ABB i-bus® KNX
Valve Drive Actuator, x-fold, 230 V, MDRC
VAA/S x.230.2.1, 2CDG 110 11x R0011

2CDC 071 007 S0011

VAA/S 6.230.2.1

The Valve Drive Actuators VAA/S are modular installation devices in Pro *M* Design for installation in the distribution board on 35 mm mounting rails. The devices feature six or twelve semiconductor outputs for control of Thermoelectric Valve Drives in heating and cooling systems.

The outputs can be operated at 24…230 V AC.

The outputs are short-circuit and overload protected. The outputs can be directly controlled using the manual buttons. The LEDs on the front of the device signal the status of the outputs.

The connection to the ABB i-bus® KNX is implemented via a bus connection terminal.

The devices do not require an additional auxiliary power supply.

Technical data

Supply	Bus voltage	21…32 V DC
	Current consumption, bus	< 12 mA
	Leakage loss, bus	maximum 250 mW
	Leakage loss of the device at max. load	maximum 2 W at VAA/S 6.230.2.1 maximum 4 W at VAA/S 12.230.2.1
Outputs	6 or 12 semiconductor outputs	for every 3 non-isolated outputs in the group. Short circuit and overload protected
	Rated voltage U_n	24…230 V AC, 50/60 Hz
	Rated current I_n per output	160 mA resistive load at T_{amb} up to 45 °C
	Inrush current per output	maximum 300 mA for 2 min at T_A up to 60 °C
	Caution: When valve drives (e.g. TSA/K) are connected in parallel, the technical data of the respective valve drive must be observed! The inrush current (300 mA) or rated current (160 mA) of the output may not be exceeded.	
Connections	KNX	via bus connection terminals
	Output terminals	via universal head screw terminals 0.2...4 mm² stranded, 2 x 0.2…2.5 mm², 0.2...6 mm² single core, 2 x 0.2…4 mm²
Operating and display elements	Button/LED	for assignment of the physical address
	Button and LED	for toggling between manual operation/ operation via ABB i-bus® and displays
	One button A and LED per output	for control (ON/OFF) of the output and display of the status
	One button and LED for every 3 outputs	for reset and indication of a fault e.g. short circuit and overload
Enclosure	IP 20	to DIN EN 60 529
Safety class	II	to DIN EN 61 140
Isolation category	overvoltage category	III to DIN EN 60 664-1
	pollution degree	2 to EN 60 664-1
KNX safety extra low voltage	SELV 30 V DC	
Temperature range	Operation	-5 °C…+45 °C
	Storage	-25 °C…+55 °C
	Transport	-25 °C…+70 °C
Ambient conditions	Maximum air humidity	93 %, no condensation allowed

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Design	Modular installation device (MDRC)	Modulares Installationsgerät, Pro *M*
	Dimensions VAA/S 6.230.1 VAA/S 12.230.1	 90 x 72 x 64.5 mm (H x W x D) 90 x 144 x 64.5 mm (H x W x D)
	Mounting width in space units (modules at 18 mm)	4 or 8
	Mounting depth	64.5 mm
Installation	On 35 mm mounting rail	to DIN EN 60 715
Mounting position	As required	
Weight (without batteries)	VAA/S 6.230.2.1 VAA/S 12.230.2.1	approx. 0.16 kg approx. 0.28 kg
Housing/colour	Plastic housing, grey	
Approvals	KNX to EN 50 090-1, -2	certification
CE mark	In accordance with the EMC guideline and low voltage guideline	

Device type	Application program	Maximum number of communication objects	Maximum number of group addresses	Maximum number of associations
VAA/S 6.230.2.1	Valve Drive 6f 230V/…*	59	255	255
VAA/S 12.230.2.1	Valve Drive 12f 230V/…*	113	255	255

* … = current version number of the application program. **Please observe the software information on our homepage for this purpose.**

Note

For a detailed description of the application program see "*Valve Drive Actuator VAA/S x.230.2.1*" product manual. It is available free-of-charge at *www.abb.com/knx*.

The ETS and the current version of the device application program are required for programming.

The current version of the application program is available for download on the internet at *www.abb.com/knx*. After import it is available in the ETS under *ABB/Heating, Ventilation, Air conditioning/Valve Drive Actuator*.

The device does not support the closing function of a KNX device in the ETS. If you inhibit access to all devices of the project with a *BCU code*, it has no effect on this device. Reading out data and programming is still possible.

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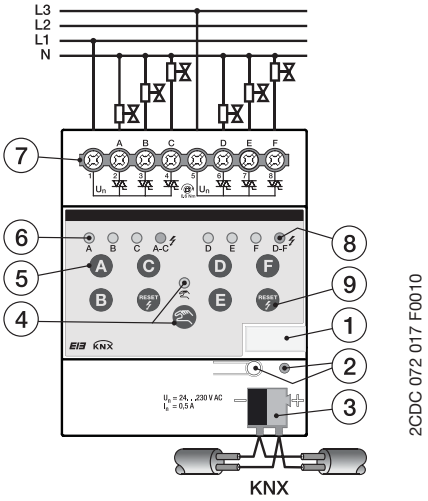
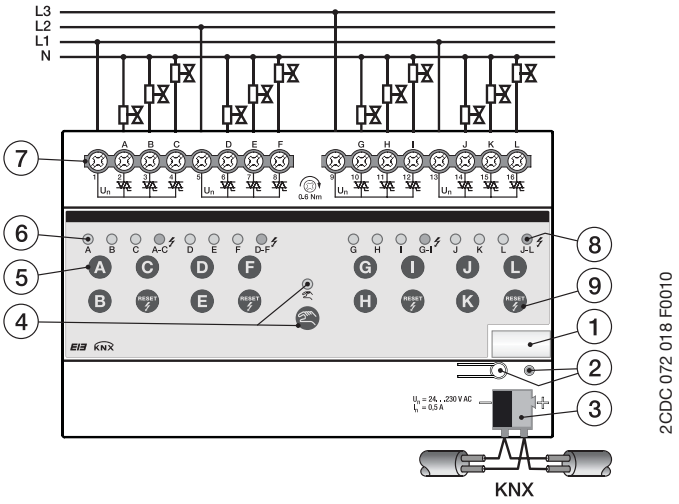
Connection schematics

VAA/S 6.230.2.1



VAA/S 12.230.2.1



1 Label carrier
2 Button/LED *Programming* (red)
3 Bus connection terminal
4 Button/LED *Manual Operation* (yellow)
5 Button ON/OFF A…F or A…L per output
6 LED ON/OFF (yellow) per output
7 Connection terminals for outputs A…F or A…L and power supply U_n
8 LED *Overload/Short Circuit* (red)
9 Button *Reset Overload/Short Circuit*

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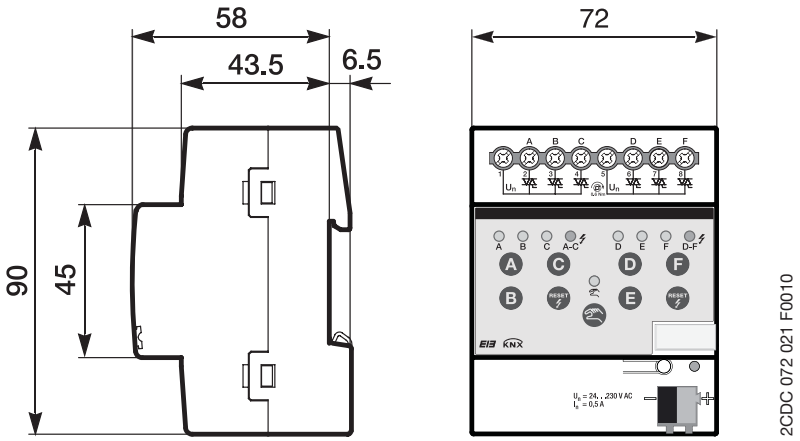
Dimension drawing

VAA/S 6.230.2.1



VAA/S 12.230.2.1