

EMISSOMETER ADAPTER MODEL AE-AD1

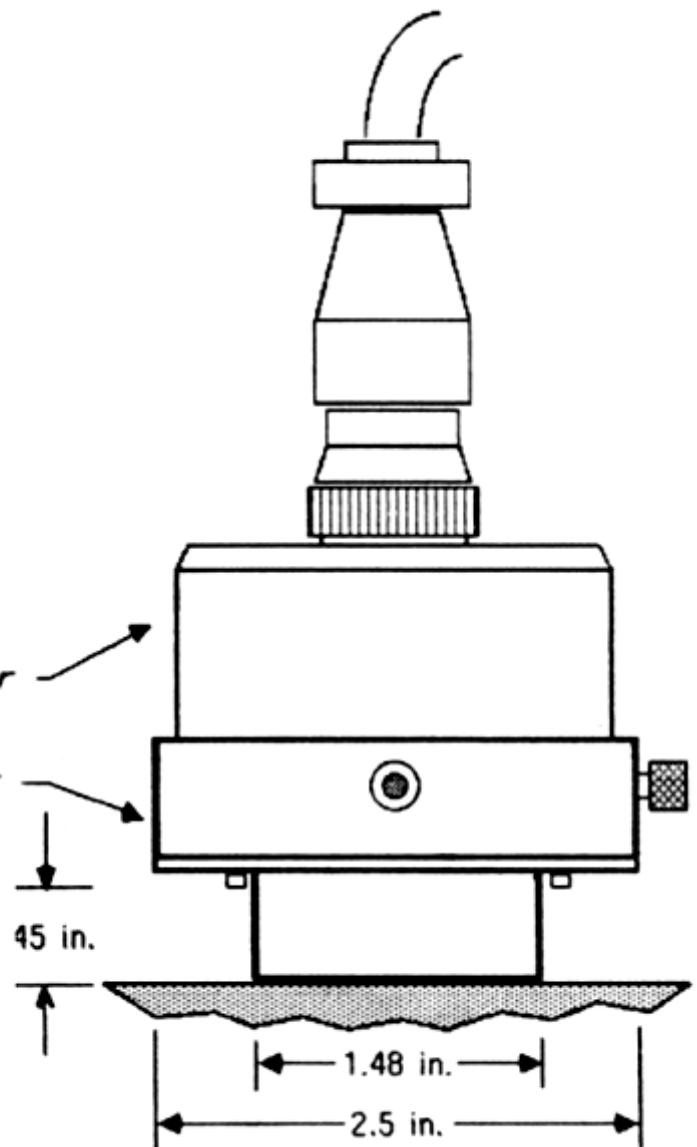
Adapter for use with the Emissometer Model AE

Emittance measurements with the Emissometer Model AE can now be made on flat areas as small as 1.5 inches (3.8 cm.) in diameter. Typical applications would be taking measurements between tubes on a solar absorber panel or measuring areas smaller than the 2.25 inch (5.7 cm.) diameter of the Emissometer. The adapter will clear vertical obstructions up to .375 inches (.95 cm.) in height around the area to be measured. The dimensions of the adapter are shown in the drawing below in which the adapter is shown installed on the Emissometer Model AE.

The adapter is held in place by two nylon screws. From the collar that fits around the Emissometer, the adapter steps down to a 1.5 inch diameter tube, at the end of which is the measurement port. The interior of the tube is covered with a highly reflective and specular material. This reflective material directs both the thermal radiation emitted by the detector and the sample to be measured so that the Emissometer output remains high even though the sample is a greater distance from the Emissometer detector. The adapter measurement port is encircled by a teflon gasket to protect the surface to be measured.

Special adapters can be made on a custom basis for irregular surface geometries. Examples include cylindrical surfaces, tubes, expanded type absorber plates, etc.

Shown full size { *Emissometer*
Adapter

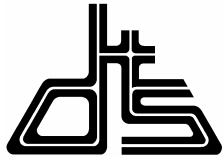


Supplied with instructions and Technical Note describing details of making measurements with the adapter.



Devices & Services Co.

10290 MONROE DRIVE STE 202 - DALLAS, TEXAS 75229 - (214) 902-8337



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Emissometer Adapter - Model AE-AD3

The AE-AD3 is used just like the AE-AD1 with the following differences:

The measurement aperture of the AE-AD3 is 0.75 inch inside diameter and 1.0 inch outside diameter. Therefore the minimum sample size is one inch diameter.

The conical portion of the adapter is an interference fit with the body of the adapter. This was done to facilitate the application of the reflective film to the adapter.

When the reflective film needs to be replaced, the adapter should be returned to Devices & Services Company. Replacement film is not included, due to the delicate nature of replacing the film on the conical section.

An aluminum weight is included with the adapter. It is installed over the Emissometer detector to give it stability when using the adapter. The detector must sit flat against the surface to be measured. The weight has a relief machined into one end, to clear the screws in the top of the Emissometer detector. If the weight is too heavy for the sample to be measured, it can be machined to a smaller size.

