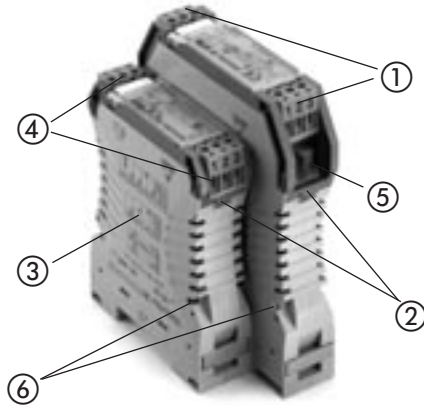


WAVECONTROL
Current-monitoring module





Read these instructions before using the product and retain for future information.



Schraubanschluss

WAS2 CMR 1/5/10A ac
WAS2 CMR 20/40/60A ac
WAS1 CMA 1/5/10A ac
WAS1 CMA LP 1/5/10A ac
WAS2 CMA 5/10A uc
WAS2 CMA 20/25/30A uc
WAS2 CMA 40/50/60A uc

Best.-Nr.

8516560000
8513340000
8523400000
8528650000
8526610000
8545830000
8513330000



Zugfederanschluss

WAZ2 CMR 1/5/10A ac
WAZ2 CMR 20/40/60A ac
WAZ1 CMA 1/5/10A ac
WAZ1 CMA LP 1/5/10A ac
WAZ2 CMA 5/10A uc
WAZ2 CMA 20/25/30A uc
WAZ2 CMA 40/50/60A uc

Best.-Nr.

8516570000
8526600000
8523410000
8528660000
8526620000
8545840000
8526590000

1. General instructions

The WAVECONTROL current-monitoring module should only be installed by qualified personnel. Qualified personnel, as defined in these operating instructions, are persons considered in 0105 Part 1/DIN EN 50110-1 as electrically skilled workers or electrotechnically instructed personnel. The signal conditioner should only be powered up following professional installation.

- Caution!**
- Electronics units must not be removed from their enclosure when the voltage supply is connected
 - The module must be disconnected from the voltage supply when configuring the DIP switches on the printed-circuit board (disconnect the connector from the module)
 - Observe ESD regulations

Care must be taken to prevent a direct electrostatic discharge when setting the DIP switches. Regulations of the county in which the modules are to be operated are to be observed (for example, Germany, VDE 0100) when selecting and installing electrical wiring.



2. Application

WAVECONTROL current-monitoring modules, measure DC, AC and non-sinusoidal currents up to 60 A, and can be used for monitoring tasks in diverse areas.

All variables are configured via DIP switches. Further calibration is not necessary. The measurement circuit is galvanically isolated. Measurement results are available for further processing as a relay contact or analog value. All modules are available with pluggable screw or tension clamp connections.

3. Mounting and Settings

3.1 Range adjustments

1. Remove ① connector
2. Press locking clips ② on both sides of the enclosure and pull out the circuit board
3. Make required adjustments to the input range, hysteresis, frequency and relay control using the DIP switches (by print to the side of the enclosure ③).
4. Replace connector after making adjustments
The connectors have been coded by the manufacturer, ensuring that they cannot be reversed ④.
5. If using the feed-through version, push through enclosing wire ⑤

Warning!!

The circuit board can only be inserted in one position.

3.2 Cross-connections for voltage supply ⑥

A maximum feed through of 2 A is possible
The cross-connectors have been coded by the manufacturer, preventing a short circuit should the cross-connectors be reversed

3.3 Modules with relay output

SW3=OFF: hysteresis approx. 5% of the set value

SW3=ON: hysteresis app. 10% of the set value

SW4=OFF: relay switches when input > threshold value

SW4=ON: relay switches when input < threshold value

Signal	Range	SW1	SW2	SW3	SW4
Input	1 Aac	OFF	ON		
	5 Aac	ON	OFF		
	10 Aac	OFF	OFF		

Signal	Range	SW1	SW2	SW3	SW4
Input	20 Aac	OFF	OFF		
	40 Aac	ON	OFF		
	60 Aac	ON	ON		

3.4 Modules with analog outputs

Signal	Range	SW1	SW2	SW3	SW4	SW5
Input	20/40 Auc	OFF	OFF			
	5/25/50 Auc	OFF	ON			
	10/30/60 Auc	ON	OFF			
	AC Current					ON
	DC Current					OFF
Output	0...10 V			ON	OFF	
	0...20 mA			OFF	OFF	
	4...20 mA			OFF	ON	

Cat. No.
8516560000
8516570000

Cat. No.
8513340000
8526600000

Cat. No.
8513330000
8526590000
8526610000
8526620000
8545830000
8545840000

Signal	Range	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8
Input	1 Aac	OFF	OFF	ON					
	5 Aac	OFF	ON	OFF					
	10 Aac	ON	OFF	OFF					
Output	0...10 V				ON	OFF	ON	ON	OFF
	0...20 mA				OFF	OFF	OFF	OFF	ON
	4...20 mA				OFF	ON	OFF	OFF	ON

Signal	Range	SW1	SW2	SW3	SW4
Input	1 Aac	OFF	OFF	ON	
	5 Aac	OFF	ON	OFF	
	10 Aac	ON	OFF	OFF	
Frequenz	50 Hz				OFF
	60 Hz				ON

Signal	Range	SW1	SW2	SW3	SW4	SW5
Input	5 Aac	OFF	ON			
	10 Aac	ON	OFF			
	AC Current					ON
	DC Current					OFF
Output	0...10 V			ON	OFF	
	0...20 mA			OFF	OFF	
	4...20 mA			OFF	ON	

Cat. No.
8523400000
8523410000

Cat. No.
8528650000
8528660000

Cat. No.
8526610000
8526620000

4. Electrical Connection

Pin	CMA	CMA	CMR	CMR	CMA LP
	1/5/10 Aac	40/50/60 Auc	1/5/10 Aac	20/40/60 Aac	1/5/10 Aac
		20/25/30 Auc	1/5/10 Aac	20/40/60 Aac	1/5/10 Aac
		5/10 Auc			
1	NC	24 Vdc	24 Vdc	24 Vdc	NC
2	Input	0 V	0 V	0 V	Input
3	Input	0 V	0 V	0 V	Input
4			NC		
5			Input		
6			Input		
7	24 Vdc	0...10 V		Contact 11	Out+
8	Output	0(4)...20 mA		Contact 12	NC
9	0 V	0 V		Contact 14	Out-
10			Contact 11		
11			Contact 14		
12			Contact 12		
I.d.c. connection		Input*		Input*	

*) Diameter of grommet: 8 mm

NC = no connection

5. Design Variations and Ordering Information

All components are available with pluggable screw (WAS) or tension clamp connection (WAZ).

Input	Output
1/5/10 A ac, selectable	0(4)...20 mA/0...10 V
1/5/10 A ac, selectable	4...20 mA, loop powered
1/5/10 A ac, selectable	1 relay, changeover contact
20/40/60 A ac, selectable	1 relay, changeover contact
5/10 A ac/dc, selectable (TRMS)	0(4)...20 mA / 0...10 V
40/50/60 A ac/dc, selectable (TRMS)	0(4)...20 mA / 0...10 V
20/25/30 A ac/dc, selectable (TRMS)	0(4)...20 mA / 0...10 V

Type	Input	Output	Cat. No.	Enclosure
WAS2 CMR	1/5/10 A ac	Relay	8516560000	WAVEBOX L 22,5
WAZ2 CMR	1/5/10 A ac	Relay	8516570000	WAVEBOX L 22,5
WAS1 CMA	1/5/10 A ac	Analog	8523400000	WAVEBOX S 22,5
WAZ1 CMA	1/5/10 A ac	Analog	8523410000	WAVEBOX S 22,5
WAS1 CMA LP	1/5/10 A ac	Analog	8528650000	WAVEBOX S 22,5
WAZ1 CMA LP	1/5/10 A ac	Analog	8528660000	WAVEBOX S 22,5
WAS2 CMA	5/10 A ac/de	Analog	8526610000	WAVEBOX L 22,5
WAZ2 CMA	5/10 A ac/de	Analog	8526620000	WAVEBOX L 22,5
WAS2 CMR	20/40/60 A ac	Relay	8513340000	WAVEBOX L 22,5
WAZ2 CMR	20/40/60 A ac	Relay	8526600000	WAVEBOX L 22,5
WAS2 CMA	40/50/60 A ac/dc	Analog	8513330000	WAVEBOX L 22,5
WAZ2 CMA	40/50/60 A ac/dc	Analog	8526590000	WAVEBOX L 22,5
WAS2 CMA	20/25/30 A ac/dc	Analog	8545830000	WAVEBOX L 22,5
WAZ2 CMA	20/25/30 A ac/dc	Analog	8545840000	WAVEBOX L 22,5

6. Accessories

	Cat. No.
Cross-connection ZQV 2,5N/2 black	1718080000
Cross-connection ZQV 2,5N/2 red	1717900000
Cross-connection ZQV 2,5N/2 blue	1717990000
Cross-connection ZQV 2,5N/2 yellow	1693800000
<hr/>	
Terminal connector, 3-pole for screw-type connection BLZ 5.08/3 SN OR	
- orange	1526560000
- black	1526510000
<hr/>	
Terminal connector, 3-pole for tension clamp connection BLZF 5.08/3	
- orange	1707470000
- black	1707700000
<hr/>	
Connector markers	
- WS 10/5 Multicard for plotter labelling	1635010000
- WS 10/5 blank	1060860000

7. CE Labeling of WAVECONTROL Modules

WAVECONTROL modules carry the CE Mark and comply with the requirements of the EU guidelines 89/336/EEG "Electromagnetic Compatibility" and the therein listed harmonized European Norms (EN).

The EU declarations of conformity are held for the relevant authorities, in accordance with Article 10 of the above mentioned EU guideline, at the following address :

Weidmüller Interface GmbH & Co.
Postfach 30 30
32720 Detmold
Tel. +49 5231 14-0
Fax +49 5231 14-2083
e-mail: info@weidmueller.com
www.weidmueller.com

