

AC Isolation Converter

Current-transformer-transmitter

AD-SWT 50 SO
AD-SWT 100 SO
AD-SWT 200 SO

Description

The SWT series of devices (AD-SWT 50 SO, AD-SWT 100 SO and AD-SWT 200 SO) serves the measuring of large sinusoidal currents and simultaneous conversion to 4...20 mA transmitter signal. The devices are designed in two-wire technology and can be operated in a wide range of voltages. Dependent on the amount of the primary current, the devices sink a proportional 4...20 mA signal from the connected supply voltage. Due to the integral protection against polarization error and over-voltage, the transmitter are also protected against erroneous applications or transient over-voltages. The housing is designed in external clamp-on transformer format and therefore can be easily integrated into existing units.

Application

Measurements of large sinusoidal alternating currents, which, for instance, correspond to motor currents, pump currents or generator currents.

Attention: when fitting, it must be ensured that the ferrite surfaces of the SWT are free from dirt or fat residues through contact. Otherwise measuring value deviations or even error measurements are possible.



Specific characteristics

- Clamp-on transformer technology
- Extended supply voltage range
- 4 ... 20 mA transmitter signal
- Easy installation

Business data

Order number

| | |
|---------------|----------------------|
| AD-SWT 50 SO | 50 A AC Primärstrom |
| AD-SWT 100 SO | 100 A AC Primärstrom |
| AD-SWT 200 SO | 200 A AC Primärstrom |

Accessory

| | |
|-----------------|-------------------|
| DIN rail holder | 35 mm Normschiene |
|-----------------|-------------------|

Information

Downloads

Technical specifications

Primary current

| | |
|-------------------------|-----------------------|
| Measurement method | inductive |
| Measuring range | 0 ... 50/100/200 A AC |
| Max. conductor diameter | 23 mm |

Transmitter output

| | |
|-----------------|-------------|
| Output range | 4 ... 20 mA |
| Residual ripple | 50 µAss |

Transmitter-supply

| | |
|--------------------|----------------|
| Voltage range DC | 10 ... 30 V DC |
| Nominal voltage DC | 24 V DC |

Transmission behaviour

| | |
|-----------------------|-------------------|
| Basic accuracy | < 1 % |
| Temperature influence | 100 ppm/K |
| Response time | < 2 s (10...90 %) |

Housing

| | |
|-------------------------------|--|
| Dimensions (WxHxD) | 50x42x82 mm |
| Type of protection | IP 20 |
| Connection method | screw clamp |
| Terminals, wire cross section | 1,5 mm ² flex wire / 2,5 mm ² one wire |
| Bolting torque terminals | 0,5 Nm |
| Weight | ~ 200 g |
| Manner of fastening | Folding transducer housing |

Environmental conditions

| | |
|-----------------------|---------------------------------|
| Ambient temperature | -10 ... 50 °C |
| Storage and transport | -10 ... 70 °C (no condensation) |

EMC

| | |
|-------------------------|--------------------------------|
| Product family standard | EN 61326-1 ¹⁾ |
| Emitted interference | EN 55011, CISPR11 Cl. B, Gr. 1 |

Electrical safety requirements

| | |
|-------------------------|-------------|
| Product family standard | EN 61010-1 |
| Overvoltage category | II |
| Pollution degree | 2 |
| Safety measurement | 61010-2-030 |
| Measurement category | CAT III |

Galvanic isolation, test voltages

| | |
|----------------|----------------------|
| Input / output | 4 kV, 50 Hz (1 min.) |
|----------------|----------------------|

Protection circuits

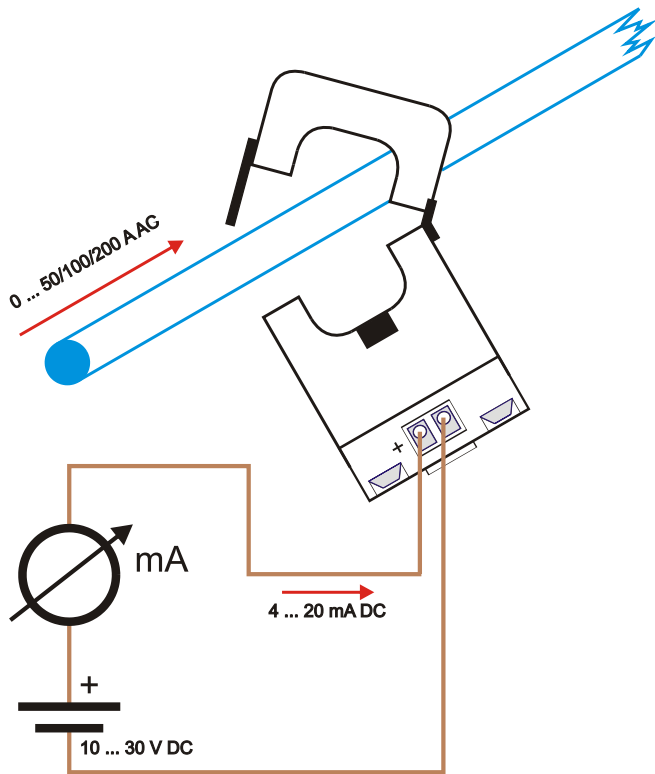
| | |
|--------|---|
| Output | electrical surge and reverse current protection |
|--------|---|

¹⁾ During checking, slight signal deviations are possible.



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Block and wiring diagram



Dimensions

