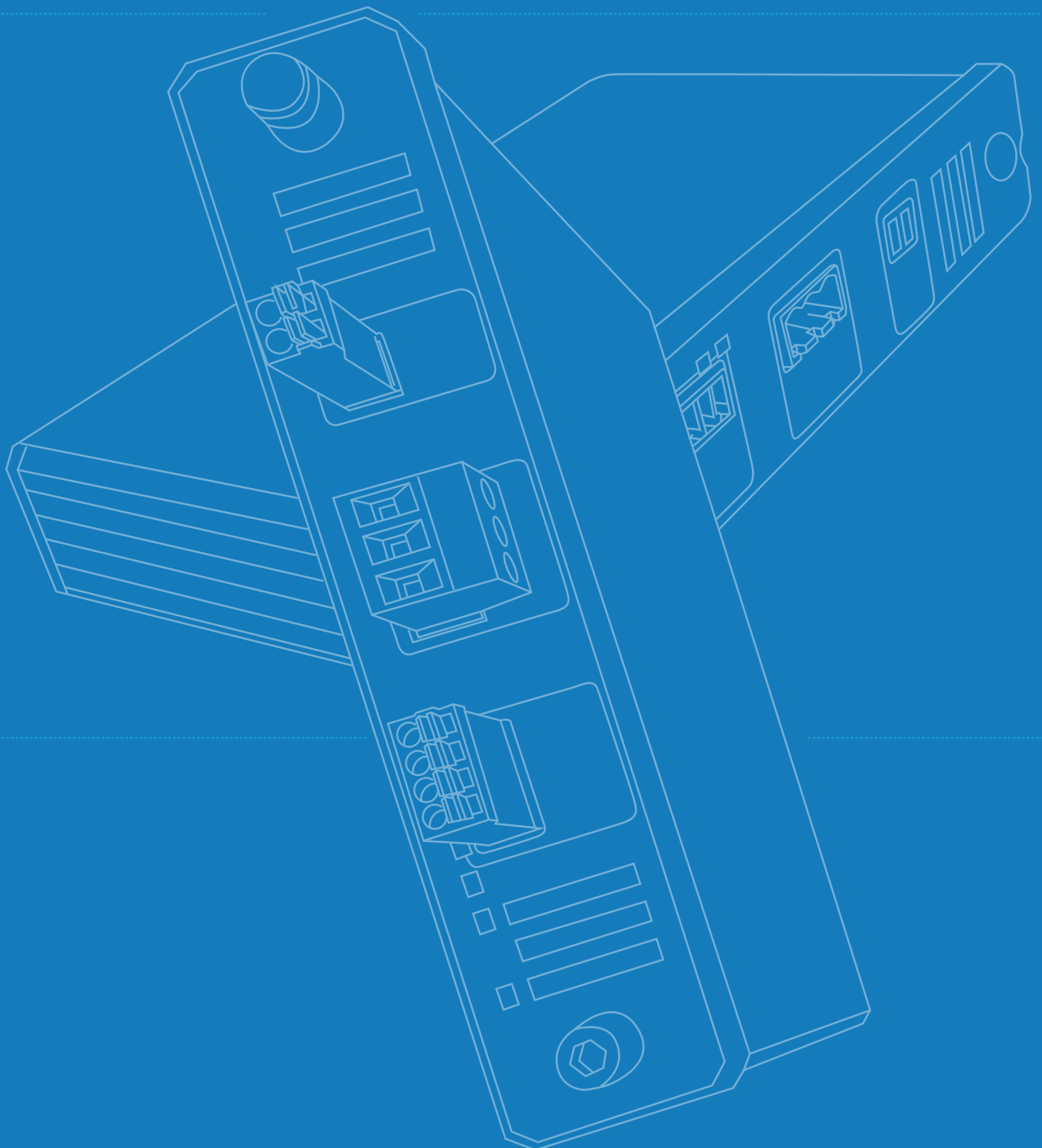




AQUAMONIX
Measure. Monitor. Master.

TONICK BT2

– 2 WIRE TRANSLATOR



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The **BT2** DIN rail mount decoder translator is integrated with any third-party system to instantly add two-wire capability. The **BT2** connects to the host controller / RTU / PLC via a RS485 Serial port, translating Modbus RTU commands into **Tonick** 2-wire signaling to control and monitor field devices via the 2-wire path. The translator can control and monitor up to 127 field devices and 7 translators can be controlled from a single host controller adding up to over 800 outputs and input to your control system.

Features

- Aluminium DIN rail mount enclosure
- Large terminals on two wire output
- Optional DIN41612 connector with mixed terminals for plug-in capability
- Conformal coating to allow operation in 95% humidity (non-condensing)
- Operation rated to ambient +70 °C.
- Suitable for use with complete Tonick decoder family

Specifications

Variants

- Open board format TW.TRN.BT2.TBOX
- DIN mount format

Electrical

- Supply voltage 24 ~32 V RMS AC 50 or 60Hz
- Supply current up to 1.3A
- Output voltage 23-31 V RMS AC
- Output current max continuous
 - 1.2A at +5°C Ambient
 - 0.6A at +70°C Ambient
- Recommended inverted power supply is 12VDC - 28VAC, constant, 60Hz (Tonick part number: PSU 1228)

Note: Full Line output voltage will be continuously applied to the solenoids connected to 'on' decoders. Attention must be given to the specifications of these solenoids.

DO NOT EXCEED THE MAXIMUM OUTPUT CURRENT OF THE OEM DECODER ADAPTOR.

Line Signalling

- Up to 127 **Tonick** 2-wire decoders, or Decoder-In-A-Solenoid (DIAS)
- Up to 16 actives (subject to total solenoid loads)
- Allow 45 seconds after power-up before switching decoders
- Custom firmware for OEM systems
- Compatible with all **Tonick** decoders and with Decoder-In-A-Solenoid (DIAS)
- Compatible with all Tonick sensor decoders for moisture, pressure, water level, flow and digital inputs.

CPU

- 8-bit RISC. 8MIPs, 64K flash / 4K RAM / 4K EEPROM

Communications

- RS485 half-duplex (+-80V fault, 15kV discharge)
- 9600 Baud, N,8,2 (other formats on request)
- A, B line biasing resistors and 130 Ohm line terminating resistor

Isolation

- 1 KV between decoder line/ transformer AC input and RS485 circuitry

Slave Address Programmable

- 1...7 using the plug-in DIP switches. Factory Set: Slave address 1

Connections

The **Tonick BT2** should be wired as follows:

- AC and AC terminals should be wired to the transformer supply
- L 1 is the Field Cable 'Live' terminal (referred to as the 'line')
- L2 is the Field Cable 'Neutral' terminal
- RS485 Terminals
- A (DO), B (D1) are half duplex RS485 signals
- B is more +ve than A during line idle conditions
- COM is the ground of the RS485 circuitry and must be connected to the RS485 0V of host controller
- The RS485 is optically isolated from the Tonick BT2 decoder circuits by at least 1 KV to help protect against lightning surges propagating in the host controller

Grounding System

- The Earth Stake terminal (EST) MUST be connected to a properly bedded earth stake or plate via a 4mm² (#11 AWG) or larger earth wire. This earth system is not to be regarded as an electrical safety earth. Connection of the EST to a building and/or an electrical earth is NOT permitted
- Use of the **Tonick Line Terminating Unit (LTU)** at each termination of the 2-wire path is recommended to complete the lightning protection system

Environmental

- Storage: 0 to 70 Degrees Centigrade 5% to 95% humidity (non-condensing) Operation ± 5 to +70°C, de-rated from 1.2A output at +50°C to 0.6A output at +70°C, 5 to 95 % humidity (non-condensing)
- Conformal coating with acrylic except fan and terminals

Approvals

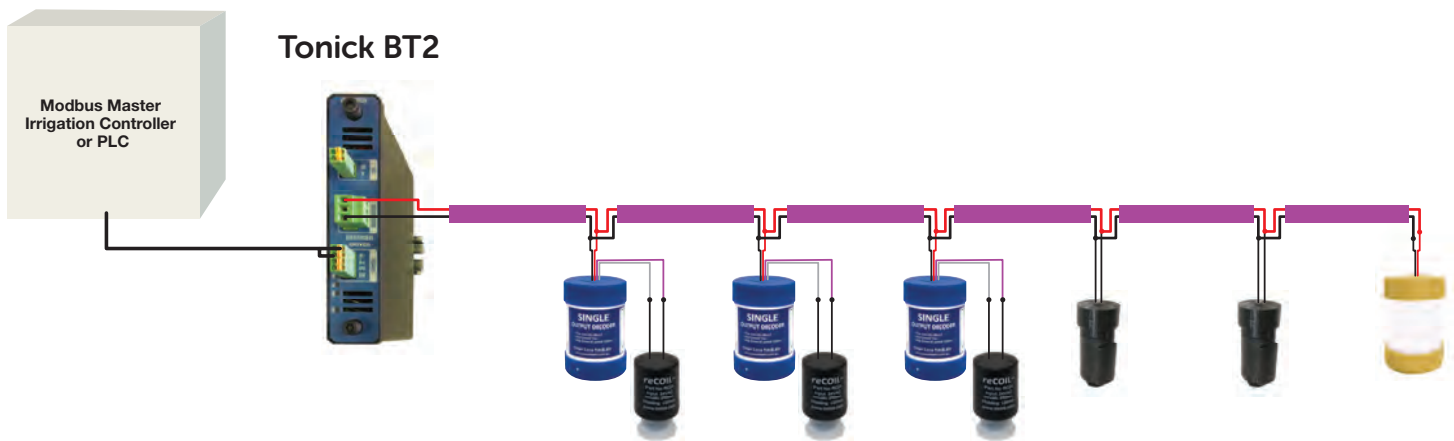
- CE (European) marked and compliant
- RoHS (European) compliant and lead free

Certificate of Origin

- Manufactured in the EU

Warranty

- 5-year warranty including damage by lightning



How to order

Simply send us an email at sales@aquamonix.com.au
contact your local distributor or phone 1300 797 246.

About Aquamonix

Aquamonix provides innovative products and services to assist businesses and communities in monitoring critical water resources, managing environmental compliance and mastering remote infrastructure. We are a major supplier of flowmeters, water quality sensors, remote telemetry systems and control solutions for the Australian irrigation market. We are the only Australian manufacturer of full bore flowmeters and have an installed base of more than 40,000 sites and over 40 years of experience in the industry.



Licence ID: 15075

Contact Aquamonix | aquamonix.com.au | **T: 1300 797 246**

New South Wales
268 Milperra Road
Milperra NSW 2214
T: +61 2 8710 4040

Victoria
T: 1300 797 346

Western Australia
92 Furniss Road
Landsdale WA 6065
T: +61 8 9477 1188

Queensland
29 Lathe Street
Virginia QLD 4014
T: +61 7 3608 7889