



NBloT IrrigationController

NBloT IrrigationController was developed for controlling of various latch valves used in smart agricultural projects. This is **battery operated** device – up to 2 LS33600 batteries can be used with total capacity 34Ah to ensure long interval between battery replacement. The device is operated in **NBloT eDRX mode** which means that during operation it remains semi **on-line** and requests for turning on or off the valves is processed within 40s at latest. This feature is sometimes called paging and the device permanently scans whether the downlink request is present. The power consumption is very low during paging operation and it's **280uAh only** which means that it can survive couple of years with declared batteries – depends also on frequency of requests, number of connected valves etc. Main features of NBloT Irrigation Controller:

- 8 channels available/8 latch valves can be controlled
- Selectable driving voltage: 6V,9V,12V
- Interface for pulse counting
- Interface for water meter
- SDI-12 interface on demand
- SMA antenna/external antenna
- IP67 housing CamendBoss with multihole glands
- Configurable scenarios for on/off the valves
- Auto off all valves if communication is lost
- Keep alive, acknowledgement and alarm messages
- Opened for integration to present irrigation systems
- Energy saving in PSM mode during off season



Usage

- Irrigation control
- Irrigation optimization

NBloT IrrigationController	Parameter
Protection	IP67 CamdenBoss box
Power supply	Up to 2 x 3.6V lithium battery LS33600 (up to 34Ah)
Power consumption	<280uA in paging/250mA in transmission/150mA in latch valve control
Battery lifetime	5 years with 2 batteries, 4 on/off commands a day, 8 valves
Supported LPWAN standards	NBloT, eDRX (paging) mode, PSM on demand during off season
Dimensions standard/radiation shield	138 x 185 x 85 mm
Weight incl. 2 x batteries	770g
Outputs	8 individuals – H bridge for latch valve control, selectable voltage 6V, 9V, 12V (other voltage on demand), configurable pulse on/off width
Inputs	<ul style="list-style-type: none"> • 2 x Pulse counter • 1 x Inductive head for SENSUS or ITRON water meter • 4 x SDI-12 for Truebner SMT100 probes or similar
Antenna	SMA connector omni, gain 2.5dBi or external with various gain





Supported/tested valves manufacturers:

- Galcon
- John Deere
- Rain Bird
- Gardena
- Hunter
- DIG Corporation
- Other supporting 6 to 12V latch pulse

NBLoT IrrigationController details

