><li>- Alarm on tamper detection</li><li>- Low battery alarm</li><li>- Unlimited, server-side virtual alarms with user customisable logic</li></ul>                          |
| <b>Certification</b>     | <p>Certified for use in Zone 0 hazardous locations</p> <p><b>Certificates:</b> CML 23ATEX2440X &amp; IECEx CML 23.0146X &amp; CML 23UKEX2441X<br/>Ex ia IIC T4 Ga (Tamb = -20°C to +60°C)</p>  |
| <b>Environmental</b>     | <p><b>Operating ambient temperature:</b> -20°C to +60°C</p> <p><b>Ingress protection classification:</b> IP68</p>  |
| <b>Mechanical</b>        | <p><b>Dimensions (mm):</b> 199(h) x 127 (w) x 53 (d)</p> <p><b>Weight:</b> Encoder with 5 cell battery: 0.600 kg<br/>Encoder without battery: 0.450 kg</p>   |

