

# EcoStruxure Data Logger 4G LTE Wireless Remote Monitor

## Product Specification Sheet

PSS DLLTE PR  
DLLTE LT  
DLLTE IS  
On Premise Architecture

Release date July 1, 2021



PR Version



IS Version



LT Version

<http://www.se.com>

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## Features

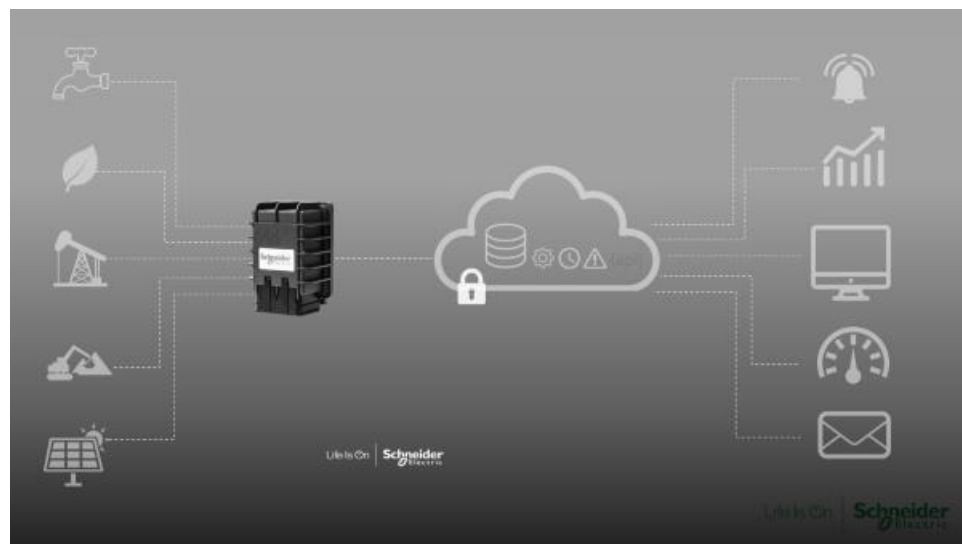
EcoStruxure™ Process Instrumentation's Data Logger 4G LTE offers simplified installation, integrated diagnostics, long battery lifetime, remote communication options, and low overall maintenance for remote location installations. Dominant IIoT solution in the infrastructure market for creating cyber-secure, plug-and-play, affordable smart infrastructure networks.

Key features include:

- Cloud-based hosting and an intuitive user-interface to secured and streamlined SCADA connectivity, the Data Logger delivers data directly where it is needed. Integrating with models, analytics, and business intelligence solutions has never been easier.
- Low-power and predictive analysis algorithms result in up to 30% extended battery life.
- Redundant communication concurrently supports LTE (4G), 3G, 2G, NB-IoT and Bluetooth connectivity through the mobile app.
- Molded polycarbonate enclosure with IP 68 / NEMA 6P waterproofing rating allows for installation in the most corrosive and aggressive of environments, in both industrial and commercial applications.
- Data Loggers are embedded in every layer from the ground up with the most advanced cyber-security technology, including sensor authentication and data encryption.
- The Data Logger provides the option to receive alerts in case of an urgent or unusual event.
- The Data Loggers are sensor-agnostic, utilizing various configurations of sensors and samplers. They are easily installed and operating within minutes.

## Cloud Architecture

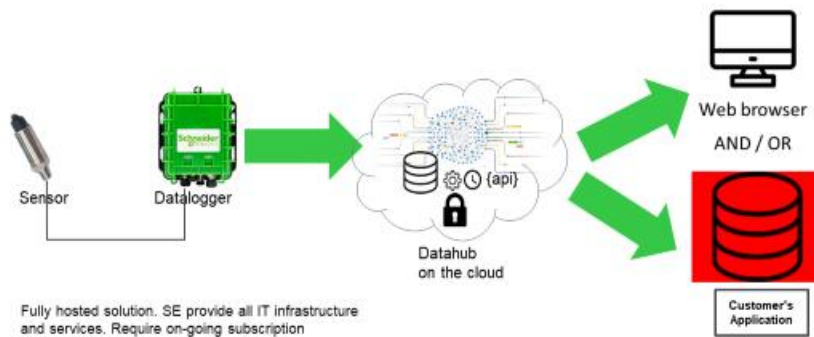
- The Data Logger is truly an IIoT device utilizing cellular technology to provide data to the cloud, the data can be visualized via a web-based URL. The customer has access to information to make decisions based on data provided in the browser. The site can generate reports that allow the customer to analyze historical information to determine possible trends and make decisions accordingly. The hub opens opportunity not previously accessible by conventional wired devices.
- A simple web interface EcoStruxure™ Process Instrumentation's Data Logger 4G LTE offers simplified installation, integrated diagnostics, long battery lifetime, remote communication options, and low overall maintenance for remote location installations.
- Dominant IIoT solution in the infrastructure market for creating cyber-secure, plug-and-play, affordable smart infrastructure networks.



## On-Premise Architecture

The Schneider Electric Data Logger 4G LTE is an ultra-low-power, fully autonomous, wireless telemetry device that operates best-of-class sensors. The sampled sensor data is collected, transmitted securely, and then stored on a customer's on-premises server. Data Loggers are remotely configurable, and data can be visualized and managed via a streamlined user interface providing integration into SCADA or other customer software systems. There are three different options of on premises depending on the customer requirements. The options are shown below, a brief comparison table is also provided for additional information and available options.

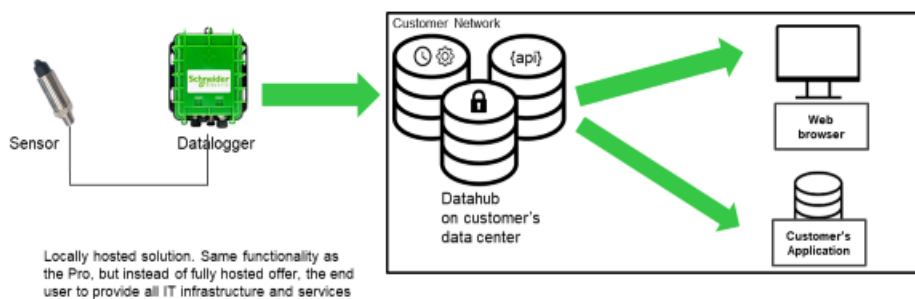
### System Architecture – Datahub Pro



Confidential Property of Schneider Electric



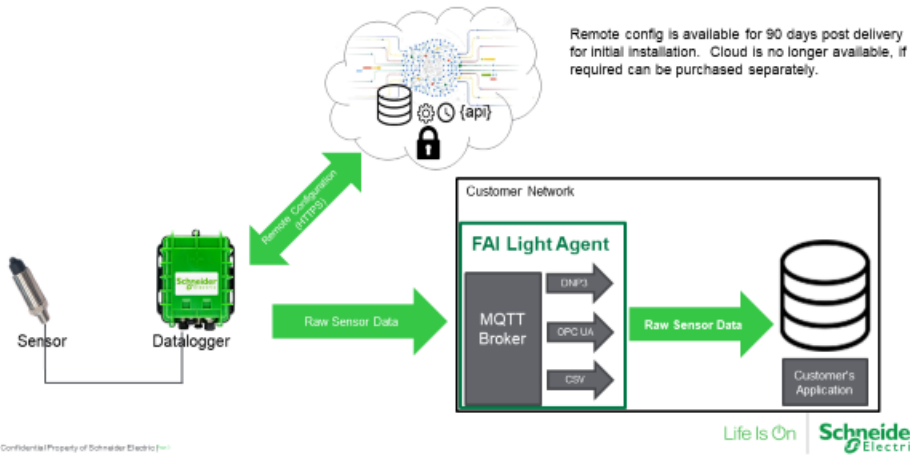
### System Architecture – Datahub Remote



Confidential Property of Schneider Electric



### System Architecture – Datahub Lite



	Data Hub Pro		Data Hub Remote		Data Hub Lite	
Scope/Feature		Architecture with Feature		Architecture with Feature		Architecture with Feature
Fleet Management	Included	Cloud	Included	On Premise	Optional	Cloud
Visualization-Data Hub	Included	Cloud	Included	On Premise	NOT AVAILABLE	N/A
Edge Device Sensor Data	Included	Cloud	Included	On Premise	Available	On Premise
SIM Card	Included or Customer Supplied	Cloud	Customer Provided	On Premise	Included or Customer Supplied	On Premise
MQTT Client	Included	Cloud	Included	Cloud	Included	On Premise
Platform(Software) Updates Security Enhancements and Upgrades	Included	Cloud	Optional Selection	N/A	Optional	N/A
Firmware Updates Security Enhancements and Upgrades	Included	Cloud	Optional Selection	N/A	NOT AVAILABLE	N/A
Edge Device Setup via BLE app	Included	On Site	Included	On Site	Included	On Site
REST API	Included	Cloud	Included	On Premise	NOT AVAILABLE	N/A
Technical Support	Included	Provided per standard T&C's	NOT INCLUDED	Ability to purchase support hours	NOT AVAILABLE	Ability to purchase support hours

## Feature Comparison



## Value Proposition

The Data Logger is a telemetry device allowing for the monitoring of remote assets providing critical data that was once difficult or impossible to retrieve. The Data Logger 4G LTE is an ultra-low-power, fully autonomous wireless device that operates best-of-class sensors. The sampled sensor data is collected, transmitted securely, and then stored on a secure cloud-server or a customer's on-premises server.

### No Data = Pain to our customers

**Our solution to ease the pain is to improve visibility through digitalization**

The Data Logger is truly an IIOT device utilizing cellular technology to provide data from remote assets and provide the customer the capability to analyze data and make decisions that facilitate efficient and effective operations.

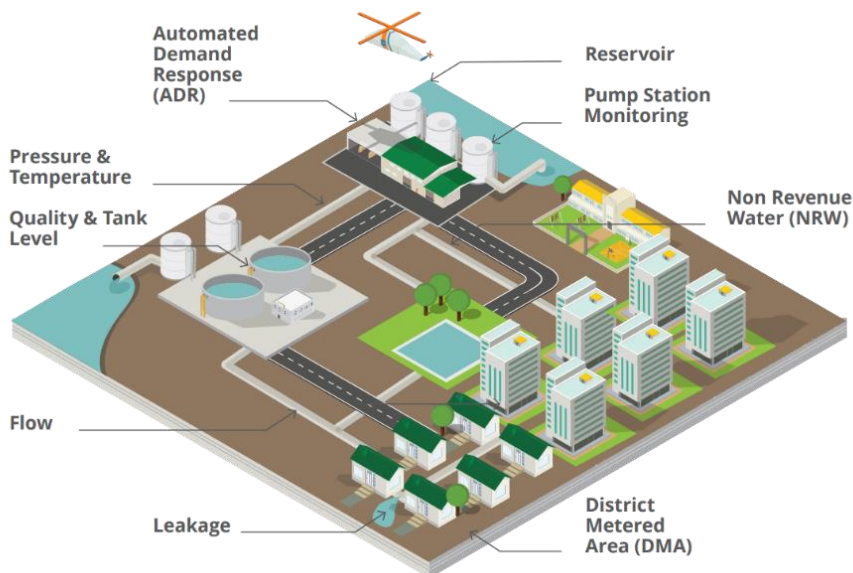


## Target Applications

For all remote data acquisition, the Schneider Electric 4G LTE datalogger is a perfect solution for monitoring your measured values. In specific cases the unit can be programmed as a Remote-Control unit for e.g. steering pumps, lights or valves. The target markets below give examples of applications where the unit can be deployed.

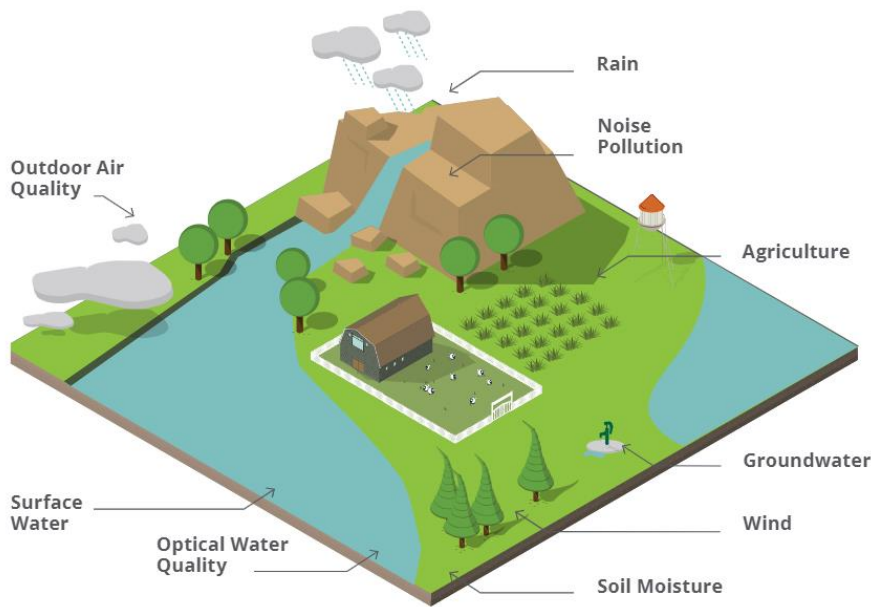
### Drinking Water Applications

Effective management of water networks, including reservoirs, distribution pipelines, control valves, and supply tanks is essential to public health and improved customer satisfaction. Remote monitoring enables operators to optimize pressure, reduce energy consumption, decrease non-revenue water (NRW), and ensure compliance with water quality regulations.



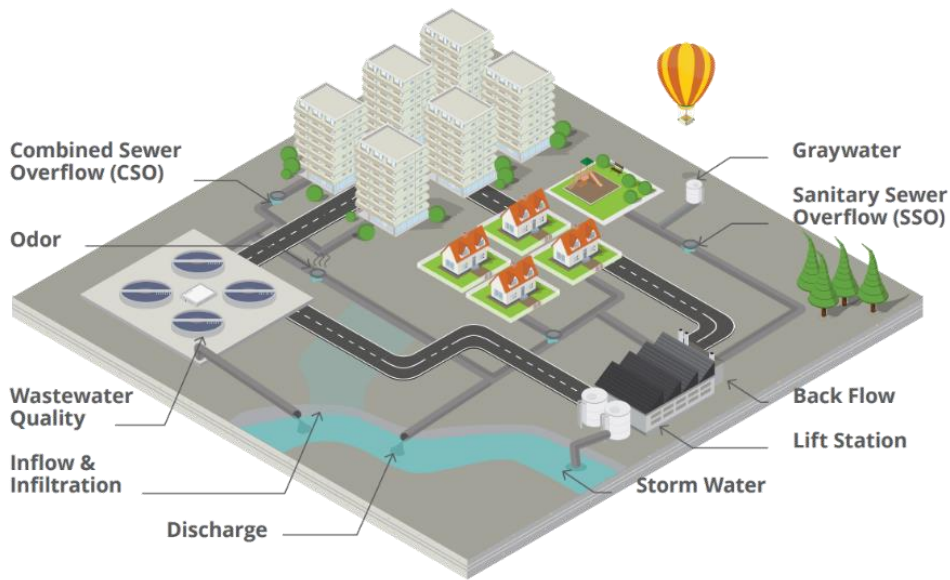
## Environmental Applications

In compliance with environmental protection agency (EPA) and government regulation, organizations are responsible for ongoing monitoring of air quality, noise levels, surface water levels, soil and water quality, and more. Accurate assessment of the impact of operations on natural resources is critical to determining sustainable ecosystem management strategies.



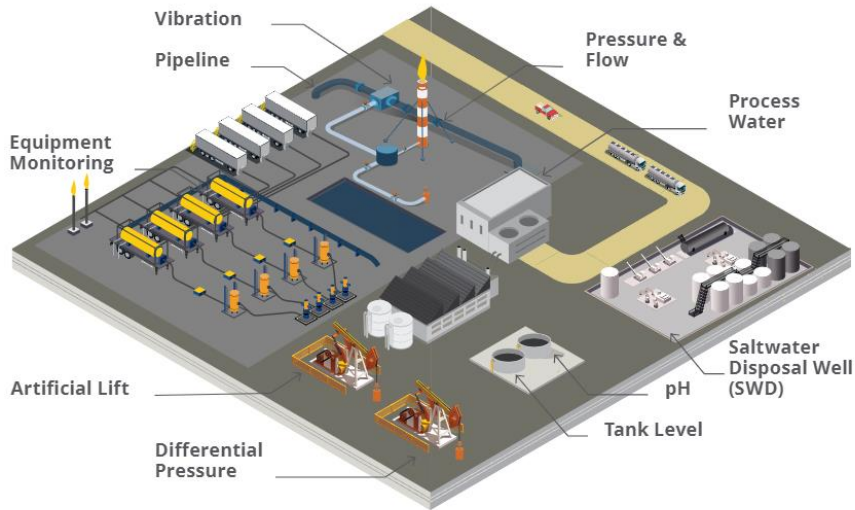
## Wastewater Applications

Critical to the prevention of public health and safety hazards, smart, real-time wastewater management includes monitoring water levels to prevent pollution and costly sewer overflow, identifying the presence of corrosive gases before they damage infrastructure, identifying pump failures and pinpointing other emergencies at lift stations and elsewhere.



## Oil and Gas Applications

Data from remote upstream, midstream, and downstream assets enables operators to increase production, reduce downtime, and mitigate health and safety risks. Near-real-time measurements of pressure and flow help improve productivity throughout the life cycle of oil and gas development and in the distribution network. Schneider Electric offers ideal solutions for connecting stranded I/O to web applications and SCADA systems.



# Specifications

## DLLTE-PR

### Data & Software

Data Hosting	Secure Cloud or On-Premises <sup>1</sup>
Cyber-Security	TLS 1.2 Protocol (AES-256 AES data encryption)
Software Integration	REST API
SCADA Integration	CSV, DNP3, OPC-UA
Management Platform	Web-based from desktop, tablet, and mobile
Data Export Options	CSV (Excel Reports)
Device Memory	8 GB
Data Communication	Two-way
Alarm Threshold	Up to 4 per data stream
Alert Notification	Email and / or SMS
System Health Check	Included

### Power

Primary Power Supply	Internal Lithium Battery (field-replaceable and non-rechargeable), 3.9V DC 3A
Internal Battery Capacity	32Ah
Operational Run Time	Up to 5+ years <sup>2</sup>
Battery Status Notifications	Included
External Power	Solar and line power; automatic power source switching (connected through M8 connector not included)
Voltage Input	6-24VDC

### Sensor Integration

Sensor Ports	3 ports; supports up to 12 sensors using cable splitters (not included ordered as accessory)
Sensor Position	External Hard-Wired (connected through M12 Connectors, included)
Serial Interfaces	RS485, RS232, SDI-12
Serial Protocols	Modbus RTU, ASCII
Serial Channels	Up to 16
Analog Channels	Up to 4 (4-20 mA, 0-24 V)
Discrete Channels	Dry contact, open collector
	Up to 5 total inputs (up to 2 pulse counting)
	39Hz max pulse frequency
	Up to 5 outputs, 0V/2.8V
	Maximum 3 outputs to be used at the same time.
Sensor Power Supply Output	350mA, 3.6V/12V

<sup>1</sup>Pricing to be determined on a case by case basis

<sup>2</sup>Battery lifetime depends on sensor power consumption and sampling and transmission frequency

## Connectivity

Cellular	4G/3G/2G
SIM	Dual SIM (provided)
Cellular Roaming	Global multi-network networks in 180+ countries
Configuration	OTA, Bluetooth (BLE with mobile app)
Data Transmission	Periodic optional plans available
Antenna	Internal (magnetic mount external antenna included) other options available for purchase
GPS	Included

## Mechanical Enclosure

Dimensions (W x H x D)	13.2cm x 15.5cm x 7.3cm, 5.2in x 6.5in x 2.9in
Weight	0.9kg, 2.0lbs
Enclosure Material	Polycarbonate with ABS (UI 94V and UV resistant)
Ingress Protection	IP 68 / NEMA 6P
Operating Temperature	-40C to +80C, -40F to +176F
Storage Temperature	-40C to +80C, -40F to +176F

## Certifications

Safety	EN 61010-1 2010, IEC 61010-1
FCC	FCC Part 15 Subpart B
EMC	EN 301 489-1 V2.1.1 2017 EN 301 489-7 V1.3.1 2005 EN 301 511 V12.5.1 2017 EN 301 908-1 V11.1.1 2016
Spurious Emissions	EN 60529:1992+A2:2013
Radiated Emissions	IEC 60529:1989/AM1:1999
Ingress Protection	
CE	Approved

## DLLTE-LT

### Data & Software

Data Hosting	Secure Cloud or On-Premises <sup>1</sup>
Cyber-Security	TLS 1.2 Protocol (AES-256 data encryption)
Software Integration	REST API
SCADA Integration	CSV, DNP3, OPC-UA
Management Platform	Web-based from desktop, tablet, and mobile
Data Export Options	CSV (Reports), FTP
Device Memory	Up to 250,000 samples
Data Communication	Two-way
Alarm Threshold	Up to 4 per data stream
Alert Notification	Email, SMS
System Health Check	Included

### Power

Primary Power Supply	Internal Lithium Battery (field-replaceable and non-rechargeable), 3.9V DC 3A
Internal Battery Capacity	32Ah
Operational Run Time	Up to 5+ years <sup>2</sup>
Battery Status Notifications	Included
External Power	automatic power source switching (connected through M8 connector not included)
Voltage Input	6-24VDC

### Sensor Integration

Sensor Ports	1 port; supports up to 4 sensors using cable splitters (not included ordered as accessory)
Sensor Position	External Hard-Wired, (Connected through M12 connectors included)
Serial Interfaces	RS485, RS232
Serial Protocols	Modbus RTU, ASCII
Serial Channels	Up to 16
Analog Channels	2 (4-20 mA, 0-24 V)
Discrete Channels	2 Dry contact, open collector, pulse counting 39Hz max pulse frequency
Digital output channels	2 at, 0V/2.8V
Sensor Power Supply Output	350mA, 3.6V/12V

<sup>1</sup>Pricing to be determined on a case by case basis

<sup>2</sup>Battery lifetime depends on sensor power consumption and sampling and transmission frequency



## Connectivity

Cellular

US: CAT-M (4G), EU: CAT-M & NB-IoT(4G) 2G, Rest of World 4G, 2G

SIM

Single SIM (provided)

Cellular Roaming

Global multi-network networks in 180+ countries

Configuration

OTA, Bluetooth (BLE)

Data Transmission

Periodic optional plans available

Antenna

External (Included)

## Mechanical Enclosure

Dimensions (W x H x D)

13.2cm x 15.5cm x 7.3cm, 5.2in x 6.5in x 2.9in

Weight

0.9kg, 2.0lbs

Enclosure Material

Polycarbonate with ABS (UI 94V and UV resistant

Ingress Protection

IP 68 / NEMA 6P

Operating Temperature

-40C to +80C, -40F to +176F

Storage Temperature

-40C to +80C, -40F to +176F

## Certifications

Safety

EN 61010-1 2010, IEC 61010-1

FCC

FCC Part 15 Subpart B

EMC

EN 301 489-1 V2.1.1 2017

EN 301 489-7 V1.3.1 2005

EN 301 511 V12.5.1 2017

EN 301 908-1 V11.1.1 2016

EN 60529:1992+A2:2013

IEC 60529:1989/AM1:1999

Spurious Emissions

Radiated Emissions

Ingress Protection

CE

Approved

**DLLTE-IS****Data & Software**

Data Hosting	Secure Cloud or On-Premises <sup>1</sup>
Cyber-Security	TLS 1.2 Protocol (AES-256 data encryption)
Software Integration	REST API
SCADA Integration	CSV, DNP3, OPC-UA,
Management Platform	Web-based from desktop, tablet, and mobile
Data Export Options	CSV (Reports)
Device Memory	8 GB
Data Communication	Two-way
Alarm Threshold	Up to 4 per data stream
Alert Notification	Email, SMS
System Health Check	Included

**Power**

Primary Power Supply	Internal Lithium Battery (field-replaceable and non-rechargeable), 3.9V DC 3A
Internal Battery Capacity	32Ah
Operational Run Time	Up to 5+ years <sup>2</sup>
Battery Status Notifications	Included
External Power	6 – 12VDC; automatic power source switching (connected through M8 connector not included)

**Sensor Integration**

Sensor Ports	3 ports; supporting serial, analog and digital inputs
Sensor Position	External Hard-Wired
Serial Interfaces	RS485, RS232
Serial Protocols	Modbus RTU, ASCII
Serial Channels	Up to 16
Analog Channels	3(4-20 mA, 0-24 V)
Discrete Channels	3 Dry contact, open collector
	Up to 3 total inputs (up to 2 pulse counting)
	39Hz max pulse frequency
	Up to 3 outputs, 0V/2.8V
	Maximum 3 outputs to be used at the same time.
Sensor Power Supply Output	350mA, 12V

<sup>1</sup>Pricing to be determined on a case by case basis

<sup>2</sup>Battery lifetime depends on sensor power consumption and sampling and transmission frequency

## Connectivity

Cellular	4G/3G/2G
SIM	Dual SIM (provided)
Cellular Roaming	Global multi-network networks in 180+ countries
Configuration	OTA, Bluetooth (BLE with mobile app )
Data Transmission	Periodic optional plans available
Antenna	Internal (magnetic mount external antenna included) other options available for purchase
GPS	Included

## Mechanical Enclosure

Dimensions (W x H x D)	13.2cm x 15.5cm x 7.3cm, 5.2in x 6.5in x 2.9in
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Operating Temperature	-40C to +80C, -40F to +176F
Storage Temperature	-40C to +80C, -40F to +176F

## Certifications

EX approvals	Class 1 Div 1 Zone 0 ATEX Zone 0 IECEX
Safety	EN 61010-1 2010, IEC61010-1
FCC	FCC Part 15 Subpart B
EMC	EN 301 489-1 V2.1.1 2017 EN 301 489-7 V1.3.1 2005 EN 301 511 V12.5.1 2017
Spurious Emissions	EN 301 908-1 V11.1.1 2016
Radiated Emissions	EN 60529:1992+A2:2013 IEC 60529:1989/AM1:1999
Ingress Protection	
CE	Approved

# OFFER ORDERING GUIDELINES

Selection		
<b>FUNCTION:</b>		
DLLTE	Data Logger	This is the base part number for the Data Logger
<b>VARIANT:</b>		
PR	Premium	Select the required version based on the application(see data sheet)
IS	Intrinsic Safe	
LT	Lite	
<b>ON PREMISE:</b>		
1	On Premise Solution	Select either option 1 or 2 not both
2	Cellular Cloud Based Solution	
<b>SIM APPLICATION:</b>		
1	Manufacturer supplied SIM	Select either option 1 or 2 not both
2	Customer provided SIM	
<b>SENSOR CHANNEL 1:</b>		
M	Used	Depending on the number of sensors to be connected to the data logger
G	Not Used	select either M or G on each channel (if 2 sensors are used select M on Channel 1and Channel 2, all other channels select G)
<b>SENSOR CHANNEL 2:</b>		
M	Used	
G	Not Used	
<b>SENSOR CHANNEL 3:</b>		
M	Used	
G	Not Used	
<b>SENSOR CHANNEL 4:</b>		
M	Used	
G	Not Used	
<b>SENSOR CHANNEL 5:</b>		
M	Used	
G	Not Used	
<b>SENSOR CHANNEL 6:</b>		
M	Used	
G	Not Used	
<b>SENSOR CHANNEL 7:</b>		
M	Used	
G	Not Used	
<b>SENSOR CHANNEL 8:</b>		
M	Used	
G	Not Used	
<b>SENSOR CHANNEL 9:</b>		
M	Used	
G	Not Used	
<b>SENSOR CHANNEL 10:</b>		

M	Used	
G	Not Used	
<b>SENSOR CHANNEL 11:</b>		
M	Used	
G	Not Used	
<b>SENSOR CHANNEL 12:</b>		
M	Used	
G	Not Used	
<b>ON PREMISE FEES AND OPTIONS:</b>		
1	Datahub Pro	If the on premise is chosen, you can then select the appropriate
2	Datahub Remote	architecture for the application.
3	Datahub Lite	
N	None	
<b>OPTIONS:</b>		
1	Setup Fee Option	If you require assistance with the set up you can choose here.
2	Firmware Update Option	You can choose either firmware or software updates if
3	Software Update Option	required for the application.
A	None	

It is important to provide the following information for accurate product pre-configuration and delivery.

- Customer Tag
- Customer Type
- Data Hub Account Name
- Administrator E-Mail
- Installation Country
- End Users
- Integrator
- Sales Representative
- Sensor Model
- Sensor Type
- Sensor Range
- Sensor Protocol
- Engineering Unit
- Wake Up Time

**Note** it is important to complete all information for accurate set up of the account, administrator and configuration of the data logger. It is key to include the account name and administrator email. Please review the ship to information to ensure accuracy.

## DATA PLAN SELECTION

If the cellular based cloud solution is selected, a data plan must also be selected. The plan includes data, SIM card and 30 SMS per month. The plan can be customized based on the reporting preference. The following are options provided with each of the variants for data service:

### DLDS – Base Part Number

DLDS-B	One report every 12 Hours
DLDS-C	One report every 4 Hours
DLDS-D	One report every Hour

## Accessories

<a href="#">WA00260</a>	POWER BOOSTER ANALOG	<a href="#">WA00268</a>	POWER BOOSTER SERIAL
<a href="#">WA00170</a>	M8 3 PIN FEMALE CONNECTOR	<a href="#">WA00222</a>	CELLULAR IN ROAD ANTENNA
<a href="#">SE00011-ACC-1</a>	ULTRASONIC MTG KIT	<a href="#">WA00154-NAM</a>	SOLAR PANEL ASSEMBLY
<a href="#">SE00169-SER-IS-11 IS</a>	ULTRASONIC SENSOR	<a href="#">SE241-SER-10</a>	ULTRASONIC SENSOR
<a href="#">WA00220</a>	CELLULAR ANTENNA	<a href="#">WA00182</a>	INTERNAL BATTERY PACK
<a href="#">WA00183</a>	M12 8 FEMALE CONNECTOR	<a href="#">WA00168</a>	M12 8 MALE CONNECTOR
<a href="#">WA00158</a>	2 PORT ANALOG SPLITTER	<a href="#">WA00157</a>	4 PORT ANALOG SPLITTER
<a href="#">WA00156</a>	2 PORT SERIAL SPLITTER	<a href="#">WA00155</a>	4 PORT SERIAL SPLITTER
<a href="#">WA00146</a>	2 PORT DISCRETE SPLITTER	<a href="#">WA00138-10</a>	ANALOG 10M CABLE
<a href="#">WA00140 -10</a>	SERIAL 10M CABLE	<a href="#">WA00141-10</a>	DISCRETE 10M CABLE
<a href="#">WA00201-SE</a>	MAGNET		

A wide range of sensors can be provided for use with the Data Logger. Please contact your regional sales representative to discuss your needs and a customized application can be provided.

## Technical and Pre-Sales Assistance

Level 1 and 2 support will be provided through the individual countries. Level 3 support will be available through the Technical Support team located in Canada.

- North America: 1-888-226-6876, toll free (Monday to Friday 8:00 am – 6:30 pm, Eastern time)
- Global Toll Free: 1 613 591 1943 (24 hr)
- Email: [supportTRSS@se.com](mailto:supportTRSS@se.com)

Please contact your regional sales team for other inquiries.