

## WAVESERIES WAS5 DC/Alarm

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**Do not use product for new developments**



When used for industrial monitoring applications, sensors can record ambience conditions. Sensor signals are used within the process to continually track changes to the area being monitored. Both digital and analogue signals can occur.

Normally an electrical voltage or current value is produced which corresponds proportionally to the physical variables that are being monitored. Analogue signal processing is required when automation processes have to constantly maintain or reach defined conditions. This is particularly significant for process automation applications. Standardised electrical signals are typically used for process engineering. Analogue standardised currents / voltage 0(4)...20 mA/ 0...10 V have established themselves as physical measurement and control variables.

Weidmüller meets the ever increasing challenges of automation and offers a product portfolio tailored to the requirements of handling sensor signals in analogue signal processing.

The analogue signal processing products can be used universally in combination with other Weidmüller products and in combination among each other. Their

electrical and mechanical design is such that they require only minimal wiring efforts.

Housing types and wire-connection methods matched to the respective application facilitate the universal use in process and industrial automation applications.

The product line includes the following functions:

- Isolating transformers, supply isolators and signal converters for DC standard signals
- Temperature measuring transducers for resistance thermometers and thermocouples,

frequency converters,

- potentiometer-measuring transducers,
- bridge measuring transducers (strain gauges)

trip amplifiers and modules for monitoring electrical

and non-electrical process variables

WAVESERIES

0(4)...20 mA, 1, 3 A, 2, Screw connection

GTIN (EAN) 4032248181230

Qty. 1 pc(s).

- calibration devices

The products mentioned are available as pure signal converters / isolation transducers, 2-way/3-way isolators, supply isolators, passive isolators or as trip amplifiers.

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**Technical data**
**Dimensions and weights**

|        |          |                 |            |
|--------|----------|-----------------|------------|
| Length | 92.4 mm  | Length (inches) | 3.638 inch |
| Width  | 17.5 mm  | Width (inches)  | 0.689 inch |
| Depth  | 112.4 mm | Depth (inches)  | 4.425 inch |
| Weight | 137 g    | Net weight      | 110.1 g    |

**Temperatures**

|                             |                                                |                             |              |
|-----------------------------|------------------------------------------------|-----------------------------|--------------|
| Humidity                    | 40 °C / 93 % rel. humidity,<br>no condensation | Operating temperature, max. | 55 °C        |
| Operating temperature, min. | 0 °C                                           | Storage temperature, max.   | 85 °C        |
| Storage temperature, min.   | -20 °C                                         | Operating temperature       | 0 °C...55 °C |
| Storage temperature         | -20 °C...85 °C                                 |                             |              |

**Probability of failure**

|      |           |
|------|-----------|
| MTTF | 369 Jahre |
|------|-----------|

**Input**

|                  |              |                           |          |
|------------------|--------------|---------------------------|----------|
| Number of inputs | 1            | Input resistance, voltage | ≥ 100 kΩ |
| Input current    | 0(4)...20 mA | Input resistance, current | ≤ 110 Ω  |

**Output**

|                   |                                                         |                      |                                                            |
|-------------------|---------------------------------------------------------|----------------------|------------------------------------------------------------|
| Number of outputs | 2                                                       | Contact assembly     | 2 CO contacts                                              |
| Contact material  | AgNi 90/10                                              | Switching thresholds | 1...90 % (independently<br>for channel 1 and channel<br>2) |
| Status indicator  | LED green ON: OK,<br>LED red ON: alarm (per<br>channel) |                      |                                                            |

**General data**

|                                                 |                                                               |                    |                           |
|-------------------------------------------------|---------------------------------------------------------------|--------------------|---------------------------|
| Accuracy                                        | Repeat accuracy: max. ±<br>0.3% of end value (10 V/<br>20 mA) | Configuration      | DIP switch, Potentiometer |
| Current-carrying capacity of cross-<br>connect. | ≤ 2 A                                                         | Galvanic isolation | 3-way isolator            |
| Input/Output                                    | 0...10 V, 0(4)...20 mA / 2<br>CO contact                      | Mounting rail      | TS 35                     |
| Power consumption                               | Typically 1 W both relays<br>picked up                        | Supply voltage     | 24 V DC ± 25 %            |
| Temperature coefficient                         | ≤ 500 ppm/K                                                   |                    |                           |

**Insulation coordination**

|                                |                           |                           |                              |
|--------------------------------|---------------------------|---------------------------|------------------------------|
| Clearance & creepage distances | ≥ 3 mm                    | EMC standards             | EN 61000-4-2, -3, -4, -5, -6 |
| Galvanic isolation             | 3-way isolator            | Impulse withstand voltage | 4 kV                         |
| Insulation voltage             | 2 kV <sub>eff</sub> / 5 s | Pollution severity        | 2                            |
| Rated voltage                  | 300 V                     | Surge voltage category    | III                          |

**Connection data**

|                      |                     |                                  |                     |
|----------------------|---------------------|----------------------------------|---------------------|
| Type of connection   | Screw connection    | Clamping range, rated connection | 2.5 mm <sup>2</sup> |
| Clamping range, min. | 0.5 mm <sup>2</sup> | Clamping range, max.             | 2.5 mm <sup>2</sup> |

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## Technical data

### Classifications

|            |             |            |             |
|------------|-------------|------------|-------------|
| ETIM 4.0   | EC002654    | ETIM 5.0   | EC002654    |
| ETIM 6.0   | EC002653    | eClass 6.2 | 27-21-01-22 |
| eClass 7.1 | 27-21-01-22 | eClass 8.1 | 27-21-01-22 |
| eClass 9.0 | 27-21-01-22 | eClass 9.1 | 27-21-01-20 |

### Product information

|                              |                                                                                                                                   |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Product information          | This product will soon be replaced by a new product.<br>Please do not use with new systems. Please contact our technical support. |
| Descriptive text accessories | Cross-connector for power supplies and markers – refer to Accessories                                                             |

### Approvals

Approvals



|      |         |
|------|---------|
| ROHS | Conform |
|------|---------|

### Downloads

|                                             |                                           |
|---------------------------------------------|-------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">Declaration of Conformity</a> |
| Brochure/Catalogue                          | <a href="#">CAT 4.1 ELECTR 16/17 EN</a>   |
| User Documentation                          | <a href="#">instruction sheet</a>         |

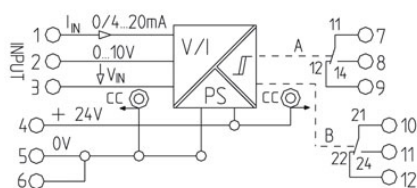
# WAVESERIES

## WAS5 DC/Alarm

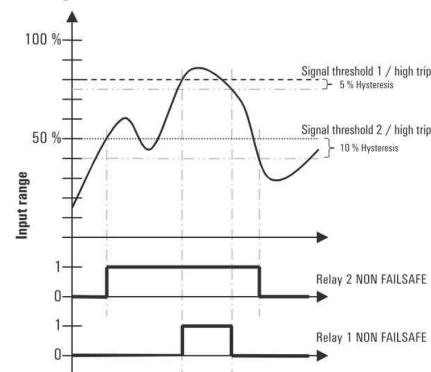
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## Drawings

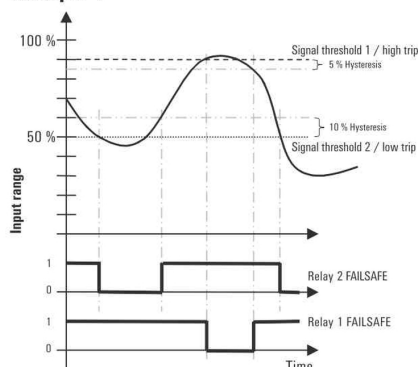
### Connection diagram



### Example 1



### Example 2



### Switch position/setting options

| function                  | SW 1                                |                                     |                                     |                                     |
|---------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
|                           | 1                                   | 2                                   | 3                                   | 4                                   |
| Channel A High Trip       | <input checked="" type="checkbox"/> |                                     |                                     |                                     |
| Channel A Low Trip        | <input type="checkbox"/>            |                                     |                                     |                                     |
| Channel B High Trip       |                                     | <input checked="" type="checkbox"/> |                                     |                                     |
| Channel B Low Trip        |                                     | <input type="checkbox"/>            |                                     |                                     |
| FAILSAFE, Channel 1 & 2   |                                     |                                     | <input type="checkbox"/>            | <input type="checkbox"/>            |
| NON FAILSAFE, Chan. 1 & 2 |                                     |                                     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

☒ = on  
☐ = off