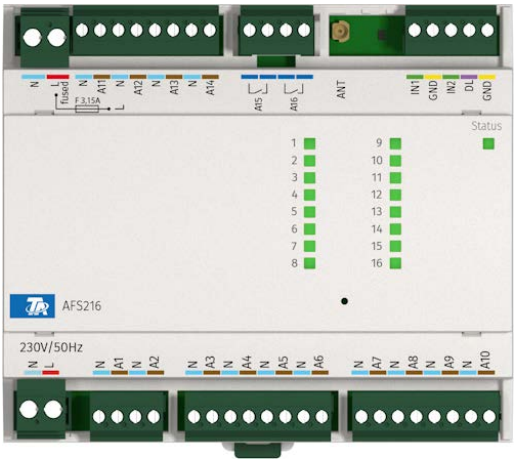
Technische Alternative RT GmbH

A-3872 Amaliendorf, Langestrasse 124, Austria
Tel. +43 (0)2862 53635 mail@ta.co.at

AFS216

Vers. 1.01.1

Actuating controller for 14 thermal actuators



The **AFS216** actuating controller switches up to 14 thermal actuators. These 14 outputs for actuators are designed for continuous current up to 30 mA, individual pulses (start-up current) up to 0.5 A. In addition, 2 potential-free relay outputs are available under output 15 and 16. Finally, there are two further inputs for PT1000 temperature sensors.

The **AFS216** can only be operated via CORA (wireless or wired) and is not suitable for the conventional DL bus.

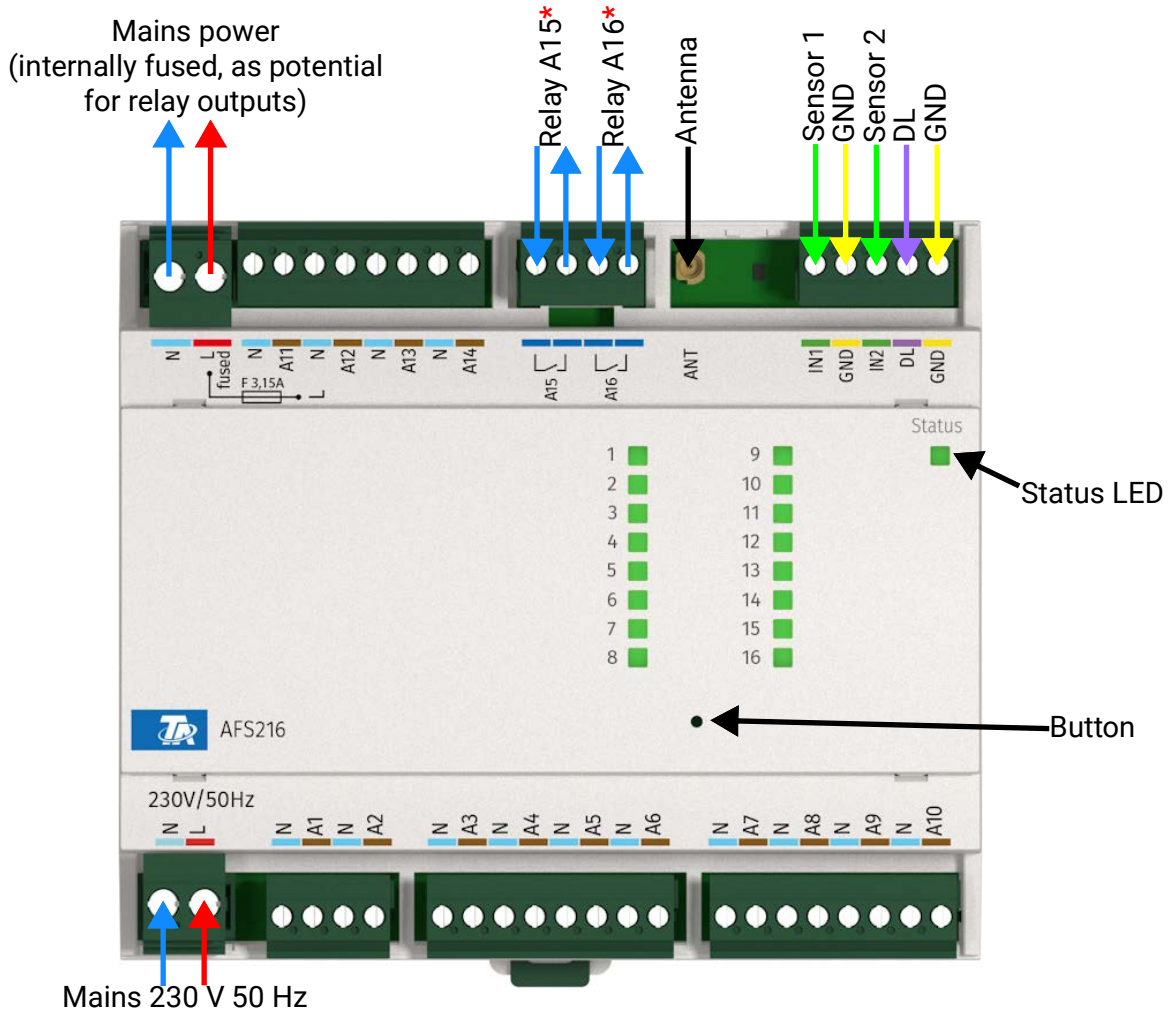
Suitable actuators

The following actuators were tested by Technische Alternative and assessed as suitable. For the suitability of other actuators, see *Actuator suitability test* on page 3.

ALVA actuator 230 V	**Danfoss** thermal actuator 230 V NC
Herz actuator 2 pt. 230 V NC,770853	**EMO T** NC230 V 0.8 m actuator
Oventrop electrothermal actuator T2P 230 V	**VoNo** Floortec electrothermal actuator 230 V
Uponor Vario B actuator	**REHAU** UNI 230 V actuator
Roth NC 230 volt/1 watt actuator	KM596 **KELOX** thermal motor 230 V 1 watt
Möhlenhoff A 20405-00N 230 V NC 1 W	**Salus** T30NC230

Connection

The **230 V** supply must be connected. The **DL** connection must be established for wired operation (CORA-DL). When using via CORA wireless, it is advisable to connect the antenna. Make sure that you use cables with a suitable cross-section and temperature resistance according to the applicable standards.



*Potential-free

Button

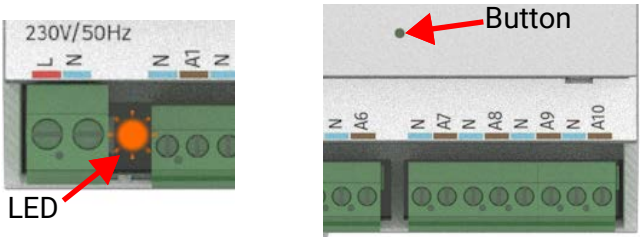
Click once	Restart the device
Double-click	Allow wireless pairing for 5 minutes
Click and hold (<10 sec. until the status LED flashes red, then release immediately)	Suitability test for actuator (see page 3)
Click and hold (10 sec.)	Total reset

Actuator suitability test

Press and hold the button (<10 sec., see table on Seite 2) to perform a suitability test of the actuator at output 1. As soon as the button is pressed, the suitability test starts immediately. Observe the LED next to the connection for output 1.

The suitability of an actuator is based on the number of starting current pulses required. The fewer pulses required, the more suitable the actuator.

The LED lights up for each faulty pulse and should light at most 1 to 2 times (ideally not at all). This indicates a suitable actuator.

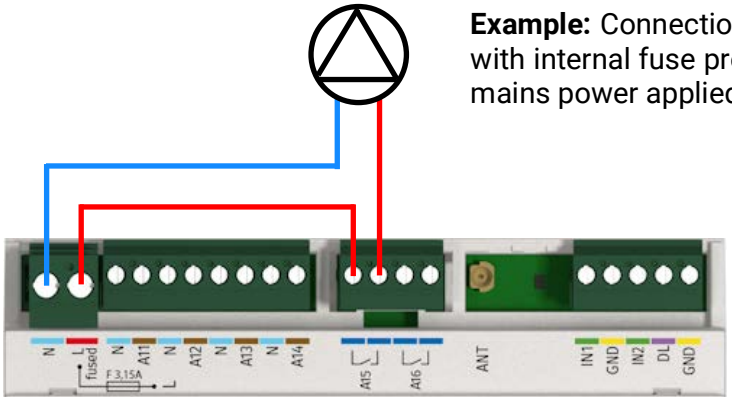


The more often the LED lights up, the less suitable the actuator. After a test, the actuator must cool down for at least 10 minutes before another test is carried out on the same actuator.

A list of tested actuators that have been assessed as suitable can be found on Seite 1.

Relay outputs A15 & A16 potential-loaded

Relay outputs A15 & A16 are set as potential-free in relation to the mains power at the factory. The outputs can be connected to the potential of the controller and protected with its internal fuse. The outputs are not electrically isolated from each other.



Example: Connection of a pump with internal fuse protection and mains power applied

Wireless transmission interval

Values are only transmitted wirelessly when there is a sufficient change. The blocking time applies after each transmission process. Otherwise, values are always updated after the interval time has elapsed.

With change	Actuators: With change (on/off)
Blocking time	5 sec
Interval time	50 sec

Programming

The AFS216 is programmed via its CORA device. It is recommended that programming be performed on the PC with TAPPS2. Use via conventional DL bus is not available. As such, programming via DL input is not possible either.

Input variables

Output 1-16	The outputs of the AFS216 are switched via digital signals at the corresponding input variables.

Parameters

Connection	Connection via CORA wireless or CORA-DL
CORA ID	Enter the CORA ID, which can be read from the label on the CORA device
Input 1-2 Only visible in TAPPS2	The two inputs can be assigned a designation, type, process variable, scaling, etc. here.
Output 1-16 Only visible in TAPPS2	The outputs can be assigned a designation, type, process variable, scaling, etc. here. Manual mode can also be activated here.
Blocking protection	Setting determines the days of the week and the times at which outputs are switched on for 30 seconds for blocking protection to prevent blocking on the connected device. Below this, it is also possible to select (for each output) whether the outputs should be switched on together.

Output variables

Timeout	Digital signal **Yes/No** • If **Yes**: Connection to the device lost
Input 1-2	Input measurements

Technical data

DL bus load	10 %
Connection	CORA-DL or CORA wireless
Power consumption	Max. 1 W
IP rating	IP20
Clamping area	Max. 1.5 mm^2
Max. ambient temperature	45 °C
Fuse (electronics and outputs)	3.15 A fast
Rated current triac outputs (1-14)	Max. 30 mA continuous, max. 0.5 A single pulses
Max. breaking capacity relay outputs (15 & 16)	230 V / 3 A
Temperature inputs	PT1000 sensors
Frequency of wireless system	Main frequency: 868.5 MHz For signal forwarding/processor wake-up: 869.5 MHz