

# KrellBar

Krellbar was originally designed by an eminent manufacturer in West Germany (Hartmann & Braun) for the measurement of fluid flow in duct or pipes in a large cross-sectional area. The principle of operation is similar to Anubar or Pitot tube. The element design claimed to be more suitable for the flow measurement of gaseous fluid containing dust.

Its construction is just opposite to that of the conventional orifice plate but similar to Annubar with a much simpler design. There is a small diameter blind circular plate installed near the central axis of the flow path temporarily restricting the flow. The HP and LP impulse pipes/tubes are welded on two sides of this plate so that their open end is located at the center of the plate.

The fluid velocity becomes zero when it impinges on the plate and is converted into equivalent pressure. The upstream impulse pipe senses the static head plus the dynamic (or velocity) head, whereas the downstream impulse pipe senses the static head only. The DPT connected to this impulse lines generates the appropriate flow signal.

Here the bore of both impulse pipes is comparatively large and thereby problems with dust choking are very minimal. The DP produced by this type of element is more than that of Anubar, resulting in high resolution and accuracy.

## ADVANTAGES

- The meter is recommended for clean and dirty liquids/ gas.
- Pressure loss is medium
- Relative cost is low
- Accuracy is higher than Anubar

