

Time Relay Series 8510



- > Screw fastening version
 - robust
 - vibration resistant
 - reliable
- > Corrosion resistant enclosure material
- > Easily accessible connection terminals enable
 - safe connection
 - einfaceasy installation
- > Modular technology
 - clear arrangement in the Ex e enclosure
 - flexibly expandable for system modifications

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13941E00

	ATEX / IECEx					
Zone	0	1	2	20	21	22
For use in		x	x			

Explosion Protection

Global (IECEx)

Gas and dust | IECEx BVS 07.0029U
Ex d e IIC, Ex d e I

Europe (ATEX)

Gas and dust | DMT 00 ATEX E 073 U
⊕ II 2G Ex d e IIC
⊕ I M2 Ex d e I

Certifications and certificates

Certificate | ATEX, IECEx, Belarus (operating authorisation)

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WebCode 85100

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Selection table

Version	Schematic	Description	Rated operating voltage	Order number	Weight kg
ON time relay 8510		ON time relay, Timing range: 0.05 sec ... 300 h	DC: 24 ... 48 V AC: 24 ... 240 V	8510/112-07-109-021	1.250
		ON time relay, actuation of timing using supply voltage Timing range: 0.05 sec ... 300 h	AC / DC: 24 ... 240 V (50 / 60 Hz AC)	8510/112-07-109-011	1.250
OFF delay relay 8510		OFF delay relay with power supply, Timing range: 0.05 s ... 300 h	DC: 24 ... 48 V AC: 24 ... 240 V	8510/112-07-209-021	1.250
		OFF delay relay with- out power supply, Timing range: 0.05 s ... 10 min	AC / DC: 24 ... 240 V (50 / 60 Hz AC)	8510/112-07-309-012	1.250
Double ON time relay with self-cleaning function		Double ON time relay with self-cleaning function Timing range: 0.05 s ... 10 min	DC: 24 ... 48 V AC: 24 ... 240 V	8510/112-07-408-022	1.250
			AC: 380 ... 440 V, (50 / 60 Hz)	8510/112-07-408-072	1.250

Technical Data

Device version

Version	8510/112-07-109-021	8510/112-07-109-011	8510/112-07-408-022	8510/112-07-408-072
Description	ON time relay, Timing range: 0.05 sec ... 300 h	ON time relay, actuation of timing using supply voltage Timing range: 0.05 sec ... 300 h	Double ON time relay with self-cleaning function Timing range: 0.05 s ... 10 min	Double ON time relay with self-cleaning function Timing range: 0.05 s ... 10 min

Electrical data

Version	8510/112-07-109-021	8510/112-07-109-011	8510/112-07-408-022	8510/112-07-408-072
Output circuit				
Relay output	yes	yes	yes	yes
Contacts	2 change-over contacts (drop-out delayed)	2 change-over contacts (ON time relay, actuation of timing using supply voltage)	2 NO contacts (double ON time relay with self-cleaning function)	2 NO contacts (double ON time relay with self-cleaning function)
Rated operational voltage	250 V AC	250 V AC	250 V AC	250 V AC
Switching current	AC12 at 230 V, 4 A AC15 at 230 V, 3 A DC12 at 24 V, 4 A DC13 at 24 V, 2 A	AC12 at 230 V, 4 A AC15 at 230 V, 3 A DC12 at 24 V, 4 A DC13 at 24 V, 2 A	AC12 at 230 V, 4 A AC15 at 230 V, 3 A DC12 at 24 V, 4 A DC13 at 24 V, 2 A	AC12 at 230 V, 4 A AC15 at 230 V, 3 A DC12 at 24 V, 4 A DC13 at 24 V, 2 A
Short circuit protection	6 A quick	6 A quick	6 A quick	6 A quick
Minimum switching voltage	12 V	12 V	12 V	12 V
Minimum switching current	10 mA	10 mA	10 mA	10 mA
Input circuit				
Supply voltage	DC: 24 ... 48 V AC: 24 ... 240 V	AC / DC: 24 ... 240 V	DC: 24 ... 48 V AC: 24 ... 240 V	AC: 380 ... 440 V
Mains frequency	DC or 50 / 60 Hz	DC or 50 / 60 Hz	DC or 50 / 60 Hz	50 / 60 Hz
Tolerance for supply voltage	- 15 ... + 10 %	- 15 ... + 10 %	- 15 ... + 10 %	- 15 ... + 10 %
Duty cycle	100 %	100 %	100 %	100 %
Minimum duty cycle	< 80 ms	< 50 ms	< 80 ms	< 60 ms

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Technical Data

Electrical data				
Version	8510/112-07-109-021	8510/112-07-109-011	8510/112-07-408-022	8510/112-07-408-072
Service life				
mechanical	> 30 million switching cycles	> 30 million switching cycles	> 30 million switching cycles	> 30 million switching cycles
electrical	0.1 million switching cycles, AC-12: 4A 230 V AC, resistive load	0.1 million switching cycles, AC-12: 4A 230 V AC, resistive load	0.1 million switching cycles, AC-12: 4A 230 V AC, resistive load	0.1 million switching cycles, AC-12: 4A 230 V AC, resistive load
Rated operational current	24 V DC / 16 mA 230 V AC: 60 mA 115 V AC: 36 mA	24 V DC / 24 mA 230 V AC: 12 mA 115 V AC: 22 mA	24 V DC / 12 mA 230 V AC: 50 mA 115 V AC: 33 mA	400 V AC: 3 mA
Note	Formatting time approx. 5 min (before the first commissioning and after 6-month operation pause).	Formatting time approx. 5 min (before the first commissioning and after 6-month operation pause).	Formatting time approx. 5 min (before the first commissioning and after 6-month operation pause).	Formatting time approx. 5 min (before the first commissioning and after 6-month operation pause).

Technical Data

Device version		
Version	8510/112-07-209-021	8510/112-07-309-012
Description	OFF delay relay with power supply, Timing range: 0.05 s ... 300 h	OFF delay relay without power supply, Timing range: 0.05 s ... 10 min

Electrical data		
Version	8510/112-07-209-021	8510/112-07-309-012
Output circuit		
Relay output	yes	yes
Contacts	2 change-over contacts	2 change-over contacts
Rated operational voltage	250 V AC	250 V AC
Switching current	AC12 at 230 V, 4 A AC15 at 230 V, 3 A DC12 at 24 V, 4 A DC13 at 24 V, 2 A	AC12 at 230 V, 4 A AC15 at 230 V, 3 A DC12 at 24 V, 4 A DC13 at 24 V, 1.5 A
Short circuit protection	6 A quick	6 A quick
Minimum switching voltage	12 V	12 V
Minimum switching current	10 mA	10 mA
Input circuit		
Supply voltage	DC: 24 ... 48 V AC: 24 ... 240 V	AC / DC: 24 ... 240 V
Mains frequency	DC or 50 / 60 Hz	DC or 50 / 60 Hz
Tolerance for supply voltage	- 15 ... + 10 %	- 15 ... + 10 %
Duty cycle	100 %	100 %
Minimum duty cycle	< 80 ms	< 100 ms
Service life		
mechanical	> 30 million switching cycles	> 30 million switching cycles
electrical	0.1 million switching cycles, AC-12: 4A 230 V AC, resistive load	0.1 million switching cycles, AC-12: 4A 230 V AC, resistive load
Rated operational current	24 V DC / 16 mA 230 V AC: 60 mA 115 V AC: 36 mA	24 V DC / 1 mA 230 V AC: 3.1 mA 115 V AC: 2.5 mA

Ambient conditions	
Ambient temperature	
Storage	-40 ... +85 °C
Operation	-20 ... +40 °C

Mechanical data	
Material	
Enclosure material	Epoxy resin
Terminal cover	Polyamide; IP20, finger-contact safety according to IEC/EN 60529
Conductor cross-section	
Auxiliary contacts	0.75 ... 1.5 mm ² flexible 0.75 ... 2.5 mm ² solid

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Selection table

Description	Order number	Functional diagram
ON time relay, Timing range: 0.05 sec ... 300 h	8510 / 112-07-109-021	<p style="text-align: right;">10842E00</p>
ON time relay, actuation of timing using supply voltage Timing range: 0.05 sec ... 300 h	8510 / 112-07-109-011	<p style="text-align: right;">14036E00</p>
OFF delay relay with power supply, Timing range: 0.05 s ... 300 h	8510 / 112-07-209-021	<p style="text-align: right;">10841E00</p>
OFF delay relay without power supply, Timing range: 0.05 s ... 10 min	8510 / 112-07-309-012	<p style="text-align: right;">10843E00</p>
Double ON time relay with self-cleaning function Timing range: 0.05 s ... 10 min	8510 / 112-07-408-022	<p style="text-align: right;">14037E00</p>
Double ON time relay with self-cleaning function Timing range: 0.05 s ... 10 min	8510 / 112-07-408-072	<p style="text-align: right;">14037E00</p>

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Dimensional Drawings (All Dimensions in mm) - Subject to Alterations

Type	Dimension H
8510/112	168 mm

8510/112

04329E00

10652E00

We reserve the right to make alterations to the technical data, dimensions, weights, designs and products available without notice. The illustrations cannot be considered binding.