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

Schneider Electric

Legal Information

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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, NBIOT 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

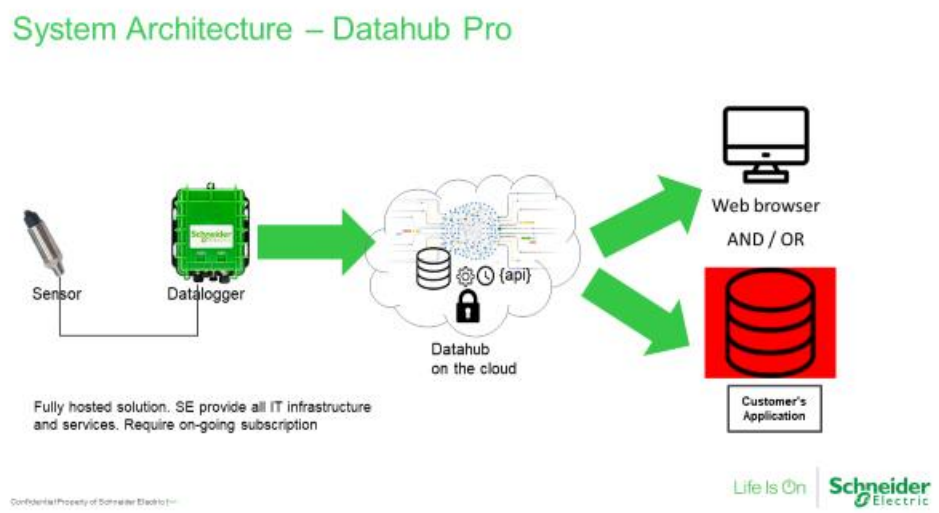
- The Data Logger is truly an IIOT device utilizing cellular technology to provide data to the cloud, the data can be visualized via a web-based URL. The customer has access to information to make decisions based on data provided in the browser. The site can generate reports that allow the customer to analyze historical information to determine possible trends and make decisions accordingly. The hub opens opportunity not previously accessible by conventional wired devices.

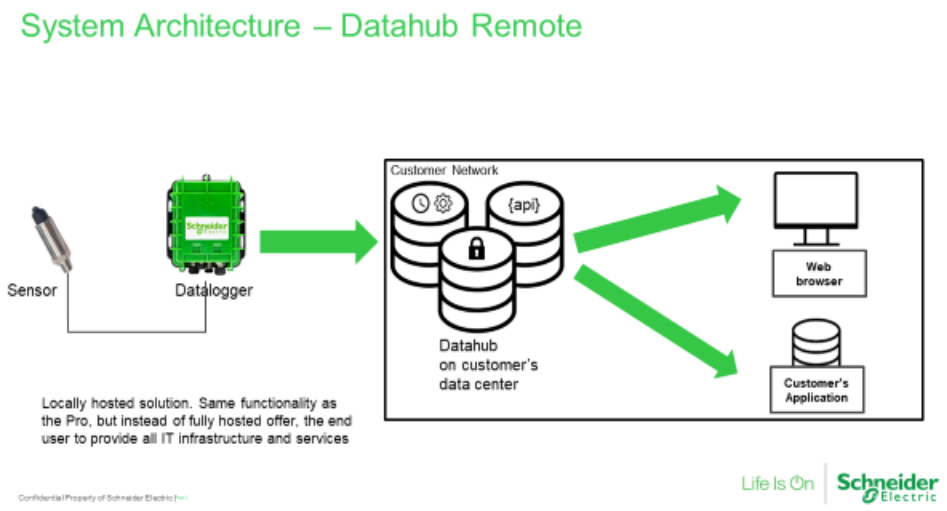
- A simple web interface EcoStruxure™ Process Instrumentation's Data Logger 4G LTE offers simplified installation, integrated diagnostics, long battery lifetime, remote communication options, and low overall maintenance for remote location installations.

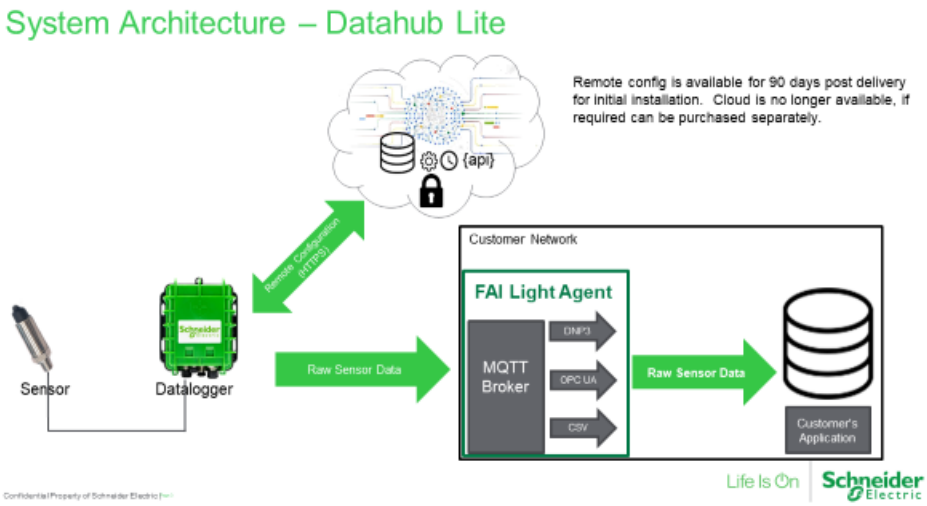
- Dominant IIoT solution in the infrastructure market for creating cyber-secure, plug-and-play, affordable smart infrastructure networks.

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 Lite
Remote config is available for 90 days post delivery for initial installation. Cloud is no longer available, if required can be purchased separately.
{api}
Remote Configuration (HTTPS)
Customer Network
FAI Light Agent
MQTT Broker
DNP3
OPC UA
CSV
Raw Sensor Data
Raw Sensor Data
Customer's Application
Sensor
Datalogger
Life Is On Schneider Electric

	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
Visulization-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

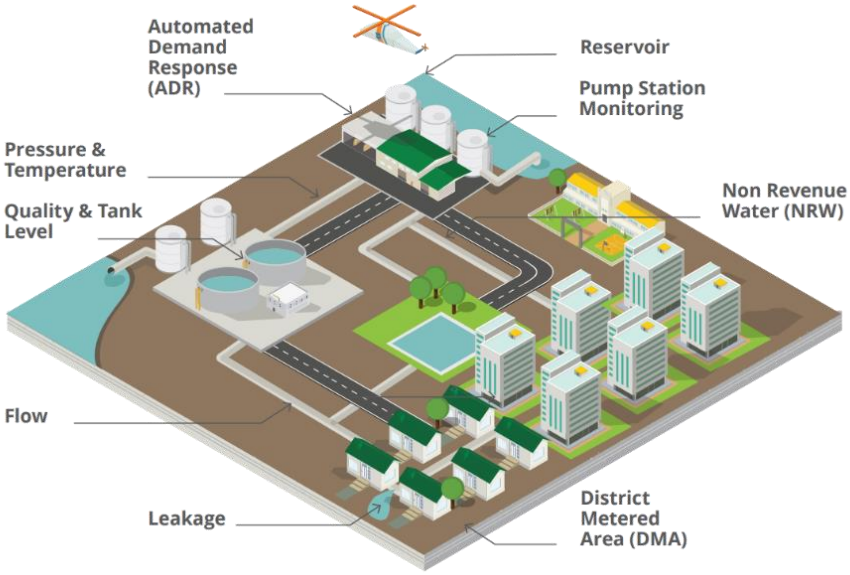
The Data Logger is truly an IIOT device utilizing cellular technology to provide data from remote assets and provide the customer the capability to analyze data and make decisions that facilitate efficient and effective operations.

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.

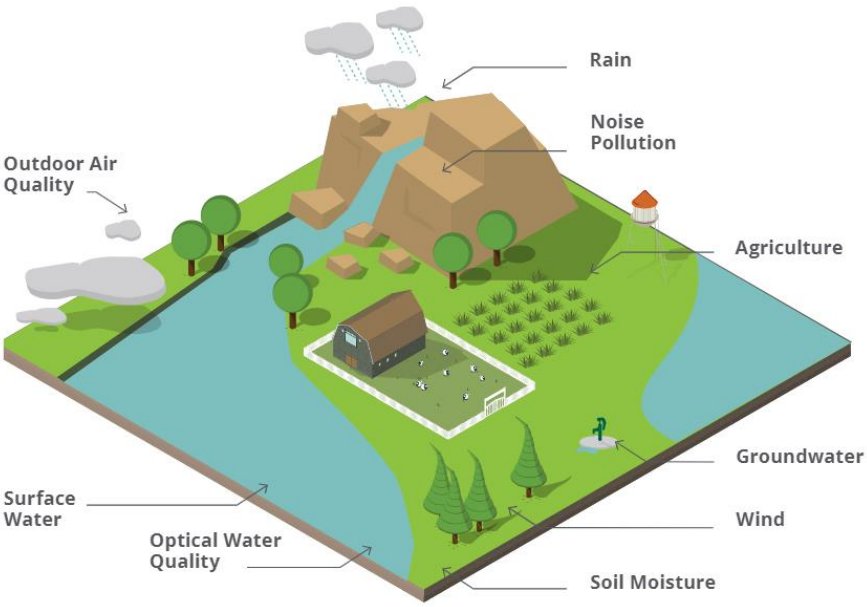
Drinking Water Applications

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.



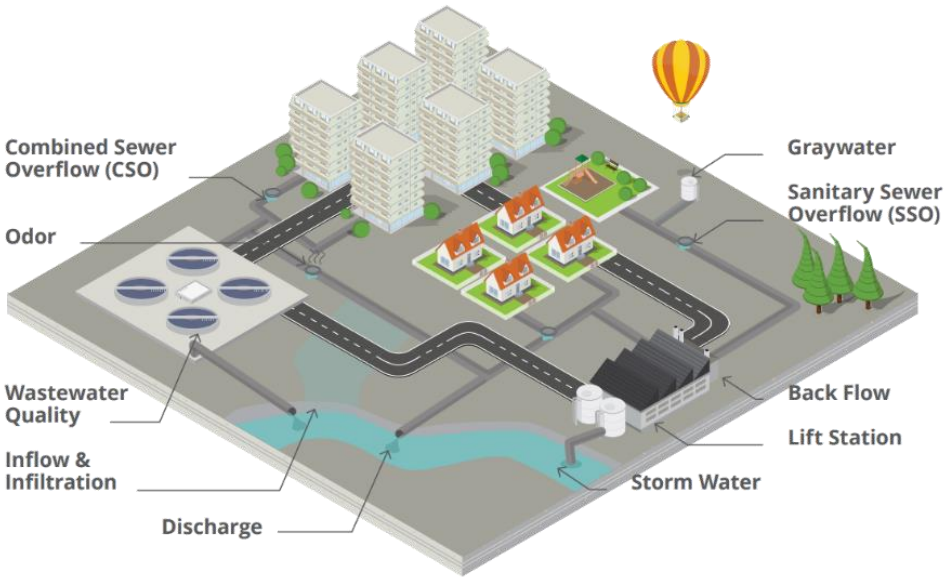
Environmental Applications

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.



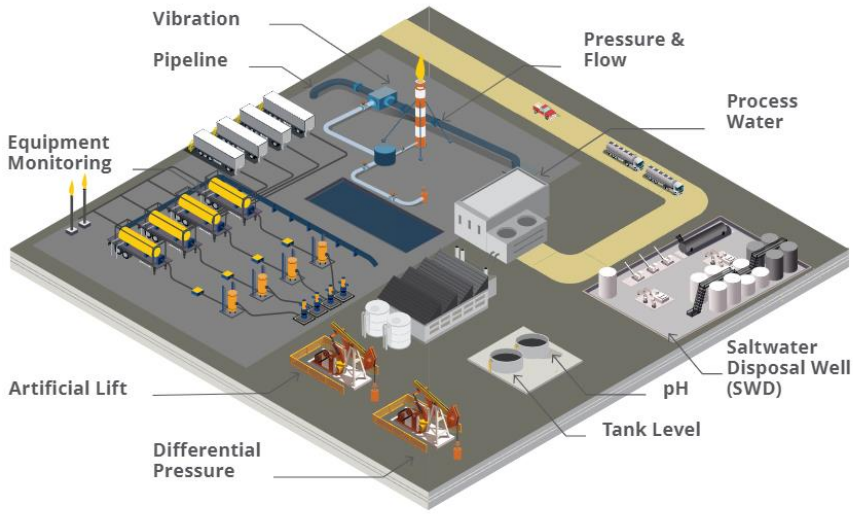
Wastewater Applications

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[1]
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[2]
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

[1]Pricing to be determined on a case by case basis

[2]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 (Ul 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
Spurious Emissions	EN 301 511 V12.5.1 2017
Radiated Emissions	EN 301 908-1 V11.1.1 2016
Ingress Protection	EN 60529:1992+A2:2013 IEC 60529:1989/AM1:1999
CE	Approved

DLLTE-LT

Data & Software

Data Hosting	Secure Cloud or On-Premises[1]
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[2]
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

[1]Pricing to be determined on a case by case basis

[2]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 (Ul 94V and UV resistant
Ingress Protection	IP 68 / NEMA 6P
Operating Temperature	-40C to +80C, -40F to +176F
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Spurious Emissions	EN 301 511 V12.5.1 2017
Radiated Emissions	EN 301 908-1 V11.1.1 2016
Ingress Protection	EN 60529:1992+A2:2013 IEC 60529:1989/AM1:1999
CE	Approved

DLLTE-IS

Data & Software

Data Hosting	Secure Cloud or On-Premises[1]
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[2]
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

[1]Pricing to be determined on a case by case basis

[2]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
Spurious Emissions	EN 301 511 V12.5.1 2017
Radiated Emissions	EN 301 908-1 V11.1.1 2016
Ingress Protection	EN 60529:1992+A2:2013 IEC 60529:1989/AM1:1999
CE	Approved

OFFER ORDERING GUIDELINES

Selection		
FUNCTION:		
DLLTE	Data Logger	This is the base part number for the Data Logger
VARIANT:		
PR	Premium	Select the required version based on the application(see data sheet)
IS	Intrinsic Safe	
LT	Lite	
ON PREMISE:		
1	On Premise Solution	Select either option 1 or 2 not both
2	Cellular Cloud Based Solution	
SIM APPLICATION:		
1	Manufacturer supplied SIM	Select either option 1 or 2 not both
2	Customer provided SIM	
SENSOR CHANNEL 1:		
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)
SENSOR CHANNEL 2:		
M	Used	
G	Not Used	
SENSOR CHANNEL 3:		
M	Used	
G	Not Used	
SENSOR CHANNEL 4:		
M	Used	
G	Not Used	
SENSOR CHANNEL 5:		
M	Used	
G	Not Used	
SENSOR CHANNEL 6:		
M	Used	
G	Not Used	
SENSOR CHANNEL 7:		
M	Used	
G	Not Used	
SENSOR CHANNEL 8:		
M	Used	
G	Not Used	
SENSOR CHANNEL 9:		
M	Used	
G	Not Used	
SENSOR CHANNEL 10:		

M	Used	
G	Not Used	
SENSOR CHANNEL 11:		
M	Used	
G	Not Used	
SENSOR CHANNEL 12:		
M	Used	
G	Not Used	
ON PREMISE FEES AND OPTIONS:		
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	
OPTIONS:		
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

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

Please contact your regional sales team for other inquiries.