

TBS12 LoRa WAN for Otto Soil Probe

TBS12

The TBS12 LoRa WAN to SDI-12 Adaptor is designed to be used in conjunction with the Otto profiling soil moisture probe and provides a mechanism for connecting the probes to a LoRa WAN network.

LoRa Connectivity

LoRa WAN networks are being rolled out in both open (public) and closed (private) formats and offer an alternative to traditional cellular or mobile phone based telemetry systems. Whilst cellular systems are designed to cope with the high data rates demanded by applications such as video streaming, LoRa WAN has been designed with low data rates and minimal power consumption in mind. Making it the ideal choice for environmental monitoring.

The Otto Soil Moisture Probe

The Otto is a profiling soil moisture probe available in a variety of lengths and configurations. Whilst available in both sub-surface (potted) and above ground (re-enterable) versions, the TBS12 is designed specifically for use with the latter, with the TBS12's printed circuit board fitting snugly inside the head of the probe. The RF signal is brought out via an SMA connector and may be connected directly to an antenna or, for greater range, via a length of coaxial cable to a mast mounted antenna.



TBS12

The TBS12 is powered by a single use AA sized lithium battery. Using the TBS-12 GUI program, installers can configure the unit to send data to the LoRa WAN network of their choosing. They can also program the logging rate and transmission rate. On the SDI-12 side, the unit can be programmed for up to 20 SDI-12 measurement commands. For testing and diagnostic purposes, the TBS12 offers an SDI-12 pass through mode, allowing users to send commands direct to the attached sensors .



TBS12E

The TBS12E may be used in place of the standard TBS12. It is built around a powder coated aluminium enclosure, with power provided by a set of 3 off C sized alkaline cells. This allows the unit to be installed above the crop canopy to ensure maximum transmission range. It also allows you to use the TBS12 with a host of other SDI-12 sensors



Ordering Details

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| TBS12 | TBS12 LoraWAN interface for Otto Soil Moisture Probe |
| TBS12E | TBS12 in enclosure with alkaline battery and external antenna |
| OT-NK-xx-yy | Otto above ground soil moisture probe xx = No of sensors, yy = Length (cm) |

TOIP Pty Ltd
 58 George St MOONTA SA 5558 AUSTRALIA
 Email: sales@toip.net.au
 Web: http://toip.net.au
 Phone: 08 8825 1208 Mob 04 9805 3413



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 Telemetry Over Internet Protocol