APPLICATION DATA

COATING AND SCREENS

COATING

The material used by Kulite to coat the diaphragm is RTV-511, manufactured by General Electric. It has a low modulus of elasticity and is easy to apply. Generally a nominal thickness of .003" is used.

Tests indicate that the protective layer does not significantly change the static or dynamic characteristics of the transducer. A slight deterioration in the acceleration sensitivity of the transducer is to be expected. However, since the inherent acceleration sensitivity of the uncoated units is extremely low, the coated units still have an acceleration sensitivity superior to other commercially available miniature pressure transducers.

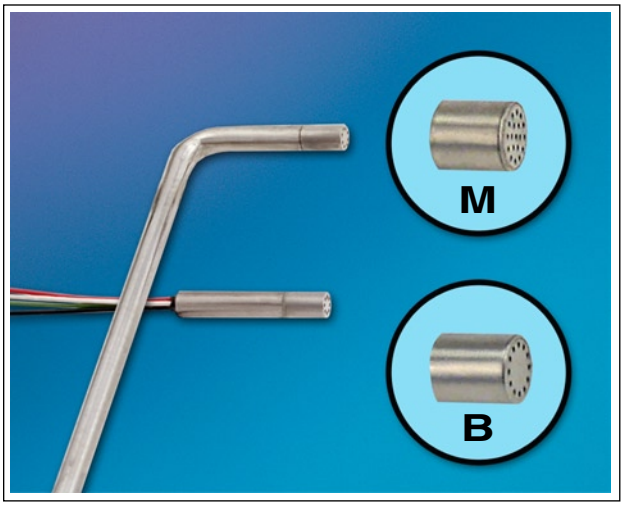
All Kulite Transducers (Excluding Leadless Models), can be supplied with RTV coating at no extra charge.

SCREENS

Two types of screens are available from Kulite.

"M" SCREEN

This screen consists of a .005" thick fine metallic mesh. The hole sizes are .006" diameter.



"B" SCREEN

This screen consists of a .005" thick fine plate with .006" diameter holes positioned on a circle. The diameter of the circle is greater than the active diameter of the diaphragm. This arrangement eliminates the possibility of a particle penetrating through the holes and hitting the unclamped portion of the diaphragm.

These screens are mounted in a screen holder which is installed on the transducer housing in front of the diaphragm. The minimum distance between the diaphragm and the screens is .005". Other distances may be used in accordance with application requirements. Distances of .006" and .013" between diaphragm and screen are used in the standard Kulite probes.

Most Kulite Integrated Sensor Pressure probes are supplied standard with an "M" screen. "B" screens may be ordered as an option. ("B" Screen is standard on the 062 Series Transducers.)

Test results indicate that the screen assembly does not cause a deterioration in the static performance of the transducer. Furthermore, it does not have any effect on the dynamic response from 20 Hz to 20 kHz.