
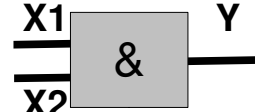
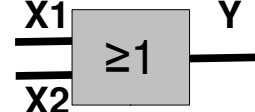
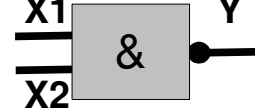
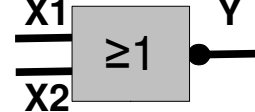
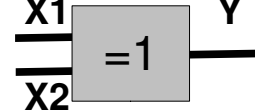
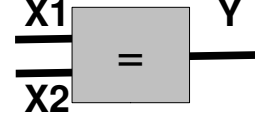

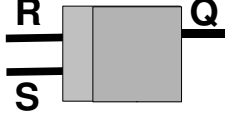
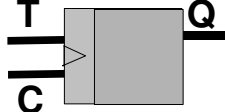
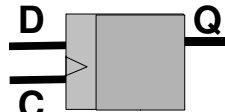


# Relevante Schaltelemente:     **Logik- Gatter**

<u>Bezeichnung</u>	<u>Logik</u>	<u>Wahrheitstabelle</u> X1 = 0 0 1 1, X2 = 0 1 0 1	<u>Symbol</u>
<b>NOT</b> 74HC04	$Y = \overline{X1}$	$Y = 1 1 0 0$	
<b>AND</b> 74HC08	$Y = X1 \wedge X2$	$Y = 0 0 0 1$	
<b>OR</b> 74HC32	$Y = X1 \vee X2$	$Y = 0 1 1 1$	
<b>NAND</b> 74HC00	$Y = \overline{(X1 \wedge X2)}$	$Y = 1 1 1 0$	
<b>NOR</b> 74HC02	$Y = \overline{(X1 \vee X2)}$	$Y = 1 0 0 0$	
<b>XOR</b> 74HC86	$Y = (\overline{X1} \wedge X2) \vee (X1 \wedge \overline{X2})$	$Y = 0 1 1 0$	
<b>XNOR</b> 74HC266	$Y = (\overline{X1} \wedge \overline{X2}) \vee (X1 \wedge X2)$	$Y = 1 0 0 1$	

# Relevante Schaltelemente: Flip-Flops

<u>Bezeichnung</u>  FF- Typ IC- Name	<u>Eingänge</u>			<u>Ausgang</u>	<u>Symbol</u>
	S/T/D/J „X“ → don't care	R/K „X“ → don't care	C (Takt) Flanken 	Q sei vorher „0“ bzw. „1“	
<b>RS-FF</b> <b>kein IC</b>	0 0 1 1	0 1 0 1		Q 0 1 <b>nicht definiert</b>	
<b>T-FF</b> <b>kein IC</b>	0 1 <b>X</b>		0 → 1↑ 0 → 1↑ 0, 1 oder 1 → 0↓	Q Q Q	
<b>D-FF</b> <b>74HC74</b>	0 1 <b>X</b>		0 → 1↑ 0 → 1↑ 0, 1 oder 1 → 0↓	0 1 Q	
<b>JK-FF</b> <b>74HC107</b>	0 0 1 1 <b>X</b>	0 1 0 1 <b>X</b>	0 → 1↑ 0 → 1↑ 0 → 1↑ 0 → 1↑ 0, 1 oder 1 → 0↓	Q 0 1 Q Q	