

Multipurpose IoT Device: Data Acquisition (Analog/Digital Input, Modbus, CAN), Digital Output, Cloud Gateway

Applications

Suitable for all use cases where you need to read industrial data, communicate data or control your industrial equipment remotely from cloud/server application.

- Cloud Gateway (Two-way Communication).
- Data retrieval (through Modbus/RS485) from devices such as Energy Meter, Flow Meters, PLCs, Chillers, Boilers etc.
- CAN bus interface to read data from devices operating on CAN Bus Protocol such as engines and compressors.
- Analog or Digital data acquisition from industrial units & machines such as Compressors, Pumps, Motors, Boom Barriers, Gates etc.
- Data Logging and Cloud gateway.

Industry

- Manufacturing
- Engineering
- Sugar
- Pharmaceutical
- Utilities

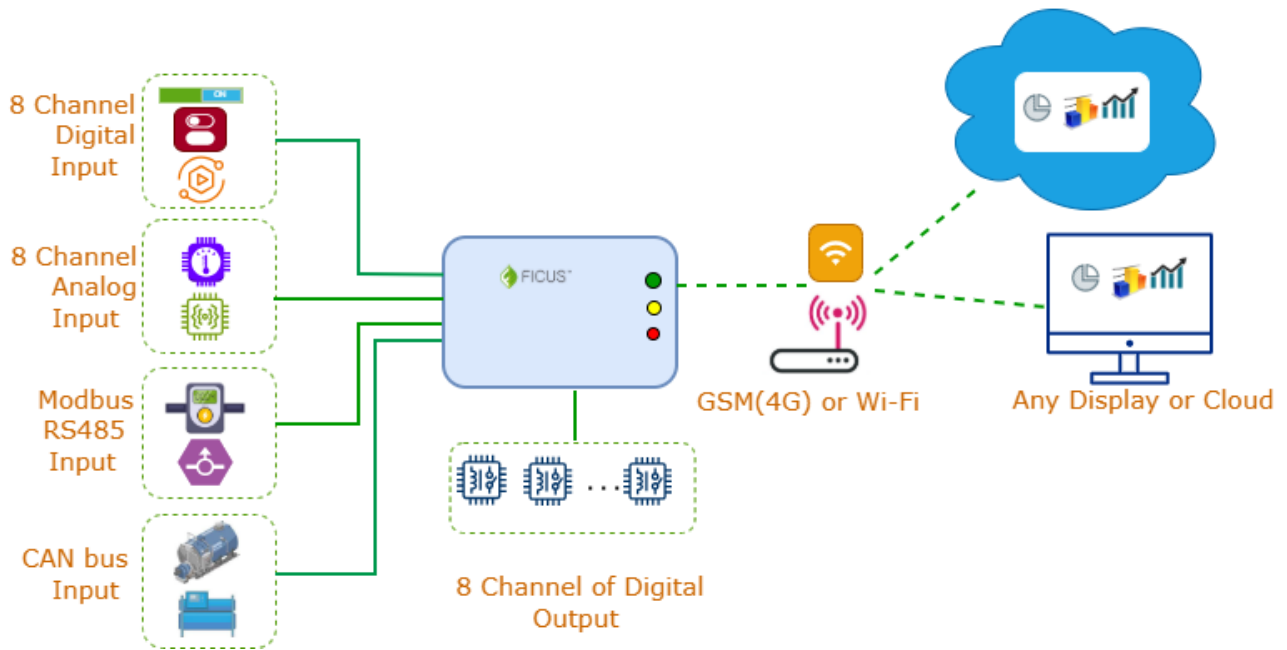


Sales inquiry

+91 91720 12211/+91 92842 55899

sales@sisaittechnologies.com

Application Architecture



Device Specifications

IOs

- Modbus over RS485
- CAN Interface
- Analog Input: 8 (Current/Voltage/Resistive)
- Digital Input: 8
- Digital Output: 8

Others

- LED Indications: 3
- Operating Temp: From -10°C to 60°C

- Humidity: 0% - 90% non-condensing
- Mounting: Wall mounting/DIN Rail
- IP Protection: IP 20
- Enclosure: Aluminum Body
- Color: Black with Orange strips

Power & Communication

- DC Input: 24VDC
- RTC Support
- Support for battery backup (Optional)
- SD card Support (Optional)
- Communication: WiFi/GSM
- Supports MQTT and HTTP(S) protocol

Device Configuration

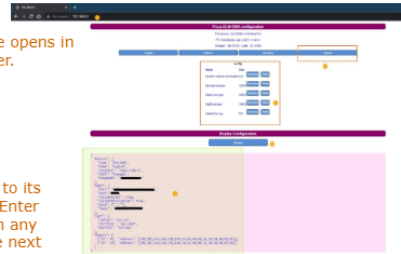
The device has on-board hosted configuration webpage. It can be configured to connect with different types of industrial devices. Enter required details such as mapping tables for input current, voltage, server URLs, credentials, and other details in the configuration file. Upload the file and reboot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

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



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 Page opens in the browser.



Download Data/Log File from Configuration Webpage

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

```

1 DeviceType = "ELECTRONIC CONTROLLER";
2 DeviceName = "REGULATOR CONTROLLER";
3 DeviceLocation = "MIDDLE 17";
4 Machine_Model = "DM 533 M";
5 Machine_Serial_Number = "93799311";
6 CRANK_TIME_SEC = 5;
7 LOGGING_FREQUENCY_SEC = 30;
8 ICD_CONFIGURATION = 1;
9 LOW_FUEL_LIMIT_FUEL_BW = 1;
10 FULL_FUEL_AD = 7;
11 FULL_FUEL_AI = 50;
12 FULL_FUEL_AD = 7;
13 FULL_FUEL_AD = 7;
14 FULL_FUEL_AI = 7;
15 FULL_FUEL_AD = 7;
16 FULL_FUEL_AI = 100;
17 FULL_FUEL_AD = 7;
18 ALARM_DURATION_SEC = 30;
19 RPM_WARNING_THRESHOLD = 0.25;
20 MAX_AWP = 20.0;
21 MAX_RPM = 55;
22 AWP_SELECT_RANGE = 1.0;
23 UPPER_RPM_LIMIT = 1900;
24 LOWER_RPM_LIMIT = 1200;
25 ENGINE_SHUTDOWN_LIMIT = 1000;
26 AVERAGE_SAMPLE_SIZE = 600;
27 AWP_TABLE_ROW_SIZE = 18;
28 AWP_TABLE_ROW_SIZE = 21;
    
```

	A	B	C	D	E	F	G	H	I	J	K	L
1	Date	RPM	oil_pre	cool	batt	ADP	ADT	operati	warning_a	total	fuel	consumed
2	14:43:45;1	0	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		

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