ABB i-bus ${ }^{\circledR}$ EIB / KNX Software Information

## Product:

## Switch Actuator SA/S

Type:
SA/S x.y.z und SA/S x.y.z. 1

Current application program: SA/S x.6.1; SA/S x.10.1 and SA/S x. 16.1 ( $x=2,4,8,12$-fold)
Switch $x f y / 2 a(x=2,4,8$ and 12 -fold, $y=6 A, 10 A$ and 16A)
SA/S x.16.6.1 and SA/S x.16.5.1 ( $x=2,4,8$ and 12 -fold)
Switch xf y/3.2 (x = 2, 4, 8 and 12-fold, $y=16 C S, 16 C$ )

Current application program:

## General

Optimised features:
to: $\quad$ Switch xf 16C/3.2 ( $x=2,4,8$ and 12 -fold) for SA/S x.16.5.1, C-load
at: 07/2011

Application program at time start of SA/S x.16.5.1 ( $x=2,4,8$ and 12 -fold) market launch. Previous product SA/S 12.16.5. (C-load)

There is no possibility to convert old ETS-Project with SA/S 12.16.5 automatically with the new application.

Function:

- Function of SA/S 12.16.5 are still available in the follower type SA/S 12.16.5.1
- Copy and change function of the channel parameterisation
- Behaviour of response of logical function

If in parameter window $x$ : General the response of the switching status is parameterised with always, the response will send always even if a telegram receive via object Logical connection 2.

- Change of default value:

The parameter Status response of switching state object „status switch") is changed from „no" to „only after changing".

- It is possible to convert a SA/S x.16.5.1 to a SA/S x.16.5.1 with a different channel number. As well a conversion to a SA/S $x .16 .6 .1$ with current detection is possible too.

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Current application program:

## General

Optimised features:

| from: | Switch $x f 16 C S / 3.1$ ( $x=2,4$ and 8 -fold) |
| :--- | :--- |
|  | for SA/S x.16.6.1, C-load with current detection |
| to: | Switch xf 16CS/3.2 ( $x=2,4,8$ and 12-fold) |
| at: | $7 / 2011$ |

Together with the market launch of the switch actuators SA/S 12.16.6.1, C-load with current detection, new application programs for all SA/S x.16.6.1 ( $x=2,4,8$ and 12-fold) are available:
switch Switch xf 16CS/3.2 (x = 2, 4, 8 and 12-fold).
Function:

- Conversion of the SA/S x.16.5.1 and SA/S x.16.6.1 among each other is possible, as well as different number of outputs.
- Function "copying and exchange" of an output parameterisation in a device is possible.

Optimisation:

- Behaviour after a second preset 1 recall
- Saving behaviour of scene and preset value after KNX failure


## Conversion:

A conversion of an application switch $x f 16 C S / 3.0$ and 3.1 of SA/S x.16.6.1 ( $x=2,4$ and 8 -fold) in an application Switch $x f 16 C S / 3.2$ ( $x=2,4,8$ and 12 -fold) is possible.

An application switch xf 16C/3.2 of SA/S x.16.5.1 ( $x=2,4,8$ and 12), C-load in an application Switch xf 16CS/3.2 of SA/S x.16.6.1, C-load with current detection is possible.

Current application program:

## Optimised features:

## General

from: Switch xf 16CS/3.0 (x=2, 4 and 8 -fold) for SA/S x.16.6.1, C-load with current detection
to: $\quad$ Switch xf 16CS/3.1
at: $\quad 1 / 2011$

Since January 2011, an optimised application Switch xf 16CS/3.1 for the switch actuators with current detection, SA/S x.16.6.1 ( $x=2,4,8$ and 12 -fold), is available. A conversion from Version 3.0 to 3.1 is possible.

Parameter:

- In the function current detection / threshold values the parameter option "non hysteresis" has changed in the minimum hysteresis of „3mA". With this adaption the normal current variation in the installation equipment and the tolerance of the current transformer are considered.

Function:

- The behaviour of KNX telegrams of the current threshold information via communication object „status current threshold" with a current scaling of 10 mA was optimised.


## Current application program:

## General

Optimised features:

## Software Information

## to: $\quad$ Switch $x$ 16CS/3.0 ( $x=2,4$ and 8 -fold)

from: 4/2010

For the optimised switch actuators hardware SA/S x.16.6.1 ( $x=2,4$ and 8 -fold) you must use the new application program V3.0.

Existing SA/S-Application (V2.0) are conversable to the V3.0-Application. With this convert-function you have the possibility to convert a SA/S x.16.5S in any SA/S x.16.6.1. E.g. you can convert a 2 -fold application from the SA/S 2.16.5S or SA/S 2.20.1S in a SA/S 2.16.6.1 or in the first two channels of a SA/S 4.16.6.1 or SA/S 8.16.6.1 actor application.
(Product Manual „Switch Actuators SA/S" - Order Number 2CDC 505056 D0205)
Functions:

- Copy and change function of the channel parameterisation
- Parameter options for current detection are adapted to the enlarged current range (0,02A - 20A).
- Detected current can send via communication object as 4Byte (Float value) DTP 14.019 or as 2Byte (counter value) DTP 7.012
- Behaviour of response of logical function If in parameter window $x$ : General the response of the switching status is parameterised with always, the response will send always even if a telegram receive via object Logical connection 2.
This is different to the behaviour of SA/S x.6.1, SA/S x.10.1 and SA/S x.16.1. In this case the response of switch status only will send if a telegram receives via object switching.

Change of default value:
The parameter Status response of switching state object „status switch") is changed from „no" to „only after changing".

Changes in wording:

| Old | New |
| :--- | :--- |
| Telegr. status switch | status switch |
| Telegr. RTR fault | RTR fault |
| Telegr. status heating | status heating |
| Telegr. status value purge | status value purge |
| Telegr. warning stair lighting | warning stair lighting |

Application program:

## General

Optimised features:
changed Switch xf yl2
to: $\quad$ Switch xf $\mathbf{y} / \mathbf{2 a}$
from: 4/2010

With the launch of SA/S x.16.6.1 (x = 2, 4, 8-fold), optimised current detection some changes in wording had happened.
(Handbuch „Schaltaktoren SA/S" - Druckschriftennummer 2CDC 505056 D0104)
Changes in wording:

| Old | New |
| :--- | :--- |
| Telegr. status switch | status switch |
| Telegr. RTR fault | RTR fault |
| Telegr. status heating | status heating |
| Telegr. status value purge | status value purge |
| Telegr. warning stair lighting | warning stair lighting |

Change of default value:
The parameter Status response of switching state object „status switch") is changed from „no" to „only after changing".

## Software Information

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to: \(\quad\) Switch \(x f y / 2\)
at: 10/2006
```


## General

The application Switch $\boldsymbol{x f} \boldsymbol{y / 2}$
(Product manual „Switch Actuators SA/S" - Pub. No 2CDC 505056 D0202)
no changes
SA/S 12.16.1 is new in the SA/S portfolio.
The name of the Application is switch 12 f 16/2

Software-Information

| to: | Switch xf y/2 |
| :--- | :--- |
| at: | $10 / 2006$ |

## General

The application Switch $\boldsymbol{x f} \boldsymbol{y / 2}$
(Product manual „Switch Actuators SA/S" - Pub. No 2CDC 505056 D0202)
updates the actual application Switch, xfy/1
(Product manual „Switch Actuators SA/S" - Pub. No. 2CDC 505056 D0201)
There is no possibility to convert old ETS-Project automatically with the new application.

The update includes the following changes.

## 1. Name of Application:

| Sample | old | new |
| :--- | :--- | :--- |
| SA/S 4.6.1 | Switch, 4f6/1 | Switch 4f 6A/2 |
| SA/S 8.6.1 | Switch, 8f6/1 | Switch 8f 6A/2 |
| SA/S 12.6.1 | Switch, 12f6/1 | Switch 12f 6A/2 |
| SA/S 2.10.1 | Switch, 2f10/1 | Switch 2f 10A/2 |
| SA/S 4.10.1 | Switch, 4f10/1 | Switch 4f 10A/2 |
| SA/S 8.10.1 | Switch, 8f10/1 | Switch 8f 10A/2 |
| SA/S 12.10.1 | Switch, 12f10/1 | Switch 12f 10A/2 |
| SA/S 2.16.1 | Switch, 2f16/1 | Switch 2f 16A/2 |
| SA/S 4.16.1 | Switch, 4f16/1 | Switch 4f 16A/2 |
| SA/S 8.16.1 | Switch, 8f16/1 | Switch 8f 16A/2 |
| SA/S 2.16.5S | Switch, 2f16S/1 | Switch 2f 16CS/2 |
| SA/S 4.16.5S | Switch, 4f16S/1 | Switch 4f 16CS/2 |
| SA/S 8.16.5S | Switch, 8f16S/1 | Switch 8f 16CS/2 |
| SA/S 12.16.5 | Switch, 12f16/1 | Switch 12f 16C/2 |

1. Current Value on EIB/KNX:

Devices with current detection (Type „S") can send the current value as an mA value on the EIB/KNX Bus. This object is a 2 -Byte counter value (EIS 10, DTP 7.012).
With the application .../2 it is not longer possible to send the current value in Ampere over an 1-Byte Object on the Bus.

## Software Information

## 2. Device Delivery Status:

3. Limitation of Telegram Rate:

## 4. Status Response:

## 5. Staircase Retrigger:

## 6. Enable Current Detection:

The default operation mode of the switch actuator is now defined as Switch actuator. Therefore the Object "switch" and "Telegr. status switch" is visible without setting any parameter over the ETS.

With the new application (.../2) it is possible to limit the sending of telegrams of the switch actuator. The corresponding parameter is in the parameter window „General".

The response of the switching status is parameterise in the „X: General" ( $\mathrm{x}=$ channel).

Options: nein
after a change
always
If "no" is set the object value will always be updated, but not sent.
The "always" setting has the effect that the status of contact position is updated and always sent, if a "switch option" is received, even if no switching or change in the object value has occurred. With the "after a change" setting the status telegram is only sent if the object value "Telegr. Status Switch" changes. The bus load can be greatly influenced here particularly with multi-channel switch actuators. The object value ("0" or "1") which is used at a contact position is possible with the "Object value contact position (Object "Telegr. Status Switch") parameter. This parameter appears if "after a change" or "always" have been selected.

The wording of the parameter has changed. The function has not changed.
Parameter „Extending staircase lighting by multiple operation (pumping up)":
new
Options: no (not retriggerable)
yes (retriggerable)
up to max. $2 x$...
up to max. $3 x$...
up to max. $4 x$...
up to max. $5 x$...
old
nein
up to max. 1x ...
up to max. $2 x$...
up to max. $3 x \ldots$
up to max. $4 x$...
up to max. $5 x$...

The current detection is enable in the parameter windows „X: Function" together with the other functions of the switch actuator:

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## 7. Contact Monitoring:

8. Evaluation of Current Detection:
9. Staircase lighting time:

With the new application (.../2) it is possible to evaluate the current for the threshold-function of the current detection.

It is possible to evaluate the current only during the contact is open, it is closed or during both contact positions. The parameter is in the parameter window " $x$ : Current Detection".

Further on it is possible to set a delay of the current evaluation, after contact switching, via parameter. Delay times of 0 up to 255 seconds are possible.
The devices with current detection (Type " $S$ ") has get a additional function. Now it is possible to monitor the switching contact of the relay with an integrated logic in the switch actuator.
For this new function the object "contact monitoring" is available. The value " 1 " (contact fault) is assumed if the contact is opened via a switching action and a current is still detected (contact welded) or if the contact is closed manually and a current will detect. The evaluation if a current flows or does not flow is undertaken in the steady-state approximation of 2 seconds after the switching action. The current is safely detected if it is greater than 100 mA .

If the old application (.../1) is load in an unloaded SA/S device and the object „staircase time" was not enabled. The staircase time was limited up to 4 minutes, even if a larger time was set via parameter.
The new application (.../2) eliminate this bug.

