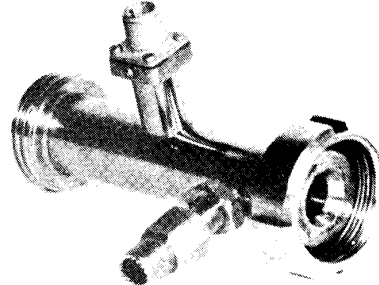


TURBOQUANT-R-H TURBINE METERS

Among the measurement tasks occurring in the continuous industrial processes, the continuous flow measurement of liquids has become of increasing importance today.

Together with the associated electronic circuits, the TURBOQUANT type hygienic turbine meters are well proved and widely used liquid flow meters in continuous industrial processes (primarily in the food industry). They enable very accurate and reliable continuous flow measurement to be implemented, which can also be completed with remote signalling, recording, control and batch control.



The TURBOQUANT type hygienic turbine meters are also suitable in hazardous environment (e.g. processes using alcohol), provided that a Zener barrier is connected. The safety class of the measuring circuit is: **Ex i_b IIC T6**.

Measuring circuit, operational instructions

The hygienic turbine meters provided with standardized threaded connection are suitable to be used for flow measurement of various liquids within the flow range of 0.8 to 68 m³/h (pipe size between 18 and 50 mm). At the measuring point properly selected, a measuring section shall be established for the installation of the hygienic meter. The length of the straight pipe section upstream of the turbine meter shall be at least 10D (ten times the rated diameter of the turbine meter) while the downstream straight section shall be at least 5D in length.

The turbine meter shall be connected by means of standardized union nuts (DIN 11851) used in the milk industry to the horizontal pipe sections of the measuring section, taking care that the arrow on the turbine meter will coincide with the flow direction.

Should the size of pipeline exceed the rated size of turbine meter, a reducer shall be used upstream of the measuring section.

The TURBOQUANT-R-H turbine meters are provided with slide bearing made of tungsten carbide and glass fibre reinforced teflon, respectively. In the case of sterilizing, the dynamic effects resulting from the hot steam blowing-off shall be avoided, otherwise, the bearings may be subject to excessive load. Instead, the cleaning and degermination by using liquid is recommended.

Specifications

Type number

6 9 4 A - 0 - 4 0 1 - 0

A	Rated size	Measuring range		Rated bore diameter (mm)
		(m ³ /h)	(liter/min)	
6	18	0.8 - 8	13 - 130	18
7	25	1.6 - 16	27 - 270	25
8	37	3.4 - 34	57 - 570	37
9	50	6.8 - 68	113 - 1130	50

Materials in contact with the medium to be measured

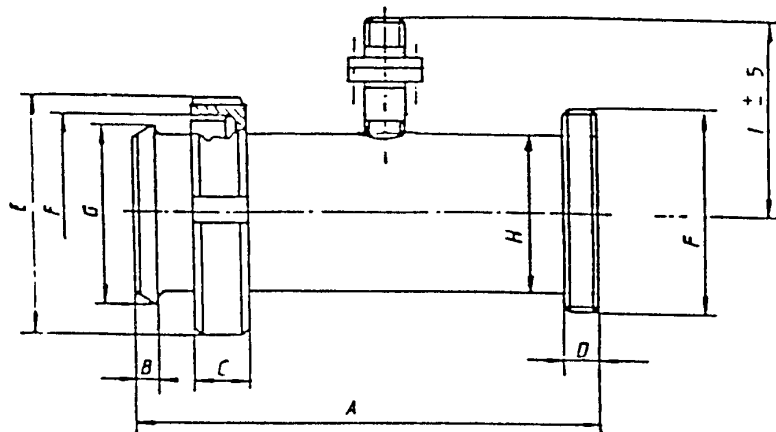
- Turbine casing and the inner components: stainless steel
- Bearings: tungsten carbide or glass fibre reinforced teflon.

Ambient temperature range	-50 to +60 C°
Operating temperature range	-50 to +150 C°
Max. pressure	6 bar
Pressure drop	0.5 bar at max. (water) flow rate
Linearity error between 10 and 100% of the measuring range	±0.5% (under reference conditions)
Repeatability	±0.05%

Output signal

- max. frequency at max. flow rate: 800 to 1200 Hz (depending on the size)
- voltage level at min. flow rate: min 20 mV rms

Mounting position horizontal ±5°

Outline dimensions

Type	A (mm)	B (mm)	C (mm)	D (mm)	Ø E (mm)	F (mm)	Ø G (mm)	Ø H (mm)	I (mm)
6946-	147	10	21	14	63	52x1/6"	44	35	85
6947-	159	10	21	14	78	65x1/6"	56	48	90
6948-	185	11	22	14	92	78x1/6"	68	61	95
6949-	205	12	25	16	112	95x1/6"	86	70	100