# SPS – DIGITAL QUICK START GUIDE

CONNECTING THE UNIT:

1. Connect load to **HVOUT** and **HVRTN**
2. Connect FTDI cable to pins 23-28 with pin 1 of FTDI cable on pin 28
3. In the computer's Control Panel, under the Device Manager, select the arrow next to Ports (COM & LPT) to show active ports.
4. Identify the communication port number used by the "USB Serial Port" identifier.
5. In the DTI Power Supply Utility, select **Edit Settings** in menu bar. Select Open Serial Port and enter port number found in step 4
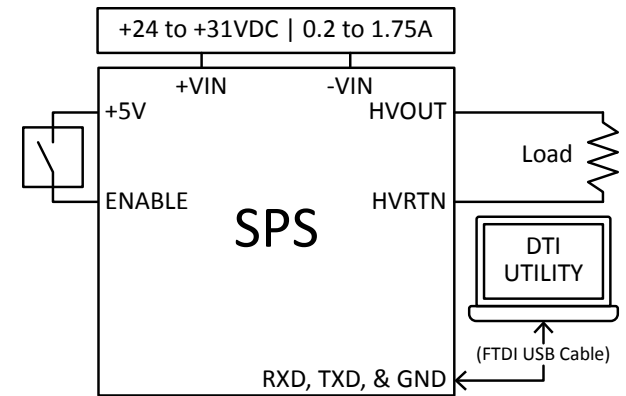
OPERATING THE UNIT:

1. Power on unit: unit is default enabled
   - Apply 24V to **VIN** (pin 1 and pin 2)
2. Adjust output voltage:
   - Select Digital Mode in the Utility
   - Adjust output voltage setpoint by typing in voltage number or clicking + or - buttons
3. Set current limit:
   - Select Digital Mode in the Utility
   - Adjust current limit setpoint by typing in current number or clicking + or - buttons
4. Enable Output:
   - Connect **ENABLE** (pin 5) to **+5V** (pin 8)
   - Select button **Turn Output On** in the Utility
5. Observe output:
   - Output voltage observed in the Output section of the Utility
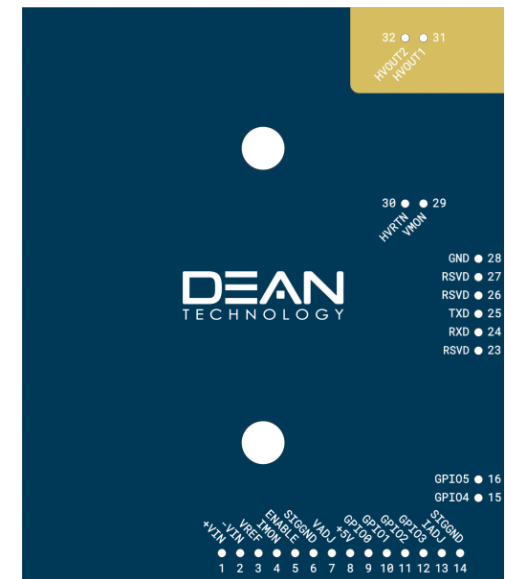
DTI POWER SUPPLY UTILITY:
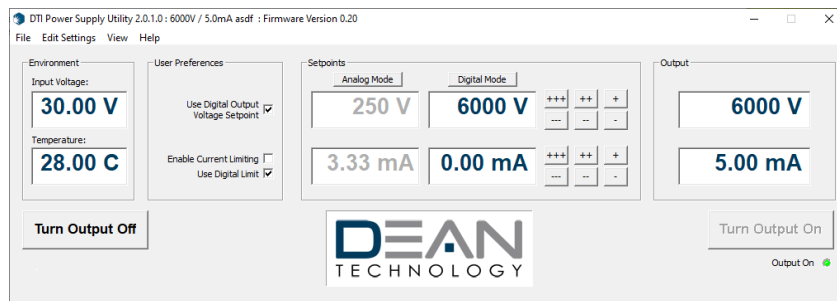
CONNECTION DIAGRAM:

VMON & IMON: 10 V or 5 V Scale Based on Model Option

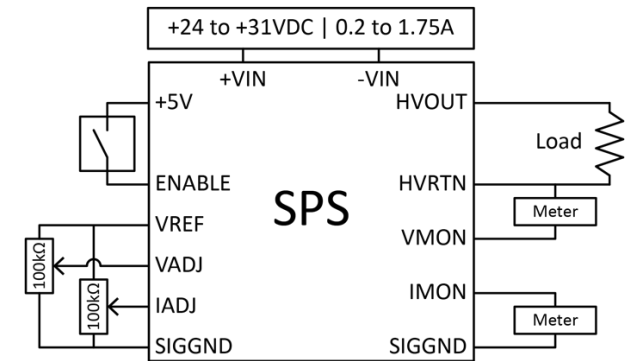## PIN LAYOUT:

SPS – ANALOG QUICK START GUIDE

CONNECTING THE UNIT:

1. Connect load to **HVOUT** and **HVRTN**
2. Connect multimeter to **VMON** (pin 29) and **HVRTN** (pin 30)
3. Connect multimeter to **IMON** (pin 4) and **SIGGND** (pin 6)
4. Connect power to **+VIN** (pin 1) and ground to **-VIN** (pin 2)
5. Connection to adjust high voltage output:
   - Option 1: A 0V – 5V or 0V – 10V, based on model, power supply connected to **VADJ** (pin 7), **IADJ** (pin 13), and **SIGGND** (pin 6)
   - Option 2: Two potentiometers (10k – 100k) connected between **VREF** (pin 3) and **SIGGND** (pin 6) with wipers connected to **VADJ** (pin 7) and **IADJ** (pin 13)

OPERATING THE UNIT:

1. Power on unit: unit is default enabled
   - Apply 24V to **VIN** (pin 1 and pin 2)
2. Adjust output voltage:
   - Adjust output voltage **HVOUT** (pin 31 and 32) using **VADJ** (pin 7)
   - 0.0V – 4.4V or 0.0V-9.0V for 0% – 100% output (±2%), based on model
3. Set current limit:
   - Adjust output current **IMON** (pin 4) using **IADJ** (pin 13)
   - 0.0V – 4.4V or 0.0V – 9.0V for 0% – 100% output (±2%), based on model
4. Enable Output:
   - Connect **ENABLE** (pin 5) to +5V (pin 8)
5. Observe output:
   - Output voltage observed at the **VMON** (pin 29)
   - Output current observed at **IMON** (pin 4) (*see datasheet for scaling*)

CONNECTION DIAGRAM:

VMON & IMON: 10 V or 5 V Scale Based on Model Option

PIN LAYOUT:

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