

APRIL 2020

Standard and Professional Switch Actuators

Competence Center Europe – Smart Buildings

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Agenda

Why a new range of KNX Switch Actuators from ABB?

Overview Next Generation Switching

Standard Switch Actuators

Professional Switch Actuators

Features “Standard/Professional Switch Actuators”

ETS Application “Standard/Professional Switch Actuators”

Commercial and Marketing Aspects “Standard/Professional Switch Actuators”

Standard/Professional Switch Actuators

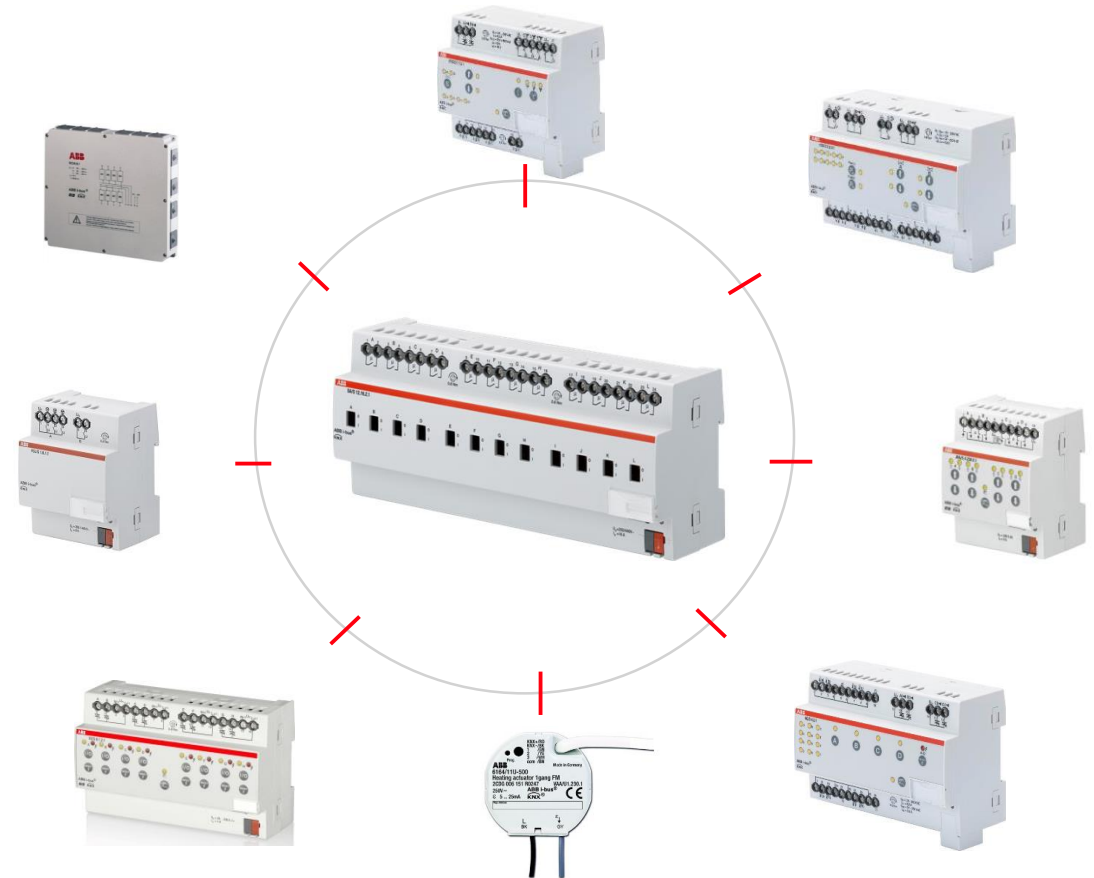
Why a new range of KNX Switch Actuators from ABB?

Standard/Professional Switch Actuators

Why a new range of KNX Switch Actuators from ABB?

Switch actuators still needed?

- Actuators carry out the function needed which finally results in the function in the building for the user
 - Turn on/off of lighting
 - Operation of socket outlets
 - Control of motors and pumps
 - Control of fan
 - Opening/Closing shutter, blinds, curtains or windows
- Though for many applications dedicated actuators are existing, especially for lighting control general switch actuators are very important and often used, with low costs per channel
- Strong market share of DALI for lighting control did not result in reduced number of switch actuators but in a growing market
- Energy efficient illumination with LED lamps allows economical and sophisticated lighting solutions with switch actuators, galvanic separation of the load, even light scenes are possible

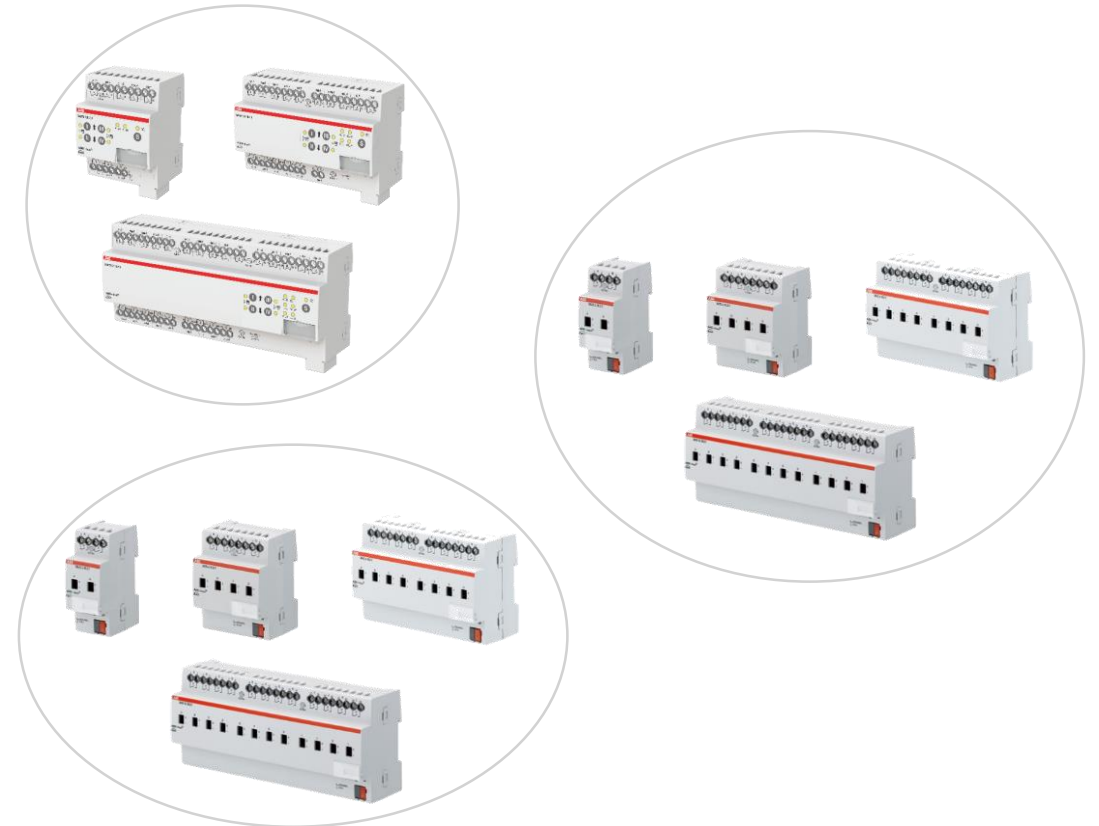


Standard/Professional Switch Actuators

Why a new range of KNX Switch Actuators from ABB?

Requirements

- Closing product range gaps (e.g. number of channels or functionality)
- Increasing number of manufacturers and products needs a new and state of the art actuator range from ABB
- Reduction of size → less space per channel
- Being prepared for future developments (Software functions, IoT services)
- Segmentation → for each application and demand the right product
- Significant evolution of ABB's KNX switch actuator range, continuation of simplicity and reliability, but development of proven functions
- Advanced usability by optimized manual operation and ETS application

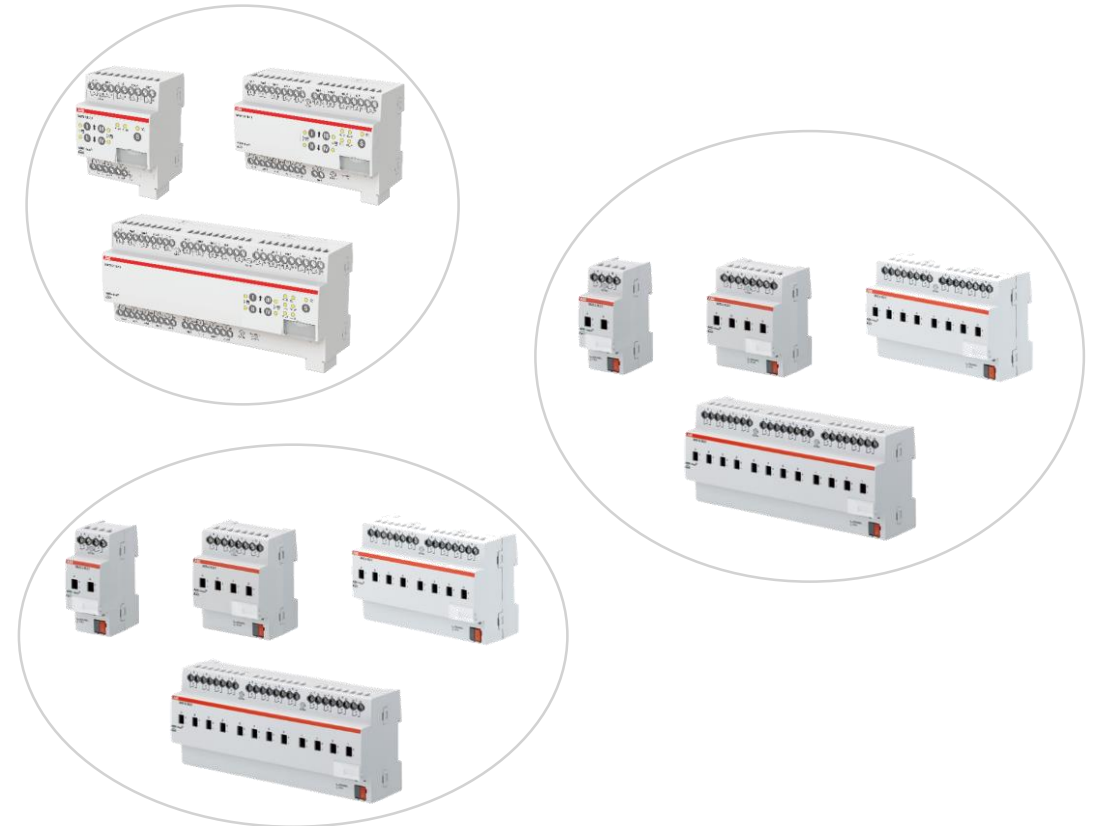


Standard/Professional Switch Actuators

Why a new range of KNX Switch Actuators from ABB?

Requirements

- Being prepared for worldwide usage with different technical standards
- Being prepared for future software extensions
- Switch Actuators as a key product in KNX Building Automation are very important for the market and an all-inclusive manufacturer like ABB
- Provision of high class products with design and production in Germany
- State of the art product family for today and in the next future



Standard/Professional Switch Actuators

Overview Next Generation Switching

Standard/Professional Switch Actuators

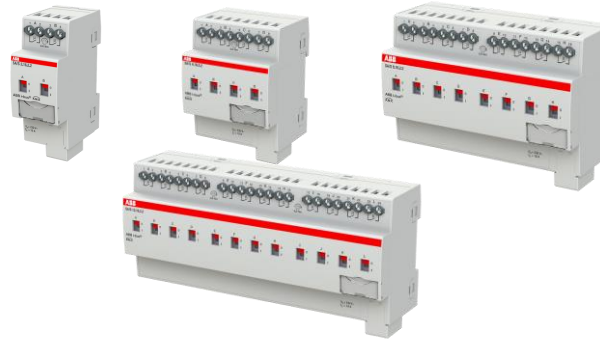
Next Generation Switching

Combi Switch Actuators



- Compact + switch/shutter modes
- 8 (4MW), 16 (8MW) & 24 (12 MW) channels
- 6A, 10A & 16A - AC1 ratings
- 3 x 3 devices

Standard Switch Actuators



- 2, 4, 8 & 12 channels
- 6A, 10A & 16A - AC1 ratings
- 3 x 4 devices

Professional Switch Actuators



- 2, 4, 8 & 12 channels
- 16/20A C-load + energy function
- 2 x 4 devices

Residential



Applications



Commercial

Standard/Professional Switch Actuators

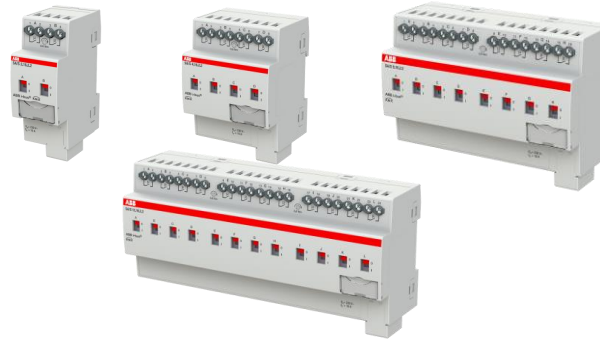
Next Generation Switching

Combi Switch Actuators



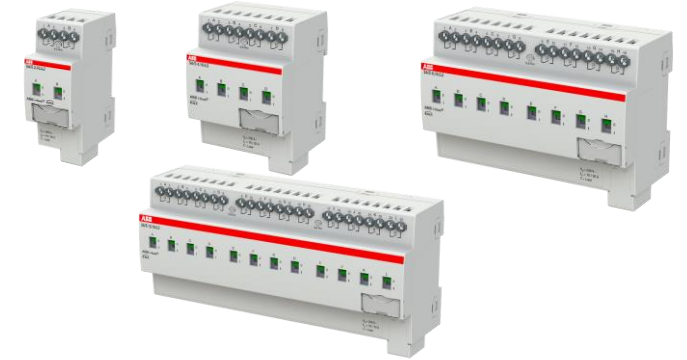
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Standard Switch Actuators



- 2, 4, 8 & 12 channels
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Professional Switch Actuators



- 2, 4, 8 & 12 channels
- 16/20A C-load + energy function
- 2 x 4 devices

Residential



Applications



Commercial

Standard/Professional Switch Actuators

Standard Switch Actuators

Standard/Professional Switch Actuators

Standard Switch Actuators - Overview

Key Characteristics

- ‘High-runner’ types for all standard switching applications
- Data
 - 2 / 4 / 8 / 12 outputs
 - 6A, 10A and 16A (AC1)
 - Manual operation (voltage independent)
 - Combi screw-head terminals
 - Single application, smart features
 - New housing
 - Being prepared for future developments (Software functions, IoT services)

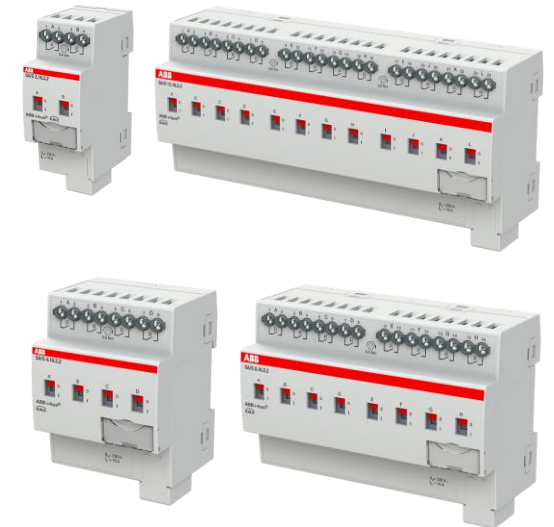
6A (4 devices)



10A (4 devices)



16A (4 devices)



Standard/Professional Switch Actuators

Range

Main technical Differences between Standard Switch Actuators

Switch Actuator	Channels	Rated Current I_N per Channel	Module Width (MW)	Group Adresses	Group Objects	Total Current per Device
SA/S 2.6.2.2	2	6A	2	1000	136	2 x 6A
SA/S 4.6.2.2	4	6A	4	1000	166	4 x 6A
SA/S 8.6.2.2	8	6A	8	1000	226	8 x 6A
SA/S 12.6.2.2	12	6A	12	1000	286	12 x 6A
SA/S 2.10.2.2	2	10A	2	1000	136	2 x 10A
SA/S 4.10.2.2	4	10A	4	1000	166	4 x 10A
SA/S 8.10.2.2	8	10A	8	1000	226	8 x 10A
SA/S 12.10.2.2	12	10A	12	1000	286	12 x 10A
SA/S 2.16.2.2	2	16A	2	1000	136	2 x 16A
SA/S 4.16.2.2	4	16A	4	1000	166	4 x 16A
SA/S 8.16.2.2	8	16A	8	1000	226	8 x 16A
SA/S 12.16.2.2	12	16A	12	1000	286	12 x 16A

Standard/Professional Switch Actuators

Professional Switch Actuators

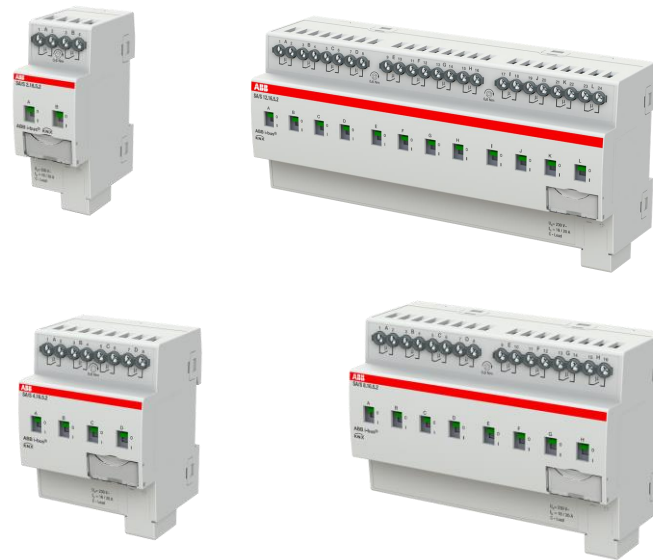
Standard/Professional Switch Actuators

Professional Switch Actuators

Key Characteristics

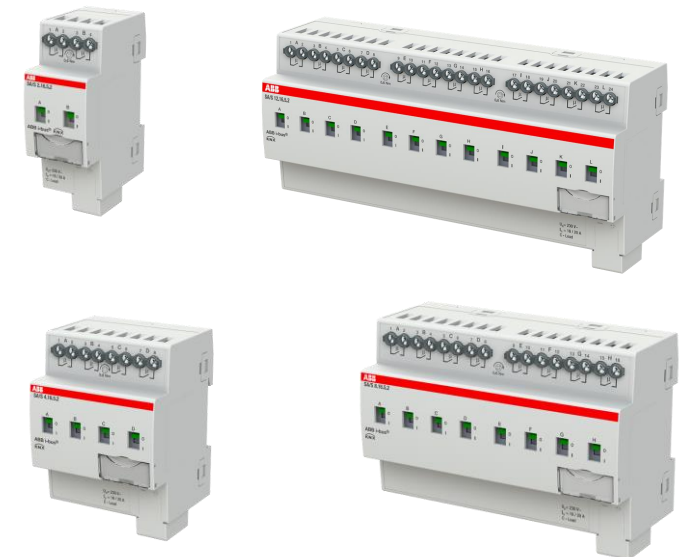
- High-switching-capacity devices with extended functionality for industry standard applications
- Data
 - 2 / 4 / 8 / 12 outputs
 - 16/20A C-Load (high capacity)
 - Energy function
 - Manual operation (voltage independent)
 - Combi screw-head terminals
 - Single application, smart features
 - New housing and label carrier
 - Prepared for future developments (Software functions, IoT services)

16/20A C-load (4 devices)



Key feature: High load capacity

16/20A C-load, Energy Function (4 devices)



Key feature: High load capacity and energy function

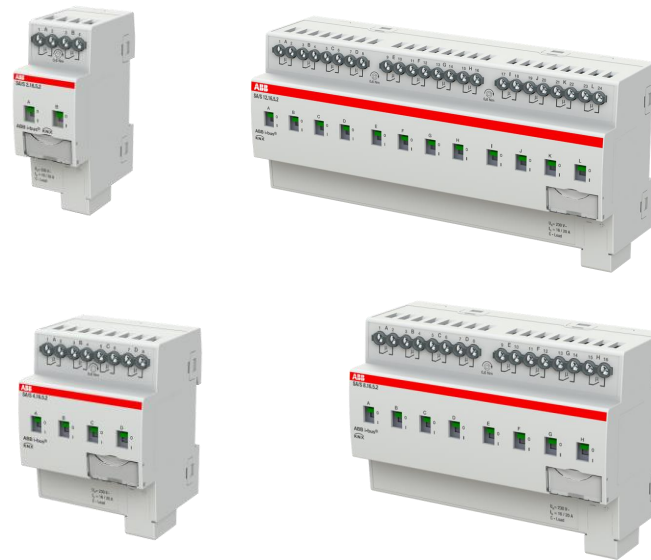
Standard/Professional Switch Actuators

Professional Switch Actuators

Key Characteristics

- High-switching-capacity devices with extended functionality for industry standard applications
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 - 2 / 4 / 8 / 12 outputs
 - 16/20A C-Load (high capacity)
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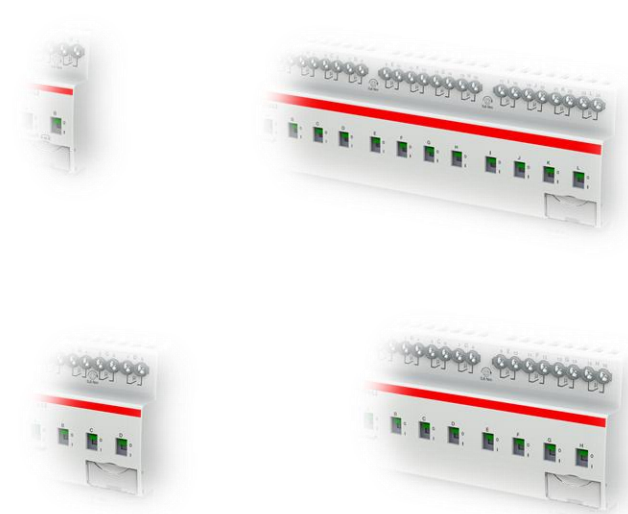
16/20A C-load (4 devices)



Key feature: High load capacity

16/20A C-load, Energy Function (4 devices)

Availability: Later in 2020



Key feature: High load capacity and energy function

Standard/Professional Switch Actuators

Range

Main technical Differences between Professional Switch Actuators

Switch Actuator	Channels	Rated Current I_N per Channel	Module Width (MW)	Group Adresses	Group Objects / Assignments	Total Current per Device
SA/S 2.16.5.2	2	16/20A	2	1000	136	2 x 20A
SA/S 4.16.5.2	4	16/20A	4	1000	166	4 x 20A
SA/S 8.16.5.2	8	16/20A	8	1000	226	8 x 20A
SA/S 12.16.5.2	12	16/20A	12	1000	286	12 x 20A

Standard/Professional Switch Actuators

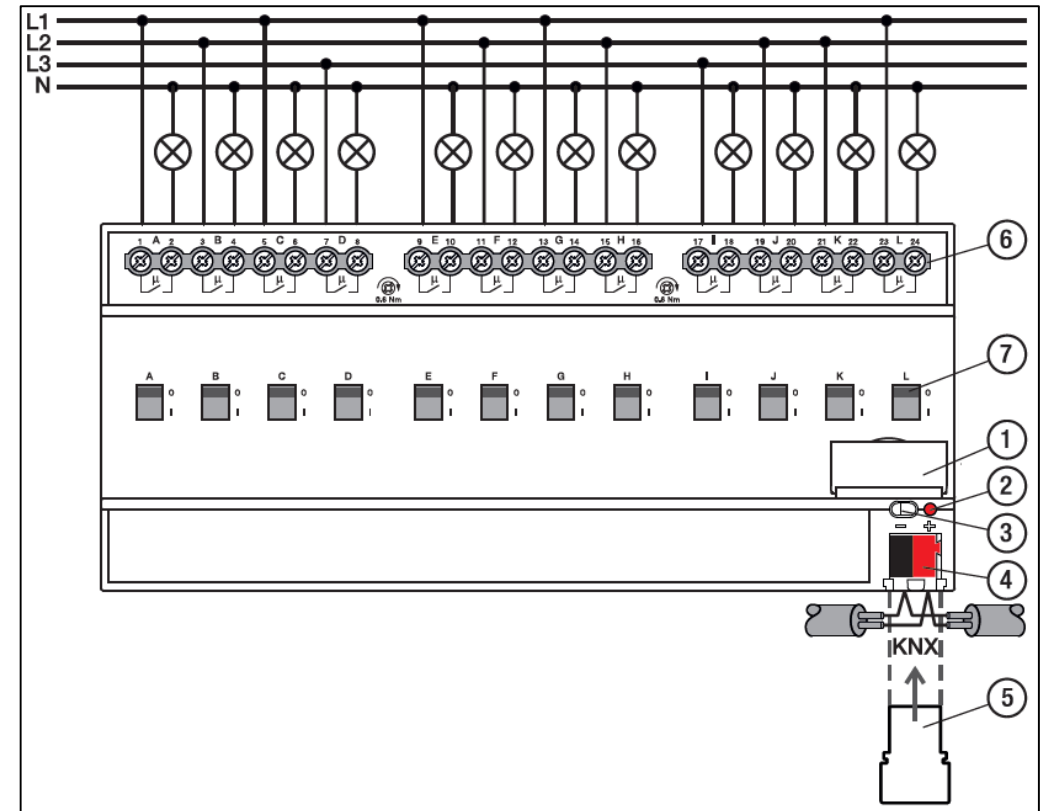
Features “Standard and Professional Switch Actuators”

Standard/Professional Switch Actuators

Connection Diagram

Legend

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



Standard/Professional Switch Actuators

Selection Table

Overview about hardware performance (Relay, Power, Loads) and software features to select the right device [Link](#)

Differences between 6/10/16 A outputs

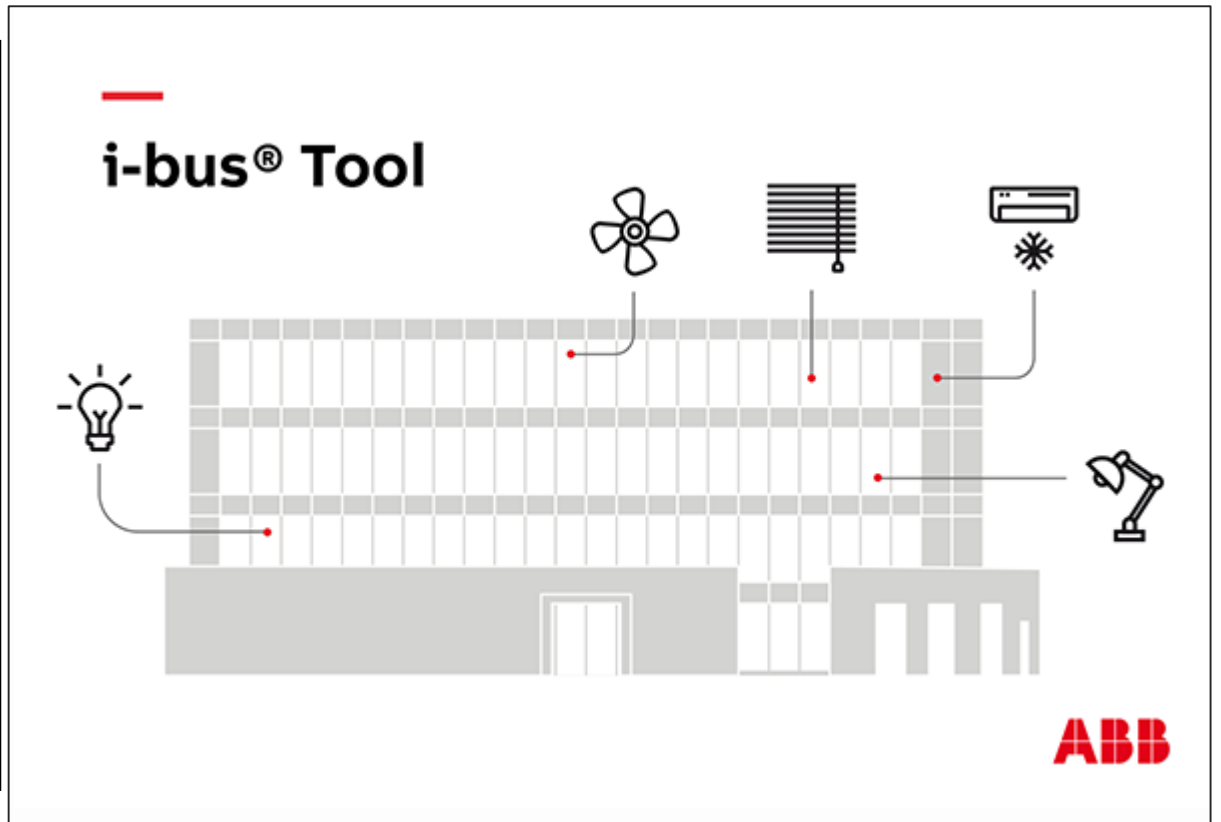
- Rated current I_N distinguish the components 6A, 10A and 16A, according to DIN EN 60947-4-1
(AC1 operation with $\cos \phi = 0,8$)
(AC3 operation with $\cos \phi = 0,45$)
- Switch actuator Professional with 16/20A C-Load at 200uF
- Switch Actuator Professional prepared for high inrush current (ballast for LED or fluorescent lighting) and motor load
- The continuous current and finally the total current of each device is important for the design of the circuit, the line protection and the switch actuator
- Depending on the rules and requirements in different countries (6, 10 or 16A electrical circuits) the right devices from ABB can be selected

	SA/S 2.6.2.2	SA/S 2.10.2.2	SA/S 2.16.2.2	SA/S 2.16.5.2
	SA/S 4.6.2.2	SA/S 4.10.2.2	SA/S 4.16.2.2	SA/S 4.16.5.2
	SA/S 8.6.2.2	SA/S 8.10.2.2	SA/S 8.16.2.2	SA/S 8.16.5.2
	SA/S 12.6.2.2	SA/S 12.10.2.2	SA/S 12.16.2.2	SA/S 12.16.5.2
Range	Standard	Standard	Standard	Professional
I_N rated current (A) ^{a)}	6 A	10 A	16 A	16/20 A C-Load
U_N rated voltage (V)	230 V AC	230 V AC	230 V AC	230 V AC
AC1 operation ($\cos \phi = 0.8$) DIN EN 60947-4-1	6 A	10 A	16 A	20 A
AC3 operation ($\cos \phi = 0.45$) DIN EN 60947-4-1	6 A	8 A	8 A	16 A
C-Load switching capacity (200 μ F)	–	–	–	20 A
Fluorescent lighting load AX to EN 60669-1	6 AX (140 μ F) ^{b)}	10 AX (140 μ F) ^{b)}	16 AX (140 μ F) ^{b)}	20 AX (200 μ F) ^{b)}
Minimum switching capacity	100 mA/12 V	100 mA/12 V	100 mA/12 V	100 mA/12 V
DC current switching capacity (resistive load)	6 A/24 V =	10 A/24 V =	16 A/24 V =	20 A/24 V =
Mechanical service life	> 3 x 10 ⁶	> 3 x 10 ⁶	> 3 x 10 ⁶	> 10 ⁶
Electronic endurance to IEC 60947-4-1:				
– Rated current AC1 (240 V/0.8)	100,000	100,000	100,000	100,000
– Rated current AC3 (240 V/0.45)	30,000	30,000	30,000	30,000
– Rated current AC5a (240 V/0.45)	30,000	30,000	30,000	30,000
Incandescent lamp load at 230 V AC	1,380 W	2,500 W	2,500 W	3,680 W
Fluorescent lamp T5 / T8:				
– Uncorrected	1,380 W	2,500 W	2,500 W	3,680 W
– Parallel compensated	1,380 W	1,500 W	1,500 W	2,500 W
– DUO circuit	1,380 W	1,500 W	1,500 W	3,680 W
Low-voltage halogen lamps:				
– Inductive transformer	1,200 W	1,200 W	1,200 W	2,000 W
– Electronic transformer	1,380 W	1,500 W	1,500 W	2,500 W
Halogen lamp 230 V	1,380 W	2,500 W	2,500 W	3,680 W
Dulux lamps:				
– Uncorrected	1,100 W	1,100 W	1,100 W	3,680 W
– Parallel compensated	1,100 W	1,100 W	1,100 W	3,000 W
Mercury-vapour lamps:				
– Uncorrected	1,380 W	2,000 W	2,000 W	3,680 W
– Parallel compensated	1,380 W	2,000 W	2,000 W	3,000 W
Sodium-vapour lamps:				
– Uncorrected	1,380 W	2,000 W	2,000 W	3,680 W
– Parallel compensated	1,380 W	2,000 W	2,000 W	3,000 W
LED lamps/energy saving lamps	400 W	400 W	400 W	650 W
Motor load	1380 W	1840 W	1840 W	3680 W
Max. peak inrush-current I_p (150 μ s)	400 A	400 A	400 A	600 A
Max. peak inrush-current I_p (250 μ s)	320 A	320 A	320 A	480 A
Max. peak inrush-current I_p (600 μ s)	200 A	200 A	200 A	300 A
Number of electronic ballasts (T5/T8, single element): ^{c)}				
18 W (ABB ballasts 1 x 18 SF)	23 ballasts	23 ballasts	23 ballasts	26 ^{b)} ballasts
24 W (ABB ballasts 1 x 24 CV)	23 ballasts	23 ballasts	23 ballasts	26 ^{b)} ballasts
36 W (ABB ballasts 1 x 36 CF)	14 ballasts	14 ballasts	14 ballasts	22 ballasts
58 W (ABB ballasts 1 x 58 CF)	11 ballasts	11 ballasts	11 ballasts	12 ^{b)} ballasts
80 W (Helvar EL 1 x 80 SC)	10 ballasts	10 ballasts	10 ballasts	12 ^{b)} ballasts

Standard/Professional Switch Actuators

ABB i-bus Tool

- All relevant ABB i-bus KNX Devices from the last years could be used together with ABB i-bus Tool
- The same will happen for the new generation of Switch Actuators (Combi/Standard/Professional)
- Availability planned for 2020



Standard/Professional Switch Actuators

ETS Application “Standard/Professional Switch Actuators”

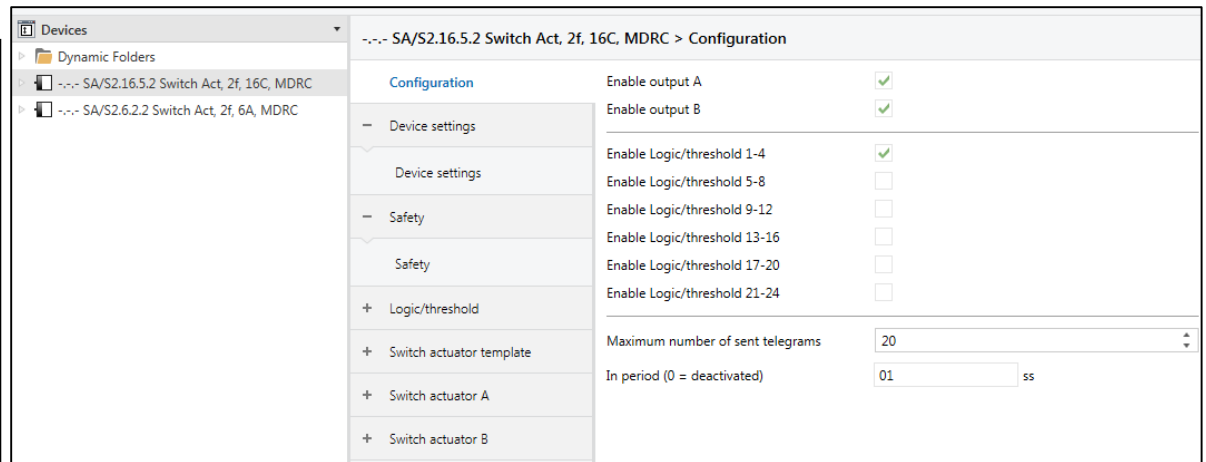
Standard/Professional Switch Actuators

ETS

ETS Application with comprehensive functions and satisfying user experience

Application like Combi Switch Actuator but without shutter functionality

- Templates for switch functions
- Freely programmable logic independent of the output channels (AND, OR, Exclusive OR, GATE) and threshold functions
- Switch outputs with time functions (Staircase, Delay, Flashing), forced operation, blocking, 16 scenes (8 bit)
- Central objects (switching and scenes)
- Colored hints simplify work
- ETS5 required



i The objects "Safety priority 1-3" are enabled on the Safety/weather alarms page. The order specifies the priority of the safety functions.

i Observe the contact life and switching cycles per minute. For more information, see product manual.

Standard/Professional Switch Actuators

ETS

Configuration

- Enabling of channels
- Enabling of logic and thresholds
 - 24 individual logic or threshold functions for each Combi Switch Actuator, independent of the outputs
- Telegram limitation

3.1.1 SA/S2.16.5.2 Switch Act, 2f, 16C, MDRC > Configuration

Configuration	Enable output A	<input checked="" type="checkbox"/>
	Enable output B	<input checked="" type="checkbox"/>
– Device settings		
Device settings	Enable Logic/threshold 1-4	<input checked="" type="checkbox"/>
	Enable Logic/threshold 5-8	<input checked="" type="checkbox"/>
+ Safety	Enable Logic/threshold 9-12	<input checked="" type="checkbox"/>
+ Logic/threshold	Enable Logic/threshold 13-16	<input checked="" type="checkbox"/>
	Enable Logic/threshold 17-20	<input checked="" type="checkbox"/>
+ Switch actuator template	Enable Logic/threshold 21-24	<input checked="" type="checkbox"/>
+ Switch actuator A	Maximum number of sent telegrams	20
+ Switch actuator B	In period (0 = deactivated)	01 ss

Standard/Professional Switch Actuators

ETS

Device Settings

- Central Group Objects
 - to be used to switch several device outputs at the same time
 - Advantage: Less group address assignments, especially for multi channel devices
 - Available for switching and scene
 - In the parameter block of each channel it can be decided whether the channel shall be part of the central function

3.1.1 SA/S2.16.5.2 Switch Act, 2f, 16C, MDRC > Device settings > Device settings

Configuration	Sending and switching delay after bus voltage recovery	00:00:02	hh:mm:ss
– Device settings	State after sending and switching delay has elapsed	<input checked="" type="radio"/> Last value received	<input type="radio"/> Ignore received values
Device settings			
+ Safety	Enable group object "Request status values"	<input checked="" type="checkbox"/>	
+ Logic/threshold	Enable Central switch group object	<input checked="" type="checkbox"/>	
+ Switch actuator template	Enable Central scene group object	<input checked="" type="checkbox"/>	
+ Switch actuator A	Enable group object "In operation"	Yes, send value 0 cyclically	
+ Switch actuator B	Sending cycle	00:10:00	hh:mm:ss

1	Central: General	In operation	1 bit
2	Central: General	Request status values	1 bit
3	Central: Switch	Switch	1 bit

Standard/Professional Switch Actuators

ETS

Safety

- Switching
 - Safety priority 1, 2, 3
 - Monitoring of telegram possible with cyclical sending of safety signal
 - Application: In case of fire alarm all lights are to be turned on with highest priority, not possible to switch off locally
- Additionally forced operation and blocking at the dedicated parameter pages available

3.1.1 SA/S2.16.5.2 Switch Act, 2f, 16C, MDRC > Safety > Safety

Configuration	Read enabled safety group objects after bus voltage recovery and download <input checked="" type="checkbox"/>
– Device settings	<div><p>i The read flags must be set in the sending device!</p></div>
Device settings	
– Safety	Safety priority for switch actuator operation <div><p>i The reaction with safety priority active must be specified on the "Safety" parameter page for the switch actuator channels.</p></div>
Safety	
+ Logic/threshold	Enable group object "Safety priority 1" <input checked="" type="checkbox"/>
+ Switch actuator template	Cyclical monitoring interval (0 = cycl. monitoring deactivated) <input type="text" value="00:00:00"/> hh:mm:ss
+ Switch actuator A	Enable group object "Safety priority 2" <input checked="" type="checkbox"/>
+ Switch actuator B	Cyclical monitoring interval (0 = cycl. monitoring deactivated) <input type="text" value="00:00:00"/> hh:mm:ss
	Enable group object "Safety priority 3" <input checked="" type="checkbox"/>
	Cyclical monitoring interval (0 = cycl. monitoring deactivated) <input type="text" value="00:00:00"/> hh:mm:ss

Standard/Professional Switch Actuators

ETS

Logic/thresholds

- Parametrization of logic and thresholds
 - 24 individual logic or threshold functions for each Switch Actuator, independent of the outputs
 - Assignment of logic also directly to switch outputs possible, with individual reactions on the result of the logic
 - Functions: AND, OR, Exclusive OR, GATE and Threshold
- AND/OR/Exclusive OR
 - Inversion of result
 - Send result to KNX: not needed if result is linked internally to a further logic
 - Defined status of inputs in case of bus voltage recovery, important for safe operation

3.1.1 SA/S2.16.5.2 Switch Act, 2f, 16C, MDRC > Logic/threshold > Logic/threshold 1

Configuration	Function of the logic gate	AND
– Device settings	Group object "Connection A" after bus voltage recovery	<input type="radio"/> 1 <input checked="" type="radio"/> 0
Device settings	Group object "Connection B" after bus voltage recovery	<input type="radio"/> 1 <input checked="" type="radio"/> 0
– Safety	Invert result	<input checked="" type="checkbox"/>
Safety	Send result to KNX	<input checked="" type="checkbox"/>
– Logic/threshold	Send value of group object	After change or on request

Logic/threshold 1

- Logic/threshold 2
- Logic/threshold 3
- Logic/threshold 4
- Logic/threshold 5
- Logic/threshold 6
- Logic/threshold 7
- Logic/threshold 8

Standard/Professional Switch Actuators

ETS

Logic/thresholds

– GATE

- To enable/disable telegrams at certain situations, e.g. a time program
- Disabling with logical 1 or 0
- Inversion of result
- Send result to KNX: not needed if result is linked to a further logic
- Defined status of inputs in case of bus voltage recovery, important for safe operation

3.1.1 SA/S2.16.5.2 Switch Act, 2f, 16C, MDRC > Logic/threshold > Logic/threshold 1

Configuration	Function of the logic gate	GATE
– Device settings	GATE disabled if group object "Connection A" same	<input checked="" type="radio"/> 1 <input type="radio"/> 0
– Device settings	Group object "Connection A" after bus voltage recovery	<input type="radio"/> 1 <input checked="" type="radio"/> 0
– Safety	Group object "Connection B" after bus voltage recovery	<input type="radio"/> 1 <input checked="" type="radio"/> 0
– Safety	i Connection A = GATE, Connection B = input	
– Logic/threshold	Invert result	<input checked="" type="checkbox"/>
Logic/threshold 1	Send result to KNX	<input checked="" type="checkbox"/>
Logic/threshold 2	Send value of group object	After change or on request
Logic/threshold 3		

Standard/Professional Switch Actuators

ETS

Logic/thresholds

– Threshold

- Different data point types for input selectable:
Percent (1 byte), Meter pulses (1 byte or 2 byte), Temperature (2 byte floating), Lux (2 byte)
- Upper and lower threshold (Hysteresis)
- Thresholds changeable via KNX
- Results (1, 0, unchanged) for overshooting and undershooting the thresholds, but also for value between both thresholds
- Minimum time in all three situations adjustable, to hide short term and invalid situations
- Send result to KNX: not needed if result is linked to a further logic

3.1.1 SA/S2.16.5.2 Switch Act, 2f, 16C, MDRC > Logic/threshold > Logic/threshold 1

Configuration	Function of the logic gate	Threshold
– Device settings	Data type of group object "Threshold input"	Percent (DPT5.001)
Device settings	<div> The value for the upper threshold must always be above the value for the lower threshold. If not, there will be a malfunction in the threshold evaluation.</div>	
– Safety	Upper threshold	50 %
Safety	Lower threshold	20 %
– Logic/threshold	Change thresholds via KNX	<input type="checkbox"/>
Logic/threshold 1	Result if upper threshold is exceeded	1
Logic/threshold 2	Min. duration of the overshoot	00:00:00 hh:mm:ss
Logic/threshold 3	Result if the input value is between the thresholds	Unchanged
Logic/threshold 4	Minimum dwell time between the thresholds	00:00:00 hh:mm:ss
Logic/threshold 5	Result if lower threshold is dropped below	0
Logic/threshold 6	Min. duration of the undershoot	00:00:00 hh:mm:ss
Logic/threshold 7	Update result after each overshoot/undershoot	<input checked="" type="checkbox"/>
Logic/threshold 8	Send result to KNX	<input checked="" type="checkbox"/>
Logic/threshold 9	Send value of group object	After change or on request
Logic/threshold 10		
Logic/threshold 11		

Standard/Professional Switch Actuators

ETS

Templates

- Templates allow to parametrize a certain number of functions to be assigned to individual channels
 - Split into different parts (parameter pages)
 - For each output and parameter block the templates can be used or individual adjustment can be done
- Advantage: Save of time and work during parametrization as typically channels need the same adjustments

3.1.1 SA/S2.16.5.2 Switch Act, 2f, 16C, MDRC > Switch actuator template > Basic settings

Configuration	Reaction of output	<input type="radio"/> N/C <input checked="" type="radio"/> N/O
– Device settings	Switch output reacts to Central switch group object	<input checked="" type="checkbox"/>
Device settings	Output reacts to	No Logic/threshold function
– Safety	<i>Enable the function Logic/threshold on the Logic/Threshold page.</i>	
Safety	Feedback of contact position via group object "Status switch"	<input checked="" type="checkbox"/>
+ Logic/threshold	Value of group object "Status switch"	<input checked="" type="radio"/> 1: closed, 0: opened <input type="radio"/> 0: closed, 1: opened
– Switch actuator template	Send value of group object	After change or on request
Basic settings	Enable group object "Status information"	<input checked="" type="checkbox"/>
Safety	Send value of group object	After change or on request
Delay for switching ON and O...	Reaction on bus voltage failure	Contact open
Staircase lighting	Reaction after bus voltage recovery	Do not write group object "Switch"
Flashing	Reaction after ETS download	Do not write group object "Switch"

Standard/Professional Switch Actuators

ETS

Switch Actuator – Basic settings

- Available for individual configuration or template
- Normally open or closed contact
- Reaction to central object to create individual ‘central’ function
- Reaction on logic/threshold function
 - Though logic is independent of any output, it can be directly assigned to the channel
- Status feedback (on/off) via separate group object
- Status information 1 byte, e.g. forced/manual operation or time function active
- Reaction on bus voltage failure and recovery or after ETS download

3.1.1 SA/S2.16.5.2 Switch Act, 2f, 16C, MDRC > Switch actuator A > Basic settings

Configuration	Parameter setting	<input type="radio"/> Apply from template <input checked="" type="radio"/> Individual
+ Device settings	Reaction of output	<input type="radio"/> N/C <input checked="" type="radio"/> N/O
+ Safety	Switch output reacts to Central switch group object	<input checked="" type="checkbox"/>
+ Logic/threshold	Output reacts to	Logic/threshold 1
+ Switch actuator template	Reaction on result "0"	OFF
- Switch actuator A	Reaction on result "1"	ON
Functions	<div>i Enable the function Logic/threshold on the Logic/Threshold page.</div>	
Basic settings	Feedback of contact position via group object "Status switch"	<input checked="" type="checkbox"/>
+ Switch actuator B	Value of group object "Status switch"	<input checked="" type="radio"/> 1: closed, 0: opened <input type="radio"/> 0: closed, 1: opened
	Send value of group object	After change or on request
	Enable group object "Status information"	<input checked="" type="checkbox"/>
	Send value of group object	After change or on request
	Reaction on bus voltage failure	Contact open
	Reaction after bus voltage recovery	Do not write group object "Switch"
	Reaction after ETS download	Do not write group object "Switch"

Standard/Professional Switch Actuators

ETS

Switch Actuator – Safety

- Available for individual configuration or template
- Reaction on safety functions, forced operation or blocking
 - On/off/unchanged/no reaction
- Switching Status on reset of these functions
 - On/off/refreshed KNX state/no reaction
 - Refreshed KNX state (any background function during safety/forced operation/blocking will be carried out)
- Further adjustments at parameter block Safety

3.1.1 SA/S2.16.5.2 Switch Act, 2f, 16C, MDRC > Switch actuator A > Safety

Configuration	Parameter setting <input type="radio"/> Apply from template <input checked="" type="radio"/> Individual
+ Device settings	
+ Safety	<div><p>i The objects "Safety priority 1-3" are enabled on the Safety/weather alarms page. The order specifies the priority of the safety functions.</p></div>
+ Logic/threshold	Switching status for safety priority 1 No reaction/deactivated ▼
+ Switch actuator template	Forced operation (1 bit/2 bit) Deactivated ▼
– Switch actuator A	Switching status for safety priority 2 No reaction/deactivated ▼
Functions	Switching status for safety priority 3 No reaction/deactivated ▼
Basic settings	Block No reaction/deactivated ▼
Safety	Switching status on reset of blocking, forced operation and safety priority No reaction ▼
Scene assignment	

Standard/Professional Switch Actuators

ETS

Switch Actuator – Staircase lighting

- Available for individual configuration or template
- Visible if this time function is enabled at parameter block Functions
- Staircase lighting can be started again or extended to up to 5 x staircase time by pressing the local push button up to 5 times
- Staircase lighting switchable, e.g. to be turned off during an event (permanent on)
- Warning before switching off the staircase lighting: Either via telegram or quick switching off/on of the light
 - Switching off/on up to 5 times and warning time adjustable
- Staircase lighting can be enabled/disabled via group object
- Staircase time changeable via group object
- Restart staircase lighting after end of permanent on
- Timeline: Staircase time – warning – warning time – end (off)

3.1.1 SA/S2.16.5.2 Switch Act, 2f, 16C, MDRC > Switch actuator A > Staircase lighting

Configuration	Parameter setting	<input type="radio"/> Apply from template <input checked="" type="radio"/> Individual
+ Device settings	Staircase lighting time	00:05:00 hh:mm:ss
- Safety	Staircase lighting can be started again	<input checked="" type="checkbox"/>
Safety	Staircase lighting time extendable (pumps)	Up to max. 2x staircase lighting time
+ Logic/threshold	Staircase lighting switchable	ON with "1" and OFF with "0"
+ Switch actuator template	Warning before switching off the staircase lighting	Via object and quick switching ON/OFF
- Switch actuator A	Quantity of Off/On changes	2
Functions	Warning time	00:00:45 hh:mm:ss
Basic settings	Disable staircase lighting via group object	<input checked="" type="checkbox"/>
Safety	Disable staircase lighting after bus voltage recovery	<input checked="" type="checkbox"/>
Staircase lighting	Change staircase lighting time via group object	<input checked="" type="checkbox"/>
Scene assignment	Restart staircase lighting after end of permanent ON	<input checked="" type="checkbox"/>
+ Switch actuator B		

Standard/Professional Switch Actuators

ETS

Switch Actuator – Delay for switching ON and OFF

- Available for individual configuration or template
- Visible if this time function is enabled at parameter block Functions
- Time for delay on or delay off
- Can be enabled/disabled via group object

3.1.1 SA/S2.16.5.2 Switch Act, 2f, 16C, MDRC > Switch actuator A > Delay for switching ON and OFF

Configuration	Parameter setting	<input type="radio"/> Apply from template	<input checked="" type="radio"/> Individual
+ Device settings	Delay for switching ON	00:00:10	hh:mm:ss
+ Safety	Delay for switching OFF	00:00:20	hh:mm:ss
+ Logic/threshold	Disable delay for switching ON and OFF via group object	<input checked="" type="checkbox"/>	
+ Switch actuator template	After bus voltage recovery disable delay for switching ON and OFF	<input checked="" type="checkbox"/>	
- Switch actuator A			
Functions			
Basic settings			
Safety			
Delay for switching ON and...			


Standard/Professional Switch Actuators

ETS

Switch Actuator – Flashing

- Available for individual configuration or template
- Visible if this time function is enabled at parameter block Functions
- Activation with value 0 or 1 or both
- Time for on and off
- Number of flash cycles up to 100
- After flashing relay on or off or refreshed KNX state (any background functions during flashing will be carried out)

3.1.1 SA/S2.16.5.2 Switch Act, 2f, 16C, MDRC > Switch actuator A > Flashing

Configuration	Parameter setting	<input type="radio"/> Apply from template <input checked="" type="radio"/> Individual
+ Device settings	Flashing if group object Flashing same	ON (1) or OFF (0) ▼
+ Safety	Time for ON	00:00:05 hh:mm:ss
+ Logic/threshold	Time for OFF	00:00:05 hh:mm:ss
+ Switch actuator template	Number of flash cycles	5 ▲▼
– Switch actuator A	Contact position after flashing	Refreshed KNX state ▼
Functions	<div> Observe the contact life and switching cycles per minute. For more information, see product manual.</div>	
Basic settings		
Safety		
Flashing		

Standard/Professional Switch Actuators

ETS

Switch Actuator – Scene assignment

- Available for individual configuration or template
- Activation for of up to 16 scenes 1 byte
- Recall and storage of scenes via 1 byte object
- Scene recall also via group object 1 bit (for scene 1 ... 4)
 - Additional object to activate the scene (similar to 1 bit preset, e.g. UD/S 2.300.2)
 - Advantage: 1 bit is easier to handle for some sensors than 1 byte
- Free allocation of the 16 scenes to scene number 1 ... 64
- Delay time until scene is active (up to 12 hours)

3.1.1 SA/S2.16.5.2 Switch Act, 2f, 16C, MDRC > Switch actuator A > Scene assignment

Configuration	Parameter setting	<input type="radio"/> Apply from template <input checked="" type="radio"/> Individual
+ Device settings	Overwrite scenes on download	<input checked="" type="checkbox"/>
+ Safety	Enable scene assignment 1	<input checked="" type="checkbox"/>
+ Logic/threshold	Scene recall also via 1 bit group object	<input checked="" type="checkbox"/>
+ Switch actuator template	Scene number	1
- Switch actuator A	Delay	00:00:00 hh:mm:ss
Functions	<i>If delay not equal to 0, there is no staircase lighting and no switching ON and OFF delay.</i>	
Basic settings	Action for scene	<input checked="" type="radio"/> ON <input type="radio"/> OFF
Safety	Enable scene assignment 2	<input type="checkbox"/>
Flashing		
Scene assignment		

118 Channel A: Switch Recall scene assignment 1 1 bit

Standard/Professional Switch Actuators

Which answer is correct?

Question 1

Templates ...

- A** ... are for saving time during commissioning with ETS
- B** ... are for assigning the same parameter to many channels
- C** ... are split into different parameter pages

Standard/Professional Switch Actuators

Which answer is correct?

Question 1

Templates ...

- A** ... are for saving time during commissioning with ETS
- B** ... are for assigning the same parameter to many channels
- C** ... are split into different parameter pages

Standard/Professional Switch Actuators

Which answer is correct?

Question 2

A

Central group objects must be used for all outputs

B

Up to 24 logic/threshold functions can be linked to internal outputs or used independently

C

There are special parameters in ETS Application of SA/S for shutter control

Standard/Professional Switch Actuators

Which answer is correct?

Question 2

- ☐ A Central group objects must be used for all outputs
- ☒ B Up to 24 logic/threshold functions can be linked to internal outputs or used independently
- ☐ C There are special parameters in ETS Application of SA/S for shutter control

Standard/Professional Switch Actuators

Which answer is correct?

Question 3

- A** For activation of scenes 1 bit and 1 byte group objects exist
- B** Reaction on bus voltage failure for a contact can be open, closed or unchanged
- C** Staircase function can be disabled, staircase time can be changed via KNX telegram

Standard/Professional Switch Actuators

Which answer is correct?

Question 3

A

For activation of scenes 1 bit and 1 byte group objects exist

B

Reaction on bus voltage failure for a contact can be open, closed or unchanged

C

Staircase function can be disabled, staircase time can be changed via KNX telegram

Standard/Professional Switch Actuators

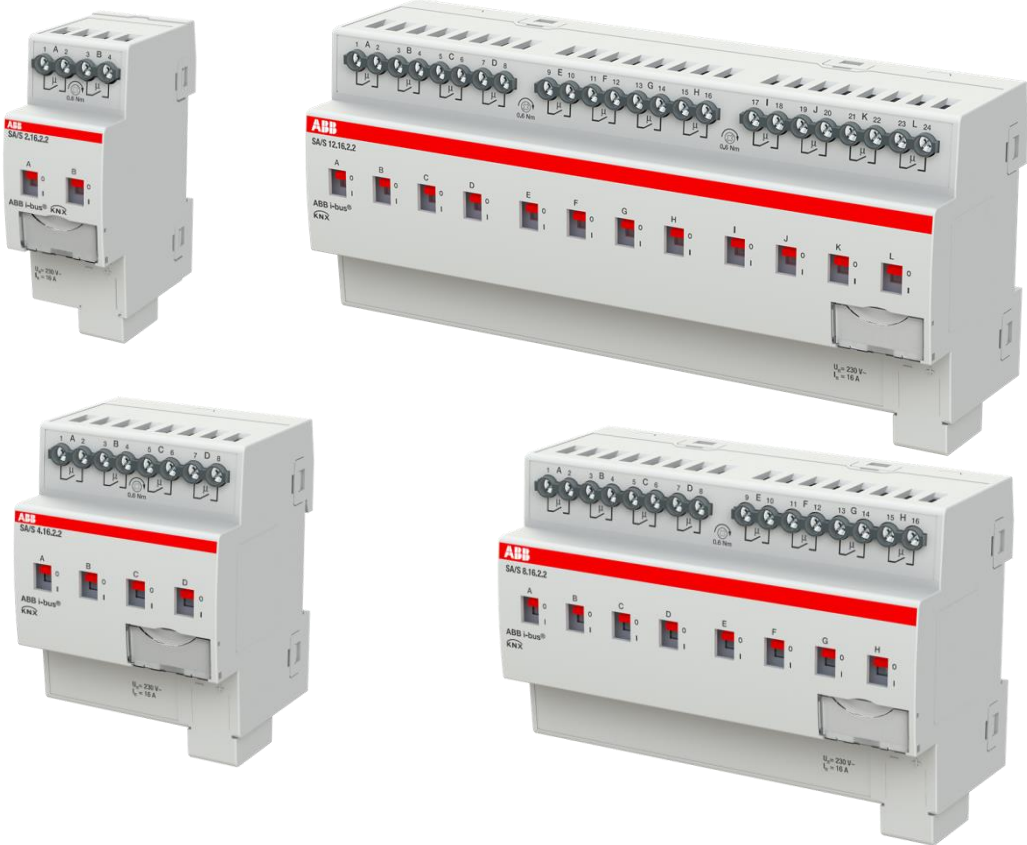
Commercial and Marketing Aspects “Standard/Professional Switch Actuators”

Standard/Professional Switch Actuators

Standard Switch Actuator

Order Code and List Price (ABB Version)

Standard Switch Actuator	Order Code
SAS/S 2.6.2.2	2CDG110253R0011
SAS/S 4.6.2.2	2CDG110254R0011
SAS/S 8.6.2.2	2CDG110255R0011
SAS/S 12.6.2.2	2CDG110256R0011
SAS/S 2.10.2.2	2CDG110257R0011
SAS/S 4.10.2.2	2CDG110258R0011
SAS/S 8.10.2.2	2CDG110259R0011
SAS/S 12.10.2.2	2CDG110260R0011
SAS/S 2.16.2.2	2CDG110261R0011
SAS/S 4.16.2.2	2CDG110262R0011
SAS/S 8.16.2.2	2CDG110263R0011
SAS/S 12.16.2.2	2CDG110264R0011

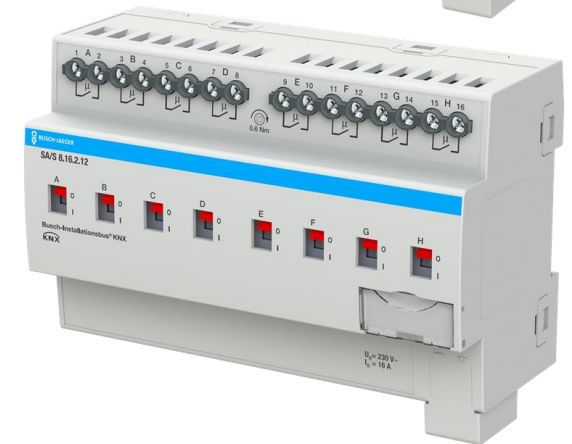


Standard/Professional Switch Actuators

Standard Switch Actuator

Order Code and List Price (Busch-Jaeger Version)

Standard Switch Actuator	Order Code
SAS/S 2.10.2.12	2CDG110257R0021
SAS/S 4.10.2.12	2CDG110258R0021
SAS/S 8.10.2.12	2CDG110259R0021
SAS/S 12.10.2.12	2CDG110260R0021
SAS/S 2.16.2.12	2CDG110261R0021
SAS/S 4.16.2.12	2CDG110262R0021
SAS/S 8.16.2.12	2CDG110263R0021
SAS/S 12.16.2.12	2CDG110264R0021

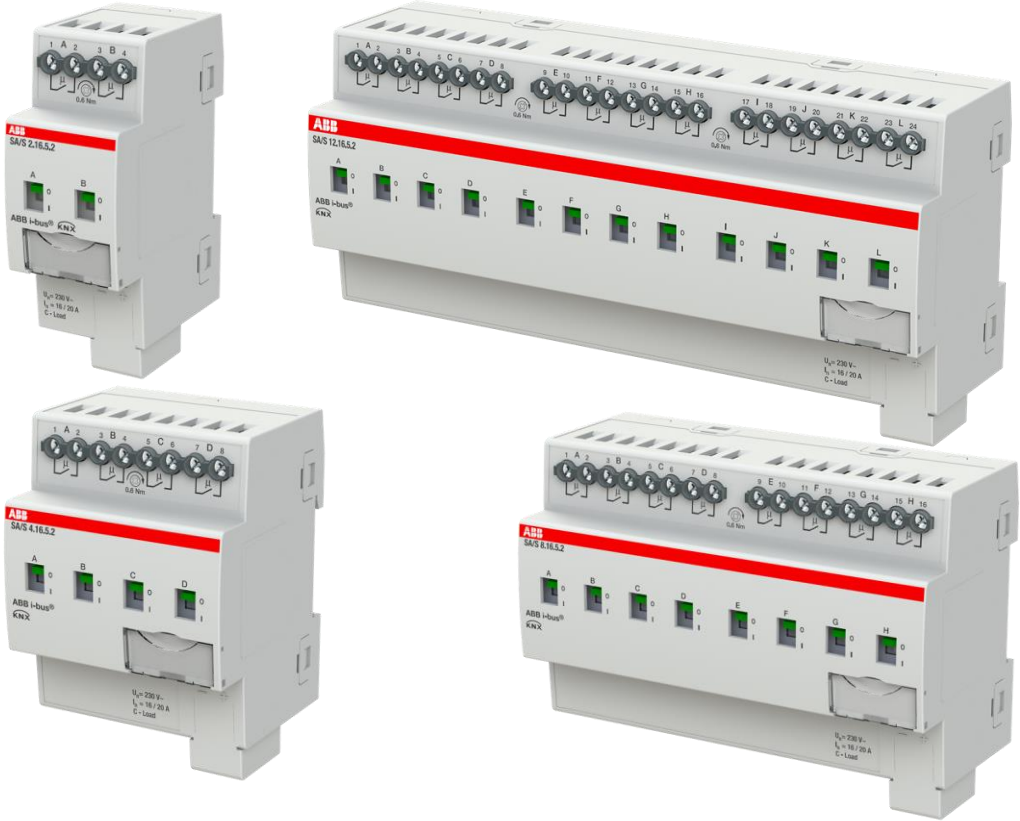


Standard/Professional Switch Actuators

Professional Switch Actuator

Order Code and List Price (ABB Version)

Professional Switch Actuator	Order Code
SAS/S 2.16.5.2	2CDG110265R0011
SAS/S 4.16.5.2	2CDG110266R0011
SAS/S 8.16.5.2	2CDG110267R0011
SAS/S 12.16.5.2	2CDG110268R0011

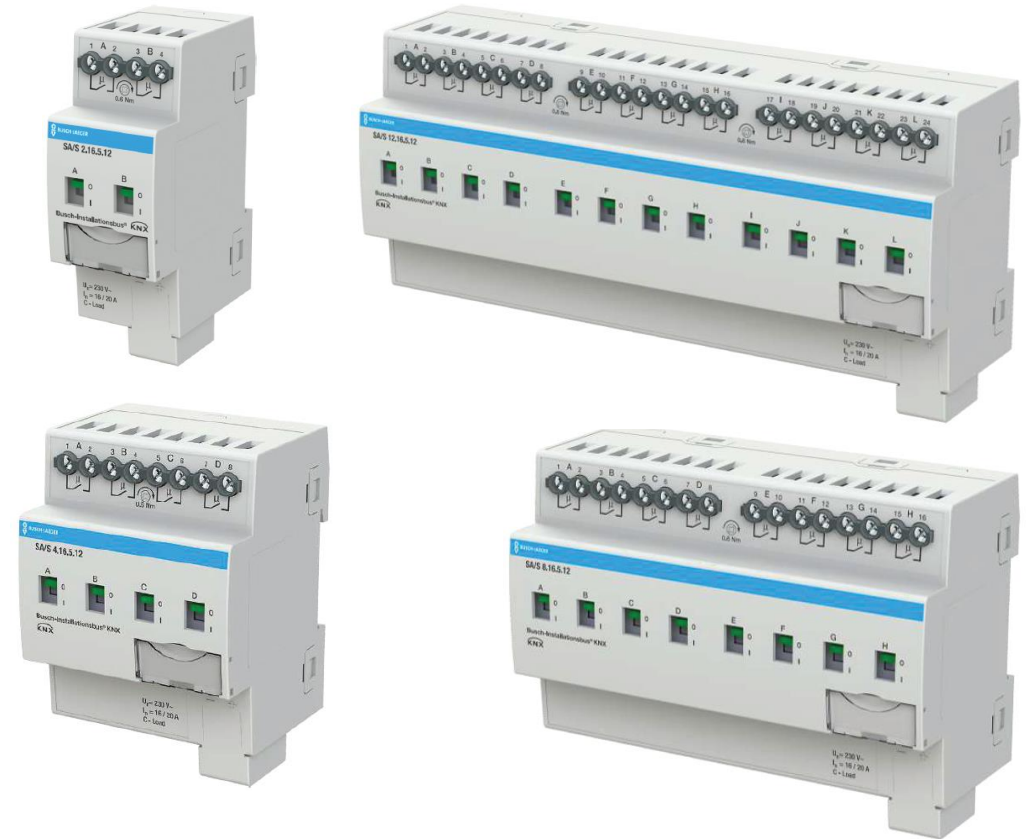


Standard/Professional Switch Actuators

Professional Switch Actuator

Order Code and List Price (Busch-Jaeger Version)

Professional Switch Actuator	Order Code
SAS/S 2.16.5.12	2CDG110265R0021
SAS/S 4.16.5.12	2CDG110266R0021
SAS/S 8.16.5.12	2CDG110267R0021
SAS/S 12.16.5.12	2CDG110268R0021



Standard/Professional Switch Actuators

Range Overview

Smarter Solutions for Home and Building Automation
ABB i-bus KNX
Product Range Overview 2019/2020

Including all new Switch Actuators

[LINK](#)



Smarter Solutions for Home and Building Automation

ABB i-bus® KNX

Product Range Overview 2019/2020


Product description, quick and easy selection of product codes

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PRODUCT RANGE OVERVIEW 2019/2020 3AKK107402+3188 REV. B

ABB i-bus® KNX

Outputs – Combi Switch Actuators




SAH/S 8.8.7.1

Switching/Shading Actuator, 6 A, MDBC NEW

The compact 6 A combi switch actuator has 8, 16 or 24 independent switching relays (no electromechanically interlocking). The outputs can be used individually via ABB i-bus® KNX for switching electrical loads or in pairs for controlling 230 V AC roller shutter or blind drives. The device features a manual operation, which can also be disabled. Via the manual operation the outputs can be operated manually and the switching or driving status is displayed. The device is powered by KNX and requires no additional power supply.

Available November 2019

Description	Mod. width	Order details		Price		Pack unit
		Type code	Order code	1 piece	1 place	
8-fold	4	SAH/S 8.8.7.1	ZCDG10244R0011	0.349	1	
16-fold	8	SAH/S 16.8.7.1	ZCDG10244R0011	0.396	1	
24-fold	12	SAH/S 24.8.7.1	ZCDG10244R0011	0.83	1	




SAH/S 16.10.7.1

Switching/Shading Actuator, 10 A, MDBC NEW

The compact 10 A combi switch actuator has 8, 16 or 24 independent switching relays (no electromechanically interlocking). The outputs can be used individually via ABB i-bus® KNX for switching electrical loads or in pairs for controlling 230 V AC roller shutter or blind drives. The device features a manual operation, which can also be disabled. Via the manual operation the outputs can be operated manually and the switching or driving status is displayed. The device is powered by KNX and requires no additional power supply.

Available November 2019

Description	Mod. width	Order details		Price		Pack unit
		Type code	Order code	1 piece	1 place	
8-fold	4	SAH/S 8.10.7.1	ZCDG10244R0011	0.349	1	
16-fold	8	SAH/S 16.10.7.1	ZCDG10244R0011	0.396	1	
24-fold	12	SAH/S 24.10.7.1	ZCDG10244R0011	0.83	1	



SAH/S 24.16.7.1

Switching/Shading Actuator, 16 A, MDBC NEW

The compact 16 A combi switch actuator has 8, 16 or 24 independent switching relays (no electromechanically interlocking). The outputs can be used individually via ABB i-bus® KNX for switching electrical loads or in pairs for controlling 230 V AC roller shutter or blind drives. The device features a manual operation, which can also be disabled. Via the manual operation the outputs can be operated manually and the switching or driving status is displayed. The device is powered by KNX and requires no additional power supply.

Available November 2019

Description	Mod. width	Order details		Price		Pack unit
		Type code	Order code	1 piece	1 place	
8-fold	4	SAH/S 8.16.7.1	ZCDG10244R0011	0.349	1	
16-fold	8	SAH/S 16.16.7.1	ZCDG10244R0011	0.396	1	
24-fold	12	SAH/S 24.16.7.1	ZCDG10244R0011	0.83	1	

Standard/Professional Switch Actuators

Microsite

Product page with the first main information and links to further related pages

Standard Switch Actuator:

[LINK](#)

Professional Switch Actuator:

[LINK](#)


ABB

HOME > OFFERINGS > LOW VOLTAGE PRODUCTS > HOME AND BUILDING AUTOMATION > ABB i-BUS KNX STANDARD SWITCH ACTUATORS

GLOBAL SITE

ABB i-bus® KNX Standard Switch Actuators

Switch to a smarter tomorrow




Universal switching in any application – The next generation of Standard Switch Actuators are perfectly suited for universal use in modern commercial buildings. These 12 devices are ideal for use in modern commercial buildings and offer simple installation, tool-free assembly and disassembly, together with cost and time savings during commissioning, thanks to a user-friendly interface.

Thanks to the wide range of devices with a high number of outputs and switching currents, the Standard Switch Actuators provide the perfect fit for all common standard switching applications, delivering further savings on costs and space in the distribution board.


Are you looking for support or purchase information?

> Contact us


Main benefits



Versatility
Complete portfolio - Wide choice of number of outputs and different currents and universal switching in any application.



Efficiency
Cost and time savings during commissioning thanks to its user-friendly interface and template pages with central group objects.



Complete portfolio
Wide choice of number of outputs and different currents plus space saving by using the right fit that suits your needs.

Main features

- Easy installation thanks to combi screw-head terminals
- Tool-free assembly and disassembly from DIN-rail
- Unified housing – one simplified user interface
- Easy status identification without bus voltage
- Simplified commissioning thanks to template pages and central functions for all outputs


ABB

HOME > OFFERINGS > LOW VOLTAGE PRODUCTS > HOME AND BUILDING AUTOMATION > ABB i-BUS KNX PROFESSIONAL SWITCH ACTUATORS

GLOBAL SITE

ABB i-bus® KNX Professional Switch Actuators

Switch to a smarter tomorrow




Suitable for large commercial buildings, the series includes eight switch actuators, designed for reliable switching of high and capacitive loads of up to 20 A C-load.

Thanks to its user-friendly interface and simple programming, commissioning is both cost and time efficient.


Are you looking for support or purchase information?

> Contact us

Main benefits



High switching capacity
Reliable switching of high and alternating loads suitable for large commercial projects and flexible connection of loads up to 20 A C-load and various consumers.



Efficiency
Cost-effective and time-saving commissioning thanks to its user-friendly interface and template pages with central group objects.

Main features

- High switching capacity devices with extended functionality for large commercial projects
- Easy installation thanks to combi screw-head terminals
- Tool-free assembly and disassembly from DIN-rail
- Easy status identification without bus voltage
- Simplified commissioning thanks to template pages and central functions for all outputs

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| Slide 49

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Standard/Professional Switch Actuators

Homepage

www.abb.com/KNX

→ Products and Downloads

→ Outputs

→ Search Options SA/S

Product Manual

CAD Drawing

Installation and Operating Instructions

Specification Text

ETS Application

Selection Table

CE & RoHS Declaration of Conformity

...

Detailed information for: SA/S12.16.2.2

This page contains technical data sheet, documents library and links to offering related to this product. [Print...](#)
If you require any other information, please contact us using form located at the bottom of the page. [Print to Pdf...](#)

Data Sheet

Downloads

SA/S12.16.2.2

General Information

Extended Product Type: SA/S12.16.2.2

Product ID: 2CDG110264R0011

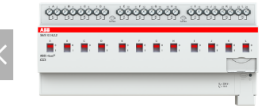
EAN: 4016779066693

Catalog Description: SA/S12.16.2.2 Switch Actuator, 12-fold, 16 A, MDRC

Long Description: The switch actuator uses potential free contacts to switch 12 independent electrical loads via the ABB I-bus®. Manual operation and display of the switching state of the contacts. The 16 A device is especially suited for resistive loads.

Categories

Products » Low Voltage Products and Systems » Home and Building Automation » KNX » Standard Outputs » Switch Actuators 16 A



Show all (11)

Data sheet (3)

Declaration of conformity (1)









Drawing (2)

Manual (1)

Operating instruction (1)

Software (1)

Tender specification (2)

-  ETS Application (.knxprod) [XX] SA/S x.x.2.2
Summary: ETS Application (.knxprod) [XX] SA/S x.x.2.2 Version 1.0
Software - German, English, Spanish, French, Italian, Dutch, Polish - 2020-01-29
- 3,46 MB 
-  CE & RoHS Declaration of Conformity (.PDF) [XX] SA/S12.16.2.x2
Summary: CE & RoHS Declaration of Conformity (.PDF) [XX] SA/S12.16.2.x2
Declaration of conformity - German, English, French, Italian - 2020-01-28 - 0,05 MB 
-  Technical Data (.PDF) [EN] SA/S12.16.2.2
Summary: Technical Data (.PDF) [EN] SA/S12.16.2.2
Data sheet - English - 2020-01-22 - 0,19 MB 
-  Product Manual (.PDF) [EN] SA/S x.x.2.2
Summary: Product Manual (.PDF) [EN] SA/S x.x.2.2
Manual - English - 2020-01-21 - 4,52 MB 

Standard/Professional Switch Actuators

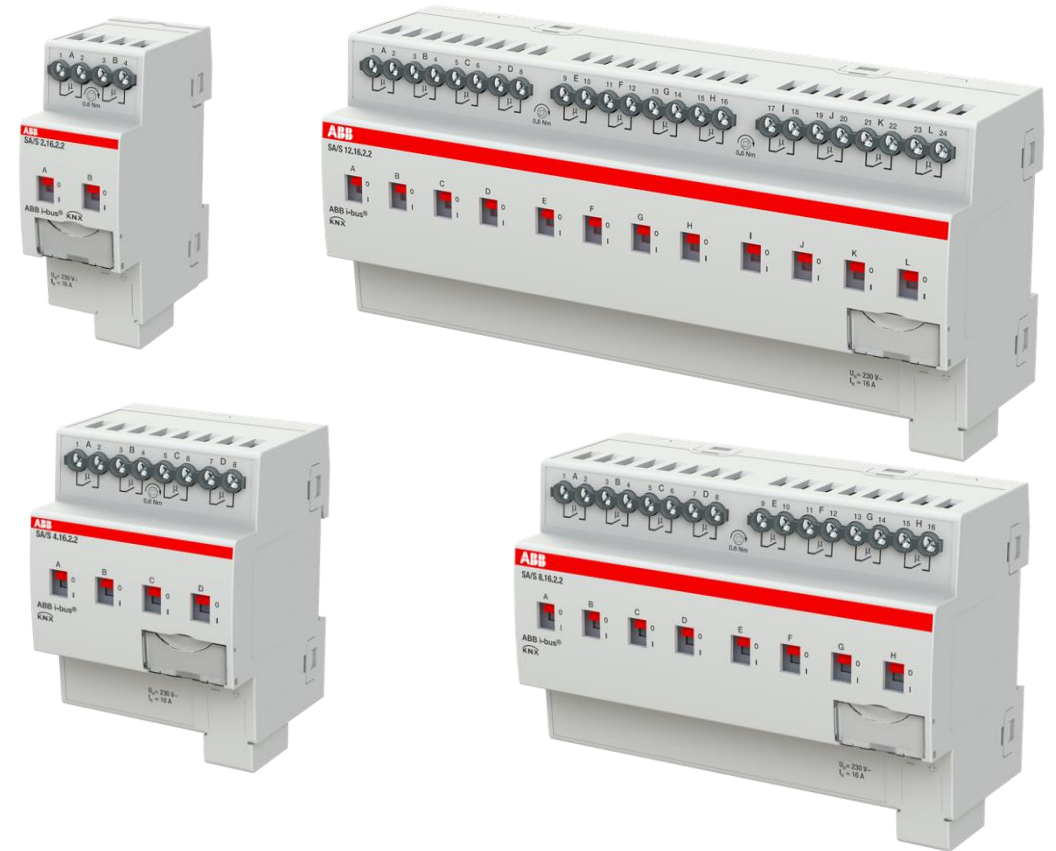
Transformation Table

NGS Order Code Materialnummer	NGS Type Typenbezeichnung	Old Type (forerunner Type) Typenbezeichnung (Vorgänger-Type)	Product Name DE Produkt Name DE	Product Name EN Produkt Name EN	EAN-Code EAN Nummer	Switch Outputs Ausgänge Schaltakt	Shutter Outputs Ausgänge Jalousie	Module width Modulbreite	Rated current Nennstrom	List price 01/2020	Launch planned (Einführung geplant)	Phase-out (Auslauf-Phase)
ABB Combi Range												
2CDG 110 244 R0011	SAH/S8.6.7.1	-	Schalt-/Jalousieaktor, 8fach, 6 A, REG	Switch/Shutter Actuator, 8-fold, 6 A, MDRC	4016779066310	8	4	4		303,00 €		-
2CDG 110 245 R0011	SAH/S16.6.7.1	-	Schalt-/Jalousieaktor, 16fach, 6 A, REG	Switch/Shutter Actuator, 16-fold, 6 A, MDRC	4016779066792	16	8	8	6 A	441,00 €	October 2019	no forrunner device (kein Vorgänger)
2CDG 110 246 R0011	SAH/S24.6.7.1	-	Schalt-/Jalousieaktor, 24fach, 6 A, REG	Switch/Shutter Actuator, 24-fold, 6 A, MDRC	4013614552540	24	12	12		541,00 €		-
2CDG 110 247 R0011	SAH/S8.10.7.1	-	Schalt-/Jalousieaktor, 8fach, 10 A, REG	Switch/Shutter Actuator, 8-fold, 10 A, MDRC	4016779066815	8	4	4		336,00 €		-
2CDG 110 248 R0011	SAH/S16.10.7.1	-	Schalt-/Jalousieaktor, 16fach, 10 A, REG	Switch/Shutter Actuator, 16-fold, 10 A, MDRC	4016779066822	16	8	8	10 A	488,00 €	October 2019	no forrunner device (kein Vorgänger)
2CDG 110 249 R0011	SAH/S24.10.7.1	-	Schalt-/Jalousieaktor, 24fach, 10 A, REG	Switch/Shutter Actuator, 24-fold, 10 A, MDRC	4016779066839	24	12	12		599,00 €		-
2CDG 110 250 R0011	SAH/S8.16.7.1	-	Schalt-/Jalousieaktor, 8fach, 16 A, REG	Switch/Shutter Actuator, 8-fold, 16 A, MDRC	4016779066846	8	4	4		371,00 €		-
2CDG 110 251 R0011	SAH/S16.16.7.1	-	Schalt-/Jalousieaktor, 16fach, 16 A, REG	Switch/Shutter Actuator, 16-fold, 16 A, MDRC	4016779066853	16	8	8	16 A	540,00 €	October 2019	no forrunner device (kein Vorgänger)
2CDG 110 252 R0011	SAH/S24.16.7.1	-	Schalt-/Jalousieaktor, 24fach, 16 A, REG	Switch/Shutter Actuator, 24-fold, 16 A, MDRC	4016779066860	24	12	12		663,00 €		-
ABB Standard Range												
2CDG 110 244 R0011	SAH/S8.6.7.1 *)	SA/S4.6.1.1	Schaltaktor, 4fach, 6 A, REG	Switch Actuator, 4-fold, 6 A, MDRC					6 A			1.Feb - 30. April 2020
2CDG 110 244 R0011	SAH/S8.6.7.1 *)	SA/S8.6.1.1	Schaltaktor, 8fach, 6 A, REG	Switch Actuator, 8-fold, 6 A, MDRC								
2CDG 110 245 R0011	SAH/S16.6.7.1 *)	SA/S12.6.1.1	Schaltaktor, 12fach, 6 A, REG	Switch Actuator, 12-fold, 6 A, MDRC								
2CDG 110 253 R0011	SA/S2.6.2.2	SA/S2.6.2.1	Schaltaktor, 2fach, 6 A, REG	Switch Actuator, 2-fold, 6 A, MDRC	4016779066716	2	-	2		166,00 €		
2CDG 110 254 R0011	SA/S4.6.2.2	SA/S4.6.2.1	Schaltaktor, 4fach, 6 A, REG	Switch Actuator, 4-fold, 6 A, MDRC	4016779066730	4	-	4	6 A	207,00 €	January 2020	1.Feb - 30. April 2020
2CDG 110 255 R0011	SA/S8.6.2.2	SA/S8.6.2.1	Schaltaktor, 8fach, 6 A, REG	Switch Actuator, 8-fold, 6 A, MDRC	4016779066754	8	-	8		285,00 €		
2CDG 110 256 R0011	SA/S12.6.2.2	SA/S12.6.2.1	Schaltaktor, 12fach, 6 A, REG	Switch Actuator, 12-fold, 6 A, MDRC	4016779066778	12	-	12		354,00 €		
2CDG 110 257 R0011	SA/S2.10.2.2	SA/S2.10.2.1	Schaltaktor, 2fach, 10 A, REG	Switch Actuator, 2-fold, 10 A, MDRC	4016779066556	2	-	2		184,00 €		
2CDG 110 258 R0011	SA/S4.10.2.2	SA/S4.10.2.1	Schaltaktor, 4fach, 10 A, REG	Switch Actuator, 4-fold, 10 A, MDRC	4016779066570	4	-	4	10 A	229,00 €	January 2020	1.Feb - 30. April 2020
2CDG 110 259 R0011	SA/S8.10.2.2	SA/S8.10.2.1	Schaltaktor, 8fach, 10 A, REG	Switch Actuator, 8-fold, 10 A, MDRC	4016779066594	8	-	8		322,00 €		
2CDG 110 260 R0011	SA/S12.10.2.2	SA/S12.10.2.1	Schaltaktor, 12fach, 10 A, REG	Switch Actuator, 12-fold, 10 A, MDRC	4016779066617	12	-	12		400,00 €		
2CDG 110 261 R0011	SA/S2.16.2.2	SA/S2.16.2.1	Schaltaktor, 2fach, 16 A, REG	Switch Actuator, 2-fold, 16 A, MDRC	4016779066631	2	-	2		202,00 €		
2CDG 110 262 R0011	SA/S4.16.2.2	SA/S4.16.2.1	Schaltaktor, 4fach, 16 A, REG	Switch Actuator, 4-fold, 16 A, MDRC	4016779066655	4	-	4	16 A	252,00 €	January 2020	1.Feb - 30. April 2020
2CDG 110 263 R0011	SA/S8.16.2.2	SA/S8.16.2.1	Schaltaktor, 8fach, 16 A, REG	Switch Actuator, 8-fold, 16 A, MDRC	4016779066679	8	-	8		348,00 €		
2CDG 110 264 R0011	SA/S12.16.2.2	SA/S12.16.2.1	Schaltaktor, 12fach, 16 A, REG	Switch Actuator, 12-fold, 16 A, MDRC	4016779066693	12	-	12		432,00 €		
ABB Professional Range												
2CDG 110 265 R0011	SA/S2.16.5.2	SA/S2.16.5.1	Schaltaktor, 2fach, 16 A, C-Last, REG	Switch Actuator, 2-fold, 16 A, C-Load, MDRC	4016779066457	2	-	2		230,00 €		
2CDG 110 266 R0011	SA/S4.16.5.2	SA/S4.16.5.1	Schaltaktor, 4fach, 16 A, C-Last, REG	Switch Actuator, 4-fold, 16 A, C-Load, MDRC	4016779066471	4	-	4	16/20 A	288,00 €	January 2020	1.Feb - 31. May 2020
2CDG 110 267 R0011	SA/S8.16.5.2	SA/S8.16.5.1	Schaltaktor, 8fach, 16 A, C-Last, REG	Switch Actuator, 8-fold, 16 A, C-Load, MDRC	4016779066495	8	-	8	C-Load	398,00 €		
2CDG 110 268 R0011	SA/S12.16.5.2	SA/S12.16.5.1	Schaltaktor, 12fach, 16 A, C-Last, REG	Switch Actuator, 12-fold, 16 A, C-Load, MDRC	4016779066518	12	-	12		490,00 €		
2CDG 110 269 R0011	SA/S2.16.6.2	SA/S2.16.6.1	Schaltaktor, 2fach, 16 A, C-Last mit Stromerkennung, REG	Switch Actuator, 2-fold, 16 A, C-Load, Current Detection, MDRC	4016779066327	2	-	2		253,00 €		
2CDG 110 270 R0011	SA/S4.16.6.2	SA/S4.16.6.1	Schaltaktor, 4fach, 16 A, C-Last mit Stromerkennung, REG	Switch Actuator, 4-fold, 16 A, C-Load, Current Detection, MDRC	4016779066419	4	-	4	16/20 A	317,00 €	tbd	tbd
2CDG 110 271 R0011	SA/S8.16.6.2	SA/S8.16.6.1	Schaltaktor, 8fach, 16 A, C-Last mit Stromerkennung, REG	Switch Actuator, 8-fold, 16 A, C-Load, Current Detection, MDRC	4016779066433	8	-	8	C-Load	438,00 €		
2CDG 110 272 R0011	SA/S12.16.6.2	SA/S12.16.6.1	Schaltaktor, 12fach, 16 A, C-Last mit Stromerkennung, REG	Switch Actuator, 12-fold, 16 A, C-Load, Current Detection, MDRC	4016779066532	12	-	12		539,00 €		

Standard/Professional Switch Actuators

Summary of the Features and Advantages

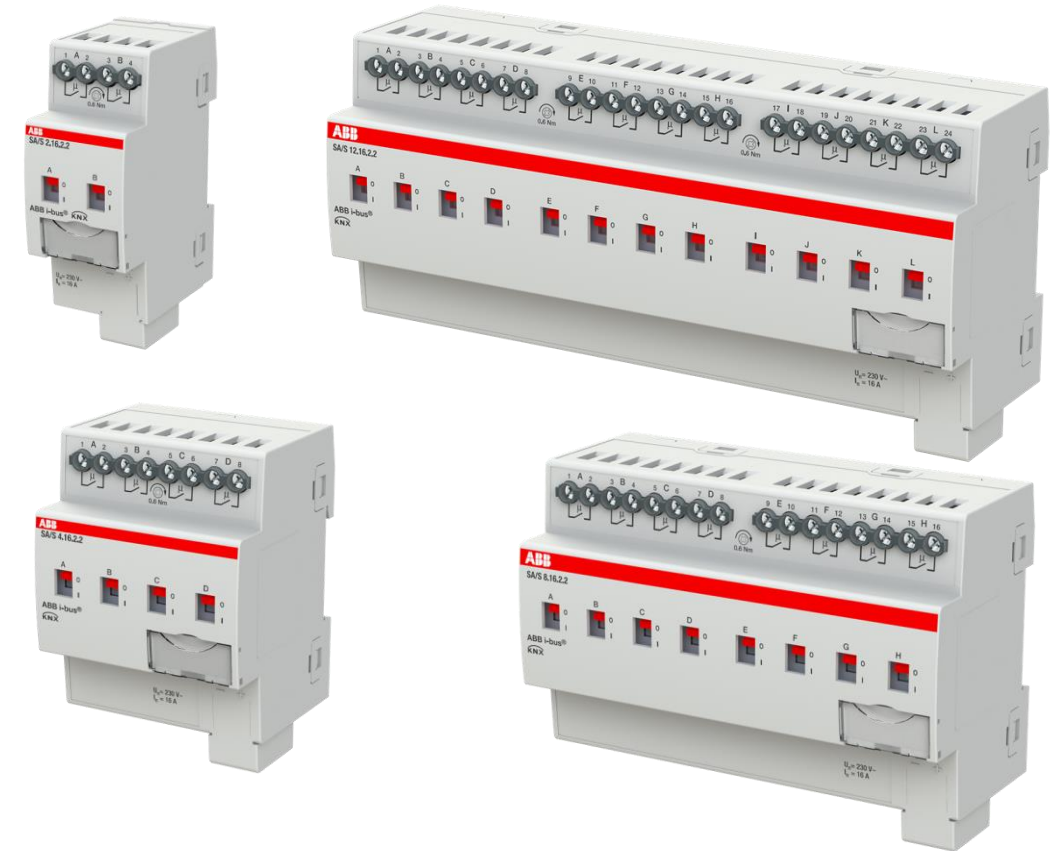
- Proven connection terminals with screws, on the same level
→ easy and stress-free wiring for the panel builder
- Classic manual operation
→ simple and well known, no bus voltage needed
- Up to 12 independent channels
→ very efficient solution (costs per channel) with no restrictions in functions
- Optimized ETS Application
→ easy to operate, saves time and satisfies the programmer, same look and feel for all new switch actuators
- Prepared for ABB i-bus tool connection (coming soon)
→ operation, status information, simulation and more



Standard/Professional Switch Actuators

Summary of the Features and Advantages

- Versions with 6, 10 (Standard) and 16A (Standard/Professional)
→ products available for the different market requirements
- Switch Actuators Professional with 16/20A relay and high inrush current
→ prepared for challenging loads
- Extension of Switch Actuators Professional with current detection in 2020
→ new functions with highest performance for switch actuators
- New hardware platform and digital ready components
→ allows in future feature extensions
- Designed and produced in Germany
→ highest quality standard



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