



The Neptune 4G

Technical Document

Overview

The Neptune 4G LTE CAT1 and GSM controller is multipurpose controller featuring 6 digital inputs and 2 relay outputs. Neptune uses either a prepaid or contract SIM card to connect to the internet to send data to users or our FineTrack control room for remote monitoring.



Neptune can send you programmable WhatsApp messages to ensure you are always up to date with what is going on with your device.



With 4G LTE and GSM capabilities, you'll never need to worry about signal again. Neptune uses MQTT to send data, WhatsApps, SMSs and even make calls.



Built using chips trusted by bands like Samsung, OnePlus, Oppo and Xiaomi. Our devices are sure to never go out of date.

Specifications

Inputs

- 6 digital 12V inputs that can send programmable high and low messages.
- Can be used with our temperature sensor unit, water flow meter and non-contact water level sensor.
- Individual programmable de-bounce and re-trigger delays.
- Inputs can be programmed to only send to certain numbers when triggered.
- Individual inputs can be programmed to call you when triggered with a programmable call time.

Outputs

- 2 relay 2A 12V outputs that can send programmable high and low messages.
- Drop-call capabilities, where you can call the unit and pulse output 1 for a programmable delay time.
- Output 2 can be programmed to follow one or more of the inputs, or to pulse when certain inputs are triggered.
- Outputs have programmable timers that will trigger the outputs at certain times of the day, every day.

Power

- Neptune uses 12V - 16V to run. It can be used with our 12V battery charger unit to run for weeks using a standard 12V 7aH battery (Gel preferred).

Programming

- Programming can be done over the air using our CompTeq programmer, online website programmer or SMSs.

WhatsApp

- Our units use our dedicated secure server to send and receive your WhatsApp messages to monitor and control the unit remotely from anywhere in the world.
- Please consult your installer for how to setup your WhatsApp messages.

Applications and uses

Temperature sensor



Neptune works with our 12V powered relay output programmable temperature sensor. This sensor uses a PT100 probe to activate the relay once the temperature has gone above or below your desired level. It features compensation settings for when longer PT100 wire is needed, hysteresis settings where you can set it to trigger at 25 degree for example, but only deactivate once level lowers below 24 degrees. This prevents repeated messages in case level fluctuates at your programmed level.

For more information you can read the instruction manual for this device on our website.

Water level sensor

Neptune works with our 12V non-contact, non-intrusive water level sensor. This sensor can be stuck on the side of a water container, including JoJo and Roto tanks to measure water level above and below a certain point. With two sensors you can have a high and low water level point, each that can send you messages and activate the relay to turn a pump on or off if required. This sensor works with capacitance and can sense water through plastic containers without the need to be inserted in the tank. Incredibly easy to use and install. For more information you can read the manual on website.



Water flow meter



Neptune can be programmed to use a water flow meter to measure how much water in liters has been used. With programmable intervals, such 100 liters, the Neptune will send you a messages to say 100 liters has been reached, then again at 200 liters, 300 and so on. You can also request the liters at any time by sending a WhatsApp or SMS to request this from the unit. Our flow meters come in many sizes and use 12V as an input and can measure 1 - 60 liters per minute. Neptune can be calibrated to maximize accuracy to even better than the 5% rated from the water flow sensor. For more information you can read the manual on our website.

Related products



12V 7A Battery

General use 12V 7A battery



2A 15V POWER SUPPLY

Switch mode power supply



2A 15V BATTERY CHARGER



BLUE TAMPER BOX

Plastic housing with mounting points and attachments



Optex Outdoor PIR's



Command Code	Command Description
#passL	Request USSD pre-paid code and battery voltage from unit
#passI1 (capital i + 1)	Turn on all inputs (default is on)
#passI0 (capital i + zero)	Turn off all inputs, inputs will not register on the unit
#passM	Request the connection status to server
#passS	Returns all inputs current state (high or low)
#passJ	Return all notification phone numbers saved on unit
#passK	Return password and units own number if stored
#passT	Request signal strength from unit (above 45% is good)
#passv	Return version and series of unit
#passt	Return current date and time saved in the unit
#passO (letter O)	Return output states (on or off)
#xxxxDD	Delete all stored drop-call numbers (requires special password from Fine)
#passA1	Activates relay one on the unit
#passB1	Activates relay two on unit
#passA0 (zero)	Deactivates relay one on unit
#passB0 (zero)	Deactivates relay two on unit
#passA2	Pulse relay one for programmed delay time
#passB2	Pulse relay two for programmed delay time
#passB	Request battery voltage from unit
#passADDNUM"+27...+27...+27..."	Add numbers to drop call list in unit, must include the two "" and start with +27
#passDELNUM"+27...+27...+27..."	Delete numbers from drop call list in unit, mut include the two "" and start with +27
#TIMESYNCYY/MM/DD,H:M:S :	This sets the time within the unit with YY – two-digit year, MM – Month, DD – Day and H – hours, M – minutes, S – Seconds