TACOSETTER TRONIC

BALANCING VALVE

ADVANTAGES

- Precise and fast electronic measurement of flow volume and temperature
- High measurement precision
- Measurement range 0...100 °C
- Temperature measurement directly in the medium
- Direct connection to circulating pump, variable installation position
- Glycol resistant
- Regulating valve with isolating facility (rest leakage possible)

W270

Electronic flow volume and temperature measurement

DESCRIPTION

Flow volumes and temperatures can be very easily measured and simultaneously evaluated with the TacoSetter Tronic.
The features of the TacoSetter Tronic include its different options for use in drinking water, solar and heating systems.
The electrical signals for flow and temperature can be used for the control and monitoring of pumps and valves, or for heat quantity metering. A controller, from Sorel for example, can be used to display the measurement data.
The control valve can limit or interrupt the flow.
Hydraulically correct balanced systems ensure optimum energy distribution and in this way maintain economic operation as required by the Energy Saving Regulations.

INSTALLATION POSITION

The valve can be installed in a horizontal, tilted or vertical position.
Only the direction of the arrow indicating the flow of the medium needs to be noted.
For horizontal installation, it is recommendable to position the sensor on the upper side in order to prevent deposits occurring.

OPERATION

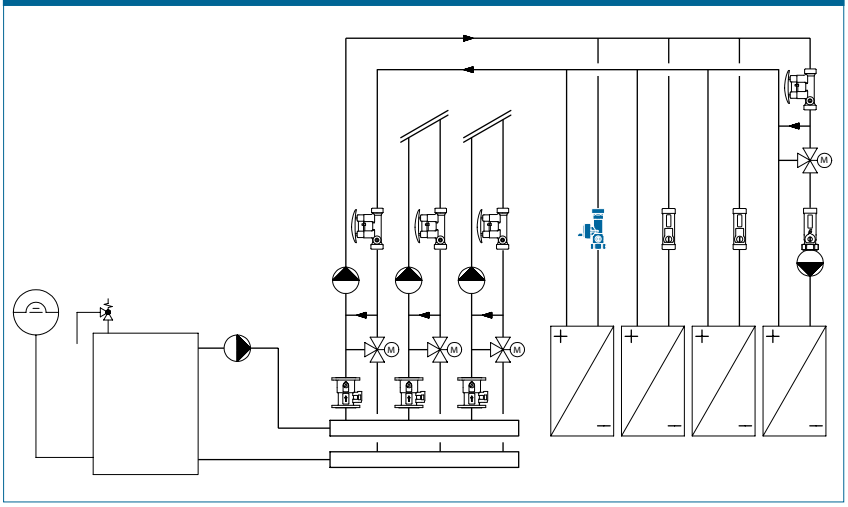
The TacoSetter Tronic was developed for the combined measurement of flow volume and temperature. The flow measurement is based on the vortex principle.
The vortex shredding on the body in the flow is proportional to the flow rate.
The generated vortices are detected by a piezoelectric sensor and evaluated by the integrated electronics.

BUILDING CATEGORIES

For pipe installations in drinking water, heating and cooling area:

- Apartment blocks, housing estates, multiple dwelling units
- Residential care facilities, hospitals
- Administration and service buildings
- Hotels and restaurants, industrial kitchens
- School buildings and sports facilities
- Commercial and industrial buildings
- Facilities with partial use, such as barracks, camping sites

SYSTEM/BASIC DIAGRAM



SPECIFICATION TEXT

See www.taconova.com

TECHNICAL DATA

General

- Operating temperature $T_{0\,max}$: 120 °C
- Operating pressure $P_{0\,max}$: 10 bar
- Measurement temperature range: 0...100 °C
- Measurement precision and range:
  - 1–12 l/min: <3 % of final value
  - 2–40 l/min: 1,5 % of final value
- Viscosity of medium see «Type overview»
- Thread G (cylindrical) as per ISO 228
- 1" flat-sealed connections
- Protective class: IP44a

Material

- Housing: brass
- Internal parts: brass, stainless steel, plastic
- Sensor: PPS, PPA, PA
- Seals: EPDM

Fluids

- Heating water (VDI 2035; SWKI BT 102-01; ÖNORM H 5195–1)
- Potable water (DIN 1988-200)
- Water and proprietary additives used against corrosion and freezing up to 50%

Electrical signals for sensors

1 Temperature: 0.5 to 3.5 V
2 Flow: 0.5 to 3.5 V
3 Ground: 0 V (PE)
4 Supply voltage (+5VDC), PELV

APPROVALS / CERTIFICATES

Sensor

- KTW, W270, ACS, NSF, WRAS

Housing parts

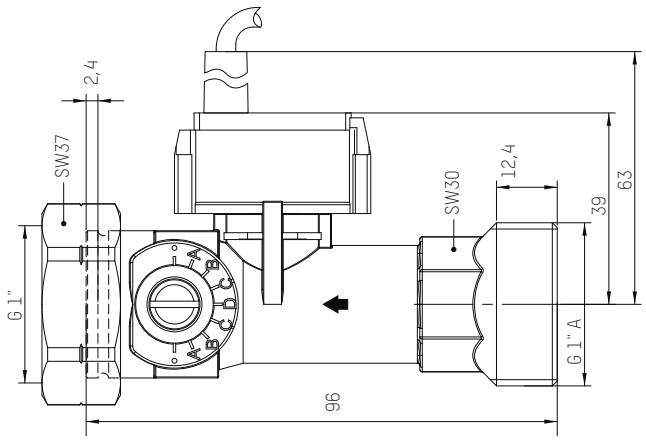
- KTW, W270

TYPE OVERVIEW

TacoSetter Tronic 100 | Balancing and shut-off valve with electronic measurement function

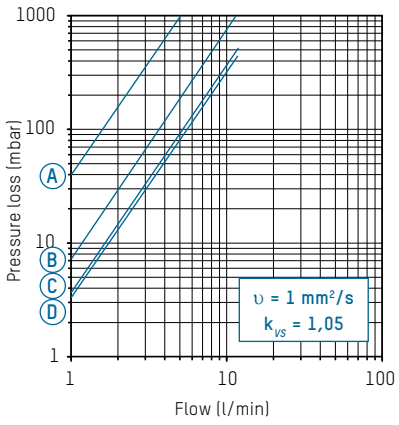
Order no.	DN	G × G	Measuring range	Viscosity
223.7702.000	20	1" × 1" A	1 – 12 (l/min)	≤ 4 mm²/s
223.7704.000	20	1" × 1" A	2 – 40 (l/min)	≤ 2 mm²/s

DIMENSIONAL DRAWING



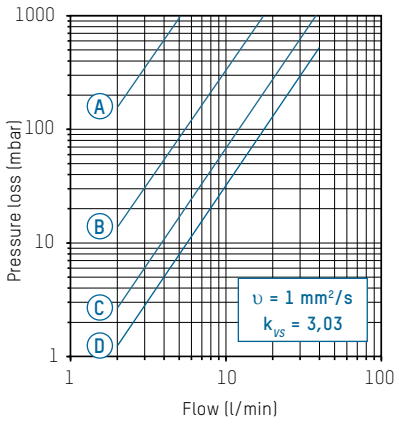
PRESSURE LOSS DIAGRAMS

223.7702.000 (DN 20 | 1" | 1...12 l/min)



A – D Valve position

223.7704.000 (DN 20 | 1" | 2...40 l/min)



A – D Valve position

ACCESSORIES

CONNECTIONS

Order no.	Description
210.6632.121	flat-sealed screw joint with R ¾" Male threads (glycol-resistant seal)
296.2334.000	Solar seal 1" (glycol-resistant)

SOLAR CONTROLLER SOREL

Order no.	Type	Use
296.7016.000	TDC4	TacoSol solar stations (also with high-efficiency pump)
296.7017.000	WMC1	Heat quantity metering

REMOTE SENSOR PT1000 (FOR HEAT QUANTITY METERING)

Order no.	Length	Version
296.7015.000	0.5 m	Including pipe clamp

CONTACT AND FURTHER INFORMATION TACONOVA.COM

Taconova Group AG | Neunbrunnenstrasse 40 | CH-8050 Zurich | T +41 44 735 55 55 | F +41 44 735 55 02 | group@taconova.com