

WAS6 TTA

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product is no longer available, Data sheet for information only



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.	8939670000
Type	WAS6 TTA
GTIN (EAN)	4032248721078
Qty.	1 items
Delivery status	This article will no longer be available in the future.
Available until	2023-10-22T00:00:00+02:00
Alternative product	ACT20P-PRO DCDC II-S

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Technical data

Approvals

Approvals



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

Dimensions and weights

Depth	112.4 mm	Depth (inches)	4.4252 inch
Width	45 mm	Width (inches)	1.7716 inch
Length	100 mm	Length (inches)	3.937 inch
Net weight	256.1 g		

Temperatures

Storage temperature	-40 °C...85 °C	Operating temperature	0 °C...70 °C
Humidity at operating temperature	0...95 % (no condensation)	Humidity	5...95 %, no condensation

Probability of failure

SIL in compliance with IEC 61508	None	MTTF	138 a
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Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	7a, 7cl
REACH SVHC	Lead 7439-92-1, 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol 119-47-1
SCIP	f8333314-0c66-4444-aa47-78252861a7fb

Input

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	Number inputs	1
Input frequency	adjustable, 2 Hz...100 kHz	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
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)
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
Input current	-20...+50 mA (min. interval 0.4 mA)		

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Output

Load impedance current	≤ 600 Ω, @ max 23mA
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Output (digital)

Rated switching current	0.1 A	Continuous current	2 A
Number of digital outputs	2	Max. switching voltage, AC	0 V
Type	2 x 1 CO contact (hard gold-plated), Process alarms (4x) with hysteresis, with alarm delay (configurable) 0...180 s	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

Output (analogue)

Signal output	direct or inverted	Transmit function	Linear, x1/2, x3/2, x5/2 or user-defined curve (101 points)
Output voltage	adjustable between -10...+10 V (min. span 2.5 V)	Load resistance voltage	> 10 kΩ @ 0...10 V / > 20 kΩ @ -10...+10 V
Number analogue outputs	1	Load resistance current	<700 Ω
Output current	adjustable between 0 and 20 mA (min. span of 5 mA)		

General data

Accuracy	<0.1 % span (DC, RTD); 0.2 % span (or 1 °C) + CJ failure	Protection degree	IP20
Supply voltage	18...264 V AC/DC	Long-term drift	0
Step response time	50 ms...1 sec (RTD, mV inputs), 110 ms...1 sec (V, mA inputs)	Power consumption	<3.5 W
Temperature coefficient	<0.1 % / K (DC, RTD); <0.1 % FSR / K + CJ error 0.07 °C/K (thermocouples)	Nominal power consumption	1.5 VA
Configuration	Using free Windows software, TTA Set Software, Requires configuration adapter 8978580000 CBX200 USB		

Insulation coordination

Impulse withstand voltage	6 kV	EMC standards	EN 55011, EN 61000-6
Surge voltage category	III	Pollution severity	2
Insulation voltage	2.5 kV	Rated voltage	300 V

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		

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Important note

Product information	<p>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.</p> <p>These exceptional characteristics and outstanding configurability combine to make the TTA truly unique.</p> <p>The TTA functions with stability and precision under a wide range of voltages and ambient temperatures. It is compatible with all standard sensor types.</p> <ul style="list-style-type: none"> • 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 <p>The CBX200 USB interface is used to connect to the PC.</p> <p>The WAS/WAZ6 TTA is also offered as an option with ATEX Zone 2 and UL C1D2 approvals.</p>
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Classifications

ETIM 8.0	EC002653	ETIM 9.0	EC002653
ETIM 10.0	EC002653	ECLASS 14.0	27-21-01-20
ECLASS 15.0	27-21-01-20		

Tender specification sheets

Long specification	<p>Universal measurement isolating converters and trip amplifiers; can be configured with PC</p> <p>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, analogue DC voltages (-10 to +10 V) and current outputs (0 to 20 mA) are available on the output side.</p> <p>The component can be configured with a PC using the proprietary TTA-Set software.</p> <p>Add-on housing for TS35 DIN rail installation Dimensions: L/W/H 100/45/ 112.4 mm screw connection / nominal cross-section 2.5 mm²</p>	Short specification	<p>Universal measurement isolating converters and trip amplifiers; can be configured with PC</p> <p>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, analogue DC voltages (-10 to +10 V) and current outputs (0 to 20 mA) are available on the output side.</p> <p>The component can be configured with a PC using the proprietary TTA-Set software.</p>
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Technical data

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/
 voltageTransmission
 error
 response time 10...90
 % < 0,1 % v. E.

Step

(DC, RTD)
 Auxiliary power
 18...264 V AC/DC< 50
 ms...1 s einstellbar
 Power loss approx. 3.5
 W Ambient temperature
 range -25 °C...+70
 °C

Isolation
 EN 50178 secure 3-way
 isolation up to 6 kV of all
 circuits against each other

Test
 voltage
 2.5 kV input against
 output against auxiliary
 power

Rated
 voltage
 300 V AC/DC at
 overvoltage category III
 and pollution degree 2
 Approvals cULus, GL
 Type
 WAS6 TTA

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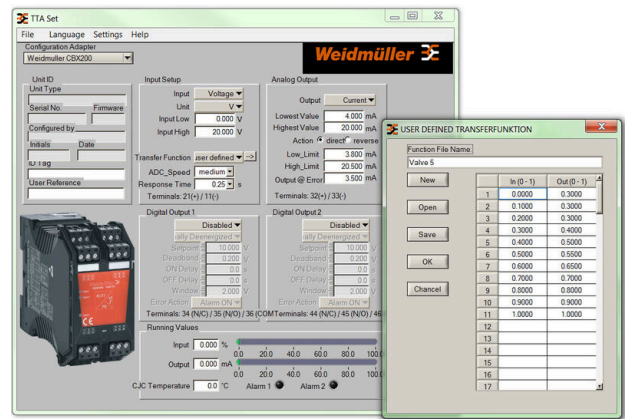
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Drawings

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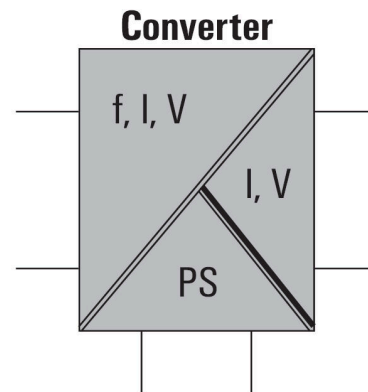
Screenshot of TTA Set Software



example of user defined transfer function for assigning customized output values



connection to your PC



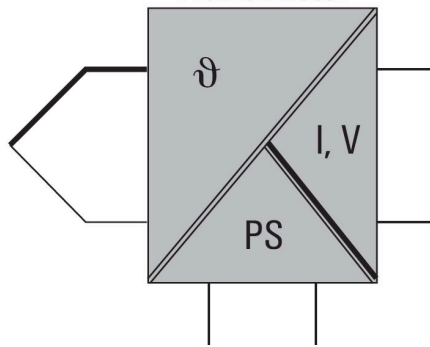
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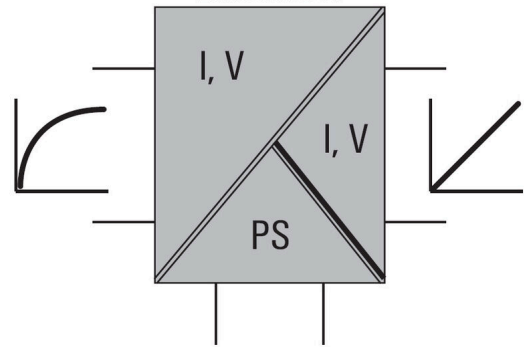
Drawings

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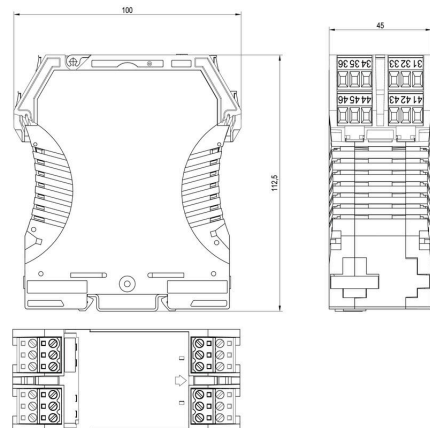
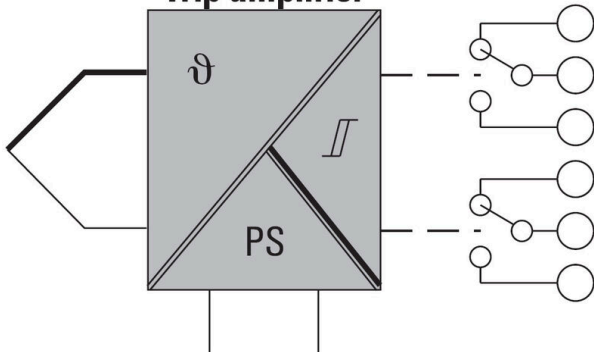
Transmitter



Lineariser



Trip amplifier

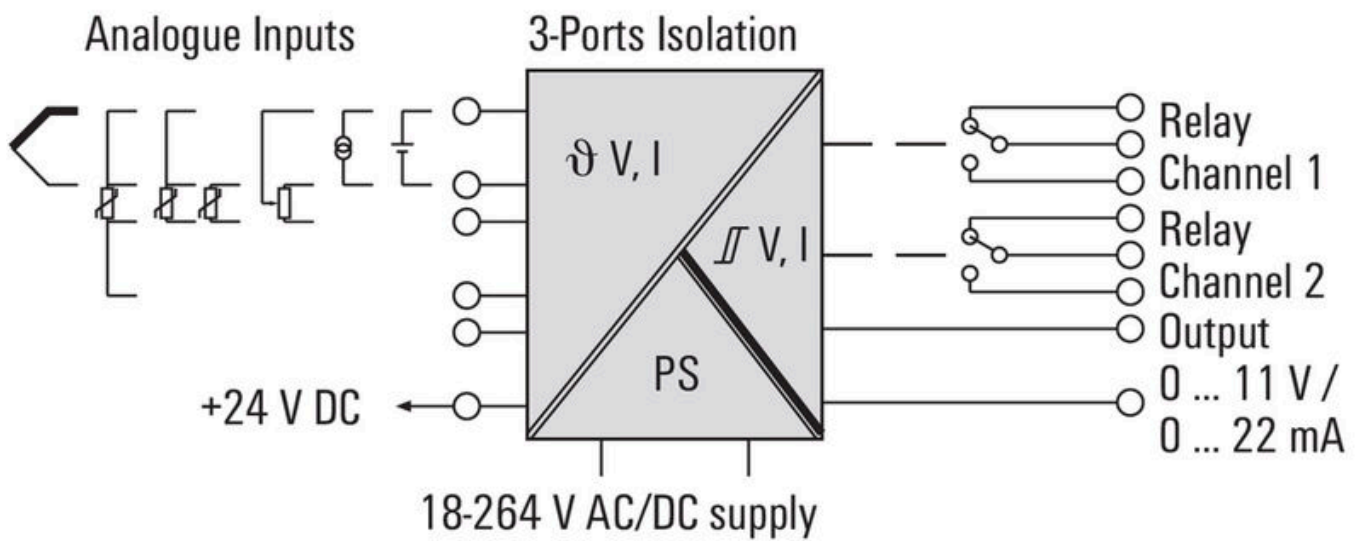


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Accessories

Configuration interfaces



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Type	CBX200 USB	Version	
Order No.	8978580000		
GTIN (EAN)	4032248813759		
Qty.	1 ST		