Ladder Programming (cont.)

Ada banyak situasi pengendalian yang memerlukan tindakan untuk dimulai ketika a kombinasi dari kondisi tertentu terwujud misalnya drilling machine

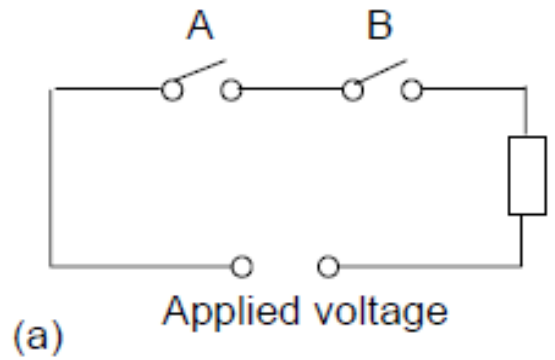
Kondisi bahwa motor bor harus diaktifkan ketika sakelar batas diaktifkan yang menunjukkan keberadaan benda kerja dan posisi bor berada di permukaan benda kerja

Situasi seperti itu melibatkan Fungsi logika AND, kondisi A dan kondisi B direalisasikan agar suatu keluaran terjadi.

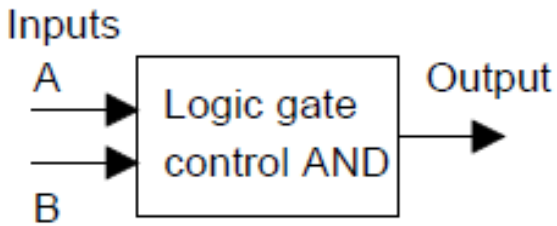
- Fungsi Logika.

  Operasi AND

Inputs		Output
A	B	
0	0	0
0	1	0
1	0	0
1	1	1



(a)



(b)

Figure 5.7 *(a) AND circuit, (b) AND logic gate*

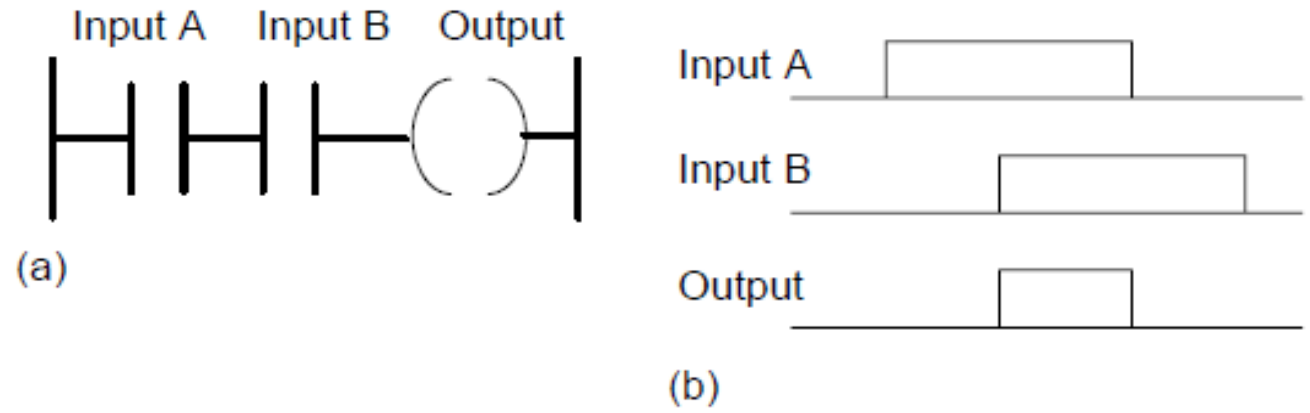


Figure 5.8 *AND gate with a ladder diagram rung*

Operasi OR

Inputs		Output
A	B	
0	0	0
0	1	1
1	0	1
1	1	1

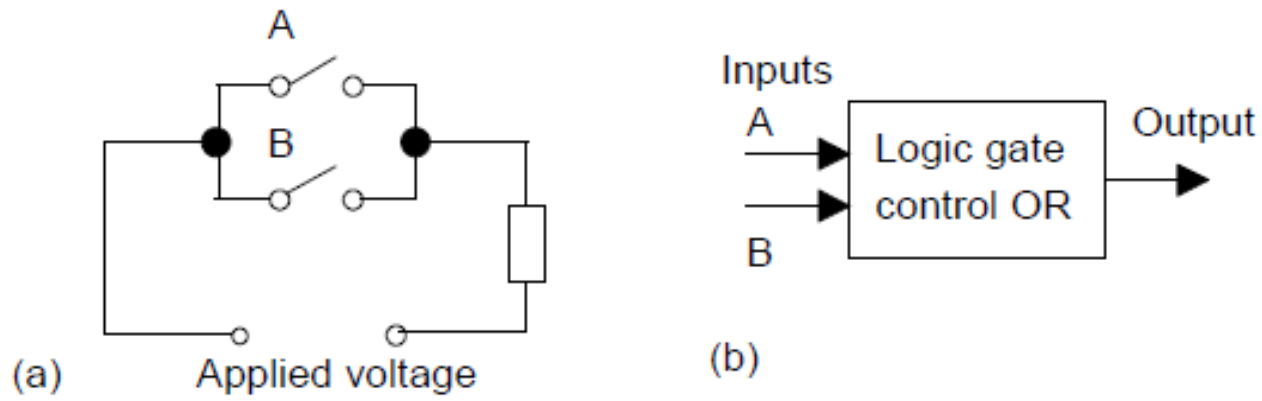


Figure 5.9 *(a) OR electrical circuit, (b) OR logic gate*

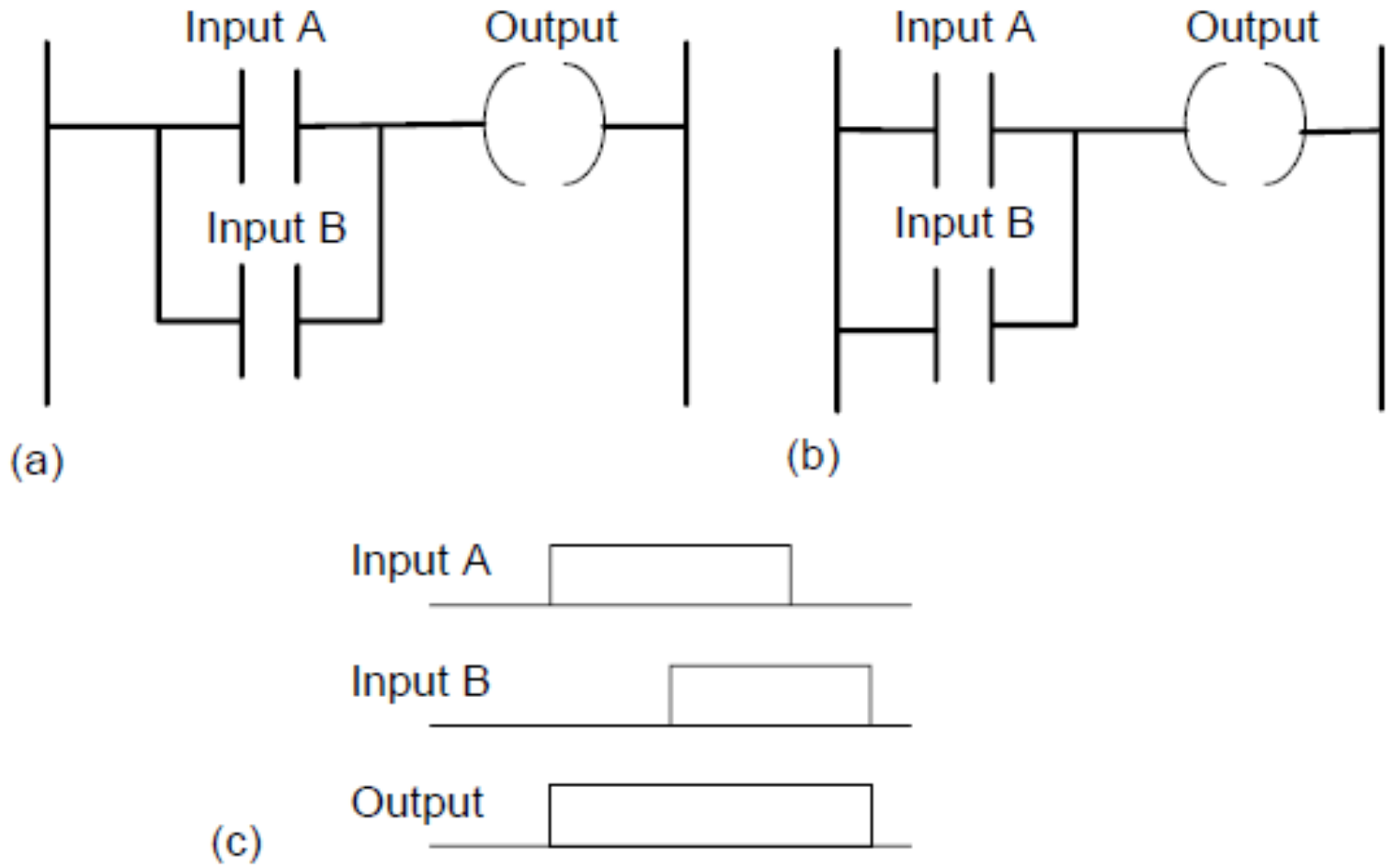


Figure 5.10 *OR gate*

Operasi NOT

Input A	Output
0	1
1	0

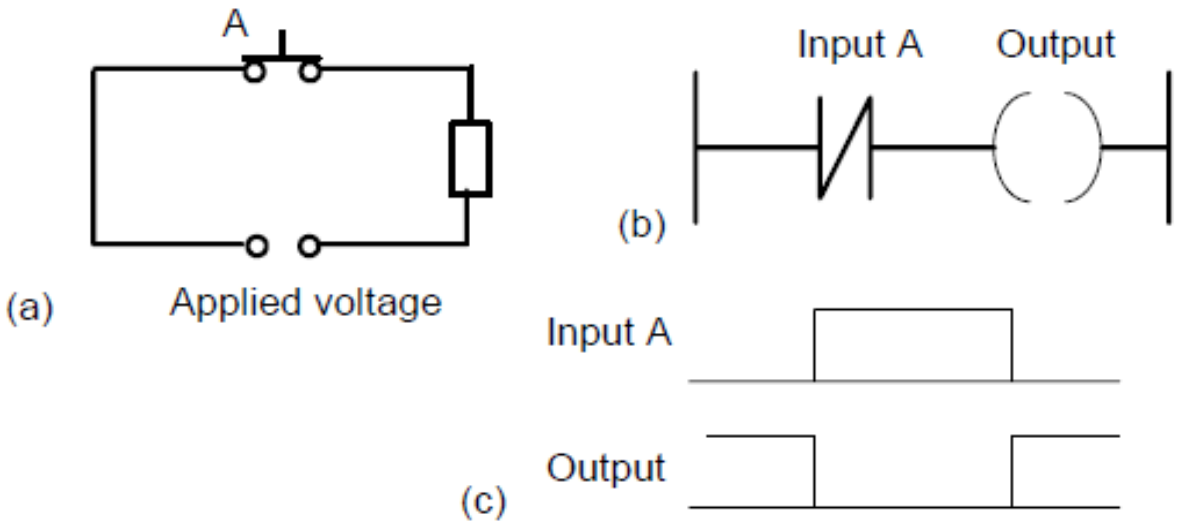


Figure 5.11 *(a) NOT circuit, (b) NOT logic with a ladder rung, (c) high output when no input to A*

Operasi NAND

Inputs		Output
A	B	
0	0	1
0	1	1
1	0	1
1	1	0

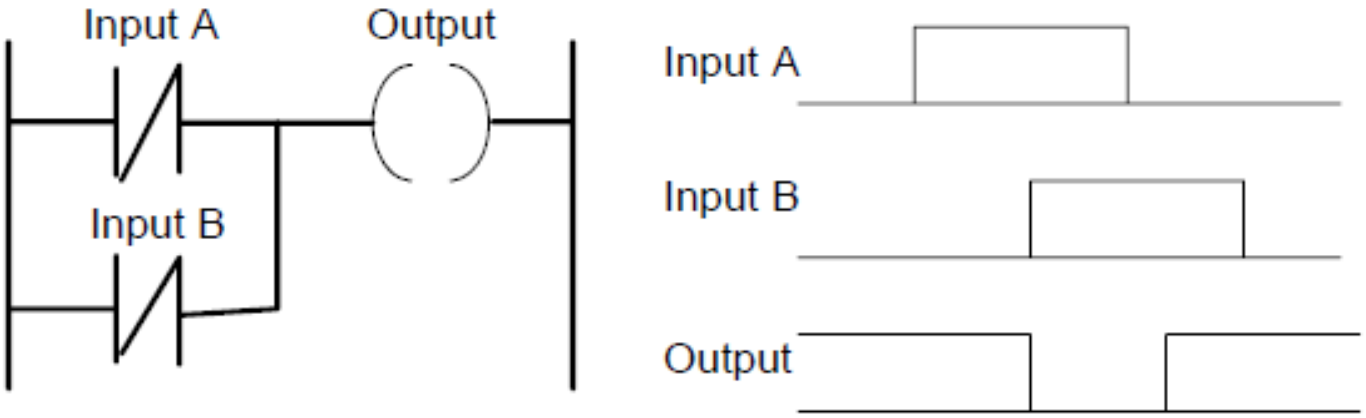
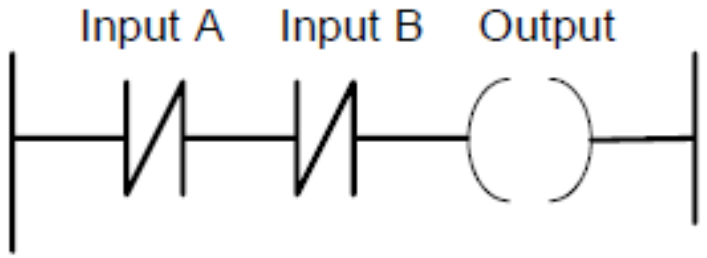


Figure 5.13 *A NAND gate*

Operasi NOR

Inputs		Output
A	B	
0	0	1
0	1	0
1	0	0
1	1	0



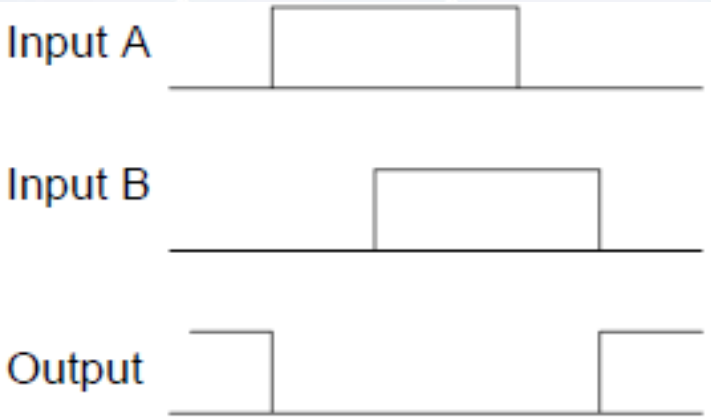


Figure 5.15 *NOR gate*

Operasi XOR

Inputs		Output
A	B	
0	0	0
0	1	1
1	0	1
1	1	0

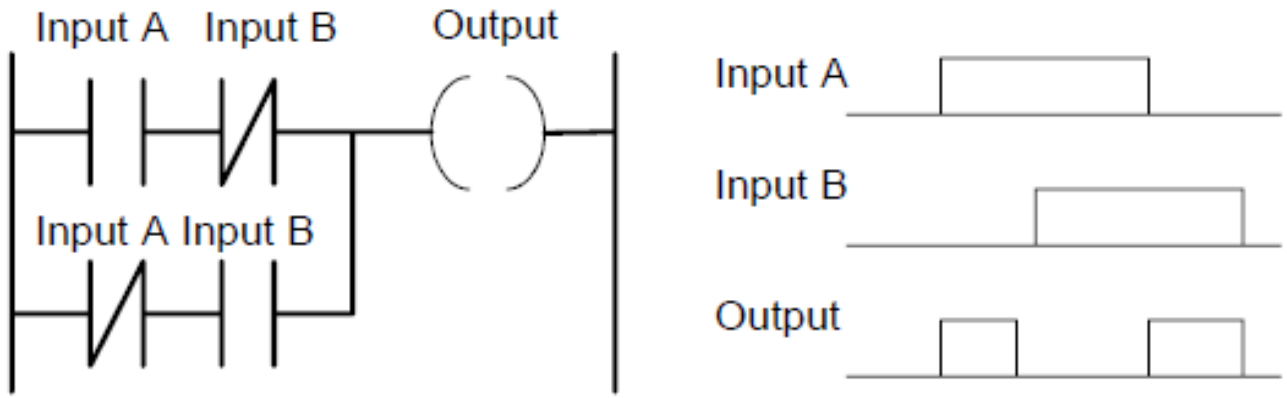


Figure 5.17 *XOR gate*