

O - Operating Hours Counter

Can be used for	
Device	From version no.:
EASY500	01
EASY700	01

General

The devices have four independent operating hours counters.

This operating hours counter enables you to record the operating hours of systems, machines and machine parts. You can enter a setpoint within the valid value range 0...999999. This enables maintenance times to be monitored and reported.

The counter state is also retained when de-energized.

Note: The actual value can only be cleared via the Reset coil!

Even operations such as the RUN -> STOP mode change, Voltage ON -> OFF, delete or modify program or delete new program do not delete the actual value of the operating hours counter.

Function

If the counter coil TO is set to 1, the counter increments its actual value every second by the value 1 (basic pulse: 1 second).

If the actual value reaches the setpoint of S, the contact O switches for as long as the actual value is greater than or equal to the setpoint.

The actual value is kept stored in the device until the Reset coil RO is set to 1. The actual value is then set to zero.

Accuracy of the operating hours counter

As the operating hours counter counts in seconds, up to 999 ms can be lost if a device is switched off.

Linking and Parameter Assignment of an Operating Hours Counter

Requirements: You have included a control relay in the project and have switched to Circuit Diagram View.

Activating an operating hours counter

- ▶ Position an O operating hours counter operand in the circuit diagram on a coil field so that you can activate a count function.
- ▶ In the Circuit Diagram Element tab of the Properties field window select the required function block number between 1 and 4 and the Trigger coil function.
- ▶ In the Parameters tab enter the setpoint in hours if you are not only displaying the counter status but are also programming a switch operation that depends on this.
- ▶ If required, change the enable of the parameter display and/or write a [comment](#) for the selected operand.
- ▶ Connect the OOx coil with an appropriate contact for activation. The operating hours counter is incremented as long as the coil is set to 1.

Evaluation of an operating hours counter contact

If you wish to trigger a switching operation when a particular counter status is reached, you must also position the OOx

operand that is programmed as a coil on a contact field. The contact switches if the actual value is greater than or equal to the setpoint.

- ▶ Position the function relay on a contact field and select the same function block number in the Circuit Diagram Element tab that you have assigned to the coil.
- ▶ If required, change the switch function of the contact from break to make contact.
- ▶ Connect the contact O0x with an appropriate coil.

Resetting an operating hours counter

- ▶ In order to reset the counter status position the O0x function relay that has already been linked as a counter coil once more on a coil field of your circuit diagram.
- ▶ In the Circuit Diagram Element tab select the function block number between 1 and 4 that has been used for the count operation and the Reset coil function.
- ▶ Connect the O0x coil with an appropriate contact for activation.

Whether you position the function relay first of all in a coil field or contact field or whether you make the entries in the Parameters tab of a coil or a contact is not important. It is only important that you have selected the same function block number if you also want to configure the same function relay.

Circuit diagram elements and parameters

	Description	Note
Function relay input (setpoint)		
S	Setpoint	Entry in hours 0...999999 The operating hours counter can thus count in the range from 0 hours to well over 100 years.
Contact		
Oxx	The contact switches if the actual value is greater than or equal to the setpoint.	
Coil function		
Enable - possible via contactor function.	Function as Enable coil: On 1 the counter increments with a minute pulse.	Oxx
Reset -	Function as Reset coil: On 1 the counter actual value is reset.	ROxx
Operating mode		
-	-	
Parameter display		
Call enabled	The parameters can be viewed on the device.	
Simulation		
-		-

Operand selection for the S input

Operand	Description
Constant	999999

Tip: Refer to the EASY500/700 manual (AWB 2528-1508x) for more information on the function block (e.g. signal diagram).

