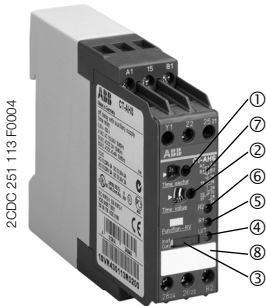


Electronic timer CT-AHS

OFF-delayed with 2 c/o contacts

Data sheet



CT-AHS

- ① 10 selectable time ranges, from 0.05 s to 300 h
- ② Potentiometer with direct reading scale for the fine adjustment of the time delay
- ③ Sliding switch to set the 2nd c/o contact as an instantaneous contact
- ④ U/T: green LED - Supply voltage (LED flashes during timing)
- ⑤ R1: red LED - Output relay 1 energized
- ⑥ R2: red LED - Output relay 2 energized
- ⑦ Circuit diagram
- ⑧ Marker label

Characteristics

- Single-function OFF-delay timer with auxiliary voltage
- One device includes 10 time ranges, from 0.05 s to 300 h, for the adjustment of the time delay
- 2 c/o contacts
- 2nd c/o contact can be selected as instantaneous contact (front-face sliding switch)
- Volt-free (dry) control contact
- Starting the time delay is possible
 - via an external control contact
- 3 LEDs for status indication
- Width 22.5 mm

Approvals

- cULus
- GL
- GOST
- CCC

Marks

- CE CE
- C-Tick

Order data

Type	Supply voltage	Order code
CT-AHS	24 V, 42-48V AC/DC, 110-240 V AC	1SVR 430 113 R0200

Order data (Accessories)

Description	Order code
Adapter for screw mounting on panel	1SVR 430 029 R0100
Sealable cover	1SVR 430 005 R0100
Marker label	1SVR 366 017 R0100

Application

The CT-S range timers are designed for use in industrial applications. They operate over a universal range of supply voltages and a large time delay range, within compact dimensions. The easy-to-set front-face potentiometers, with direct reading scales, provide accurate time delay adjustment.

Operating mode

The CT-AHS with 2 c/o contacts offers 10 time ranges, from 0.05 s to 300 h. The time delay range is rotary switch selectable on the front of the unit. The fine adjustment of the time delay is made via an internal potentiometer, with a direct reading scale, on the front of the unit. Timing is displayed by a flashing green LED labelled U/T.

Electronic timer CT-AHS

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Function diagram

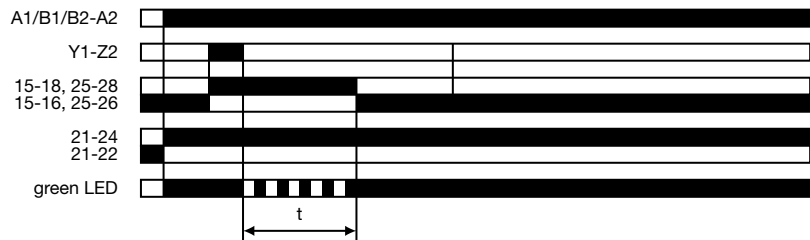
OFF-delay (Delay on break)

This function requires continuous supply voltage at terminals A1/B1/B2-A2 for timing.

Timing is controlled by a volt-free control contact, connected to terminals Y1-Z2. If the control contact is closed, the output relays energize. If the control contact is opened, the selected time delay starts (minimum control pulse length is 20 ms). The green LED flashes during timing. When the time delay is complete, the output relays de-energize and the flashing green LED turns steady.

If control contact Y1-Z2 closes before the time delay is complete, the time delay is reset and the output relays remain energized.

If the front-face sliding switch is set to the "Inst." position, the 2nd c/o contact energizes immediately upon application of the supply voltage.



2CDC 252 026 F0205

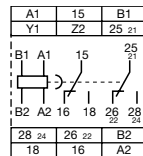
t = adjustable delay time

t_s = storage time

t = t₁ + t₂

Connection diagram

CT-AHS



2CDC 252 103 F0005

Version: 1SVR 430 113 R0200
A1-A2 Supply: 110-240 V AC
B1-A2 Supply: 24 V AC/DC
B2-A2 Supply: 42-48 V AC/DC
15-16/18 1. c/o contact
25-26/28 2. c/o contact
21-22/24 2. c/o contact as instantaneous contact

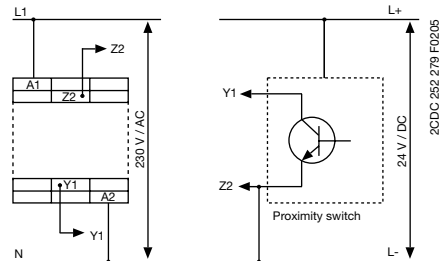
Electronic timer CT-AHS

OFF-delayed with 2 c/o contacts

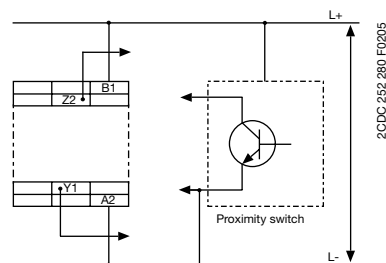
Data sheet

Wiring notes

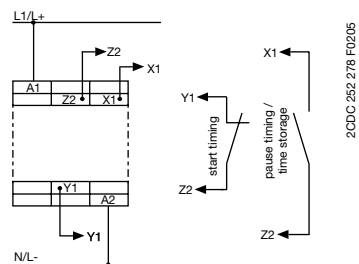
Connection diagram for proximity switch (3 wire) with 230 V DC supply



Connection diagram for proximity switch (3 wire) with 24 V DC supply



Connection diagram for control contacts



Electronic timer CT-AHS

OFF-delayed with 2 c/o contacts

Data sheet

Technical Data

Input circuits			
Supply voltage	A1-A2	110-240 V AC	
	B1-A2	24 V AC/DC	
	B2-A2	42-48 V AC/DC	
Power consumption	110-240 V AC	approx. 2.5-12 VA	
	24 V AC/DC	approx. 0.5 VA/W	
	42-48 V AC/DC	approx. 1.8 VA/W	
Supply voltage tolerance		-15...+10 %	
Supply voltage frequency	AC/DC Version	DC or 50/60 Hz	
	AC Version	50/60 Hz	
Control contact connections volt-free (dry)	Y1-Z2	start timing external	
Minimum control pulse length		20 ms	
Non-load voltage at the control contacts		10-40 V DC (no galvanic separation to supply circuit)	
Max. current in the control circuit		1 mA	
Max. cable length to the control inputs		50 m	
Duty time		100 %	
Timing circuit			
Time ranges 0.05 s - 300 h	1)	0.05-1 s	
	2)	0.15-3 s	
	3)	0.5-10 s	
	4)	1.5-30 s	
	5)	5-100 s	
	6)	15-300 s	
	7)	1.5-30 min	
	8)	15-300 min	
	9)	1.5-30 h	
	10)	15-300 h	
Recovery time		< 50 ms	
Repeat accuracy (constant parameters)		< 0.2 %	
Timing error within the supply voltage tolerance range		< 0.008 % / % Δ U	
Timing error within operating temperature range		< 0.07 % / °C	
Indication of operational states			
Supply voltage / timer		green LED steady / flashing while timing	
1st / 2nd output relay energized		red LED / red LED	
Output circuits	15-16/18, 25(21)-26(22)/28(24)		
Number of contacts		Relays, 2 c/o contacts, 2nd c/o contact selectable as instantaneous contact	
Contact material		AgCdO	
Related voltage	acc. to VDE 0110, IEC 60947-1	250 V	
Maximum switching voltage		250 V AC, 250 V DC	
Rated switching current acc. to IEC 60947-5-1	AC-12 (resistive) 230 V	4 A	
	AC-15 (inductive) 230 V	3 A	
	DC-12 (resistive) 24 V	4 A	
	DC-15 (inductive) 24 V	2 A	
Maximum lifetime	mechanical	30 x 10 ⁶ switching cycles	
	electrical (AC-12, 230 V, 4 A)	0.1 x 10 ⁶ switching cycles	
Short circuit proof, max. fuse rating	n/c	10 A fast, operating class gL	
	n/o	10 A fast, operating class gL	
General data			
Enclosure	width	22.5 mm	
	length	78.0 mm	
	depth	100.0 mm	
Wire size	fine-strand with wire end ferrule		2 x 0.75 - 2.5 mm ² (18-14 AWG)
	fine-strand without wire end ferrule		
	rigid	2 x 0.5 - 4 mm ² (20-12 AWG)	
Weight		approx. 150 g (5.3 oz)	
Mounting position		any	
Degree of protection	enclosure / terminals	IP50 / IP20	
Temperature	operating	-20...+60 °C	
	storage	-40...+85 °C	

Electronic timer CT-AHS

OFF-delayed with 2 c/o contacts

Data sheet

Mounting	DIN rail (EN 50022)	
Standards		
Product standard	IEC 61812-1, EN 61812-1	
EMC Directive	89/336/EEC	
Electromagnetic compatibility	IEC 61000-6-2, EN 61000-6-4	
ESD	acc. to IEC 61000-4-2, EN 61000-4-2	level 3 6 kV / 8 kV
HF radiation resistance	acc. to IEC 61000-4-3, EN 61000-4-3	level 3 10 V/m
Burst	acc. to IEC 61000-4-4, EN 61000-4-4	level 3 2 kV / 5 kHz
Surge	acc. to IEC 1000-4-5, EN 61000-4-5	level 4 2 kV L-L
HF line emission	acc. to IEC 1000-4-6, EN 61000-4-6	level 3 10 V
Low Voltage Directive	73/23/EEC	
Operational reliability	acc. to IEC 68-2-6	4 g
Mechanical resistance	acc. to IEC 68-2-6	6 g
Approvals / marks		
Approvals	cULus, GL, GOST and CCC	
Marks	CE and C-Tick	
Isolation data		
Rated insulation voltage between supply circuit, control circuit and output circuit	acc. to VDE 0110, IEC 60947-1	supply up to 240 V: 300 V supply up to 440 V: 500 V
Rated impulse withstand voltage between all isolated circuits	acc. to VDE 0110, IEC 664	4 kV / 1.2-50 µs
Test voltage between all isolated circuits		2.5 kV, 50 Hz, 1 min.
Pollution category	acc. to VDE 0110, IEC 664, IEC 255-5	III/C
Overvoltage category	acc. to VDE 0110, IEC 664, IEC 255-5	III/C
Environmental testing	acc. to IEC 68-2-30	24 h cycle time, 55 °C, 93 % rel., 96 h

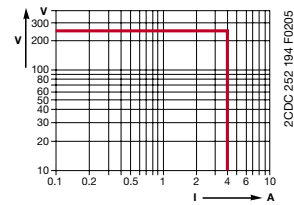
Electronic timer CT-AHS

OFF-delayed with 2 c/o contacts

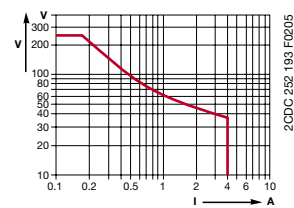
Data sheet

Load limit curves

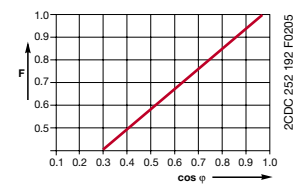
AC load (resistive)



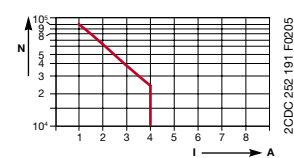
DC load (resistive)



Derating factor F for inductive AC load



Contact lifetime /switching cycles N



220 V 50 Hz 1 AC 360 cycles/h

Dimensional drawings

Dimensions in mm

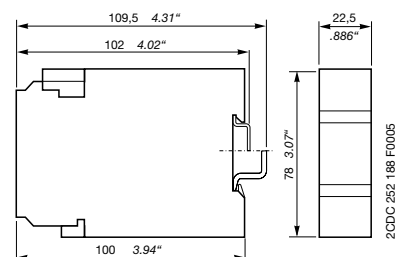




ABB STOTZ-KONTAKT GmbH

Eppelheimer Straße 82 69123 Heidelberg, Deutschland

Postfach 10 16 80 69006 Heidelberg, Deutschland

Internet <http://www.abb.com/lowvoltage> -> Control Products -> Electronic Relays

E-Mail epr-support@stotzkontakt.de