6.2 Timers

Hardware manual

www.pinetek-networks.com

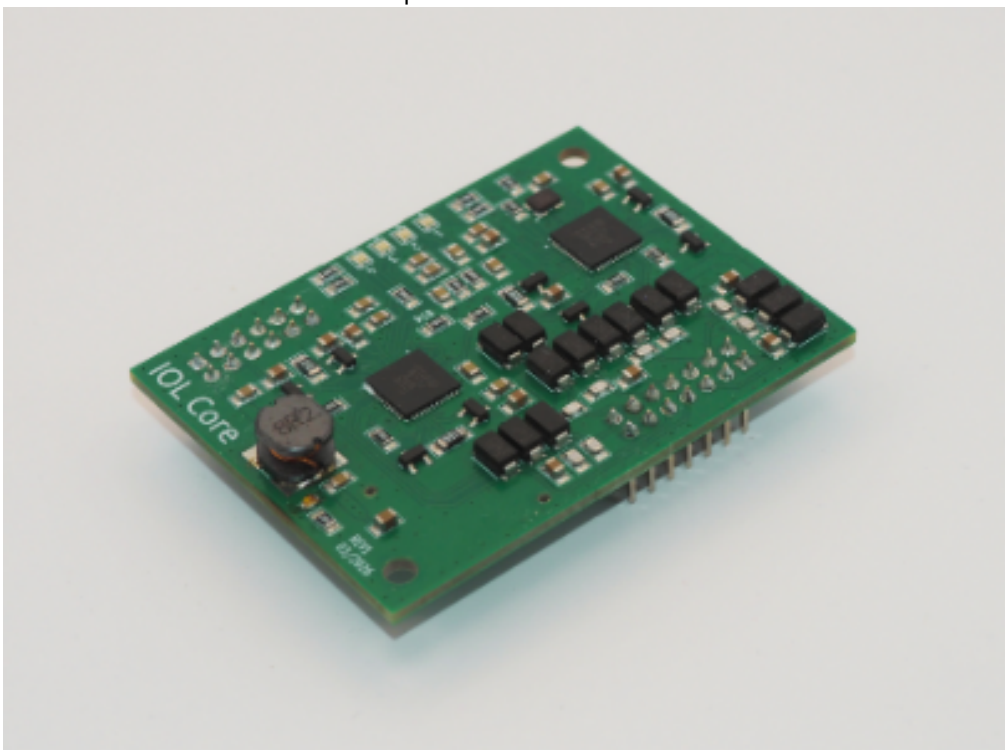


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6.2 Timers

The Timers function measures the elapsed time between two configurable IO-Link signal events. Up to 8 independent timers are available, each with separate start and stop conditions. Statistics (count, minimum, maximum, average) are accumulated across all measurement cycles. The page is accessible via the “Timers” entry in the side menu.

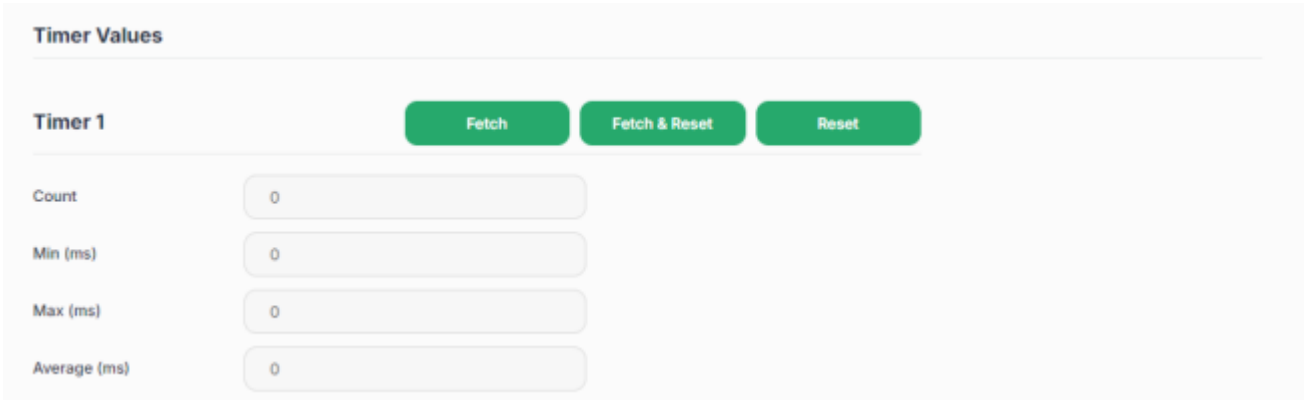
Engine Control



Control	Description
Timer Engine Status	Displays Running or Stopped
Enable Timer Engine	Toggle to start or stop the timer engine
Autostart Engine	Toggle to start the engine automatically on each application start

The engine must be running for timers to evaluate signals. Autostart is saved persistently.

Timer Values



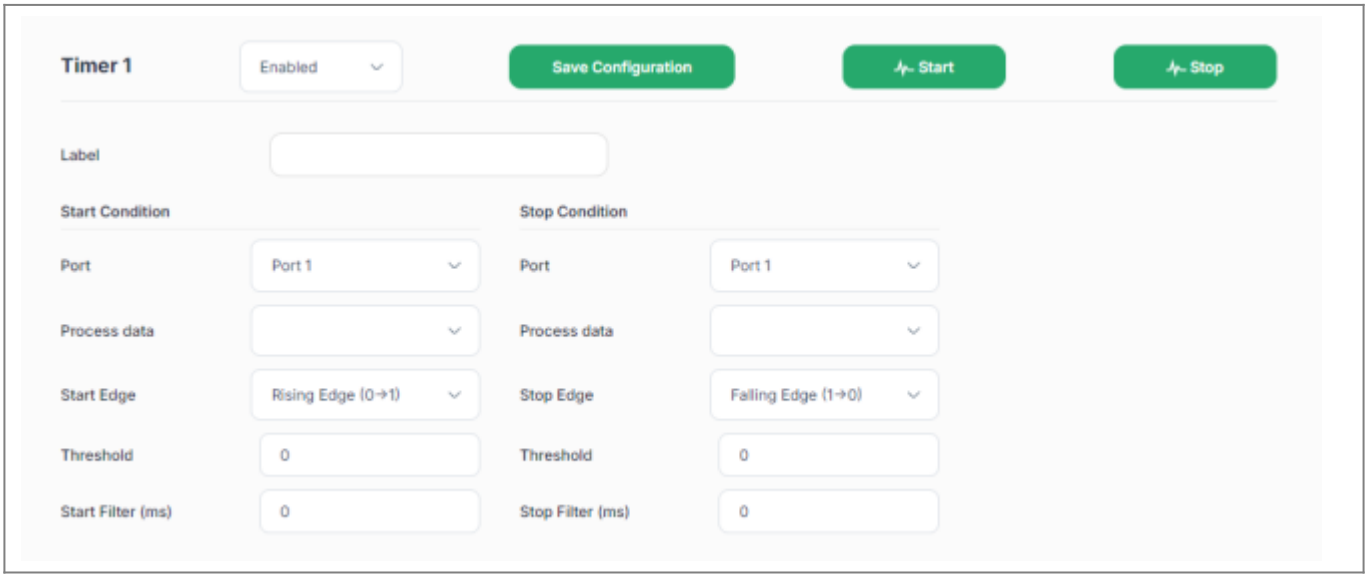
For each timer (Timer 1..8), the following statistics are shown. They accumulate while the engine is running.

Value	Description
Count	Number of complete start-stop measurement cycles
Min (ms)	Shortest measured interval
Max (ms)	Longest measured interval
Average (ms)	Running average of all measured intervals

Buttons per timer:

Button	Action
Fetch	Reads current values from the engine without resetting
Fetch + Reset	Reads current values and resets all statistics to zero
Reset	Resets statistics to zero without reading

Timer Configuration



Each timer section has:

Control	Action
Enabled / Disabled dropdown	Activates or deactivates this timer
Save Configuration button	Saves all settings persistently
Scope: Start (waveform icon)	Opens the signal oscilloscope on the start condition signal
Scope: Stop (waveform icon)	Opens the signal oscilloscope on the stop condition signal

Timer parameters

Parameter	Description
Label	User-defined name for the timer
Start Condition: Port	IO-Link port to monitor for the start event
Start Condition: Process Data	Process data variable to evaluate
Start Condition: Start Edge	Rising or Falling edge that starts the timer
Start Condition: Threshold	Numeric threshold for edge detection
Start Condition: Filter (ms)	Minimum duration the condition must hold before the start is accepted
Stop Condition: Port	IO-Link port to monitor for the stop event (can be a different port from start)
Stop Condition: Process Data	Process data variable to evaluate
Stop Condition: Stop Edge	Rising or Falling edge that stops the timer
Stop Condition: Threshold	Numeric threshold for edge detection
Stop Condition: Filter (ms)	Minimum duration the condition must hold before the stop is accepted



A measurement cycle begins when the start condition fires and ends when the stop condition fires. If the stop fires before a new start, it is ignored. For the timer to measure data, the timer engine needs to be activated, the timer needs to run and the port(s) for start and stop condition need to be powered.