WAVESERIES
WAS6 TTA

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany
Fon: +49 5231 14-0
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Circuit symbol

WAS/WAZ6 TTA is a universal signal converter and trip amplifier that can be configured on the PC. Combines the functions of isolation, transmission, linearisation and trip amplification in a single module.
These exceptional characteristics and outstanding configurability combine to make the TTA truly unique. The TTA functions with stability and precision under a wide range of voltages and ambient temperatures. It is compatible with all standard sensor types.

- Universal input signals: temperature signals such as resistance thermometer, thermocouple, potentiometer, frequency transmitter, DC voltage signals and current signals
- Loop-powered or passive input
- Wide-range power supply: 18 – 264 V AC/DC
- User-defined linearization
- Inputs and outputs can be configured on PC
- Combined analogue and relay output
- Ambient temperature range: -40 °C ...70 °C

The CBX200 USB interface is used to connect to the PC. The WAS/WAZ6 TTA is also offered as an option with ATEX Zone 2 and UL C1D2 approvals.

General ordering data

Type	WAS6 TTA
Order No.	8939670000
Version	Input : universal U, I, R,ϑ, Output : I/U universal, 2 x relays
GTIN (EAN)	4032248721078
Qty.	1 pc(s).

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Technical data

Dimensions and weights

Length	100 mm	Length (inches)	3.937 inch
Width	45 mm	Width (inches)	1.772 inch
Depth	112.4 mm	Depth (inches)	4.425 inch
Weight	215 g	Net weight	256.1 g

Temperatures

Humidity	5...95 %, no condensation	Operating temperature, max.	70 °C
Operating temperature, min.	-40 °C	Storage temperature, max.	85 °C
Storage temperature, min.	-40 °C	Operating temperature	-40 °C...70 °C
Storage temperature	-40 °C...85 °C		

Probability of failure

MTTF	138 Jahre

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1

Input

Number of inputs	1	Sensor	Thermocouples: B, E, J, K, L, N, R, S, T (IEC 60584), PT100, PT1000, (EN 60571) Ni100, Ni1000, (JIS1604), Cu10, Cu25, Cu50, Cu100 (DIN 43760) 2-/3-/4-wire
Sensor supply	24 V DC / 22 mA	Input voltage	-200...500 mV (min. 4 mV span), -20...50 V DC (min. 0.5 V span)
Input current	-20...+50 mA (min. interval 0.4 mA)	Input frequency	adjustable, 2 Hz...100 kHz
Temperature input range	Configurable, B: +100... +1820 °C, E: -270...+1000 °C, J: -270...+1200 °C, K: -150...+1372 °C, L: +100... +900 °C, N: -180...+1300 °C, R: -50...+1768 °C, S: -50...+1768 °C, T: -270... +400 °C, U: -200...+600 °C, User defined	Resistance	10 Ω...5 kΩ
Potentiometer	10...50 Ω, 50...100 Ω, 100...200 Ω, 200...400 Ω, 400...800 Ω, 800 Ω...2 kΩ, 2...6.5 kΩ, 6.5...100 Ω		

General data

Accuracy	< 0.1 % span (DC, RTD); 0.2 % span (or 1 °C) + CJ failure	Configuration	Using free Windows software, TTA Set Software
Power consumption	< 3.5 W	Step response time	50 ms...1 sec (RTD, mV inputs), 110 ms...1 sec (V, mA inputs)
Temperature coefficient	< 0.1 % / K (DC, RTD); < 0.1 % FSR / K + CJ error 0.07 °C/K (thermocouples)	Voltage supply	18...264 V AC/DC

Creation date August 8, 2020 3:52:04 AM CEST

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Insulation coordination

Clearance & creepage distances	≥ 5.5 mm (1 mm input/output)	EMC standards	EN 55011, EN 61000-6
Impulse withstand voltage	6 kV	Insulation voltage	2.5 kV
Pollution severity	2	Rated voltage	300 V
Surge voltage category	III		

Output (analogue)

Load resistance current	< 700 Ω	Load resistance voltage	> 10 kΩ @ 0...10 V / > 20 kΩ @ -10...+10 V
Output current	adjustable between 0 and 20 mA (min. span of 5 mA)	Output voltage	adjustable between -10... +10 V (min. span 2.5 V)
Signal output	direct or inverted	Transmit function	Linear, $x^{1/2}$, $x^{3/2}$, $x^{5/2}$ or user-defined curve (101 points)

Output (digital)

Alarm function	Top and bottom limit values, window range, Over-temperature, Alarm mode: delay, switch on or switch on/off, Holding function can be activated, Delayed 0...4200 s	Number of digital outputs	2
Type	2 x 1 CO contact (hard gold-plated), Process alarms (4x) with hysteresis, with alarm delay (configurable) 0...180 s	Max. switching voltage, AC	250 V
Continuous current	2 A		

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 mm²	Clamping range, min.	0.5 mm²
Clamping range, max.	2.5 mm²		

Classifications

ETIM 6.0	EC002653	ETIM 7.0	EC002653
eClass 9.0	27-21-01-20	eClass 9.1	27-21-01-90
eClass 10.0	27-21-01-20	UNSPSC	30-21-18-01

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Product information

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Approvals

Approvals

ROHS	Conform

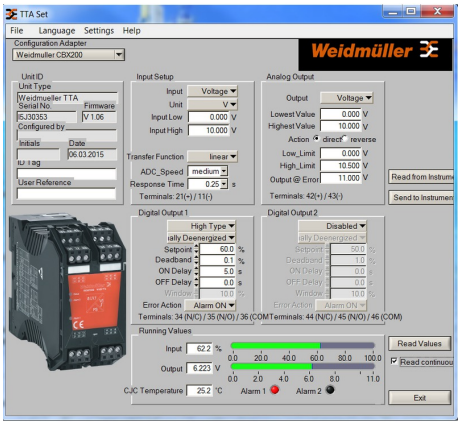
Downloads

Approval/Certificate/Document of Conformity	ATEX certification DNV GL Certificate Declaration of Conformity
Brochure/Catalogue	CAT 4.1 ELECTR 16/17 EN
Engineering Data	EPLAN, WSCAD
Software	Install_TTASet_V107.zip
User Documentation	Manual english, deutsch, france Instruction sheet

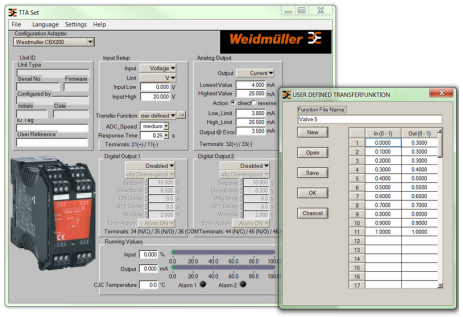
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Drawings



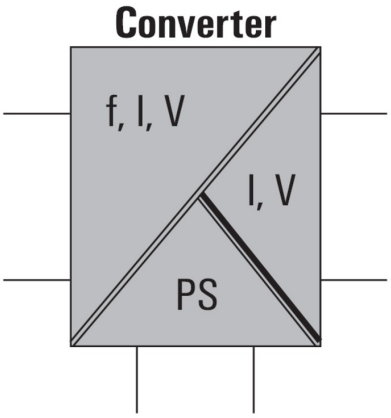
Screenshot of TTA Set Software

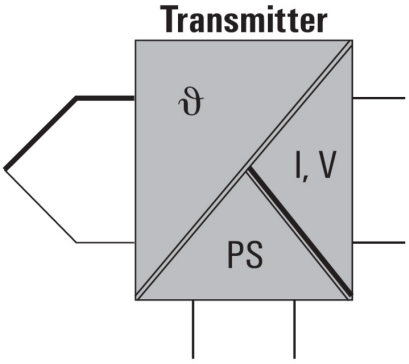


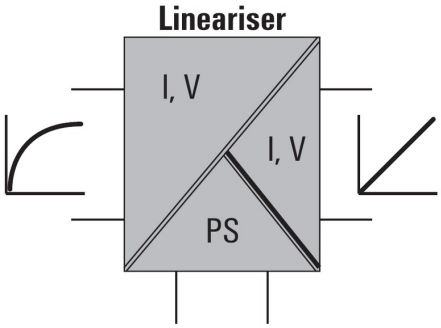
example of user defined transfer function
for assigning customized output values



connection to your PC







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Drawings

