



MAIN FEATURES

Product type:	Density meter based on the oscillating U-tube principle with new 2-wire transmitter type TR24 (order code TVS)
Application:	Density and concentration measurement of liquids
Measuring accuracy:	up to $\pm 0.02\%$ ($\pm 0.2 \text{ kg/m}^3$, $\pm 0.0002 \text{ g/cm}^3$) of the measured value
Process temperature:	-40°C to 150°C
Process pressure:	up to 40 bar
Housing material:	Stainless steel (1.4571), electronics: painted aluminium
wetted parts:	Stainless steel, Hastelloy, others on request
Supply:	24 VDC (min. 14 / max. 30 VDC)
Output / display:	4-20 mA and NAMUR output for frequency or as switching output / LCD graphic display, permanent background lighting, plain text menu navigation
Process connection:	Flange according to DIN or ANSI
Special features:	Instrument version without seals, illustration of complex or confidential media via interpolation point table (in preparation), diagnostic functions (temperature, sensor, medium, supply voltage)

MEASUREMENT RANGE

Flow range	20 - 350 l/min
Density range	400 to 3000 kg/m ³
Calibration range	400 to 1450 kg/m ³
Reproducibility	$\pm 0.005\%$ ($\pm 0.05 \text{ kg/m}^3$)

PROCESS CONNECTIONS

Flange DN 25, DN 50

ANSI 150 (1", 2"), ANSI 300 (1", 2")

OUTPUT SIGNALS

Connection: in 2-wire technology

4-20 mA for operating density, reference density (temperature-corrected to reference temperature 15°C or 20°C) or concentration (% mass, % volume, Brix, Bé)

Frequency output according to NAMUR (standard) or as switching output (in preparation, e.g. error, limit value)

APPLICATION EXAMPLES

- Direct operating density or reference density measurement of liquids such as acids, alkalis, hydrocarbons, liquefied gases (propane, butane), glycol, sugar solutions, salt solutions, clear juices, oil, suspensions, solvents, alcohol mixtures, etc.
- Concentration measurement of 2-substance mixtures, product detection, quality control, control and monitoring of mixing processes, gas bubble detection, etc.

Further information and product variants are available on request.