

**MULTIVARIABLE SENSOR FOR DETERMINING AND/OR MONITORING FILL
LEVEL AND DENSITY AND/OR VISCOSITY OF A LIQUID IN A CONTAINER**

Abstract

The invention relates to a multivariable sensor for determining and/or monitoring a predetermined fill level and density and/or viscosity of a liquid in a container. The sensor comprises a measuring tube (2) provided in the container, wherein the measuring tube (2) has at least a first oscillatable segment (4) and a second oscillatable segment (5), wherein the oscillatable segments (4,5) have a cross sectional area deviating from a circularly round shape and at least one straight side, wherein on an inner wall (6) of the oscillatable segments (4,5), driver/receiving units (7) are placed, which cause the oscillatable segments (4,5) to execute resonant oscillations, and wherein at least one control/evaluation unit (8) is provided, which evaluates frequency and/or phase and/or amplitude of the oscillations and determines therefrom reaching of the predetermined fill level and density and/or viscosity of the liquid.

(Fig. 1)