

DC/DC Signal Conditioners

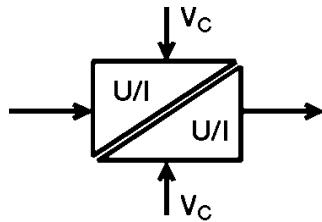
WAVEANALOG DC/DC

- Voltage supply on both sides
- 2-way-isolation
- Analog signal conditioning
- Galvanic isolation between input/output signal
- Cross-connectable voltage supply via cross-connectors

Approvals:



Block diagram



VCC DC

0...10 V/0...20 mA



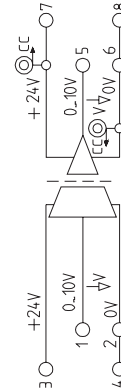
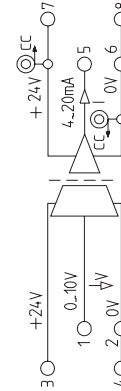
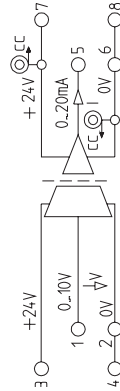
VCC DC

0...10 V/4...20 mA



VVC DC

0...10 V/0...10 V



Ordering data

Screw connection	
Tension clamp connection	
Input/output	

Technical data*

Input signal	
Input voltage max.	15 V
Input resistance	500 kΩ
Output signal	
Load resistance	≤ 500 Ω
Accuracy at Tu=23°C	± 0.2% of FS
Temperature coefficient	≤ 250 ppm/K of FS
Response time	≤ 30 ms (typ. 25 ms)
Cut-off frequency (-3 dB)	≥ 13 Hz (typ. 17 Hz)

General

Voltage supply	24 VDC ±20% (19.2...28.8 VDC)
Power consumption input	< 11 mA at U _{in} = 10 V
Power consumption output	< 32 mA at I _{out} = 20 mA
Current carrying capacity of cross-connection	≤ 2 A
Operating temperature	0°C...+55°C (horiz. mounted)
Storage temperature	-20°C...+85°C
Dimensions W/L/H	mm (in.) 12.5/92.4/112.5 (49/3.64/4.43)
Approvals	CE, UL, CSA

Coordination of insulation according to EN 50178, 04/98

Rated voltage	300 V
Rated surge voltage	4 kV
Overtoltage category	III
Contamination class	2
Clearance and creepage distance	mm (in.) ≥ 3 (.12)
Isolation voltage, voltage strength	
Input/output to mounting rail	4 kV _{eff} /1 min
Standards/specifications	EN 50178
EMC standards	EN 50081, EN 50082, EN 55011

Dimensions and accessories see

*Tu = 23°C single module

Type Part No.

WAS4 VCC DC	8447050000
WAZ4 VCC DC	8447080000

0...10 V	
15 V	
500 kΩ	
0...20 mA	
≤ 500 Ω	
± 0.2% of FS	
≤ 250 ppm/K of FS	
≤ 30 ms (typ. 25 ms)	
≥ 13 Hz (typ. 17 Hz)	

24 VDC ±20%	
(19.2...28.8 VDC)	
< 11 mA at U _{in} = 10 V	
< 32 mA at I _{out} = 20 mA	
≤ 2 A	
0°C...+55°C (horiz. mounted)	
-20°C...+85°C	
12.5/92.4/112.5 (49/3.64/4.43)	
CE, UL, CSA	

300 V	
4 kV	
III	
2	
≥ 3 (.12)	
4 kV _{eff} /1 min	
EN 50178	
EN 50081, EN 50082, EN 55011	

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Type Part No.

WAS4 VCC DC	8447100000
WAZ4 VCC DC	8447110000

0...10 V	
15 V	
500 kΩ	
4...20 mA	
≤ 500 Ω	
± 0.2% of FS	
≤ 250 ppm/K of FS	
≤ 30 ms (typ. 25 ms)	
≥ 13 Hz (typ. 17 Hz)	

24 VDC ±20%	
(19.2...28.8 VDC)	
< 11 mA at U _{in} = 10 V	
< 32 mA at I _{out} = 20 mA	
≤ 2 A	
0°C...+55°C (horiz. mounted)	
-20°C...+85°C	
12.5/92.4/112.5 (49/3.64/4.43)	
CE, UL, CSA	

300 V	
4 kV	
III	
2	
≥ 3 (.12)	
4 kV _{eff} /1 min	
EN 50178	
EN 50081, EN 50082, EN 55011	

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Type Part No.

WAS4 VVC DC	8447130000
WAZ4 VVC DC	8447140000

0...10 V	
15 V	
500 kΩ	
0...10 V	
≥ 1 kΩ	
± 0.2% of FS	
≤ 250 ppm/K of FS	
≤ 30 ms (typ. 25 ms)	
≥ 13 Hz (typ. 17 Hz)	

24 VDC ±20%	
(19.2...28.8 VDC)	
< 11 mA at U _{in} = 10 V	
< 20 mA at I _{out} = 10 mA	
≤ 2 A	
0°C...+55°C ((horiz. mounted)	
-20°C...+85°C	
12.5/92.4/112.5 (49/3.64/4.43)	
CE, UL, CSA	

300 V	
4 kV	
III	
2	
≥ 3 (.12)	
4 kV _{eff} /1 min	
EN 50178	
EN 50081, EN 50082, EN 55011	

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