



## Control relay,AC,relay output



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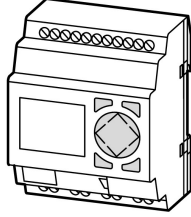
Part no.

EASY819-AC-RC

Article no.

256267

### Delivery programme

			
Product range			Control relays easyRelay
Basic function			easy800 (expandable, easyNet)
Description			erweiterbar: Digital-Ein-/Ausgänge, Bussysteme AS-Interface, PROFIBUS-DP, CANopen®, DeviceNet Bus system easyNet on board Customized laser inscription or delivery with user program possible with EASY-COMBINATION-* product (article No. 257823)
Inputs			
Digital input count			digital: 12
Digital			12
Outputs			
Type			Relay
Quantity of outputs			Relays: 6
Outputs		Number	6
Additional features			
Display			with display, with keypad
Expansions			Expandable Networkable (easyNet)
Supply voltage			100 - 240 V AC
Software			EASY-SOFT-PRO

### Approbationen

UL approval  
CSA approval  
Product Standards

Yes

Yes

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 CCN  
CSA File No.  
CSA Class No.  
NA Certification  
Degree of Protection

E135462

NRAQ

012528

2252-01 + 2258-02

UL listed, CSA certified

IEC: IP20, UL/CSA Type: -

### General

Standards			EN 55011, EN 55022, IEC/EN 61000-4, IEC 60068-2-6, IEC 60068-2-27
Dimensions (W x H x D)		mm	107.5 x 90 x 72 (6 PE)
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 <sup>2</sup>	0.2/4 (AWG 22 - 12)
Flexible with ferrule		mm <sup>2</sup>	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
LCD display (clearly legible)		°C	0 - 55
Storage		°C	In accordance with IEC 60068-2-1, -2, -14 -40 - +70

relative humidity		%	nach IEC 60068-2-30, IEC 600068-2-78 5 - 95
Air pressure (operation)		hPa	795 - 1080

### Ambient conditions, mechanical

Protection type (IEC/EN 60529, EN50178, VBG 4)			IP20
Vibrations		Hz	nach IEC 60068-2-6 konstante Amplitude 0.15 mm: 10 - 57 konstante Beschleunigung 2 g: 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			Vertical or horizontal

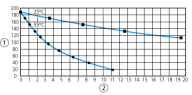
### Electromagnetic compatibility (EMC)

Overvoltage category/pollution degree			III/2
Electrostatic discharge (ESD)			
applied standard			according to IEC EN 61000-4-2
Air discharge		kV	8
Contact discharge		kV	6
Electromagnetic fields (RFI), to IEC EN 61000-4-3		V/m	0.8 - 1.0 GHz: 10 1.4 - 2 GHz: 3 2.0 - 2.7 GHz: 1
Radio interference suppression			EN 55011 Class B
Burst			according to IEC/EN 61000-4-4
power pulses (Surge)			according to IEC/EN 61000-4-5 1 kV (supply cables, symmetrical)
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

### Back-up of real-time clock

Back-up of real-time clock			
			<p>① Backup time (hours) with fully charged double layer capacitor</p> <p>② Service life (years)</p>
Accuracy of real-time clock to inputs		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


### Repetition accuracy of timing relays

Accuracy of timing relays (of values)		%	± 0.02
Resolution			
Range "S"		ms	5
Range "M:S"		s	1
Range "H:M"		min	1

### Retentive memory

Write cycles of the retentive memory			10 <sup>12</sup> (read/write cycles)
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

### Power supply

Rated operational voltage	U <sub>e</sub>	V	100/110/115/120/230/240 AC (-15/+10%)
Permissible range			85 - 264 V AC
Frequency		Hz	50/60 (± 5%)
Input current			normally 70 mA at 115/120 V AC 60 Hz normally 35 mA at 230/240 V AC 50 Hz
Einschaltstrom- und dauer		A	12.5 für 6 ms
Voltage dips		ms	≤ In accordance with IEC 61131-2 ≤ 20
Fuse		A	 1A (T)

### Digital inputs 115/230 V AC

Number			12
Status Display			LCD-Display
Potential isolation			from power supply: no between digital inputs: no from the outputs: yes to the interface: yes to easyNet: yes to easyLink: yes
Input voltage (sinusoidal)	$U_e$	V AC	Signal 0: 0 - 40 Signal 1: 79 - 264
Rated frequency		Hz	50 - 60
Input current at signal 1		mA	I1 - I6, I9 - I12: 10 x 0.25 (at 115 V AC, 60 Hz) I7, I8: 2 x 4 (at 115 V AC, 60 Hz) I1 - I6, I9 - I12: 10 x 0.5 (at 230 V AC, 50 Hz) I7, I8: 2 x 6 (at 230 V AC, 50 Hz)
Deceleration time		ms	80/66% (0 -> 1/1 -> 0, debounce ON 50/60Hz, I1 - I6, I9 - I12) 20/16% (0 -> 1/1 -> 0, debounce OFF 50/60Hz, I1 - I6, I9 - I12) 120/100 (1 -> 0, debounce ON 50/60Hz, I7, I8) 40/33% (1 -> 0, debounce OFF 50/60Hz, I7, I8) 80/66% (0 -> 1, debounce ON 50/60Hz, I7, I8) 20/16% (0 -> 1, debounce OFF 50/60Hz, I7, I8)
Cable length		m	≤ 100 per input (I1 - I6, I9 - I12, Debounce ON) ≤ 60 per input (I1 - I6, I9 - I12, Debounce OFF) ≤ 100 per input (I7, I8)

## Relay outputs

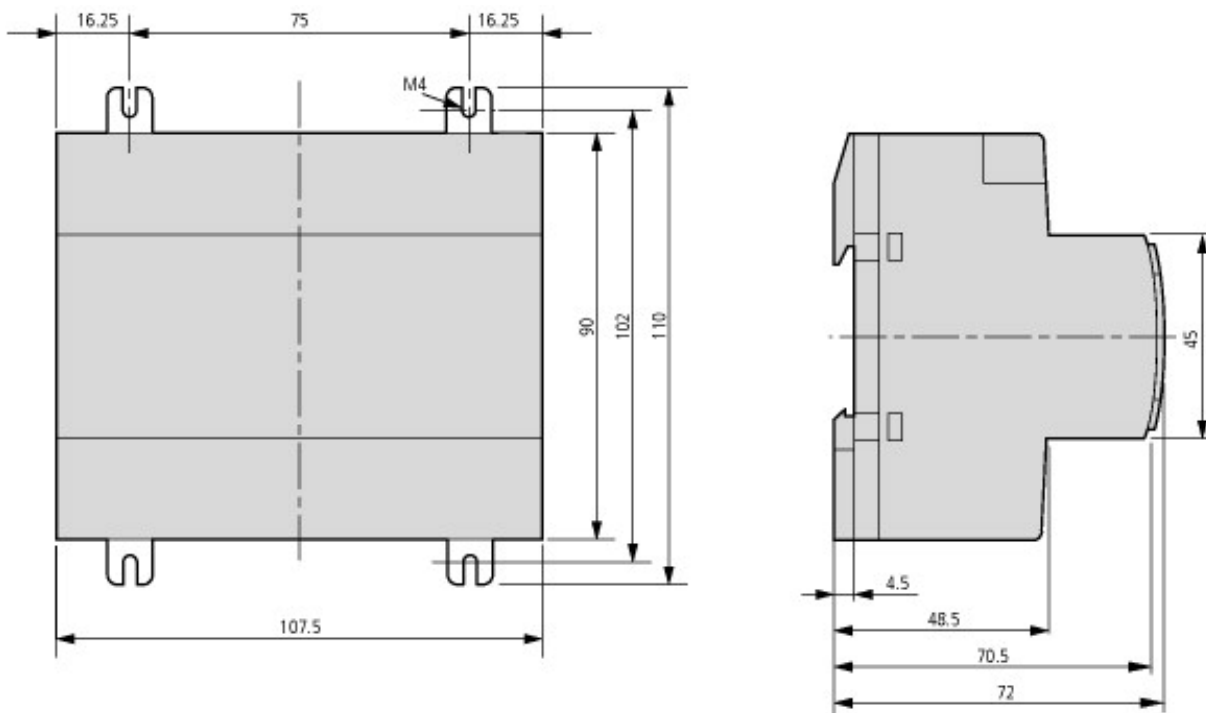
Number			6
Outputs in groups of			1
Parallel switching of outputs for increased output			Not permissible
Protection of an output relay			Miniature circuit-breaker B16 or fuse 8 A (slow)
Potential isolation			from power supply: yes From the inputs: yes between digital inputs: yes to the interface: yes to easyLink: yes to easyNet: 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 $\cos \varphi = 1$ , characteristic B16 at 600 A		A	16
Short-circuit-proof $\cos \varphi = 0.5$ 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 <sup>6</sup>		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 $\varphi = 1$ at B 300	A		5
max. make/break cos $\varphi \neq$ 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

## Netzwerk easyNet

Data transfer rate/distance			1000 KBit/s, 6 m 500 KBit/s, 25 m 250 Kbit/s, 40 m 125 Kbit/s, 300 m 50 KBit/s, 300 m 20 KBit/s, 700 m 10 KBit/s, 1000 m Lengths from 40 m can be obtained only with cables with reinforced cross-section and terminal adapter.
Potential isolation			from power supply POW: yes From the inputs: yes from the outputs: yes to easyLink: yes to the interface: yes
Bus termination (first and last station)			ja
Anschlussstechnik			RJ45, 8-polig
Terminal capacity			up to 1000 m, < 16 m $\Omega$ /m: 1.5 (AWG: 16) up to 600 m, < 26 m $\Omega$ /m: 0.75 - 0.8 (AWG: 18) up to 400 m, < 40 m $\Omega$ /m: 0.5 - 0.6 (AWG: 20, 19) up to 250 m, < 60 m $\Omega$ /m: 0.34 - 0.5 (AWG: 22, 21, 20) up to 175 m, < 70 m $\Omega$ /m: 0.25 - 0.34 (AWG: 23, 22) up to 40 m, < 140 m $\Omega$ /m: 0.13 (AWG: 26)

## Dimensions



### Additional product information (links)

<b>IL05013012Z (AWA2528-1979) Control relay easy</b>	
IL05013012Z (AWA2528-1979) Control relay easy	<a href="ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05013012Z2010_11.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05013012Z2010_11.pdf</a>
<b>MN04902001Z-EN (AWB2528-1423) easy800 Control Relay</b>	
MN04902001Z-DE (AWB2528-1423) Steuerrelais easy800 - Deutsch	<a href="ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04902001Z_DE.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04902001Z_DE.pdf</a>
MN04902001Z-EN (AWB2528-1423) easy800 Control Relay - English	<a href="ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04902001Z_EN.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04902001Z_EN.pdf</a>
Labeleditor	<a href="ftp://ftp.moeller.net/MFD/EASY-SOFT-PRO/labeleditor_206.exe">ftp://ftp.moeller.net/MFD/EASY-SOFT-PRO/labeleditor_206.exe</a>