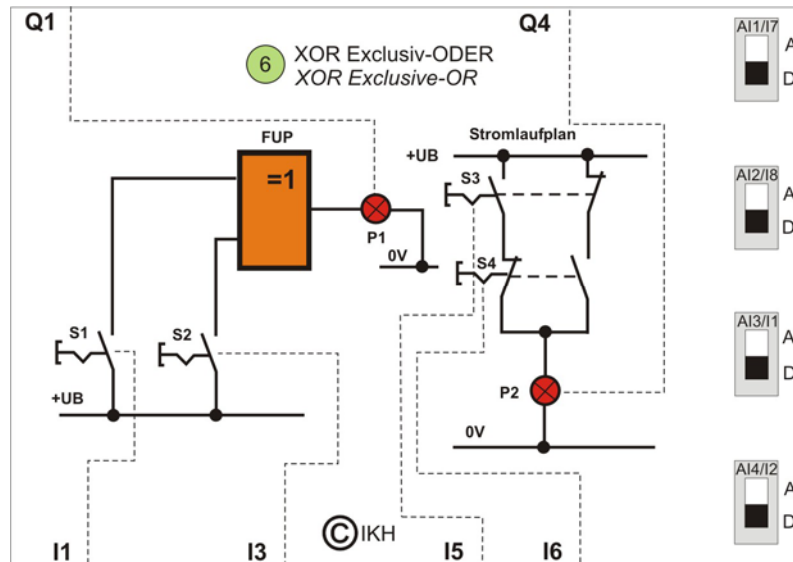


XOR – Function (Exclusive-OR) with LOGO!Learn

Learning card: XOR - Function



The learning card shows the XOR -Function as a function block diagram (FBD) and as a circuit diagram.

Often a combination of logic gates is required which always has „H“ at the output if the initial states (input values) are different. Such a function is also called an Exclusive-OR.

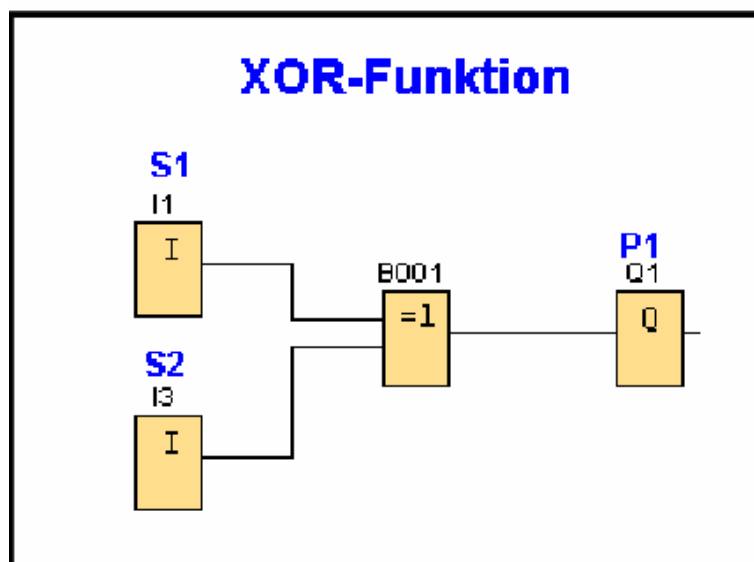
Correlation list 1		
Symbol	absolute	Comment
S1	I1	Switch
S2	I3	Switch
P1	Q1	Status LED

Correlation list 2		
Symbol	absolute	Comment
S3	I5	Switch
S4	I6	Switch
P2	Q4	Status LED

**Exercise with correlation list 1**

- Enter program according to function block diagram (FBD) into the programming unit (i.e. PC or keyboard) and transfer into LOGO!
- Test circuit according to function table.
- Read-off signal states at the Status-LED of the exercise unit „LOGO!Learn“ and enter them into the right column of the function table.
- Draw the ladder diagram together with the respective parameters into the solution field.

Function table		
I1	I3	Q1
H	H	
H	L	
L	H	
L	L	

**Solution field 1**

### Exercise with correlation list 2

- Enter program according to ladder diagram (LAD) into the programming unit (i.e. PC or keyboard) and transfer into LOGO!
- Test circuit according to function table.
- Read-off signal states at the Status-LED of the exercise unit „LOGO!Learn“ and enter them into the right column of the function table.
- Draw the ladder diagram together with the respective parameters into the solution field.

Function table		
I5	I6	Q4
H	H	
H	L	
L	H	
L	L	

### Solution field 2

