

WAZ6 TTA

Weidmüller Interfaces GmbH & Co. KG

Postfach 3030

32760 Detmold

Tel. +49 5231 14-0

Fax. +49 5231 14-2083

info@weidmueller.com

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.	8939680000
Type	WAZ6 TTA
GTIN (EAN)	4032248721085
Qty.	1 pc(s).

WAZ6 TTA

Weidmüller Interfaces GmbH & Co. KG

Postfach 3030

32760 Detmold

Tel. +49 5231 14-0

Fax. +49 5231 14-2083

info@weidmueller.com

www.weidmueller.com

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

Probability of failure

SIL in compliance with IEC 61508	None	MTTF	138 Jahre
----------------------------------	------	------	-----------

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, (JIS1604), 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		

Output

Load impedance current	≤ 600 Ω, @ max 23mA
------------------------	---------------------

WAZ6 TTA

Weidmüller Interfaces GmbH & Co. KG

Postfach 3030

32760 Detmold

Tel. +49 5231 14-0

Fax. +49 5231 14-2083

info@weidmueller.com

www.weidmueller.com

Technical data

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 Ω	Load resistance voltage	> 10 k Ω @ 0...10 V / > 20 k Ω @ -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, Requires configuration adapter 8978580000 CBX200 USB
Long-term drift	0	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	≥ 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 ²	Clamping range, min.	0.5 mm ²
Clamping range, max.	2.5 mm ²		

WAZ6 TTA**Weidmüller Interfaces GmbH & Co. KG**

Postfach 3030

32760 Detmold

Tel. +49 5231 14-0

Fax. +49 5231 14-2083

info@weidmueller.com**Technical data**www.weidmueller.com**Classifications**

ETIM 6.0	EC002653	ETIM 7.0	EC002653
ETIM 8.0	EC002653	ECLASS 9.0	27-21-01-20
ECLASS 9.1	27-21-01-20	ECLASS 10.0	27-21-01-20
ECLASS 11.0	27-21-01-20	ECLASS 12.0	27-21-01-20

WAZ6 TTA

Weidmüller Interfaces GmbH & Co. KG

Postfach 3030

32760 Detmold

Tel. +49 5231 14-0

Fax. +49 5231 14-2083

info@weidmueller.com

Technical data

Tender specification sheets

Long specification

Short specification

www.weidmueller.com

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 mm²

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

ETB (T/C) 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 sensors, for transmitting and isolating analogue DC current
-20 to 50 mA, voltages -200 to 500 mV/ -20 to

Creation date March 3, 2023 1:43:28 PM CET

Catalogue status 18.02.2023 / We reserve the right to make technical changes.

We reserve the right to make technical changes.

WAZ6 TTA

Weidmüller Interfaces GmbH & Co. KG

Postfach 3030

32760 Detmold

Tel. +49 5231 14-0

Fax. +49 5231 14-2083

info@weidmueller.com

www.weidmueller.com

Technical data

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1	www.weidmueller.com
SCIP	c2a21576-d875-4548-ae68-5e7f85ddf0c7	

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.

- 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.

Approvals

Approvals



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

Downloads

Approval/Certificate/Document of Conformity	ATEX certification DNV GL Certificate Declaration of Conformity
Engineering Data	CAD data – STEP
Engineering Data	WSCAD
Software	Runtime Software – Install_TTASet_V107.zip
User Documentation	Manual english, deutsch, france Instruction sheet
Catalogues	Catalogues in PDF-format
Brochures	

WAZ6 TTA

Weidmüller Interfaces GmbH & Co. KG

Postfach 3030

32760 Detmold

Tel. +49 5231 14-0

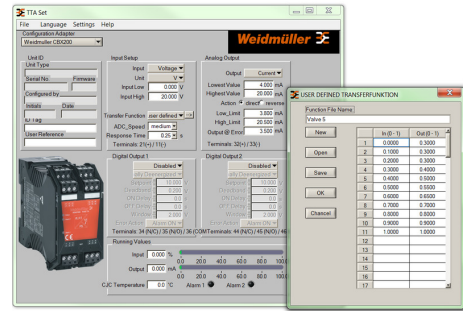
Fax. +49 5231 14-2083

info@weidmueller.com

Drawings



Screenshot of TTA Set software

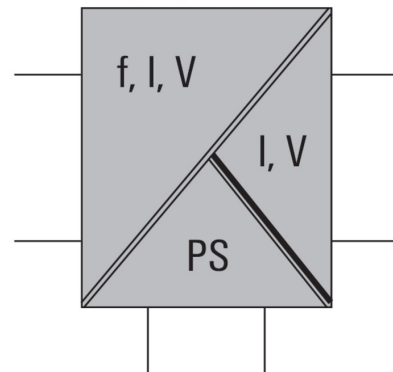


example of user defined transfer function for assigning customized output values

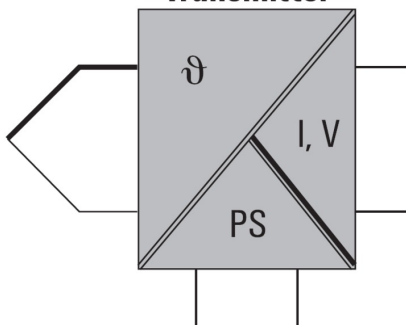


connection to your PC

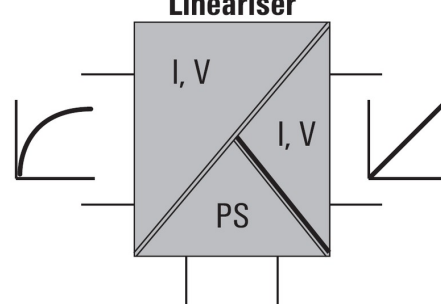
Converter



Transmitter



Lineariser



WAZ6 TTA

Weidmüller Interfaces GmbH & Co. KG

Postfach 3030

32760 Detmold

Tel. +49 5231 14-0

Fax. +49 5231 14-2083

info@weidmueller.com

Drawings

Similar to illustration

