



Control relay, 24VAC, 8DI(2AI), 4DO relays, time



Powering Business Worldwide™

Part no. **EASY512-AB-RCX**
 Article no. **274102**
 Catalog No.

Delivery programme

Product range
 Basic function
 Description

Control relays easyRelay
 easy500
 Stand alone
 customized laser inscription or delivery
 with user program possible with EASY-
 COMBINATION-* product (article No.
 2010781)

Inputs

Digital input count

digital: 8
 digital: 8; of which can be used as
 analog: 2
 8
 2

Digital
 of which can be used as analog

Outputs

Type
 Quantity of outputs
 Outputs

Number

Relay
 Relays: 4
 4

Additional features

Display
 Supply voltage
 Software

without display, without keypad
 24 V AC
 EASY-SOFT-BASIC/-PRO

Approvals

Product Standards

UL File No.
 UL Category Control No.
 CSA File No.
 CSA Class No.
 North America Certification
 Degree of Protection
 shipping classification

IEC/EN see Technical Data; UL 508; CSA C22.2 No. 142-M1987; CSA C22.2 No. 213-
 M1987; CE marking
 E135462
 NRAQ
 012528
 2252-01 + 2258-02
 UL listed, CSA certified
 IEC: IP20, UL/CSA Type: -
 BV
 DNV
 GL
 LR



General

Standards

Dimensions (W x H x D)

Weight

Mounting

		EN 55011, EN 55022, IEC/EN 61000-4, IEC 60068-2-6, IEC 60068-2-27
	mm	71.5 x 90 x 58 (4 PE)
	kg	0.2
		Top-hat rail IEC/EN 60715, 35 mm or screw fixing using fixing brackets ZB4-101-GF1 (accessories)

Terminal capacities

Solid

Flexible with ferrule

Standard screwdriver

Max. tightening torque

	mm ²	0.2/4 (AWG 22 - 12)
	mm ²	0.2/2.5 (AWG 22 - 12)
	mm	3.5 x 0.8
	Nm	0.6

Climatic environmental conditions

Operating ambient temperature

Condensation

Storage

relative humidity

Air pressure (operation)

	°C	In accordance with IEC 60068-2-1, -25 - +55
		Take appropriate measures to prevent condensation
θ	°C	-40 - +70
	%	in accordance with IEC 60068-2-30, IEC 60068-2-78 5 - 95
	hPa	795 - 1080

Ambient conditions, mechanical

Protection type (IEC/EN 60529, EN50178, VBG 4)

Vibrations

Mechanical shock resistance (IEC/EN 60068-2-27) semi-sinusoidal 15 g/11 ms
Drop to IEC/EN 60068-2-31

Free fall, packaged (IEC/EN 60068-2-32)

Mounting position

Electromagnetic compatibility (EMC)

Overvoltage category/pollution degree

Electrostatic discharge (ESD)

applied standard

Air discharge

Contact discharge

Electromagnetic fields (RFI) to IEC EN 61000-4-3

Radio interference suppression

Burst

power pulses (Surge)

Immunity to line-conducted interference to (IEC/EN 61000-4-6)

Insulation resistance

Clearance in air and creepage distances

Insulation resistance

Back-up of real-time clock

Back-up of real-time clock

Accuracy of real-time clock to inputs

Repetition accuracy of timing relays

Accuracy of timing relays (of values)

Resolution

Range "S"

Range "M:S"

Range "H:M"

Retentive memory

Write cycles of the retentive memory

Power supply

Rated operational voltage

Permissible range

Frequency

Input current

Voltage dips

Fuse

Digital inputs 24 V DC

Number

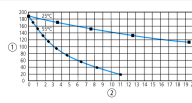
Inputs can be used as analog inputs

Potential isolation

		IP20
	Hz	In accordance with IEC 60068-2-6 constant amplitude 0.15 mm: 10 - 57 constant acceleration 2 g: 57 - 150
	Impacts	18
Drop height	mm	50
	m	1
		Vertical or horizontal


		III/2
		according to IEC EN 61000-4-2
	kV	8
	kV	6
	V/m	10
		EN 55011 Class B, EN 55022 Class B
	kV	according to IEC/EN 61000-4-4 Supply cables: 2 Signal cables: 2
		according to IEC/EN 61000-4-5 2 kV (supply cables, symmetrical)
	V	10

		EN 50178, UL 508, CSA C22.2, No. 142
		EN 50178

		
		① Backup time (hours) with fully charged double layer capacitor
		② Service life (years)
	s/ day	typ. ± 2 (± 0.2 h/Year)
		depending on ambient air temperature fluctuations of up to ± 5 s/day (± 0.5 h/year) are possible

	%	± 1
	ms	10
	s	1
	min	1

		1000000 (10 ⁶)
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U _e	V	24 AC
U _e		20.4 - 26.4 V AC
	Hz	50/60 (± 5%)
		normally 200 mA at 24 V AC 50/60 Hz
	ms	≤ In accordance with IEC 61131-2 ≤ 20
	A	 1A (T)

		8
		2 (I7,I8)
		from power supply: no between digital inputs: no from the outputs: yes to interface/memory card: no

Rated operational voltage

Input voltage (AC = sinusoidal)

Rated frequency

Input current at signal 1

Deceleration time

Cable length

Analog inputs

Number

Potential isolation

Input type

Signal range

Resolution

Input impedance

Accuracy of actual value

Two EASY devices

Within a single device

Conversion time, analog/digital

Input current

Cable length

Relay outputs

Number

Outputs in groups of

Parallel switching of outputs for increased output

Protection of an output relay

Potential isolation

Lifespan, mechanical

Contacts

Conventional thermal current (10 A UL)

Recommended for load: 12 V AC/DC

Short-circuit-proof $\cos \varphi = 1$, characteristic B16 at 600 A

Short-circuit-proof $\cos \varphi = 0.5$ to 0.7, characteristic B16 at 900 A

Rated impulse withstand voltage U_{imp} of contact coil


Rated operational voltage

Rated insulation voltage

Safe isolation according to EN 50178


Making capacity

AC—15, 250 V AC, 3 A (600 ops./h)

DC-13, L/R  150 ms, 24 V DC, 1 A (500 S/h)

Breaking capacity

AC-15, 250 V AC, 3 A (600 Ops./h)

DC-13, L/R  150 ms, 24 V DC, 1 A (500 S/h)

Filament bulb load


1000 W at 230/240 V AC

500 W at 115/120 V AC

Fluorescent lamp load

Fluorescent lamp load 10 x 58 W at 230/240 V AC

U_e	V AC	24
U_e	V	Signal 0: 0 - 6 V AC Signal 1: > 8 V AC / > 11 V DC (I7, I8), 14 - 26.4 V AC (I1 - I6)
	Hz	50 - 60
	mA	I1 - I6: 4 (at 24 V AC, 50 Hz) I7, I8: 2 (at 24 V AC/DC)
	ms	8066% (0 -> 1/1 -> 0, debounce ON/OFF 50/60Hz, I1 to I8)
	m	normally 40 (max. per input)

		2 (I7, I8)
		from power supply: no between digital inputs: no from the outputs: yes to interface/memory card: no
		DC voltage
		0-10 V DC
		0.01 V analog 0.01 V digital 10 Bit (value 0 - 1023)
	k Ω	11.2
	%	± 3
	%	± 2 , (I7, I8, I11, I12) ± 0.12 V
	ms	Input delay ON: 20; Input delay OFF: each cycle time
	mA	< 1
	m	 30, screened

		4
		1
		Not permissible
		Miniature circuit-breaker B16 or fuse 8 A (slow)
		from power supply: yes From the inputs: yes Safe isolation according to EN 50178: 300 V AC Basic isolation: 600 V AC
Operations	x 10^6	10
	A	8
	mA	> 500
	A	16
	A	16
	kV	6
U_e	V AC	250
U_i	V AC	250
	V AC	300 between coil and contact 300 between two contacts
Operations		300000
Operations		200000
Operations		300000
Operations		200000
Operations		25000
Operations		25000

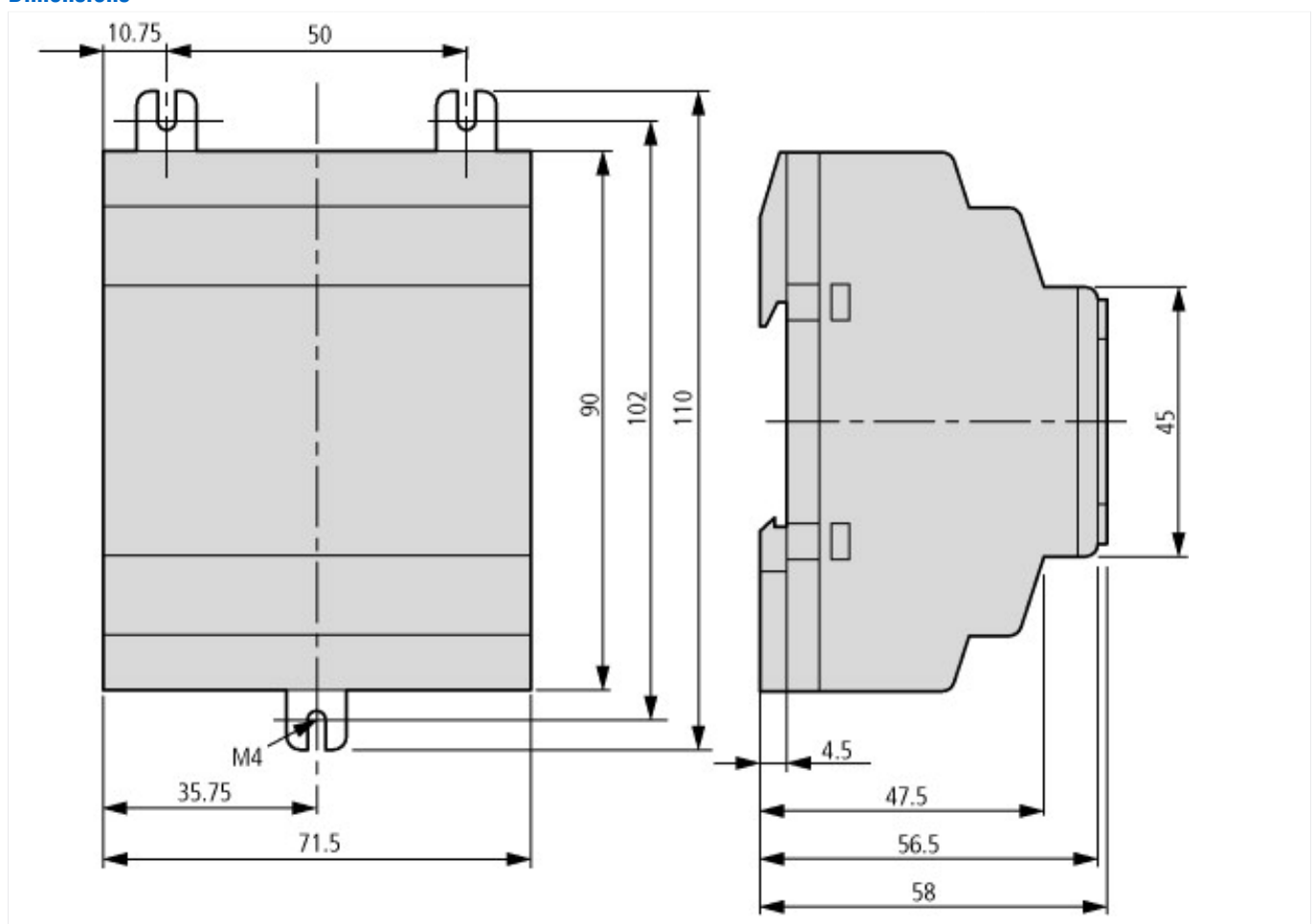
With upstream electrical device	Operations	25000
Uncompensated	Operations	25000
Fluorescent lamp load 1 x 58 W at 230/240 V AC, conventional, compensated	Operations	25000
Switching frequency		
Mechanical operations	x 10 ⁶	10
Switching frequency	Hz	10
Resistive load/lamp load	Hz	2
Inductive load	Hz	0.5
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 continuous current cos φ = 1 at B 300	A	5
max. make/break cos φ ≠ capacity 1 at B 300	VA	3600/360
DC		
Control Circuit Rating Codes (utilization category)		R 300 Light Pilot Duty
Max. rated operational voltage	V DC	300
Max. thermal uninterrupted current at R 300	A	1
Max. make/break capacity at R 300	VA	28/28

Technical data ETIM 5.0

PLC's (EG000024) / Logic module (EC001417)		
Electric engineering, automation, process control engineering / Control / Programmable logic control (SPS) / Logic module (ecl@ss8-27-24-22-16 [AKE539010])		
Supply voltage AC 50 Hz	V	20.4 - 26.4
Supply voltage AC 60 Hz	V	20.4 - 26.4
Supply voltage DC	V	0 - 0
Voltage type of supply voltage		AC
Switching current	A	8
Number of analogue inputs		2
Number of analogue outputs		0
Number of digital inputs		8
Number of digital outputs		4
With relay output		Yes
Number of HW-interfaces industrial		0
Ethernet		
Number of HW-interfaces PROFINET		0
Number of HW-interfaces RS-232		0
Number of HW-interfaces RS-422		0
Number of HW-interfaces RS-485		0
Number of HW-interfaces serial TTY		0
Number of HW-interfaces USB		0
Number of HW-interfaces parallel		0
Number of HW-interfaces Wireless		0
Number of HW-interfaces other		0
With optical interface		No
Supporting protocol for TCP/IP		No
Supporting protocol for PROFIBUS		No
Supporting protocol for CAN		No
Supporting protocol for INTERBUS		No
Supporting protocol for ASI		No
Supporting protocol for KNX		No
Supporting protocol for MODBUS		No
Supporting protocol for Data-Highway		No
Supporting protocol for DeviceNet		No
Supporting protocol for SUCONET		No
Supporting protocol for LON		No
Supporting protocol for PROFINET IO		No
Supporting protocol for PROFINET CBA		No
Supporting protocol for SERCOS		No
Supporting protocol for Foundation Fieldbus		No
Supporting protocol for EtherNet/IP		No
Supporting protocol for AS-Interface		No
Safety at Work		
Supporting protocol for DeviceNet Safety		No
Supporting protocol for INTERBUS-Safety		No
Supporting protocol for PROFIsafe		No
Supporting protocol for SafetyBUS p		No
Supporting protocol for other bus systems		No
Radiostandard Bluetooth		No

Radiostandard WLAN 802.11	No
Radiostandard GPRS	No
Radiostandard GSM	No
Radiostandard UMTS	No
IO link master	No
Redundancy	No
With display	No
Degree of protection (IP)	IP20
Basic device	Yes
Expandable	No
Expansion device	No
With timer	Yes
Rail mounting possible	Yes
Wall mounting/direct mounting	Yes
Front build in possible	No
Rack-assembly possible	No
Suited for safety functions	No
Category according to EN 954-1	-
SIL according to IEC 61508	0
Performance level acc. to EN ISO 13849-1	-
Appendant operation agent (Ex ia)	No
Appendant operation agent (Ex ib)	No
Explosion safety category for gas	None
Explosion safety category for dust	None
Width	72
Height	90
Depth	60

Dimensions



Additional product information (links)

IL05013015Z (AWA2528-2105) Control relay easy	
IL05013015Z (AWA2528-2105) Control relay easy	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05013015Z2010_11.pdf
MN05013003Z-EN (AWB2528-1508) control relay easy500, easy700	
MN05013003Z-DE (AWB2528-1508) Steuerrelais easy500, easy700 - Deutsch	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05013003Z_DE.pdf
MN05013003Z-EN (AWB2528-1508) control relay easy500, easy700 - English	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05013003Z_EN.pdf
Labeleditor	http://downloadcenter.moeller.net/de/software.f6023a63-5acb-42c7-a51c-ccf99091cace

