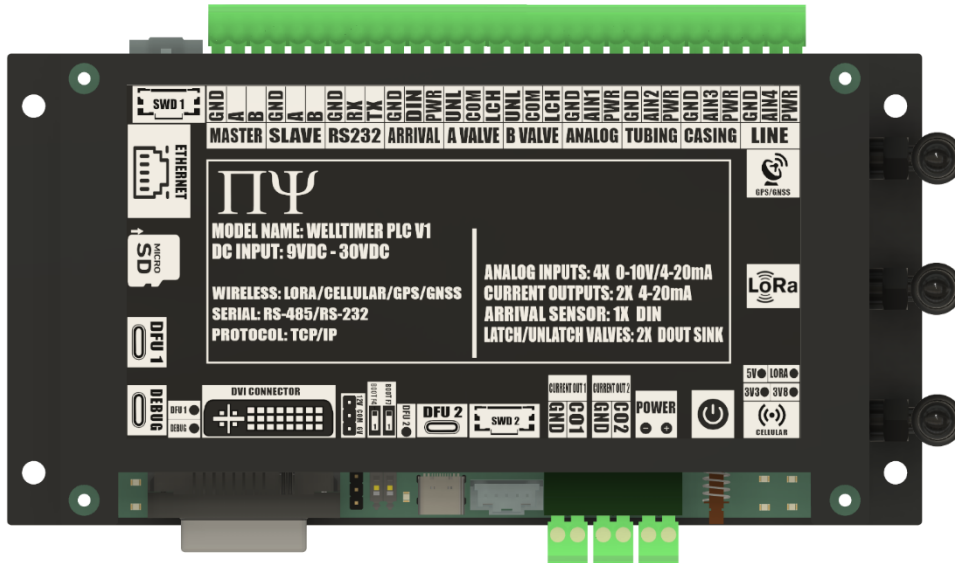


WT-PLC-V1 Plunger Lift Intelligent RTU



Overview

WellTimer PLC is a wireless programmable Artificial Lift Plunger Controller that features rich communication and I/O interfaces designed for Algorithm optimization using a built-in Micropython® Edge Computing Engine

Specifications

Power	Power Supply Voltage	9-30V
	Power Type	DC-in
	Current Draw	150mA@Typical 3A@Peak
Mechanical	Dimensions	152.05" L x 87.2" W x 1.6" H
	Enclosure	ABS Plastic
	IP Rating	IP 64
Environment	Operating Temperature	-40°C to 85°C
	Operating Humidity	5%~95% Relative Humidity, non-condensing
I/O Ports	Analog Inputs	4x Channel: 0-10V, 4-20mA
	Digital Inputs	1x Channel: Wet Contact Source
	Current Outputs	2x Channel: 4-20mA Current Output
	Digital Outputs	2x Channel: Sink
Wired Communication	RS-232	1x Port: Modbus RTU Master/Slave
	RS-485	2x Port: Modbus RTU Master/Slave
	Ethernet	1x Port: Modbus TCP Master/Slave
Wireless Communication	Radio	900MHz ISM Protocol: Star Topology
	Cellular	LTE 4G Protocol: MQTT/HTTPS
	Bluetooth	2.4GHz ISM Protocol: BLE
Certification	FCC, IC	

Features

I/O Analog/Digital Ports

- 4x Analog Inputs
- 1x Digital Input
- 2x Current Outputs
- 2x Digital Outputs

Wired Com Ports

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

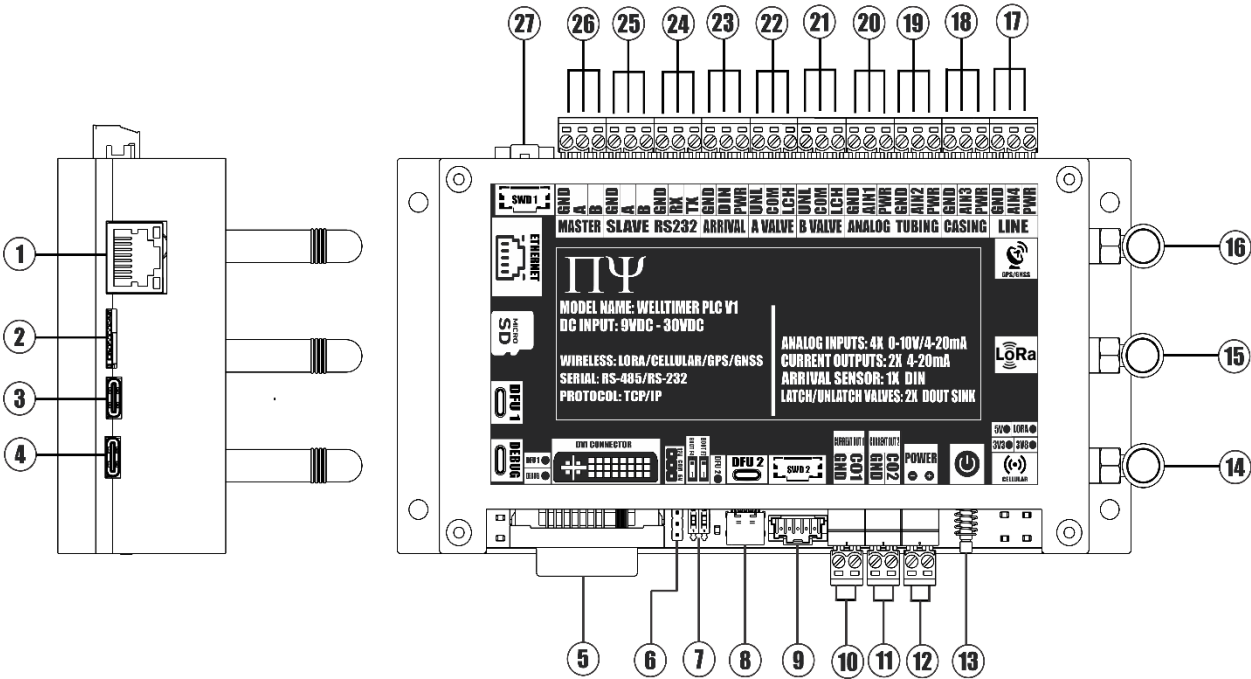
Wireless Communication

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

BLE Mobile Applications

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

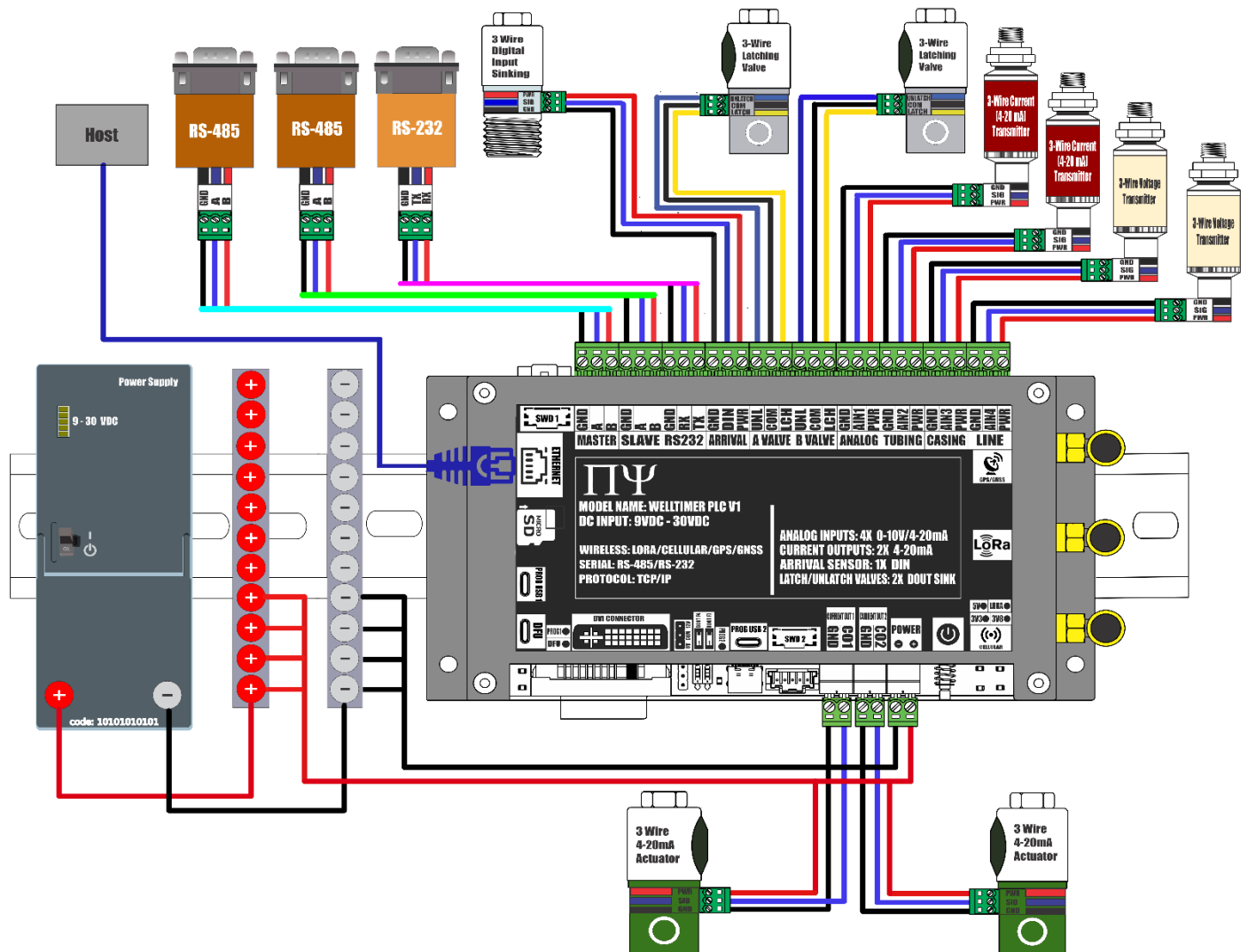
Pinout Diagram



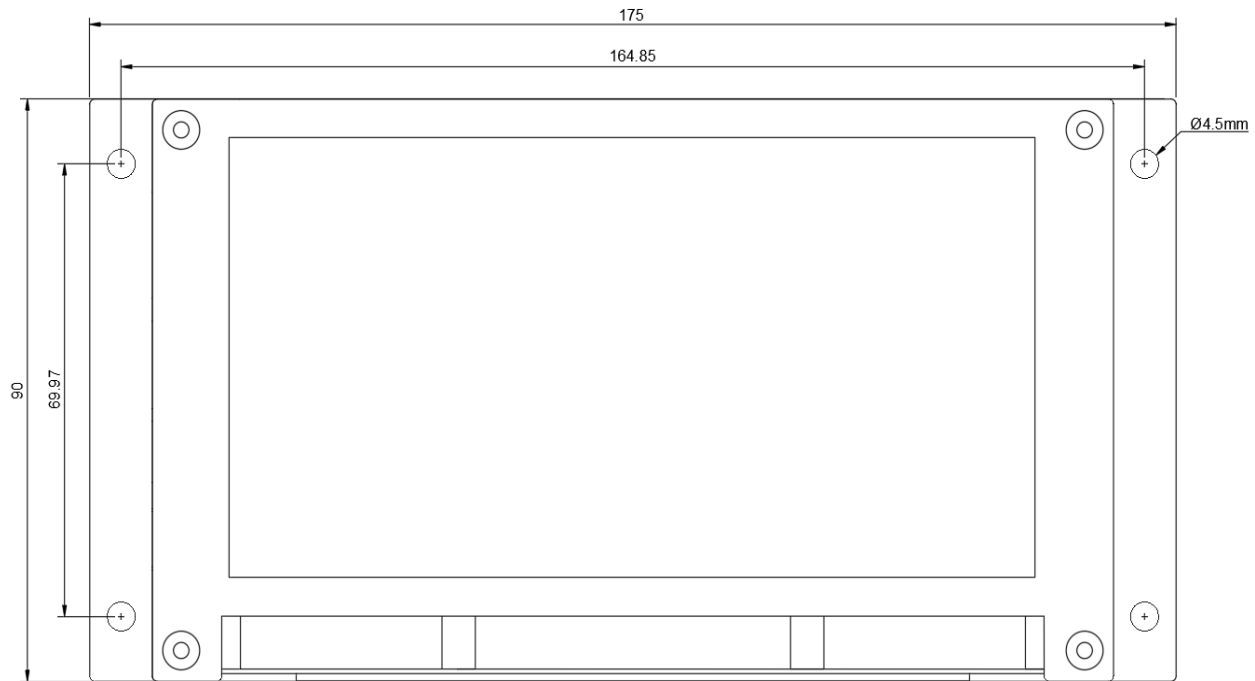
1	Ethernet port
2	Micro SD card slot
3	Programming USB
4	USB DFU 1
5	HMI DVI Connector
6	Digital Output Voltage Select
7	Boot Mode Select Switches
8	USB DFU 2
9	SWD Connector 1
10	Current Output Channel 1
11	Current Output Channel 2
12	Power Connector
13	Power Button
14	Cellular Antenna

15	LoRa Antenna
16	GPS Antenna
17	Line Pressure
18	Casing Pressure
19	Tubing Pressure
20	
21	B Valve
22	A Valve
23	Arrival Sensor
24	RS 232 Port
25	RS 485 Slave
26	RS 485 Master
27	SWD Connector 2

Wiring Diagram



Mechanical Diagram



Software and Documentation

Document	Software Configuration
WellTimer PLC V1 Operation Manual	WellTimer PLC V1 is configured using a browser based AI assisted tool called PytroAI. PytroAI is accessed by going to https://build.s2c.io/?username=demo The various application notes provide a detailed walkthrough for configuring the PYDAQ B200.
WellTimer PLC V1 Software Manual	
WellTimer PLC V1 Point-2-Point Radio Bridge Application Note	
WellTimer PLC V1 Point-2-MultiPoint Radio Bridge Application Note	
WellTimer PLC V1 Tank Level Monitoring Application Note	
WellTimer PLC V1 Modbus RTU Master Application Note	
WellTimer PLC V1 Modbus RTU Slave Application Note	
WellTimer PLC V1 Modbus TCP Master Application Note	
WellTimer PLC V1 Modbus TCP Slave Application Note	

Address: 1000 Innovation Dr. Suite 500, Kanata, Ont. K2K 3E7

Tel: 1-613-271-3729

Email: info@pytronix.com