

PRODUCTION SYSTEMS

# Takt- & Andonwatch

*Timing system for displaying cycle time, number and stop time.*

- Fully functional stand-alone system that operates independently without the need for connectivity.
- Convenient pre-set functions enable quick and effortless setup.
- Bright LED matrix with clear colors.
- Ideal for rugged industrial environments.



**BINAR**

*Improving your productivity*

# Takt- & Andon

By visualizing pace and Andon alerts, you can get great support to achieve set goals. The Takt-Andon clock is based on Binars display BiDisp3 and includes all necessary components and pre-made functions. Desired functions are quickly selected using the LP222 button panel, and then you're ready to go.

Takt - The Andon clock displays the remaining time until the end of the beat. time in red digits for incomplete work. Upon completion of each beat, the "ER" value increases by one unit produced. The system calculates the expected production based on the entered cycle time and displays it as "MODE". Any production above the expected quantity is shown in green, while any below is highlighted in red. The clock can be paused using a BREAK button, such as during a break. With the Takt-Andon clock, the production situation can be monitored in real time.

If production is interrupted, press the Andon button. The display will show "ANDON" along with the duration of the disturbance. An alarm will briefly sound to draw attention.

The Takt-Andon clock is ideal for implementing efficient work practices. It presents targets and losses in an easily understandable way, driving productive discussions on improvement measures and process optimization. As key components of Lean Manufacturing, Takt and Andon methods have been proven to rapidly enhance productivity.

Some of the benefits of the Takt-Andon clock:

- Faster delivery times
- Reduced stockholding requirements
- Smoother material flow
- Simplified staff scheduling,
- Identification of issues
- Improved quality

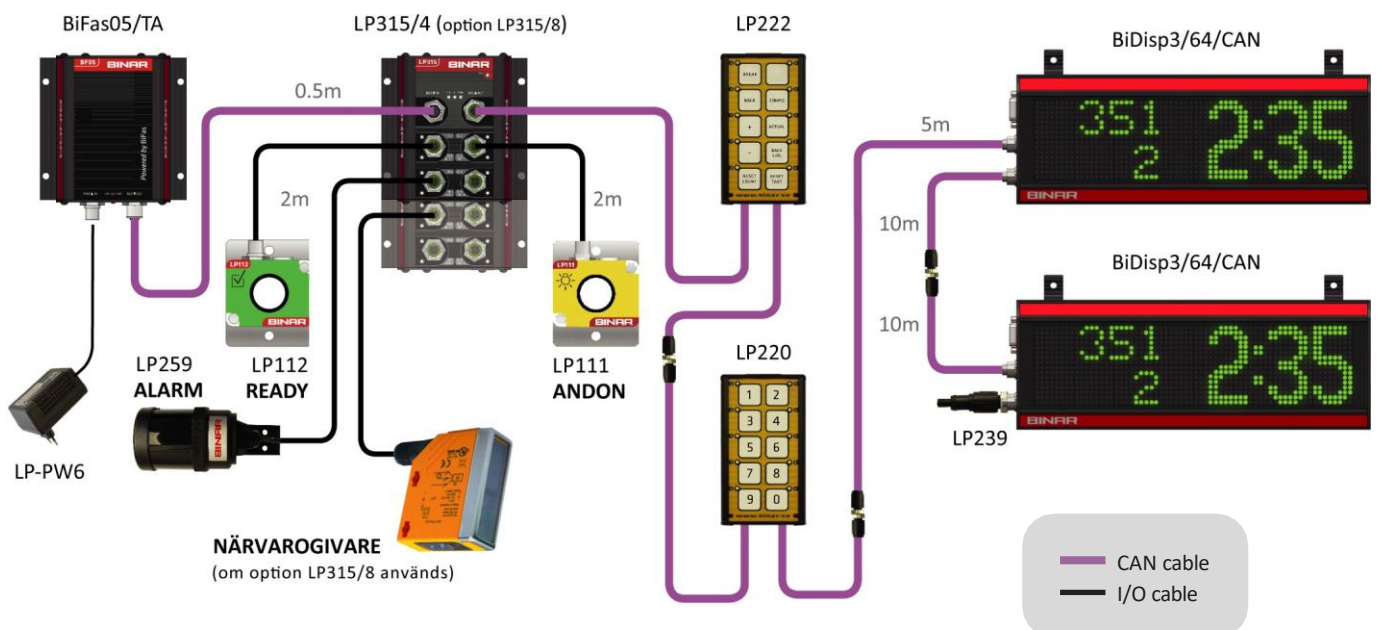
#### More info?

Binär provides solutions using Takt and Andon systems for additional stations, including Stop & Go.

## TECHNICAL DATA

	Qty	Art. nr.	Titel
Included components (basic package) art. nr. 54445	1	54400	BiDisp3/64/CAN
	1	54453	BiFas05/TA
	1	50315	LP315/4 I/O box
	1	51222	LP222 Ten button box
	1	51112	LP112 Ready button
	1	51111	LP111 Andon button
	1	50259	LP259 Sirén
	1	50326	LP-PW6 Power supply
	1	50239	LP239 Termination
	1	50235	CAN cable 0.5m
Options	2	50130	I/O cable 2m
		50231	CAN cable 2m
		50233	CAN cable 10m
		50131	I/O cable 5m
		50132	I/O cable 10m
		50243	T-connector
		51311	LP315/8 I/O box Replaces in basic package LP315/4
		54400	BiDisp3/64/CAN
		51220	LP220 Ten button box
	Readability distance	Up to 40 m	
Sign colour	Red, green, and yellow		
CE	EN 61000-6-4 and EN 61000-6-2		
Supply voltage	230 V		
Temperature area	0 - 50 °C		
Humidity	0 - 95 % non-condensing		
Mounting	Fastening devices included		

## SYSTEM OVERVIEW

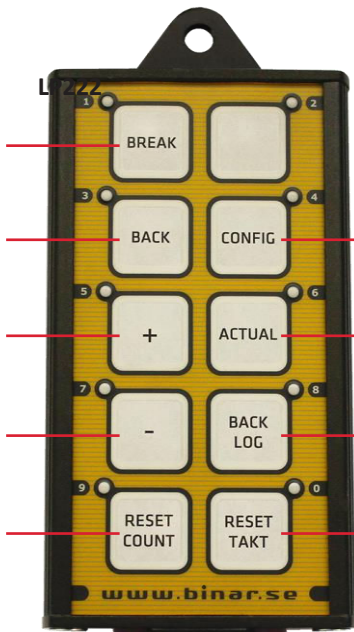


# DISPLAY MODE

<b>TAKT</b>	<p><b>ACTUAL</b> Number of units produced.</p> <p><b>BACKLOG</b> Green = prod. follows plan Red = prod. is under plan</p>		<p><b>TAKT TIME</b> Green = Countdown Red = Stop time count</p>
<b>STOP TIME</b>	<p><b>STOP TIME</b> Total production stop time.</p> <p><b>BACKLOG</b></p>		<b>TAKT TIME</b>
<b>BREAK</b>	<p><b>ACTUAL</b></p> <p><b>BACKLOG</b></p>		<p><b>BREAK</b> The word "BREAK" appears on the screen along with a timer counting down the break time in yellow.</p>
<b>ANDON</b>	<p><b>ACTUAL</b></p> <p><b>BACKLOG</b></p>		<p><b>ANDON</b> Andon and a clock that displays the time for Andon are shown in yellow, switching back and forth.</p>

# FUNCTION

- BREAK**  
Activate/deactivate pause mode.
- BACK**  
Cancel and return to sub-menu.
- UP**  
Increase/scroll up
- DOWN**  
Decrease/scroll down.
- RESET COUNTER**  
Hold to reset ACTUAL, BACKLOG and STOP TIME.



## TAKT-TIME-RECIPE (OPTION LP220)

Press the button of your choice to select from ten pre-set Takt intervals (TAKT TIME). Your chosen TAKT TIME will take effect at the next TAKT. If you press the button for three seconds or more, the change will take effect immediately.

### INDICATIONS

Solid green = Current Takt time recipes  
Flashing yellow = Upcoming recipes will take effect starting with the next Takt.

- CONFIG**  
Press and hold to start configuration. Press to select or confirm changes.
- ACTUAL**  
Hold and simultaneously press UP or DOWN to adjust ACTUAL.
- BACKLOG**  
Hold and simultaneously press UP or DOWN to adjust BACKLOG.
- RESET TAKT**  
Press and hold to reset TAKT TIME.



Other language?  
The texts of the buttons are easy to replace and are available in several languages. see [binarsolutions.com](http://binarsolutions.com).

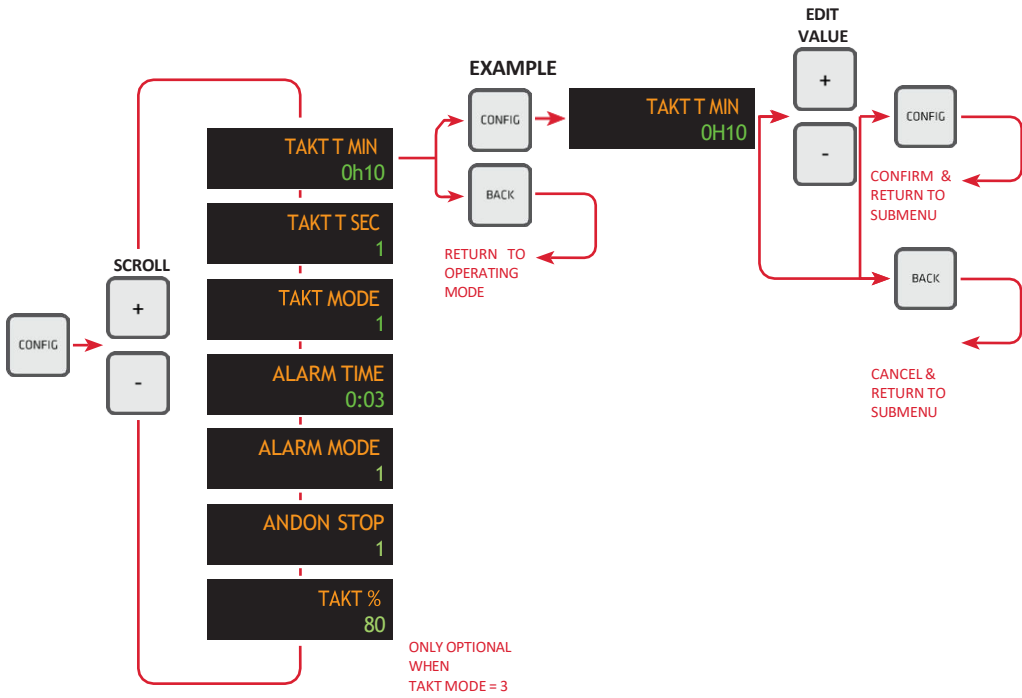
# CONFIGURATION

- TAKT T MIN**       $n$       TAKT TIME in hours and minutes, where  $n = 0-9h00m$
- TAKT T SEC**       $n$       TAKT TIME in seconds, where  $n = 0-59$
- TAKT MODE**      1      TAKT TIME restarts when it reaches zero. \*
- 2      TAKT TIME restarts when the READY button is pressed and TAKT TIME reaches zero.
- 3      TAKT TIME restarts when READY button pressed and the TAKT % time has elapsed.  
\*) If Stopping ANDON or BREAK is inactive.
- ALARM TIME**      0      ALARM-signal is active in case of an alarm.
- $n > 0$       ALARM-signal is active for  $n$  number off seconds for each new alarm.
- ALARM MODE**      1      ALARM-signal is active at STOP.
- 2      ALARM-signal is active at ANDON.
- 3      ALARM-signal is active at ANDON and STOP.
- ANDON STOP**      1      Stopping ANDON, preventing a new takt. READY-signal deactivates.
- 2      WARNING ANDON, does not prevent a new TAKT. READY-signal will not be affected.
- TAKT %**       $n = 0-100$       Specifies the percentage of time that must pass before Clocking is allowed.  
 This function is only available when CLOCK MODE 3 is selected.  
 For example, if the TAKT TIME is 10 minutes and the TAKT percentage is 80, Clocking is not permitted until 8 minutes have passed.

**TAKTTIME-RECIPE ( OPTION LP220)**

When using Takt time recipes, the recipe sets the TAKT TIME for the current process.

To change the time for a different TAKT TIME recipe, exit the current configuration, select the desired recipe by pressing its respective button on the LP220, and then restart the configuration.

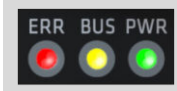


## LP315 I/O Box

1	IN	READY	Alternating function.
	OUT		Active (on) according to parameter TAKT MODE and ANDON STOP.
2	IN	ANDON	Alternating function activates interrupt. READY is interrupted.
	OUT		The signal is active (on) when the ANDON input is activated.
3	IN	RESET	Pulse positive edge.
	OUT	ALARM	Active (on) based on the ALARM TIME and ALARM MODE settings.
4	IN	BREAK	Alternating function.
	OUT	TAKT PULSE	Pulse 1 sec when TAKT TIME restarts.

## STATUSINDICATION

De tre lysdioderna på displayens sida visar enhetens status.



- PWR = Voltage OK
- BUS = Bus OK
- ERR = Internal error / Bus error

