

# Wastewater Products



Nexcomm's wastewater products bring a new generation of technology to the industry. New capabilities allow station managers to see all aspects of station operation and to receive automatic alarms when something goes wrong. This allows managers and operators to address any issues before they become expensive problems.

Monitoring solutions are installed on existing panels. They are in weather-proof enclosures and mount next to the panel. Color coded wires land on existing terminals in the panel, making installation simple.

Smart panels have all monitoring and communications integrated, so no extra effort is required. They install like any other panel with no special tools required.

All wastewater products report to the Nexcomm website. The site can be a mixture of monitors and panels. An intuitive interface allows for a complete view of the stations.

## Benefits

- Monitoring only solutions for installation on existing panels
- Full panels with integrated connectivity for remote monitoring and control
- Smart panels install just like any other panel
- Monitors floats, motor fault, motor starts, motor run time, main power, motor current
- Wireless cellular connectivity
- Includes GPS for locating the station
- Customizable alarming triggers voice calls, email and text notifications, eliminating the need for a "good Samaritan" and removing a burden from property managers
- Alerts on high float, motor fault, loss of station power, excessive starts
- Internet connectivity allows monitoring from anywhere at any time
- Customizable web interface and dashboards to quickly show critical information



# Lift Station Panels

## Simplex LPSS Smart Panel



The LPSS smart panel offers monitoring and control of 0.5hp to 1hp pumps. It monitors three floats, pump fault, pump run time, pump starts, pump current draw, and HOA switch position. It controls the pump start, horn, and light. A battery backup provides power to the communications system in the event of power loss. Everything

is displayed on the Nexcomm website, allowing a quick view to the operation of the station. Alarms are configurable from the website, allowing the station manager to be alerted when something is wrong rather than having to check in every day.

### Specifications

- 0.5 to 1hp pumps
- Monitor floats, pump fault, pump starts, pump run time, pump current, HOA switch
- Control pump run, horn, light
- Website interface to view station operation
- Configurable alerts for set and forget operation
- Redundancies for basic operation in some fault conditions

Part Number	Description
LPS-ccc-000	Simplex LPSS Smart Panel

## Single Phase Simplex Smart Panel



The simplex smart panel offers monitoring and control of 7.5hp to 15hp pumps. It monitors three floats, pump fault, pump run time, pump starts, pump current draw, and HOA switch position. It controls the pump start, horn, and light. A battery backup provides power to the communications system in the event of power loss. Everything

is displayed on the Nexcomm website, allowing a quick view to the operation of the station. Alarms are configurable from the website, allowing the station manager to be alerted when something is wrong rather than having to check in every day.

### Specifications

- Up to 7.5hp pumps
- Monitor floats, pump fault, pump starts, pump run time, pump current, HOA switch
- Control pump run, horn, light
- Website interface to view station operation
- Configurable alerts for set and forget operation
- Redundancies for basic operation in some fault conditions

Part Number	Description
SPX-ccc-000	Single Phase Simplex Smart Panel



## Single Phase Duplex Smart Panels



The single phase duplex smart panels are available in two sizes for up to 7.5hp pumps and for up to 15hp pumps. They monitor four floats, pump fault, pump run time, pump starts, pump current draw, and HOA switch position. It controls the pump start, horn, and light. A battery backup provides power to the communications system in the

event of power loss. Everything is displayed on the Nexcomm website, allowing a quick view to the operation of the station. Alarms are configurable from the website, allowing the station manager to be alerted when something is wrong rather than having to check in every day.

### Specifications

- 7.5 to 15hp pumps
- Monitor floats, pump fault, pump starts, pump run time, pump current, HOA switch
- Control pump run, horn, light
- Website interface to view station operation
- Configurable alerts for set and forget operation
- Redundancies for basic operation in some fault conditions

Part Number	Description
DP1-ccc-000	Single Phase Simplex Panel

## 3-Phase Duplex Smart Panels



The three phase duplex smart panels are available for up to 25hp pumps at 240VAC. They monitor four floats, pump fault, pump run time, pump starts, pump current draw, and HOA switch position. It controls the pump start, horn, and light. The panel includes pump reverse operation using a manual switch as well as from the website. A

battery backup provides power to the communications system in the event of power loss. Everything is displayed on the Nexcomm website, allowing a quick view to the operation of the station. Alarms are configurable from the website, allowing the station manager to be alerted when something is wrong rather than having to check in every day.

### Specifications

- Up to 25hp, 240VAC pumps
- Monitor floats, pump fault, pump starts, pump run time, pump current, HOA switch
- Control pump run, horn, light
- Control pump reversing manually and remotely
- Website interface to view station operation
- Configurable alerts for set and forget operation
- Redundancies for basic operation in some fault conditions

Part Number	Description
DP3-ccc-000	3-Phase Duplex Panel

\*ccc = Motor Breaker Current, contact Nexcomm for options



# Monitoring Products

## LiftPoint Light



The LiftPoint Light monitors the ON / OFF state of four floats, monitors two CTs for motor current, and has two 4 to 20mA analog sensor inputs. The data is sent to the Nexcomm Systems cloud services using the new CAT-M1 cellular technology. Integrated battery backup keeps the LiftPoint Light alive in the event of power loss

to the station so that it can report the condition.

### Specifications

- 110VAC Input Power
- 4 AC Inputs; 110V
- 2 Analog Inputs, 4 to 20mA
- 2 Current Transformer (CT) Inputs, 1V
- CAT-M1 Cellular Modem
- GPS Positioning Services
- Integrated Battery Backup
- IP68 Polycarbonate Enclosure with Mounting Flanges

Part Number	Description
LPL-1II-00-N01-00	LiftPoint Light with LTE card, internal LTE and GPS antennas

## LiftPoint



The LiftPoint is the full-featured option to monitor all major functions of a wastewater lift station. It has sixteen 110V digital inputs, two 12V digital inputs, three CT inputs, and one 4 to 20mA input. Three relays and ten current sink outputs can control non-critical functions, such as activating or deactivating the horn or light.

Integrated battery backup keeps the LiftPoint alive in the event of power loss to the station so that it can report the condition. The LiftPoint also has an RS-485 channel for communication with digital sensors, PLCs or other controllers.

### Specifications

- 110VAC or 12VDC
- 3 card slots
- 16 AC Inputs
- 3 double throw relay outputs
- 1 RS-485 Channel
- 10 Digital Sinks
- 4 Analog Inputs (1x 4-20mA, 3x 4-20mA or 1V CT)
- CAT-1 Cellular Modem
- GPS Positioning Services
- Integrated Battery Backup
- IP68 Polycarbonate Enclosure with Mounting Flanges

Part Number	Description
EPI-AII-00-N04-000	120V LiftPoint with CAT-1 LTE card, internal LTE and GPS antennas, no Wi-Fi antenna, with battery backup



# Accessories

Nexcomm Systems offers several accessories for use with the smart panels and remote cellular sensor hubs. These offer improved performance and extended features, depending on the specific application and installation. Contact Nexcomm Systems for options and details.

## High Gain Antennas



Nexcomm Systems offers high gain antenna options for areas that don't have great cell phone coverage. These antennas mount on poles or Unistrut and can improve connection to the cellular network. Each of the antennas comes with a 10-foot extension cable. Contact Nexcomm Systems for antenna suggestions and installation guidance.

## Water Intrusion Relay



Nexcomm Systems simplex and duplex smart lift station panels include a socket for a water intrusion relay. If the pumps that are installed at a specific station include the water intrusion probes, the single or dual intrusion relays can be plugged into the socket to add additional monitoring capabilities to the panel.

## Solar Power System



For remote flowmeter applications that need a reporting interval that is faster than the typical 1 hour, Nexcomm Systems offers a solar power system accessory. This includes a 50W panel with a 12V, 18Ah battery and charger. This provides plenty of power for fast reporting intervals as well as additional sensors.

# Flow Meter Monitoring

Nexcomm Systems cellular sensor hubs can interface with a variety of water and wastewater flow meters for monitoring flow through a pipe. This can be used for metering, verification that a system is working, and leak detection. Contact Nexcomm Systems for flowmeter options.

## Ultrasonic Meters



Ultrasonic meters measure the flow through the pipe wall, so no drilling is required. There are several types of ultrasonic meters for different applications. Transit or time-of-flight meters are used for clean water. Doppler meters are used for dirty water. Open channel meters are used for partially filled pipes, channels, flumes, etc. The EdgePoint RTU as well as Nexcomm smart panels can read ultrasonic flowmeters over Modbus and report the measurements to the Nexcomm Cloud services.

## Turbine Meters



Turbine meters use a paddle wheel to measure flow. These are typically on clean and potable water lines. The EdgePoint RTU and EdgePoint tracker record the pulses from the turbine meter and report the measurements to the Nexcomm Cloud services.

## Insertion Meters



Insertion electromagnetic flowmeters measure the liquid velocity using an electromagnetic field. They have no moving parts, so are more robust than turbine meters. They are typically used in larger pipe diameters. The EdgePoint RTU as well as Nexcomm smart panels can read insertion flowmeters over Modbus and report the measurements to the Nexcomm Cloud services.

## EdgePoint RTU



The EdgePoint RTU is a cellular gateway and sensor hub for remote monitoring. Analog inputs provide a standard sensor interface to monitor things like level, pressure, or temperature. Two dry contact inputs are ideal for pulse flow meters and switches. A Modbus interface connects to digital devices, such as controllers, PLCs or

advanced meters. An integrated solar power option makes the EdgePoint RTU ideal for remote installation. It uses a CAT-M1 cellular link for greater range than previous systems. Housed in an IP67 enclosure, the EdgePoint RTU is ruggedized for outdoor environments.

### Specifications

- Solar Power Version
- External Power with Battery Backup Version
- 1 RS-232 Channel
- 1 RS-485 Channel
- 2 Latching Relays
- 1 I2C Channel
- 1 Dallas 1-Wire Channel
- 4 Inputs; 0-10V or 4-20mA
- 2 Digital Inputs, up to 30V
- 2 Dry Contact Inputs, 3.3V
- CAT-M1 Cellular Modem
- GPS
- 4.63 x 6.13 x 2.43 Inches
- Mounting Flange

Part Number	Description
RTU-1EI-00-N06-000	EdgePoint RTU with two switched inputs, two 4-20mA inputs, solar panel, LTE card, external LTE antenna connector and internal GPS antenna
RTU-1EI-00-N07-000	EdgePoint RTU with two switched inputs, two 4-20mA inputs, battery backup, LTE card, external LTE antenna connector and internal GPS antenna

## EdgePoint Tracker



The EdgePoint Tracker is a small cellular sensor hub that reports its GPS location on a configurable interval. It has a motion sensor that allows it to sleep until it detects movement. This allows it to last for years on a solar rechargeable 18650 battery.

It has a single analog input for monitoring sensors with a variable resistance, and a single dry contact input for sensors with a switch or pulse output. A single Dallas 1-Wire channel is used with digital sensors, such as temperature. This makes it ideal for remote monitoring of systems, such as meters, light stands, signs, generators and more.

### Specifications

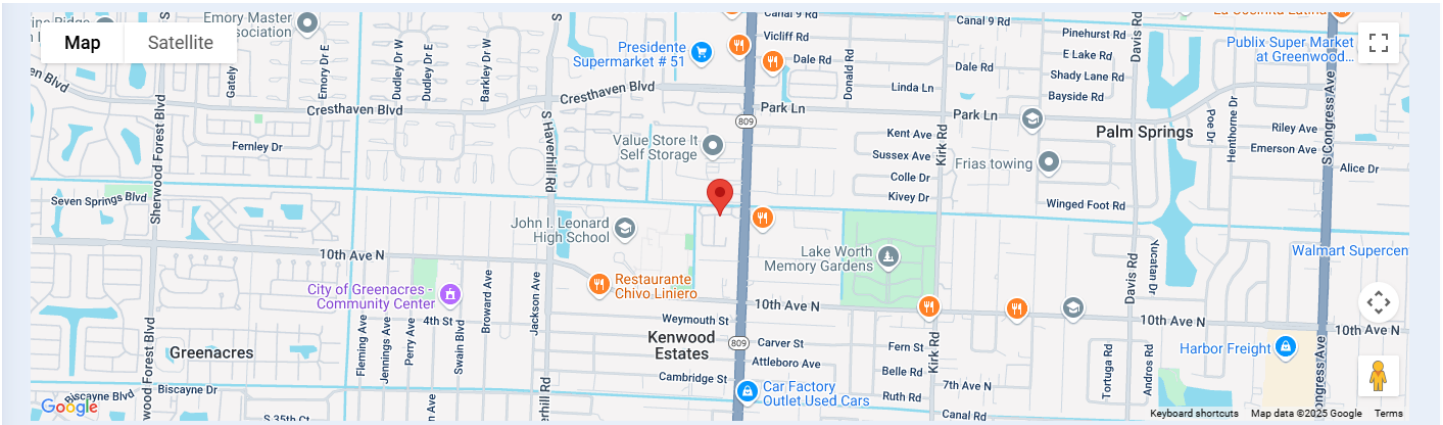
- Solar Powered
- Motion Sensor
- 1 Resistive Analog Input
- 1 Dallas 1-Wire channel
- 1 Dry Contact Input, 3.3V
- CAT-M1 Cellular Link
- GPS
- 4.50 x 2.63 x 2.05 Inches
- Mounting Flange

Part Number	Description
EPT-1II-00-N01-000	EdgePoint Tracker with LTE card, internal LTE and GPS antennas
EPT-1EI-00-N01-000	EdgePoint Tracker with LTE card, external LTE antenna, internal GPS antenna

# Monitoring Website

All Nexcomm Systems smart panels and products report to Nexcomm Systems cloud servers. They can be organized and monitored from an intuitive website. Each input on each device can be individually configured to generate an alert if it detects an anomaly. The alerts can be emails or text messages that are sent to a configurable list of users.

The site is highly customizable so it can be set up however makes the most sense for each customer. Contact Nexcomm Systems for a demonstration.



## Lift Station-Green Acres

### Liftstation-Green Acres

good

High Level Float



OnOff

Lag Float



OnOff

Lead Float



OnOff

OFF Float



OnOff

MS 1 Coil



OnOff

MS 2 Coil



OnOff

MS 1 OVERLOAD



OnOff

MS 2 Overload



OnOff

Phase Loss



OnOff

Power fail



1.52

Motor 1 Phase A CT



0.01

Amps

Motor 2 Phase B CT



0.05

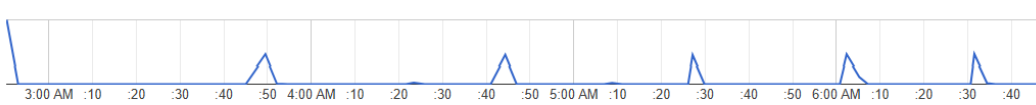
Motor 1 Starts  
12716.00

Motor 1 Run Time  
401397.00

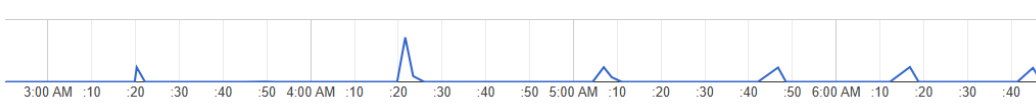
Motor 2 Starts  
12480.00

Motor 2 Run Time  
448135.00

Motor 1 Phase A  
CT  
0.01 Amps



Motor 2 Phase B  
CT  
0.05



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