

BZ 140 Explosion-Proof Operating-hour Counter

Event Counter
Control 12 to 250 V AC and DC
TÜV 03 ATEX 2089



- For a wide voltage range, 12 to 250 V
- For AC and DC voltage
- 8-digit display with 8 mm digit height
- Quartz-controlled with a 1/100 hour resolution
- Small dimensions (front panel 36 x 72 mm)
- Internal power supply by means of a lithium battery with a service life of 8 years (replaceable by manufacturer)

- Power consumption dependent on supply voltage 0.05 to 23 mW (BZ 140.1 - 0.15 to 62 mW)
- Internal resetting of display to 0
- Use of version BZ 140.1 as an event counter with manual resetting
- Control with 3-wire initiator or reed contact

Function

The BZ 140.0 operating-hour counter is primarily used for electrical machines and systems to determine operating times and monitor maintenance intervals.

A quartz-controlled time base and a very wide operating voltage range of 12 to 250 V in conjunction with an input resistance of 3×10^6 Ohm (BZ 140.1 - 1×10^6 Ohm) enables universal use of this unit.

The BZ 140.0 counter is connected in parallel to the machine whose operating time should be monitored.

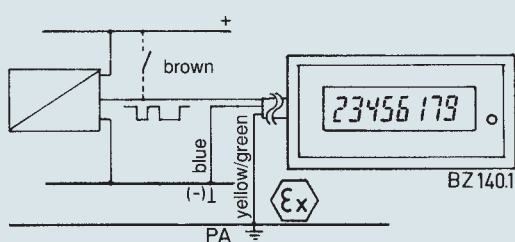
When the system to be monitored operates, the quartz-controlled time base is enabled and its pulses are counted by a CMOS processor and displayed. Power is supplied to the elapsed-time counter by a

lithium battery with a service life of 8 years. After this time, the battery must be replaced to ensure reliable operation.

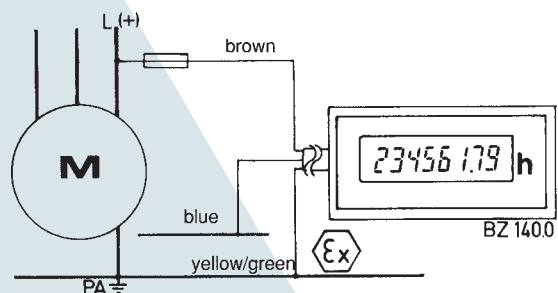
If maintenance intervals should be monitored, the unit can be reset to 0 after each interval. Resetting is performed by removing the front frame and jumpering the two pins located at the right.

Event counter BZ 140.1 counts, sums and displays all incoming pulses (voltage range 12 to 250 V). Resetting is performed manually by pressing a button on the front panel of the unit. The maximum counting rate is 40 pulses per second.

Event Counter (block diagram)



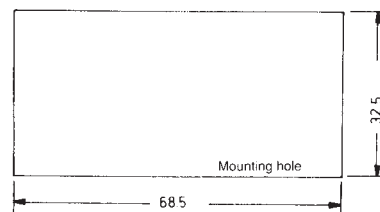
Operating-hour counter (block diagram)



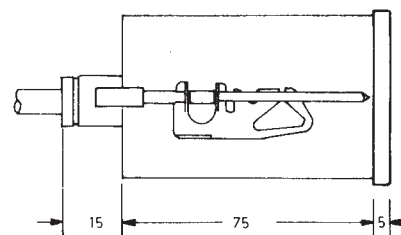
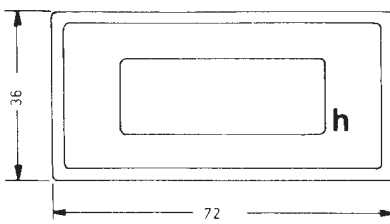
Technical Data

Display	7 segment, 8-digit LCD	
Digit height	8 mm	
Display range	Operating-hour counter 999999.99 h	Event counter 99999999
Reset	Internal	Pushbutton on front panel
Smallest counting unit	1/100 h	1
Operating voltage	12 to 250 V AC or DC voltage	1 signal 12 to 250 V 0 signal < 5 V
Accuracy	± 20 sec/100 h	
Explosion protection	E Ex q ib II C T6	
Power consumption	BZ 140.0 - 0.05 to 23 mW, BZ 140.1 - 0.15 to 62 mW, depending on operating voltage	
Internal power supply	Lithium battery with a service life of 8 years (replaceable by manufacturer). (Shortened battery service life at ambient temperatures above + 40°C)	
Housing	Acc. to control-panel standard DIN 43700 H x W x D = 36 x 72 x 82.5	
Ambient temperature	-10°C to + 40 °C for temp. class T6, -10°C to + 60°C for temp. class T4	
Electric connection	Cable, 3 x 0.75 mm ²	
Wire length	1.5 m Specify other lengths in order.	

Dimensions



Housing protection class:
frontal IP40; IP65 on demand



Type Code BZ 140 [.]

8-digit operating-hour counter
with a resolution of 1/100 h _____ 0

8-digit event counter with
reset button on front panel _____ 1



**Gönnheimer
Elektronik GmbH**

<http://www.goenneheimer.de> Email: info@goenneheimer.de



Dr.-Julius-Leber-Straße 2
67433 Neustadt/Weinstraße
Postfach 10 05 07
67405 Neustadt
phone: +49 (6321) 49919- 0
fax: +49 (6321) 49919 - 41