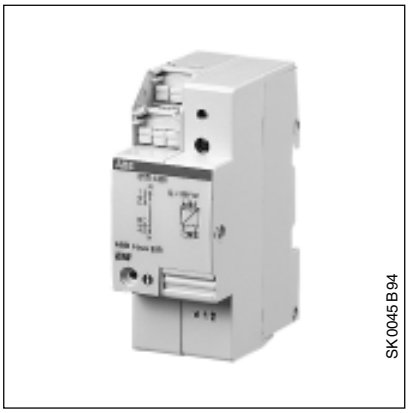
ABB i-bus® EIB

Binary Input, 4-fold, 230 V, MDRC
ET/S 4.230, GH Q605 0010 R0001



The binary input is a DIN rail mounted device for insertion in the distribution board. It is connected to the EIB via the data rail.

It is used for the connection of conventional 230 V switch or push button contacts which can be linked to various external conductors.

The binary input can send e.g. switching, dimming, shutter control or 1 byte value telegrams to EIB actuators. Inputs A and B or C and D are combined for dimming and shutter control.

4

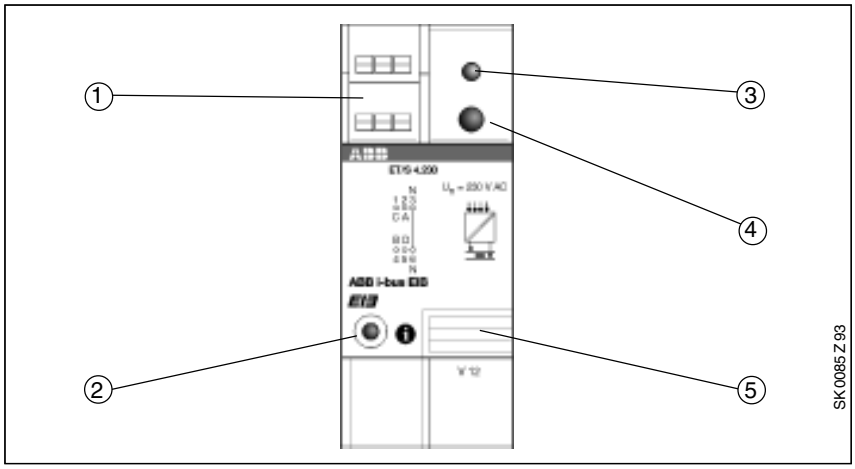
Technical Data

Power supply	– EIB	24 V DC, via the bus line
Inputs	– 4, isolated	
	– Signal voltage	230 V AC +/– 10 %, 50 … 60 Hz
	– Input current	1 mA
	– Signal level for “0” signal	0 … 170 V
	– Signal level for “1” signal	198 … 264 V
	– Max. cable length	100 m
Operating and display elements	– Red LED and push button	for assignment of the physical address
	– LED	Fault indication
Connections	– Inputs / N conductor	Screwless terminals Wire range 0.5 … 2.5 mm^2
	– EIB	Pressure contacts for data rail
Type of protection	– IP 20 in accordance with DIN 40 050	
Ambient temperature range	– Operation	- 5 °C … 45 °C
	– Storage	-25 °C … 55 °C
	– Transport	-25 °C … 70 °C
Design	– Modular installation device, pro*M*	
Housing, colour	– Plastic housing, grey	
Mounting	– on 35 mm mounting rail, DIN EN 50022	
Dimensions	– 90 x 36 x 64 mm (H x W x D)	
Mounting depth/width	– 68 mm / 2 modules at 18 mm	
Weight	– 0.15 kg	
Certification	– EIB-certified	
CE norm	– in accordance with the EMC guideline and the low voltage guideline	

Application programs	Number of communication objects	Max. number of group addresses	Max. number of associations
Switch /1	4	12	12
Switch Dim /1	4	6	6
Switch Shutter /7	4	8	10
Switch Shutter /1	4	6	6
Switch Edge Cyclic /1	4	14	16
Value Edge Cyclic /1	5	8	9
Switch Dim Shutter /1	4	6	6
Switch Dim Shutter /5	4	8	10

4

Circuit diagram

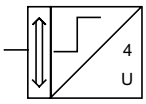


1 Input terminals
2 Fault LED
3 Programming LED
4 Programming button
5 Data rail

Note

In order to avoid the danger of electric shock due to feedback from various external conductors, all-pole disconnection must be complied with in the event of a fault and when working on the installation.

Switch /1



Selection in ETS2

– ABB
  └Input
    └Binary input, 4-fold

Switch

The application program is specifically for use with push buttons. For each input there is a communication object that can send switching telegrams

The common parameter “Contact type” applies to all the inputs and indicates whether normally opened or normally closed contacts have been connected.

The parameter “Debounce time” determines how long a contact must be pressed in order for the device to accept the push button action as valid.

Using the parameter “Reaction on signal at input ...”, it can be determined for each input whether it switches on or off alternately each time the contact is pressed or whether the device distinguishes between a long and a short push button action in order to be able to switch on or off selectively. In this case, it must be indicated in the parameter “Input signal interpreted as long from” how long the push button must be pressed in order for the device to send the appropriate telegram.

To prevent the bus being put under load with too many unnecessary telegrams, it is possible to limit the number of telegrams that the device can send in 17 s.

4

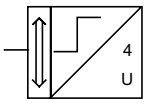
Communication objects

No.	Type	Object name	Function
0	1 bit	Input A	Telegr. switch
1	1 bit	Input B	Telegr. switch
2	1 bit	Input C	Telegr. switch
3	1 bit	Input D	Telegr. switch

Parameters
The default setting for the values is **printed in bold type.**

Common for all inputs:	
Contact type	**normally opened contact** normally closed contact
Debounce time	10 ms / 30 ms / **50 ms** / 100 ms
Limit number of telegrams	**yes** no
Max. number of telegrams in 17 s	**30** / 60 / **100 / 127**
Separate for each input:	
Reaction on signal at input …	**short ON, long OFF** short OFF, long ON TOGGLE
Input signal interpreted as long from	0.4 s / **0.5 s** / 0.6 s / 0.8 s / 1 s / 1.2 s / 1.5 s / 2 s

Switch Dim /1



Selection in ETS2

– ABB
  └Input
    └Binary input, 4-fold

The application program is specifically for use with push buttons. Inputs A and B or C und D are combined and connected to a serial push button. The common parameter "Contact type" applies to all the inputs and indicates whether normally opened or normally closed contacts have been connected.

Switch

In the default setting "switch/dimming sensor ...", the binary input sends a switching telegram after a short push button action. With the setting "switch (ON/OFF/TOGGLE)", the binary input does not distinguish between a long or short push button action. The parameter "Reaction on short signal" determines whether one input is used for the two pairs of channels for switching on and one for switching off or whether they both always toggle.

Dim

If a push button is pressed for longer than the period set in the parameter "Input signal interpreted as long from", the binary input dims by the value indicated in the parameter "Change brightness if long signal by". A "Stop dimming" telegram is sent when the push button is released. If the function "switch/dimming sensor (dimming steps)" is active, the dimming telegram is repeated at the set interval for the duration of the operation.

The parameter "Debounce time" determines how long a contact must be pressed in order for the device to accept the push button action as valid.

To prevent the bus being put under load with too many unnecessary telegrams, it is possible to limit the number of telegrams that the device can send in 17 s.

Communication objects
for "switch/dimming sensor" function

No.	Type	Object name	Function
0	1 bit	Input A/B -short signal	Telegr. switch
1	4 bit	Input A/B -long signal	Telegr. relative dimming
2	1 bit	Input C/D -short signal	Telegr. switch
3	4 bit	Input C/D -long signal	Telegr. relative dimming

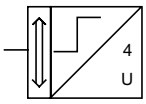
Communication objects
for "switch sensor" function

No.	Type	Object name	Function
0	1 bit	Input A/B	Telegr. switch
2	1 bit	Input C/D	Telegr. switch

Parameters
The default setting for the values is **printed in bold type.**

Common for all inputs:	
Contact type	**normally opened contact** normally closed contact
Input signal interpreted as long from	0.4 s / **0.5 s** / 0.6 s / 0.8 s / 1 s / 1.2 s / 1.5 s / 2 s
For cyclical sending telegram is repeated every	0.4 s / **0.5 s** / 0.6 s / 0.8 s / 1 s / 1.2 s / 1.5 s / 2 s
Debounce time	10 ms / 30 ms / **50 ms** / 100 ms
Limit number of telegrams	yes / **no**
Max. number of telegrams in 17 s	30 / 60 / 100 / **127**
Separate for inputs A/B and C/D:	
Function	**switch/dimming sensor (stop telegr.)** switch/dimming sensor (dimming steps) switch sensor
Reaction on short signal	**A = ON, B = OFF** A = OFF, B = ON A = TOGGLE, B = TOGGLE
Reaction on long signal	**A= brighter, B = darker**
Change brightness if long signal by	**100 %** / 50 % / 25 % / … / 1.56 %

Switch Shutter /7



Selection in ETS2

– ABB
  └Input
    └Binary input, 4-fold

The application program is specifically for use with push buttons. Inputs A and B or C and D are linked with a shutter switch or a serial push button. The common parameter "Contact type" applies to all the inputs and indicates whether normally opened or normally closed contacts have been connected.

The function "shutter sensor" or "switch sensor" can be assigned to both pairs of inputs.

Switch

In the parameter setting "switch sensor", the binary input has a separate communication object for each push button. For inputs that are assigned the function of "switch sensor", their normal function is to toggle after each push button action.

If required, the user can also determine the reaction to short or long push button operations for either one or both push buttons of the pair of inputs.

Shutter

In the setting "shutter sensor", the binary input sends an "Adjust lamella / stop" telegram when the push button is pressed briefly and a "Move shutter up/down" telegram when it is pressed for a longer period. It is also possible to designate which push button is used for UP or DOWN.

It is also necessary to set the parameter "Input signal interpreted as long from" for both shutter control and switching with short and long push button actions.

The parameter "Debounce time" determines how long a contact must be pressed in order for the device to accept the push button action as valid.

To prevent the bus being put under load with too many unnecessary telegrams, it is possible to limit the number of telegrams that the device can send in 17 s.

4

Communication objects
for "shutter sensor" function

No.	Type	Object name	Function
0	1 bit	Input A/B -short signal	Telegr. lamella adj./stop
1	1 bit	Input A/B -long signal	Telegr. move shutter Up-Down
2	1 bit	Input C/D -short signal	Telegr. lamella adj./stop
3	1 bit	Input C/D -long signal	Telegr. move shutter Up-Down

Communication objects
for "switch sensor" function

No.	Type	Object name	Function
0	1 bit	Input A	Telegr. switch
1	1 bit	Input B	Telegr. switch
2	1 bit	Input C	Telegr. switch
3	1 bit	Input D	Telegr. switch

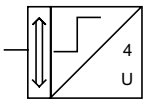
Parameters
The default setting for the values is **printed in bold type.**

The display of the parameters is dependent on whether the function of "shutter sensor" or "switch sensor" has been selected.

4

Common for all inputs:	
– Contact type	**normally opened contact** normally closed contact
– Debounce time	10 ms / 30 ms / **50 ms** / 100 ms
– Limit number of telegrams	**yes** / no
– Max. number of telegrams in 17 s	**30** / 60 / 100 / 127
Separate for inputs A/B and C/D:	
– Function of input A/B	**shutter sensor** switch sensor
Only if "shutter sensor" is selected:	
– Reaction on short signal (lamella adjustment)	**A = ON (DOWN), B = OFF (UP)** A = OFF (UP), B = ON (DOWN) A = ON, B = ON (only switch mode) A = OFF, B = OFF (only switch mode)
– Reaction on long signal (shutter up/down)	**A = ON (DOWN), B = OFF (UP)** A = OFF (UP), B = ON (DOWN) A = ON, B = ON (only switch mode) A = OFF, B = OFF (only switch mode)
– Input signal interpreted as long from	0.4 s / **0.5 s** / 0.6 s / 0.8 s / 1 s / 1.2 s / 1.5 s / 2 s / 5 s
Only if "switch sensor" is selected:	
– Reaction on signal	for shutter: A/B (short signal; long) **A = TOGGLE, B = TOGGLE** A = TOGGLE, B (short signal) A (short signal), B = TOGGLE A (short signal), B (short signal) A/B (short signal; long)
– Reaction on short signal (switch) -only comes into effect if "short signal" has been assigned	**A = ON (DOWN), B = OFF (UP)** A = OFF (UP), B = ON (DOWN) A = ON, B = ON (only switch mode) A = OFF, B = OFF (only switch mode)
– Reaction on long signal (switch)	**A = ON (DOWN), B = OFF (UP)** A = OFF (UP), B = ON (DOWN) A = ON, B = ON (only switch mode) A = OFF, B = OFF (only switch mode)
– Input signal interpreted as long from	0.4 s / **0.5 s** / 0.6 s / 0.8 s / 1 s / 1.2 s / 1.5 s / 2 s / 5 s

Switch Shutter /1



4

Selection in ETS2

– ABB
  └Input
    └Binary input, 4-fold

The application program is specifically for use with push buttons. Inputs A and B or C and D are linked with a shutter switch. The common parameter “Contact type” applies to all the inputs and indicates whether normally opened or normally closed contacts have been connected.

Switch

In the parameter setting “switch sensor”, the binary input does not distinguish between a long or short push button action and sends “On” or “Off” telegrams to the EIB when one of the rocker switches is pressed.

Shutter

In the setting “shutter sensor”, the binary input sends an “Adjust lamella / stop” telegram when the push button is pressed briefly and a “Move shutter up/down” telegram when it is pressed for a longer period. It is also possible to designate which push button is used for UP or DOWN.

The parameter “Debounce time” determines how long a contact must be pressed in order for the device to accept the push button action as valid.

To prevent the bus being put under load with too many unnecessary telegrams, it is possible to limit the number of telegrams that the device can send in 17 s.

4

Communication objects
for “shutter sensor” function

No.	Type	Object name	Function
0	1 bit	Input A/B -short signal	Telegr. lamella adj./stop
1	1 bit	Input A/B -long signal	Telegr. move shutter Up-Down
2	1 bit	Input C/D -short signal	Telegr. lamella adj./stop
3	1 bit	Input C/D -long signal	Telegr. move shutter Up-Down

Communication objects
for “switch sensor” function

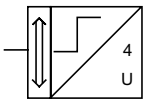
No.	Type	Object name	Function
0	1 bit	Input A/B	Telegr. switch
2	1 bit	Input C/D	Telegr. switch

Parameters
The default setting for the values is **printed in bold type.**

The display of the parameters is dependent on whether the function of “shutter sensor” or “switch sensor” has been selected.

Common for all inputs:	
– Contact type	**normally opened contact** normally closed contact
– Input signal interpreted as long from	0.4 s / **0.5 s** / 0.6 s / 0.8 s / 1 s / 1.2 s / 1.5 s / 2 s
– Debounce time	10 ms / 30 ms / **50 ms** / 100 ms
– Limit number of telegrams	**yes** / no
– Max. number of telegrams in 17 s	**30** / 60 / 100 / 127
Separate for inputs A/B and C/D:	
– Function	**shutter sensor** switch sensor
Only if “shutter sensor” is selected:	
– Reaction on short signal (lamella adjustment)	**A = OFF (UP), B = ON (DOWN)** A = ON (DOWN), B = OFF (UP) A = TOGGLE, B = TOGGLE
– Reaction on long signal (shutter up/down)	**A = UP, B = DOWN** A = DOWN, B = UP
Only if “switch sensor” is selected:	
– Reaction on signal	A = OFF (UP), B = ON (DOWN) A = ON (DOWN), B = OFF (UP) **A = TOGGLE, B = TOGGLE**

Switch Edge Cyclic /1



Selection in ETS2

– ABB
  └Input
    └Binary input, 4-fold

Switch

The application program is specifically for use with switches or push buttons. Each of the four channels has a communication object that can send telegrams.

Edge

Using the parameter “Reaction on pulse edge at input ...”, it is possible to set the value of the communication object for each input according to a rising and/or falling signal edge.

When an input actually sends a telegram is dependent on the value indicated in the parameter “Sending conditions on change of input / on bus voltage recovery”. When bus voltage recovery occurs, the general parameter “Sending behaviour at bus voltage recovery” is also taken into consideration.

Cyclic

With the parameter “Sending conditions for cyclic sending”, it is possible to indicate, dependent on the value of the communication object, whether an input repeats the telegrams cyclically. The time for cyclical sending is then set via the two parameters of “Time base” and “Factor”.

The parameter “Debounce time” determines how long a contact must be pressed in order for the device to accept the push button action as valid.

To prevent the bus being put under load with too many unnecessary telegrams, it is possible to limit the number of telegrams that the device can send in 17 s.

4

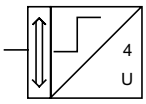
Communication objects

No.	Type	Object name	Function
0	1 bit	Input A	Telegr. switch
2	1 bit	Input B	Telegr. switch
3	1 bit	Input C	Telegr. switch
4	1 bit	Input D	Telegr. switch

Parameters
The default setting for the values is **printed in bold type.**

Common for all inputs:	
– Debounce time	**10 ms** / 30 ms / 50 ms / 100 ms
– Sending behaviour at bus voltage recovery	**Check input status,** **send telegr.** no reaction
– Limit number of telegrams	**yes** / no
– Max. number of telegrams in 17 s	**30** / 60 / 100 / 127
Separate for each input:	
– Reaction on pulse edge at input ...	**rising: ON, falling: OFF** rising: OFF, falling: ON rising: ON … no telegram
– Sending conditions on change of input / on bus voltage recovery	send if contact is closed send if contact is opened **send if contact is opened or closed** do not send
– Sending conditions for cyclic sending	no cyclic sending only if object value = ON **only if object value = OFF** always
– Time base for cyclic sending	130 ms / … / **1 s** / … / 1.2 h
– Factor for cyclic sending (5 … 127)	**127**

Switch Dim Shutter /1



Selection in ETS2

– ABB
  └Input
    └Binary input, 4-fold

The application program is specifically for use with push buttons. Inputs A and B or C and D are combined. The input pair A/B can be used for switching and/or dimming a group of luminaires. The input pair C/D can either be used for switching or shutter control.

Depending on their function, the inputs are connected to either a serial push button or a shutter switch. The common parameter “Contact type” applies to all the inputs and indicates whether normally opened or normally closed contacts have been connected.

The parameter “Debounce time” determines how long a contact must be pressed in order for the device to accept the push button action as valid.

Switch

In the default setting “switch/dimming sensor” for the input pair A/B, the binary input sends a switching telegram when the push button is pressed for a short period. In the setting “switch sensor”, the binary input does not distinguish between a short or long push button action. The parameter “Reaction on short signal” determines whether for the two pairs of channels, one push button is used for switching on and one for switching off or whether they both always toggle.

Dim

If a push button is pressed for longer than the period set in the parameter “Input signal interpreted as long from”, the binary input dims by the value indicated in the parameter “Change brightness if long signal by”. A “Stop dimming” telegram is sent when the push button is released. If the function “switch/dimming sensor (dimming steps)” is active, the dimming telegram is repeated at the set interval for the duration of the push button action.

Shutter

In the default setting “shutter sensor” for the pair of inputs C/D, the binary input sends “Adjust lamella/stop” telegrams when the push button is pressed for a short period and “Move shutter up/down” telegrams when it is pressed for a short period. It is also possible to designate which push button is used for UP or DOWN.

The pair of inputs C/D can also be assigned parameters to the function “switch sensor”. As with the pair of inputs A/B, the binary input does not distinguish between a long or short push button action. If required, the push button can switch on and the other can switch off or both push buttons can toggle.

To prevent the bus being put under load with too many unnecessary telegrams, it is possible to limit the number of telegrams that the device can send in 17 s.

Communication objects
for “switch/dimming sensor” or “shutter sensor” function

No.	Type	Object name	Function
0	1 bit	Input A/B -short signal	Telegr. switch
1	4 bit	Input A/B -long signal	Telegr. relative dimming
2	1 bit	Input C/D -short signal	Telegr. lamella adj./stop
3	1 bit	Input C/D -long signal	Telegr. move shutter Up-Down

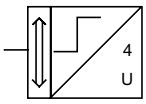
Communication objects
for “switch sensor” function

No.	Type	Object name	Function
0	1 bit	Input A/B	Telegr. switch
2	1 bit	Input C/D	Telegr. switch

Parameters
The default setting for the values is **printed in bold type.**

Common for all inputs:	
– Contact type	**normally opened contact** normally closed contact
– Input signal interpreted as long from	0.4 s / **0.5 s** / 0.6 s / 0.8 s / 1 s / 1.2 s / 1.5 s / 2 s
– For cyclic sending telegram is repeated every	0.4 s / **0.5 s** / 0.6 s / 0.8 s / 1 s / 1.2 s / 1.5 s / 2 s
– Debounce time	10 ms / 30 ms / **50 ms** / 100 ms
– Limit number of telegrams	**yes** / no
– Max. number of telegrams in 17 s	30 / 60 / 100 / **127**
For input A/B:	
– Function of input A/B	**switch/dimming sensor (stop telegr.)** switch/dimming sensor (dimming steps) switch sensor
– Reaction on short signal	**A = ON, B = OFF** A = OFF, B = ON A = TOGGLE, B = TOGGLE
– Reaction on long signal	**A= brighter, B = darker**
– Change brightness if long signal by	**100 %** / 50 % / 25 % / … / 1.56 %
For input pair C/D:	
– Function	**shutter sensor** switch sensor
Only if “shutter sensor” is selected:	
– Reaction on short signal (lamella adjustment)	**C = OFF (UP), D = ON (DOWN)** C = ON (DOWN), D = OFF (UP) C = TOGGLE, D = TOGGLE
– Reaction on long signal (shutter up/down)	**C = UP, D = DOWN** C = DOWN, D = UP
Only if “switch sensor” is selected:	
– Reaction on signal (switch telegram)	**C = OFF (UP), D = ON (DOWN)** C = ON (DOWN), D = OFF (UP) C = TOGGLE, D = TOGGLE

Switch Dim Shutter /5



Selection in ETS2

– ABB
  └Input
    └Binary input, 4-fold

The application program is specifically for use with push buttons. Inputs A and B or C and D are combined. The input pair A/B can be used for switching and/or dimming a group of luminaires. The input pair C/D can either be used for switching or shutter control.

Depending on their function, the inputs are connected to either a serial push button or a shutter switch. The common parameter “Contact type” applies to all the inputs and indicates whether normally opened or normally closed contacts have been connected.

The parameter “Debounce time” determines how long a contact must be pressed in order for the device to accept the push button action as valid.

Switch

With the parameter “Reaction on short/long signal”, the user can determine both the switching and dimming function. Normally, the binary input switches on when the push button on input A is pressed briefly and switches off when the push button on input B is pressed. Alternatively, the binary input can toggle both times.

Dim

If a push button is pressed for longer than the period set in the parameter “Input signal interpreted as long from”, the binary input dims by the value indicated in the parameter “Change brightness if long signal by”. A “Stop dimming” telegram is sent when the push button is released. If the function “Step dimming” is active, the dimming telegram is repeated at the set interval for the duration of the push button action.

Shutter

In the default setting “shutter sensor” for the pair of inputs C/D, the binary input sends “Adjust lamella/stop” telegrams when the push button is pressed for a short period and “Move shutter up/down” telegrams when it is pressed for a short period. It is also possible to designate which push button is used for UP or DOWN.

The input pair C/D can also be assigned parameters for the “switch sensor” function.There is then a separate communication object for each push button. The normal function for both inputs is to toggle at each push button action.

If required, the user can also set the reaction for one or both push buttons to short or long push button actions.

To prevent the bus being put under load with too many unnecessary telegrams, it is possible to limit the number of telegrams that the device can send in 17 s.

Communication objects
for “switch/dimming sensor” and “shutter sensor” functions

No.	Type	Object name	Function
0	1 bit	Input A/B -short signal	Telegr. switch
1	4 bit	Input A/B -long signal	Telegr. relative dimming
2	1 bit	Input C/D -short signal	Telegr. lamella adj./stop
3	1 bit	Input C/D -long signal	Telegr. move shutter Up-Down

Communication objects
for “switch sensor” function

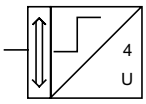
No.	Type	Object name	Function
0	1 bit	Input A/B -short signal	Telegr. switch
1	4 bit	Input A/B -long signal	Telegr. relative dimming
2	1 bit	Input C	Telegr. switch
3	1 bit	Input D	Telegr. switch

Parameters
The default setting for the values is **printed in bold type.**

4

Common for all inputs:	
– Contact type	**normally opened contact** normally closed contact
– Debounce time	10 ms / 30 ms / **50 ms** / 100 ms
– Limit number of telegrams	**yes** / no
– Max. number of telegrams in 17 s	30 / 60 / 100 / **127**
For input A/B:	
– Function of input A/B	**switch/dimming sensor**
– Reaction on short/long signal	**A = ON, B = OFF / Start-stop dimming** A = ON, B = OFF / Step dimming A = TOGGLE, B = TOGGLE / Start-stop dimming A = TOGGLE, B = TOGGLE / Step dimming
– Change brightness if long signal by	**100 %** / 50 % / 25 % / … / 1.56 %
– Input signal interpreted as long from	0.3 s / 0.4 s / **0.5 s** / 0.6 s / 0.8 s / 1 s / 1.2 s / 1.5 s / 2 s / 5 s
– For step dimming telegram is repeated every	0.3 s / 0.4 s / **0.5 s** / 0.6 s / 0.8 s / 1 s / 1.2 s / 1.5 s / 2 s / 5 s
For input C/D:	
– Function	**shutter sensor** switch sensor
Only if “shutter sensor” is selected:	
– Reaction on short signal (lamella adjustment)	C = ON (DOWN), D = OFF (UP) **C = OFF (UP), D = ON (DOWN)** C = ON, D = ON (only switch mode) C = OFF, D = OFF (only switch mode)
– Reaction on long signal (shutter up/down)	C = ON (DOWN), D = OFF (UP) **C = OFF (UP), D = ON (DOWN)** C = ON, D = ON (only switch mode) C = OFF, D = OFF (only switch mode)
– Input signal interpreted as long from	0.3 s / 0.4 s / **0.5 s** / 0.6 s / 0.8 s / 1 s / 1.2 s / 1.5 s / 2 s / 5 s
Only if “switch sensor” is selected:	
– Reaction on signal	for shutter: C/D (short signal; long) **C = TOGGLE, D = TOGGLE** C = TOGGLE, D (short signal) C (short signal), D = TOGGLE C (short signal), D (short signal) C/D (short signal; long)
– Reaction on short signal (switch) -only comes into effect if “short signal” has been assigned	**C = ON (DOWN), D = OFF (UP)** C = OFF (UP), D = ON (DOWN) C = ON, D = ON (only switch mode) C = OFF, D = OFF (only switch mode)
– Reaction on long signal (switch)	**C = ON (DOWN), D = OFF (UP)** C = OFF (UP), D = ON (DOWN) C = ON, D = ON (only switch mode) C = OFF, D = OFF (only switch mode)
– Input signal interpreted as long from	0.3 s / 0.4 s / **0.5 s** / 0.6 s / 0.8 s / 1 s / 1.2 s / 1.5 s / 2 s / 5 s

Value Edge Cyclic /1



Selection in ETS2

– ABB
  └Input
    └Binary input, 4-fold

The application program is specifically for use with push buttons or switch contacts.

Value

The binary input has a 1 byte communication object for each input with which e.g. the dimmer actuator can be controlled.

Edge

It can be determined separately for each input whether it evaluates the rising and/or falling pulse edge. In addition, the value of each object can be set separately on both pulse edges.

Cyclic

A common time for the inputs to send telegrams cyclically can be specified for all the channels using the two parameters of “Time base” and “Factor”. Using the parameter “Cyclic sending”, it is also possible to determine separately for each input whether it actually sends telegrams cyclically.

Similarly, a common delay time can be assigned which can then be used separately for each input.

To prevent the bus being put under load with too many unnecessary telegrams, it is possible to limit the number of telegrams that the device can send in 17 s.

4

Communication objects

No.	Type	Object name	Function
0	1 byte	Input A	Telegr. value
1	1 byte	Input B	Telegr. value
2	1 byte	Input C	Telegr. value
3	1 byte	Input D	Telegr. value
4	1 bit	Input A … D	Activation

Parameters
The default setting for the values is **printed in bold type.**

Common for all inputs:	
– Time base for delay time	130 ms / … / **4.2 s** / … / 1.2 h
– Factor for delay time (2 … 127)	**127**
– Time base for cyclic sending	130 ms / … / **8.4 s** / … / 1.2 h
– Factor for cyclic sending (2 … 127)	**127**
- Limit number of telegrams	**yes** / no
- Max. number of telegrams in 17 s	**30** / 60 / 100 / 127
Separate for each input:	
– Delay time activated	**no** / yes
– Cyclic sending	**no** / yes
– Evaluate falling pulse edge	no / **yes**
– Evaluate rising pulse edge	no / **yes**
– Value on rising pulse edge (0 … 255)	**200**
– Value on falling pulse edge (0 … 255)	**55**

4