


# gPIMS® Ex FCU

## TECHNICAL SPECIFICATION

The gPIMS® Ex Field Control Unit (FCU) is ATEX/IECEX certified for use in hazardous areas when connected to a gPIMS® Ex Sensor, enabling autonomous large-area and small-area monitoring, and can be retrofitted to most existing models of gPIMS® Ex Sensors.

Variant	FCU – Ex
<b>Application Areas</b>	
Designed for	Autonomous Data Upload
<b>Hazardous Area Certification</b>	
Intrinsic safety ATEX/UKEX/IECEX <sup>(1)</sup>	 II 1G Ex ia IIB T4 Ga -40°C ≤ Ta ≤ +70°C [-40°F ≤ Ta ≤ +158°F]
<b>Physical Characteristics</b>	
Dimensions W x D x H <sup>(2)</sup>	19 x 21 x 50 cm [7.25 x 8 x 19.5 inches]
External surface	316 Stainless Steel
Weight <sup>(3)</sup>	8.5 kg [18.4 lbs]
Mounting <sup>(4)</sup>	Various options available
<b>Power Supply Ratings</b>	
Battery type (Removable)	gPIMS® Ex Battery Module
Typical battery life <sup>(5)</sup>	20 years idle or 500 Collections
External power supply <sup>(6)</sup>	Not Supported – Battery Only
<b>Output (to sensor)</b>	
Number of channels	16
Output voltage (nominal)	± 5V (w.r.t. GND)
Output parameters	See Certificate
Frequency range	10-650 kHz
Sensor compatibility	GUL gPIMS® Ex Sensors – 6" to 48" (DN 150 to 1200)
<b>Communication Interfaces</b>	
Wireless LAN (WiFi) <sup>(7)</sup>	802.11 b/g/n
Internal data storage	8 GB (Archives last 2000 data collections)
Configuration interface	Wi-Fi



(1) For use in any zone. IECEx EXV 21.0049X, 21ATEX0947X and 21UKEX0949X.

(2) Dimensions exclude the antenna, but include the removable standard mounting frame.

(3) Weight includes removable standard pole mounting frame.

(4) Normally supplied with a mounting bracket for vertical poles of 1" to 3" in diameter.

(5) The exact number of collections will depend on the selected collection configuration and the strength of the 4G signal at the installed location.

(6) The battery should be charged in a non-hazardous area. A depleted battery can be changed for a fully charged one by opening the front panel.

(7) Used for configuration and data upload.

## EX BATTERY MODULE

33600-EX-4D

The Ex FCU is powered by a bespoke Lithium Battery Module which maximizes the time between required battery changes.

Application Areas	
Designed for	Powering gPIMS® Ex FCU <sup>(8)</sup>
Hazardous Area Certification	
Intrinsic safety ATEX/UKEX/IECEX <sup>(9)</sup>	Included in the gPIMS® Ex FCU certification and reports.
Physical Characteristics	
Dimensions W x D x H <sup>(10)</sup>	19 x 21 x 50 cm [7.25 x 8 x 19.5 inches]
Weight	750 g [1.65 lbs]
Seals	Sealed against water ingress when mated.
Attachment	Captive M6 screw
Electrical Characteristics	
Nominal voltage	7.2 V
Total capacity	> 240 Wh
Design life	20 years idle or 500 Collections
Temperature	
Operating	-40°C to +70°C [-40°F to +158°F]
Recommended storage	+30°C
Component Cells	
Battery cell type	Primary (non-rechargeable)
Part number	SAFT LS33600
Chemistry	Lithium Thionyl Chloride (Li-SOCl <sub>2</sub> )
Cells per Module	4 (Four)
Nominal VALUES (each)	3.6 V, 17 Ah (61.2 Wh), 4.5 g of Li Metal
Certifications	UL 1642, EIC 60086-4, IEC 60079-11 (part 10.5), UN3090, UN3091
Allowed substitutes	No substitutes allowed.
Shipping	
Label requirements <sup>(11)</sup>	UN3091 (with Hazardous Goods Label)
Packing requirements	IATA Packing Instruction 970



<sup>(8)</sup> Only the entire module may be hot swapped.

<sup>(9)</sup> For use in any zone. IECEx EXV 21.0049X, 21ATEX0947X and 21UKEX0949X.

<sup>(10)</sup> Dimensions exclude the antenna, but include the removable standard mounting frame.

<sup>(11)</sup> For MSDS go to GUL Website.

