

Analog signal isolators
WAVEANALOG DC/Alarm
from the WAVESERIES



Analog signal isolators
WAVEANALOG DC/Alarm
from the WAVESERIES

Type

Screw connection

WAS5 DC/Alarm

Tension clamp connection

WAZ5 DC/Alarm

Cat. No.

8543820000

8543880000

Please read these instructions before using the product
and retain for future information.

1. General instructions

Warning! The analogue signal isolators of the WAVE_{ANALOG} DC/Alarm may only be installed by qualified personnel.

Be sure not to connect the unit to power supply before appropriate installation. Do not select ranges during operation, because live parts are exposed during this process. Only use a screwdriver which is properly insulated against the voltage applied to the input when fine adjusting the potentiometers on the front. A screwdriver, correctly insulated against the input voltage, must be used when making fine adjustments via the potentiometers at the front of the module.

Be sure to observe the national regulations for installation and selection of cables.



Appropriate safety measures against electrostatic discharge (ESD) should be taken during assembly and adjustment work on the WAVE_{ANALOG} DC/ Alarm.

2. Application

The analog signal isolators are designed for monitoring standard voltage and current signals. The input signal and the switching parameters can be calibrated/switched via DIP switches. It is **not** necessary to adjust the pre-settable measurement ranges. The hysteresis and signal threshold for the respective range can be set using potentiometers.

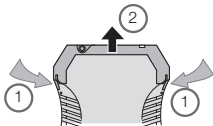
3. Configuration

3.1 Equipment

A screwdriver with a width of 2.5 mm is required to adjust the unit and to connect the wires to the terminals.

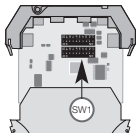
3.2 Opening the unit

Disconnect the plugs. Disengage the top part of the housing by carefully pressing the latches on both sides (1). Pull out the top part of the housing and the electronics section until they lock (2).

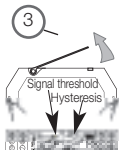


3.3 Settings

Low trip, high trip, FAILSAFE or NON FAILSAFE are set via the DIP switch. SW1 in accordance with the following tables. The hysteresis and the signal threshold can be set via the potentiometer positioned below the cover (3) at the front of the module.



Warning! A screwdriver, correctly insulated against the input voltage, must be used when making fine adjustments via the potentiometers at the front of the module.

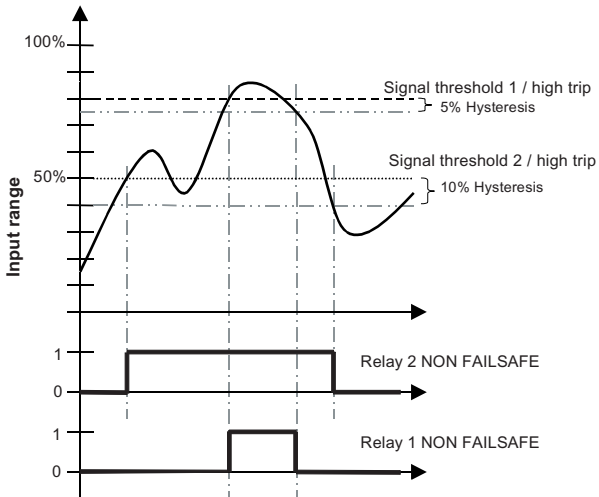


Selecting the operating mode

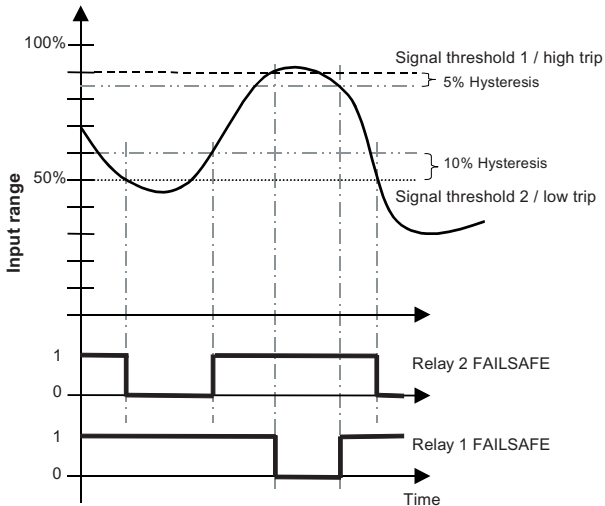
| Function | SW 1 | | | |
|-----------------------------|------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Channel A High Trip | 1 | | | |
| Channel A Low Trip | 0 | | | |
| Channel B High Trip | | 1 | | |
| Channel B Low Trip | | 0 | | |
| FAILSAFE, Channel 1 & 2 | | | 0 | 0 |
| NON FAILSAFE, Channel 1 & 2 | | | 1 | 1 |

- NON FAILSAFE:** The relay picks up when the alarm is triggered.
The relay drops out when the alarm is triggered.
- FAILSAFE:** An alarm is also triggered in the FAILSAFE mode, if, for example, the operating voltage to the module fails.
- Low trip:** Alarm is triggered if the signal undershoots the threshold.
- High trip:** Alarm is triggered if the signal overshoots the threshold.
- Signal threshold:** Adjustments of the signal threshold (1...90)% are made for channel 1 with the potentiometer P1, and separately for channel 2 via potentiometer P2.
- Hysteresis:** Adjustments of the hysteresis (1...90)% are made for channel 1 with the potentiometer P3, and separately for channel 2 via potentiometer P4.

3.4. Example 1



3.5. Example 2



4. Mounting

Die The analogue signal isolators are mounted on standard TS 35 rails.

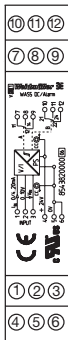
5. Electrical connection

Terminal assignments

- 1 Current input max. 20 mA
- 2 Voltage input max. 10 V
- 3 Input GND
- 4 Supply voltage + 24 Vdc (cross-connected)
- 5 Supply voltage 0V (cross-connected)
- 6 Supply voltage 0V (cross-connected)
- 7 Relay A kontakt 11
- 8 Relay A kontakt 12
- 9 Relay A kontakt 14
- 10 Relay B kontakt 21
- 11 Relay B kontakt 22
- 12 Relay B kontakt 24

Wire cross-section max. 2.5 mm²

Multi-wire connection max. 1 mm²
(two wires with same cross-section)



Warning! For applications with high isolation voltages, take measures to prevent accidental contact and make sure that there is sufficient distance or insulation between adjacent devices!

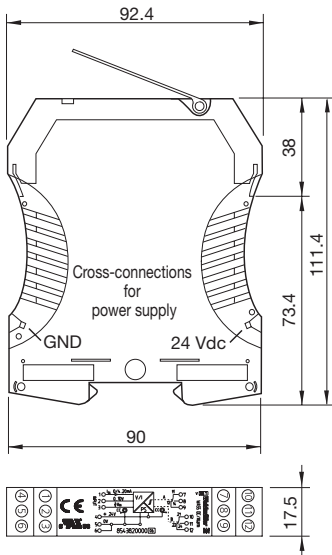
5.1 Power supply

approx. 1 W

18...30 Vdc

Voltage supply via cross-connections. Operating carrying capacity of cross-connection ≤ 2 A (see Cat. No. point 7)

6. Dimensions in mm



7. Accessories (cross-connection)

| Designation | Cat. No. |
|--------------------|-----------------|
| ZQV 2,5 N/2 yellow | 1693800000 |
| ZQV 2,5 N/2 red | 1717900000 |
| ZQV 2,5 N/2 blue | 1717990000 |
| ZQV 2,5 N/2 black | 1718080000 |

Connection markers

| Designation | Cat. No. |
|---------------------------------------|-----------------|
| WS 10/5 Multicard for plotter marking | 1635010000 |
| WS 10/5 Neutral | 1060860000 |

8. Notes on CE marking

The WAS5/WAZ5 DC/Alarm analog signal isolators are marked CE in accordance with the EU directives 89/336/EEC "Electromagnetic Compatibility" and 73/23/EEC (low-voltage directive) detailing the Harmonized European Standards (EN).

The declarations of conformity are held, according to the above mentioned EU directive, article 10, for the authorizing body by:

Weidmüller Interface GmbH & Co.
Postfach 30 30
32720 Detmold
Phone +49 5231-14-0
Fax +49 5231-14-2083
e-mail: info@weidmueller.com
www.weidmueller.com

