

The binary input is a DIN rail mounted device for insertion in the distribution board. It is connected to the EIB via a bus connecting terminal. No additional power supply is required.

It is used for connecting 6 conventional switch or push button contacts with a signal voltage of 24 V. The status of the inputs is displayed by yellow LEDs.

The binary input can be used e.g. for switching, shutter control, dimming or for assigning 1 byte values for dimming actuators.

Inputs A and B, C and D or E and F are combined for dimming and shutter control.

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Technical Data

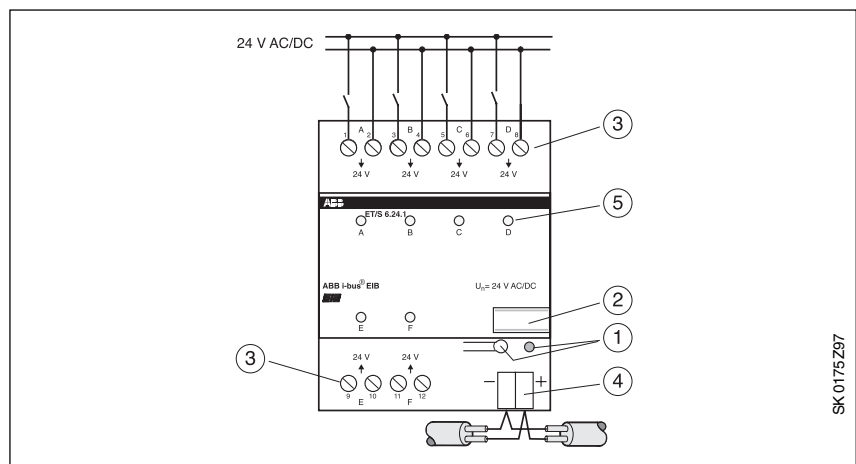
Power supply	– EIB	24 VDC, via the bus line
Inputs	– 6, isolated	
	– Signal voltage	24 V AC/DC
	– Input current	3 mA
	– Signal level for “0” signal	0 ... 12 V AC 0 ... 14 V DC
	– Signal level for “1” signal	14 ... 32 V AC 16 ... 32 V DC
Operating and display elements	– Max. cable length	100 m
	– red LED and push button	for assigning the physical address
Connections	– 6 yellow LEDs	Status display
	– Signal cables	two screw terminals each Wire range 0.5 ... 2.5 mm ²
Type of protection	– EIB	Bus connecting terminal (supplied)
	– IP 20, EN 60 529	
Ambient temperature range	– Operation	- 5 °C ... 45 °C
	– Storage	-25 °C ... 55 °C
	– Transport	-25 °C ... 70 °C
Design	– modular installation device, proM	
Housing, colour	– Plastic housing, grey	
Mounting	– on 35 mm mounting rail, DIN EN 50022	
Dimensions	– 90 x 72 x 64 mm (H x W x D)	
Mounting depth/width	– 68 mm / 4 modules at 18 mm	
Weight	– 0.16 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 Edge /5	6	12	13
Switch Edge Cyclic /2	6	9	9
Switch Edge Cyclic /4	6	9	6
Switch Edge Cyclic /5	6	7	7
Switch Dim /8	6	7	8
Shutter /3	6	11	12
Switch Shutter /8	6	7	8
Switch Dim Shutter /6	6	7	8
Switch Dim Shutter /7	6	7	8
Value Edge Cyclic /3	6	7	7
4*Switch 1*Shutter/1	6	8	9

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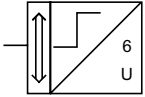
Circuit diagram



1 Programming push button/LED
2 Label holder

3 Input terminals
4 Bus connecting terminal
5 Status LEDs

Switch Edge /5



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Selection in ETS2

- ABB
 - └ Input
 - └ Binary input, 6-fold

Communication objects

Parameters

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

Switch

The application program is specifically for use with switches or push buttons. For each of the six channels there is a communication object that can send switching telegrams.

The parameter “Debounce time” determines for all the inputs how long a contact must be operated in order for the device to accept the push button action as valid. So that the bus is not put under load with too many unnecessary telegrams, it is possible to limit the number of telegrams that the devices can send in 17 s.

Edge

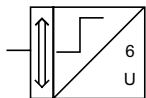
Using the parameter “Reaction on signal”, it is possible to set the value of the communication object for each input according to a rising and/or falling signal edge.

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No.	Type	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
4	1 bit	Input E	Telegr. switch
5	1 bit	Input F	Telegr. switch

Common for all inputs:	
- Limit number of telegrams	yes / no
- Max. number of telegrams in 17 s	30 / 60 / 100 / 127
Separate for each input:	
- Reaction on signal	rising: ON rising: OFF rising: TOGGLE falling: ON falling: OFF falling: TOGGLE rising: ON, falling: OFF rising: OFF, falling: ON rising: TOGGLE, falling: TOGGLE no function
- Factor for debounce (1 ... 127)	5
- Time base for debounce time	130 ms / 260 ms / ... / 4.2 s

Switch Edge Cyclic /2



4 Selection in ETS2

- ABB
 - └ Input
 - └ Binary input, 6-fold

Communication objects

Switch

The application program is specifically for use with switches or push buttons. For each of the six channels there is a communication object that can send switching telegrams.

The parameter "Debounce time" determines for all the inputs how long a contact must be operated in order for the device to accept the push button action as valid. So that the bus is not put under load with too many unnecessary telegrams, it is possible to limit the number of telegrams that the devices can send in 17 s.

Edge

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

Cyclic

The inputs can repeat the telegrams at specified intervals. The repetition is carried out dependent on the object value. The parameter "Cyclical sending" is used for this. The time for cyclical sending is then set using the two parameters of "Time base" and "Factor".

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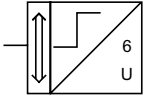
Parameters

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

No.	Type	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
4	1 bit	Input E	Telegr. switch
5	1 bit	Input F	Telegr. switch

Common for all inputs:	
- Debounce time	10 ms / 30 ms / 60 ms / 90 ms / 120 ms
- Limit number of telegrams	ja / nein
- Max. number of telegrams in 17 s	30 / 60 / 100 / 127
Separate for each input:	
- Reaction on signal	rising: ON rising: OFF rising: TOGGLE falling: ON falling: OFF falling: TOGGLE rising: ON, falling: OFF rising: OFF, falling: ON rising: UM, falling: UM no function
- Cyclical sending	no cyclical sending cyclical sending if ON cyclical sending if OFF cyclical sending if ON or OFF
only applies to cyclical sending	
- Factor for cyclical sending (5 ... 127)	5
- Time base for cyclical sending	130 ms / 260 ms / ... / 1.2 h

Switch Edge Cyclic /4



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Selection in ETS2

- ABB
 - ↳ Input
 - ↳ Binary input, 6-fold

Switch

The application program enables the interrogation of static switch contacts or dynamic push button contacts. For each of the six channels there is a communication object available which can send switching telegrams.

The parameter “Debounce time” determines for all the inputs how long a contact must be operated in order for the device to accept the push button action as valid. So that the bus is not put under load with too many unnecessary telegrams, it is possible to limit the number of telegrams that the devices can send in 17 s.

Edge

Using the parameter “Reaction on signal”, it is possible to define which state the objects should adopt on rising or falling edge.

The parameters “Send on change of object to ...” define whether status changes are directly transmitted on the bus. It is possible to set the sending conditions “yes” or “no” separately for the two options “... to OFF” and “... to ON”.

If cyclical sending is activated, the object value is updated within the cyclic period and then sent out.

Cyclic

The inputs can repeat the telegrams at specified intervals. The repetition is carried out dependent on the object value. The parameter “Cyclical sending” is used for this. The time for cyclical sending is then set using the two parameters of “Time base ...” and “Factor ...”.

If “cyclical sending if ON or OFF” is selected, two different cyclical periods can be set. The periods have one factor for cyclical sending for ON and one for OFF. The time base in this case refers to both factors.

If “no cyclical sending” is selected, it is possible to specify with an additional parameter whether the current object value should be sent after bus voltage recovery.

Bus voltage failure/recovery

After bus voltage recovery, the current input states are determined and sent on the bus. The transmission is not carried out immediately but after defined periods. The periods are separate for each input and are composed of a base time and factor.

The base that was set for the respective channel for cyclical sending is used as the time base. If cyclical sending has been deactivated for the channel, the relevant input automatically adopts a base of 260 ms. The factors are preset internally at fixed values. Inputs A and B have the factor “0”, inputs C and D have the factor “1” while inputs E and F have the factor “2”.

This means that if time-critical or security-related states should be queried after bus voltage recovery, they should be placed at inputs A or B as these inputs send without a delay. Input states that are less significant can then be placed at inputs C to F.

If the parameter “Limit number of telegrams” is activated, the first telegram after bus voltage recovery is only sent with the current input state after 17 s.

If an input state should not be sent out after bus voltage recovery, this is only possible if cyclical sending has been deactivated and the parameter “Send object value on bus voltage recovery” has also been set to “no”.

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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
4	1 bit	Input E	Telegr. switch
5	1 bit	Input F	Telegr. switch

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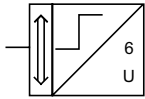
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Parameters

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

Common for all inputs:	
- Debounce time	10 ms / 30 ms / 60 ms / 90 ms / 120 ms
- Limit number of telegrams	yes / no
Only if "yes" is selected:	
- Max. number of telegrams in 17 s	30 / 60 / 100 / 127
Separate for each input:	
- Reaction on signal	rising: ON, falling: OFF rising: OFF, falling: ON
- Send on change of object to OFF	yes no
- Send on change of object to ON	yes no
- Cyclical sending	no cyclical sending cyclical sending if ON cyclical sending if OFF cyclical sending if ON or OFF
Only if "no cyclical sending" is selected:	
- Send object value on bus voltage recovery	yes no
Only if cyclical sending is selected:	
- Time base for cyclical sending	130 ms / 260 ms / ... / 1,2 h
Only for "cyclical sending if ON":	
- Factor for cyclical sending ON (5 ... 126)	5
Only for "cyclical sending if OFF":	
- Factor for cyclical sending OFF (5 ... 126)	5
Only for "cyclical sending if ON or OFF":	
- Factor for cyclical sending ON (5 ... 126)	5
- Factor for cyclical sending OFF (5 ... 126)	5

Switch Edge Cyclic /5



4 Selection in ETS2

- ABB
 - └ Input
 - └ Binary input, 6-fold

Switch

The application program enables the interrogation of static switch contacts or dynamic push button contacts. For each of the six channels there is a communication object available which can send switching telegrams.

The parameter “Debounce time” determines for all the inputs how long a contact must be operated in order for the device to accept the push button action as valid. So that the bus is not put under load with too many unnecessary telegrams, it is possible to limit the number of telegrams that the devices can send in 17 s.

Edge

Using the parameter “Reaction on signal”, it is possible to define which state the objects should adopt on rising or falling edge.

The parameters “Send on change of object to ...” define whether status changes are directly transmitted on the bus. It is possible to set the sending conditions “yes” or “no” separately for the two options “... to OFF” and “... to ON”.

If cyclical sending is activated, the object value is updated within the cyclic period and then sent out.

Cyclic

The inputs can repeat the telegrams at specified intervals. The repetition is carried out dependent on the object value. The parameter “Cyclical sending” is used for this. The time for cyclical sending is then set using the two parameters of “Time base ...” and “Factor ...”. The base is set with the common parameter “Time base for cyclical sending”.

If “cyclical sending if ON or OFF” is selected, two different cyclical periods can be set. The periods have one factor for cyclical sending for ON and one for OFF. The time base in this case refers to both factors.

Bus voltage failure/recovery

If the parameter “Send object value on bus voltage recovery” has been set to “yes”, the current input states are determined after bus voltage recovery and sent on the bus. The transmission is not carried out immediately but after defined periods. The periods are separate for each input and are composed of a base time and factor.

The base again refers to the common parameter “Time base for cyclical sending”. A predefined setting of 260 ms is selected. The factors are defined with the setting “Factor for sending on bus voltage recovery”.

This means that if time-critical or security-related states should be queried after bus voltage recovery, the smallest possible factor should be set at these inputs to enable a rapid transmission. Larger factors can be selected for input states that are less significant.

If the parameter “Limit number of telegrams” is activated, the first telegram after bus voltage recovery is only sent with the current input state after 17 s. If several inputs should send their object values after bus voltage recovery, another sending delay should be set for each input which is longer than 17 s.

Example:

The inputs A, B and E should send their object values on bus voltage recovery. The sending delay for input A is defined as 18 s, as 19 s for input B and 20 s for input C.

If an input state should not be sent out after bus voltage recovery, this is only possible if cyclical sending has been deactivated and the parameter “Send object value on bus voltage recovery” has also been set to “no”.

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
4	1 bit	Input E	Telegr. switch
5	1 bit	Input F	Telegr. switch

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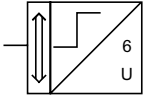
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Parameters

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

Common for all inputs:	
- Debounce time	10 ms / 30 ms / 60 ms / 90 ms / 120 ms
- Limit number of telegrams	ja / nein
Only if "yes" is selected:	
- Max. number of telegrams in 17 s	30 / 60 / 100 / 127
Separate for each input:	
- Reaction on signal	rising: ON, falling: OFF rising: OFF, falling: ON
- Send on change of object to OFF	yes no
- Send on change of object to ON	yes no
- Time base for cyclical sending	130 ms / 260 ms / 520 ms / ... / 1.2 h.
- Cyclical sending	no cyclical sending cyclical sending if ON cyclical sending if OFF cyclical sending if ON or OFF
Only for "cyclical sending if ON":	
- Factor for cyclical sending ON (5 ... 126)	5
Only for "cyclical sending if OFF":	
- Factor for cyclical sending OFF (5 ... 126)	5
Only for "cyclical sending if ON or OFF":	
- Factor for cyclical sending ON (5 ... 126)	5
- Factor for cyclical sending OFF (5 ... 126)	5
- Send object value on bus voltage recovery	yes no
Only if "yes" is selected (input A / (B) / (C) / (D) / (E) / (F)):	
- Factor for sending on bus voltage recovery (0...126)	1 / (2) / (3) / (4) / (5) / (6)

Switch Dim /8



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Selection in ETS2

- ABB
 - └ Input
 - └ Binary input, 6-fold

The application program is specifically for use with push buttons. Inputs A and B, C and D and E and F are combined to make three pairs of inputs.

The parameter “Debounce time” determines for all the inputs how long a contact must be operated in order for the device to accept the push button action as valid. So that the bus is not put under load with too many unnecessary telegrams, it is possible to limit the number of telegrams that the devices can send in 17 s.

The following description of the function of the pair of inputs A/B applies equally to C/D and E/F.

The parameter “Contact type” indicates whether normally closed or normally opened contacts have been connected.

Switch

When there is a short signal on input A, the binary input sends an “On” telegram. It sends an “Off” telegram when there is a short signal on input B. This assignment cannot be changed.

Dim

When there is a long signal on input B, the binary input sends a “Dim brighter” telegram. A “Dim darker” telegram is sent when there is a long signal on input B. This assignment can also not be changed. The time by which the binary input recognises a long signal, is set using the parameter “Factor for long signal”. The time base for this is set at 130 ms.

In the default setting, the binary input functions in a start/stop mode. The parameter “Change brightness on long signal by” is then fixed at “100%”. At the end of the long signal, the binary input sends a “Stop dimming” telegram. If the parameter “Function” is set to “dimming sensor (dimming steps)”, the binary input sends new dimming telegrams cyclically as long as the signal is applied. In this case the number of dimming steps must be specified in the parameter “Change brightness on long signal by”. The time intervals at which the binary input repeats the dimming telegrams are set in the parameter “Factor for cyclical sending”. The time base is 130 ms.

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Communication objects

No.	Type	Name	Function
0	1 bit	Input A/B -short signal	Telegr. switch
1	1 bit	Input C/D -short signal	Telegr. switch
2	1 bit	Input E/F -short signal	Telegr. switch
3	4 bit	Input A/B -long signal	Telegr. relative dimming
4	4 bit	Input C/D -long signal	Telegr. relative dimming
5	4 bit	Input E/F -long signal	Telegr. relative dimming

Parameters

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

Common for all inputs:

– Debounce time 10 ms / **30 ms** / 60 ms / 90 ms / 120 ms

– Limit number of telegrams ja / **nein**

– Max. number of telegrams in 17 s 30 / 60 / 100 / **127**

Separate for inputs A/B, C/D and E/F:

– Contact type normally opened contact
normally closed contact

– Function **dimming sensor (start/stop teleg.)**
dimming sensor (dimming steps)

– Reaction on short signal **A = ON, B = OFF**

– Reaction on long signal **A = brighter, B = darker**

– Change brightness on long signal by **100 % / 50 % / 25 % / ... / 1.56 %**

– Factor for long signal (1 ... 127) **8**

Time base: 130 ms

only applies to “dimming steps” function:

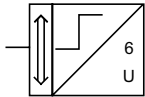
– Factor for cyclical sending **5**

(1 ... 127) Time base: 130 ms

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Shutter /3



4 Selection in ETS2

- ABB
 - └ Input
 - └ Binary input, 6-fold

The application program is specifically for use with push buttons. Inputs A and B, C and D and E and F are combined to make three pairs of inputs.

The parameter “Debounce time” determines for all the inputs how long a contact must be operated in order for the device to accept the push button action as valid. So that the bus is not put under load with too many unnecessary telegrams, it is possible to limit the number of telegrams that the devices can send in 17 s.

The following description of the function of the pair of inputs A/B applies equally to C/D and E/F.

The parameter “Contact type” indicates whether normally closed or normally opened contacts have been connected.

Shutter

If there is a short signal on input A, the binary input sends a telegram to lower the shutter completely. If there is a short signal on input B, it sends a telegram to raise the shutter completely. When there is a long signal on input A, it cyclically sends telegrams to lower the shutter step-by-step. It sends telegrams to raise the shutter step-by-step when there is a long signal on input B. This assignment cannot be changed.

The time by which the binary input recognises a long signal is set using the parameter “Factor for long signal”. The time base for this is set at 130 ms.

The binary input repeats telegrams for lamella adjustment for the period that the input is operated. Each pair of inputs has the parameter “Factor for cyclical sending” for setting the cyclic time with a fixed time base of 130 ms. The specified time must match the parameters of the shutter actuator so that it is possible to adjust the lamella precisely.

Communication objects

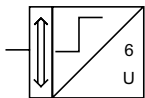
No.	Type	Name	Function
0	1 bit	Input A/B -short signal	Telegr. move shutter Up-Down
1	1 bit	Input C/D -short signal	Telegr. move shutter Up-Down
2	1 bit	Input E/F -short signal	Telegr. move shutter Up-Down
3	1 bit	Input A/B -long signal	Telegr. lamella adj./stop
4	1 bit	Input C/D -long signal	Telegr. lamella adj./stop
5	1 bit	Input E/F -long signal	Telegr. lamella adj./stop

Parameters

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

Common for all inputs:	
- Debounce time	10 ms / 30 ms / 60 ms / 90 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, C/D and E/F:	
- Contact type	normally opened contact normally closed contact
- Reaction on short signal (move shutter)	A = DOWN, B = UP
- Reaction on long signal (lamella adj.)	A = DOWN, B = UP
- Factor for long signal (1 ... 127)	8
Time base: 130 ms	
- Cyclical sending is required for the lamella adjustment	NOTE
- Factor for cyclical sending (1 ... 127)	5
Time base: 130 ms	

Switch Shutter /8



4

Selection in ETS2

- ABB
 - └ Input
 - └ Binary input, 6-fold

Inputs A and B and C und D are combined into two pairs of inputs and each connected to a shutter switch. Inputs E and F can either be used individually or connected with switch contacts or push button contacts.

The parameter “Debounce time” determines for all the inputs how long a contact must be operated in order for the device to accept the push button action as valid. So that the bus is not put under load with too many unnecessary telegrams, it is possible to limit the number of telegrams that the devices can send in 17 s.

Switch

Inputs E and F each have a communication object, that can send switching telegrams. The reaction of the binary input to rising and falling signal edges can be set separately for both inputs.

Shutter

The following description of the function of the pair of inputs A/B equally applies to C/D.

The parameter “Contact type” indicates whether normally opened or normally closed contacts have been connected.

If there is a short signal on input A, the binary input sends a telegram to lower the shutter completely. If there is a short signal on input B, it sends a telegram to raise the shutter completely. When there is a long signal on input A, it cyclically sends telegrams to lower the shutter step-by-step. It sends telegrams to raise the shutter step-by-step when there is a long signal on input B. This assignment cannot be changed.

The time by which the binary input recognises a long signal is set using the parameter “Factor for long signal”. The time base for this is set at 130 ms.

The binary input repeats telegrams for lamella adjustment for the period that the input is operated. Each pair of inputs has the parameter “Factor for cyclical sending” for setting the cyclic time with a fixed time base of 130 ms. The specified time must match the parameters of the shutter actuator so that it is possible to adjust the lamella precisely.

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Communication objects

No.	Type	Name	Function
0	1 bit	Input A/B -short signal	Telegr. move shutter Up-Down
1	1 bit	Input C/D -short signal	Telegr. move shutter Up-Down
2	1 bit	Input E	Telegr. switch
3	1 bit	Input F	Telegr. switch
4	1 bit	Input A/B -long signal	Telegr. lamella adj./stop
5	1 bit	Input C/D -long signal	Telegr. lamella adj./stop

Parameters

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

Common for all inputs:

- Debounce time 10 ms / **30 ms** / 60 ms / 90 ms / 120 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:

- Contact type **normally closed contact**
normally opened contact
- Reaction on short signal (move shutter) **A = DOWN, B = UP**
- Reaction on long signal (lamella adj.) **A = DOWN, B = UP**
- Factor for long signal (5 ... 127) **8**
Time base: 130 ms
- Cyclical sending is required for the lamella adjustment NOTE
- Factor for cyclical sending (1 ... 127) Time base: 130 ms **5**

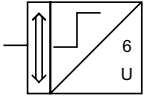
Separate for inputs E and F:

- rising edge **no function**
ON
OFF
TOGGLE
- falling edge **no function**
ON
OFF
TOGGLE

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Switch Dim Shutter /6



4

Selection in ETS2

- ABB
 - └ Input
 - └ Binary input, 6-fold

The application program is specifically for use with push buttons. Inputs A and B, C and D and E and F are combined. The two pairs of inputs A/B and C/D are used for switching and dimming while the pair of inputs E/F serves for shutter control.

The parameter “Debounce time” determines for all the inputs how long a contact must be operated in order for the device to accept the push button action as valid. So that the bus is not put under load with too many unnecessary telegrams, it is possible to limit the number of telegrams that the devices can send in 17 s.

The parameter “Contact type” indicates for each pair of inputs whether normally opened or normally closed contacts have been connected.

The following description of the function of the pair of inputs A/B also applies to C/D.

Switch

When there is a short signal on input A, the binary input sends an “On” telegram. It sends an “Off” telegram when there is a short signal on input B. This assignment cannot be changed.

Dim

When there is a long signal on input B, the binary input sends a “Dim brighter” telegram. A “Dim darker” telegram is sent when there is a long signal on input A. This assignment can also not be changed. The time by which the binary input recognises a long signal, is set using the parameter “Factor for long signal”. The time base for this is set at 130 ms.

In the default setting, the binary input functions in a start/stop mode.

The parameter “Change brightness on long signal by” is then fixed at “100%”. At the end of the long signal, the binary input sends a “Stop dimming” telegram. If the parameter “Function” is set to “dimming sensor (dimming steps)”, the binary input sends new dimming telegrams cyclically as long as the signal is applied. In this case the number of dimming steps must be specified in the parameter “Change brightness on long signal by”. The time intervals at which the binary input repeats the dimming telegrams are set in the parameter “Factor for cyclical sending”. The time base is 130 ms.

Shutter

If there is a short signal on input A, the binary input sends a telegram to lower the shutter completely. If there is a short signal on input B, it sends a telegram to raise the shutter completely. When there is a long signal on input A, it cyclically sends telegrams to lower the shutter step-by-step. It sends telegrams to raise the shutter step-by-step when there is a long signal on input B. This assignment cannot be changed.

The time by which the binary input recognises a long signal is set using the parameter “Factor for long signal”. The time base for this is set at 130 ms.

The binary input repeats telegrams for lamella adjustment for the period that the input is operated. Each pair of inputs has the parameter “Factor for cyclical sending” for setting the cyclic time with a fixed time base of 130 ms. The specified time must match the parameters of the shutter actuator so that it is possible to adjust the lamella precisely.

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Communication objects

No.	Type	Name	Function
0	1 bit	Input A/B -short signal	Telegr. switch
1	1 bit	Input C/D -short signal	Telegr. switch
2	1 bit	Input E/F short signal	Telegr. move shutter Up-Down
3	4 bit	Input A/B -long signal	Telegr. relative dimming
4	4 bit	Input C/D -long signal	Telegr. relative dimming
5	1 bit	Input E/F -long signal	Telegr. lamella adj./stop

4

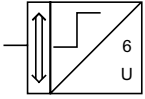
4

Parameters

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

Common for all inputs:	
- Debounce time	10 ms / 30 ms / 60 ms / 90 ms / 120 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:	
- Contact type	normally opened contact normally closed contact
- Function	dimming sensor (start/stop telegr.) dimming sensor (dimming steps)
- Reaction on short signal	A = ON, B = OFF
- Reaction on long signal	A = brighter, B = darker
- Change brightness on long signal by	100 % / 50 % / 25 % / ... / 1.56 %
- Factor for long signal (1 ... 127)	8
Time base: 130 ms	
only applies to "dimming steps" function:	
- Factor for cyclical sending (1 ... 127) Time base: 130 ms	5
For input E/F:	
- Contact type	Öffner Schließer
- Reaction on short signal (move shutter)	E = DOWN, F = UP
- Reaction on long signal (lamella adj.)	E = DOWN, F = UP
- Factor for long signal (1 ... 127)	8
Time base: 130 ms	
- Cyclical sending is required for the lamella adjustment	NOTE
- Factor for cyclical sending (1 ... 127) Time base: 130 ms	5

Switch Dim Shutter /7



4 Selection in ETS2

- ABB
 - └ Input
 - └ Binary input, 6-fold

The application program is specifically for use with push buttons. Inputs A and B, C and D and E and F are combined in pairs. The two pairs of inputs A/B and C/D are used for shutter control while the pair of inputs E/F serves for switching and dimming.

The parameter “Debounce time” determines for all the inputs how long a contact must be operated in order for the device to accept the push button action as valid. So that the bus is not put under load with too many unnecessary telegrams, it is possible to limit the number of telegrams that the devices can send in 17 s.

The parameter “Contact type” indicates for each pair of inputs whether normally closed or normally opened contacts have been connected.

Switch

When there is a short signal on input E, the binary input sends an “On” telegram. It sends an “Off” telegram when there is a short signal on input F. This assignment cannot be changed.

Dim

When there is a long signal on input E, the binary input sends a “Dim brighter” telegram. A “Dim darker” telegram is sent when there is a long signal on input F. This assignment can also not be changed. The time by which the binary input recognises a long signal, is set using the parameter “Factor for long signal”. The time base for this is set at 130 ms.

In the default setting, the binary input functions in a start/stop mode.

The parameter “Change brightness on long signal by” is then fixed at “100%”. At the end of the long signal, the binary input sends a “Stop dimming” telegram. If the parameter “Function” is set to “dimming sensor (dimming steps)”, the binary input sends new dimming telegrams cyclically as long as the signal is applied. In this case the number of dimming steps must be specified in the parameter “Change brightness on long signal by”. The time intervals at which the binary input repeats the dimming telegrams are set in the parameter “Factor for cyclical sending”. The time base is 130 ms.

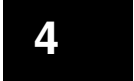
The following description of the function of the pair of inputs A/B applies equally to C/D.

Shutter

If there is a short signal on input A, the binary input sends a telegram to lower the shutter completely. If there is a short signal on input B, it sends a telegram to raise the shutter completely. When there is a long signal on input A, it cyclically sends telegrams to lower the shutter step-by-step. It sends telegrams to raise the shutter step-by-step when there is a long signal on input B. This assignment cannot be changed.

The time by which the binary input recognises a long signal is set using the parameter “Factor for long signal”. The time base for this is set at 130 ms.

The binary input repeats telegrams for lamella adjustment for the period that the input is operated. Each pair of inputs has the parameter “Factor for cyclical sending” for setting the cyclic time with a fixed time base of 130 ms. The specified time must match the parameters of the shutter actuator so that it is possible to adjust the lamella precisely.



Communication objects

No.	Type	Name	Function
0	1 bit	Input A/B -short signal	Telegr. move shutter Up-Down
1	1 bit	Input C/D -short signal	Telegr. move shutter Up-Down
2	1 bit	Input E/F short signal	Telegr. switch
3	4 bit	Input A/B -long signal	Telegr. lamella adj./stop
4	4 bit	Input C/D -long signal	Telegr. lamella adj./stop
5	1 bit	Input E/F -long signal	Telegr. relative dimming

4

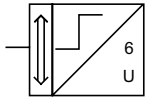
4

Parameters

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

Common for all inputs:	
- Debounce time	10 ms / 30 ms / 60 ms / 90 ms / 120 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:	
- Contact type	normally opened contact normally closed contact
- Reaction on short signal (move shutter)	A = DOWN, B = UP
- Reaction on long signal (lamella adj.)	A = DOWN, B = UP
- Factor for long signal (1 ... 127)	8
Time base: 130 ms	
- Cyclical sending is required for the lamella adjustment	NOTE
- Factor for cyclical sending (1 ... 127)	5
Time base: 130 ms	
For input E/F:	
- Contact type	normally opened contact normally closed contact
- Function	dimming sensor (start/stop telegr.) dimming sensor (dimming steps)
- Reaction on short signal	E = ON, F = OFF
- Reaction on long signal	E = brighter, F = darker
- Change brightness on long signal by	100 % / 50 % / 25 % / ... / 1.56 %
- Factor for long signal (1 ... 127)	8
Time base: 130 ms	
only applies to "dimming steps" function:	
- Factor for cyclical sending (1 ... 127)	5
Time base: 130 ms	

Value Edge Cyclic /3



4 Selection in ETS2

- ABB
 - └ Input
 - └ Binary input, 6-fold

Communication objects

Parameters

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

Value

The application program is specifically for use with switches or push buttons. Each of the six channels has a 1 byte communication object with which e.g. dimmer actuators can be controlled.

The parameter "Debounce time" determines for all the inputs how long a contact must be operated in order for the device to accept the push button action as valid. So that the bus is not put under load with too many unnecessary telegrams, it is possible to limit the number of telegrams that the devices can send in 17 s.

Edge

Dependent on whether the binary input is connected to a switch or a push button, it is possible to specify separately for each input using the parameter "Send value at" whether it sends a telegram when a contact is opened or closed.

The values of the communication objects are set using the parameters "Value on rising edge" or "Value on falling edge".

Cyclic

The inputs can repeat the telegrams at specified intervals. The repetition is carried out for the period that the contact on the input remains opened or closed. The parameter "Cyclical sending" is used for this. The time for cyclical sending is then set using the two parameters of "Time base" and "Factor".

No.	Type	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 byte	Input E	Telegr. value
5	1 byte	Input F	Telegr. value

Common for all inputs:

- Debounce time: 10 ms / **30 ms** / 60 ms / 90 ms / 120 ms
- Limit number of telegrams: yes / **no**
- Max. number of telegrams in 17 s: 30 / 60 / 100 / **127**

Separate for each input:

- Send value at: rising edge / falling edge / rising and falling edge / **no function**

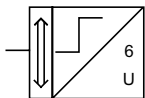
on rising or falling edge:

- Value on rising edge: **0**
- Value on falling edge: **0**
- Sending condition for cyclical sending: **no cyclical sending** / cyclical sending if ON / cyclical sending if OFF / cyclical sending if ON or OFF

only for cyclical sending:

- Time base for cyclical sending: **130 ms** / 260 ms / ... / 1.2 h
- Factor for cyclical sending: **5** (5 ... 127)

4*Switch 1*Shutter /1



4

Selection in ETS2

- ABB
 - └ Input
 - └ Binary input, 6-fold

4

The application program enables four switch functions and one shutter group to be controlled.

The parameter “Debounce time” determines how long a contact must be operated in order for the device to accept the push button action as valid. So that the bus is not 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*Switch

Inputs A ... D can be linked with switches or push buttons. Each input has a 1 bit communication object available.

Depending on the connected contacts, it is possible to determine the reaction of each input to the rising or falling pulse edge.

1*Shutter

The two inputs E and F are linked together for shutter control and combined with a conventional shutter switch.

After a short signal at input E, the binary input sends a telegram to lower the shutters completely. After a short signal at input F, it sends a telegram to raise them completely. The binary input sends telegrams cyclically to lower the shutters step-by-step after a long signal at input E while a long signal at input F causes it to send telegrams cyclically to raise the shutters step-by-step. This assignment cannot be changed.

In the parameter “Factor for long signal” it is possible to specify the time period by which the binary input detects a long signal.

The binary input continues to repeat the telegrams for lamella adjustment until the inputs are no longer operated. To set the cyclical interval, the pair of inputs has the parameter “Factor for cyclical sending” with a fixed time base of 130 ms. The specified period must match the parameters of the shutter actuator so that the lamella can be adjusted precisely.

Communication objects

No.	Type	Object name	Function
0	1 bit	Input A	Teleg. switch
1	1 bit	Input B	Teleg. switch
2	1 bit	Input C	Teleg. switch
3	1 bit	Input D	Teleg. switch
4	1 bit	Input E/F -short signal	Teleg. move shutter Up-Down
5	1 bit	Input E/F -long signal	Teleg. lamella adj./stop

Parameters

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

Common for all inputs:

- Debounce time 10 ms / **30 ms** / 60 ms / 90 ms / 120 ms
- Limit number of telegrams yes **no**
- Max. number of telegrams in 17 s 30 / 60 / 100 / **127**

Separate for inputs A ... D:

- Reaction on pulse edge at input ... rising: ON
rising: OFF
rising: TOGGLE
falling: ON
falling: OFF
falling: TOGGLE
rising: ON, falling: OFF
rising: OFF, falling: ON
rising: TOGGLE, falling: TOGGLE
no function

For input E/F:

- Contact type **normally open contact**
- Reaction on short signal (move shutter) **E = DOWN, F = UP**
- Reaction on long signal (lamella adj.) **E = DOWN, F = UP**
- Factor for long signal (2 ... 127) **8**
Time base: 130 ms
- Cyclical sending is required for the lamella adjustment **NOTE**
- Factor for cyclical sending (1 ... 127) Time base: 130 ms **5**

