





# User's Guide -PX Combi 835. Bale Counter

Software version. count .1.



#### Facilities.

"CYC"Cycle. Counts up the number of rotations. SETTING the number of rotations.

"BAL"Number of wrapped bales, reset able.

"BAL+"Total number of wrapped bales, non-reset able counter.

"STOP" Stopping the turntable rotation in a user defined position.

A display segment shows in which mode the computer is operating. Referring to the picture above, the cycle data is showing 11 of 13 required turns are made and the turntable will be stopped for off loading the bale in a position defined by the user via the program settings.

When the power is connected to the counter, the display will first show the software version. " count .1." followed by the display "STOP"

The display "STOP" indicates that the turntable valve output is blocked for activation. This is a safety facility which serves to avoid accidental activation of the turntable.

Pushing any one key will deactivate the "output" valve blocking facility and the "Cycle mode" display will be shown as seen top this page. As soon as the counter receives an impulse from the turntable sensor, the valve output will activate, the valve and the table will rotate for the program defined number of turns.

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Now pushing the key will advance the indicator segment one step and thus show number of wrapped bales on the reset able counter.

8.12

Now pushing the key once more, will advance the indicator segment one step further and now show "total number of wrapped bales".

### 8.13 Description of Bale Counter PX Combi 835.1.1.

The computer is developed for counting the number of bale rotations, count the number of completed bales, and to stop the turn table at a operator defined point. An alarm will sound when (n-1) required number of rotations are reached.

When the display is in "cycle mode" (a display segment is aligned with "CYC") 2 numbers are displayed:

Counter = number of rotations, so far. (11-13) SET number of rotations.

For the specific example, when the number to the left equals the number to the right minus 2 (e.g. 13-1=11), the acoustic alarm will be activated. The alarm will continue for the following 10 seconds, or until the next rotation is completed. In case the bale is wrapped further, the alarm will sound for 2 seconds after each additional bale-rotation.

Each time the counter ("number of rotations, so far") equals "SET number of rotations", the number of wrapped bales "Bal" and "Bal+" are both increased by one (+1). The computer has now registered, that one more bale has been wrapped.

5 seconds after the last rotation, the display shows the number of wrapped bales (Bal).

If the bale is not rotated further within the next 10 seconds (after the last rotation), the computer resets the counter ("number of rotations, so far"), and is ready for the next bale. However, if the bale *is* rotated further within 10 seconds, the computer will know, that the same bale is still on the table, and it continue increasing the "number of rotations, so far".

# 8.14 **PROGRAMMING.**

To enter the programming mode, depress the : for 1 second while the display points at the "CYC" symbol on the top left side of the display. The display will now change to show the below display.

The most significant digit will flash, If required increased or decreased, press the  $\begin{bmatrix} 0 & 9 \\ 0 & 9 \end{bmatrix}$  key, if not press if it is for next digit and again  $\begin{bmatrix} C \\ 0 & 9 \end{bmatrix}$  for value change.



If no changes are required, press the "arrow" key and the display will advance program stage

Push  $\checkmark$  = Programming table stopping point.

DISPLAY EXAMPLE: PROGRAMMING MODE (2).

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F = multiplication factor determining the time in which the output is active into the last turn before stopping.

Now push  $[\downarrow\downarrow\downarrow]$  = to exit programming. The display will return to operative and point at the cycle (CYC):

#### 8.15 <u>How the stop program work:</u>

The counter automatically measures the speed of the turntable between the 3rd and the 2nd last revolution. Assume the speed represents 3 seconds for on revolution, the counter will record this. Now the F: X.XX factor is a multiplication factor which enables the positioning of the table between the interval factors 0,01 to 1,99 multiples of 1 turn table revolution.

Example ! if one revolution is 3 seconds, then the table may be stopped in the position, start position = stop position. F= 0.00.

If The factor then is set to F=0.50, The turn table will stop (0.50\*3) seconds = 1.5 seconds into the final revolution which approximately is 90 degrees before the start position.

If The factor then is set to F=1.50, The turn table will stop (1.50\*3) seconds = 4.5 seconds into the final revolution which approximately is 90 degrees past or 1.5 seconds past the start position.

# 8.16 <u>Starting and stopping the cycle.</u>

After the counter receives the 1st. turntable impulse, the valve output is activated, provided the display is showing the Cycle mode. If the display shows "STOP" press any one key to permit the activation of the output after the first turn table revolution.

### 8.17 <u>Stopping the active turn table.</u>

When the turn table is running, active by the counter output, it can either be stopped using an

emergency power circuit breaker or by pushing the key for approximately 1 second. The Display will then show "**STOP**". The auto run cycle may then be restarted pressing any one key, and the display will then show the cycle mode as shown below. Now the Turn table valve output will be activated after the next turn pulse is received.



### 8.18 <u>Resetting applied number or table revolutions</u>.

When the display shows "CYC", the "number of rotations, so far" can be reset by pressing  $\begin{bmatrix} C \\ 0 \\ 9 \end{bmatrix}$ 

 $\frac{9}{2}$  button should it be necessary not to include the already applied turns to the bale.

### 8.19 Wrapping a bale - an example:

"SET number of rotations" is programmed = 13, and "number of rotations, so far" is zero.

The bale is placed on the machine, and the wrapping is started. When the bale has been rotated 12 times, the alarm will sound, and now the table will be stopped according to the program settings into the last rotation is completed. Now there are 10 seconds to decide whether further revolutions are needed or not. Additional turns this bale may be applied by

using the manually operated hydraulics. 10 seconds after the last rotation, the computer will reset "number of rotations, so far", and is ready for wrapping the next bale.

#### 8.20 **Resetting the bale counters.**

The bale counters ("Bal" and "Bal+") both count up to 99.999 bales, where upon they will restart from zero.

At any time it is possible to reset the "Bal"-bale counter.

Kesetting the bale counter Bal					
Key	Display	Explanation:			
	126	Find the bale counter "Bal".			
SET	126	Press key for 1 second - the number starts flashing.			
C 0 9	0	Press key to reset that bale counter.			
€₽	0	Press key to exit programming, and enter normal operation.			

Posatting the bala counter "Bal"

The Bal+ can not be reset.

#### 8.21 The internal alarm and the valve output.

The computer is equipped with an internal alarm. It is optional to connect the run valve across the output.

Note: The output is secured with a = 3,15 Amp. fuse.

#### 8.22 **Computer memory.**

The computer is equipped with a memory which stores and recalls all values programmed and accumulated, when the power to the unit is disconnected / connected.

#### 8.23 Installing the computer.

The back panel of the computer is equipped with 2 slots in which the mounting bracket is to be slit into for fixation of the computer.

The sensor to the computer has to be connected as shown in the supplied diagram, and in such a fashion that chances of damage to the cable and sensor is minimal.

### 8.24 <u>Fitting the magnetic sensor for rotations.</u>

The magnet must be fitted on the rotating table and the magnetic sensor to a bracket so that the magnet passes the sensor within a distance of 2-8 mm.



PLEASE NOTICE:

If the magnetic sensor is to be mounted on a mounting bracket which is magnetizable (iron), then the sensor <u>must</u> be placed at least 5 mm beyond the edge of the mounting bracket.

The sensor cable is connected to the computer as illustrated by the diagram. Be aware of positioning to avoid damages to the cable.

### 8.25 Installation diagram - PX COMBI 835

