

12 CO Binary 740C01

Devices Employing the Program

Product family: Controller
 Product type: Controller
 Manufacturer: Siemens

Name: Logic module N301
 Order-no.: SWG1 301-1AB01

Application Description

This application allows you to allocate and 'multiply' received 1 bit switching telegrams and 4 bit dimming telegrams according to the actual status of the select objects.

This feature can be used, to example to forward switching and dimming telegrams from one room section of a lecture hall to another depending on whether partition walls are currently erected or not. The select information required is provided by switching contacts of binary inputs that are connected to the partition walls.

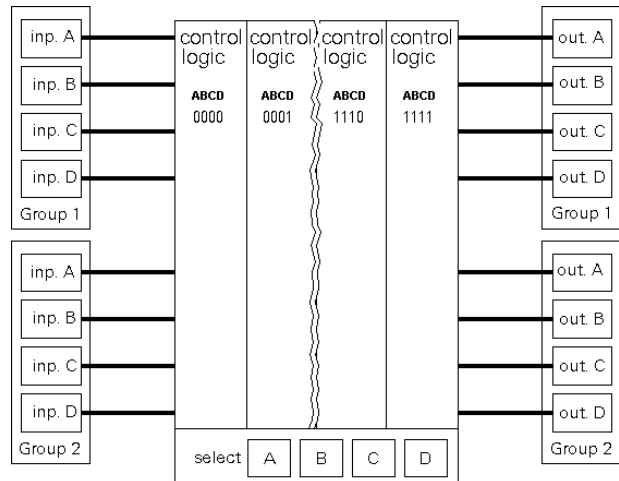
2 times 4 channels are available, divided into group 1 and group 2 where each channel (= object) can send and receive telegrams. 4 select objects are available to the various combinations to allocating telegrams.

Basically, received telegrams are forwarded immediately. The select inputs rule which channels the information is to be passed on to sending. The four select inputs (objects) allow to 16 different combinations:

The four communication objects provide 16 different way of allocating telegrams :

	A	B	C	D	
Select	0	0	0	0	1. Combination
Select	0	0	0	1	2. Combination
Select	0	0	1	0	3. Combination
.....
Select	1	1	0	1	14. Combination
Select	1	1	1	0	15. Combination
Select	1	1	1	1	16. Combination

The parameter list allows you to specify to each channel which group address the telegrams received is to be forwarded to. Telegrams can be allocated within the group only.



Thus, e.g. a telegram received by channel A of group 1 could be forwarded by channel B of group 1 with a different group address.

The channel from the group that forward the telegram is selected in the parameter list, according to the settings of the select inputs. However, these settings always apply to both groups.

Therefore, in the above example a telegram received by channel A of group 2 would be forwarded by channel B of group 2.

Communication Objects

Phys. Addr. Program			
no.	Function	Object name	Type
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0	Group 1	Channel A	1 Bit
1	Group 1	Channel B	1 Bit
2	Group 1	Channel C	1 Bit
3	Group 1	Channel D	1 Bit
4	Group 2	Channel A	4 Bit
5	Group 2	Channel B	4 Bit
6	Group 2	Channel C	4 Bit
7	Group 2	Channel D	4 Bit
8	Select	A	1 Bit
9	Select	B	1 Bit
10	Select	C	1 Bit
11	Select	D	1 Bit

Note:

The order of the entries may vary from the above due to individual customization of the table.

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Obj	Function	Object name	Type	Flag
0	Group 1	Channel A	1-Bit	CWTU
Via this object's group address group 1 switching telegrams are received and sent by channel A. On receiving a telegram, it is allocated to the respective group objects the sent accordingly. The actual switching status of the select objects and the parameter provided to that combination define the allocation of telegrams.				
1	Group 1	Channel B	1-Bit	CWTU
Via this object's group address group 1 switching telegrams are received and sent by channel B. On receiving a telegram, it is allocated to the respective group objects the sent accordingly. The actual switching status of the select objects and the parameter provided to that combination define the allocation of telegrams.				
2	Group 1	Channel C	1-Bit	CWTU
Via this object's group address group 1 switching telegrams are received and sent by channel C. On receiving a telegram, it is allocated to the respective group objects the sent accordingly. The actual switching status of the select objects and the parameter provided to that combination define the allocation of telegrams.				
3	Group 1	Channel D	1-Bit	CWTU
Via this object's group address group 1 switching telegrams are received and sent by channel D. On receiving a telegram, it is allocated to the respective group objects the sent accordingly. The actual switching status of the select objects and the parameter provided to that combination define the allocation of telegrams.				
4	Group 2	Channel A	4-Bit	CWTU
Via this object's group address group 2 dimming telegrams are received and sent by channel A. On receiving a telegram, it is allocated to the respective group objects the sent accordingly. The actual switching status of the select objects and the parameter provided to that combination define the allocation of telegrams.				
5	Group 2	Channel B	4-Bit	CWTU
Via this object's group address group 2 dimming telegrams are received and sent by channel B. On receiving a telegram, it is allocated to the respective group objects the sent accordingly. The actual switching status of the select objects and the parameter provided to that combination define the allocation of telegrams.				
6	Group 2	Channel C	4-Bit	CWTU
Via this object's group address group 2 dimming telegrams are received and sent by channel C. On receiving a telegram, it is allocated to the respective group objects the sent accordingly. The actual switching status of the select objects and the parameter provided to that combination define the allocation of telegrams.				
7	Group 2	Channel D	4-Bit	CWTU
Via this object's group address group 2 dimming telegrams are received and sent by channel D. On receiving a telegram, it is allocated to the respective group objects the sent accordingly. The actual switching status of the select objects and the parameter provided to that combination define the allocation of telegrams.				

Obj	Function	Object name	Type	Flag
8	Select	A	1-Bit	CWTU
Via this object's group address the switching status of select information A is received. The object status defines the allocation of telegrams together with the actual status of the other select objects and the parameter provided to that combination.				
9	Select	B	1-Bit	CWTU
Via this object's group address the switching status of select information B is received. The object status defines the allocation of telegrams together with the actual status of the other select objects and the parameter provided to that combination.				
10	Select	C	1-Bit	CWTU
Via this object's group address the switching status of select information C is received. The object status defines the allocation of telegrams together with the actual status of the other select objects and the parameter provided to that combination.				
11	Select	D	1-Bit	CWTU
Via this object's group address the switching status of select information D is received. The object status defines the allocation of telegrams together with the actual status of the other select objects and the parameter provided to that combination.				

Maximum number of group addresses: 12
 Maximum number of assignments: 12

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Parameters

Select: A B C D = 0 0 0 0:

Select: A B C D = 1 1 1 1		
Select: A B C D = 0 0 1 1	Select: A B C D = 1 0 1 1	Select: A B C D = 0 1 1 1
Select: A B C D = 1 0 0 1	Select: A B C D = 0 1 0 1	Select: A B C D = 1 1 0 1
Select: A B C D = 0 1 1 0	Select: A B C D = 1 1 1 0	Select: A B C D = 0 0 0 1
Select: A B C D = 1 1 0 0	Select: A B C D = 0 0 1 0	Select: A B C D = 1 0 1 0
Select: A B C D = 0 0 0 0	Select: A B C D = 1 0 0 0	Select: A B C D = 0 1 0 0
Channel A (Group 1/2) sends on	no channel	
Channel B (Group 1/2) sends on	no channel	
Channel C (Group 1/2) sends on	no channel	
Channel D (Group 1/2) sends on	no channel	

The parameters of the other 15 allocation combinations can be set accordingly.

Parameters	Settings
Channel A (group 1/2) sends on	no channel Channel B Channel C Channel D Channels B, C Channels B, D Channels C, D Channels B, C, D Channel A Channels A, B Channels A, C Channels A, D Channels A, B, C Channels A, B, D Channels A, C, D Channels A, B, C, D
Channel B (group 1/2) sends on	no channel Channel A Channel C Channel D Channels A, C Channels A, D Channels C, D Channels A, C, D Channel B Channels B, A Channels B, C Channels B, D Channels B, A, C Channels B, A, D Channels B, C, D Channels B, A, C, D
Channel C (group 1/2) sends on	no channel Channel A Channel B Channel D Channels A, B Channels A, D Channels B, D Channels A, B, D Channel C Channels C, A Channels C, B Channels C, D Channels C, A, B Channels C, A, D Channels C, B, D Channels C, A, B, D

Parameters	Settings
Channel D (group 1/2) sends on	no channel Channel A Channel B Channel C Channels A, B Channels A, C Channels B, C Channels A, B, C Channel D Channels D, A Channels D, B Channels D, C Channels D, A, B Channels D, A, C Channels D, B, C Channels D, A, B, C

These parameters define the channels telegrams received are allocated to sending. This setting is used when the combination 0000 is established at the four select objects. The parameters affect both groups.

"Select A B C D = 0 0 0 0" indicates that the status of all four select objects are logic "0"s. Accordingly, the setting "Select A B C D = 0 0 1 1" is used to allocating telegrams when the object status of the selects A and B are logic "0"s and the status of the selects C and D are logic "1"s. Thus, these four select objects provide 16 combinations of allocating telegrams.

"No channel": On receiving a telegram at the respective group the telegram is neither allocated nor sent.

"Channel A": On receiving a telegram at the respective group the telegram is allocated to channel A and sent from there.

"Channel B": On receiving a telegram at the respective group the telegram is allocated to channel B and sent from there.

"Channel C": On receiving a telegram at the respective group the telegram is allocated to channel C and sent from there.

"Channel D": On receiving a telegram at the respective group the telegram is allocated to channel D and sent from there.

"Channels A, B": On receiving a telegram at the respective group the telegram is allocated to the channels A and B and sent from there.

"Channels A, C": On receiving a telegram at the respective group the telegram is allocated to the channels A and C and sent from there.

"Channels A, D": On receiving a telegram at the respective group the telegram is allocated to the channels A and D and sent from there.

"Channels B, C": On receiving a telegram at the respective group the telegram is allocated to the channels B and C and sent from there.

"channels B, D": On receiving a telegram at the respective group the telegram is allocated to the channels B and D and sent from there

"Channels C, D": On receiving a telegram at the respective group the telegram is allocated to the channels C and D and sent from there.

"Channels A, B, C": On receiving a telegram at the respective group the telegram is allocated to the channels A, B, and C and sent from there.

"Channels A, B, D": On receiving a telegram at the respective group the telegram is allocated to the channels A, B, and D and sent from there.

"Channels A, C, D": On receiving a telegram at the respective group the telegram is allocated to the channels A, C, and D and sent from there.

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"Channels B, C, D": On receiving a telegram at the respective group the telegram is allocated to the channels B, C, and D and sent from there.

"Channels A, B, C, D": On receiving a telegram at the respective group the telegram is allocated to the channels A, B, C, and D and sent from there.