

## WAZ6 TTA

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)

### Similar to illustration



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

Version	Input : universal U, I, R,9, Output : I/U universal, 2 x relays
Order No.	<a href="#">8939680000</a>
Type	WAZ6 TTA
GTIN (EAN)	4032248721085
Qty.	1 pc(s).

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## Technical data

## Dimensions and weights

Depth	112.4 mm	Depth (inches)	4.425 inch
Width	45 mm	Width (inches)	1.772 inch
Length	100 mm	Length (inches)	3.937 inch
Net weight	274 g		

## Temperatures

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

## Probability of failure

MTTF	138 Jahre
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## Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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## Input

Input current	-20...+50 mA (min. interval 0.4 mA)	Input frequency	adjustable, 2 Hz...100 kHz
Input voltage	-200...500 mV (min. 4 mV span), -20...50 V DC (min. 0.5 V span)	Number of inputs	1
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	Resistance	10 Ω...5 kΩ
Sensor	Thermocouples: B, E, J, K, L, N, R, S, T (IEC 60584), PT100, PT1000, (EN 60571) Ni100, Ni1000, (JIS 1604), Cu10, Cu25, Cu50, Cu100 (DIN 43760) 2-/3-/4-wire	Sensor supply	24 V DC / 22 mA
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		

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## 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	Continuous current	2 A
Max. switching voltage, AC	250 V	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		

## Output (analogue)

Load resistance current	< 700 $\Omega$	Load resistance voltage	> 10 k $\Omega$ @ 0...10 V / > 20 k $\Omega$ @ -10...+10 V
Number of analogue outputs	1	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)		

## 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)	Type of connection	Tension-clamp connection
Voltage supply	18...264 V AC/DC		

## Insulation coordination

Clearance & creepage distances	$\geq 5.5$ 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		

## Connection data

Type of connection	Tension-clamp connection	Stripping length, rated connection	7 mm
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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### Classifications

ETIM 6.0	EC002653	ETIM 7.0	EC002653
ETIM 8.0	EC002653	ECLASS 9.0	27-21-01-20
ECLASS 9.1	27-21-01-90	ECLASS 10.0	27-21-01-20
ECLASS 11.0	27-21-01-20		

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## Technical data

## Tender specification sheets

Long specification

Short specification

**Universal measurement  
isolating converters  
and trip amplifiers; can  
be configured with a PC**

Universal measurement isolating converters and trip amplifiers in 45 mm width with external supply for voltage and sensors, for transmitting and isolating analogue DC current -20 to 50 mA, voltages -200 to 500 mV/ -20 to 50 V, 2-/3-/4-wire RTD, resistors, thermocouples according to IEC 584 and frequencies up to 100 kHz( 2- / 3-wire sensors). Two switching outputs (CO contact) for alarms and analogue DC voltages (-10 to +10 V) and current outputs (0 to 20 mA) are available on the output side.

The component can be configured with a PC using the proprietary **TTA-Set software**.

Add-on housing for TS35 DIN rail installation  
Dimensions: L/W/H 100/45/ 112.4 mm  
tension-clamp connection/  
nominal cross-section 1.5 mm<sup>2</sup>

Protection degree:  
IP20 input-20 to 50 mA -200 to 500 mV / -10 to +10 V PT100, PT1000, Ni100, Ni1000, Cu10/25/50/100 2-/3-/4-wire resistance 10 Ohm to 5 kOhm/ Potentiometer 100 Ohm to 100 kOhm thermocouple types B, E, J, K, N, R, S, T frequencies 2 Hz to 100 kHz (2-/3-wire sensors) sensor supply 24 VDC / 22 mA output analogue 0 to 20 mA / adjustable -10 to +10 V/ adjustable relay output/ Alarm 2 CO contacts, hard gold-plated 250 VAC @ 3 A / 30 VDC @ 2A load resistance <700 Ohm/ current/ >10 kOhm/ voltage Transmission error Step response time < 0,1 % v. E. (DC, RTD) 10...90 % < 0,2 % + CJ

Power (T) 10...264 W Auxiliary power 18...264 V AC/DC Power loss approx. 3.5 W Ambient temperature range -25 °C... +70 °C

**Universal measurement  
isolating converters  
and trip amplifiers; can  
be configured with PC**  
**Universal  
measurement isolating  
converters and trip  
amplifiers in 45 mm  
width with external  
supply  
for voltage and  
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transmitting and  
isolating analogue DC  
current  
-20 to 50 mA, voltages  
-200 to 500 mV/ -20 to**

Creation date September 28, 2021 10:47:03 AM CEST

Catalogue status 27.09.2021 / Weidmüller reserves the right to make technical changes.

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**Technical data**

**Important note**

Product information

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.

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**Approvals**

Approvals



ROHS	Conform
UL File Number Search	E141197

**Downloads**

Approval/Certificate/Document of Conformity	<a href="#">ATEX certification</a> <a href="#">DNV GL Certificate</a> <a href="#">Declaration of Conformity</a>
Engineering Data	<a href="#">STEP</a>
Engineering Data	<a href="#">EPLAN, WSCAD</a>
Software	<a href="#">Install_TTASet_V107.zip</a>
User Documentation	<a href="#">Manual english, deutsch, france</a> <a href="#">Instruction sheet</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>
Brochures	

WAZ6 TTA

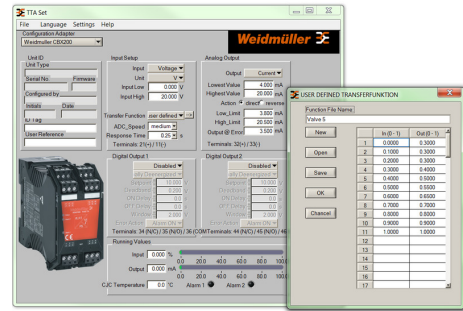
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Drawings

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Screenshot of TTA Set software

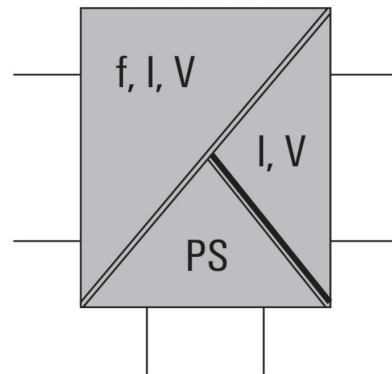


example of user defined transfer function for assigning customized output values

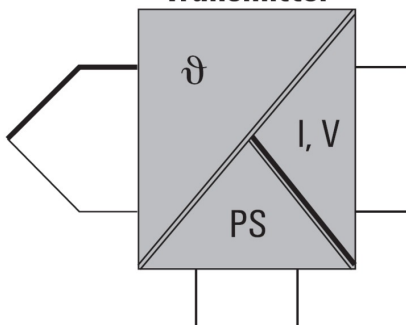


connection to your PC

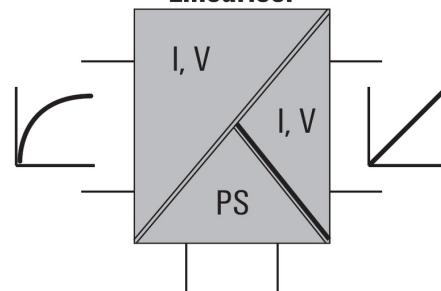
Converter



Transmitter



Lineariser



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# Accessories

## Configuration interfaces



## General ordering data

Type	CBX200 USB
Order No.	<a href="#">8978580000</a>
GTIN (EAN)	4032248813759
Qty.	1 pc(s).



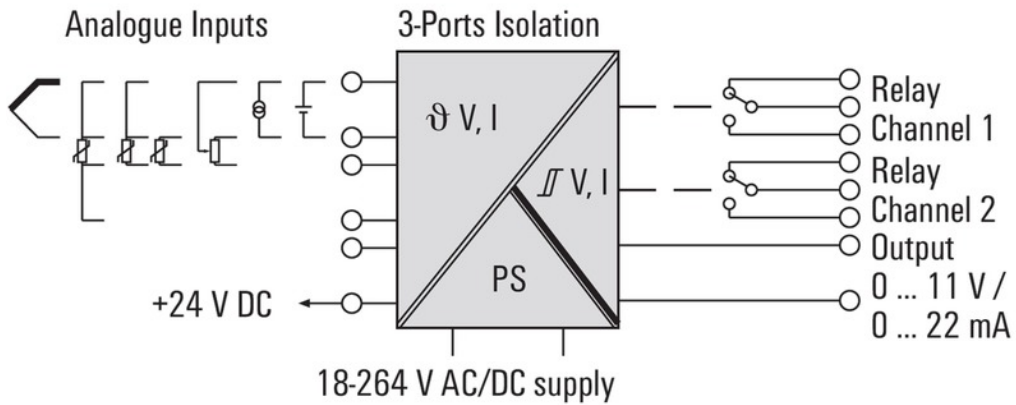
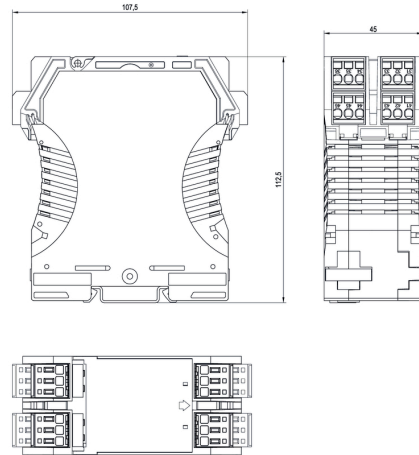
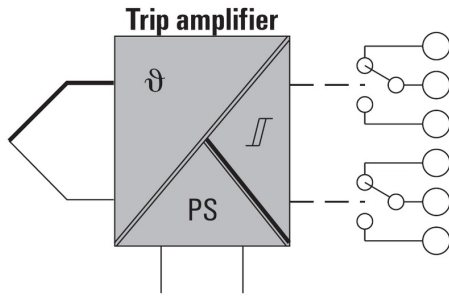
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