



The Blower/Fan Coil actuator is a modular installation device in ProM design for installation in the distribution board on 35 mm mounting rails.

The 2-fold Blower/Fan Coil actuator can control single phase ventilation, fans and fan coil units (2-, 3- or 4-pipe systems) with the application program "FanCoil, 2f 6A/1". The connection to the ABB i-bus® EIB / KNX is implemented via bus connection terminals.

The Blower/Fan Coil actuator controls two 3-stage or a 5-stage fans as a changeover or step switch via a group

with relays. The relays in a fan group are interconnected by software. The outputs not used by the fan control can be used to control valves or for switching of electrical loads.

The 8 outputs are connected using screw terminals in groups of 2 contacts. Each output is controlled separately via the EIB / KNX. The rated current of each output is 6 A.

The device does not require an additional power supply.

Technical data

9	Power supply	– Operating voltage	21...30 V DC, made available by the bus
		– Current consumption EIB / KNX	< 12 mA
9	Output nominal values	– Power consumption EIB / KNX	Max. 250 mW
		– Number (potential free contacts 2 per group)	8
9	Output switching currents	– U_n rated voltage	250 / 440 V AC (50/60 Hz)
		– I_n rated current (per output)	6 A
9	Output life expectancy	– Power loss at max. load	2.0 W
		– AC3 operation ($\cos\varphi = 0.45$) EN 60 947-4-1	6 A / 230 V
9	Output switching times ¹⁾	– AC1 operation ($\cos\varphi = 0.8$) EN 60 947-4-1	6 A / 230 V
		– Fluorescent lighting load to EN 60 669-1	6 A / 250 V (35 μ F) ²⁾
9	Connections	– Minimum switching performance	20 mA / 5 V
		– DC current switching capacity (ohmic load)	10 mA / 12 V
9	EIB / KNX operating and display elements	– DC current switching capacity (ohmic load)	7 mA / 24 V
		– LED red and EIB / KNX push button	6 A / 24 V DC
9	Housing	– Mechanical endurance	> 10 ⁷
		– Electrical endurance to IEC 60 947-4-1	> 10 ⁵
9	Safety class	– AC1 (240 V/ $\cos\varphi = 0.8$)	> 1.5 x 10 ⁴
		– AC3 (240 V/ $\cos\varphi = 0.45$)	> 1.5 x 10 ⁴
9	Isolation category	– AC5a (240 V/ $\cos\varphi = 0.45$)	> 1.5 x 10 ⁴
		– Overvoltage category	III to EN 60 664-1
9	Isolation category	– Pollution degree	2 to EN 60 664-1

¹⁾ The specifications apply only after the bus voltage has been applied to the device for at least 10 seconds. The typical elementary delay of the relay is approx. 20 ms.

²⁾ The maximum inrush-current peak (see table 2) may not be exceeded.

EIB / KNX voltage	– SELV 24 V DC (safety extra low voltage)	
Temperature range	– Operation	– 5 °C ... + 45 °C
	– Storage	– 25 °C ... + 55 °C
	– Transport	– 25 °C ... + 70 °C
Environment conditions	– humidity	max. 93 %, without bedewing
Design	– Modular DIN-Rail Component (MDRC)	Modular installation device, ProM
	– Dimensions (H x W x D)	90 x 72 x 64
	– Mounting width (modules at 18 mm)	4
	– Mounting depth	64
Weight	– In kg	0.24
Installation	– On 35 mm mounting rail	EN 60 715
Mounting position	– As required	
Housing, colour	– Plastic housing, grey	
Approvals	– EIB / KNX nach EN 50 090-2-2	Certification
CE mark	– In accordance with the EMC guideline and low voltage guideline	

Table 1 – Part 2: LFA/S 2.1, technical data

Lamp loads

Lamps	– Incandescent lamp load	1200 W
Fluorescent lamp T5 / T8	– Uncompensated luminaire	800 W
	– Parallel compensated	300 W
	– DUO circuit	350 W
Low-volt halogen lamps	– Inductive transformer	800 W
	– Electronic transformer	1000 W
	– Halogen lamp 230 V	1000 W
Dulux lamp	– Uncompensated luminaire	800 W
	– Parallel compensated	800 W
Mercury-vapour lamp	– Uncompensated luminaire	1000 W
	– Parallel compensated	800 W
Switching performance (switching contact)	– Max. peak inrush-current I_p (150 µs)	200 A
	– Max. peak inrush-current I_p (250 µs)	160 A
	– Max. peak inrush-current I_p (600 µs)	100 A
Number of electronic ballasts (T5/T8, single element) ¹⁾	– 18 W (ABB EVG 1x58 CF)	10
	– 24 W (ABB EVG-T5 1x24 CY)	10
	– 36 W (ABB EVG 1x36 CF)	7
	– 58 W (ABB EVG 1x58 CF)	5
	– 80 W (Helvar EL 1x80 SC)	3

¹⁾ For multiple element lamps or other types the number of electronic ballasts must be determined using the peak inrush current of the electronic ballasts.

Table 2: Lamp load for LFA/S 2.1

Application programs

Type	Name	Max. number of communication objects	Max. number of group addresses	Max. number of associations
LFA/S 2.1	FanCoil 2f 6A/1	63	254	254

Table 3: Application programs LFA/S 2.1

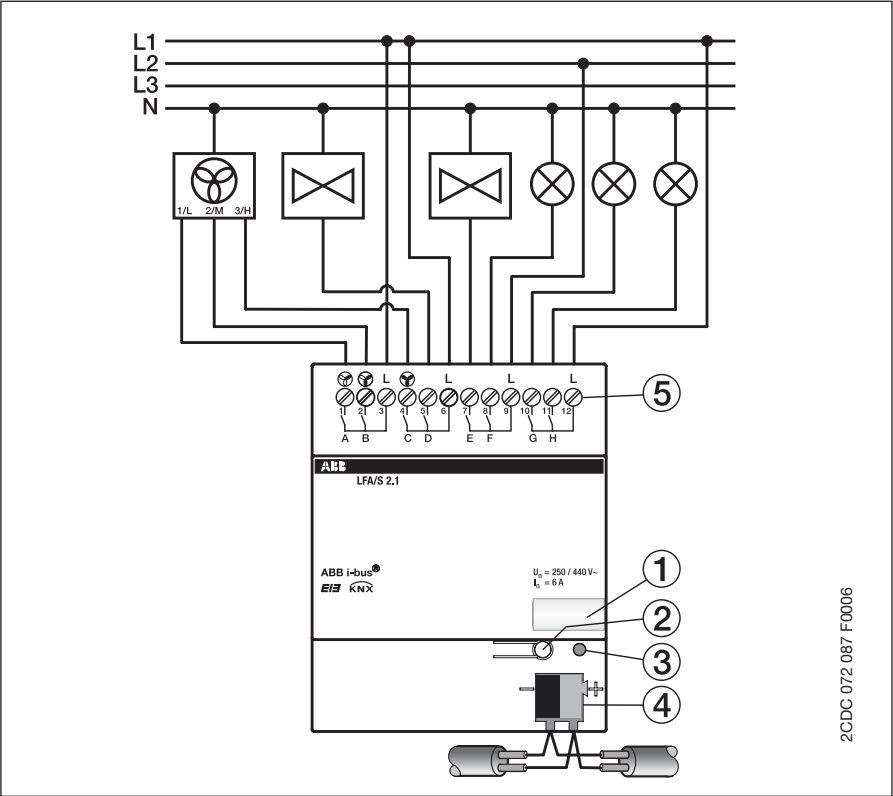
Note:

The programming requires the EIB Software Tool ETS2 V1.3 or higher. If the ETS3 is used a “.VD3” type file must be imported.

The application program is located within the ETS2 / ETS3 in the category ABB/heating, air-con., ventilation/ Air-con. actuator/FanCoil 2f 6A/1.

Detailed information about the application can be found in the product manual for the “Blower/Fan Coil Actuator LFA/S 1.1, LFA/S 2.1”. This manual can be free downloaded under www.abb.de/eib.

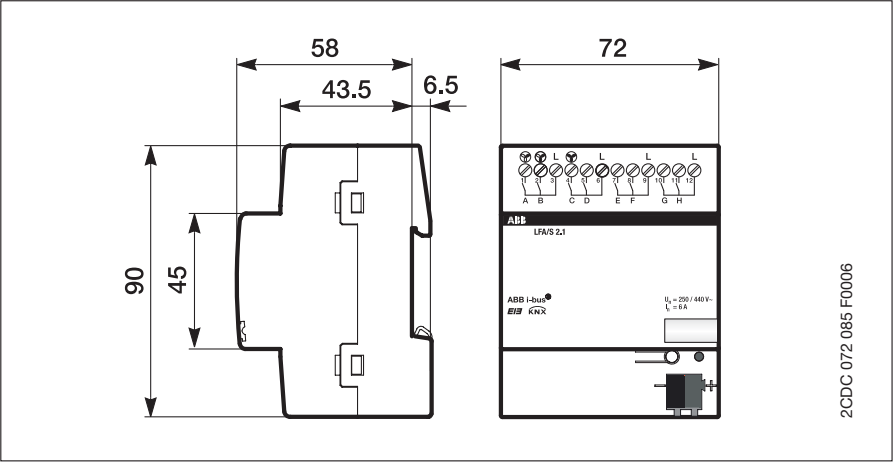
Wiring diagram



- 1 Label carrier
- 2 Programming button
- 3 Programming LED
- 4 Bus Connection Terminal
- 5 Load current circuit
one single input terminal or two
outputs

Note: All-pole disconnection must be observed in order to avoid dangerous contact voltage which can develop via loads in other phases.

Dimension drawings



	LFA/S 2.1
B	72 mm 4 module widths

ABB i-bus® EIB / KNX

Blower/Fan Coil Actuator, 2-fold, 6 A MDRC
LFA/S 2.1, 2CDG 110 078 R0011
