

ULTRASONIC FLOWMETER

ABSTRACT OF THE DISCLOSURE

An ultrasonic flowmeter with a measuring tube (1) through which flows a medium and which, viewed in its cross section, has a bipartite split circumference forming two halves and with two ultrasonic converter pairs (2), each with an associated ultrasound reflector (4). The ultrasonic converters (3) of each ultrasonic-converter pair (2) are mounted on a common circumferential half in a mutually offset position as viewed in the longitudinal direction of the measuring tube (1), while the ultrasound reflector (4) for each ultrasonic converter pair (2) is positioned on the other, opposite circumferential half in the longitudinal direction of the measuring tube (1) between the two ultrasonic converters (3), so that an ultrasound signal emitted by one ultrasonic converter (3) of an ultrasonic converter pair (2) travels along a V-shaped signal path (5) via the ultrasound reflector (4) of the associated ultrasonic converter pair (2) to the other ultrasonic converter (3) of that ultrasonic converter pair (2). The first ultrasound converter pair (2) and the second ultrasound reflector (4) are positioned on one circumferential half of the tube while the second ultrasound converter pair (2) and the first ultrasound reflector (4) are positioned on the other, opposite circumferential half of the tube. This results in an improved measuring accuracy of the ultrasonic flowmeter.

(Fig. 1b)