

**ABSTRACT****MEASUREMENT SYSTEM**

A fluid measurement system includes two transducers 36, 37 which are located in a duct to provide a measuring path through a measuring tube 40. The transducers are switchable to allow each to be used for both transmission and reception and the speed of fluid passing through the measuring tube 40 will be dependent on the difference in time periods for a signal from the transducers passing with or against the fluid flow.

A calibration mechanism employing an auxiliary transducer 56 with its own ultrasonic paths allows accurate measurement of speed of sound values to be determined for the particular fluid flowing and the particular system parameters including transducer delay.

Fig. 2