

WTZ4 PT100/2 V 0-10V**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Do not use product for new developments, Only remaining stock available



RTD temperature signal converters for connecting resistance temperature sensors and analogue DC current or voltage outputs.

A variety of resistance thermometers (e.g., PT100) are used to measure temperature in an industrial environment. These are used with 2-, 3-, or 4-wire technology.

We distinguish here between PTC and NTC thermistors. For an exact temperature measurement, the resistance value must be logged, linearised and converted into an analogue signal proportional to the temperature. Signal isolating converters carry out these important functions. They isolate signals between the harsh industrial environments and the downstream electronics. Furthermore, they compensate for potential differences caused by long cable lengths. Sensor-related inadequacies such as cold joints and linearity errors are also minimised.

General ordering data

| | |
|---------------------|--|
| Version | RTD transformer, PT100, 2-conductor connection, Configurable, Input : Temperature, PT100 (2-wire), Output : 0-10 V |
| Order No. | 8432190000 |
| Type | WTZ4 PT100/2 V 0-10V |
| GTIN (EAN) | 4032248110377 |
| Qty. | 1 pc(s). |
| Delivery status | This article will no longer be available in the future. |
| Available until | 2023-12-30 |
| Alternative product | 7760054183 |

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Technical data

Dimensions and weights

| | | | |
|------------|----------|-----------------|------------|
| Depth | 112.4 mm | Depth (inches) | 4.425 inch |
| Width | 12.5 mm | Width (inches) | 0.492 inch |
| Length | 92.4 mm | Length (inches) | 3.638 inch |
| Net weight | 118 g | | |

Temperatures

| | | | |
|---------------------|----------------|-----------------------|--------------|
| Storage temperature | -20 °C...85 °C | Operating temperature | 0 °C...55 °C |
|---------------------|----------------|-----------------------|--------------|

Probability of failure

| | |
|----------------------------------|------|
| SIL in compliance with IEC 61508 | None |
|----------------------------------|------|

Input

| | | | |
|------------------|---------|-------------------------|-------------------------------|
| Number of inputs | 1 | Sensor | PT100 (2 wire) |
| Sensor supply | 1.45 mA | Temperature input range | Adjustable from -200...+800°C |

Output

| | | | |
|------------------------|----------|------------------------|--------|
| Load impedance current | ≤ 500 Ω | Number of outputs | 1 |
| Output voltage, note | 0...10 V | load impedance voltage | ≥ 1 kΩ |

General data

| | | | |
|-------------------------|--|--------------------|--|
| Accuracy | ± 0.5 % of measuring range | Configuration | DIP switch, Potentiometer, and PT100-Simulator |
| Current consumption | < 38 mA @ I _{OUT} = 20 mA | Galvanic isolation | Without isolation |
| Linearity | Yes | Rail | TS 35 |
| Temperature coefficient | Measuring range ≥ 200 K: ≤ 200 ppm/K (typ. 80 ppm/K) 100 K ≤ measuring range < 200 K: < 250 ppm/K (typ. 100 ppm/K) | Voltage supply | 24 V DC ± 20 % |

Insulation coordination

| | | | |
|---------------|----------------------|--------------------|-------------------|
| EMC standards | EN 55011, EN 61000-6 | Galvanic isolation | Without isolation |
|---------------|----------------------|--------------------|-------------------|

Connection data

| | | | |
|----------------------------------|--------------------------|------------------------------------|---------------------|
| Type of connection | Tension-clamp connection | Stripping length, rated connection | 7 mm |
| Clamping range, rated connection | 1.5 mm ² | Clamping range, min. | 0.5 mm ² |
| Clamping range, max. | 2.5 mm ² | | |

Classifications

| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 6.0 | EC002919 | ETIM 7.0 | EC002919 |
| ETIM 8.0 | EC002919 | ETIM 9.0 | EC002919 |
| ECLASS 9.0 | 27-21-01-29 | ECLASS 9.1 | 27-21-01-29 |
| ECLASS 10.0 | 27-21-01-29 | ECLASS 11.0 | 27-21-01-29 |
| ECLASS 12.0 | 27-21-01-29 | ECLASS 13.0 | 27-21-01-29 |

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Technical data

Tender specification sheets

Long specification

PT100 temperature measuring transformer, configured with DIP switches, 2-wire connection technology
RTD measurement isolating transformer in 12.5 mm width with external power supply, for transmitting PT100-2-wire signals.

Input temperature range -200...+800 °C.

Analogue DC signals 0...10 V are available on the output side.

Zero/span compensation with potentiometer.

Add-on housing for TS35 rail mounting

Dimensions: L/W/H

92.4/ 12.5/ 112.4 mm

Tension-clamp connection / Nominal cross-

section 1.5 mm²

Protection degree: IP

20

Input

PT100, 2-wire

Out-

put

0...10 V

Load resistance > 1

kOhm

Transmission error

< 0,5 % v. E.

typ.

200 ppm / °C

Auxiliary power

24

VDC +/- 20 %

Ambient

temperature range

0°C...+55 °C

Isola-

tion

no

electrical isolation

Approvals cULus, CSA

Type

PT100/2 V 0-10V

Short specification

PT100 temperature measuring transformer, configured with DIP switches, 2-wire connection technology
RTD measurement isolating transformer in 12.5 mm width with external power supply, for transmitting PT100-2-wire signals.
Input temperature range -200...+800 °C.
Analogue DC signals 0...10 V are available on the output side.
Zero/span compensation with potentiometer.

WTZ4

Environmental Product Compliance

REACH SVHC

Lead 7439-92-1

SCIP

c2a21576-d875-4548-ae68-5e7f85ddf0c7

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www.weidmueller.com**Technical data****Important note**

Product information

This product will soon be replaced by a new product.

Please do not use with new systems. Please contact our technical support.

Approvals

Approvals



| | |
|-------------------------|------------|
| ROHS | Conform |
| UL File Number Search | UL Website |
| Certificate no. (cULus) | E141197 |

Downloads

Approval/Certificate/Document of Conformity

[Application notes – Declaration of Conformity](#)

Engineering Data

[CAD data – STEP](#)

Product Change Notification

[20220218 Technical change - WAVE series' signal conditioners WS WZ](#)

User Documentation

[Instruction sheet](#)

Catalogues

[Catalogues in PDF-format](#)

Brochures

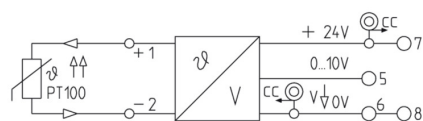
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Drawings

Electric symbol



Similar to illustration



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Accessories

Blank



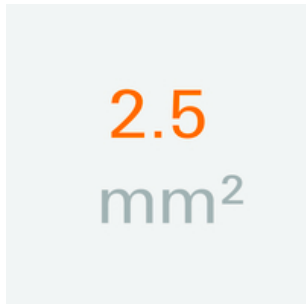
WS markers are the perfect match for the W-series connectors. Thanks to their system compatibility, the WS tags can also be used with the I-series and the Z-series. The large marking surfaces do not only permit long character strings but also multi-line text. WS markers are ideal for labels with long, customised character strings. Thanks to the proven MultiCard format, printing with PrintJet CONNECT oder/or Plotter is possible.

- Can be fitted in strips or individually
- Markers in proven MultiCard format

For custom printing: Please send us a file of our labeling software M-Print PRO or M-Print PRO Online (without installation) for your labeling specifications.

General ordering data

| Type | WS 10/5 MC NE WS | Version |
|------------|----------------------------|--|
| Order No. | 1635000000 | WS, Terminal marker, 10 x 5 mm, Pitch in mm (P): 5.00 Weidmueller, |
| GTIN (EAN) | 4008190261948 | Allen-Bradley, white |
| Qty. | 720 pc(s). | |

2.5 mm²

The plug-in cross-connections feature easy handling and quick installation. This saves a great deal of time during installation in comparison with screwed solutions.

General ordering data

| Type | ZQV 2.5N/2 GE | Version |
|------------|----------------------------|---------------------------------|
| Order No. | 1693800000 | W-Series, Cross-connector, 24 A |
| GTIN (EAN) | 4008190883621 | |
| Qty. | 60 pc(s). | |
| Type | ZQV 2.5N/2 SW | Version |
| Order No. | 1718080000 | W-Series, Cross-connector, 24 A |
| GTIN (EAN) | 4008190349301 | |
| Qty. | 60 pc(s). | |
| Type | ZQV 2.5N/2 RT | Version |
| Order No. | 1717900000 | W-Series, Cross-connector, 24 A |
| GTIN (EAN) | 4008190349288 | |
| Qty. | 60 pc(s). | |

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www.weidmueller.com**Accessories**

| | | |
|------------|----------------------------|---------------------------------|
| Type | ZQV 2.5N/2 BL | Version |
| Order No. | 1717990000 | W-Series, Cross-connector, 24 A |
| GTIN (EAN) | 4008190349295 | |
| Qty. | 60 pc(s). | |