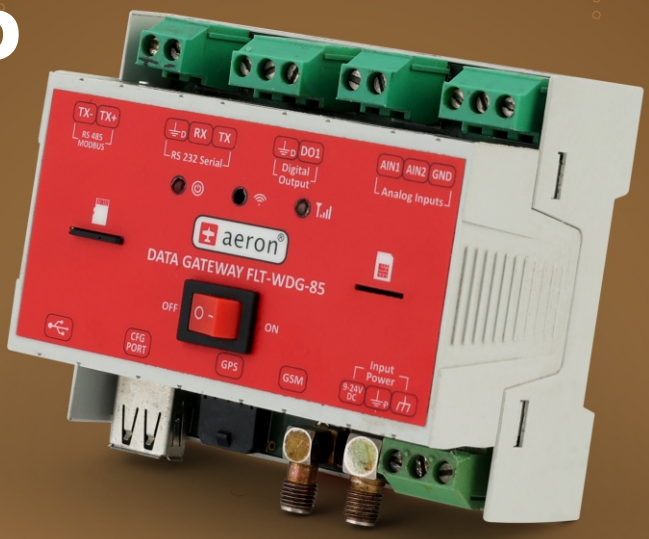
FLINT WDG85

Wireless IoT data gateway



WDG85 an IoT data gateway with industry standard RS485 Modbus RTU interface for collecting, processing, and transmitting data from various sensors and devices, enabling seamless communication and integration within the IoT ecosystem.

DESCRIPTION

The Flint WDG85 stands out as a versatile and compact wireless IoT gateway, establishing connections with a variety of industrial devices like sensors, PLCs, SCADA, and energy meters through RS485 MODBUS RTU. Data collected from the device is efficiently transmitted to a remote cloud server via on board 4G LTE network modem. Users can configure the Frequency of data collection and transmission. Additionally, the WDG85 features an onboard SD card, expandable up to 32 GB for data storage and retention for years of operation.

The device incorporates two analog channels capable of measuring voltage within the range of 0 - 10 V and current within the range of 4 - 20 mA. Its compact design allows seamless integration into larger OEM equipment, facilitating remote diagnostics and data acquisition for comprehensive machine monitoring.

A product suitable for process industries, monitoring applications, manufacturing, automation and energy management sectors.

PRODUCT FEATURES

Easy Integration

Effortlessly connect machines, PLCs, SCADA, and sensors through standard interfaces for seamless integration and compatibility.

Multiple Interfaces

The device offers various interfaces including RS232 and Rs485 Modbus RTU for easy integration with any external devices.

Communication

WDG85 incorporates a 4G LTE modem, facilitating seamless integration and communication with web servers.

Multiple I/Os

WDG85 boasts 2 analog inputs, 1 digital output, and serial ports, amplifying its connectivity and utility.

Memory

The device stores data for over 5 years on 8GB internal memory in .csv format. It supports up to 32GB micro SD card for extra storage.

Time Synchronization

WDG85 synchronizes time upon network connection, ensuring accurate timestamps for data transmission and logging.

APPLICATIONS

- Proccess Automation
- Industrial IOT Applications
- Water Quality Monitoring
- Cold Chain Monitoring

TECHNICAL SPECIFICATIONS

FLINT WDG85

COMMUNICATION

Network	Quad-Band GSM, LTE
Network Type	2G, 3G & 4G
Frequency Band	FDD LTE: B1/B3 | TDD LTE: B38/B39/ B40/B41
	TDSCMA: B34/B39 | WCDMA: B1 | CDMA200 1x/EVDO: BCO
	GSM: 900/1800
Time Synchronization	GPS, Server
Configuration & Data Retrieval	SMS & Desktop Application
Maximum Output Power	30 dBm
Receiver Input Sensitivity	-110 dBm
Interface	RS485 MODBUS RTU
	Rs232 MODBUS RTU
	USB Mass Storage

ANALOG INPUT

Channels	2 Single ended
Range	0 - 10 V
	4 - 20 mA
Sampling Rate	1 Hz
ADC Resolution	12 bit
Accuracy	±0.1% of full scale

DIGITAL OUTPUT

Digital Output	1

MICROCONTROLLER

No. of Bits	32 bit
Frequency	100 Mhz
LED Indication	Power
	Network Health
	Communication

ELECTRICAL

Voltage Input	+9 to +28 V DC
Operating Current	< 150 mA
Reverse Polarity Protection	Up to 28 V

STORAGE

Internal Memory	4 MB
SD Card Memory	8 GB (expandable up to 32 GB)

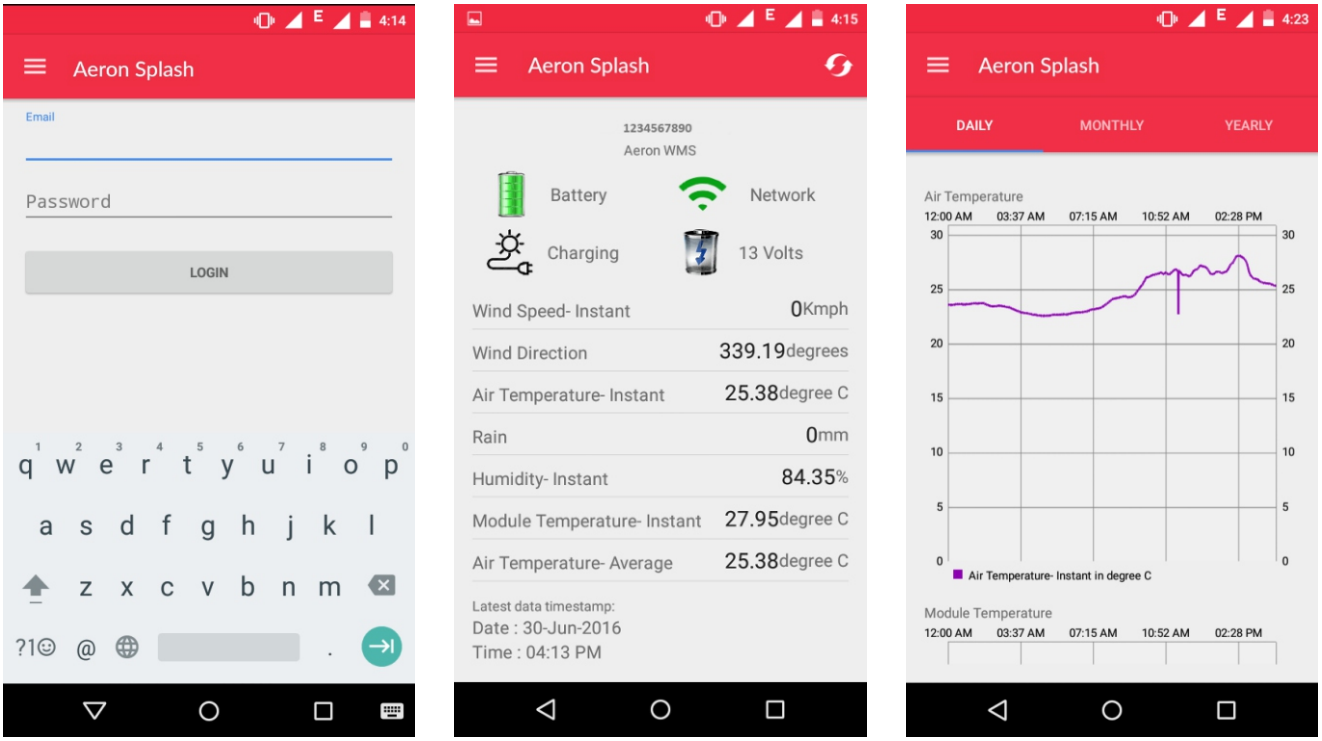
MECHANICAL

Operating Temperature	-10 °C to +70 °C
Storage Temperature	-20 °C to +80 °C
Dimensions	90 mm (L) x 75 mm (W) x 54 mm (H)
Weight	<150 gms

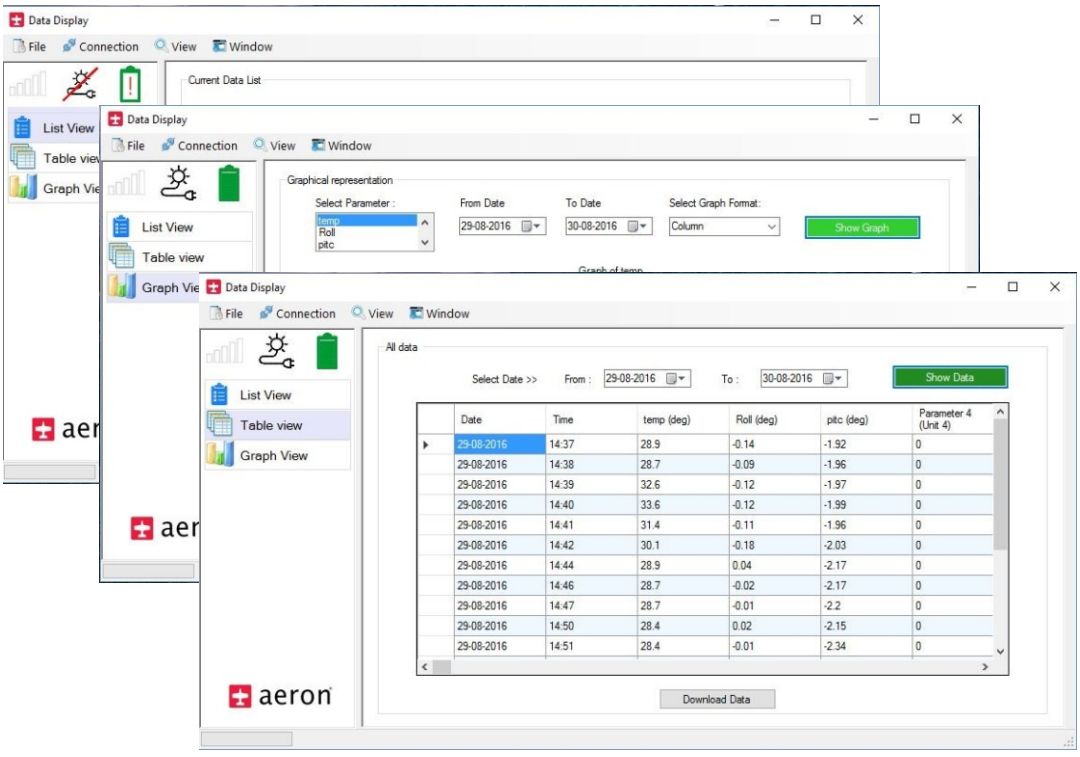
WEB PORTAL, DESKTOP & ANDROID APPLICATION

A web portal application and a user friendly Android Application is available with WDG85. Desktop application allows configuration settings and data retrieval. The Android app allows data viewing only.
Note: The Android app is available ONLY for customers who use Aeron's Web Services.

ANDROID APPLICATION

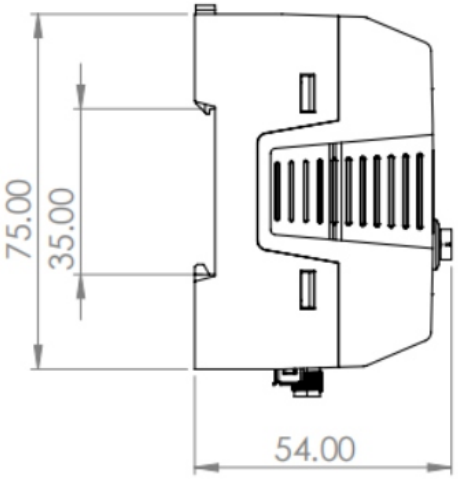


DESKTOP APPLICATION

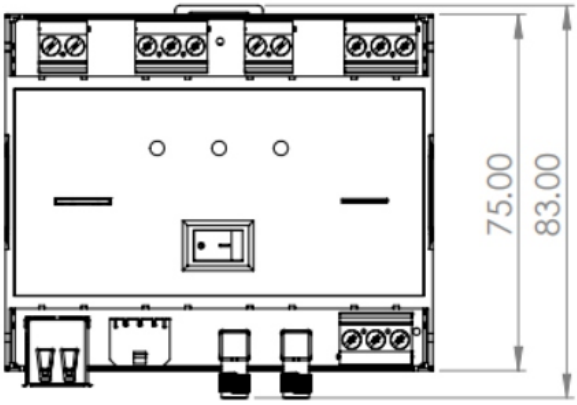


MECHANICAL DIMENSIONS All dimensions in mm.

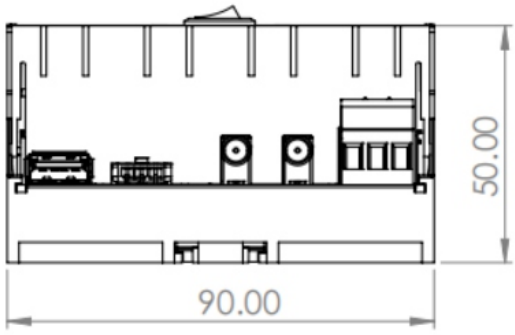
SIDE VIEW



FRONT VIEW



BOTTOM VIEW



ORDERING INFORMATION

FLT- WDG**85** (Product Code: 20003)