



Parameterizable Isolating Amplifier with Analog Memory

AWS 1.10 SDC

FEATURES

- **Bipolar input:**
Voltage $\pm 10\text{ V}$
- **Output:**
Current $0(4)\dots 20\text{ mA}$ or
Voltage $0(2)\dots 10\text{ V}$
- **Storage of input signal via contact input**
- **Parameterization without auxiliary power via PC-interface**
- **Galvanic 3-way isolation of 2,5 kV**
- **Low internal consumption**

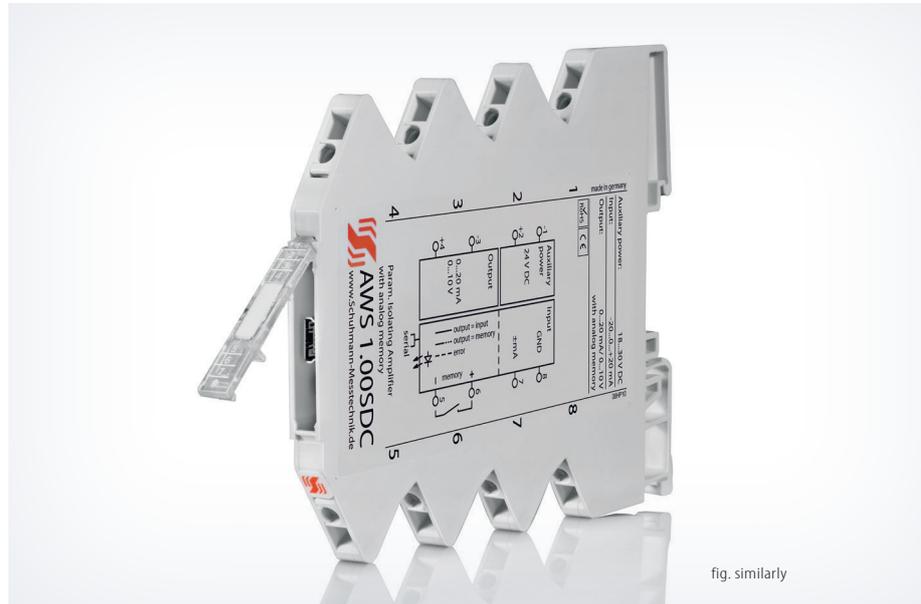
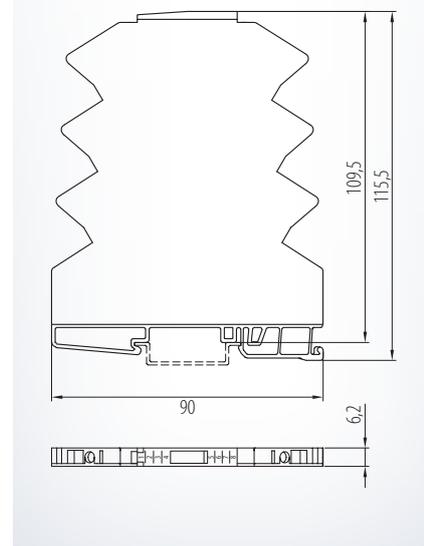
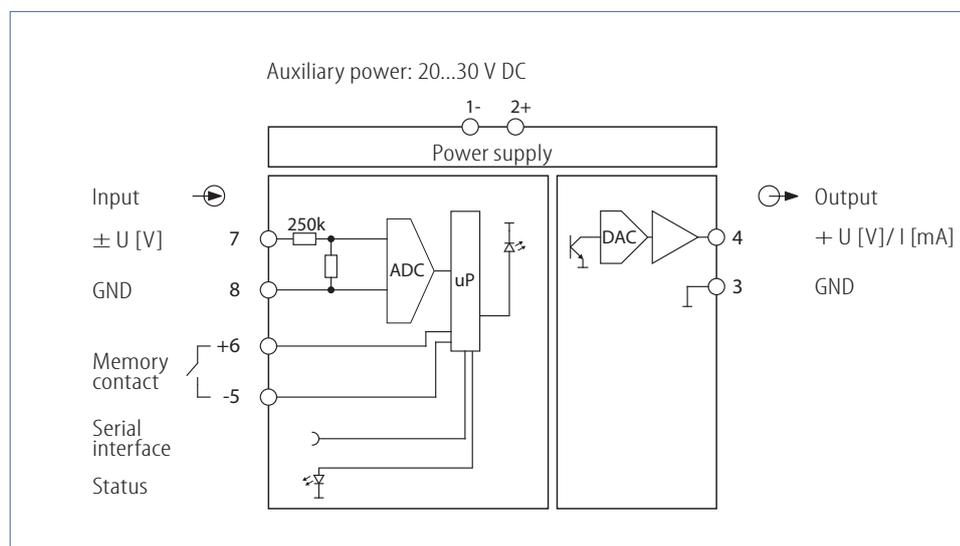


fig. similarly

FUNCTION

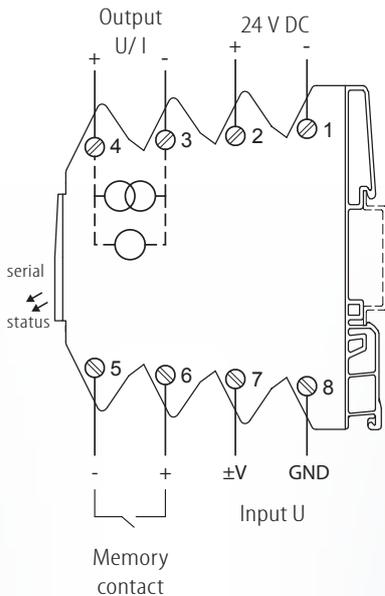
Amplifiers are used for the galvanic isolation or conversion of analog signals. This guarantees a safe decoupling between sensor and evaluation circuit and any influence of other sensor circuits among each other is absolutely impossible. Due to its individual setting of input and output signals the device has a large range of application. It is equipped with bipolar voltage inputs as well as a current and voltage output. It is being parameterized by the USB2 Interface in connection with KALIB-Software.

The AWS 1.10 SDC memorizes direct voltage signals which are available for a short time only. The external activation to memorize a defined time value can be carried out by a contact or a potential free transistor output. Typical applications are amongst other things e.g. memorizing of desired value in discontinuous processes, storage of signals in case of disturbances of previous instruments, by cyclic requests of inputs via multiplexer or to hold a transmitter signal for the purpose of repairing the readings recorder.



AWS 1.10 SDC

Connection diagram:



Input:

I: DC voltage (bipolar): -10...0...+10 V input resistance approx. 250 kΩ
 connection: terminal 8 -, 7 +

Memory contact: output = stored value when contact is active
 output = input when contact is inactive
 connection: terminal 5 -, 6 +

Within the described measuring ranges the beginning respectively the end can be freely selected. The functioning of storage is adjustable (active at closed or open contact).

Output:

I: load-independent DC current: 0(4)...20 mA permissible load max. 580 Ω
 connection: terminal 3 -, 4 +

U: load-independent DC voltage: 0(2)...10 V permissible load ≥ 1 kΩ
 connection: terminal 3 -, 4 +

The minimum/ maximum limits for current and voltage output are freely selectable and adjustable in clear text. On exceeding or falling below the error limits at the input, for the output a defined fixed value can be predetermined in case of error.

Adjustment:

Measuring ranges and parameterization are adjustable by KALIB-Software.

For this you need a PC as well as the interface adapter **USB2/ USB-Simulator** with **KALIB-Software**.

Display:

LED status:	green, active	input signals are in standard range, device ready for use, storage inactive
	green, active/ 3 impulses	storage active
	green, flashing	input out of predetermined limits or exceeding of measuring range

Environmental conditions:

Storage temperature: -40...+70 °C
 Operating temperature: 0...55 °C
 Isolation voltage:
 2,5 kV eff. 1 sec. input-output
 2,5 kV eff. 1 sec. auxiliary voltage

Auxiliary power:

24 V DC: 20...30 V DC
 < 1,5 W

Influence of auxiliary power: < 0,1 %

Characteristics of transmission:

Transmission error: < 0,12 %
 Resolution: 15 bit
 Linearity error: < 0,1 %
 Temperature error: < 100 ppm/ K
 Load influence I: < 50 ppm
 of final value
 Load influence U: < 0,2 % at 1 kΩ load
 Setting time: < 500 msec.

Directive:

EMC Directive: 2014/30/EU*
 Low Voltage Directive: 2014/35/EU

*minimum deviations possible during HF-radiation influence

Mounting details:

Housing for top hat rail
 Type of protection: IP 20
 Mounting rail fixed according to EN 50022-35 x 6,2 mm
 Width: 6,2 mm
 Weight: 52 g
 Material: Polyamide PA
 Flammability class: V0 (UL 94)
 Approval: CE
 Connection: screw clamps
 0,14...2,5 mm²

For safety reasons we recommend to mount the housing for top hat rail with a distance > 1 mm to each other. Please check parameterization before initial operation!

Ordering information:

Type: **AWS 1.10 SDC** 24 V DC
 Accessories: USB2/ USB-Simulator with KALIB-Software

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