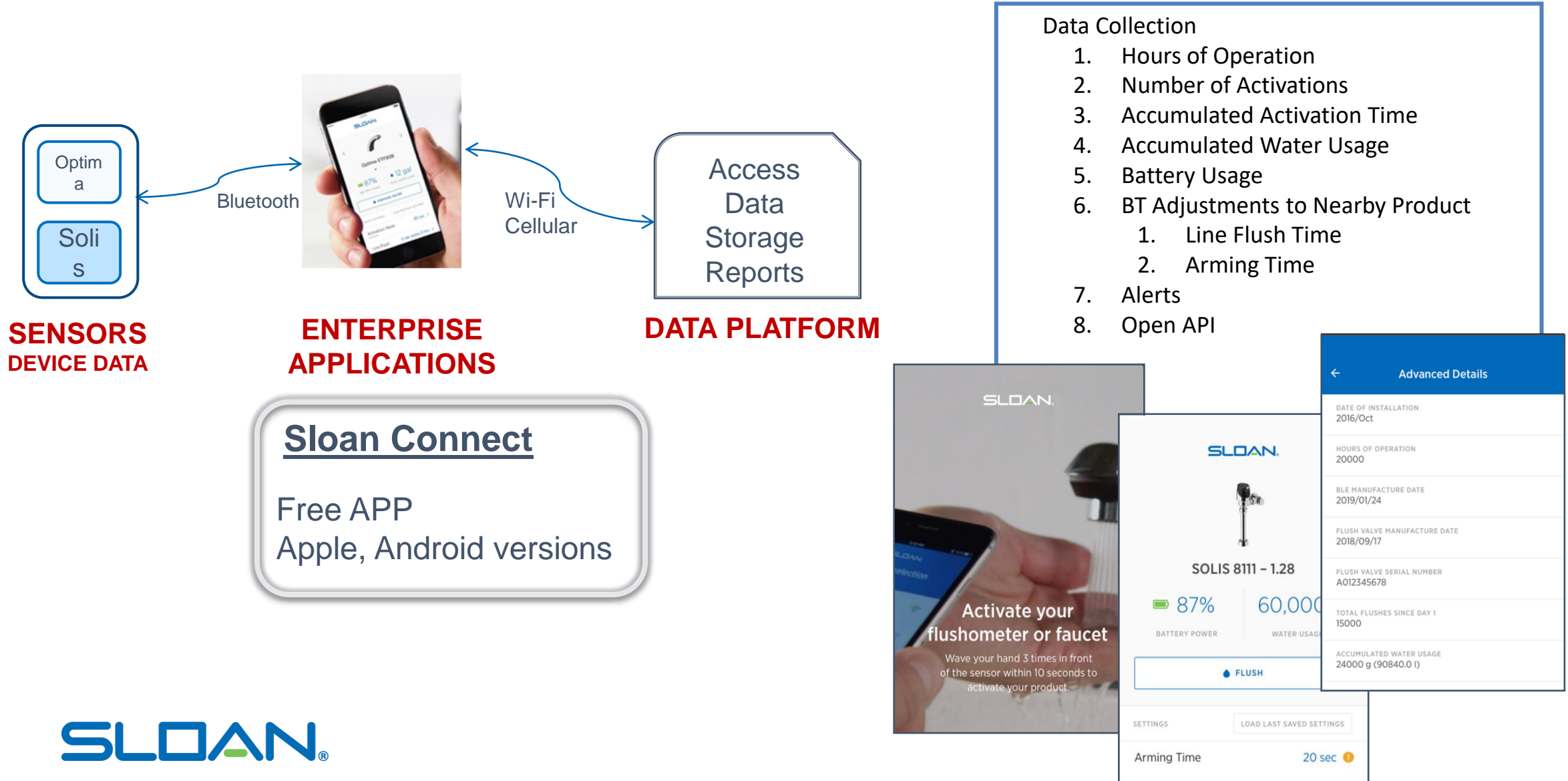




Smart and Connected Restrooms: Sloan SC Argus Pro Overview

December 2022

Sloan Connect®: Mobile APP Smart Solution



Moving From Connected to Smart

Sloan Connect

(Since August, 2018)

Local Person 

1 to 1 Communication 

Manual, Intermittent Collection 

Local Program, Diagnostics 

Stored Data 

SC Argus Pro

Remote Operation, Local Bridge

1 to Many Communication

Automatic, Regular Data Collection

Remote Program, Diagnostics

Delivered Information, Reports, Alerts

Device Monitoring & Management

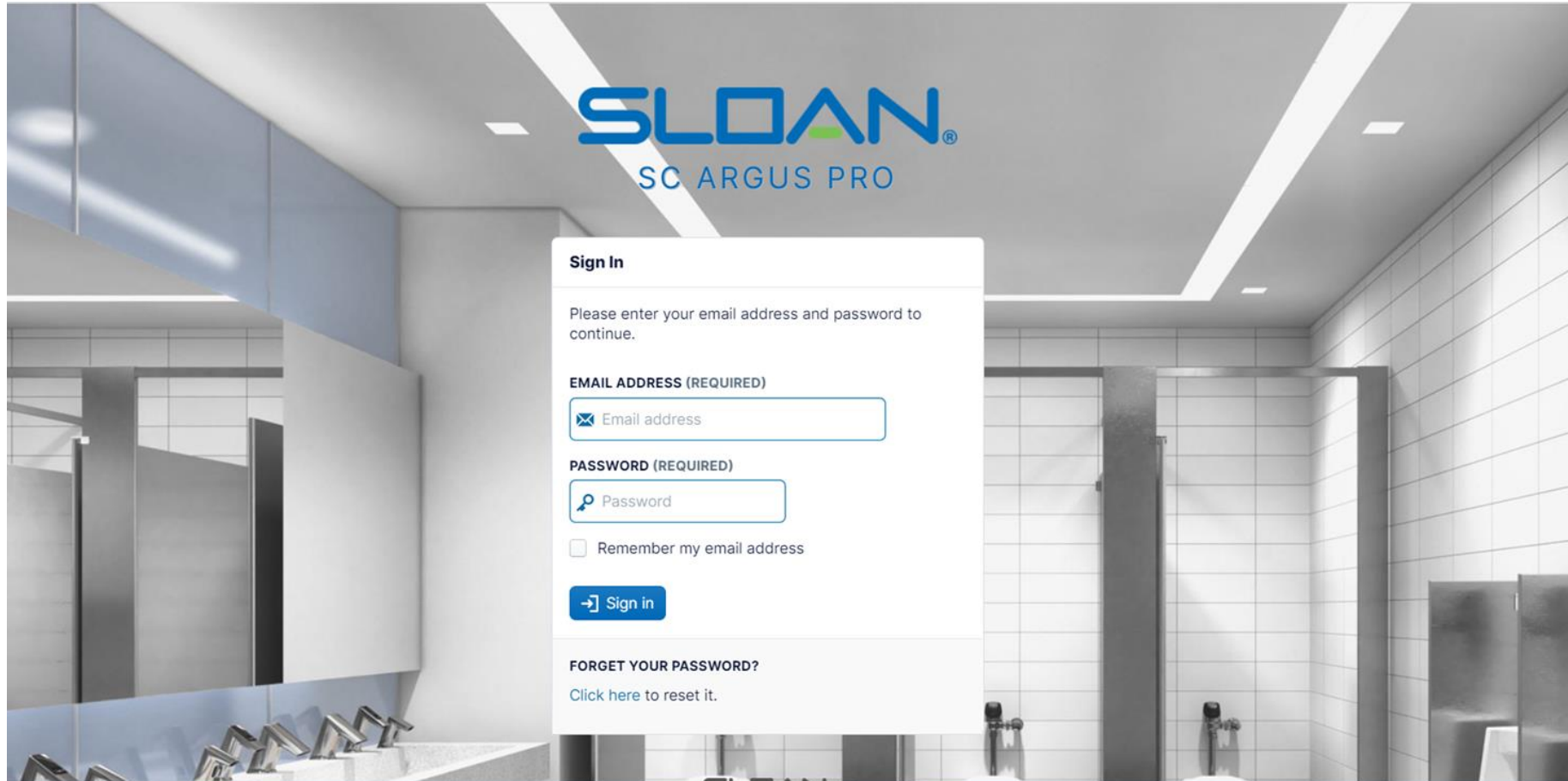
Sloan Smart Restroom

- Provides information about connected products
- Identifies potential issues before they occur
- Results in labor savings and cost efficiencies
- Increases customer satisfaction



Two Way Communication: Collects data from products, sends commands to products

Sloan's SC Argus Pro Smart and Connection Restroom Solution



Value to Customers

Smart Systems Provide Value from Labor Savings, Hygiene Aspects, Report Preparation



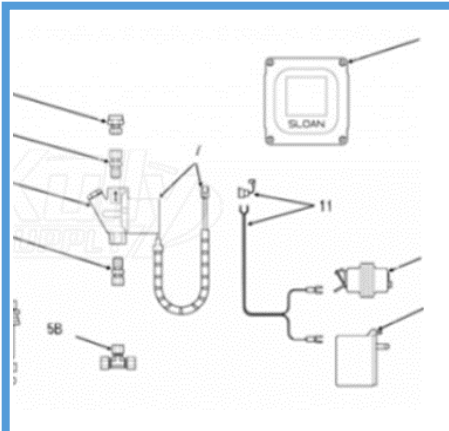
- Labor and Time savings
- Hygiene, health aspects
 - Line flush
 - Warm / hot water available early mornings
 - Hygiene ratios (faucet to toilet activations)
- Swift issue resolution through alarms, diagnostics
- Value of reports, usage trends & information

Time Savings



Preventative
Maintenance Timing

Monitor Key Usage
Comparisons for
Anomalies,



Taking correct part
first time



Battery replacement
time frames



Report Preparation



Line flush labor

Line Flush Benefits

AUTOMATIC LINE FLUSH
Last Reported: 2 weeks ago

Enabled

Flush for:
 seconds

Every:
 hours










- Minimizes chlorine build-up, stagnant water issues
- Helps prevent microbial growth in lines
- Averts flushometer leaks, issues caused by lack of use; parts drying out
- Keeps smelly gases and bugs from coming up through dry traps and bowls into the room causing health, sanitation issues

Report Preparation

- LEED – sub-metering by product, restroom, area
- Sanitary / Dept. of Health compliance reports by room, area
- Validates water savings from use of reclaimed water in toilets, urinals for rebates, etc.
- Reports to validate steps taken / did everything could to minimize risk
- Stay In Front of Regulatory Compliance Issues

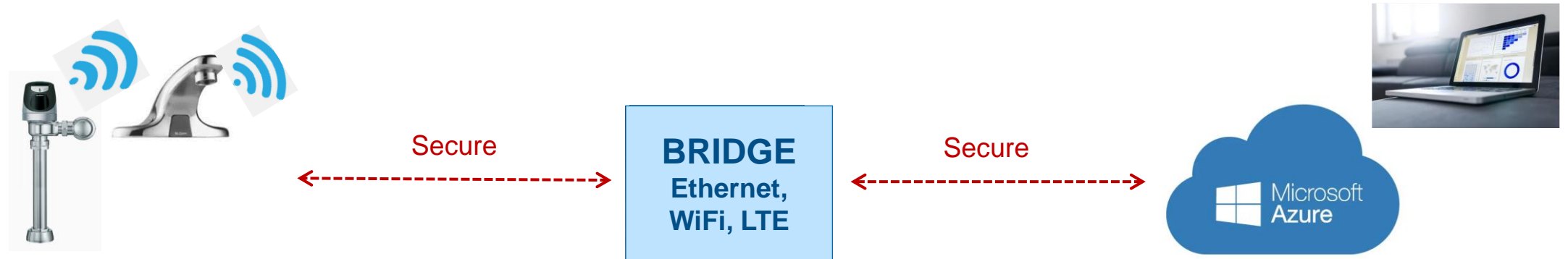
Reports

Please select from any of the reports shown below to learn more in-depth information about the devices installed in your facilities.

 Usage by Device Total activations and water consumption for every device.	 Usage, by Location Total activations and water consumption for every location.	 Alarms, by Device Total alarms for every device. Filter by time, device type and SKU.
 Alarms, by Location Total alarms for every location.	 Time Since Last Activation Timestamp of last activation for every device. Useful in locating infrequently used devices.	 Devices, by SKU Total SKUs per account.
 Hygiene Report Hygiene ration based on total faucet activations to fluhsometer activations.	 Battery Percentage Level Battery level of devices in a room, floor, area, or facility.	 Average Faucet Activation Time Faucet activation time in seconds.

Features and Capabilities

Sloan's IoT Smart Restroom Solution



Products

IoT Faucets
IoT Flushometers

Bridge

Bridge for Each Restroom Group
Automatic Data Collection
1 to Many Communication

SaaS - Cloud-Based Management System

Remote Device Mgt
Predictive Analytics
Alerts
Reports

Two-way communication: Data is sent from products and commands are sent to products

Smart Restroom Features

Features

- Dashboard giving a quick overview of functionality
- Four levels of facility layout
- Product detail pages, diagnostics, battery level information
- Usage and data analytics
- Programmable line flushes with automatic interaction
- Customized Reports
- Alerts with email, text notifications

Management Capabilities

- Three user profiles
- Automatic access expiration for contractors
- Audits of product, user activity
- Monitor alarm to acknowledge to resolve time cycles
- Real time insights

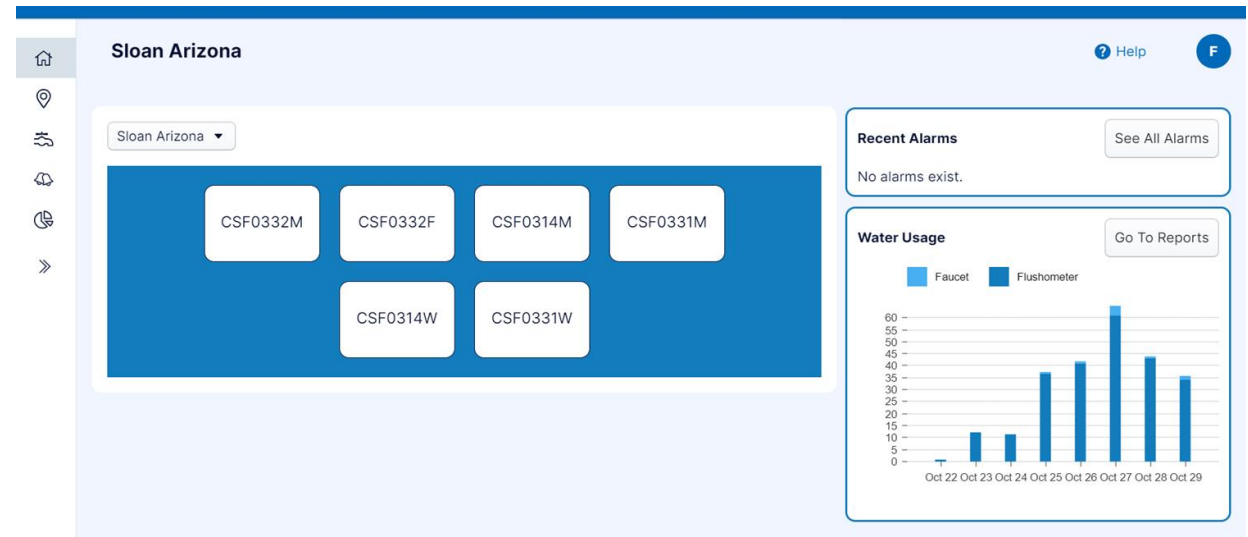
Security Measures

- User login
 - Invitation only
 - Password protection
 - Feature access control
 - Expiration date for contractors
- Data and Command Security
 - Encryption
 - Unique SecRemote technology
 - Wireless protocol not supported by phones – more difficult to hack
- Microsoft Azure security- SOC II compliant



Provides Remote Management and Control of Sloan Products

- Dashboard
 - Facility View
 - Recent Alarms
 - Water Usage Trend
- 4 Levels of Locations
- Devices Set-up and Management
- Alarms
- Reporting
- Built in Help, FAQs, Product documentation



Report Preparation

- LEED – sub-metering by product, restroom, area
- Sanitary / Dept. of Health compliance reports by room, area
- Validates water savings from use of reclaimed water in toilets, urinals for rebates, etc.
- Reports to validate steps taken / did everything could to minimize risk
- Stay In Front of Regulatory Compliance Issues

The screenshot displays a 'Reports' dashboard with a grid of report cards. Each card includes an icon, a title, and a brief description of the report's content.


Report Title	Description
Usage by Device	Usage by Device report shows total activations and water consumption for every individual device.
Usage by Location	Usage by Location report shows total activations and water consumption for every location.
Alarms by Device	Alarms by Device report shows total alarms for every device. Filter by time, device type and SKU.
Alarms by Location	Alarms by Location report shows total alarms for every location.
Time Since Last Activation	Time Since Last Activation report shows a timestamp of last activation for every device. Useful in locating infrequently used devices.
Devices by Model	Devices by Model report shows total device models per account.
Hygiene Report	Hygiene Report shows hygiene ration based on total faucet activations to flushometer activations.
Battery Percentage Level	Battery Percentage Level report shows battery level of devices in a room, floor, area or facility.
One-Hundredth Activation	One-Hundredth Activation report shows the timestamp of the 100th activation for every device.
Average Faucet Activation Time	Average Faucet Activation Time report shows faucet activation time in seconds.
Bridge Listing	Bridge Listing report shows all bridges belonging to this account.

Thank You!

Faye L. Badger
Product Line Manager, IoT
Faye.Badger@Sloan.com

Faucet Detail

Product Information



Optima® Hardwired-Powered Deck-Mounted Mid Body Faucet

SKU: ETF-80 DONGLE SERIAL NUMBER: SRS-025825663744

REGISTERED (UTC): February 26, 2020, 1:23 AM OPERATING HOURS SINCE INSTALLED: 786

TOTAL ACTIVATIONS: 445

INSTALLED LOCATION: Franklin Park / Main Floor / Shop Floor / Foreman's Locker Room

[Relocate Device](#)

DEVICE CONDITION

✓ The device is operating normally.

BATTERY LEVEL

100%

Daily battery level (up to last 180 days)

AVG. DAILY ACTIVATIONS

6.27

Activations/day (up to last 30 days)

Diagnostic Tools

[Status](#) [Settings](#) [Actions](#)

HUB CONNECTIVITY
Last Reported: 10 minutes ago
Connected

SIGNAL STRENGTH
Last Reported: 10 minutes ago
-46 dBm








SENSOR STATUS
Last Reported: 1 month ago
Normal

VALVE STATUS
Last Reported: 1 month ago
Normal

Last 5 Alarms

ALARM	STATUS	OCCURRED
20200325-2CD8	OPEN	2 weeks ago
20200325-CB79	OPEN	2 weeks ago


Flushometer Detail

Device Information

The Solis Flushometer is a solar powered, sensor operated flush valve. It operates by means of an infrared sensor that detects use and automatically flushes itself. It also contains special sensors that collect information on its use, battery power level and can perform diagnostics. The Solis Smart Flushometer also includes a secure wireless communication module to send the data to the Smart Restroom solution.

Product Information



SOLIS® Exposed Sensor Water Closet Flushometer

SKU
SOLIS 8111-1.6

REGISTERED (UTC)
February 26, 2020, 1:42 AM

TOTAL ACTIVATIONS
1,577

INSTALLED LOCATION
Franklin Park / Main Floor / Shop Floor / S Womens Restroom

[Relocate Device](#)

DEVICE CONDITION

✔ The device is operating normally.

BATTERY LEVEL


80%

Insufficient data

Daily battery level (up to last 180 days)

AVG. DAILY ACTIVATIONS

12.27



Activations/day (up to last 30 days)

Diagnostic Tools

[Status](#) [Settings](#) [Actions](#)

HUB CONNECTIVITY
Last Reported: 7 minutes ago

Connected

SIGNAL STRENGTH
Last Reported: 7 minutes ago

-58 dBm

SENSOR STATUS
Last Reported: 5 months ago

Normal

VALVE STATUS
Last Reported: 5 months ago

Normal

Last 5 Alarms

ALARM	STATUS	OCCURRED
20200503-1078	RESOLVED	2 months ago
20200503-2789	RESOLVED	2 months ago
20200503-D40F	RESOLVED	2 months ago
20200503-601C	RESOLVED	2 months ago
20200325-BECE	RESOLVED	4 months ago