## **Product datasheet** Characteristics

## RM35LM33MW

Harmony, Modular liquid level control relay, 5 A, 2 CO, 24...240 V AC/DC





#### Main

IVIAIII		
Range of product	Harmony Control Relays	
Product or component type	Level control relay	
Relay type	Level control relay	
Relay name	RM35L	
Relay monitored parameters	Detection by resistive probes	
Time delay	Adjustable 0.15 s, +/- 10 %	
Switching capacity in VA	1250 VA	
Minimum switching current	10 mA at 5 V DC	
Maximum switching current	5 A AC/DC	
Power consumption	5 VA AC	
Measurement range	250 Ohm1 MOhm	
Utilisation category	AC-12 conforming to IEC 60947-5-1 AC-13 conforming to IEC 60947-5-1 AC-14 conforming to IEC 60947-5-1 AC-15 conforming to IEC 60947-5-1 DC-12 conforming to IEC 60947-5-1 DC-13 conforming to IEC 60947-5-1	
Contacts type and composition	2 C/O	

## Complementary

Reset time	1750 ms	
Maximum switching voltage	250 V AC/DC	
[Un] rated nominal voltage	24240 V AC/DC 50/60 Hz +/- 10 %	-
Supply voltage limits	20.4264 V AC/DC	
Operating voltage tolerance	- 15 % + 10 % Un	red is
Power consumption	1.5 W DC	
Output contacts	2 C/O	
Nominal output current	5 A	

Delay at power up	0.6 s
Measurement accuracy	+/- 10 % of the full scale value +/- 20 % for the HS range
Repeat accuracy	+/- 2 % for time delay
Measurement error	0.5 %/°C with temperature variation
Maximum cable distance between devices	100 m
Sensitivity scale	0.255 kOhm LS (Low Sensitivity) 5100 kOhm St (Standard Sensitivity) 501000 kOhm HS (High Sensitivity)
Sensitivity adjustment	5100 %
Maximum supply current for sensors	1 mA
Cable capacitance	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)
Marking	CE : 73/23/EEC CE : EMC 89/336/EEC
Overvoltage category	III conforming to IEC 60664-1
Insulation resistance	<ul> <li>&gt; 500 MOhm at 500 V DC between supply and relay output conforming to IEC 60255-5</li> <li>&gt; 500 MOhm at 500 V DC between measurement and relay output conforming to IEC 60664-1</li> <li>&gt; 1 MOhm at 500 V DC between supply and measurement conforming to IEC 60255-5</li> <li>&gt; 500 MOhm at 500 V DC between supply and relay output conforming to IEC 60664-1</li> <li>&gt; 500 MOhm at 500 V DC between measurement and relay output conforming to IEC 60255-5</li> <li>&gt; 1 MOhm at 500 V DC between supply and measurement conforming to IEC 60664-1</li> </ul>
[Ui] rated insulation voltage	250 V conforming to IEC 60664-1
Operating position	Any position without derating
Connections - terminals	Screw terminals, 1 x 0.51 x 4 mm² (AWG 20AWG 11) solid without cable end Screw terminals, 2 x 0.52 x 2.5 mm² (AWG 20AWG 14) solid without cable end Screw terminals, 2 x 0.22 x 1.5 mm² (AWG 24AWG 16) flexible with cable end Screw terminals, 1 x 0.21 x 2.5 mm² (AWG 24AWG 12) flexible with cable end
Tightening torque	0.61 N.m conforming to IEC 60947-1
Housing material	Self-extinguishing plastic
Local signalling	LED (yellow) for relay ON LED (green) for power ON LED (yellow) for timer ON
Mounting support	35 mm symmetrical DIN rail conforming to EN/IEC 60715
Electrical durability	100000 cycles
Mechanical durability	30000000 cycles
Operating rate	<= 360 operations/hour full load
Safety reliability data	B10d = 170000 MTTFd = 182.6 years
Width	35 mm

### Environment

Immunity to microbreaks	100 ms DC 90 ms AC	
Electromagnetic compatibility	Emission standard for industrial environments conforming to EN/IEC 61000-6-4 Emission standard for residential, commercial and light-industrial environments conforming to EN/IEC 61000-6-3 Immunity for industrial environments conforming to NF EN/IEC 61000-6-2	
Standards	EN/IEC 60255-6	
Product certifications	CSA GL UL C-Tick GOST	
Ambient air temperature for storage	-4070 °C	
Ambient air temperature for operation	-2050 °C	
Relative humidity	95 % at 55 °C conforming to IEC 60068-2-30	
Vibration resistance	0.35 mm (f= 557.6 Hz) conforming to IEC 60068-2-6 1 gn (f= 57.6150 Hz) conforming to IEC 60255-21-1	

Shock resistance	15 gn for 11 ms conforming to IEC 60255-21-1
IP degree of protection	IP20 (terminals) conforming to IEC 60529 IP30 (casing) conforming to IEC 60529
Pollution degree	3 conforming to IEC 60664-1
Dielectric test voltage	2 kV, 1 min AC 50 Hz conforming to IEC 60255-5 2 kV, 1 min AC 50 Hz conforming to IEC 60664-1

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	134 g
Package 1 Height	4.7 cm
Package 1 width	7.8 cm
Package 1 Length	9.7 cm
Unit Type of Package 2	S03
Number of Units in Package 2	48
Package 2 Weight	7.146 kg
Package 2 Height	30 cm
Package 2 width	30 cm
Package 2 Length	40 cm
Unit Type of Package 3	P06
Number of Units in Package 3	384
Package 3 Weight	65.66 kg
Package 3 Height	75 cm
Package 3 width	80 cm
Package 3 Length	60 cm

## Offer Sustainability

Sustainable offer status	Green Premium product	
REACh Regulation	REACh Declaration	
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration	
Mercury free	Yes	
RoHS exemption information	Yes	
China RoHS Regulation	China RoHS declaration	
Environmental Disclosure	Product Environmental Profile	
Circularity Profile	End of Life Information	

### Contractual warranty

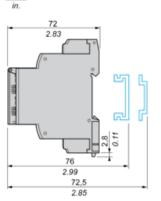
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Warranty	18 months

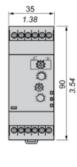
# Product datasheet Dimensions Drawings

## RM35LM33MW

## Level Control Relays

## **Dimensions and Mounting**



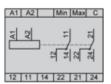


# Product datasheet Connections and Schema

## RM35LM33MW

## Level Control Relays

## Wiring Diagram



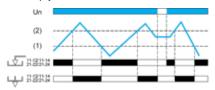
# Product datasheet Technical Description

## RM35LM33MW

### **Function Diagrams**

#### Control of Two Levels

### Fill/Empty function



#### Legend

Un Supply voltage

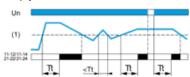
- (1) Min. level
- (2) Max. level

11-12/11-14, 21-22/21-24 Output relay connections

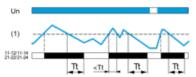
Relay status: black color = energized.

#### Control of One Level

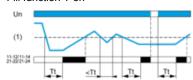
#### Empty function T on



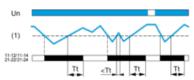
#### Empty function T off



Fill function T on



Fill function T off



#### Legend

Tt Time delay after crossing of threshold

Un Supply voltage

- (1) Level threshold
- 11-12/11-14, 21-22/21-24 Output relay connections

Relay status: black color = energized.