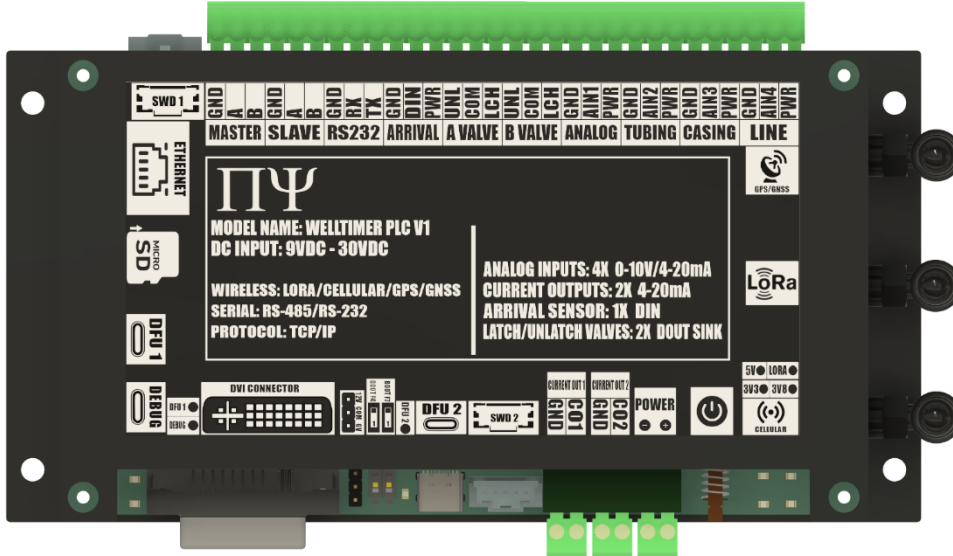


## PYDAQ F400: Multichannel Wireless Programmable RTU



### Overview

PYDAQ F400 is a 4-channel Analog Input, 4-channel Digital Input (Dry Contact), 4-channel Voltage Output, 4-Current Outputs and 4-channel Digital Output Wireless RTU. The Device is designed to interface to any 4-20mA and 0-10V sensors interface and Actuator Interface. This versatile device allows for efficient data acquisition and control, providing compatibility with a wide range of sensor and actuator interfaces. Raw data collected from the sensors can be processed by PytroAI Edge Computing Engine embedded into the device. Processed data can be accessed via several wired communication options using RS-232 and RS-485 Modbus RTU and using Modbus TCP over Ethernet.

### Specifications

|                               |                       |  |
|-------------------------------|-----------------------|--|
| <b>Power</b>                  | Power Supply Voltage  | 9-30V                                    |
|                               | Power Type            | DC-in                                    |
|                               | Current Draw          | 150mA @Typical 3A@Peak                   |
| <b>Mechanical</b>             | Dimensions            | 152.05" L x 87.2" W x 1.6" H             |
|                               | Enclosure             | ABS Plastic                              |
|                               | IP Rating             | IP 64                                    |
| <b>Environment</b>            | Operating Temperature | -40°C to 85°C                            |
|                               | Operating Humidity    | 5%~95% Relative Humidity, non-condensing |
| <b>I/O Ports</b>              | Analog Inputs         | 4x Channel: 0-10V, 4-20mA                |
|                               | Voltage Outputs       | 4x Channel: 0-10V Voltage Output         |
|                               | Current Outputs       | 4x Channel: 4-20mA Current Outputs       |
|                               | Digital Inputs        | 4x Channel: Dry Contact Digital Inputs   |
|                               | Digital Outputs       | 4x Channel: Relay Outputs                |
|                               | RS-232                | 1x Port: Modbus RTU Master/Slave         |
| <b>Wired Communication</b>    | RS-485                | 1x Port: Modbus RTU Master/Slave         |
|                               | Ethernet              | 1x Port: Modbus TCP Master/Slave         |
| <b>Wireless Communication</b> | Radio                 | 900MHz ISM Protocol: Star Topology       |
|                               | Cellular              | LTE 4G Protocol: MQTT/HTTPS              |
|                               | Bluetooth             | 2.4GHz ISM Protocol: BLE                 |
| <b>Certification</b>          | FCC, IC               |  |

### Features

#### I/O Analog/Digital Ports

- 4x Analog Inputs
- 4x Digital Inputs Dry Contact
- 4x Voltage Outputs
- 4x Current Outputs
- 4x Digital Outputs

#### Wired Com Ports

- RS-232 Modbus RTU
- Dual RS-485 Modbus RTU
- Ethernet Modbus TCP

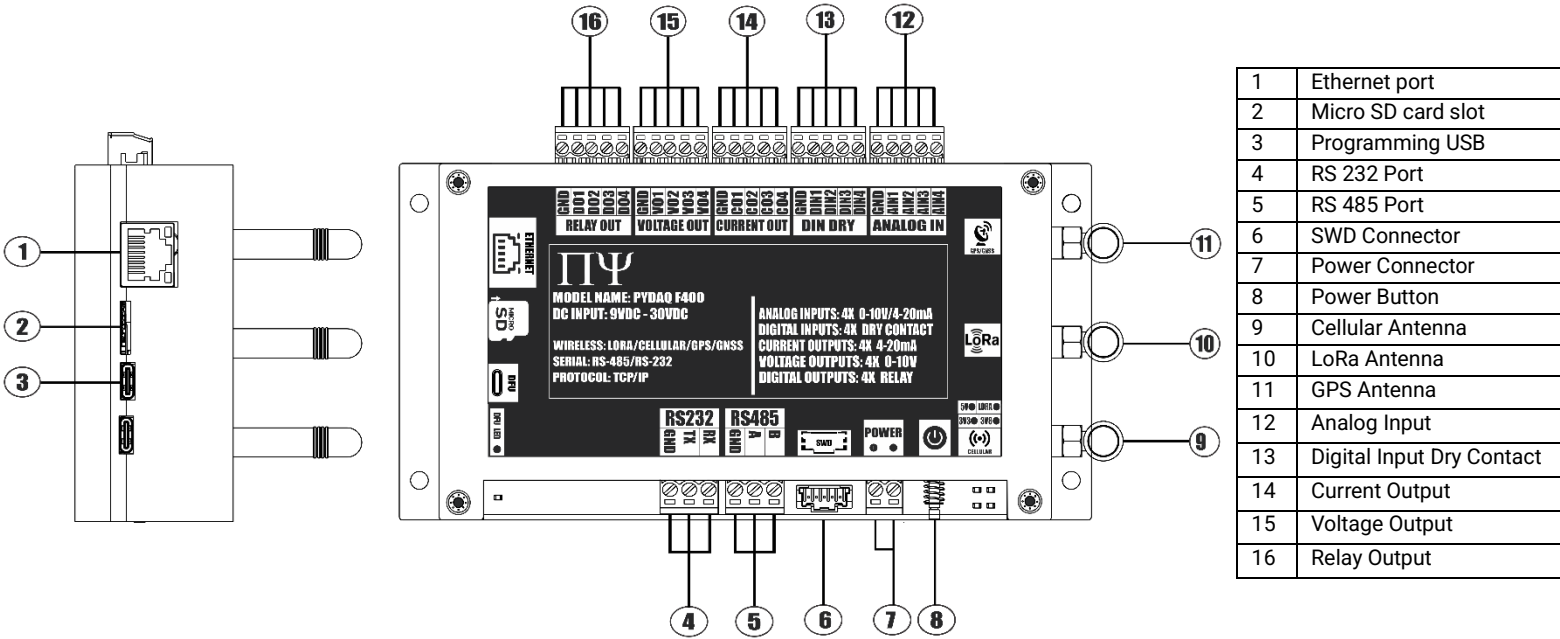
#### Wireless Communication

- Radio ISM 900MHz RTU
- Cellular LTE 4G MQTT/HTTP

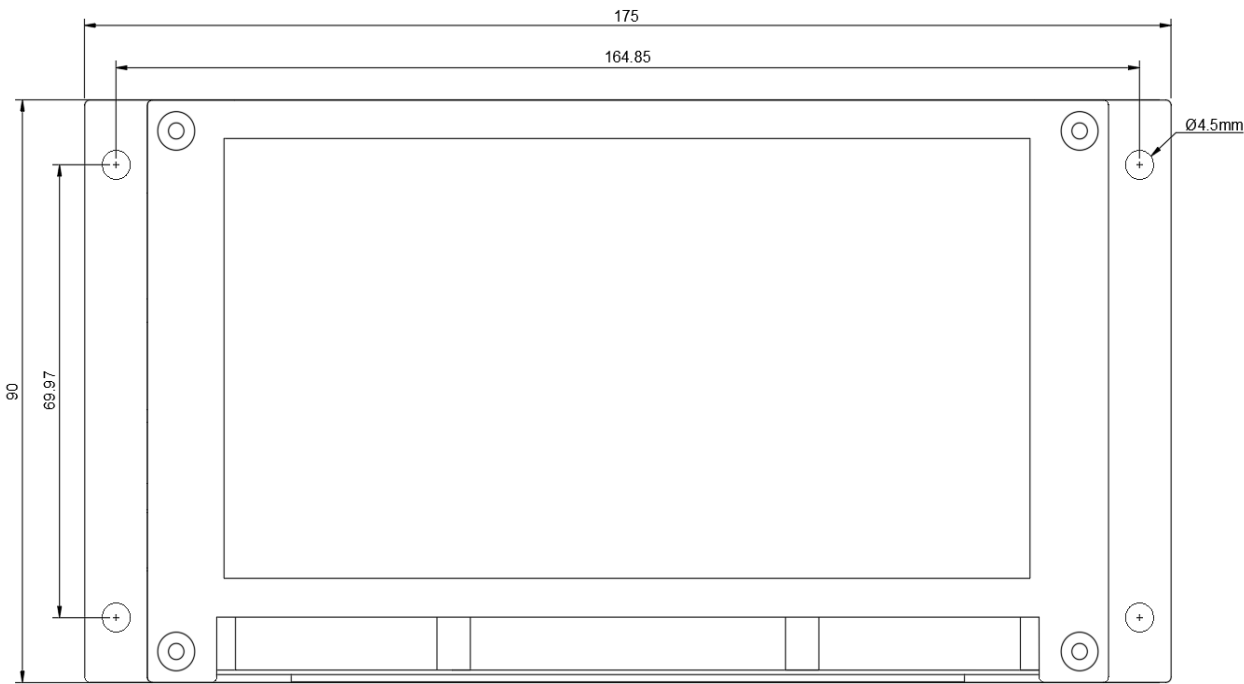
#### BLE Mobile Applications

- iOS Mobile App using BLE
- Android Mobile App using BLE

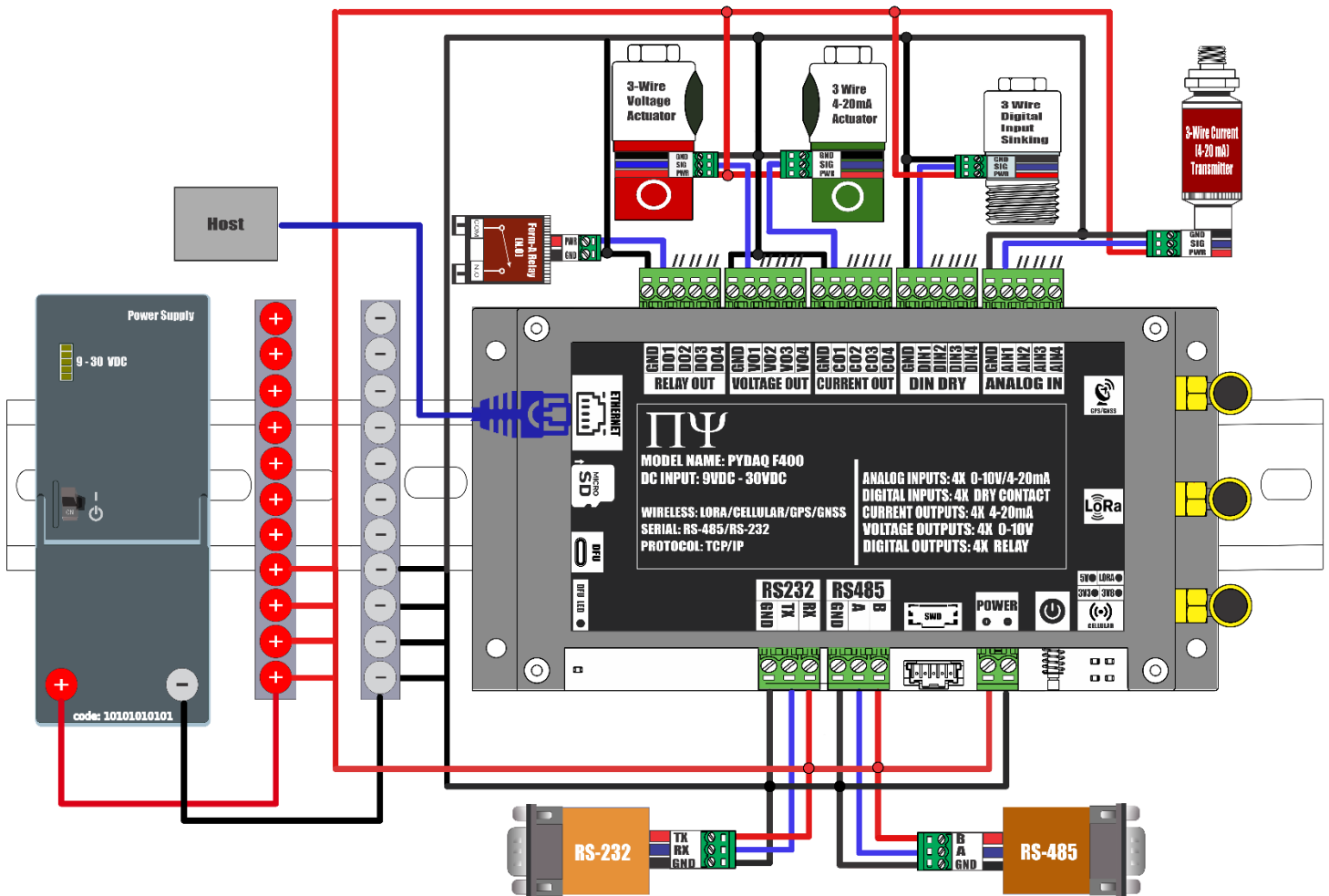
**Pinout Diagram**



**Mechanical Diagram**



## Wiring Diagram



| Software and Documentation                                  |   |
|---|---|
| Document  | Software Configuration  |
| Pydaq F400 Operation Manual                                 | <p>Pydaq F400 is configured using a browser based AI assisted tool called PytroAI.</p> <p>PytroAI is accessed by going to <a href="https://build.s2c.io/?username=demo">https://build.s2c.io/?username=demo</a></p> <p>The various application notes provide a detailed walkthrough for configuring the PYDAQ F400.</p> |
| Pydaq F400 Software Manual                                  |   |
| Pydaq F400 Point-2-Point Radio Bridge Application Note      |   |
| Pydaq F400 Point-2-MultiPoint Radio Bridge Application Note |   |
| Pydaq F400 Tank Level Monitoring Application Note           |   |
| Pydaq F400 Modbus RTU Master Application Note               |   |
| Pydaq F400 Modbus RTU Slave Application Note                |   |
| Pydaq F400 Modbus TCP Master Application Note               |   |
| Pydaq F400 Modbus TCP Slave Application Note                |   |

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