



Control relay, 12 V DC, 12DI(4AI), 6DO relays, time, expandable



Powering Business Worldwide™

Part no. EASY719-DA-RCX
Article no. 274118
Catalog No.

Delivery programme

Product range
 Basic function
 Description

Control relays easyRelay easy700 (expandable)
 Expandable: Digital inputs/outputs, bus systems AS-Interface, PROFIBUS-DP, CANopen®, DeviceNet
 customized laser inscription or delivery with user program possible with EASY-COMBINATION-* product (article No. 2010781)

Inputs
 Digital input count

digital: 12
 digital: 12; of which can be used as analog: 4
 12
 4

Digital of which can be used as analog

Outputs
 Type
 Quantity of outputs
 Outputs

Number

Relay
 Relays: 6
 6

Additional features
 Display
 Expansions
 Supply voltage
 Software

without display, without keypad
 Expandable
 12 V DC
 EASY-SOFT-BASIC/-PRO

Approvals

Product Standards

IEC/EN see Technical Data; UL 508; CSA C22.2 No. 142-M1987; CSA C22.2 No. 213-M1987; CE marking

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

E135462
 NRAQ
 012528
 2252-01 + 2258-02
 UL listed, CSA certified
 IEC: IP20, UL/CSA Type: -
 BV
 DNV
 GL
 LR



General

Standards

		EN 55011, EN 55022, IEC/EN 61000-4, IEC 60068-2-6, IEC 60068-2-27
Weight	kg	0.3
Mounting		Top-hat rail IEC/EN 60715, 35 mm or screw fixing using fixing brackets ZB4-101-GF1 (accessories)

Terminal capacities

Solid

	mm ²	0.2/4 (AWG 22 - 12)
Flexible with ferrule	mm ²	0.2/2.5 (AWG 22 - 12)
Standard screwdriver	mm	3.5 x 0.8
Max. tightening torque	Nm	0.6

Climatic environmental conditions

Operating ambient temperature

	°C	In accordance with IEC 60068-2-1, -25 - +55
Condensation		Take appropriate measures to prevent condensation
Storage	°C	-40 - +70
relative humidity	%	in accordance with IEC 60068-2-30, IEC 60068-2-78 5 - 95
Air pressure (operation)	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

Residual ripple

Input current

Voltage dips

Fuse

Digital inputs 12 V DC

Number

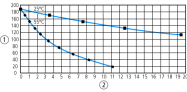
Inputs can be used as analog inputs

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
		according to IEC/EN 61000-4-5 1 kV (supply cables, symmetrical)
	V	10

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






		
		<p>① Backup time (hours) with fully charged double layer capacitor</p> <p>② Service life (years)</p>
	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

	%	± 0.02
	ms	10
	s	1
	min	1


		1000000 (10 ⁶)
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U _e	V	12 DC (-15/+30%)
U _e		10.2 - 15.6 V DC
	%	≦ 5
		normally 200 mA at U _e
	ms	≤ In accordance with IEC 61131-2 ≤ 10
	A	≦ 1A (T)

		12
		4 (I7, I8, I11, I12)
		LCD-Display

Potential isolation			from power supply: no between digital inputs: no from the outputs: yes to interface/memory card: no to easyLink
Rated operational voltage	U _e	V DC	12
Input voltage		V DC	Signal 0:  4 Signal 1:  8
Input current at signal 1		mA	I1 - I6: 3.3 (at 12 V DC) I7, I8: 1.1 (at 12 V DC) I9 - I12: 3.3 (at 12 V DC)
Deceleration time		ms	20 (0 -> 1/1 -> 0, Debounce ON) Normally 0.3 (0 -> 1, Debounce OFF, I1 - I6, I9, I10) Normally 0.35 (0 -> 1, Debounce OFF, I7, I8, I11, I12) Normally 0.4 (1 -> 0, Debounce OFF, I1 - I6, I9, I10) Normally 0.35 (1 -> 0, Debounce OFF, I7, I8, I11, I12)
Cable length		m	100 (unshielded)
Frequency counter			
Number			2 (I3, I4)
Counter frequency		kHz	 1
Pulse shape			Square
Pulse pause ratio			1:1
Rapid counter inputs			
Number			2 (I1, I2)
Cable length		m	 20 (screened)
Counter frequency		kHz	 1
Pulse shape			Square

Analog inputs

Number			4 (I7, I8, I11, I12)
Potential isolation			from power supply: no between digital inputs: no from the outputs: yes to interface/memory card: no to easyLink: 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			6
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 $\cos \varphi = 0.5$ 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

With upstream electrical device

Uncompensated

Fluorescent lamp load 1 x 58 W at 230/240 V AC, conventional, compensated

Switching frequency

Mechanical operations

Switching frequency

Resistive load/lamp load

Inductive load

UL/CSA

Uninterrupted current at 240 V AC

Uninterrupted current at 24 V DC

AC

Control Circuit Rating Codes (utilization category)

Max. rated operational voltage

max. thermal continuous current $\cos \varphi = 1$ at B 300

max. make/break $\cos \varphi \neq 1$ at B 300

DC

Control Circuit Rating Codes (utilization category)

Max. rated operational voltage

Max. thermal uninterrupted current at R 300

Max. make/break capacity at R 300

	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
Operations		25000
Operations		25000
	x 10^6	10
	Hz	10
	Hz	2
	Hz	0.5
	A	10
	A	8
		B 300 Light Pilot Duty
	V AC	300
	A	5
	VA	3600/360
		R 300 Light Pilot Duty
	V DC	300
	A	1
	VA	28/28

Technical data ETIM 5.0

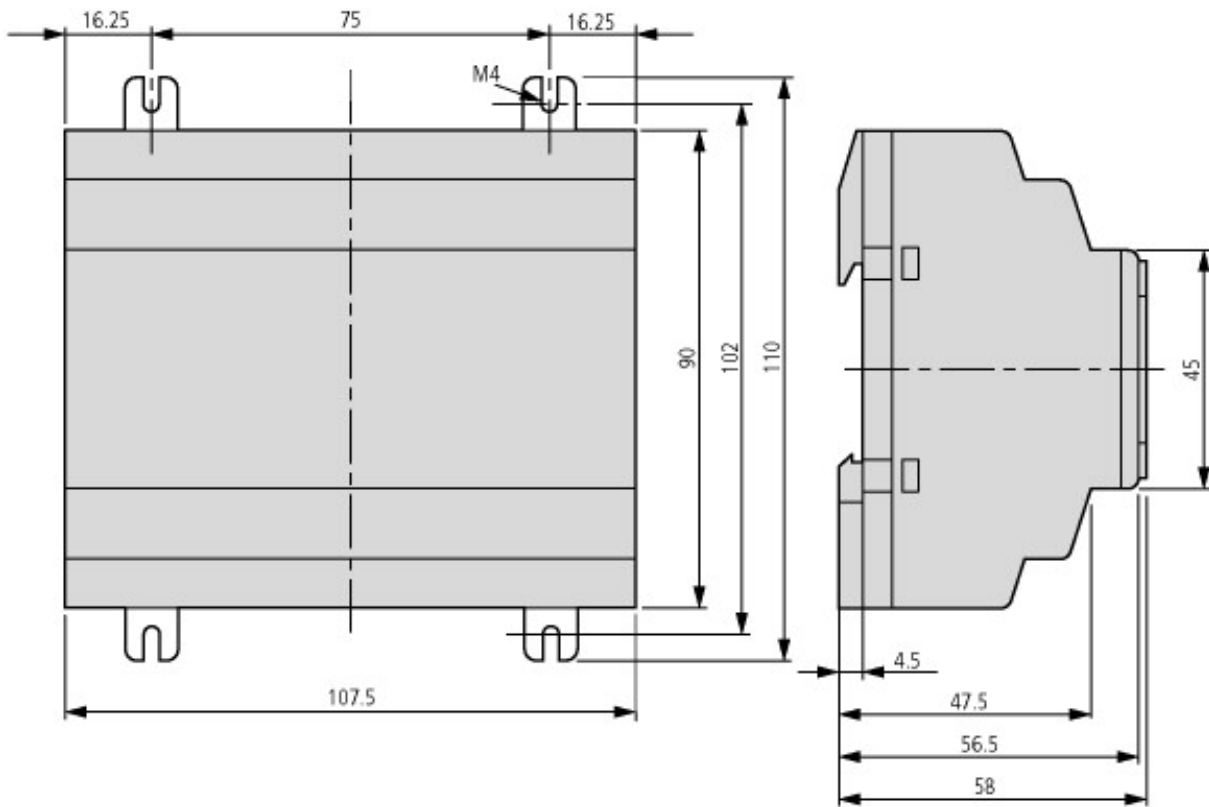
PLC's (EG000024) / Logic module (EC001417)

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	0 - 0
Supply voltage AC 60 Hz	V	0 - 0
Supply voltage DC	V	10.2 - 15.6
Voltage type of supply voltage		DC
Switching current	A	8
Number of analogue inputs		4
Number of analogue outputs		0
Number of digital inputs		12
Number of digital outputs		6
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		1
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		No
Fieldbus		
Supporting protocol for EtherNet/IP		No
Supporting protocol for AS-Interface		No
Safety at Work		
Supporting protocol for DeviceNet		No
Safety		
Supporting protocol for INTERBUS-		No
Safety		
Supporting protocol for PROFIsafe		No
Supporting protocol for SafetyBUS p		No
Supporting protocol for other bus		No
systems		
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		Yes
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	108
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-cf99091cace>