Andhra Pradesh State Skill Development Corporation

Skill AP
APSSDC

eSkill AP
Learn Anytime Anywhere
Andhra Pradesh State Skill Development Corporation

Basics of PLC

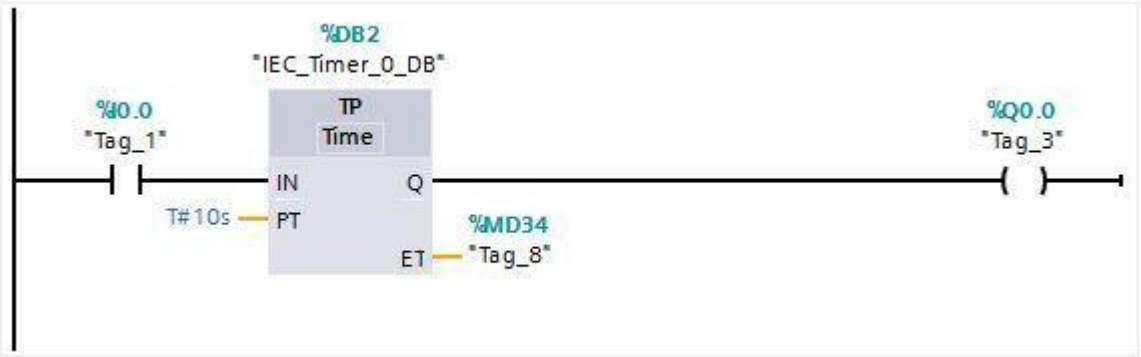
Basics of Timers, Pulse Timer and ON-Delay Timer

TP: Generatepulse

You can use the "Generate pulse" instruction to set the output Q for a programmed duration. The instruction is started when the result of logic operation (RLO) at input IN changes from "0" to "1" (positive signal edge). The programmed time PT begins when the instruction starts.

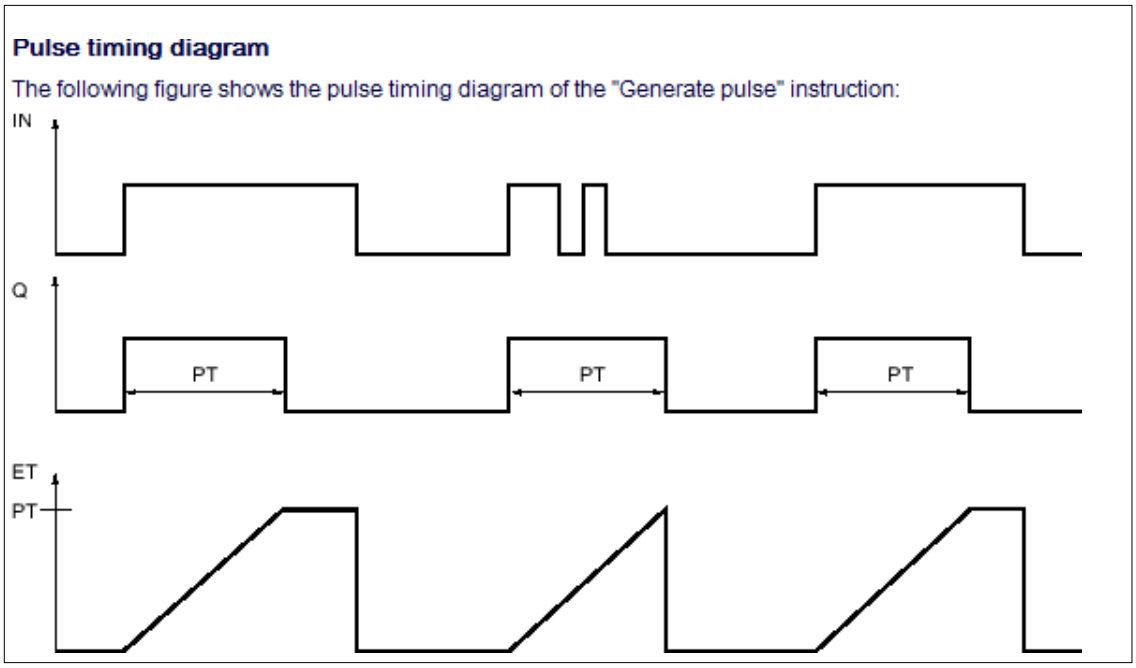
Output Q is set for the duration PT, regardless of the subsequent course of the input signal. Even if a new positive signal edge is detected, the signal state at the output Q is not affected as long as the PT time duration is running.

You can scan the current time value at the ET output. The time value starts at T#0s and ends when the value of duration PT is reached. When the duration PT is reached and the signal state at input IN is "0", the ET output is reset.



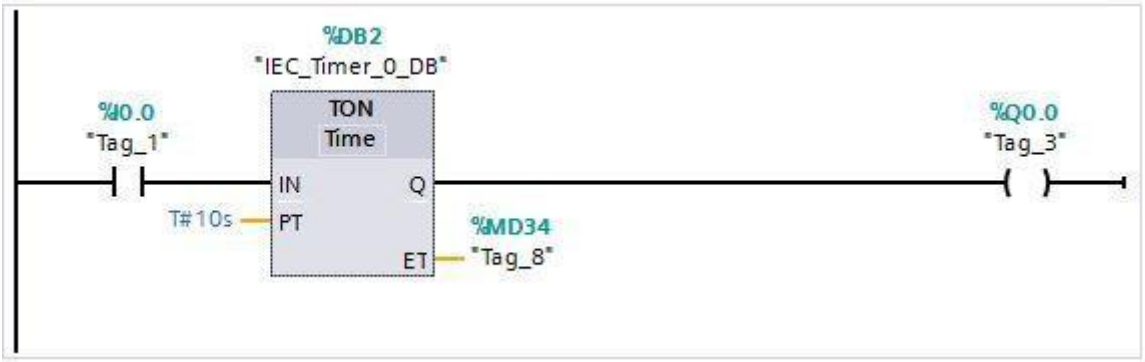
Parameters

Parameter	Declaration	Data type	Description
IN	Input	BOOL	Start input
PT	Input	TIME	Duration of the pulse. The value of the PT parameter must be positive.
Q	Output	BOOL	Pulse output
ET	Output	TIME	Current time value



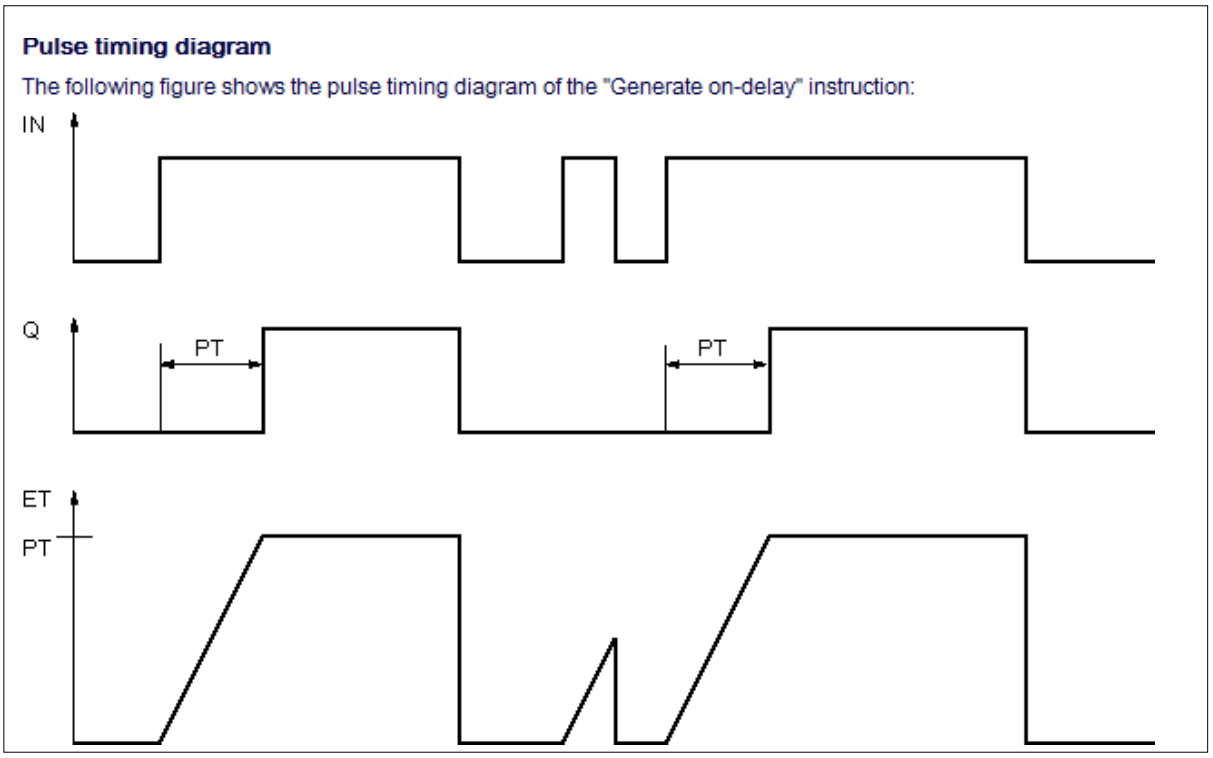
TON: Generateon-delay

You can use the "Generate on-delay" instruction to delay setting of the Q output by the programmed duration PT. The instruction is started when the result of logic operation



(RLO)
at input IN changes from "0" to "1" (positive signal edge). The programmed time PT begins when the instruction starts. When the duration PT expires, the output Q has the signal state "1". Output Q remains set as long as the start input is still "1". When the signal state at the start input changes from "1" to "0", the Q output is reset. The timer function is started again when a new positive signal edge is detected at the start input.

The current time value can be queried at the ET output. The time value starts at T#0s and ends when the value of duration PT is reached. The ET output is reset as soon as the signal state at the IN input changes to "0".



Parameters

Parameter	Declaration	Data type	Description
IN	Input	BOOL	Start input
PT	Input	TIME	Duration of the on delay. The value of the PT parameter must be positive.
Q	Output	BOOL	Output that is set when the time PT expires
ET	Output	TIME	Current time value