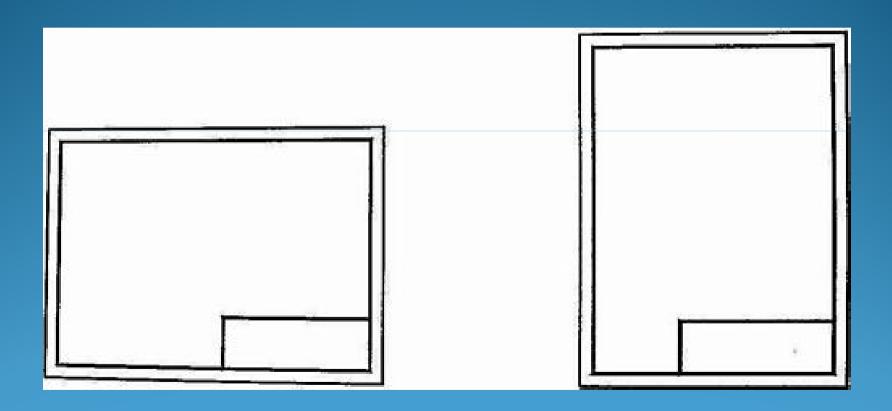
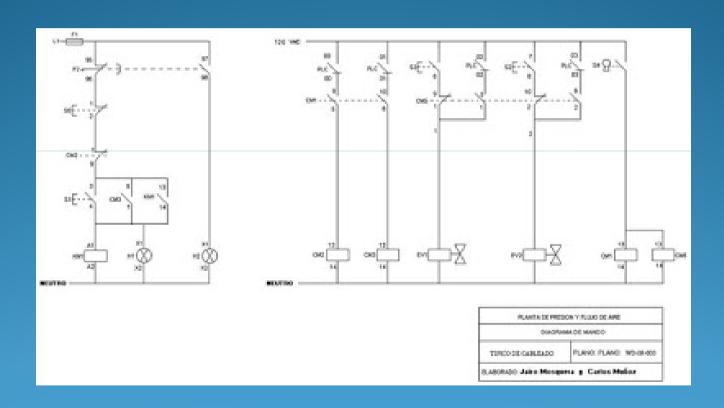
# LOGICA DE CONTACTOS

### FORMATO DE CARPETA

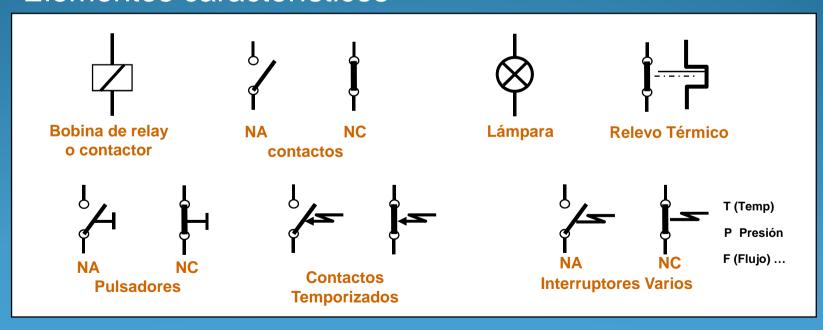


### Diagrama de contactos

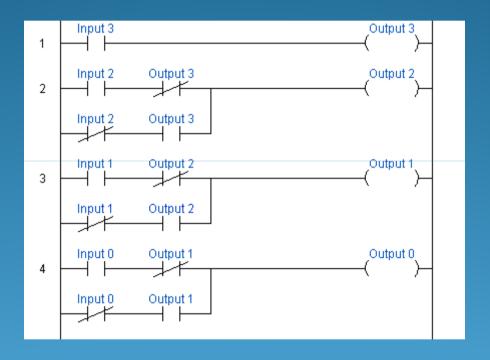


### Diagrama de contactos

### Elementos característicos

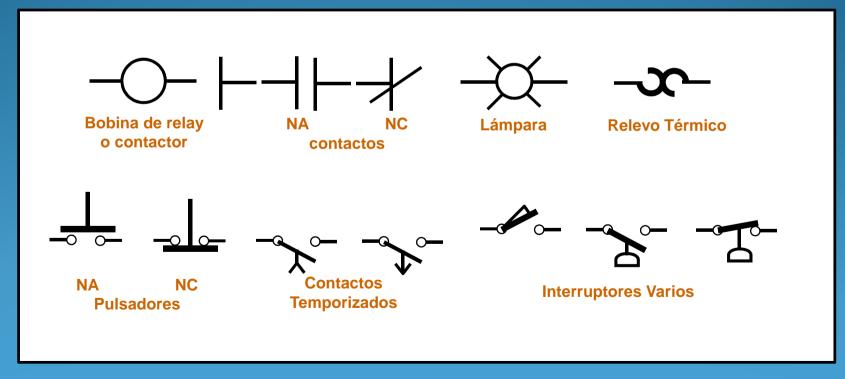


### LADDER



### LADDER

### Elementos característicos



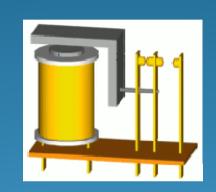
### LOGICA DE RELE



### LOGICA DE RELE





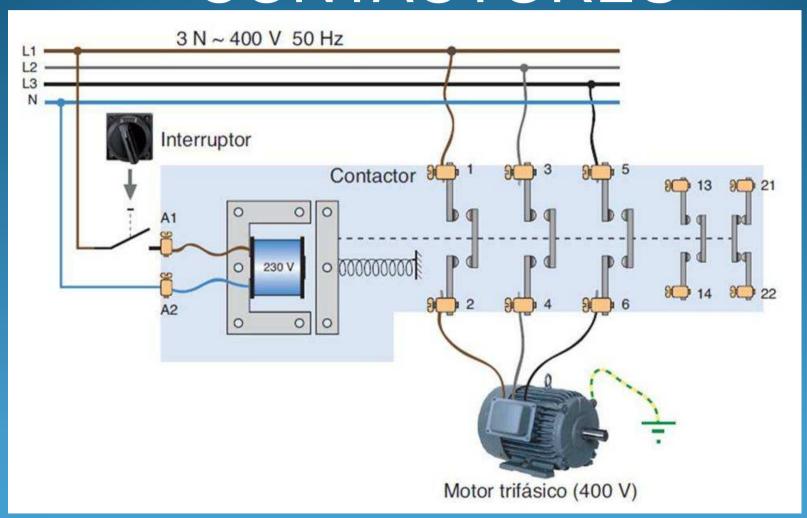






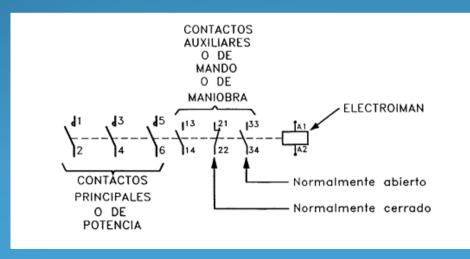


## CONTACTORES



### CONTACTORES







Normally open contact, manually operated

Normally open contact, manually operated by pressing

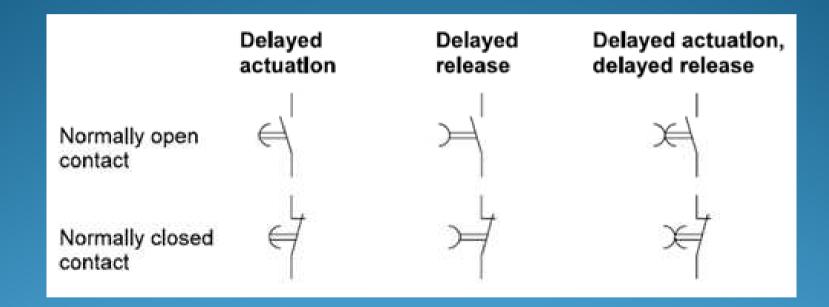
Normally closed contact, manually operated by pulling

Normally open contact, manually operated by pulling

Normally open contact, manually operated by turning

	Basic function	n With automatic return	Without automatic return
Normally open contact		4	19
Normally close contact	d /	<b>b</b>	4
Changeover contact	4		

	Delayed actuation	Delayed release	Delayed actuation, delayed release
Normally open contact	$\in$	$\Rightarrow$	$\bowtie$
Normally closed contact	$\neq$	$\Rightarrow$	×

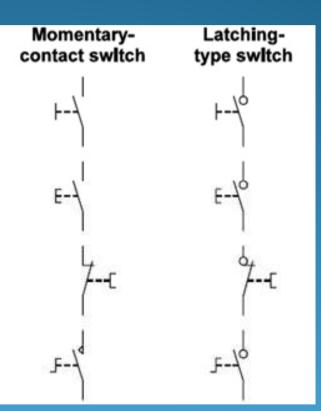


Normally open contact, manually operated

Normally open contact, manually operated by pressing

Normally closed contact, manually operated by pulling

Normally open contact, manually operated by turning

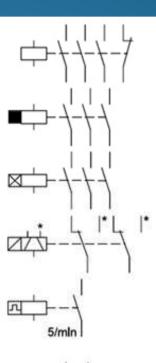


#### Relays

- Relay with three normally open contacts and one normally closed contact
- Relay with dropout delay
- Relay with pickup delay
- Retentive relay
- Flasher relay

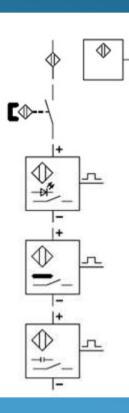
#### Contactor

 Contactor with one normally closed contact and one normally open contact



#### Proximity switches, proximity sensors

- Proximity sensor, proximity-sensitive device
- Proximity switch (normally open contact), actuated by magnets (standardized)
- Proximity switch, optical
- Proximity switch, inductive
- Proximity switch, capacitive



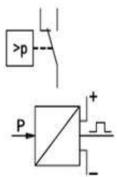
#### Limit switches

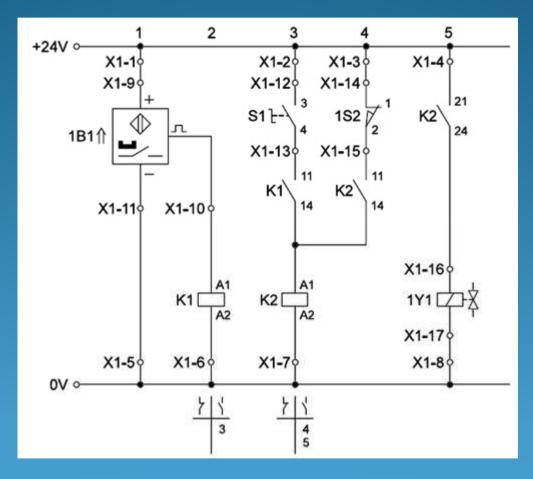
- Normally open contact
- Normally closed contact

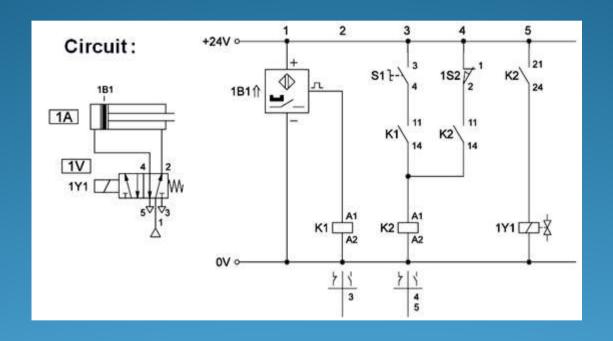


### Pressure switches, pressure sensors

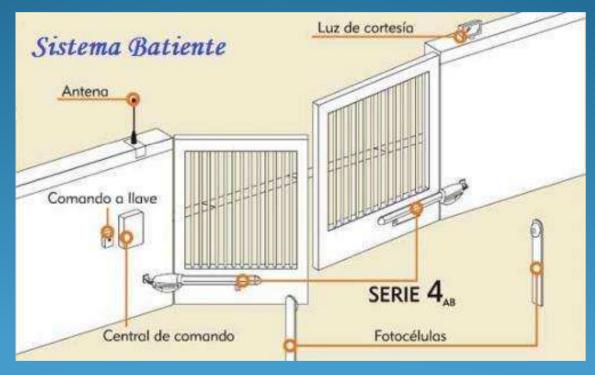
- Pressure switch, electromechanical
- Pressure switch, electronic







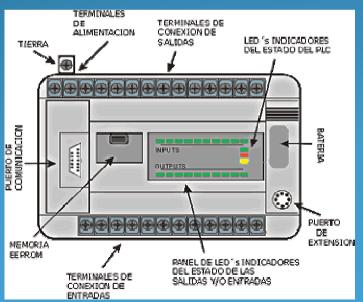
# PRACTICO 1 Portón



# PRACTICO 2 Maquina de perforado



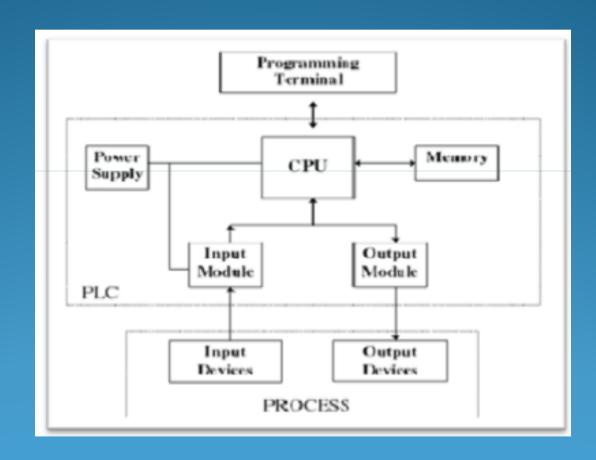


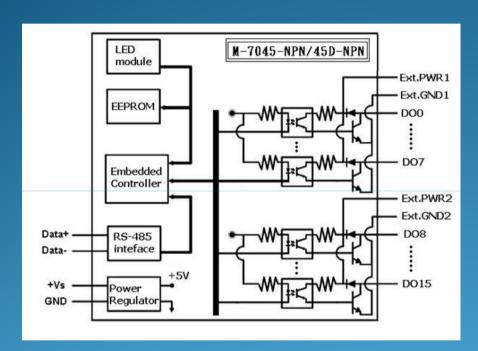


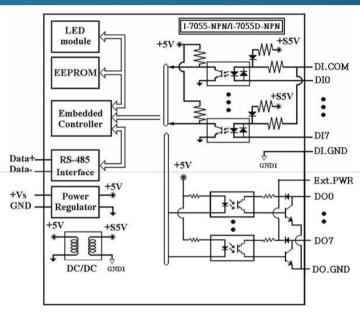




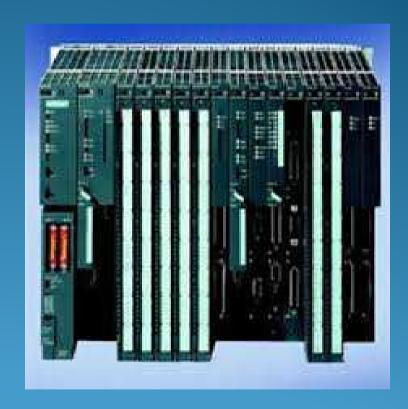












http://sourceforge.net/projects/classicladder/

