

TSUP: Room-temperature transducer

How energy efficiency is improved

Accurate recording of room temperature in pneumatic installations for optimal control of HVAC systems.

Areas of application

Continuous pneumatic measurement and/or control of room temperature in combination with pneumatic control equipment (Centair).

Features

- Part of the Centair family of systems
- Conversion of room temperature into a standard 0.2 to 1.0 bar pneumatic signal
- Lid in thermoplastic with grey/white frame (RAL 9002) and pure-white front panel (RAL 9010)
- Compressed-air connection on plug nipple for flexible plastic hose int. $\varnothing$ 4 mm
- Complies with directive 97/23/EC Art. 3.3 on pressure equipment

Technical description

- Supply pressure 1.3 bar $\pm$ 0.1
- Nozzle/ball system
- Linearity of output signal <2%

Type	Measuring range °C	Output pressure bar	Weight kg
TSUP 1 F001	5...35	0,2...1,0	0,17
Supply pressure ¹⁾ via external restrictor $\varnothing$ 0,2 mm		1,3 $\pm$ 0,1 bar	Permissible ambient temp. 0...70 °C
Air capacity, air consumption	33 l _n /h	Connection diagram	A02781
Linearity	< 2%	Dimension drawing	M303048
Time constant (0,2 m/s)	5 min	Fitting instructions	MV 23153

Accessories

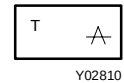
- 0296218 000*** Buckle-proof adaptor for push-on fitting.
0296990 000* Buckle-proof adaptor for screw-type fitting; see MV 7322.
0303124 000* Recessed junction box.
0310315 000* Surface junction box.

*) Dimension drawing or wiring diagram are available under the same number

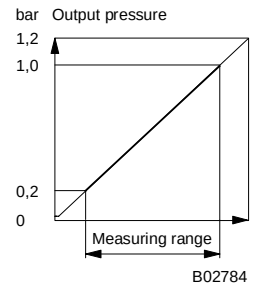
- 1) In the RCP and RPP 20 controllers, the restrictors ($\varnothing$ 0,2 mm) are fitted at inputs 3 and 4.
 See Section 60 on regulations concerning the quality of supply air, especially at low ambient temperatures.



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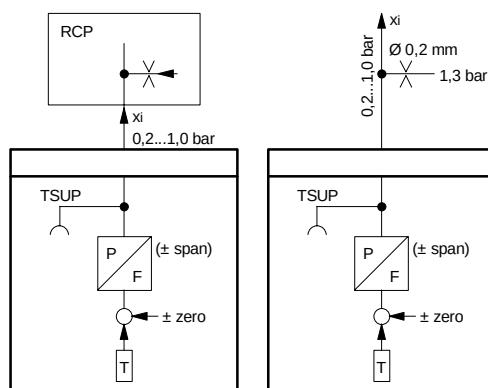
Operation

As the temperature rises, the bimetal strip bends and exerts a corresponding force on the nozzle-ball system. This converts the force into a pressure change. The output pressure increases as the temperature rises.

Technical information

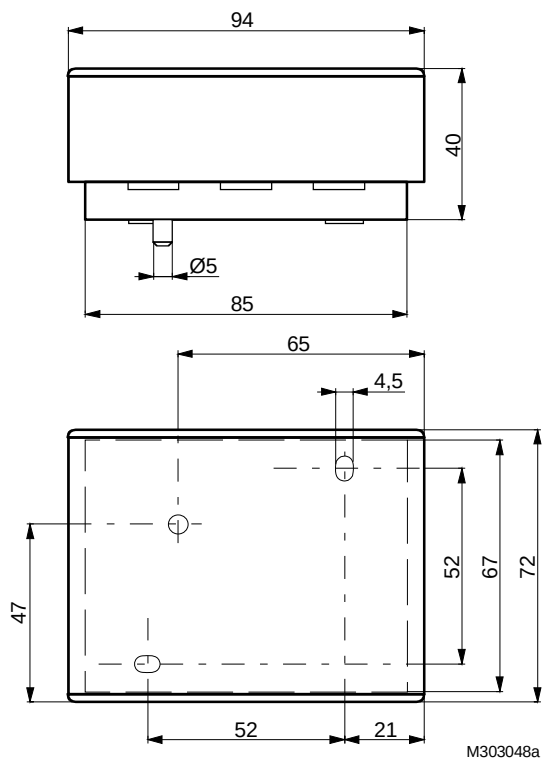
Technical manual: centair system 304991 003

Connection diagram



A02781

Dimension drawing



Accessories

