

- 1 TFT display
- 2 Buttons for device operation (Reset without function, only internal)
- 3 Bus interface for KFM- field bus adapter
- 4 USB service interface



#### General:

The 991td.. step controller can be used to add downstream switching stages to continuous controllers of the 9 series. They are controlled via the control signal.

In the factory setting, the switching points of the stages are distributed evenly over the entire setting range depending on the number of relay modules, but can be changed as required. A built-in switch-on delay prevents the simultaneous switching on of all stages and thus load jumps in the supply network. It is set for all stages together.

Relays are designed as potential-free changeover contacts.

Stages that are not required can be switched off by setting the switching point >100%. Optionally the first stage can be switched clocked. In parallel, depending on the version, a standard signal 0/4-20mA is available for controlling a semiconductor switch. This causes an equalization of the power jumps between two stages and thus an almost stepless behavior.

The bus interface ix industrial allows the connection of KFM adapter modules, e.g. 99spne (Profinet), whereby actual value, switching distance and status of the device can be read out.

The service interface is used to parameterize the stage controller.

#### Versions:

991td2 2 stages, 1st stage continuous 0/4-20mA (signal between the stage),

2nd stage relay, potential-free changeover contact

Type suffix without: 100-250 V AC, 8 = 24V DC

# Wiring example:





### **Characteristic values:**

Input / measuring range: Standard signal, 0..+100

Output: 1 relay, max 250 V 2 A,

output 4...20mA (load<= $500\Omega$ ) for 1st stage

Interfaces:

Service interface. 2.0 Micro USB 2.0 Type B Bus interface 2.0 ix Industry Type A

Mains connection: (without protective earth connection)24VDC, about 3 VA

Protection class according to EN 60529:IP 20, for installation in housing min. IP 40

Permissible ambient temperature: 0..60 °C,

Storage/transport temperature: -20..+80 °C Nominal temperature: 20 °C,transport in

cardboard box

Climatic resistance: Rel. humidity <= 75 % annual

mean without condensation

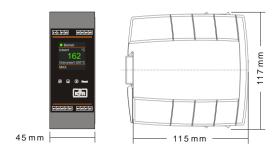
Electromagnetic compatibility:

According to EN 61326, industry requirement

Installation position: any

Housing: Mounting on 35 mm standard rail

## installation dimensions:



## Connection diagram:

