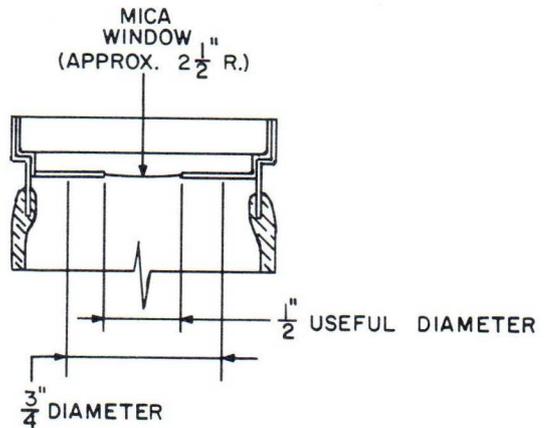


IMAGE TUBE

TYPE FW-109

A PRODUCT OF ITT LABORATORIES

Nutley, N. J. • Fort Wayne, Ind. • San Fernando and Palo Alto, Calif.



The FW-109 image tube is of the same general geometry as the 6411/IC16 with the exception of the exit face plate which carries the phosphor screen. It has an exit window of very thin film mica (0.0004 inch). Useful diameter is $\frac{1}{2}$ inch. The thin film mica window is hermetically sealed to the anode terminal and tube body and supports atmospheric pressure with a good margin of safety. A photographic film may be brought into intimate contact with the window and the image on the phosphor screen may be photo-

graphed directly without the loss of light inherent with even a fast lens system. Because of the small separation of the photographic film and phosphor screen the loss in resolution is minimized.

The FW-109 has found favor as an intensifier for photography of stellar spectra. Gains of 50 to 100 over direct photography have been reported.

The electrical characteristics (operating and focus voltages) are identical to those of the 6411/IC16.

DATA

Cathode	Antimony-cesium
Cathode response	S-11
Cathode sensitivity	
Luminous	30 $\mu\text{a/lumen}$
Radiant at 4400 Angstroms	0.037 $\mu\text{a}/\mu\text{w}$
Cathode (useful diameter)	0.970 inch
Phosphor	P-11
Phosphor screen (useful diameter)	0.500 inch
Image magnification (paraxial)	0.68 inch
Resolution at 16 kv operating voltage (paraxial)	45 line pairs/mm