FlowCon T-JUST

Thermostatic Valve for Domestic Water

SPECIFICATIONS

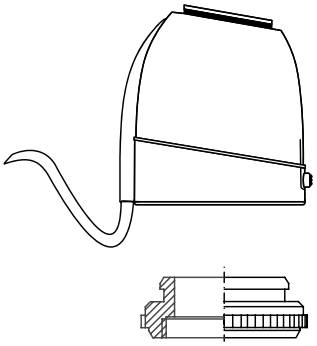
Insert:

Pressure rating:	1000 kPa / 145 psi
Temperature rating, media:	0°C to +95°C / +32°F to +203°F
Temperature rating, ambient:	0°C to +60°C, +32°F to +140°F
Material:	
- Cartridge:	PPS, Polyphenylene sulfide
- Element:	Wax
- Body:	Forged brass ASTM CuZn40Pb2
- Spring:	Stainless steel AISI 302
- Internal components:	PPS, Polyphenylene sulfide
- O-rings:	EPDM
Max. Kv-value:	1.10 m^3/h
Max. differential pressure:	100 kPaD / 14.5 psid
Temperature range:	+35°C to +65°C / +95°F to +149°F

Valve:

Material:	
- Body:	Forged brass ASTM CuZn40Pb2 or DZR brass CW602N CuZn36Pb2AS
- Ball valve:	ABV: Chemically nickel plated brass ball
End connections:	A: Fixed female ISO
	AB: Fixed female ISO
	ABV: Union end conn. in brass alloy ISO
	FF-unit: Female ISO inlet; male ISO outlet

SPECIFICATIONS (continued)



Type EV.0.3.R, EV.0.4.R
Valve adaptor, red

Electrical:

TYPE EV.0.3.R[1], EV.0.4.R[1]

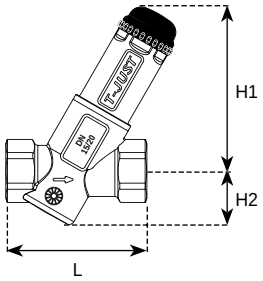
Voltage:	EV.0.3.R – 230V AC EV.0.4.R – 24V AC
Control:	ON/OFF, normally closed[2]
Operating power:	1.8 Watt
Dead time / hold time:	30 – 60 sec
Closing and opening time:	Approx. 3 min
Ambient temperature:	0°C to +60°C
Protection:	IP54, class II
Cable:	1 meter fixed cable

Note 1: FlowCon warranty is voided using other actuators than supplied or recommended by FlowCon International A/S.
Note 2: To ensure that the valve is in an open position during commission of the system, the actuator will be delivered in a normal open position and remain in this position until it is electrically operated first time.

DIMENSIONS AND WEIGHTS (NOMINAL) (measured in mm unless noted)

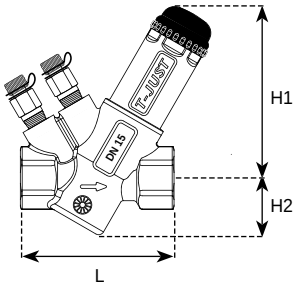
FlowCon T-JUST with FlowCon A-body

Valve size	Insert size	L	H1	H2	H3 (with actuator - not shown)	Weight (kgs.)
15	20	80	97	31	130	0.61
20						0.56



FlowCon T-JUST with FlowCon AB-body

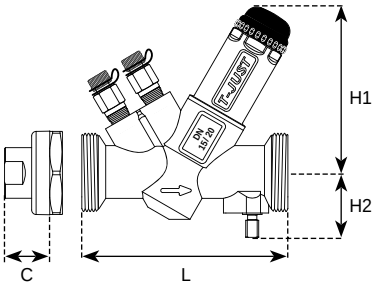
Valve size	Insert size	L	H1	H2	H3 (with actuator - not shown)	Weight (kgs.)
15	20	82	97	31	130	0.60
20		94				0.64



FlowCon T-JUST with FlowCon ABV1-body

Valve size	Insert size	L	H1	H2	H3 (with actuator - not shown)	End connections C[2]			Weight (kgs.) (w/o end conn.)
						ISO female	ISO male	US Sweat	
15	20	122	97	34	130	22	25	20	1.20
20						22	25	20	
25						N/A	39	22	

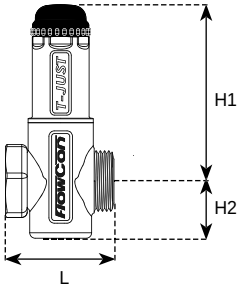
Note 2: Add end connection length to body length.



FlowCon T-JUST with FF-unit[3]

Valve size	Insert size	L	H1	H2	H3 (with actuator - not shown)	Weight (kgs.)
-	20	56	97	32	130	0.59

Note 3: To be fitted as upgrading element.



MODEL NUMBER SELECTION

T-JUST . ____ . ____ . ____ . ____ . __ . ____

Insert body size:
1=A-body 15mm
2=A-body 20mm
3=A-body 25mm
4=AB-body 15mm
5=AB-body 20mm
6=AB-body 25mm
7=ABV1-body 15/20/25mm
9=FF-unit 20mm

Insert p/t plug requirements (on AB and ABV-bodies):
P=taps plugged B=pressure/temperature plugs O=taps open

Insert union end connections (if ABV-body):

Body size	Female threaded	Male treaded	Sweat
Union end 15-25mm with T-JUST insert	E=15mm=1/2” F=20mm=3/4”	H=15mm=1/2” I=20mm=3/4” J=25mm=1”	K=15mm L=18mm M=22mm

Insert connection standard:
I=ISO

Insert valve body material:
B=standard brass D=DZR brass

Example: T-JUST4.P.I=AB 15mm ISO female threaded body with plugs and T-JUST insert.

APPLICATIONS

The FlowCon T-JUST, to be used in either FlowCon A, AB, ABV1 bodies or the FF-unit, is designed for domestic hot water installations with circulation. The FlowCon T-JUST automatically controls the temperature of the water that circulates through the valve and therefore the thermal balance is ensured throughout the domestic hot water system.

The T-JUST will from factory be pre-set to +60°C. Temperature setting is easy – simply remove the black top cover and set the temperature by means of a FlowCon adjustment key. If for instance a water temperature of +55°C is needed, the T-JUST is set to the temperature of +55°C. If the temperature of the circulating water is below +55°C, T-JUST opens and more water will pass through. If the temperature is higher than +55°C, T-JUST closes. The black top cap must be screwed tightly on the T-JUST to activate the thermostatic control (and to avoid tampering).

The by-pass function can be carried out either manually by installing the red by-pass ring (used as indicator) or by means of an on/off actuator. The by-pass will force the T-JUST to fully open and set the temperature control out of action. This function is used to avoid bacterial problems such as Legionella and therefore it is recommended to flush the system regularly, flushing one branch at a time for a recommended period of time. For manual by-pass, adapt the red by-pass ring on the T-JUST and screw the black cap tight for the flushing period. When using automatic by-pass, the actuator can be either timer controlled or controlled by the BMS-system.

For the valve to work efficiently, a certain heat loss must be present, and since the pipes are normally insulated, insulation of the valve is not necessary. Without insulation of the valve, the valve will operate under optimal working conditions and temperature regulation will be more accurate. If insulation is required the valve will still function, but regulation will be less precise.

ACCESSORIES

- Blind cap: ACC0080 (cap without a cartridge for flushing out the system)
- Adjustment key: ACC0001
- Manuel by-pass ring: ACC0002 (ring for manual by-pass; 10 pcs. per package)
- Replacement cap, black: ACC0003.

GENERAL SPECIFICATIONS

1. THERMOSTATIC VALVES FOR DOMESTIC WATER - FLOWCON T-JUST

1.1. Contractor shall install thermostatic valves where indicated in drawings.

1.2. Temperature regulation unit shall be available as a plug-in device for an in-line valve housing and the adjustable element shall be out of contact with the circulating water.

2. VALVE ACTUATOR

2.1. Actuator shall provide a visual indication of the valve position.

2.2. The valve shall be closing when the actuator is not powered.

2.3. The valve shall withstand a shut off pressure of at least 400 kPa without allowing internal leakage.

2.4. The seat plug shall be manufactured of EPDM rubber.

2.5. The packing box for sealing the stem shall be removable with the system in operation, without allowing external leakage.

3. VALVE HOUSING

3.a. **FlowCon A**

3.a.1. Valve housing shall consist of forged brass ASTM CuZn40Pb2, rated at no less than 2500 kPa static pressure and +120ºC.

3.a.2. Valve housing shall be permanently marked to show direction of flow.

3.a.3. Housing shall be configured for temperature regulation unit accessibility.

OR….

3.b. **FlowCon AB**

3.b.1. Valve housing shall consist of forged brass ASTM CuZn40Pb2, rated at no less than 2500 kPa static pressure and +120ºC.

3.b.2. Valve housing shall be permanently marked to show direction of flow.

3.b.3. Optional pressure/temperature test plugs for verifying accuracy of flow performance shall be available for all valve sizes.

3.b.4. Housing shall be configured for temperature regulation unit accessibility.

OR….

3.c. **FlowCon ABV**

3.c.1. Valve housing shall consist of forged brass ASTM CuZn40Pb2, rated at no less than 2500 kPa static pressure and +120ºC.

3.c.2. Valve housing shall be permanently marked to show direction of flow.

3.c.3. Valve ball shall consist of chemically nickel plated brass (ASTM CuZn40Pb2).

3.c.4. Optional pressure/temperature test plugs for verifying accuracy of flow performance shall be available for all valve sizes.

3.c.5. Valve housing shall be double union end constructed with a range of pipe connections available for the appropriate pipe size.

3.c.6. Housing shall be configured for temperature regulation unit accessibility.

OR…

3.d. **FLOWCON FF-UNIT**

3.d.1. Valve housing shall consist of DZR brass CW602N CuZn36Pb2AS, rated at no less then 2500 kPa static pressure and +120°C.

3.d.2. Valve housing shall be permanently marked to show direction of flow.

3.d.3. Housing shall be configured for temperature regulation unit accessibility.

4. TEMPERATURE REGULATION ASSEMBLY / THERMOSTATIC ELEMENT / T-JUST

4.1. Temperature regulation unit shall be manufactured of forged brass ASTM CuZn40Pb2 body, rated at not less than 1000 kPa static pressure and +95°C. Further, the temperature regulation unit shall be manufactured of polyphenylene sulfide cartridge with stainless steel 18-8 spring and wax element.

4.2. Temperature regulation unit shall be readily accessible for change-out or maintenance.

4.3. Temperature regulation unit shall be stepless adjustable to a temperature between +35°C and +65°C; and shall be capable of controlling the temperature within ±2°C of the rated temperature.

4.4. Temperature regulation unit shall be ready for either manual by-pass or actuated by-pass without exchanging the unit.

UPDATES

For latest updates please see www.flowcon.com