

Model	Operating mode	Time range	Inputs			
			INP A		INP B	
134k.012.8x0	Timer	99999h 59 m/ 99999.99 h	—		0 ... 0,7 V DC	NPN
134k.012.8x1			—		4 ... 30 V DC	PNP
134k.012.8x3			10 ... 260 V AC/DC	AC/DC	10 ... 260 V AC/DC	AC/DC
135k.012.8x0	Timer	9999 h 59 m 59 s/ 9999999.9 s	—		0 ... 0,7 V DC	NPN
135k.012.8x1			—		4 ... 30 V DC	PNP
135k.012.8x3			10 ... 260 V AC/DC	AC/DC	10 ... 260 V AC/DC	AC/DC

Timer: INP A: no function
INP B: Timer-Enable-Input

Timer: INP A: Timer-Enable-Input AC/DC
INP B: reset input AC/DC

Display: LCD, 8 digits, height of the figures 8 mm

Display range:
0 ... 99999999 with leading zeros
suppression.

Accuracy: < 100 ppm

Overflow:
In case of a display range overflow, the
timer starts again from 0, but without remov-
ing the leading zeros and activating all deci-
mal points.

Keys: Electrical locking of the reset key

Housing: Panel mounting, 48 x 24 mm
according to DIN 43 700, RAL 7021

Panel cut-out:
22,2^{+0,3} x 45^{+0,6} mm

Mounting depth:
approximately 48 mm

Weight: approximately 50 g

Protection level:
NEMA 4 / IP65 on the front side

Input specifications, terminal assignment and adjustable time ranges (DC versions)

The time range is set via a control input (screw terminal 5).

Screw terminal	No. 1	No. 2		No. 3	No. 4	No. 5	No. 6	No. 7	No. 8
Designation	INP A	INP B		Reset	Reset Enable	Time range (Mode)	GND	BL —	BL +
Model	no function	Timer Enable Input	NPN	Reset input NPN	NPN reset key locking input, Contact with GND, key free	not active	GND = 0 V DC	backlight (—)	backlight (+)
134k.012.8x0			contact with GND						
134k.012.8x1			99999 h 59 m			99999,99 h			
135k.012.8x0			not active			contact with GND			
135k.012.8x1	9999 h 59 m 59 s	9999999,9 s							

Table 2

Screw terminal 1: no function

Screw terminal 2:
Timer Enable Input:

time measurement as long as the input is active

NPN: active for low level
Input resistance: approximately 1 MOhm

Low level: 0 ... 0,7 V DC

High level: 3 ... 30 V DC

PNP: active for high level
Input resistance: approximately 100 kOhm

Low-level: 0 ... 0,7 V DC

High-level: 4 ... 30 V DC

Screw terminal 3:

Reset input:
active for negative edge contact input / Open Collector NPN (switching at 0 V DC)

Low level: 0 ... 0,7 V DC

High level: 3 ... 30 V DC

Min. pulse duration: 50 ms

Input resistance: approximately 2,2 MOhm

Screw terminal 4:

Electrical locking of the reset key
Contact input / Open Collector NPN (switching at 0 V DC)

Low level: 0 ... 0,7 V DC

High level: 3 ... 5 V DC

Input resistance: approximately 2,2 MOhm

Input not active:

Reset key locked

Input active (contact with GND):

Reset key unlocked

Screw terminal 5:

Time range switching (Mode)
contact input / Open Collector NPN (switching at 0 V DC)

Low level: 0 ... 0,7 V DC

High level: 3 ... 5 V DC

Input resistance: approximately 2,2 MOhm

Function: see table 2

Remark

If the time range is changed during operation, the device must be reset, otherwise the counting value will not be reproducible.

Screw terminal 6:

Common GND connection for all inputs

Screw terminal 7:

(—) external power supply for the backlight option

Screw terminal 8:

(+) external power supply for the backlight option (24 V DC -20 %, 50 mA)

Input specification, terminal assignment and adjustable time ranges (AC versions)

The time range is set via a control input (screw terminal 5).

Screw terminal	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	
designation	INP A AC/DC	Common AC/DC	INP B AC/DC	Reset Enable	Time range (Mode)		GND	BL —	BL +
Model									
134k.012.8x3	Timer Enable Input AC/DC	Common connection for INP A and INP B	reset input AC/DC	NPN reset key locking input, Contact with GND. key free.	not active contact with GND	GND = 0 V DC	Backlighting (—)	Backlighting (+)	
135k.012.8x3					99999 h 59 m 99999,99 h				
					not active contact with GND				
					9999 h 59 m 59 s 9999999,9 s				

Table 3

Screw terminal 1:

Timer Enable Input:

time measurement as long as
the level at this input is high.

Optocoupler input

10 ... 260 V AC/DC
galvanic isolation, active for
High signal

Low level:

0 ... 2 V AC/V DC

High level:

10 ... 260 V AC/DC

Input resistance:

approximately 160 kOhm

Screw terminal 2:

Common AC/DC, common connection for the optocou-
pler inputs (screw terminals 1 and 3)

Screw terminal 3:

Reset input:

active for high level.

Optocoupler input:

10 ... 260 V AC/DC galvanic
isolation, active for high signal

Min. pulse duration:

16 ms

Max. frequency:

approximately 30 Hz

Low level:

0 ... 2 V AC/V DC

High level:

10 ... 260 V AC/DC

Input resistance:

approximately 160 kOhm

Screw terminal 4:

Electrical locking of the reset key
Contact input / Open Collector NPN
(switching at 0 V DC)

Low level:

0 ... 0,7 V DC

High level:

3 ... 5 V DC

Input resistance:

approximately 2,2 MOhm

Input not active:

Reset key locked

Input in contact with GND:

Reset key unlocked

Screw terminal 5:

Time range switching (Mode)

Contact input / Open Collector NPN
(switching at 0 V DC)

Low level:

0 ... 0,7 V DC

High level:

3 ... 5 V DC

Input resistance:

approximately 2,2 MOhm

Function:

see table 3

Remark:

If the time range is changed during operation,
the device must be reset, otherwise the
counting value will not be reproducible.

Screw terminal 6:

Common GND connection for screw terminal 4
(reset key locking input) and screw terminal 5
(time range switching).

Screw terminal 7:

(—) external power supply for the backlight option

Screw terminal 8:

(+) external power supply for the backlight option
(24 V DC –20 %, 50 mA)

Scope of delivery:

Timer
Clamp
Front frame for screw mounting,
Panel cut-out 50 x 25 mm
Front frame for clamp mounting,
Panel cut-out 50 x 25 mm
Seal
Operating instructions

Installation:

DC versions:

Use shielded wires for the counting and control inputs so as to obtain the maximum EMC resistance.

Use according to the intended purpose:

This device only may be used inside, as a panel-mounted device! Applications of this product may be found in industrial processes and controls, in the branch of the manufacturing lines for the metal, wood, plastics, paper, glass, textile, etc., processing industries. It must be considered that the overvoltages at the terminals of the device must be limited to the values of overvoltage category II. Overvoltage category II is described in the standard EN 61 010 Part 1.

This device shall only operate when it has been correctly mounted in a panel. It may only be used in accordance with the chapter Main technical features .

This device shall not be used:

- in areas with risks of explosion,
- in the branches expressly quoted in the standard EN 61 010.

If this device is used to monitor machines or a process in which, in case of a failure of the device, there might be risks of damaging the machine or causing accidents to the operators, it is up to you to take appropriate safety measures.

Note:



This product includes a lithium battery. Do not open it by force, do not throw it in the fire. Avoid temperatures below -20°C and above 70°C !

AC versions:

Use shielded wires for the counting and control inputs so as to obtain the maximum EMC resistance.

Safety instructions:



Only use these counters

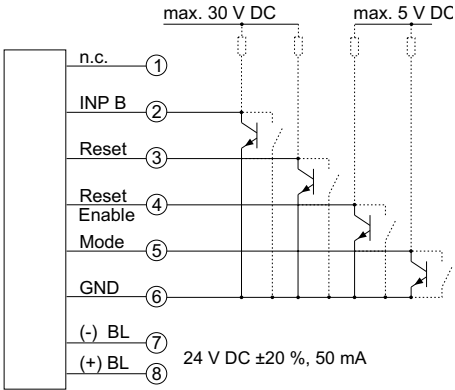
- in a way according to their intended purpose
- if their technical condition is perfect
- adhering to the operating instructions and the general safety instructions.

Take also into account the fact that there may exist user or country-specific safety regulations, which also must be respected.

Connections:

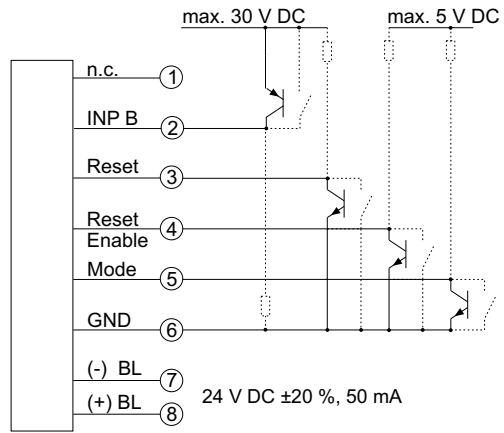
DC-Type:

134k.012.8x0
135k.012.8x0



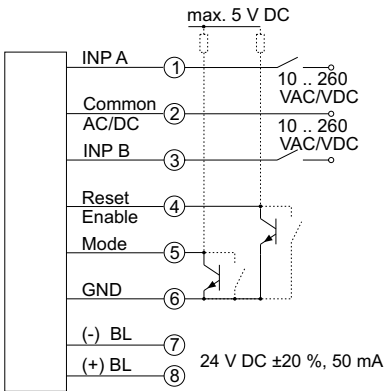
DC-Type:

134k.012.8x1
135k.012.8x1



AC-Type:

134k.012.8x3
135k.012.8x3

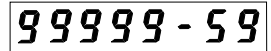


Time ranges and display

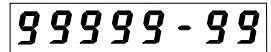
Time range

Display

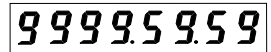
99999 h 59 m



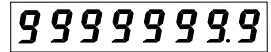
99999.99 h



9999 h 59 m 59 s

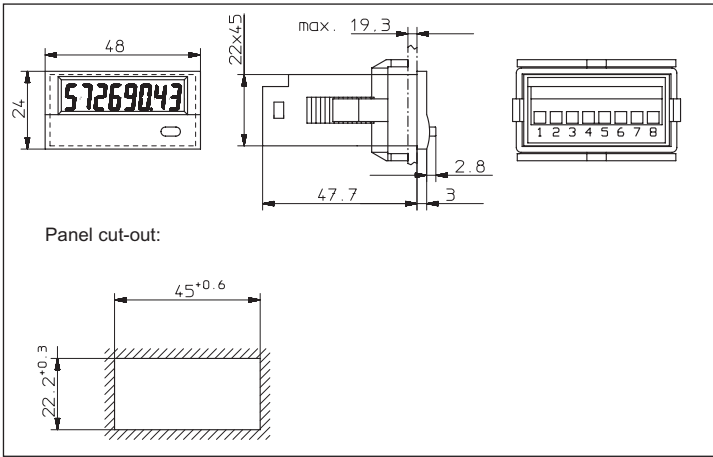


9999999.9 s

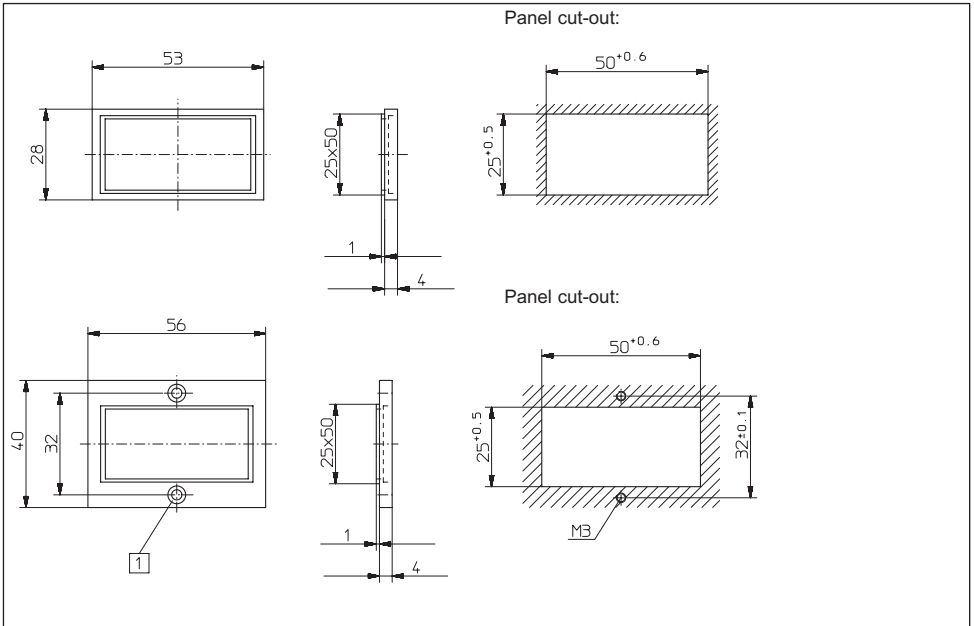


BL = backlight

Dimensions:



Dimensions:



1 Countersinking Af3, DIN 74