



Monitoring, Treatment & Control Systems for Industry

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Preventative Maintenance Procedure for the OSI OFS2000 family of optical flow meters Rev 0

Introduction: Once commissioned and shown to be setup and functioning satisfactorily, the OFS2000 type flow meter requires very little preventative maintenance. Assuming there are no faults or failures of components of the system, the frequency of preventative maintenance should be about once per year.

Preventative Maintenance Procedure:

Initially, when the system is new, it is advisable to inspect it at a higher frequency, say once per month, and then after 3 or 6 months you can relax this schedule to once per 6 months or once per year.

Inspection should comprise the following:

- Open the controller and write down the date, velocity, Correlation and A and B (light intensity values) on a small pad of paper. Confirm the correlation is steadily over 100 when flow is present. Confirm the light values are over 1.0 . Place the small notepad in the controller box for reference next time you visit. (If there is no flow at the time of inspection, the correlation will be low. You can come back when there is flow or ask around for the person who would be watching the OFS trends and ask them if they are confident the meter is measuring flow).
- Check: the aim of the LED, the window (and/or sight-glass, if present) for cleanliness (while aiming the LED), the flow rate of the purge air for the spool pieces (it should be 2 CFM for vertical stack applications or a value that has been further optimized on start-up), and that the Bebco type enclosure purge system (if present) is operating properly.

Preventative maintenance tasks:

When the A & B light levels have dropped to 1.0 volt or lower, it is time to clean the windows (or sight-glasses, if present). Take your normal precautions to isolate the line and ensure that taking off the head is safe. To clean the windows, you need two people if a sight-glass is present. If a sight-glass is not present, one person can loosen the four bolts holding the head, take them off while supporting the head, wipe the window with a clean tissue and re-mount the head. If you have sight-glasses, one person supports the head (Transmitter or Receiver) and the other loosens the bolts connecting the head to the spool piece. With the cooperation of the two people, also support the sight glass as the bolts are loosened. Once the sight-glass is free, wipe the process side with a clean cloth or tissue. Once it is clean, re-install it in its original position. Tighten the bolts sequentially, a little bit on each bolt, until they are all firmly snug. (Firmly snug is noted when the neoprene gasket compresses a small amount.). Do not overtighten the bolts and do not tighten them such that one is tight and another not tight. (i.e do not tighten such that you impart a bending force on the sight-glass). After cleaning the windows, follow the inspection procedure above.

End of the Preventative Maintenance Procedure.