

# BZ 140.

## EExi Totalizer

Time Counter  
Contact Input  
TÜV 03 ATEX 2089



- Mains-independent operation
- 8-digit display with 8 mm height digits
- Continuous display of total on LCD  
- requires no external power supply -
- Small dimensions (front panel 36 x 72 mm)

- Internal power supply from lithium battery with a service life of 8 years (replaceable by manufacturer)
- As time counter with a resolution of 1/100 h (36 sec)
- Trouble-free use in hazardous areas
- Resetting via remote control signal

## Function

The BZ 140.5/6 family of counters with LCD is designed for direct use in potentially explosive atmospheres. The built-in lithium battery (8-year service life) enables operation at the site of installation without an external power supply. The unit can therefore be used as a replacement for mechanical counters, without the need for power supply wiring.

The BZ 140.6 version is an 8-digit totalizer with clock input and remote reset.

Counting is executed upon contact closure; the count increased by 1 each time the contacts at terminals 1 and 2 are closed. Mechanical and magnetic contacts as well as simple electronic transmitters with open collectors can be used as contactors.

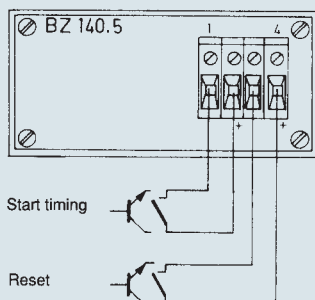
The totalizer can be reset to 0 at terminals 3 and 4. The reset input overrides the totalizer input. Upon request, the totalizer can be supplied with a reset button on the front panel.

Monitoring of the clock and reset inputs by the totalizer is not executed continuously but in cycles of 4 ms. The short-duration signal monitoring uses only very little battery power, thus allowing the battery's service life of 8 years to be attained even when the contactors are always closed.

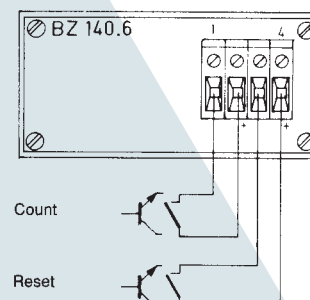
In addition, this point monitoring enables better suppression of spurious pulses in the control wire. The input signal is evaluated only if the signal state exists during 3 monitoring cycles. However, this also means that the minimum pulse duration of an input signal must be 12 ms. The maximum counting frequency is 40 Hz.

The BZ 140.5 time counter also has a time base. Closure of the contact at terminals 1/2 starts the time base with a resolution of 1/100 h. When the contact is opened, the display stops at the last counted value. Time display can be reset to 0 by closing the contact at terminals 3/4.

## Time Counter

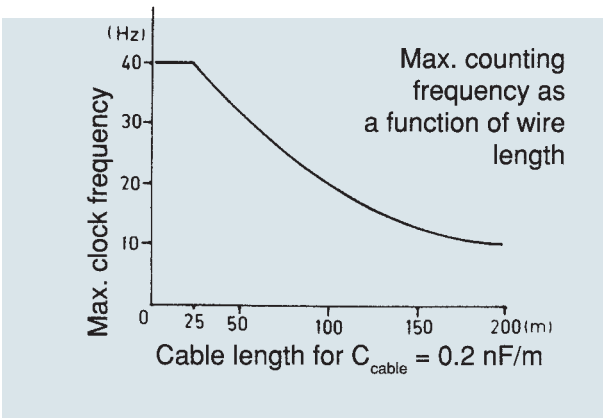


## Totalizer

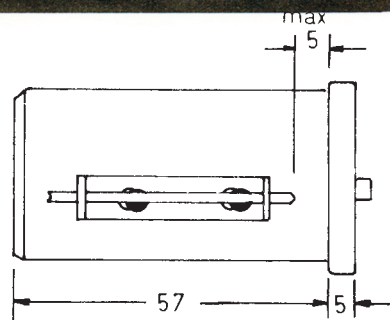
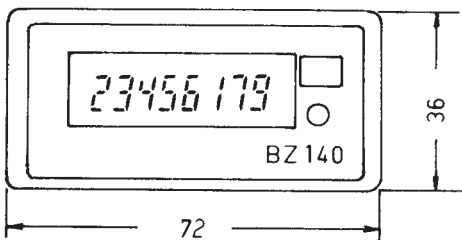


# Technical Data

Display	7 segment, 8-digit LCD	
Digit height	8 mm	
Display range	Time counter 999999.99 h	Totalizer 99999999
Reset	Remote reset via terminals at rear of unit	By pushbutton on front panel (option)
Smallest counting unit	1/100 h (36 sec)	1
Counting frequency	max. 40 Hz, min. pulse duration 12 ms (Faster input up to 5 KHz upon request)	
Accuracy	$\pm 20 \text{ sec}/100 \text{ h}$	
Explosion protection	E Ex ib II C T6	
No-load voltage	$U_o \leq 3.9 \text{ V}$ $P \leq 3.2 \text{ mW}$	Perm. external capacitance $\leq 200 \mu\text{F}$
Short-circuit current	$I_k \leq 3.3 \text{ mA}$	Perm. external inductance $\leq 1000 \text{ mH}$
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 62 mm	
Ambient temperature	-10°C to + 40°C for temp. class T6, -10°C to + 60°C for temp. class T4	
Electric connection	Via 4 terminals at rear of unit	



## Dimensions



Control panel cutout : 68,5 x 32,5

Housing protection class: frontal IP40; IP65 on demand

## Type Code BZ 140

8-digit time counter with a resolution of 1/100 h

5

8-digit totalizer with contact input

6

Option: Reset button on front panel (please specify in order)

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Zertifiziertes

Qualitäts-

Managementsystem

nach

DIN EN ISO 9001

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