The eight basic functions

- **Series circuit with make contact**
- **AND (and) series connection NO contact**
- **Parallel circuit with make contacts**
- **Or (or) parallel connection NO contact**
- **Parallel circuit with break contacts**
- **NAND (and not) parallel connection NC contact**
- **Series circuit with break contacts**
- **NOR (or not) series connection NC contact**
- **AND with edge evaluation (positive edge)**
- **AND with edge evaluation (negative edge)**
- **Double changeover contact**
- **XOR (exclusive or) 2-way changeover**
- **Break contact**
- **NOT (not) inverter**
The special functions

<table>
<thead>
<tr>
<th>Function</th>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON-Delay</td>
<td><img src="image" alt="ON-Delay symbol" /></td>
<td>The timer turns off when the trigger is pressed.</td>
</tr>
<tr>
<td>OFF-Delay</td>
<td><img src="image" alt="OFF-Delay symbol" /></td>
<td>The timer turns off when the trigger is released.</td>
</tr>
<tr>
<td>ON/OFF-Delay</td>
<td><img src="image" alt="ON/OFF-Delay symbol" /></td>
<td>The timer turns on when the trigger is pressed. It turns off when the trigger is released.</td>
</tr>
<tr>
<td>Retentive On-Delay</td>
<td><img src="image" alt="Retentive On-Delay symbol" /></td>
<td>The timer turns on when the trigger is pressed. It retains its state even when the trigger is released.</td>
</tr>
<tr>
<td>Wiping Relay</td>
<td><img src="image" alt="Wiping Relay symbol" /></td>
<td>The timer turns on when the trigger is pressed. It turns off when the trigger is released.</td>
</tr>
<tr>
<td>Edge-triggered wiping relay</td>
<td><img src="image" alt="Edge-triggered Wiping Relay symbol" /></td>
<td>The timer turns on when the trigger is pressed. It turns off when the trigger is released.</td>
</tr>
<tr>
<td>Asynchronous Pulse Generator</td>
<td><img src="image" alt="Asynchronous Pulse Generator symbol" /></td>
<td>The timer turns on when the trigger is pressed. It turns off when the trigger is released.</td>
</tr>
<tr>
<td>Random Generator</td>
<td><img src="image" alt="Random Generator symbol" /></td>
<td>The timer turns on when the trigger is pressed. It turns off when the trigger is released.</td>
</tr>
<tr>
<td>Stairway lighting switch</td>
<td><img src="image" alt="Stairway lighting switch symbol" /></td>
<td>The timer turns on when the trigger is pressed. It turns off when the trigger is released.</td>
</tr>
<tr>
<td>Multiple function switch</td>
<td><img src="image" alt="Multiple function switch symbol" /></td>
<td>The timer turns on when the trigger is pressed. It turns off when the trigger is released.</td>
</tr>
<tr>
<td>Weekly Timer</td>
<td><img src="image" alt="Weekly Timer symbol" /></td>
<td>The timer turns on when the trigger is pressed. It turns off when the trigger is released.</td>
</tr>
<tr>
<td>Yearly Timer</td>
<td><img src="image" alt="Yearly Timer symbol" /></td>
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</tr>
</tbody>
</table>
The special functions

Up/Down counter

Threshold trigger

Analog Comparator

Analog Amplifier

Analog differencial trigger

Analog Ramp

Hours Counter

Counter

ThresholdTrigger

Analog

Analog Comparator

Analog Amplifier

Analog Watchdog

Analog MUX (Multiplexer)

PI Controller
... Special functions

Pulse width modulation PWM

Mathematic instruction

Latchling Relay

Mathematic instruction error detection

Pulse Relay

Message Texts

Examples for your Message Texts:
- Bargraph
- Status
- Enable Webserver...

Soft Key

Shift register
With 43 functions, switching programs can be created quickly – either directly on the device or via PC.

Take a look at the WBT (Web based Training basics) for first steps with the function blocks.

Find detailed descriptions for each function in the online help inside LOGO! Soft comfort.

You will also find a large selection of example applications under

www.siemens.de/logo-sample-applications