

Type: **EASY512-DA-RCX**

Article No.: **274107**



Ordering information

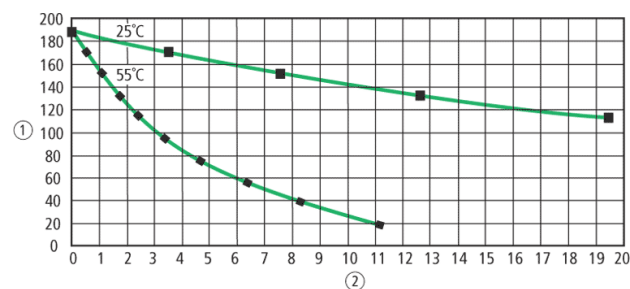
Relay outputs		Quantity	4
Power supply		V DC	12 V DC

Description

- 8 digital inputs (2 inputs available as analog inputs)
- 4 relay outputs
- Screw terminals
- Timer

Notes concerning the product group

Backup of real-time clock (only for appropriate devices)



① Backup time (hours)

② Operating time (years)

General			
Standards			EN 55011, EN 55022, IEC/EN 61000-4, IEC 60068-2-6, IEC 60068-2-27
Dimensions (W × H × D)		mm	71.5 × 90 × 58 (4 PE)
Weight		kg	0,2
Mounting			Top-hat rail IEC/EN 60715, 35 mm or screw fixing using fixing brackets ZB4-101-GF1 (accessories)
Terminal capacities			
Solid		mm ²	0.24 (AWG 22 – 12)
Flexible with ferrule		mm ²	0.22.5 (AWG 22 – 12)
Standard screwdriver		mm	3.5 × 0.8
Max. tightening torque		Nm	0,6
Climatic environmental conditions			
Operating ambient temperature		°C	–25 to 55, cold as per IEC 60068-2-1, heat as per IEC 60068-2-2
Condensation			Take appropriate measures to prevent condensation
LCD display (clearly legible)		°C	055
Storage		°C	–40/+70
Relative humidity, non-condensing (IEC/EN 60068-2-30)		%	5 – 95
Air pressure (operation)		hPa	795 – 1080
Corrosion resistance			
IEC/EN 60068-2-42	4 days SO ₂	cm ³ /m ³	10
IEC/EN 60068-2-43	4 days H ₂ S	cm ³ /m ³	1
Ambient conditions, mechanical			
Pollution degree			2
Degree of protection (IEC/EN 60529)			IP 20
Vibrations (IEC/EN 60068-2-6)			
Constant amplitude 0.15 mm		Hz	10 – 57
Constant acceleration 2 g		Hz	57 – 150
Mechanical shock resistance (IEC/EN 60068-2-27) semi-sinusoidal 15 g/11 ms		Impacts	18
Drop to IEC/EN 60068-2-31	Drop height	mm	50

Free fall, packaged (IEC/EN 60068-2-32)		m	1
Mounting position			horizontal/vertical
Electromagnetic compatibility (EMC)			
Electrostatic discharge (IEC/EN 61000-4-2, Level 3, ESD)			
Air discharge		kV	8
Contact discharge		kV	6
Electromagnetic fields (IEC/EN 61000-4-3, RFI)		V/m	10
Radio interference suppression (EN 55011)			EN 55011 Class B, EN 55022 Class B
Burst pulses (IEC/EN 61000-4-4, level 3)			
Supply cables		kV	2
Signal lines		kV	2
High-energy pulses (surge) (IEC/EN 61000-4-5)		kV	2 (supply cables, symmetrical, EASY...AC)
High-energy pulses (surge) (IEC/EN 61000-4-5, level 2)		kV	0.5 (supply cables, symmetrical, EASY...DC)
Immunity to line-conducted interference to (IEC/EN 61000-4-6)		V	10
Insulation resistance			
Clearance in air and creepage distances			EN 50178, UL 508, CSA C22.2, no. 142
Insulation resistance			EN 50178
Backup/accuracy of the real-time clock			
Accuracy of the real-time clock			typ. ± 5 (± 0.5 annually)
Repetition accuracy of timing relays			
Accuracy of timing relays (of values)		%	± 1
Resolution			
Range "S"		ms	10
Range "M:S"		s	1
Range "H:M"		min	1
Retentive memory			
Write cycles of the retentive memory			1000000 (10^6)
Power supply			
Rated operational voltage	U_e	V	12 DC ($-15/+30\%$)
Admissible range		V DC	10,2 – 15,6
Residual ripple		%	5
Input current			

Input current 115/230 V AC		mA	Normally 140
Voltage dips (IEC/EN 61131-2)		ms	10
Heat dissipation		W	Normally 2
Digital inputs 12 V DC			
Number			8
Inputs can be used as analog inputs			2 (I7, I8)
Status indication			LCD-display (if present)
Potential isolation			
From power supply			No
Between digital inputs			No
From the outputs			Yes
Rated operational voltage	U_e	V DC	12
On 0 signal	U_e	V DC	4 (I1 – I8)
On 1 signal	U_e	V DC	8 (I1 – I8)
Input current on 1 signal			
I1 to I6		mA	3.3 (at 12 V DC)
I7, I8		mA	1.1 (at 12 V DC)
Delay time from 0 to 1			
Debounce ON		ms	20
Debounce OFF		ms	Normally 0.3 (I1 – I6), 0.35 (I7, I8)
Delay time from 1 to 0			
Debounce ON		ms	20
Debounce OFF		ms	Normally 0.3 (I1 – I6), 0.15 (I7, I8)
Cable length (unscreened)		m	100
Frequency counter			2 (I3, I4)
Fast counter inputs			2 (I1, I2)
Max. counter frequency		kHz	< 1
Pulse shape			Square
Pulse pause ratio			1 : 1
Cable length screened		m	< 20
Analog inputs			
Potential isolation			
From power supply			No
From the digital inputs			No
From the outputs			Yes
From the PC interface, memory card NET network, EASY-Link			No

Input type			DC voltage
Signal range		V DC	0 – 10
Resolution, analog		V	0,01
Resolution, digital		V	0,01
Resolution, digital		Bit	10 (value 1 – 1023)
Input impedance		k	11,2
Accuracy of actual value			
Two EASY devices		%	± 3
Within a single device		%	± 2, ± 0.12 V
Conversion time, analog/digital		ms	Debounce ON: 20; Debounce OFF: every cycle time
Input current		mA	< 1
Cable length screened		m	< 20
Relay outputs			
Number			4
Outputs in groups of			1
Parallel switching of outputs for increased output			Not permissible
Protection of an output relay			Miniature circuit-breaker B16 or fuse 8 A (slow)
Potential isolation			
From power supply			Yes
From the inputs			Yes
From the PC interface, memory card NET network, EASY-Link			No
Safe isolation		V AC	300
Basic insulation		V AC	600
Lifespan, mechanical	Operations	× 10 ⁶	10
Contacts			
Conventional thermal current (10 A UL)		A	8
Recommended for load: 12 V AC/DC		mA	> 500
Short-circuit-proof cos φ = 1, characteristic B16 at 600 A		A	16
Short-circuit-proof cos φ = 0.5 to 0.7, characteristic B16 at 900 A		A	16
Rated impulse withstand voltage U _{imp} of contact coil		kV	6
Rated operational voltage	U _e	V AC	250

Rated insulation voltage	U_i	V AC	250
Safe isolation to EN 50178 between coil and contact		V AC	300
Safe isolation to EN 50178 between 2 contacts		V AC	300
Making capacity			
AC–15, 250 V AC, 3 A (600 Ops./h)	Operations		300000
DC–13 L/R 150 ms 24 V DC, 1 A (500 Ops./h)	Operations		200000
Breaking capacity			
AC–15, 250 V AC, 3 A (600 Ops./h)	Operations		300000
DC–13 L/R 150 ms 24 V DC, 1 A (500 Ops./h)	Operations		200000
Filament bulb load			
1000 W at 230/240 V AC	Operations		25000
500 W at 115/120 V AC	Operations		25000
Fluorescent lamp load			
Fluorescent lamp load 10 × 58 W at 230/240 V AC			
With upstream electrical device	Operations		25000
Uncompensated	Operations		25000
Fluorescent lamp load 1 × 58 W at 230/240 V AC, conventional, compensated	Operations		25000
Switching frequency			
Mechanical operations		× 10 ⁶	10
Switching frequency		Hz	10
Resistive load/lamp load		Hz	2
Inductive load		Hz	0,5
UL/CSA			
Uninterrupted current at 240 V AC		A	10
Uninterrupted current at 24 V DC		A	8
AC			
Control Circuit Rating Codes (utilization category)			B 300 Light Pilot Duty
Max. rated operational voltage		V AC	300
Max. thermal uninterrupted current = 1 at B 300		A	5
Max. make/break capacity 1 at B 300		VA	3600360
DC			

