

Current- and Voltage Transmitter CVT 500

Measuring input DC- and sinusoidal AC-signals

Features

- Arithmetic average value measurement, RMS calibrated or DC
- Output 0/4 ... 20mA or 0/2 ... 10V DC switch selectable
- Span adjustable $\pm 5\%$
- Full 3-port isolation
- Supply voltage 230V AC or 24V DC
- Power on LED
- 22.5mm case for DIN rail mounting



General information

Transmitter CVT 500 convert current or voltage signals to proportional industry standard signal 0/4...20mA; 0/2...10V DC. Direct measurement of currents up to 5A and voltages up to 400V are possible.

Short information

- Output the output is switch selectable on the front panel between 0/4...20mA or 0/2...10V. For current output a link from terminal 8 to 9 must be connected.
- AC / DC the input signal can be changed from AC to DC by DIP-switch on the front panel.

Technical data

Power supply

Supply voltage	: 230V AC \pm 10% or 24V DC \pm 15%
Frequency AC	: 47 ... 63Hz
Power consumption	: <3VA
Working temperature	: -10 ... +50°C
Isolation voltage	: 500V _~ acc. VDE 0110 Group 2 between input / output / supply voltage
Test voltage	: 4kV- between input / output / supply voltage
CE - conformity	: EN55022, EN60555, IEC1000-4-3/4/5/11/13

Measuring inputs

Frequency AC	: 40 ... 200Hz (other frequency ranges on request)
Standard ranges	
Current input	
Current range	: 0 ... 1A and 0 ... 5A sinusoidal or DC
Input resistance	: 20m Ω (5A input) or 100m Ω (1A input)
Overload	: 2-times continues, or 4-times (max. 5 sec.)
Voltage input	
Voltage range	: 0 ... 125V and 0 ... 250V sinusoidal or DC
Input resistance	: 600K Ω (125V input) or 1.2M Ω (250V input)
Overload	: max. 500V _~
Special ranges	
Current	: final value from 0.001 to 5A _~
Voltage	: final value from 0.1 ... 400V _~
Final value	: adjustable \pm 5%

Output

Change output from voltage to current	: link between terminal 8 and 9
Current output	: 0/4 ... 20mA switch selectable, burden \leq 500 Ω
Voltage output	: 0/2 ... 10V DC switch selectable, load max. 10mA

Accuracy

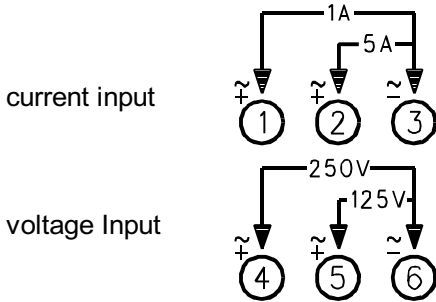
Temperature coefficient	: \leq 0.5% (\leq 0.2% factory adjustment to individual range)
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Case

Type	: standard case of Polycarbonate 8020 UL94V-1
Weight	: approx. 200g
Connection	: screw terminals with pressure plate, max. 2.5mm ² wire
Protection	: case IP30, terminals IP20 finger safe acc. to German BGV A2

Connection diagram

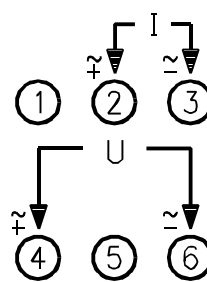
standard measuring ranges



Caution!

It is not permissible to use current and voltage input at the same time

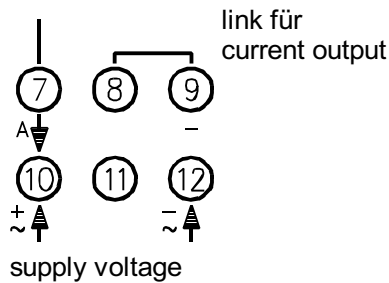
special measuring range



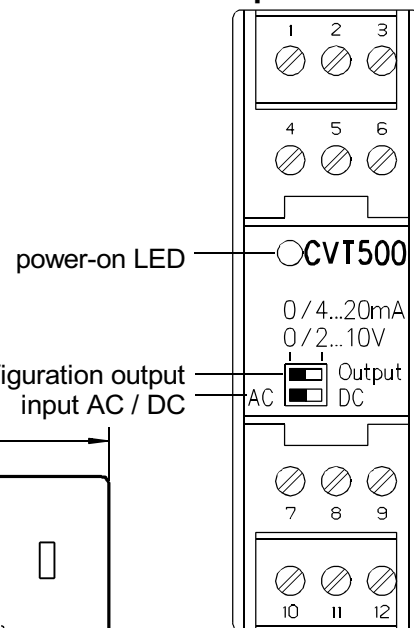
special range current

special range voltage

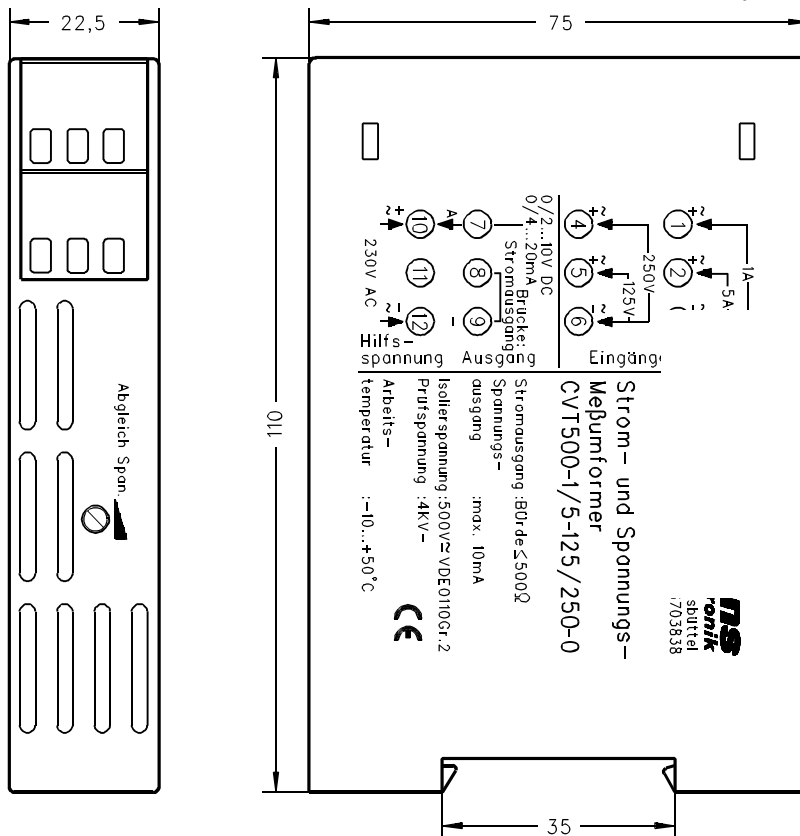
voltage output 0/2...10V DC
or current output 0/4...20mA



Front panel controls



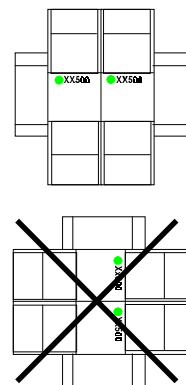
Dimensions



TS35 DIN rail mounting
acc. to DIN 46277 and DIN EN 50022

Attention:

Mounting of multiple units without distance is only permitted in vertical orientation



Order code

CVT500 - ^{1.} - ^{2.} - ^{3.}

1. Current measuring ranges

- 0 not installed (special measuring range voltage)
- 1/5 standard type 0...1A and 0 ... 5A AC/DC

Special measuring ranges please state in clear text

2. Voltage measuring ranges

- 0 not installed (special measuring range current)
- 1/5 standard type 0...125V and 0 ... 250V AC/DC

Special measuring ranges please state in clear text

3. Supply voltage

- 0 85 ... 265V AC
- 5 10 ... 30V AC / DC

Note: For special measurements the end value must be in range 0.001 ... 5A or 0.1 ... 400V AC/DC

Example of order: CVT500 with voltage measuring range 0 ... 150mV and supply voltage 230V AC:

CVT500 - 0 - 0.15 - 0

For measurement of higher currents or voltages choose current or voltage transformer.