

Turbine Wheel Flow Meter

for Liquids



Flow
Pressure
Level
Temperature
Measurement
Monitoring
Control



Model: ADI-K...



Model: TUK...

- Measuring ranges: 2-150 l/min. water
- Measuring accuracy: $\pm 2\%$ f. s.
- $p_{\max.}$ 10 bar; $t_{\max.}$ 80°C
- Viscosity range: 1-200 mm²/s
- Connection: G 1 female
- Material: Polyester (body)
- Output: pulses, 4-20 mA
- Direction of flow reversible

Model:
TUK...



Areas of Application

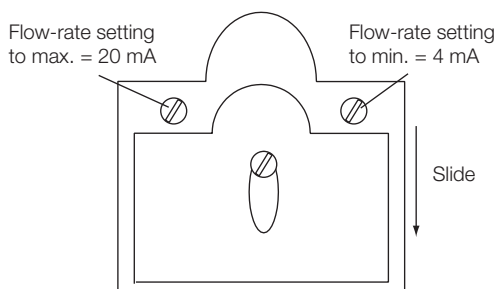
The model TUK turbine wheel flow meter is used for the measurement and simultaneous optical display of liquids. It is suitable for service with water or liquids of low viscosity. Any installation position, whereby the volumetric flow may not be reversed.

Method of Operation

The model TUK flow meter uses the turbine wheel principle. The liquid first flows through the built-in flow straightener to eliminate turbulence. The liquid then hits the turbine-rotor blade and causes it to rotate. The rotational speed is proportional to the flow rate. A stainless steel tip is embedded in each turbine blade. This enables the sensor fitted outside the flow stream to record the impulses. The flow meter can provide a pulse signal or a 4–20 mA analogue signal. Zero point and span of the analogue output can be calibrated by the customer with suitable auxiliary devices (max. 150 l/min). The fluidic casing is also delivered with a lateral inspection window for optical inspection of the rotor.

Setting on Site

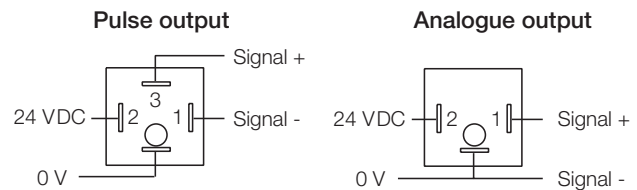
- Make sure there is no flow.
- Connect a multimeter to contact 1 (+20 mA) and to earth.
- Adjust the zero-point potentiometer to 4 mA.
- Increase the volumetric flow to the desired value (max. 150 l/min).
- Now adjust the TUK potentiometer marked with »Span« to 20 mA.



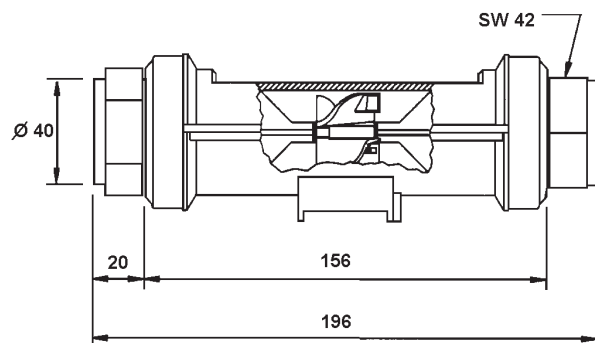
Technical Specifications

Sight glass:	Borosilicate
Gaskets:	Nitrile
Body:	Polyester
Rotor, bearings:	Acetate
Shaft, washer:	St.St.
Rotor tips:	St.St.
Max. operating pressure:	10 bar
Temperature range:	+5 to +60°C water +5 to +80°C oil
Max. viscosity:	200 mm ² /s.
Connection:	G 1 female (NPT thread upon request)
Measuring accuracy:	±2 %
Weight:	0,7 kg
Auxiliary power:	24 V DC
Output:	4-20 mA or pulse output transistor output (open collector)

Electrical Connection



Dimensions



Order Details

Model	Connection	Measuring range	Output	T _{max.}	P _{max.}
TUK-1101	G 1 female	2-150 l/min.	44,25 Imp./liters water 51,14 Imp./liters oil (40 mm ² /s)	+5 to +60°C (water) +5 to +80°C (oil)	10 bar
TUK-2101	G 1 female	2-150 l/min.	Current output 0-100 l/min= 4-20 mA	+5 to +60°C (water) +5 to +80°C (oil)	10 bar

Digital indicators and transducers see end of brochure.