

In-Line measurement of sludge density limit values and suspended solids

The measurement of solid concentrations or the monitoring of given limit values for sludge or mud density in liquids with ultrasonic can be used everywhere, where optical measurements fail and push to their physical borders. The In-Line measurement of the sludge or mud density can take place in the same measuring armature, as the optical measurement which can be replaced. The user receives thereby one, up to possibly necessary employment-typical cleaning, almost maintenance-free measurement with extremely high long-term stability. The ultrasonic signals received sent by the sensor and form the measuring section between the sensor and the tube sheet lying opposite. The signal absorption adjusting by the solid concentration and/or mud density is linear for solid concentration. The tubing nominal sizes can amount to for instance DN 25 (1") to DN off 1000 (40"). The measurable (evaluable) sludge density and/or their change can between 0,5 to approximately 30 g (TS)/ litre water amounted to. Depending upon tubing geometry and flow conditions, can deviate the measuring borders upward or down. The indicated solid concentration refers to lime milk. With larger particles (sand or gravel) the upper measuring border is substantially higher. At the transducer the limit value is freely adjustable. Programming is possible over the keyboard or from the control room over RS-485.

