



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



Powering Business Worldwide™

Part no. **EASY512-AB-RC**
Article no. **274101**

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

with display, with 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

LCD display (clearly legible)

Storage

relative humidity

Air pressure (operation)

	°C	In accordance with IEC 60068-2-1, -25 - +55
		Take appropriate measures to prevent condensation
θ	°C	0 - 55
	°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

Status Display

Digital inputs 24 V DC

Number

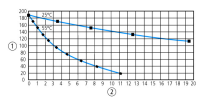
Inputs can be used as analog inputs

Status Display

		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)

		LCD-Display
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		8
		2 (I7,I8)
		LCD-Display

Potential isolation			from power supply: no between digital inputs: no from the outputs: yes to interface/memory card: no
Rated operational voltage	U _e	V AC	24
Input voltage (AC = sinusoidal)	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)
Rated frequency		Hz	50 - 60
Input current at signal 1		mA	I1 - I6: 4 (at 24 V AC, 50 Hz) I7, I8: 2 (at 24 V AC/DC)
Deceleration time		ms	80/66% (0 -> 1/1 -> 0, debounce ON/OFF 50/60Hz, I1 to I8)
Cable length		m	normally 40 (max. per input)

Analog inputs

Number			2 (I7, I8)
Potential isolation			from power supply: no between digital inputs: no from the outputs: yes to interface/memory card: no
Input type			DC voltage
Signal range			0-10 V DC
Resolution			0.01 V analog 0.01 V digital 10 Bit (value 0 - 1023)
Input impedance		kΩ	11.2
Accuracy of actual value			
Two EASY devices		%	± 3
Within a single device		%	± 2, (I7, I8, I11, I12) ± 0.12 V
Conversion time, analog/digital		ms	Input delay ON: 20; Input delay OFF: each cycle time
Input current		mA	< 1
Cable length		m	 30, screened

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 Safe isolation according to EN 50178: 300 V AC Basic isolation: 600 V AC
Lifespan, mechanical	Operations	x 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 according to EN 50178		V AC	300 between coil and contact 300 between two contacts
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 S/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 S/h)	Operations		200000
Filament bulb load			
1000 W at 230/240 V AC	Operations		25000

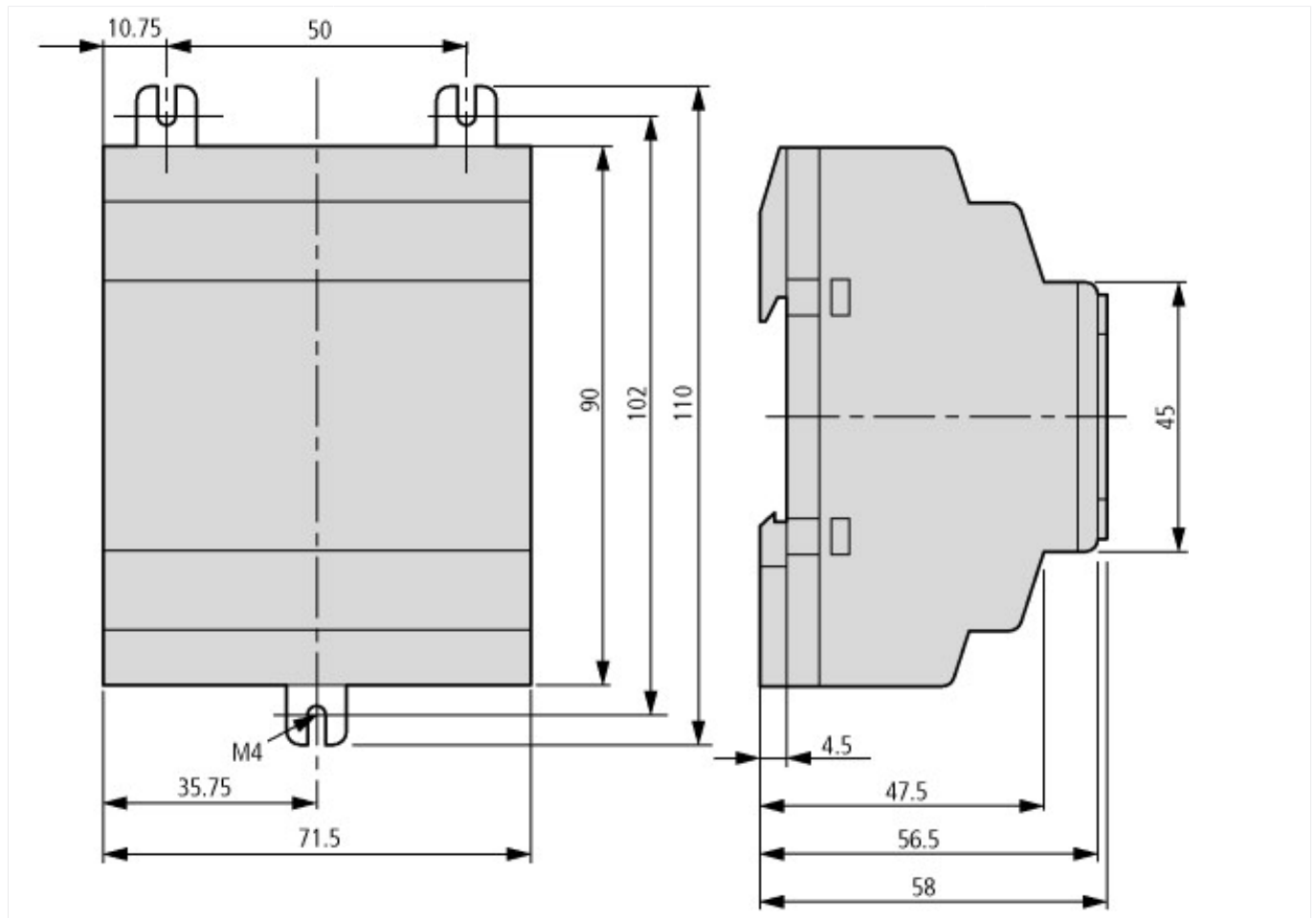
500 W at 115/120 V AC			Operations	25000
Fluorescent lamp load				
Fluorescent lamp load 10 x 58 W at 230/240 V AC				
With upstream electrical device			Operations	25000
Uncompensated			Operations	25000
Fluorescent lamp load 1 x 58 W at 230/240 V AC, conventional, compensated			Operations	25000
Switching 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 Ethernet		0
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		Yes
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	mm	72
Height	mm	90
Depth	mm	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