FICUS™

Edge Series...

ProtoSense

Analog Data - Cloud Gateway
Digital Data - Cloud Gateway
(One-way Communication)

Analog/Digital Data Acquisition
With Modbus/R485 Interface

INDUSTRY 4.0

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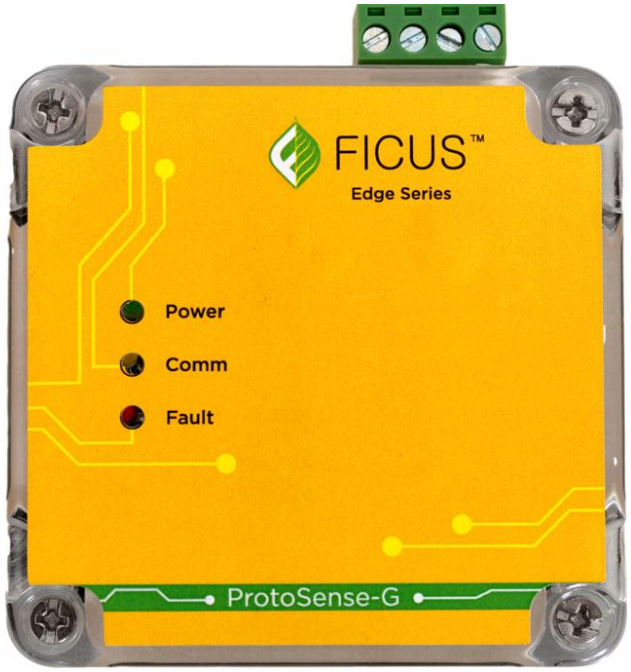

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Features

How it Works

The device has on-board hosted configuration webpage. It can configured to connect with different types of industrial devices. Enter required details such as mapping tables for input current/voltage, server URLs, credentials, and other details in the configuration file. Upload the file and reboot the device. For more details, contact us.

Industry

- Process Industry
- Manufacturing
- Scientific use cases
- Others

Applications

Suitable for all use cases where you need to read Analog data such as current, voltage or resistive values from the sensors or industrial units and send it to cloud. Similarly, digital data too can be ready from industrial equipment and send it to the cloud/server application via Wi-Fi or GSM 4G module.

- Analog or digital data reading from devices such as sensors (all types), Flow Meters, industrial units etc.
- Cloud Gateway (One-way Communication).
- Data Logging.

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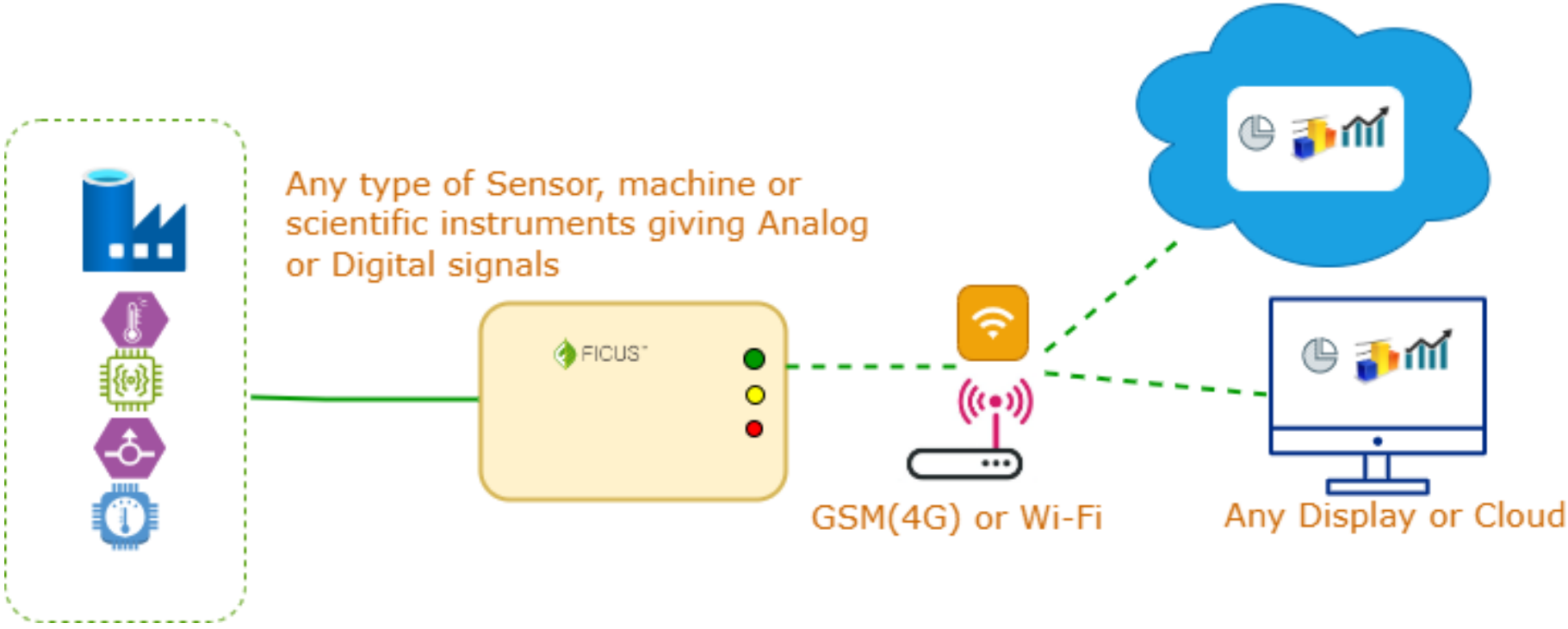
Application Architecture

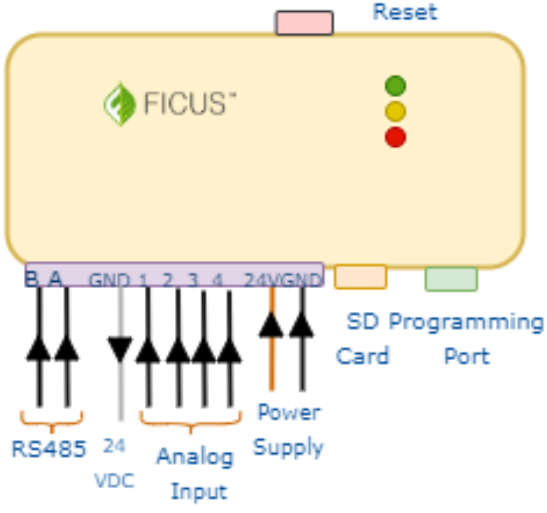


Note: Only for representation purpose.

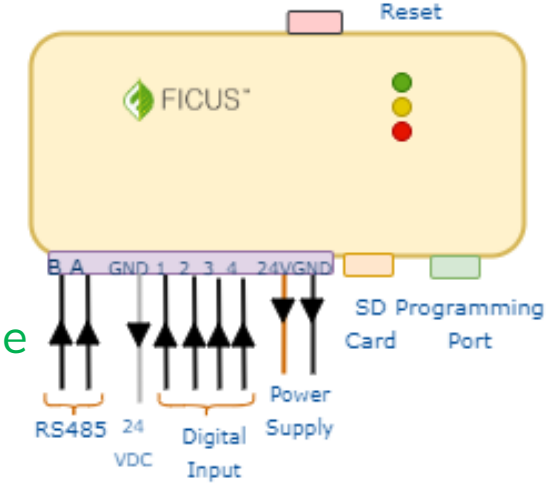
Wiring Diagram

Placement of connectors and number IOs may vary on different models. Please check data sheet for more details.

ProtoSense Analog



ProtoSense Digital



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Specifications

Ios ProtoSense - Analog

- Analog Input: 4
- RS485/Modbus

Ios ProtoSense - Digital

- Digital Input: 4
- RS485/Modbus

Local Storage

- Onboard SD card (8/16GB)
- Data logging on SD card

Power

- DC Input: 24VDC

Configuration

- Device hosted configuration web page (more details in next pages)

Communication

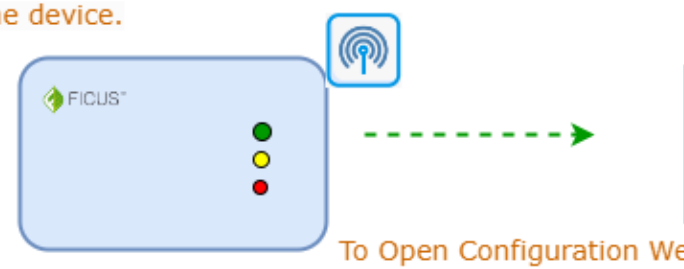
- Cloud Communication
  - Wi-Fi
  - GSM – Supports all types of 4G SIM
- Supports Modbus, MQTT, HTTP/S protocol

Other Specifications

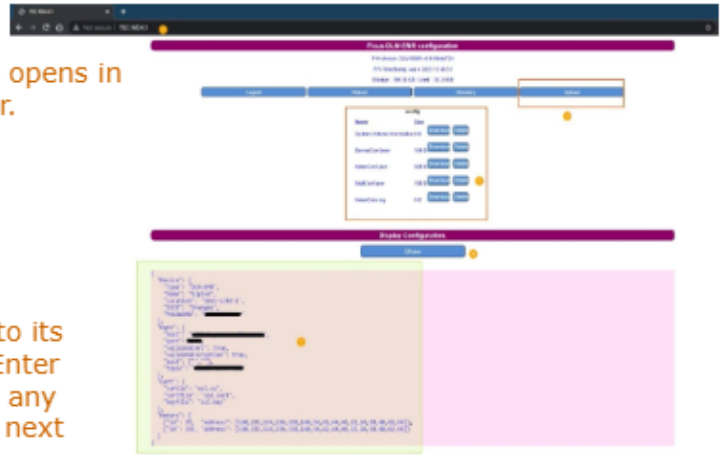
- RTC Support
- Server time/NTP time synchronization
- Configurable Time zone
- LED Indications: 3
- Operating Temp: From -10°C to 70°C
- Humidity: 0% - 90% non-condensing
- Mounting: DIN Rail & Wall mounting with Screw
- IP Protection: Two form factors,
  - IP 20
- Enclosure: Polycarbonate Transparent Cover and ABS Opaque Base
- Color: Light Grey (RAL 7035

Configuration Web Page

Configuration file and the log files can be accessed via Configuration Webpage hosted on the device.



Configuration Page opens in the browser.



To Open Configuration Web page of the device, connect to its WiFi Hotspot from a mobile, laptop or any other device. Enter credentials to connect to the Wi-Fi. Open 192.168.4.1 on any browser. The configuration web page opens shown in the next image.

Configuration File can be used for:

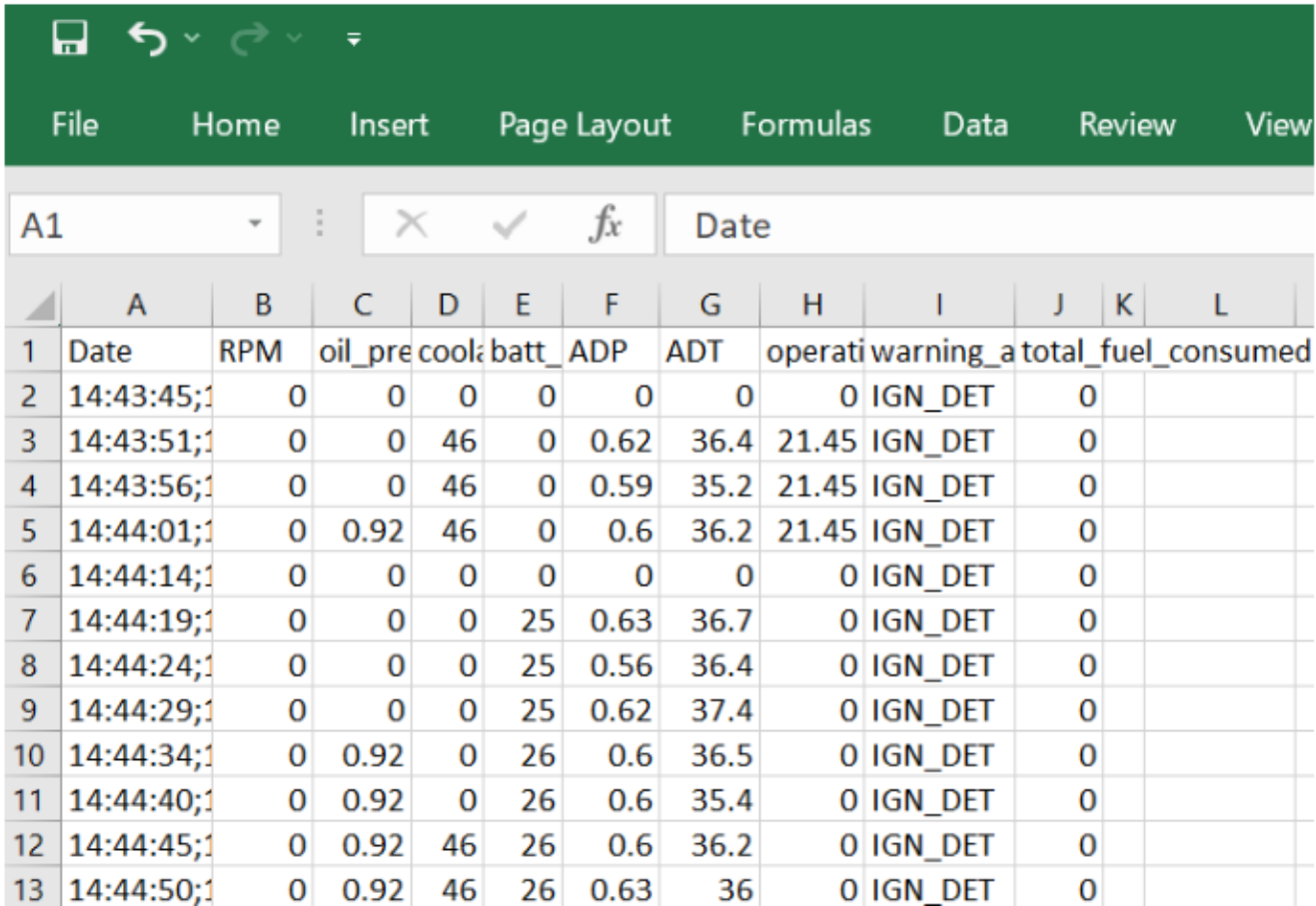
1. To configure device parameters such as set/trigger points, Mapping tables, program variables etc.

2. Download Data/Log files.

Configuration File Template

```
DeviceType = "ELECTONICS CONTROLLER";
DeviceName ="REGULATION CONTROLLER";
DeviceLocation ="TRAIL 1";
Machine_model ="DM 500 W";
Machine_serial_number ="307890313";
CRANK_TIME_SEC =5;
LOGGING_FREQUENCY_SEC =30;
LCD_CONTRAST=3;
LOW_FRE_HIGH_FRE_EN=1;
FULL_SCALE_A0 =7;
FULL_SCALE_A1 =40;
FULL_SCALE_A2 =7;
FULL_SCALE_A3 =7;
FULL_SCALE_A4 =7;
FULL_SCALE_A5 =7;
FULL_SCALE_A6 =150;
FULL_SCALE_A7 =7;
ALARM_DURATION_SEC = 30;
RPM_CHANGE_FACTOR =0.25;
MAX_ADP =20.0;
MAX_ARP=2.50;
ADP_BLEED_RANGE =1.0;
UPPER_RPM_LIMIT = 1900;
LOWER_RPM_LIMIT = 1250;
ENGINE_SHUTDOWN_LIMIT =1000;
AVERAGE_SAMPLE_SIZE = 600;
ARP_TABLE_ROW_SIZE =19;
ADP_TABLE_ROW_SIZE = 21;
```

Download Data/Log File from Configuration Webpage



File Home Insert Page Layout Formulas Data Review View

A1 | Date

	A	B	C	D	E	F	G	H	I	J	K	L
1	Date	RPM	oil_pre	coola	batt_	ADP	ADT	operati	warning_a	total_fuel_consumed		
2	14:43:45;1	0	0	0	0	0	0	0	IGN_DET	0		
3	14:43:51;1	0	0	46	0	0.62	36.4	21.45	IGN_DET	0		
4	14:43:56;1	0	0	46	0	0.59	35.2	21.45	IGN_DET	0		
5	14:44:01;1	0	0.92	46	0	0.6	36.2	21.45	IGN_DET	0		
6	14:44:14;1	0	0	0	0	0	0	0	IGN_DET	0		
7	14:44:19;1	0	0	0	25	0.63	36.7	0	IGN_DET	0		
8	14:44:24;1	0	0	0	25	0.56	36.4	0	IGN_DET	0		
9	14:44:29;1	0	0	0	25	0.62	37.4	0	IGN_DET	0		
10	14:44:34;1	0	0.92	0	26	0.6	36.5	0	IGN_DET	0		
11	14:44:40;1	0	0.92	0	26	0.6	35.4	0	IGN_DET	0		
12	14:44:45;1	0	0.92	46	26	0.6	36.2	0	IGN_DET	0		
13	14:44:50;1	0	0.92	46	26	0.63	36	0	IGN_DET	0		