

TECHNICAL DATA

# ABB i-bus<sup>®</sup> KNX

## SA/S 8.10.2.2

### Switch Actuator



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The Switch Actuator is a modular installation device in *proM* design. The device is designed for installation in electrical distribution boards and small housings for rapid mounting on a 35-mm mounting rail (to EN 60715).

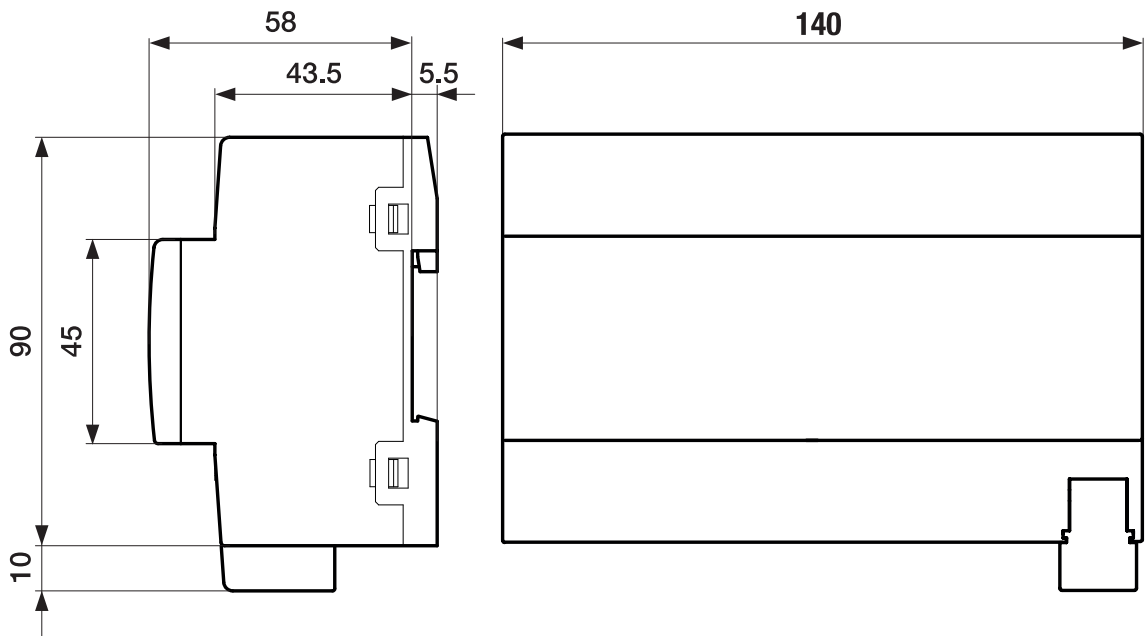
The device possesses mutually independent switching relays with which the following functions can be implemented:

- Switching electric consumers (alternating or three-phase current)

The device is provided with bus voltage via the bus (ABB i-bus® KNX). The connection to the bus (ABB i-bus® KNX) is implemented using the bus connection terminal. The consumers are connected at the outputs using screw terminals (terminal designation on the housing).

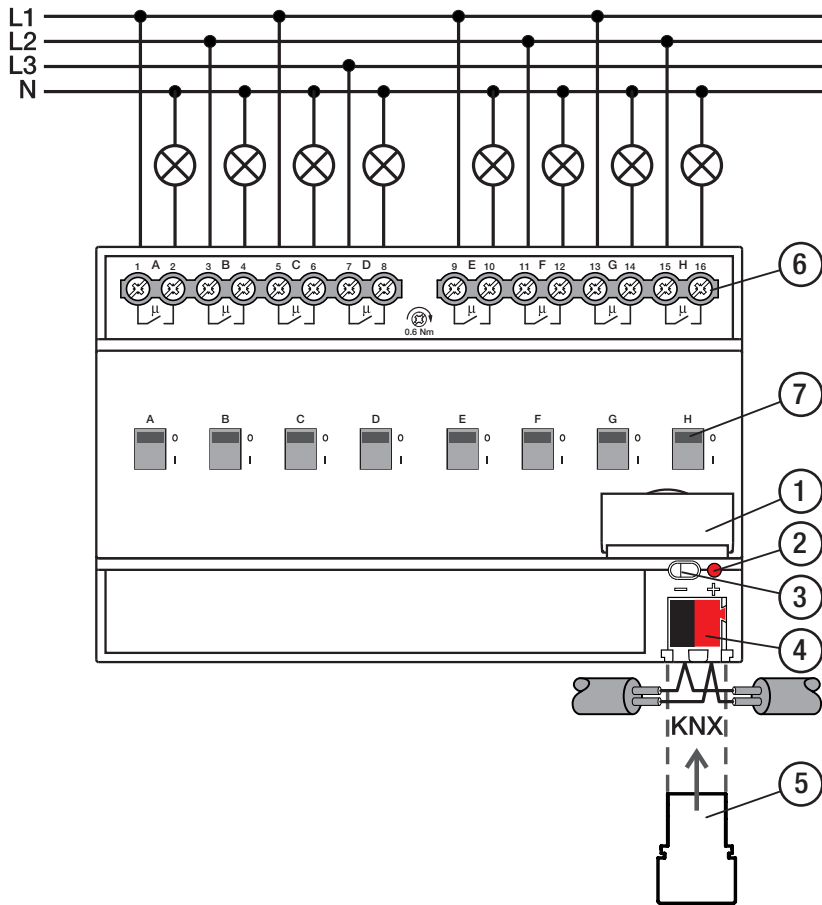
The outputs can be switched manually using toggle switches.

### Dimension drawing



2CDC072027F0017

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**Connection diagram**



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**Legend**

- |                           |  |
|---------------------------|--|
| 1 Label carriers          | 5 Cover cap  |
| 2 Programming LED         | 6 Load circuit, two screw terminals each           |
| 3 Programming button      | 7 Contact position indication and ON/OFF actuation |
| 4 Bus connection terminal |  |

## General technical data

<b>Supply</b>	Bus voltage	21 ... 32 V DC
	Current consumption, bus	< 12 mA
	Power loss, bus	Max. 250 mW
	Power loss, device	2.5 W
<b>Connections</b>	KNX	Ø 0.8 mm single core (via bus connection terminal)
<b>Connection terminals</b>	Screw terminal	Screw terminal with universal head (PZ 1)
		0.2 ... 4 mm <sup>2</sup> stranded, 2 × (0.2 ... 2.5 mm <sup>2</sup> )
		0.2 ... 6 mm <sup>2</sup> single core, 2 × (0.2 ... 4 mm <sup>2</sup> )
	Ferrule without plastic sleeve	0.25 ... 2.5 mm <sup>2</sup>
	Ferrule with plastic sleeve	0.25 ... 4 mm <sup>2</sup>
	TWIN ferrules	0.5 ... 2.5 mm <sup>2</sup>
	Ferrule contact pin length	Min. 10 mm
	Tightening torque	Max. 0.6 Nm
<b>Degree of protection and protection class</b>	Degree of protection	IP 20 to EN 60529
	Protection class	II to EN 61140
<b>Isolation category</b>	Overvoltage category	III to EN 60664-1
	Pollution degree	II to EN 60664-1
	Fire classification	Flammability V-0 as per UL94
	<b>SELV</b>	KNX safety extra low voltage
<b>Temperature range</b>	Operation	-5 ... +45 °C
	Transport	-25 ... +70 °C
	Storage	-25 ... +55 °C
<b>Ambient conditions</b>	Maximum air humidity	95 %, no condensation allowed
<b>Design</b>	Modular installation device (MDRC)	Modular installation device
	Design	proM
	Housing/color	Plastic, gray
<b>Dimensions</b>	Dimensions	90 x 140 x 63.5 mm (H x W x D)
	Mounting width in space units	8 modules
	Mounting depth	63.5 mm
<b>Mounting</b>	35 mm mounting rail	To EN 60715
	Mounting position	Any
	Weight (net)	0.406 kg
<b>Approvals</b>	KNX certification	To EN 50090-1, -2
	CE marking	In accordance with the EMC and Low Voltage Directives

## Device type

Device type	Switch Actuator	SA/S 8.10.2.2
	Application	Switch Standard 8f 10 A / ... ... = current version number of the application
	Maximum number of group objects	226
	Maximum number of group addresses	1,000
	Maximum number of assignments	1,000

### **i** Note

Observe software information on the website → [www.abb.com/knx](http://www.abb.com/knx).

### **i** Note

The device supports the locking function of a KNX device in ETS. If a BCU code was assigned, the device can be read and programmed only with this BCU code.

## Output, rated current 10 A

Rated values	Number of outputs	8
	$U_n$ rated voltage	230 V AC (50/60 Hz)
	$I_n$ rated current (per output pair)	10 A
	Maximum current per device	8 x 10 A
Switching currents	AC3 operation ( $\cos \phi = 0.45$ ) to EN 60947-4-1	8 A / 230 V AC
	AC1 operation ( $\cos \phi = 0.8$ ) to EN 60947-4-1	10 A / 230 V AC
	Fluorescent lighting load according to EN 60669-1	10 A (140 $\mu$ F)
	Minimum switching current at 12 V AC	100 mA
	Minimum switching current at 24 V AC	100 mA
	DC switching capacity, resistive load, at 24 V DC	10 A
Service life	Mechanical service life	> 3 x 10 <sup>6</sup> cycles
	Electrical service life of switching contacts to IEC 60947-4-1:	
	AC1 (240 V/ $\cos \phi = 0.8$ )	> 10 <sup>5</sup> cycles
	AC3 (240 V/ $\cos \phi = 0.45$ )	> 3 x 10 <sup>4</sup> cycles
	AC5a (240 V/ $\cos \phi = 0.45$ )	> 3 x 10 <sup>4</sup> cycles
Switching times	Maximum output relay position changes per minute if all relays are switched.	15
	Maximum output relay position changes per minute if only one relay is switched.	120

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Output, lamp load 10 A

<b>Lamps</b>	Incandescent lamp load	2,500 W
<b>Fluorescent lamps</b>	Uncompensated	2,500 W
	Parallel compensated	1,500 W
	DUO circuit	1,500 W
<b>Low-voltage halogen lamps</b>	Inductive transformer	1,200 W
	Electronic transformer	1,500 W
	Halogen 230 V	2,500 W
<b>Dulux lamp</b>	Uncompensated	1,100 W
	Parallel compensated	1,100 W
<b>Mercury-vapor lamp</b>	Uncompensated	2,000 W
	Parallel compensated	2,000 W
<b>Switching capacity (switching contact)</b>	Maximum peak inrush current $I_p$ (150 $\mu$ s)	400 A
	Maximum peak inrush current $I_p$ (250 $\mu$ s)	320 A
	Maximum peak inrush current $I_p$ (600 $\mu$ s)	200 A
<b>Number of ballasts (T5/T8, single element)</b>	18 W (ABB ballast 1 x 18 SF)	23
	24 W (ABB ballast T5 1 x 24 CY)	23
	36 W (ABB ballast 1 x 36 CF)	14
	58 W (ABB ballast 1 x 58 CF)	11
	80 W (Helvar EL 1 x 80 SC)	10
<b>Energy-saving lamps</b>	LED lamps	400 W
<b>Rated motor power</b>		1,840 W

**Note**

The peak inrush current  $I_p$  is the typical ballast load current that results during switching. Using the peak inrush current  $I_p$ , it is possible to calculate the maximum number of switchable ballasts at the Switch Actuator output for the various ballast types. The number of ballasts specified in the table can be only a sample guide value.

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**Ordering details**

Description	MB	Type	Order no.	Packaging unit [pcs.]	Weight (incl. packaging) [kg]
Switch	8	SA/S 8.10.2.2	2CDG 110 259 R0011	1	0.500

