## Product data sheet Characteristics

## RM35LM33MW

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





#### Main Range of Product Harmony Control Relays **Product or Component** Level control relay Type Relay Type Level control relay RM35L Relay name Relay monitored Detection by resistive probes parameters Time delay Adjustable 0.1...5 s, +/- 10 % Switching capacity in 1250 VA Minimum switching 10 mA 5 V DC current Maximum switching 5 A AC/DC current 5 VA AC Power consumption Measurement range 250 Ohm...1 MOhm Utilisation category AC-12 IEC 60947-5-1 AC-13 IEC 60947-5-1

AC-14 IEC 60947-5-1 AC-15 IEC 60947-5-1 DC-12 IEC 60947-5-1 DC-13 IEC 60947-5-1

2 C/O

## Complementary

In		
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	
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 % time delay	
Measurement error	0.5 %/°C with temperature variation	
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	1 NF HS (High Sensitivity) probe cable 2.2 NF St (Standard Sensitivity) probe cable 4.7 nF LS (Low Sensitivity)	
Marking	CE : 73/23/EEC CE : EMC 89/336/EEC	
Overvoltage category	III IEC 60664-1	

Contacts type and composition

Insulation resistance	<ul> <li>&gt; 500 MOhm 500 V DC between supply and relay output IEC 60255-5</li> <li>&gt; 500 MOhm 500 V DC between measurement and relay output IEC 60664-1</li> <li>&gt; 1 MOhm 500 V DC between supply and measurement IEC 60255-5</li> <li>&gt; 500 MOhm 500 V DC between supply and relay output IEC 60664-1</li> <li>&gt; 500 MOhm 500 V DC between measurement and relay output IEC 60255-5</li> <li>&gt; 1 MOhm 500 V DC between supply and measurement IEC 60664-1</li> </ul>	
[Ui] rated insulation voltage	250 V 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	5.318.85 lbf.in (0.61 N.m) IEC 60947-1	
Housing material	Self-extinguishing plastic	
Local signalling	For relay ON LED (yellow) For power ON LED (green) For timer ON LED (yellow)	
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	1.38 in (35 mm)	

## Environment

Environment		
Immunity to microbreaks	100 Ms DC 90 ms AC  Emission standard for industrial environments EN/IEC 61000-6-4 Emission standard for residential, commercial and light-industrial environments EN/IEC 61000-6-3 Immunity for industrial environments NF EN/IEC 61000-6-2	
Electromagnetic compatibility		
Standards	EN/IEC 60255-6	
Product Certifications	CSA GL UL C-tick GOST	
Ambient Air Temperature for Storage	-40158 °F (-4070 °C)	
Ambient air temperature for operation	-4122 °F (-2050 °C)	
Relative humidity	95 % 131 °F (55 °C) IEC 60068-2-30	
IP degree of protection	IP20 IEC 60529 terminals) IP30 IEC 60529 casing)	
Pollution degree	3 IEC 60664-1	
Dielectric test voltage	2 KV AC 50 Hz, 1 min IEC 60255-5 2 kV AC 50 Hz, 1 min IEC 60664-1	

## Ordering and shipping details

Category	22380-RELAYS-MEASUREMENT (RM17-RM35)	
Discount Schedule	CP2	
GTIN	3389119405232	
Returnability	Yes	
Country of origin	ID	

## Packing Units

PCE	
1	
1.85 in (4.700 cm)	
3.07 in (7.800 cm)	
3.82 in (9.700 cm)	
4.97 oz (141.000 g)	
	1 1.85 in (4.700 cm) 3.07 in (7.800 cm) 3.82 in (9.700 cm)

Unit Type of Package 2	S03
Number of Units in Package 2	48
Package 2 Height	11.81 in (30.000 cm)
Package 2 Width	11.81 in (30.000 cm)
Package 2 Length	15.75 in (40.000 cm)
Package 2 Weight	16.42 lb(US) (7.448 kg)
Unit Type of Package 3	P06
Number of Units in Package 3	384
Package 3 Height	29.53 in (75.000 cm)
Package 3 Width	23.62 in (60.000 cm)
Package 3 Length	31.50 in (80.000 cm)
Package 3 Weight	144.76 lb(US) (65.660 kg)

## Offer Sustainability

Green Premium product	
WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov	
☑REACh Declaration	
Pro-active compliance (Product out of EU RoHS legal scope)	
Yes	
China RoHS Declaration	
€Yes	
Product Environmental Profile	
End Of Life Information	

## Contractual warranty

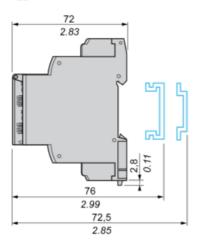
Contraction warranty				
Warranty	18 months			

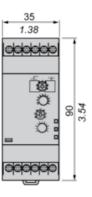
# RM35LM33MW

## Level Control Relays

## **Dimensions and Mounting**





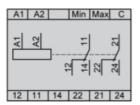


## Product data sheet Connections and Schema

# RM35LM33MW

## Level Control Relays

## Wiring Diagram



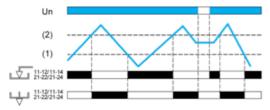
# Product data sheet Technical Description

## RM35LM33MW

## **Function Diagrams**

#### Control of Two Levels

#### Fill/Empty function



#### Legend

Un Supply voltage

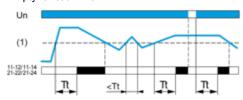
- (1) Min. level
- (2) Max. level

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

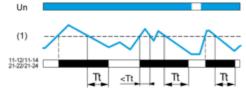
Relay status: black color = energized.

## Control of One Level

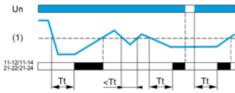
#### Empty function T on



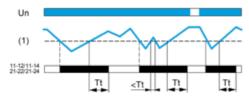
#### Empty function T off



#### 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.