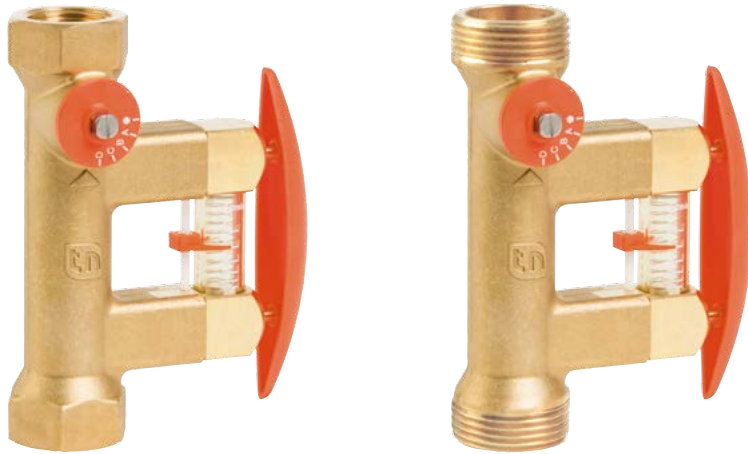


TACOSSETTER BYPASS SOLAR 130

BALANCING VALVE



Direct regulation, indication and isolation of flows in solar systems

DESCRIPTION

Direct hydraulic balancing and control of flows to consumers or in a sub-system. TacoSetter Bypass Solar 130 balancing valves offer an easy and accurate method of adjusting the flow rates for heating-, ventilation-, air conditioning- and cooling systems.

Correct balancing of hydraulic circuits ensures optimum energy distribution, resulting in more efficient and economical operation in accordance with the energy saving regulations provided for by legislation.

With TacoSetter Bypass Solar 130 balancing valves, any qualified fitter can set the appropriate flow rate using the unique flow measurement device, avoiding investments in training and costly measuring devices.

INSTALLATION POSITION

The TacoSetter Bypass Solar 130 requires a straight section of pipe of the same length and diameter as the system. The valve can be installed in a horizontal, vertical or inclined position.

Care should be taken that the arrow is pointing in the direction of the flow.

ADVANTAGES

- Accurate and fast adjustment with scale and without the aid of diagrams, tables or measurement devices
- Direct reading of the set volume flow in l/min
- Temperature-resistant up to 130 °C
- Variable installation position, maintenance-free
- Flow control with setpoint adjuster
- Regulating valve with isolating facility (rest leakage possible)
- Minimal pressure loss

OPERATION

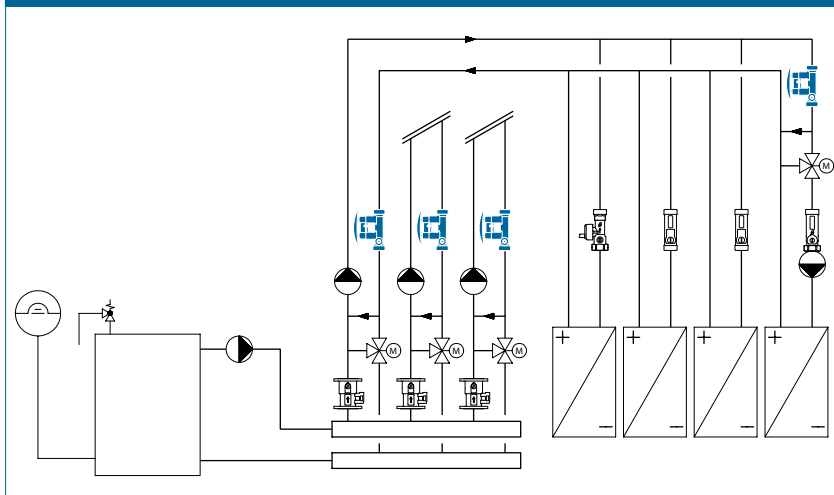
The flow measurement is based on the principle of a baffle float with return spring. The reading position is the bottom line of the baffle float. The measuring device is placed in a bypass to the main flow, isolated from system flow. By demand the bypass, with self locking valves, gets opened / closed by pressing / releasing the clamp. Reading the flow rate has no influence on the main flow rate.

BUILDING CATEGORIES

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

- Apartment blocks, housing estates, multiple dwelling units
- Residential care facilities and 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



TACOSSETTER BYPASS SOLAR 130 | BALANCING VALVE

SPECIFICATION TEXT

See www.taconova.com

TECHNICAL DATA

General

- Max. temperature and pressure range: $T_{0\max}$ and $P_{0\max}$:
See pressure-temperature curve
- Measuring accuracy:
 - Measuring range <25%:
 $\pm 20\%$ of the indicated value
 - Measuring range >25%:
 $\pm 10\%$ of the indicated value
- k_{vs} value and measurement range see "Type overview"
- Female thread to DIN 2999 / ISO 7 or male thread G (cylindrical) to ISO 228

Material

- Housing: brass
- Inside: stainless steel, brass, plastic
- Sight glass: plastic
- 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% (see document «Correction curves»)

ADDITIONAL MODELS

Balancing valves for other applications, see data sheets TacoSetter Bypass 100 and TacoSetter Bypass Solar 185.

TYPE OVERVIEW

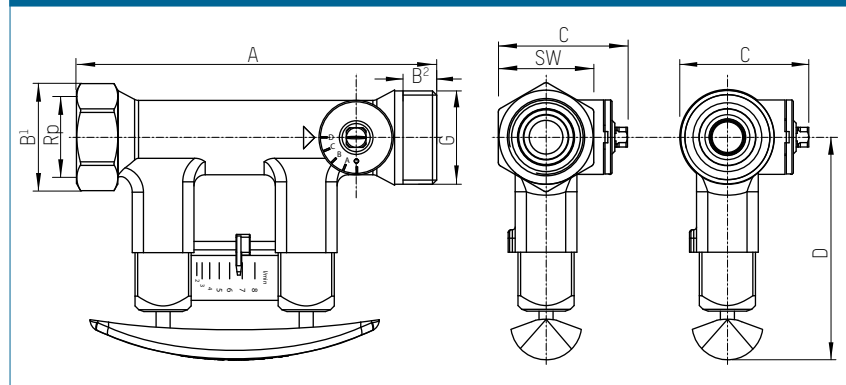
TacoSetter Bypass Solar 130 | Balancing valve with female thread

Order no.	DN	Rp × Rp	Measuring range	k_{vs} (m ³ /h)
223.2380.000	20	¾" × ¾"	2 – 12 (l/min)	2,2
223.2381.000	20	¾" × ¾"	8 – 20 (l/min)	5,0
223.2482.000	25	1" × 1"	10 – 40 (l/min)	8,1

TacoSetter Bypass Solar 130 | Balancing valve with male thread

Order no.	DN	G × G	Measuring range	k_{vs} (m ³ /h)
223.2380.350	20	1" × 1"	2 – 12 (l/min)	2,2
223.2381.350	20	1" × 1"	8 – 20 (l/min)	5,0
223.2482.350	25	1 ¼" × 1 ¼"	10 – 40 (l/min)	8,1

DIMENSIONAL DRAWING



MEASUREMENT TABLE

TacoSetter Bypass Solar 130 | Balancing valve with female thread

Order no.	DN	A	B ¹	C	D	SW	Rp
223.2380.000	20	129	39	46	79	34	¾"
223.2381.000	20	129	39	46	79	34	¾"
223.2482.000	25	152	47	58	82	41	1"

TacoSetter Bypass Solar 130 | Balancing valve with male thread

Order no.	DN	A	B ²	C	D	G
223.2380.350	20	129	12	46	79	1"
223.2381.350	20	129	12	46	79	1"
223.2482.350	25	152	15	58	82	1 ¼"

GLYCOL CORRECTION CURVES

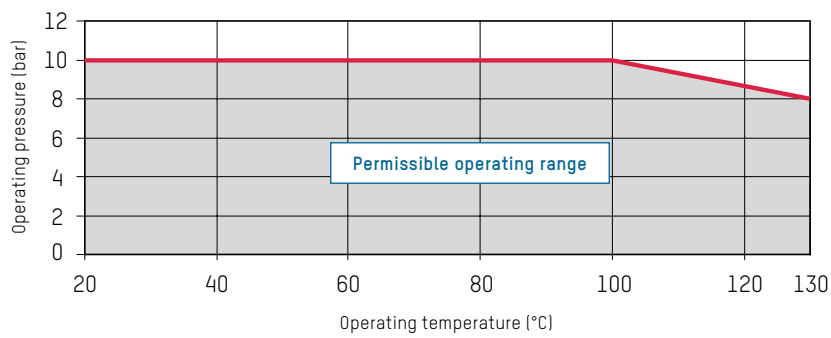
There is a separate diagram for TacoSetter up to DN25 and its flow ranges with nine correction curves for use of anti-frost and anti-corrosion agents.

Corrections are not required for larger dimensions as the deviation lies within the measuring tolerance.

See www.taconova.com

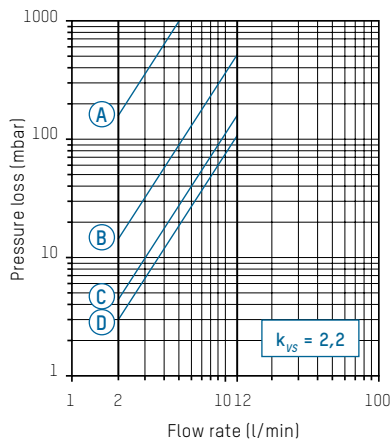
TACOSSETTER BYPASS SOLAR 130 | BALANCING VALVE

PRESSURE – TEMPERATURE CURVE



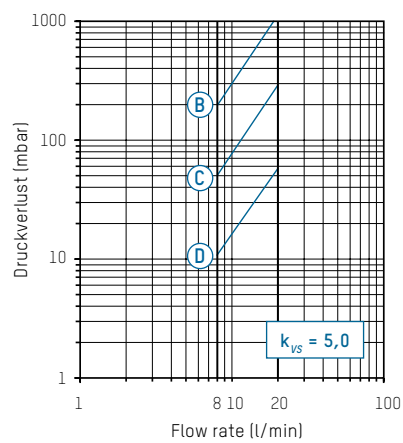
PRESSURE LOSS DIAGRAMS

223.2380.000 (DN 20 | ¾" | 2...12 l/min)
223.2380.350 (DN 20 | 1" | 2...12 l/min)



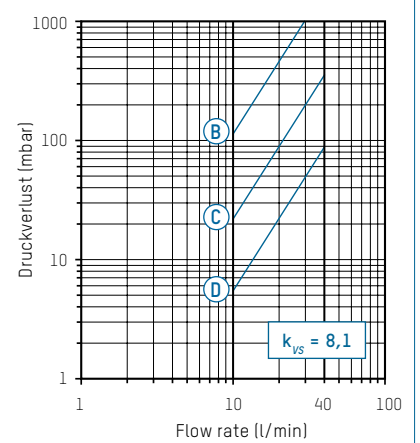
A - D Valve position

223.2381.000 (DN 20 | ¾" | 8...20 l/min)
223.2381.350 (DN 20 | 1" | 8...20 l/min)



B - D Valve position

223.2482.000 (DN 25 | 1" | 10...40 l/min)
223.2482.000 (DN 25 | 1¼" | 10...40 l/min)



B - D Valve position

TACOSSETTER BYPASS SOLAR 130 | BALANCING VALVE

ACCESSORIES



INSULATION BOX

EPP, T₀ -30 – 130 °C, in accordance with EnEV guideline

Order no.	Fits
296.2321.004	DN 20
296.2322.004	DN 25



SYSTEM SCREW CONNECTION FITS TO TACOSSETTER BYPASS SOLAR 130

Screw connection with male thread R (conical) as per DIN 2999

Order no.	G x R	Version for	Fits to
210.6630.000	3/4" x 1/2"	Inner thread Rp 1/2"	DN 15
210.6631.000	1" x 1/2"	Inner thread Rp 1/2"	DN 15
210.6632.000	1" x 3/4"	Inner thread Rp 3/4"	DN 20
210.6633.000	1 1/4" x 1"	Inner thread Rp 1"	DN 25



Screw connection with solder connection

Order no.	G x mm	Version for	Fits to
210.5331.019	1" x 18	Copper pipe ø 18 mm	DN 15 (Male)
210.5332.019	1" x 22	Copper pipe ø 22 mm	DN 20 (Male)
210.5334.003	1 1/4" x 28	Copper pipe ø 28 mm	DN 25 (Male)

SPARE PARTS



SIGHT GLASS (COMPLETE) AND SEALS

Order no.	Range	Fits to
298.2336.020	2 – 12 (l/min)	223.2380.000 / 223.2380.350
298.2337.020	8 – 20 (l/min)	223.2381.000 / 223.2381.350
298.2344.020	10 – 40 (l/min)	223.2482.000 / 223.2482.350