

## SIR100 Hydrophobic Filter (IPF-002) Instruction guide MAN-0122 Rev 01

### Introduction

Net Safety Monitoring has designed the SIR100 IP Filter (IPF-002) specifically to protect the sensor from abnormally high ingress exposure. In sustained high ingress applications, the sensor's sintered core may lose porosity, which may affect the sensors response. To obtain maximum reliability, the filter should be installed when used in these applications. Component parts of the filter include: 2 O-rings, an end water guard (cap) with an outer adhesive strip attached and a rectangular sheet with 3 adhesive strips fitted. After removing components from packaging, ensure that there are no missing parts, adhesive strip(s) are intact and no damaged is seen.

### Fitting the IPF-002 Filter to the SIR100

**Warning**  Prior to installing the IPF-002 filter, disconnect power to the Millennium Controller. Also, do not open housing enclosures in a classified area.

**Recommendations:** The SIR100 top housing cover should be unscrewed with the aid of two strap wrenches. This will prevent the flame arrestor adapter ring from becoming loose, or housing from being damaged by the use of other tools. *See Figure 1A* for flame arrestor adapter ring location. Use latex or vinyl disposable gloves when fitting filter, as this will prevent grease and debris from contaminating adhesive surfaces.

1. Remove filter (IPF-002) components from packaging and inspect, then disconnect power from SIR100.
2. Place one strap wrench over SIR100 flame arrestor adapter ring and the other over the top housing cover.
3. Twist housing top cover counterclockwise and remove from base housing. *See Figure 1B.*
4. Ensure sinter element (flame arrestor) is clean and dry, and then remove O-rings from the cap assembly and set aside. *See Figures 1C&1D.*
5. Place the cap over the end of the sinter and apply firm pressure to secure. *See Figure 1E.*
6. Remove backing strip from the adhesive strip on the cap assembly. *See Figure 1D* for its location.
7. Remove 2 backing strips from adjacent adhesive side strips on the rectangular sheet. *See Figure 1F.*
8. Align the sheet so that longer adhesive end is along the same plane as the sinter base, while the shorter adhesive end is along the same plane as the length of the sinter. The non-adhesive end of the sheet should be along the same plane as the adhesive surface of the cap. *See Figure 1G.*
9. Carefully fit and wrap the sheet all the way around the cylindrical body of the sinter. Use firm pressure so as to ensure a snug fit while checking that the sheet is in contact with sinter base, body and cap.
10. Maintain firm pressure to create a protective cylinder around the sinter element.
11. Remove the remaining backing strip from the trailing side of the sheet. Use firm pressure to ensure that the adhesive surface properly mates with the sheet's outer surface. *See Figures 1H & 1I.*
12. Place the O-rings around sinter base and the upper edge of the cap assembly. *See Figure 1I.*
13. Replace and tighten housing cover by the hand, then assemble to controller, if disconnected from controller.
14. Return power to the system and perform a calibration. See manual (MAN-0059) when calibrating.

Figure 1: Fitting SIR100 filter (IPF-002)

