

WAVESERIES
WAS5 PRO Thermo

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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,

General ordering data

Type	WAS5 PRO Thermo
Ordering	modules
Version	Process variables, Screw connection
GTIN (EAN)	4032248207336
Qty.	1 pc(s).

- displays
- 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	100 g	Net weight	128.8 g

Temperatures

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	270 Jahre
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Input

Number of inputs	1	Sensor	Thermo element (IEC 584) type: K,J,T,E,N,R,S,B
Line resistance in measuring circuit	50 Ω	Temperature input range	-200...+1820 °C

Output

Number of outputs	1	Output voltage, note	0...10 V
Output current	0...20 mA, 4...20 mA	Wire break detection	LED flashing (output value: > 20 mA, >10 V)
Fine adjustment	± 5% (switchable)	cold junction compensation	Yes
load impedance voltage	≥ 1 kΩ	load impedance current	≤ 600 Ω
Offset voltage	max. 0.05 V	Offset current	max. 100 µA
Status indicator	Module active: LED on/ wire breakage: LED flashing/ Error: LED off		

General data

Accuracy	Type K & J: -150°C... 1200°C ±(3°C + 0,1% of range), Type T: -150°C... 400°C ±(3°C + 0,1% of range), Type E: -150°C... 1000°C ±(3°C + 0,1% of range), Type N: -150°C... 1300°C ±(3°C + 0,1% of range), Type R & S: 200°C...1760°C ±(6°C + 0,1% of range), Type B: 500°C...1820°C ±(6°C + 0,1% of range)	Configuration	DIP switch
Current-carrying capacity of cross- connect.	≤ 2 A	Galvanic isolation	3-way isolator
Input/Output	configurable	Linearity	Yes
Mounting rail	TS 35	Power consumption	800...850...950 mW at I _{OUT} = 20 mA
Step response time	without filter: max. 1.4 s; with filter: max. 7.5 s	Supply voltage	24 V DC ± 20 %

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Technical data**Insulation coordination**

Clearance & creepage distances	≥ 3 mm	EMC standards	EN 55011, EN 61000-6
Galvanic isolation	3-way isolator	Impulse withstand voltage	4 kV
Insulation voltage	2 kV _{eff} / 5 s	Insulation voltage input or output/rail	4 kV _{eff} / 1 min.
Insulation voltage input or output/supply	2 kV _{eff} / 5 s	Pollution severity	2
Rated voltage	300 V	Surge voltage category	III

Connection data

Type of connection	Screw connection	Stripping length, rated connection	7 mm
Tightening torque, min.	0.4 Nm	Tightening torque, max.	0.5 Nm
Clamping range, rated connection	2.5 mm ²	Clamping range, min.	0.5 mm ²
Clamping range, max.	2.5 mm ²		

Classifications

ETIM 4.0	EC002653	ETIM 5.0	EC002653
ETIM 6.0	EC002919	UNSPSC	31-12-10-07
eClass 5.1	27-21-01-20	eClass 6.2	27-21-01-20
eClass 7.1	27-21-01-20	eClass 8.1	27-21-01-20
eClass 9.0	27-21-01-20	eClass 9.1	27-21-01-29

Product information

Product information	This product will soon be replaced by a new product. 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

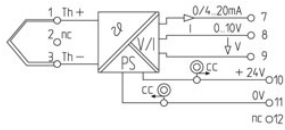
Approval/Certificate/Document of Conformity	Declaration of Conformity
Brochure/Catalogue	CAT 4.1 ELECTR 16/17 EN
Engineering Data	EPLAN, WSCAD
Software	WaveTool.zip
User Documentation	Instruction sheet

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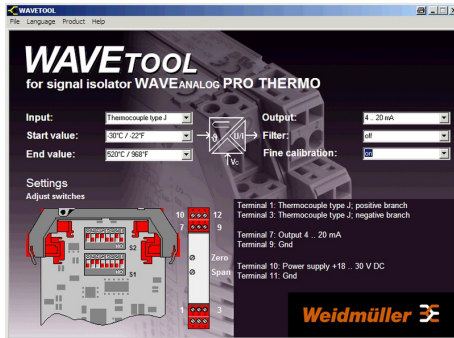
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Drawings

Electric symbol



Similar to illustration



Screenshot example, Wave tool software