ABB i-bus® EIB / KNX
Thermoelectric Valve Drive
TSA/K 230.1, TSA/K 24.1
Thermoelectric Valve Drive  TSA/K 230.1 / 24.1

Content

- Application
- Device and Accessory
- Function
- Data
- Mounting / Demounting
- Control
- Ordering Details
Thermoelectric Valve Drive  

**Application**

- Opens and closes valves in HVAC systems, e.g.:

  - Radiators
  - Cooling Ceilings
  - Floor Heatings
  - Fan-Coil Units
Thermoelectric Valve Drive TSA/K 230.1 / 24.1

Device and Accessory

- Thermoelectric Valve Drive TSA/K
  - TSA/K 230.1 (230 V)
  - TSA/K 24.1 (24 V)

- Valve Adapter VA/Z for all common valves
  - VA/Z 10.1
  - VA/Z 50.1
  - VA/Z 78.1
  - VA/Z 80.1
Function

- The resistor-heated elastic element ① is heated and expands by applying the operating power.

- The integrated ram ② performs the adjustment travel.

- The adjustment travel (approx. 4 mm) is transformed to the valve lifter ③.

- The valve will be opened or closed. The function display ④ shows valve status.
Thermoelectric Valve Drive

TSA/K 230.1 / 24.1

Data I

- Two versions:
  - TSA/K 230.1 (230 V AC)
  - TSA/K 24.1 (24 V AC/DC)
- Normally Closed (NC)
- Improved over voltage protection (2.5 KV)
- 360° mounting NEW!
- 100 % water protection (IP 54) NEW!
- Mounting and demounting without tools
- Pluggable connection cable (1 m)
- Demounting protection
Thermoelectric Valve Drive  TSA/K 230.1 / 24.1

Data II

- First-Open function

  Enables heating operation even when the electric wiring is not yet complete

  ① Delivery state normally open

  ② First-Open function will be unlocked after applying the operating voltage (> 6 min.)

  ③ The Valve Drive is fully operable
Data III

- Adjustment-control

To control adjustment TSA/K ↔ VA/Z

① With the proper Valve Adapter the function display is approx. 0.5 mm extended (after First-Open function is unlocked)

②③ False Valve Adapter

⚠ Important: Chose Valve Adapter properly!
Mounting

① Screw Valve Adapter VA/Z on valve base

② Snap-on TSA/K on Valve Adapter

③ Plug connection cable into TSA/K and remove demounting clip
Demounting

1. Remove connection cable

2. Press demounting clip

3. Remove Valve Drive TSA/K
Thermoelectric Valve Drive  

**Control**

- With Room Thermostat and Electronic Switch Actuator ES/S

![Diagram showing control system with Room Thermostat (RT), Thermoelectric Valve Drive (TSA/K), and ES/S Actuator connected through wires labeled 24 V AC/DC, 230 V AC, and Max. 3 TSA/K.]
Control

- With Room Thermostat, Universal Interface US/U and Electronic Relay ER/U

Thermoelectric Valve Drive

TSA/K 230.1 / 24.1
## Ordering Details

<table>
<thead>
<tr>
<th>Type</th>
<th>Designation</th>
<th>Order-No.</th>
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<tbody>
<tr>
<td>TSA/K 230.1</td>
<td>Thermoelectric Valve Drive, 230 V</td>
<td>2CDG 120 007 R0011</td>
</tr>
<tr>
<td>TSA/K 24.1</td>
<td>Thermoelectric Valve Drive, 24 V</td>
<td>2CDG 120 008 R0011</td>
</tr>
</tbody>
</table>

### Accessory

| VA/Z 10.1 | Valve Adapter (M 30 x 1.5) for KaMo, Dumser, Chronatherm, Vescal | 2CDG 120 009 R0011 |
| VA/Z 50.1 | Valve Adapter (M 30 x 1.5) for Reich Honeywell, Cazzaniga, Landis & Gyr., MNG | 2CDG 120 010 R0011 |
| VA/Z 78.1 | Valve Adapter (Flange) for Danfoss RA             | 2CDG 120 011 R0011 |
| VA/Z 80.1 | Valve Adapter (M 30 x 1.5) for Herb, Heimeier, Onda, Schlösser (from 93), Oventrop | 2CDG 120 012 R0011 |