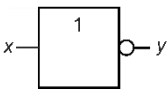

NOT Gate

The **NOT gate** or **inverter** is a basic digital gate with a single input and a single output. A HIGH output (1) results only if the input to the NOT gate is LOW (0). If the input to the NOT gate is HIGH, a LOW output results. The NOT gate implements logical negation which is denoted as an overline or the symbol \neg .

IEC Symbol	Truthtable	Function						
	<table><tr><td>x</td><td>y</td></tr><tr><td>0</td><td>1</td></tr><tr><td>1</td><td>0</td></tr></table>	x	y	0	1	1	0	$\mathbb{B} \rightarrow \mathbb{B}: y = \overline{x}$ $\mathbb{B} \rightarrow \mathbb{B}: y = \neg x$
x	y							
0	1							
1	0							

Property	Settings	Meaning
Data Bits	Multi-Bit	Number of bits of input line = Number of bits of output line
Delay	Delays	Propagation delay from x to y, $t_{pd} = t_{plh} = t_{phl}$
Rejection Limit	Delays	Inertial delay inputs x, All signal spikes shorter than the rejection limit are canceled. This is called pulse rejection: $t_{pd} \geq t_{inertial}$
