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[Continued on next page]

(54) Title: CHORDAL GAS FLOWMETER WITH TRANSDUCERS INSTALLED OUTSIDE THE PRESSURE BOUNDARY, HOUSING AND METHOD

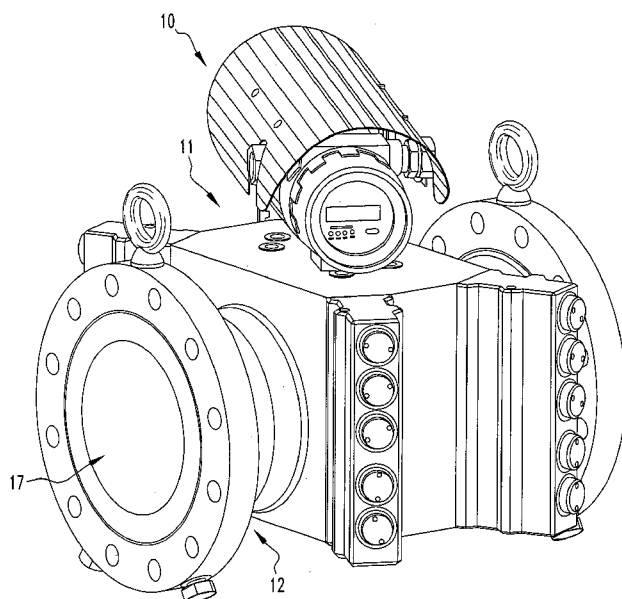


FIG. 1

(57) Abstract: A flowmeter includes a container for attaching to a pipe having a channel for gas flow, and a plurality of recesses that extend through the container and a plurality of housings. Each recess has a housing which contains pressure in the channel. Each housing has a window in acoustic communication with the channel. The flowmeter includes a plurality of transducers, with one transducer disposed in each recess. The transducers transmit ultrasonic signals into and receive ultrasonic signals from the channel through the window in the housing in which a transducer is disposed. The flowmeter includes a controller in electrical communication with the transducers, which determines the gas flow rate through the channel by measuring transit times of signals transmitted by and received by the transducers.



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