

CORROSION SENSOR WIRING AND CALIBRATION INSTRUCTIONS

Purpose

To provide instructions on wiring and calibrating various configurations of MicroVision EX's equipped with Pyxis Corrosion Sensor

Scope

This procedure applies to wiring & calibrating the Pyxis Corrosion Sensor with MicroVision EX

References

1. See wiring diagram A for single Corrosion Probe (page 4)
2. See wiring diagram B for dual Corrosion Probes (page 5)
3. See wiring diagram C for combination PTSA & Corrosion Probe (page 6)

1.0 MVEX Configuration Instructions

For **Single Corrosion Probe**

1. Set up the MicroVision EX controller to turn on the 4-20mA input:
 - a. Go to: Menu → Configure → 4-20mA In → Input 1
2. Set the MicroVision EX controller to display the 4-20mA input readings in Mil/Y
 - a. Go to: Menu → Settings → 4-20mA In → Type → Mil/Y

For **Dual Corrosion Probe**

1. Set up the MicroVision EX controller to turn on the 4-20mA inputs:
 - a. Go to: Menu → Configure → 4-20mA In → Input 1:2
2. Set the MicroVision EX controller to display the 4-20mA input readings in Mil/Y for 4-20mA inputs 1 & 2:
 - a. Go to: Menu → Settings → 4-20mA In 1 → Type → Mil/Y
 - b. Go to: Menu → Settings → 4-20mA In 2 → Type → Mil/Y

For **PTSA & Corrosion Probe** load ABC configuration software onto the MVEX

1. Set up the MicroVision EX controller to turn on the 4-20mA inputs:
 - a. Go to: Menu → Configure → 4-20mA In → Input 1:2
2. Set the MicroVision EX controller to display the 4-20mA input readings in PPB & Mil/Y for 4-20mA inputs 1 & 2 respectively:
 - a. Go to: Menu → Settings → 4-20mA In 1 → Type → PPB
 - b. Go to: Menu → Settings → 4-20mA In 2 → Type → Mil/Y

Corrosion Sensor Calibration Instruction

The corrosion sensor calibration process shall be completed on 4-20mA In 1, 4-20mA In 2, or both depending on the configuration. This procedure applies to the inputs that were set as Mil/Y type

1. Ensure that the corrosion sensor is wired correctly, connected to the cable, and has the stainless-steel sensor tips (comes w/ probe) installed
2. Have the corrosion sensor calibration cap for stainless steel ready (comes w/ probe)
3. Enter the 4-20mA calibration mode
 - a. Go to: Menu → Settings → 4-20mA In 1 (or 2) → Calibrate

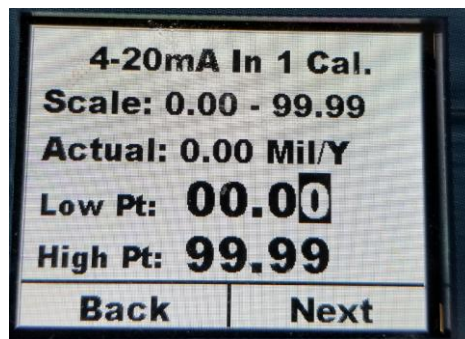


FIGURE 1 - 4-20MA CALIBRATION SCREEN (SETTING LOW PT.)

4. With the steel tips installed and the probe sitting out in open air wait 15 minutes to let the actual 4-20mA values settle. Once the value has settled, set the low point to 00.00 and press next until you get to the high point.

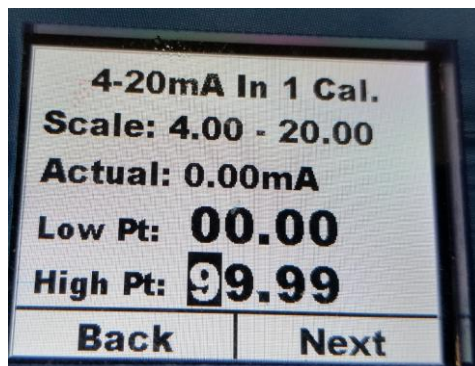


FIGURE 2 - 4-20MA CALIBRATION SCREEN (SETTING HIGH PT.)

5. Once the cursor has moved to the high point section, with the steel tips installed, place the calibration check cap for steel onto the steel tips of the corrosion sensor and wait 15 minutes to let the actual 4-20mA settle. Once the value has settled, set the high point to 02.00 and press next until you are out of the calibration menu

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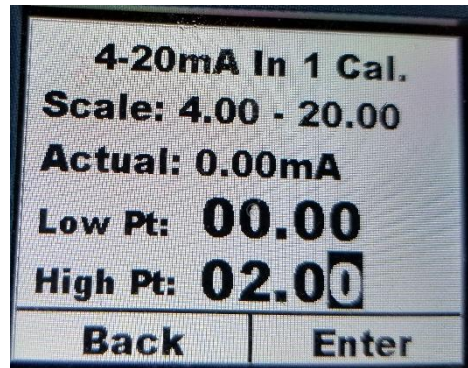


FIGURE 3 - 4-20MA CALIBRATION SCREEN (CONFIRMING HIGH PT.)

The device should now be calibrated. To verify – the readings on MVEX should be 0 with the corrosion sensor tips in open air and 2.00 Mil/Y once the calibration check cap is installed (make sure to consider the 15-minute settling times when verifying your readings).

The same process can be followed for calibrating the set up for copper sensor tips; however, the high point for the copper calibration check cap is 0.1 Mil/Y. Therefore, in step 5, 00.10 shall be entered as the high point.

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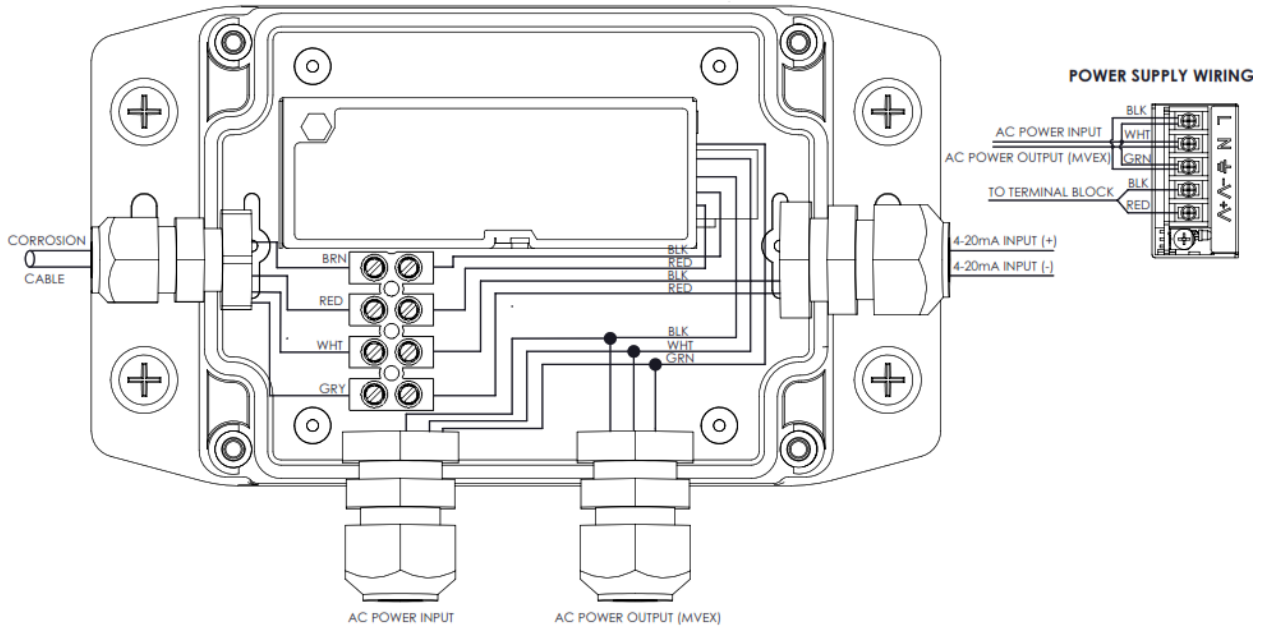


DIAGRAM A - WIRING DIAGRAM A (SINGLE CORROSIONS PROBE TO MVEX 4-20MA IN)

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FOR DUAL CORROSION SENSOR SYSTEMS:

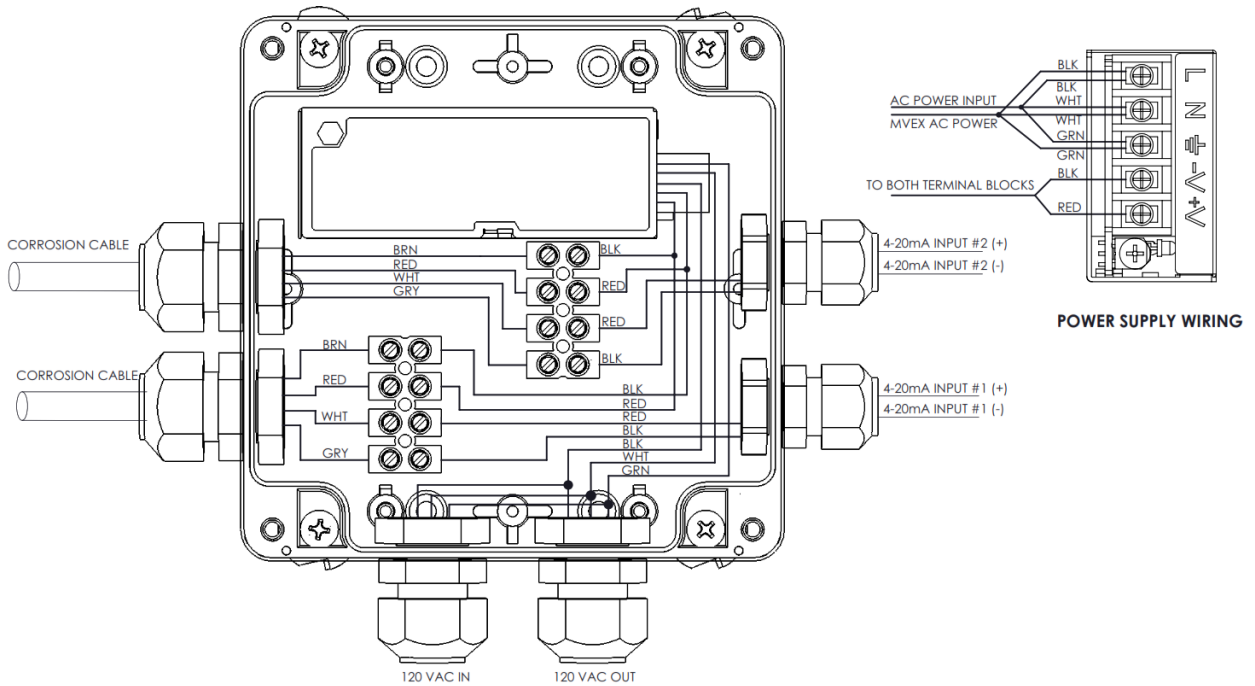


DIAGRAM B - WIRING DIAGRAM B (DUAL CORROSIONS PROBES TO MVEX 4-20MA IN 1 & 2)

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FOR COMBINATION PTSA & CORROSION SENSOR SYSTEMS:

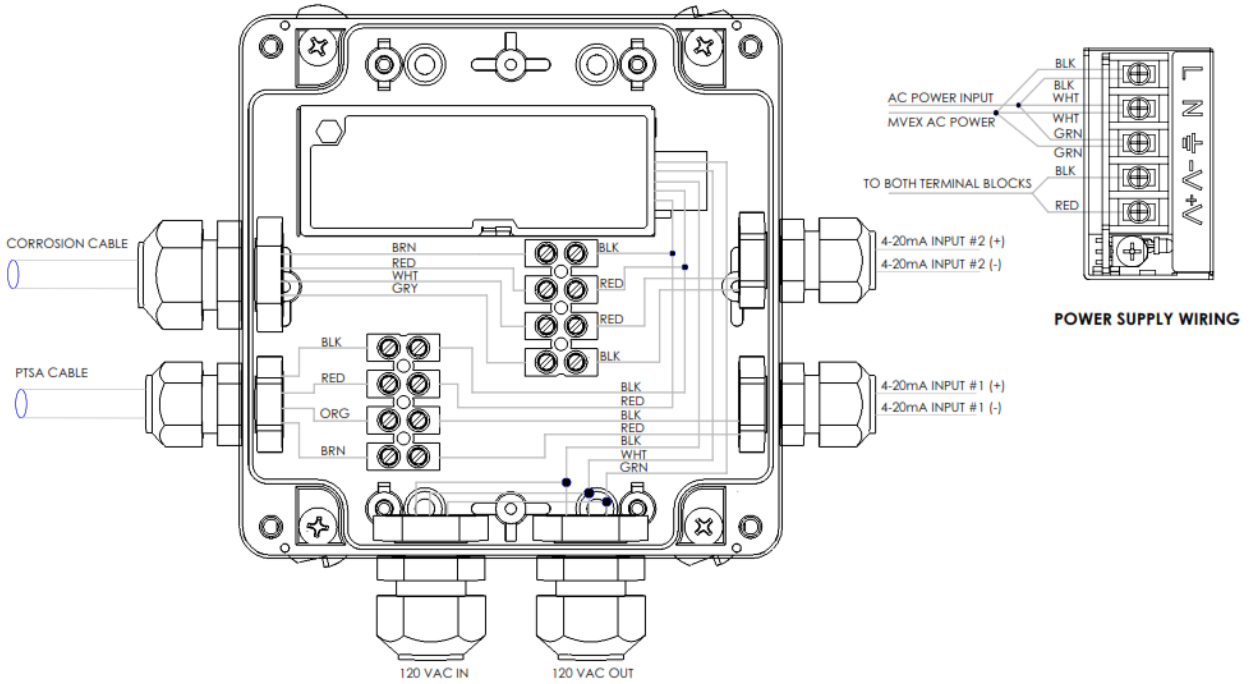


DIAGRAM C - WIRING DIAGRAM C (PTSA & CORROSION TO MVEX 4-20MA IN 1 & 2 RESPECTIVELY)