

Digital adjustable operating hours impulse counter BZR12DDX-UC with alarm relay and reset



1 CO contact potential free 10A/250V AC.
Standby loss 0.05-0.5 watt only.

Modular device for DIN-EN 60715 TH35 rail mounting.

1 module = 18mm wide, 58mm deep.

Patented Eltako Duplex technology (DX) Eltako Duplex technology (DX) allows you to switch normally potential free contacts in zero passage switching when 230V A/C voltage 50 Hz is switched. This drastically reduces wear. To achieve this, simply connect the N conductor to the terminal (N) and L to 1(L). This results in an additional standby consumption of only 0.1 watt

The BZR12DDX is adjustable when the supply voltage UC (8-253V AC or 10-230V DC) is applied to B1/A2:

Select the function by pressing the projecting buttons **MODE** and **SET**: Press **MODE** briefly to make the last function selected (factory setting **BST = operating hours counter**) flash in field 1. Then press **SET** to switch between **IMP=impulse counter up to 9999 impulses** and **I10 = impulse counter x 10 up to 99990 impulses**. Confirm the selected function by pressing **MODE**.

BST function = operating hours counter

Field 3 shows the accumulated **operating hours T1** up to 8760 hours = 1 year. Up to 999.9 hours with one decimal point. Field 2 can display up to 99 accumulated **operating years T2**.

Press **MODE** to activate the **alarm time AZT** from 1 to 9999 hours when the relay contact is switched over from 1-2 to 1-3.

AZT flashes and **SET** increments each time by 1 hour in field 3. Press and hold down to change the time rapidly.

Release and then press and hold down again to change the direction. Confirm the selected time by pressing **MODE**. The + character in field 1 displays the set alarm time. **AA** flashes and **SET** activates (display **AA+**) or deactivates (display **AA**) the automatic alarm disconnection.

The operating hours are counted in field 3 as long as the control voltage (= supply voltage) is applied to A1. The display **ll** moves slowly to the right in field 1.

The **residual alarm time RZT** in hours can be displayed by pressing **SET** briefly in field 3. Press

SET again to switch back to the operation display. **If there is a power failure**, the contact switches over from 1-2 to 1-3 and may therefore be used for an alarm signal.

When the **alarm time is reached**, the contact switches over from 1-2 to 1-3, **SET** flashes in field 1 and the display of the elapsed alarm period starts in field 2 from 0.1 minute (m) to 99 hours (h). The contact position 1-3 is indicated by an arrow on the left in field 1.

Acknowledge the alarm: a) If the automatic alarm disconnection is activated (**AA+**), the contact 1-3 closes for only 1 second and the alarm time restarts. b) By connecting the control voltage +B1 to **AR** the contact switches back, if **AR** is disconnected from the control voltage the alarm time restarts. c) Press **SET** for 3 seconds to switch back the contact and to restart the alarm time. The operating hours counter in field 3 continues running same as for a) and b).

Reset the operating hours counter previous to the alarm signal by applying the control voltage +B1 to **AR** for 3 seconds or by pressing the **MODE** and **SET** buttons simultaneously for 3 seconds, confirm the **RES** display in field 1 by pressing **SET**. The counter is reset to 0. This does not change the alarm time.

Enable the keylock by pressing **MODE** and **SET** briefly and simultaneously. When you confirm the flashing display **LCK** by pressing **SET**, the buttons are locked and this is indicated by an arrow in field 1 pointing in the direction of the lock icon sticker.

Disable the keylock by pressing **MODE** and **SET** simultaneously for 2 seconds. Confirm the flashing display **UNL** by pressing **SET** to unlock.

IMP function = impulse counter and Function I10 = impulse counter x 10

Field 3 shows the accumulated **impulses T1** up to 9 999 (99 990) impulses. Press **MODE** to **activate the alarm impulse number AIZ** when the relay contact switches over from 1-2 to 1-3. **AIZ** flashes and **SET** increments each time by 1 impulse in field 3. Press and hold down to change the impulse number rapidly. Release and then press and hold down again to change the direction. Confirm the selected impulse number by pressing **MODE** and the + character in field 1 to display the set alarm impulse number.

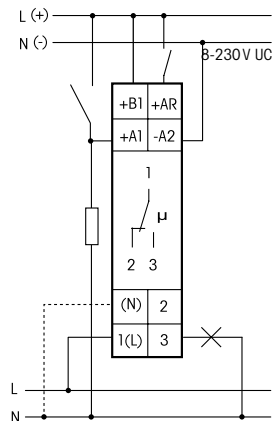
Every voltage impulse (identical with the supply voltage) detected at A1 increments the number of counted impulses in field 3.

The **residual impulse number RIZ** can be displayed after pressing **SET** briefly. **RIZ** appears in field 1 and the residual impulses until the alarm is displayed in field 3. Press **SET** again to switch back to the operation display.

When the **alarm impulse number is reached**, the contact switches over from 1-2 to 1-3, **SET** flashes in field 1 and the display of other impulses up to 99 (990) starts during the alarm signal. The contact position 1-3 is indicated by an arrow on the left in field 1.

'**Acknowledge alarm**', '**Reset**' and '**Lock/unlock setting**' are identical to the **BST** function = operating hours counter.

Typical connection



If N is connected, the zero passage switching is active.

Technical Data

Rated switching capacity	10A/250V AC
Incandescent lamp and halogen lamp load ¹⁾ 230V	2000W
Max. switching current DC1:	8A
12V/24V DC	

¹⁾ For lamps with a load of 150W max.



The strain relief clamps of the terminals must be closed, that means the screws must be tightened for testing the function of the device. The terminals are open ex works.

Warning!

Only a trained electrician may install this equipment, otherwise there is a risk of fire or electric shock.