**Series 250-AF Inclined Manometer Air Filter Gages**

**Installation and Operating Instructions**

**Bulletin C-11**

_DWYER INSTRUMENTS, INC._

Phone: 219/879-8000  www.dwyer-inst.com

P.O. BOX 373 • MICHIGAN CITY, INDIANA 46361, U.S.A.

Fax: 219/872-9057  e-mail: info@dwyer-inst.com

---

**Model** | **Range Inches of Water (Pa)** | **Scale Divisions Inches (cm)** | **Scale Length Inches (cm)** | **Dimensions – Inches (Centimeters)**
---|---|---|---|---
250 - **AF** | .10 - 0 - 1.0 (24.82 - 248.9) | .02 (.05) | 5-1/2 (13.97) | 2-13/16 (7.14) | 8-1/2 (21.59) | 4-1/8 (10.48) | 1-1/2 (3.81) | 7-3/4 (19.61)
250.5 - **AF** | .10 - 0 - 1.0 (24.82 - 248.9) | .01 (.025) | 8 (20.32) | 3-1/8 (7.94) | 11-3/6 (28.89) | 3-15/16 (10.00) | 1-1/2 (3.81) | 10-5/6 (26.71)
251 - **AF** | .05 - 0 - .50 (12.41 - 124.1) | .01 (.025) | 5-1/2 (13.97) | 2-15/16 (7.46) | 8-1/4 (20.96) | 3-5/16 (8.41) | 1-1/2 (3.81) | 7-1/2 (19.14)
252 - **AF** | .20 - 0 - 2.0 (49.64 - 487.8) | .02 (.05) | 8 (20.32) | 2-13/16 (7.14) | 11-1/6 (28.26) | 5-1/2 (13.97) | 2 (5.08) | 10-3/6 (26.17)
350 - **AF** | 0 - 4 (0 - 995.6) | .10 (.254) | 4-1/2 (11.43) | | | | | |
209 - **AF** | .20 - 0 - 3.0 (49.64 - 746.7) | .02 (.05) | 8 (20.32) | 2-3/4 (6.99) | 11-1/4 (28.58) | 7 (17.78) | 2 (5.08) | 10-1/2 (26.67)
260 - **AF** | 0 - 1.5 (0 - 372.9) | .02 (.05) | 5-1/2 (13.97) | 2-13/16 (7.14) | 8-3/8 (21.27) | 4-15/16 (12.54) | 2 (5.08) | 7-5/6 (19.37)

**Note:** The drawing above shows standard connection at left and three-way vent valve at right. If the optional vent valves are preferred, please note that two are required.

---

**Vertical Manometer – Dimensions Not Shown**
INSTALLATION

1. Select a convenient location and drill two 1/2˝ (12.7 mm) holes “E” inches/centimeters apart on a horizontal line. Mount the gage with the toggle bolt assemblies, adjust to a level position as indicated by the spirit level, and tighten securely.

2. Drill two 7/16˝ (11.1 mm) holes in the duct, one on each side of the filter and at least 12˝ (30.48 cm) distant. Secure the static pressure tips as in the drawing above, with the tips directed into the air flow.

3. Connect 1/4˝ (6.35 mm) metal tubing from static pressure tips to the gage. The tip on the downstream or fan side of the filter leads to the right-hand gage connection, etc.

4. Slip out both gage connector plugs, venting both sides of the gage to atmosphere, and slide scale so that the zero mark lies directly behind the fluid meniscus, as in the drawing. Align fluid meniscus and the reflected image to eliminate parallax error.

5. Add or remove fluid as necessary.

6. Replace both gage connector plugs, and the gage will indicate the pressure drop across the filter.

7. Filter manufacturers provide figures covering the pressure drop through their filters, at rated volume, when new and after use. Thus, for a typical filter, initial resistance might be .25˝ of water (62.05 Pa) and permissible increase .30˝ water (74.46 Pa). Such a filter should be serviced at a gage reading of .55˝ water (136.5 Pa).

CAUTION:
Use Dwyer Instruments, Inc. gage fluid only. Clean with soap and water only. Other fluids or cleaning agents may damage the gage.