Sollatek ™
INTELLIGENT REFRIGERATION CONTROLS

SOLLATEK FFX RANGE

ADVANCED COMMUNICATION EXTENDER PORT FOR SOLLATEK ADVANCED REFRIGERATION CONTROLLERS

Plug-in Modules: | Bluetooth | SECONDARY | 2G | LTE Cat-M | NB-IoT | LoRa | WiFi | GPS | SECONDARY

Description

The Sollatek FFX range is a fully customisable expansion port which provides advanced communication technology and location tracking to Sollatek's range of Energy Management Temperature Controllers.

They allow high flexibility with a range of plug-in modules as well as offering easy in-field upgrading meaning solutions can be tailored to match different applications as and when required.

Internal BLE allows proximity marketing (nearby customer engagement) as well as field sales/technicians to access the cooler remotely via the dedicate mobile application, so they are able to review all health, performance and diagnostic data.

The FFX range, when fitted with a communication module, are built to transmit the data captured to the Sollatek Web User Interface using secure VPN channel and data encryption.

The FFXy-BB is a smaller version of the FFX-BB accommodating 4 slots while the FFX-BB can accommodate 6 slots.

FFXy-BB

Feature

- A proximity solution providing data analytics and remote configuration BLE, transmission and controller settings
- Fully customisable and expandable with Always-on and tracking plug-in modules to suit all applications
- Hardware upgradeable in the field without the need for a technician by plugging in new modules
- Internal Bluetooth - Transmits iBeacon and Eddystone beacons to allow nearby customer engagement
- Planogram and purity compliance application possible through a digital camera connecting via BLE
- On-board rechargeable battery to enable Real Time Clock (RTC) and BLE beaconing with no mains power
- Automatic power switching between mains and battery
- Internal flash memory for storing controller data between transmissions
- Connects to Sollatek FFA/JEA controllers
- Compatibility options for third party controllers
- Easily retrofitted to Sollatek controllers via a connecting cable
- Discreetly fits in the front grill of a cooler
- Front panel available in various colours to match refrigerator aesthetics
- IP65 front for wash resistance
- Reprogrammable via the Sollatek App

Plug-in Modules*

Quad Communication & Battery Module
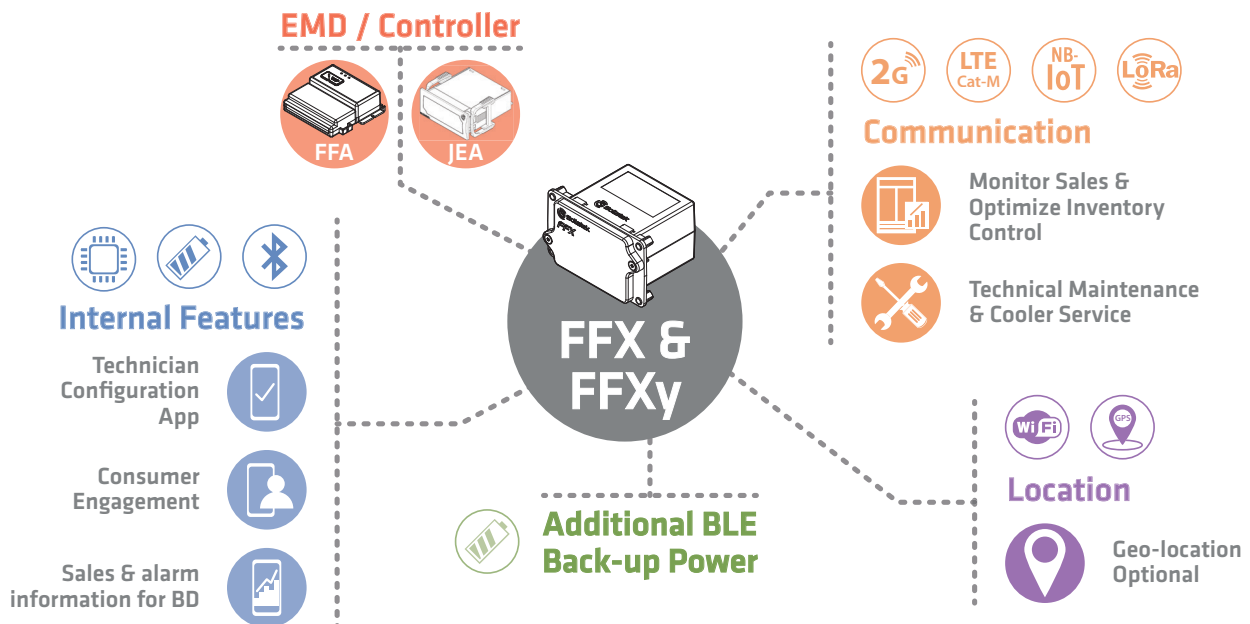- 2G   • LTE-M   • NB-IoT   • LoRa

Double Battery Module
- Rechargeable battery

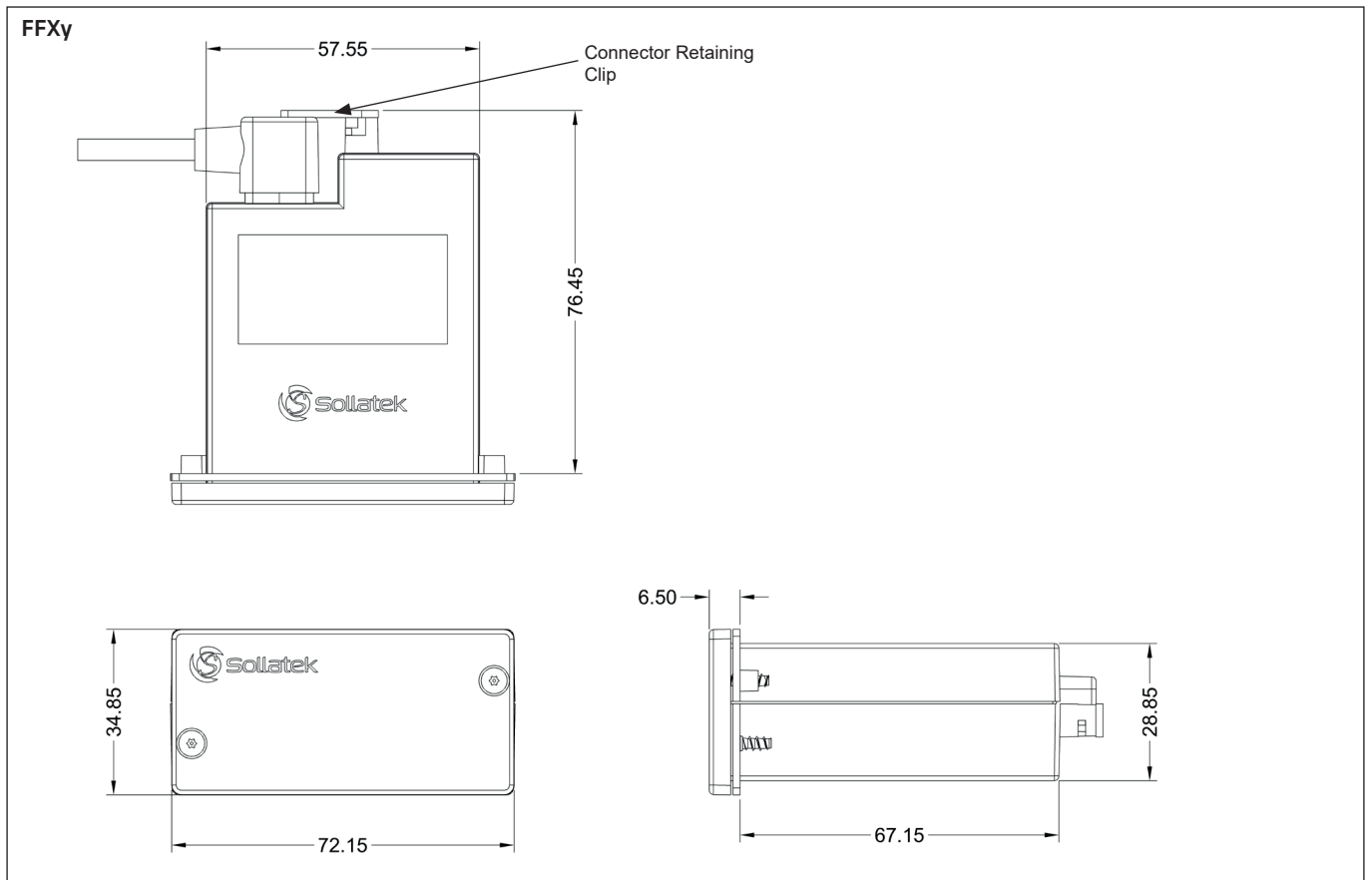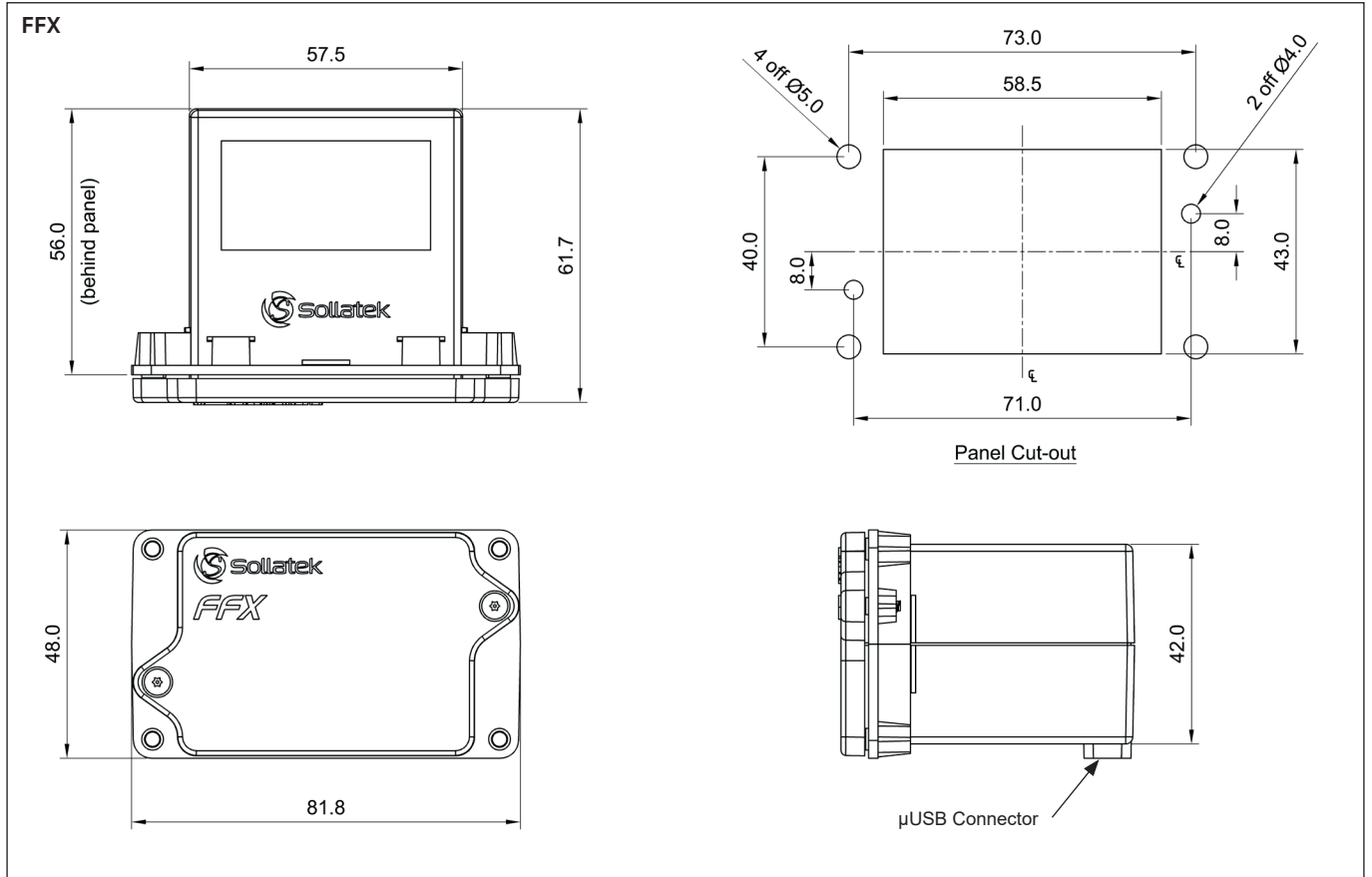* Refer to the plug-in module section for more information and specification

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Technical Specification

	FFX-BB	FFXy-BB
Power		
Nominal Voltage	Powered from Host Device	
Bluetooth		
Type/version	BLE 5.1	
RF Power Output	-20 dBm to +4 dBm	
Frequency	2.4 GHz ISM	
Connectivity	Eddystone, iBeacon & connection to the Sollatek Smart Device Application	
Bluetooth Standard	IEEE 802.15.1	
Memory		
Size	32 Mb for data/image storing between transmission	
Back-up Battery		
Battery Type	Rechargeable Lithium Polymer	
Nominal Voltage	3 V	
Capacity	100 mAH	
Typical Run Time	Approx. 2-3 months depending on transmission interval	
Plug-in Module Capacity		
Number of Shelves	3	2
Number of Slots	6	4
Connector / Interface		
To Host Device	Micro USB-B port	
To Modules	2x4-way Terminal per slot	
Certification / Standards		
Product Certification	CE, IEC 60730, EN 301 489-1, EN 301 489-17, EN 55024, EN 300 328	
Flammability	UL94 V-0 @ 1.5mm, GWFI = 960°C, GWIT = 850°C	
Environmental		
IP Rating	Front: IP65 Rear: IP54	
Operating Temperature	0°C to +60°C (32°F to +140°F)	
Operating Humidity	<90% RH non-condensing	
Mechanical		
Panel Mounting	4 x Torx-pin T10 screws	2 x Torx-pin T10 screws
FFX Font Cover	2 x Torx-pin T10 screws	
Unit Dimensions (W x H x D)	81.8 x 48.0 x 61.7 mm	72.15 x 34.85 x 82.95 mm
Unit weight	62 g (without Modules)	46.5 g (without Modules)

Packing & Shipping

	Carton	Pallet	Carton	Pallet
Quantity	100 units	2000 units (20 cartons)	115 units	2300 units (20 cartons)
Dimensions (L x W x H)	490 x 480 x 380 mm	1200 x 1000 x 2020 mm	490 x 480 x 380 mm	1200 x 1000 x 2020 mm
Weight	6.5 kg	140 kg	5.4 kg	118 kg

System Architecture

EMD / Controller
- FFA
- JEA

Internal Features
- Technician Configuration App
- Consumer Engagement
- Sales & alarm information for BD

FFX & FFXy

Additional BLE Back-up Power

Communication
- 2G
- LTE Cat-M
- NB-IoT
- LoRa
- Monitor Sales & Optimize Inventory Control
- Technical Maintenance & Cooler Service

Location
- Wi-Fi
- GPS
- Geo-location Optional

Dimensional Drawing

FFX

Panel Cut-out

μUSB Connector

FFXy

Connector Retaining Clip

Product Code	Description
92363XBB	FFX-BB Expander Port + BLE and Battery
92363XBB-Y	FFXy-BB Expander Port + BLE and Battery

PLUG-IN MODULES

2G Communication Module

- 2G communication technology
- Integrated battery for controller data transmission with no mains supply
- 2-3 months battery autonomy with 1 daily transmission
- Optional integrated Wi-Fi for precise geo-location
- Accelerometer for movement detection
- SIM Card: Nano or Solderable

Band	850, 900, 1800, 1900
Battery	800 mAh Rechargeable Lithium polymer
Wi-Fi	2.4 GHz
Shelf	1 & 2

Stock Code	Description
92363X00-M2B	FFX-M2B Module 2G+Batt
92363X00-M2BW	FFX-M2BW Module 2G+Batt+Wi-Fi

LTE-M Connectivity Module

- LTE-M communication technology with 2G fall back
- Integrated battery for transmission with no mains supply
- 3 months battery autonomy with 1 daily transmission
- Optional integrated Wi-Fi for precise geo-location
- Accelerometer for movement detection
- SIM Card: Nano or Solderable

Band	B1, B2, B3, B4, B5, B8, B12,B13, B18, B19, B20, B25, B26, B27, B28, B66, B85
Battery	800 mAh Rechargeable Lithium polymer
Wi-Fi	2.4 GHz
Shelf	1 & 2

Stock Code	Description
92363X00-M4B	FFX-M4B Module Cat-M+Batt
92363X00-M4BW	FFX-M4BW Module Cat-M+Batt+Wi-Fi

NB-IoT Connectivity Module

- NB-IoT communication technology with 2G fall back
- Integrated battery for transmission with no mains supply
- 3 months battery autonomy with 1 daily transmission
- Optional integrated Wi-Fi and / or GPS for precise location
- Accelerometer for movement detection
- SIM Card: Nano or Solderable

Band	B1, B2, B3, B4, B5, B8, B12,B13, B18, B19, B20, B25, B28, B66, B71, B85
Battery	800 mAh Rechargeable Lithium polymer
Wi-Fi	2.4 GHz
Shelf	1 & 2

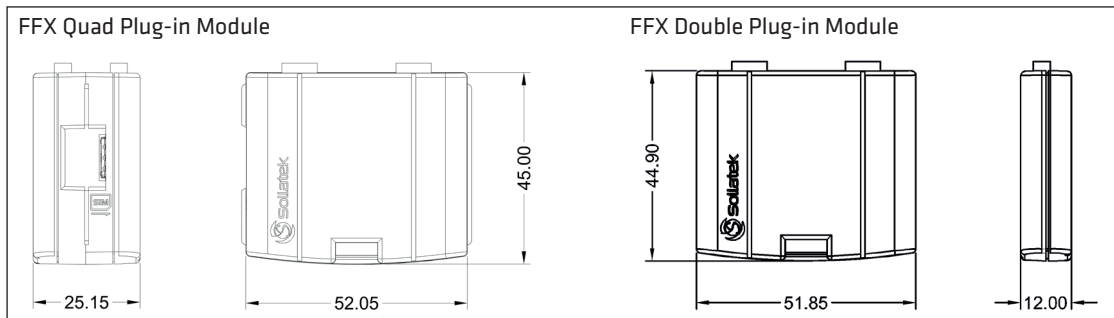| Stock Code	Description
92363X00-MNB	FFX-MNB Module NB-IoT+Batt
92363X00-MNBW	FFX-MNBW Module NB-IoT+Batt Wi-Fi
92363X00-MNGB	FFX-MNBW Module NB-IoT+GPS+Batt
92363X00-MNGBW	FFX-MNGBW Module NB-IoT+GPS+Batt+ Wi-Fi

Battery Module

- 800 mAh rechargeable battery
- Bluetooth beaconing and RTC with no mains supply
- Automatic power switch from mains to battery module

Battery Type	Lithium Ion - rechargeable
Nominal Voltage	3.7 V
Capacity	800 mAh
Typical Run Time	Approx. 2 years (low power mode)
Shelf	2

Stock Code	Description
92363X00-MB8	FFX-MB8 Battery Module 800mAh

Module Dimensional Drawing

FFX Quad Plug-in Module

45.00
25.15
52.05

FFX Double Plug-in Module

44.90
51.85
12.00

LoRa Under Development - Coming Soon

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RGB	25/11/2020

Sollatek FFX Range Data Sheet v2
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