

6. TROUBLESHOOTING

Problem	Possible Causes	Check/Remedy
No response/meter reading blank	No power Blown fuse Faulty sensor bulb	Check power light. Check fuse. Check to see if sensor lamp is on. If lamp is off, check voltage across terminals 5 & 6 in sensor. If voltage is greater than 7 VDC, then sensor has failed.
Meter will not zero (high reading)	Too much scattered light Too much ambient light or too much reflected light Poor sensor connections or incorrect wiring Sensor leads not insulated from body of sensor or conduit Wet connection in converter or sensor housings Defective sensor/transmitter	Remove sensor and place in clean water with a cover to shield ambient light. Disconnect wires on terminals 5 & 6. If meter still will not zero then ambient light is entering pipe. If meter will zero then too much reflected light. Try repositioning the sensor to reduce reflection. Check connections and wiring. Check sensor wires. Look for water or condensate on connections. Remove all sensor wires at transmitter. If meter will not zero turn span full counter clockwise. If meter still will not zero transmitter is bad. If meter will zero then sensor possibly has failed.
Unstable reading	Air bubbles or very large particles in process line RFI pickup Heavy Inductive loads	Take sample and check for bubbles or large particles. If present relocate sensor. Earth ground instrument properly. Mount instrument away from power cables. Put cables in conduit.
Reading does not agree with lab results	Improper calibration Lab procedure error Lab instrument error Defective sensor	Recalibrate instrument. Check procedure. Check instrument. Refer to supplier.
Readings drift with time	Converter not warmed up Sensor/converter connections wet Deposit buildup on sensor	Warm up converter for 15 minutes. Look for water or condensate on connections. Dry connections with hair dryer. Then use NEMA 4X enclosure. Remove sensor and clean.
Negative readings or negative output	Wet or damp connections Faulty sensor bulb	Dry connections with hair dryer. Then use NEMA 4X enclosure. Check to see if sensor lamp is on. If lamp is off, check voltage across terminals 5 & 6 in sensor. If voltage is greater than 7 VDC, then sensor has failed.