

# Product datasheet

Specifications



## level control relay, Harmony Control Relays, 8A, 1CO, 24â€¦240V AC DC

RM22LG11MR

### Main

Range of product	Harmony Control Relays
Relay type	Level control relay
Product or component type	Level control relay
Relay name	RM22L
Relay monitored parameters	Detection by resistive probes
time delay	Without
Switching capacity in VA	2000 VA
Minimum switching current	10 mA at 5 V DC
Maximum switching current	8 A AC
Utilisation category	AC-15 conforming to IEC 60947-5-1 DC-13 conforming to IEC 60947-5-1 AC-1 conforming to IEC 60947-4-1 DC-1 conforming to IEC 60947-4-1
Contacts type and composition	2 C/O

### Complementary

Maximum switching voltage	250 V AC
[Un] rated nominal voltage	24...240 V AC/DC 50/60 Hz, non self-powered
Supply voltage limits	20.4...264 V AC/DC
power consumption	1.5 W DC
Output contacts	2 C/O
Nominal output current	8 A
delay at power up	0.6 s
Maximum electrode voltage	12 V AC
Maximum electrode current	1 mA
Repeat accuracy	+/- 2 % for time delay
Measurement error	< 1 % over the whole range with voltage variation 0.05 %/°C with temperature variation
Maximum cable distance between devices	1000 m between probe and delay
Sensitivity scale	5...100 kOhm St (Standard Sensitivity)
Sensitivity adjustment	5...100 %
Maximum supply current for sensors	1 mA

<b>Cable capacitance</b>	1 nF at HS (High Sensitivity) for probe cable 2.2 nF at St (Standard Sensitivity) for probe cable 4.7 nF at LS (Low Sensitivity) for probe cable
<b>Overvoltage category</b>	III conforming to IEC 60664-1
<b>Insulation</b>	Between supply and measurement
<b>Connections - terminals</b>	Screw terminals, 2 x 0.5...2 x 2.5 mm <sup>2</sup> (AWG 20...AWG 14) solid without cable end Screw terminals, 2 x 0.2...2 x 1.5 mm <sup>2</sup> (AWG 24...AWG 16) flexible with cable end Screw terminals, 1 x 0.5...1 x 3.3 mm <sup>2</sup> (AWG 20...AWG 12) solid without cable end Screw terminals, 1 x 0.2...1 x 2.5 mm <sup>2</sup> (AWG 24...AWG 14) flexible with cable end
<b>Tightening torque</b>	0.6...1 N.m conforming to IEC 60947-1
<b>Housing material</b>	Self-extinguishing plastic
<b>Mounting support</b>	35 mm DIN rail conforming to IEC 60715
<b>Mounting position</b>	Any position
<b>Electrical durability</b>	100000 cycles
<b>Mechanical durability</b>	10000000 cycles
<b>Contacts material</b>	Cadmium free
<b>Measurement range</b>	5...100 kOhm
<b>Safety reliability data</b>	B10d = 120000 MTTFd = 125.5 years
<b>Width</b>	22.5 mm
<b>Control type</b>	With test button
<b>Net weight</b>	0.1 kg

## Environment

<b>Immunity to microbreaks</b>	100 ms DC 90 ms AC
<b>Electromagnetic compatibility</b>	Immunity for residential, commercial and light-industrial environments conforming to IEC 61000-6-1 Immunity for industrial environments conforming to IEC 61000-6-2 Emission standard for residential, commercial and light-industrial environments conforming to IEC 61000-6-3 Emission standard for industrial environments conforming to IEC 61000-6-4 Electrostatic discharge - test level: 6 kV level 3 (contact discharge) conforming to IEC 61000-4-2 Electrostatic discharge - test level: 8 kV level 3 (air discharge) conforming to IEC 61000-4-2 Radiated radio-frequency electromagnetic field immunity test - test level: 10 V/m level 3 conforming to IEC 61000-4-3 Electrical fast transient/burst immunity test - test level: 4 kV level 4 (direct) conforming to IEC 61000-4-4 Electrical fast transient/burst immunity test - test level: 2 kV level 4 (capacitive coupling) conforming to IEC 61000-4-4 Surge immunity test - test level: 4 kV level 4 (common mode) conforming to IEC 61000-4-5 Surge immunity test - test level: 2 kV level 4 (differential mode) conforming to IEC 61000-4-5 Conducted and radiated emissions class B group 1 conforming to CISPR 11 Conducted and radiated emissions class B conforming to CISPR 22
<b>Standards</b>	IEC 60255-1
<b>Product certifications</b>	GL RCM CCC CSA UL EAC CE
<b>Ambient air temperature for storage</b>	-40...70 °C

<b>Relative humidity</b>	93...97 % at 25...55 °C conforming to IEC 60068-2-30
<b>Vibration resistance</b>	0.075 mm (f= 10...58.1 Hz) not in operation conforming to IEC 60068-2-6 1 gn (f= 10...58.1 Hz) not in operation conforming to IEC 60068-2-6 0.035 mm (f= 58.1...150 Hz) in operation conforming to IEC 60068-2-6 0.5 gn (f= 58.1...150 Hz) in operation conforming to IEC 60068-2-6
<b>Shock resistance</b>	15 gn (duration = 11 ms) for not in operation conforming to IEC 60068-2-27 5 gn (duration = 11 ms) for in operation conforming to IEC 60068-2-27
<b>IP degree of protection</b>	IP20 (terminals) conforming to IEC 60529 IP40 (housing) conforming to IEC 60529 IP50 (front panel) conforming to IEC 60529
<b>Pollution degree</b>	3 conforming to IEC 60664-1
<b>Dielectric test voltage</b>	2.5 kV, 1 min AC 50 Hz conforming to IEC 60255-27

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	2.6 cm
<b>Package 1 Width</b>	8.2 cm
<b>Package 1 Length</b>	9.5 cm
<b>Package 1 Weight</b>	109.0 g
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	40
<b>Package 2 Height</b>	15.0 cm
<b>Package 2 Width</b>	30.0 cm
<b>Package 2 Length</b>	40.0 cm
<b>Package 2 Weight</b>	4.999 kg
<b>Unit Type of Package 3</b>	P06
<b>Number of Units in Package 3</b>	640
<b>Package 3 Height</b>	75.0 cm
<b>Package 3 Width</b>	60.0 cm
<b>Package 3 Length</b>	80.0 cm
<b>Package 3 Weight</b>	88.484 kg

## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

### Environmental footprint

Carbon footprint (kg.eq.CO2 per CR, Total Life cycle)	36
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Environmental Disclosure	<a href="#">Product Environmental Profile</a>
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## Use Better

### Materials and Substances

Packaging made with recycled cardboard	Yes
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Packaging without single use plastic	Yes
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EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
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SCIP Number	5e3fdf99-611b-4d07-ad17-6eba84ab488b
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REACH Regulation	<a href="#">REACH Declaration</a>
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China RoHS Regulation	<a href="#">China RoHS declaration</a>
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## Use Again

### Repack and remanufacture

WEEE



The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Take-back

No

Dimensions Drawings

Dimensions

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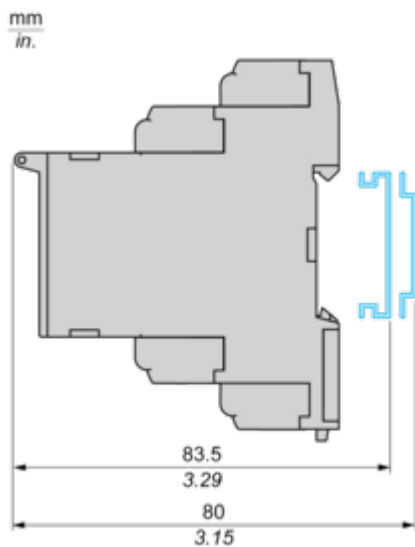


Mounting and Clearance

Mounting and Clearance

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Rail Mounting

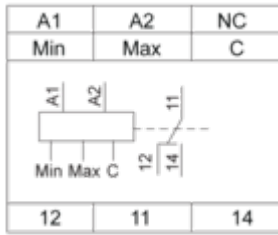


Connections and Schema

**Level Control Relay**

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Wiring Diagram



**A1,A2** : Supply voltage

**Max** : High level

**Min** : Low level

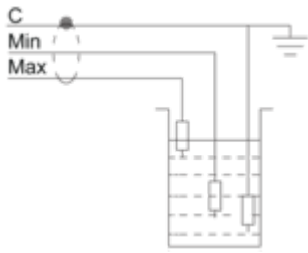
**C** : References or Tank earth electrode

**11-14,12** : 1st C/O contact of output relay

**Control by Electrodes**

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Wiring Diagram



**A1,A2** : Supply voltage

**Max** : High level

**Min** : Low level

**C** : References or Tank earth electrode

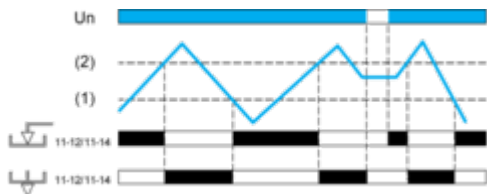
**11-14,12** : 1st C/O contact of output relay

Technical Description

Function Diagrams

Control of Two Levels

Fill/Empty function

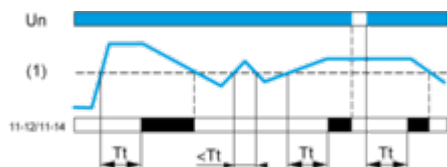


Legend

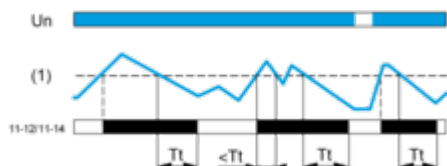
- $U_n$  Nominal supply voltage
- (1) Min. level
- (2) Max. level
- 11-12/11-14, 21-22/21-24 Output relay connections
- Relay status: black color = energized.

Control of One Level

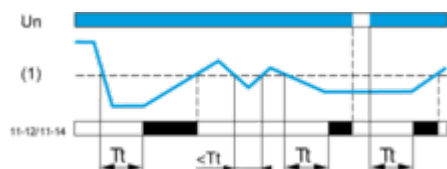
Empty function T on



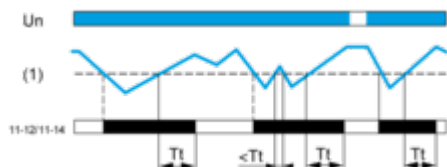
Empty function T off



Fill function T on



Fill function T off



Legend

- $T_t$  Time delay after crossing of threshold
- $U_n$  Supply voltage
- (1) Level threshold
- 11-12/11-14, 21-22/21-24 Output relay connections

Relay status: black color = energized.

Technical Illustration

Dimensions

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mm  
in.

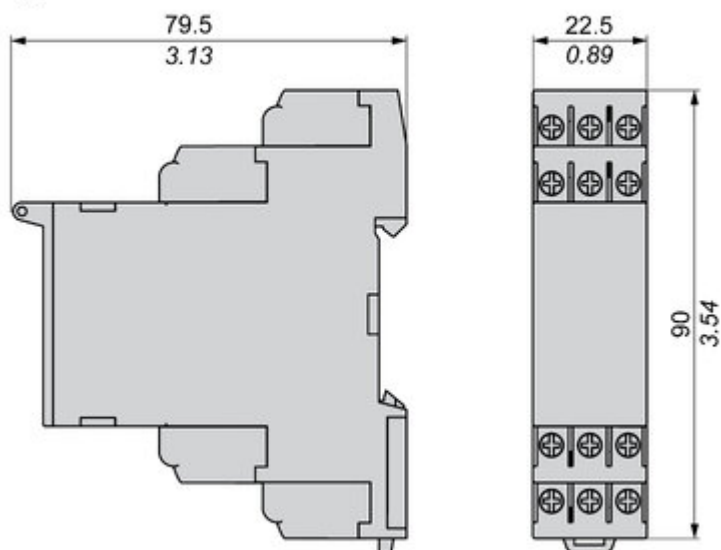
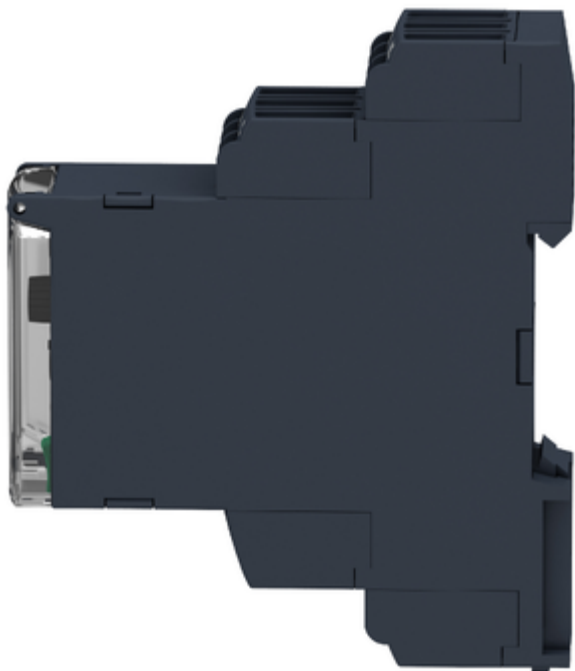


Image of product / Alternate images

Alternative

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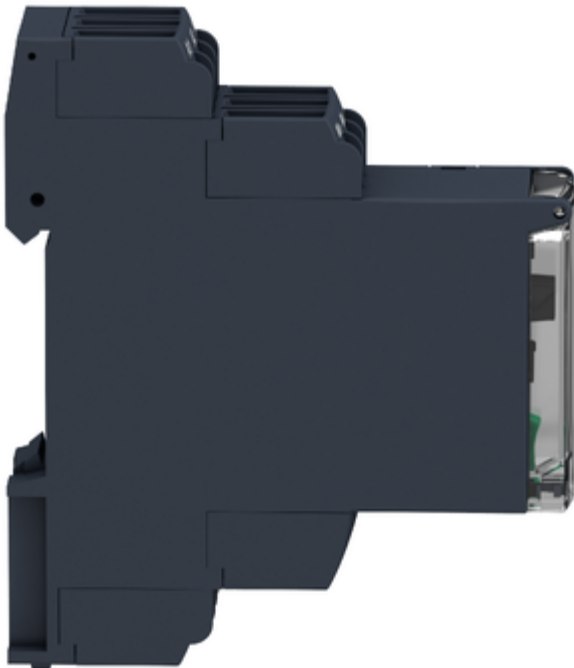


Image of product in real life situation

