ABB i-bus® EIB

4-fold binary input, 230 V, LF
Type: 6156EB-500

SK 0078 B95

The binary input is a built-in device that can be mounted for example in trunking or false ceilings.

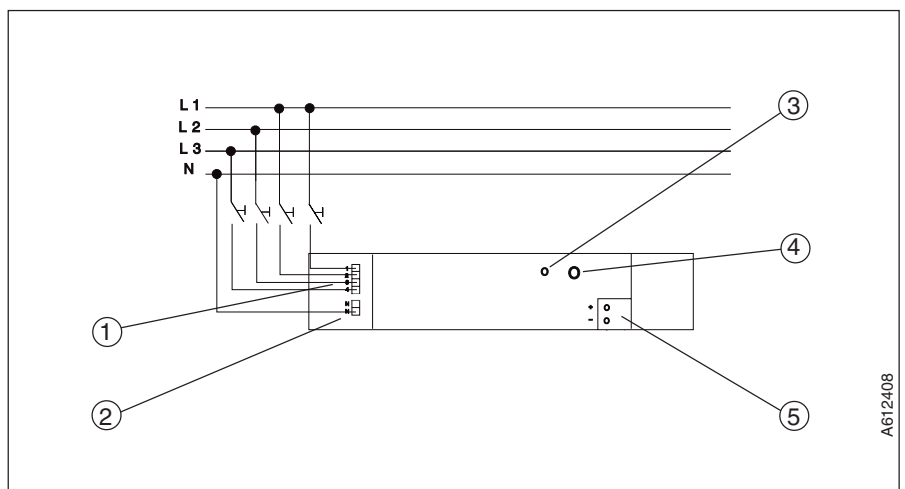It is used for connecting conventional 230 V switch or push button contacts.

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.

Technical Data

Power supply	– EIB	24 VDC, via the bus line
Inputs	– Signal voltage	230 VAC +/– 10 %, 50 Hz
	– Input current	< 4 mA when the contact is closed
	– Signal level for "0" signal	0 … 120 V
	– Signal level for "1" signal	160 … 253 V
	– Max. cable length	100 m
Operating and display elements	– red LED and push button	for assigning the physical address
Connections	– Inputs	Screw terminals Wire range 1 … 2.5 mm²
	– EIB	Pins for bus connecting terminal
Type of protection	– IP 20, EN 60 529	
Ambient temperature range	– Operation	- 5 °C … 45 °C
	– Storage	-25 °C … 55 °C
	– Transport	-25 °C … 70 °C
Design	– Built-in device	
Housing, colour	– Plastic housing, white	
Mounting	– Screw fixing in trunking, false ceilings, …	
Dimensions	– 42 x 240 x 32 mm (H x W x D)	
Weight	– 0.27 kg	
Certification	– EIB-certified	
CE norm	– in accordance with the EMC guideline and the low voltage guideline	

ABB i-bus® EIB

4-fold binary input, 230 V, LF
Type: 6156EB-500

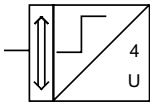| Application programs	Number of communication objects	Max. number of group addresses	Max. number of associations
Switch /1	4	12	12
Switch Dim /1	4	6	6
Switch Shutter /7	4	8	10
Switch Shutter /1	4	6	6
Switch Edge /1	4	15	15
Switch Edge Cyclic /1	4	14	16
Value Edge Cyclic /1	5	8	9
Switch Dim Shutter /1	4	6	6
Switch Dim Shutter /5	4	8	10

Circuit diagram

1 Input terminals
2 Terminal for N-conductor
3 Programming LED
4 Programming push button
5 Bus connecting terminal

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.

ABB i-bus® EIB

4-fold binary input, 230 V, LF
Type: 6156EB-500

Switch /1

Selection in ETS2

– ABB
  └Input
    └Binary input, 4-fold

Switch

The application program is specifically for use with push buttons. The four inputs each have a communication object that can send switching telegrams.

The parameter "Contact type" applies equally 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 operated 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 operated 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 operated for in order for the device to send the appropriate telegram.

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.
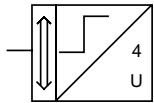
Communication objects

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

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

Common for all inputs:	
Contact type	**normally closed contact**
	normally opened 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

ABB i-bus® EIB

4-fold binary input, 230 V, LF
Type: 6156EB-500

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 and D are combined and linked with a serial push button. The parameter "Contact type" applies equally 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 short or long push button action. The parameter "Reaction on short signal" determines, whether for the two pairs of channels, one input 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.

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 devices can send in 17 s.
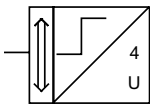
Communication objects
for "switch / dimming sensor" function

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

Parameters
The default value for the settings is **printed in bold type.**

Common for all inputs:	
Contact type	**normally closed contact** normally opened 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 %

ABB i-bus® EIB

4-fold binary input, 230 V, LF
Type: 6156EB-500

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 parameter "Contact type" applies equally to all the inputs and indicates whether normally opened or normally closed contacts have been connected.

Both pairs of inputs can be assigned the function of "shutter sensor" or "switch sensor".

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 after each push button action is to toggle.

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 for a short period and a "Move shutter up/down" telegram when it is pressed for a long 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 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.

Communication objects
for "shutter sensor" function

No.	Type	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	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

ABB i-bus® EIB   **4-fold binary input, 230 V, LF**
Type: 6156EB-500

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

The display of the parameters is
dependent on which of the two
functions ("shutter sensor" or "switch
sensor") has been assigned.

Common for all inputs:	
– Contact type	**normally closed contact**
	normally opened 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	**shutter sensor**
	switch sensor

only applies to "shutter sensor":	
– Reaction on short signal	**A = ON (DOWN), B = OFF (UP)**
(lamella adjustment)	A = OFF (UP), B = ON (DOWN)
	A = ON, B = ON (only switch mode)
	A = OFF, B = OFF (only switch mode)
– Reaction on long signal	**A = ON (DOWN), B = OFF (UP)**
(shutter up/down)	A = OFF (UP), B = ON (DOWN)
	A = ON, B = ON (only switch mode)
	A = OFF, B = OFF (only switch mode)
– Input signal interpreted as	0.4 s / **0.5 s** / 0.6 s / 0.8 s / 1 s /
long from	1.2 s / 1.5 s / 2 s / 5 s

only applies to "switch sensor":	
– 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	**A = ON (DOWN), B = OFF (UP)**
(switch) -only comes into effect	A = OFF (UP), B = ON (DOWN)
if "short signal" has been assigned	A = ON, B = ON (only switch mode)
	A = OFF, B = OFF (only switch mode)
– Reaction on long signal	**A = ON (DOWN), B = OFF (UP)**
(switch)	A = OFF (UP), B = ON (DOWN)
	A = ON, B = ON (only switch mode)
	A = OFF, B = OFF (only switch mode)
– Input signal interpreted as	0.4 s / **0.5 s** / 0.6 s / 0.8 s / 1 s /
long from	1.2 s / 1.5 s / 2 s / 5 s

ABB i-bus® EIB

4-fold binary input, 230 V, LF
Type: 6156EB-500

Switch 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 and each linked to a shutter switch. The parameter "Contact type" applies equally 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 for a short period and a "Move shutter up/down" telegram when it is pressed for a long 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 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.

Communication objects
for "shutter sensor" function

No.	Type	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

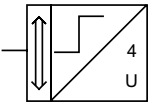| No.	Type	Name	Function
0	1 bit	Input A/B	Telegr. switch
2	1 bit	Input C/D	Telegr. switch

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

The display of the parameters is dependent on which of the two functions ("shutter sensor" or "switch sensor") has been assigned.

Common for all inputs:	
– Contact type	**normally closed contact**
	normally opened 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 applies to "shutter sensor":	
– 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 applies to "switch sensor":	
– Reaction on signal	A = OFF (UP), B = ON (DOWN)
	A = ON (DOWN), B = OFF (UP)
	A = TOGGLE, B = TOGGLE

ABB i-bus® EIB

Switch Edge /1

Selection in ETS2

– ABB
└Input
　└Binary input, 4-fold

Switch

The application program is specifically for use with switches and push buttons. It has a communication object for each of the four inputs that can send switching telegrams.

Edge

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

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 devices can send in 17 s.
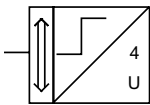
Communication objects

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

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
– 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

ABB i-bus® EIB

4-fold binary input, 230 V, LF
Type: 6156EB-500

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. It has a communication object for each of the four inputs, that can send switching telegrams.

Edge

Using the parameter "Reaction on pulse edge ...", 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 cyclic sending is then set via the two parameters of "Time base" and "Factor".

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 devices can send in 17 s.
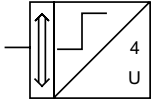
Communication objects

No.	Type	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**

ABB i-bus® EIB

4-fold binary input, 230 V, LF
Type: 6156EB-500

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.

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.

Communication objects

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 bit	Input A … D	Activation

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

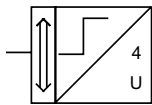| Common for all inputs:	
– Time base for delay time	130 ms / … / **4.2 s** / … / 1.2 h
– Factor for delay time (2 … 127)	**127**
– Time base for cyclic sending	130 ms / … / **4.2 s** / … / 1.2 h
– Factor for cyclic sending (2 … 127)	**127**
Limit number of telegrams	**yes** / no
Max. number of telegrams 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)	**200**

ABB i-bus® EIB

4-fold binary input, 230 V, LF
Type: 6156EB-500

Switch Dim Shutter /1

```
┌─────────┐
│ ↑↓  ┌─  │
│ ↕   │  /│
│     │ / │ 4
│     │/  │ U
└─────────┘
```

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 pair of inputs A/B can be used for switching and/or dimming a group of luminaires. The pair of inputs 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 parameter "Contact type" applies equally to all the inputs and indicates whether normally opened or normally closed contacts are connected.

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.

Switch

In the default setting "switch / dimming sensor" for the pair of inputs 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 an "Adjust lamella/stop" telegram when the push button is pressed for a short period and a "Move shutter up/down" telegram 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 for the function of "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.

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.

Communication objects
for "switch / dimming sensor" or "shutter sensor" function

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

ABB i-bus® EIB

4-fold binary input, 230 V, LF
Type: 6156EB-500

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

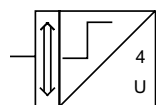| Common for all inputs:	
– Contact type	**normally closed contact** normally opened contact
– Input signal interpreted as long from	0.4 s / **0.5 s** / 0.6 s / 0.8 s / 1 s / 1.2 s / 1.5 s / 2 s
– For cyclic sending telegram is repeated every	0.4 s / **0.5 s** / 0.6 s / 0.8 s / 1 s / 1.2 s / 1.5 s / 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 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 C/D:	
– Function input C/D	**shutter sensor** switch sensor
only applies to "shutter sensor":	
– 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 applies to "switch sensor":	
– Reaction on signal (switch telegram)	**C = OFF (UP), D = ON (DOWN)** C = ON (DOWN), D = OFF (UP) C = TOGGLE, D = TOGGLE

ABB i-bus® EIB

4-fold binary input, 230 V, LF
Type: 6156EB-500

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 pair of inputs A/B can be used for switching and/or dimming a group of luminaires. The pair of inputs 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 parameter "Contact type" applies equally to all the inputs and indicates whether normally opened or normally closed contacts are connected.

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.

Switch

With the parameter "Reaction on short/long signal", the user can determine the switching as well as the dimming function. Normally the binary input switches on when the push button on input A is pressed for a short time 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 long 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 for the function of "switch sensor". 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.

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.

Communication objects
for "switch / dimming sensor" or "shutter sensor" function

No.	Type	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	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

ABB i-bus® EIB

4-fold binary input, 230 V, LF
Type: 6156EB-500

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

Common for all inputs:	
– Contact type	**normally closed contact** normally opened 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 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 input C/D	**shutter sensor** switch sensor
only applies to "shutter sensor":	
– 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 applies to "switch sensor":	
– 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