

STS 4 is controlling electric power by using, one time proportional step via a solid state relay, and 0...3 contactor steps via relays. The function of STS 4 is controlled by a 0-10V input signal from the temperature controller.

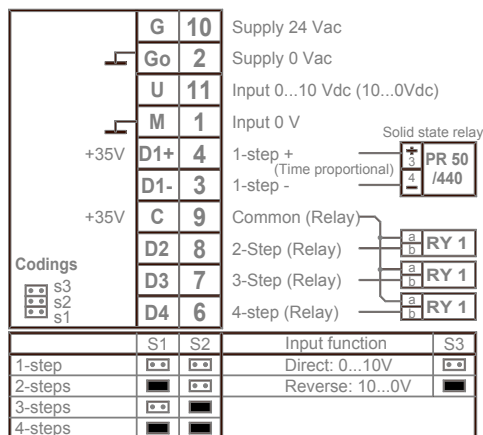
The number of the steps (1...4) is selected by S1 and S2 and the function (direct/ reverse) by S3 inside the device.

The growing input signal causes the growing output to the time proportional output (D1) and switches the relay outputs (D2...D4) ON as follows:

| Input | 1-step control | 2-step control | 3-step control | 4-step control |
|-----------|----------------|----------------------|--|---|
| 0 - 2,5V | D1= 0-25% | D1= 0-50% D2=off | input=0-3,3V D1=0-100% D2=off D3=off | D1=0-100% D2=off D3=off D4=off |
| 2,5 - 5V | D1= 25-50% | D1=50-100% D2=off | input = 3,3-6,6V D1=0-100% D2=on D3=off | D1=0-100% D2=on D3=off D4=off |
| 5 - 7,5V | D1= 50-75% | D1= 0-50% D2=on | input = 6,6-10V D1=0-100% D2=on D3=on | D1=0-100% D2=on D3=on D4=off |
| 7,5 - 10V | D1= 75-100% | D1=50-100% D2=on | --- | D1=0-100% D2=on D3=on D4=on |

To receive the best control results, the power of each step is to be identical, also with the time proportional step.

Wiring and settings:



Technical data:

| | |
|--------------------------|------------------|
| Supply | 24 Vac, < 1VA |
| Input (control signal) | 0...10 V, < 40µA |
| Solid state relay output | 35 Vdc, < 50 mA |
| Time proportional cycle | about 20 s |
| Relay outputs | 35 Vdc, < 50 mA |
| Dimensions (w x h x d) | 35 x 79 x 95 mm |

Ordering guide:

| Model | Product number | Description |
|-----------|----------------|---------------------------|
| STS 4 | 1140020 | electric power controller |
| PR 50/440 | 1140030 | solid state relay |
| RY 1 | 1183020 | relay |