VisiFerm Quick Start-up Manual

This Tech Note is designed to assist with the installation of the Hamilton VisiFerm (242450-02) with either the FLXA21 or DO402G. This document should be used in conjunction with the User's Manual of the various products.

1. Necessary Components

- VisiFerm sensor, part number **242450-02**
- VP 6 cable, part number **355109** for 3 M, **355110** for 5M, or **355111** for 10M. VP8 cable ***optional*** (will not be stocked).
- **FLXA21** or **DO402G**

2. Wiring Connection

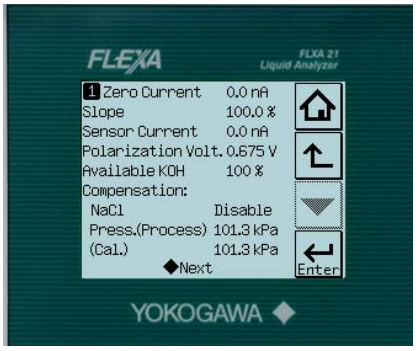
For measurement you can use normal Variopin cable with 6 pole or WU10. A VP 8 pin cable or the Demo Cable is only necessary for PC configuration.

2.1. Using 6 Pin Variopin Cable *355108, 355110 or 355111 with the Transmitter*

Power wires (Using an external 24V power supply)

- Grey (pin C) to Power supply +
- Blue (pin D) to Power supply –

** Please Note: That in the original Tech Note the sensor power wiring was backwards. If wired incorrectly the sensor will still power on, but the % saturation reading will be around 200% and you will not be able to calibrate the sensor. Also we noticed that the sensor current was not reading 60 nA like it should but instead around 120 nA. **



Connect sensor to transmitter

- Core black/transparent (pin A) to Cathode terminal 17
- Shield red (pin B) to Anode terminal 18
- White (pin E) to temperature terminal 11
- Green (pin F) to terminal 12
- Yellow/Green (Shield) to terminal 14

2.2. Optional: Using 8 Pin Variopin Cable *355217 or 355218 with the Transmitter*

Connect RS485 wires left Unconnected

- Yellow (pin G) to A
- Brown (pin H) to B

Power wires (Using an external 24V power supply)

- Core Red/ Transparent (pin C) to Power supply + in the transmitter
- Shield Red (pin D) to Power supply - in the transmitter

Connect sensor to transmitter

- Core Black/Transparent (pin A) to Cathode terminal 17
- Shield Black (pin B) to Anode terminal 18
- White (pin E) to temperature terminal 11
- Green (pin F) to terminal 12
- Yellow/Green (Shield) to terminal 14

3. Configuration of the Transmitter

Reconfigure DO402 to OXYFERM

- Code 01 set to 1, select 9 and set current to 60 nA
- Code 10 set to 3

Reconfigure FLXA21 to OXYFERM

- Select Polarographic for sensor setup
- Select the appropriate unit of measure
- Leave the Sensor Sensitivity set to default value of 7.5 nA
- Change the temperature element to 22k NTC
- Change the Zero Calirbation, under Calirbation Settings to Enabled

4. Use of the VisiFerm Sensor

Now you can perform calibration with FLXA21/DO402.

When using the FLXA21 if you have the sensor in air you will need to perform a ***Manual Slope Calibration*** to adjust to ***100% saturation***. If you are adjusting the ***O%*** in solution then you need to perform a ***Manual Offset Calibration***.

If you perform the Air calibration it will read around 95-100% in air before the calibration and around 110-115% after the calibration. This is why the ***Manual Slope Calibration*** is required instead.