WAZ6 TTA EX

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

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 : EX, universal U, I, R,9, Output : I/U universal, 2 x relays
Order No.	8964320000
Type	WAZ6 TTA EX
GTIN (EAN)	4032248782284
Qty.	1 pc(s).
Delivery status	This article will no longer be available in the future.
Available until	2023-12-30
Alternative product	1481960000

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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	280 g		

Temperatures

Storage temperature	-40 °C...85 °C	Operating temperature	-40 °C...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

Output (digital)

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

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Output (analogue)

Load resistance current	<700 Ω	Load resistance voltage	> 10 kΩ @ 0...10 V / > 20 kΩ @ -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)
Voltage supply	24...240 V AC/DC; 24...36 V AC / 24...50 V DC (ATEX Zone 2)		

Insulation coordination

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

Data for Ex applications (ATEX)

Marking	II 3 G Ex nA nC IIC T4 Gc

Connection data

Type of connection	Tension-clamp connection	Stripping length, rated connection	7 mm
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
ETIM 8.0	EC002653	ETIM 9.0	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	ECLASS 13.0	27210120

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Technical data

Tender specification sheets

Long specification	Short specification
Universal measurement isolating converters and trip amplifiers, for Ex zone 2 applications; 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 contacts) are available on the output side for alarms.** **Analogue DC voltage (-10...+10 V) and current outputs (0...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 rail mounting** **Dimensions: L/W/H 100/ 45/ 112.4 mm** **Tension-clamp connection / Nominal cross-section 1.5 mm^2** **Protection degree: IP 20** **Input -20...50 mA** **-200...500 mV / -10... +10 V** **PT100, PT1000, Ni100, Ni1000, Cu10/25/50/100 2-/3-/4-wire** **Resistance 10 Ohm...5 kOhm/ Potentiometer 100 Ohm...100 kOhm** **Thermocouple types B, E, J, K, N, R, S, T** **Frequencies 2 Hz...100 kHz (2-/3-wire sensors)** **Sensor supply 24 V DC / 22 mA** **Output analogue 0...20**	

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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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.
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Approvals

Approvals

ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E141197
Certificate no. (cULusEX)	E223527

Downloads

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

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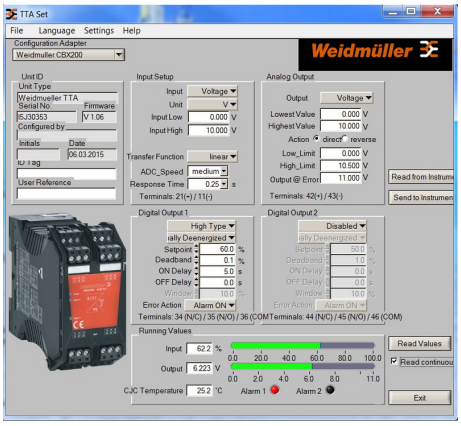
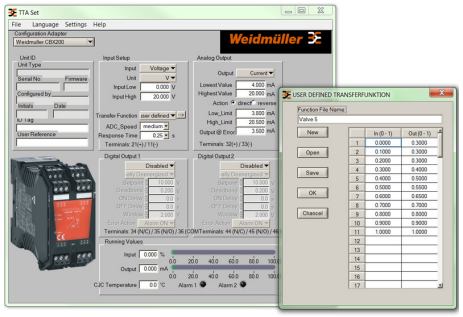
Drawings

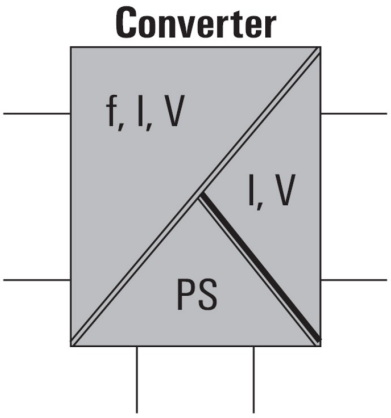


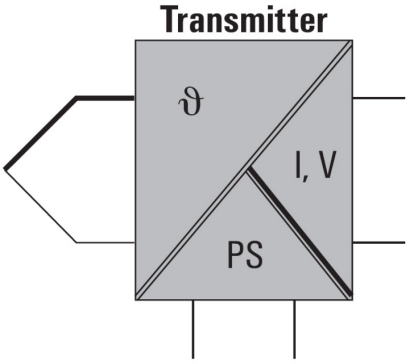
Screenshot of TTA Set software

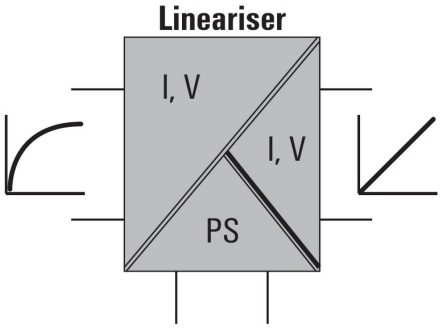


example of user defined transfer function
for assigning customized output values

connection to your PC







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Accessories

Configuration interfaces

General ordering data

Type	CBX200 USB
Order No.	8978580000
GTIN (EAN)	4032248813759
Qty.	1 pc(s).

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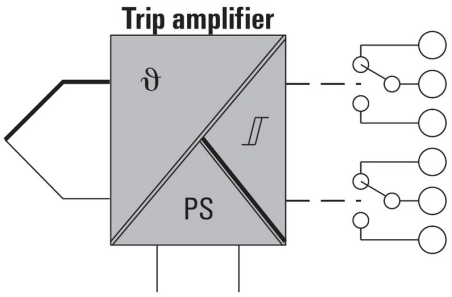
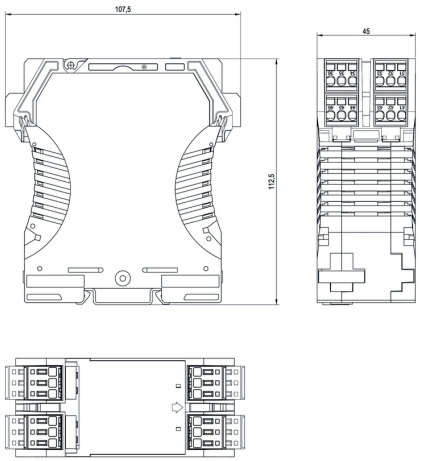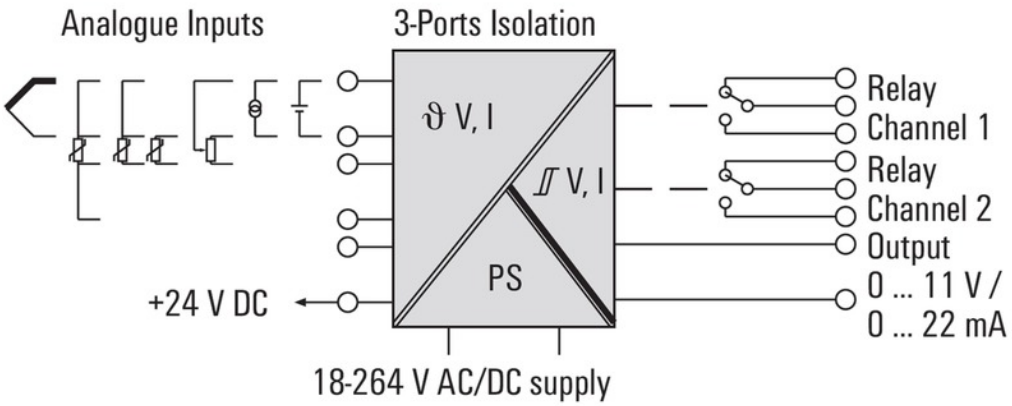
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