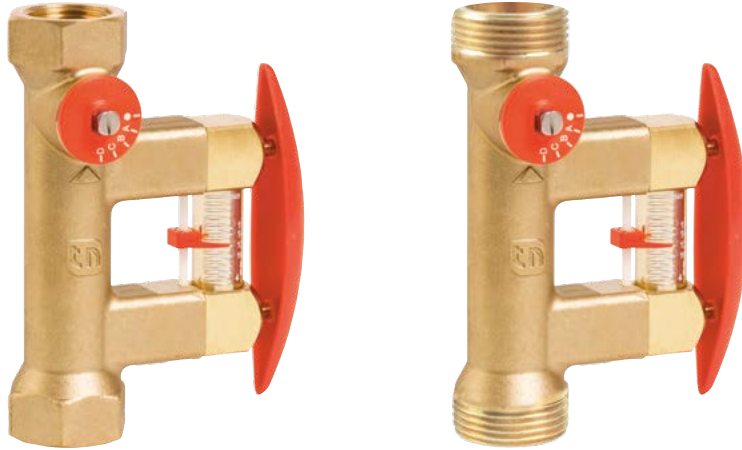


# TACOSSETTER BYPASS SOLAR 130

## 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

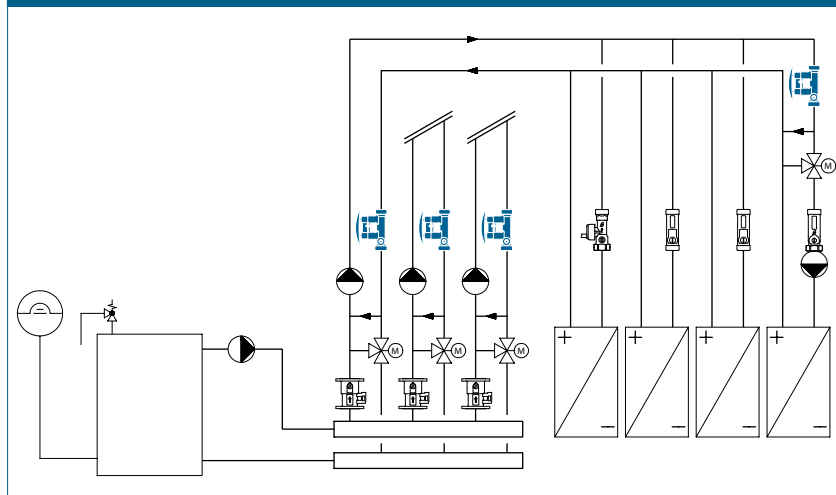
The flow measurement is based on the principle of a baffle float with return spring. The reading position is the bottom line of the baffle float. The measuring device is placed in a bypass to the main flow, isolated from system flow. By demand the bypass, with self locking valves, gets opened / closed 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](http://www.taconova.com)

## TECHNICAL DATA

### General

- Max. temperature and pressure range:  $T_{0\max}$  and  $P_{0\max}$ : See pressure-temperature curve (for applications below 0 °C, contact Taconova)
- 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 EN 10226-1 or male thread G (cylindrical) to DIN 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)
- Corrosion and antifreeze additives (glycol) up to 50% designed for heating systems (see document «Glycol correction curves»)

## SERVICE

- Clean only with water, avoid contact with chemicals

## 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

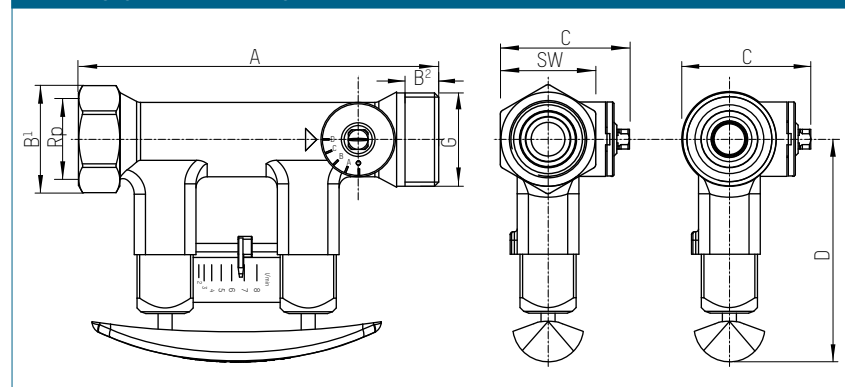
Order no.	DN	Rp × Rp	Measuring range	$k_{VS}$ (m <sup>3</sup> /h)
223.2380.000	20	3/4" × 3/4"	2 – 12 (l/min)	2,2
223.2381.000	20	3/4" × 3/4"	8 – 20 (l/min)	5,0
223.2482.000	25	1" × 1"	10 – 40 (l/min)	8,1

TacoSetter Bypass Solar 130 | Balancing valve with male thread

Order no.	DN	G × G	Measuring range	$k_{VS}$ (m <sup>3</sup> /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 1/4" × 1 1/4"	10 – 40 (l/min)	8,1

\* Available on request

## DIMENSIONAL DRAWING



## MEASUREMENT TABLE

TacoSetter Bypass Solar 130 | Balancing valve with female thread

Order no.	DN	A	B <sup>1</sup>	C	D	SW	Rp
223.2380.000	20	129	39	46	79	34	3/4"
223.2381.000	20	129	39	46	79	34	3/4"
223.2482.000	25	152	47	58	82	41	1"

TacoSetter Bypass Solar 130 | Balancing valve with male thread

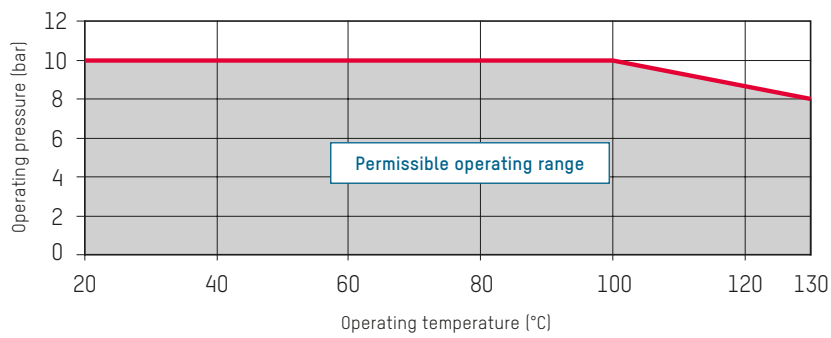
Order no.	DN	A	B <sup>2</sup>	C	D	G
223.2380.350	20	129	12	46	79	1"
223.2381.350	20	129	12	46	79	1"
223.2482.350	25	152	15	58	82	1 1/4"

## 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](http://www.taconova.com)

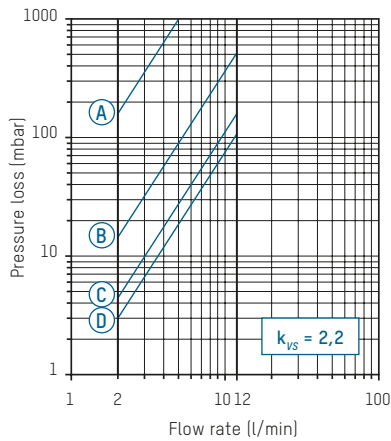
# TACOSSETTER BYPASS SOLAR 130 | BALANCING VALVE

## PRESSURE – TEMPERATURE CURVE



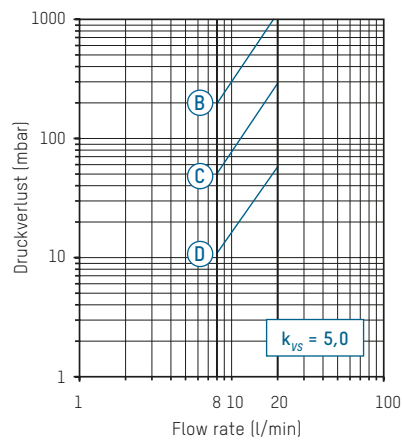
## PRESSURE LOSS DIAGRAMS

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



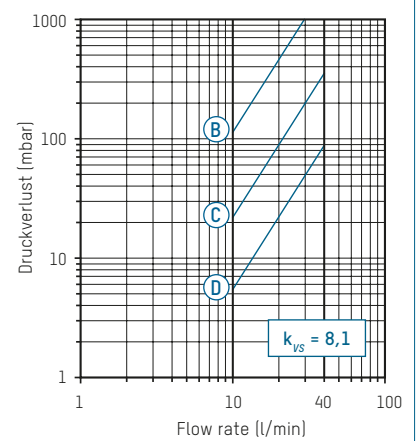
A - D Valve position

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, T<sub>0</sub> -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

### 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



### SEALING CAP SET FOR TACOSSETTER BYPASS 130/185

Order no.	Fits to
296.2340.003	all versions

Included with delivery for Solar 185 model