Product data sheet
Characteristics

RM35LM33MW
Harmony, Modular liquid level control relay, 5 A, 2 CO, 24...240 V AC/DC



Main

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 0.1...5 s, +/- 10 %
Switching capacity in VA	1250 VA
Minimum switching current	10 mA 5 V DC
Maximum switching current	5 A AC/DC
Power consumption	5 VA AC
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
Contacts type and composition	2 C/O

Complementary

Reset time	1750 ms
Maximum switching voltage	250 V AC/DC
[Un] rated nominal voltage	24...240 V AC/DC 50/60 Hz +/- 10 %
Supply voltage limits	20.4…264 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
Maximum cable distance between devices	328.08 ft (100 m)
Sensitivity scale	0.25...5 kOhm LS (Low Sensitivity) 5...100 kOhm St (Standard Sensitivity) 50...1000 kOhm HS (High Sensitivity)
Sensitivity adjustment	5…100 %
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

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein.
This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications.
It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof.
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Insulation resistance	> 500 MOhm 500 V DC between supply and relay output IEC 60255-5 > 500 MOhm 500 V DC between measurement and relay output IEC 60664-1 > 1 MOhm 500 V DC between supply and measurement IEC 60255-5 > 500 MOhm 500 V DC between supply and relay output IEC 60664-1 > 500 MOhm 500 V DC between measurement and relay output IEC 60255-5 > 1 MOhm 500 V DC between supply and measurement IEC 60664-1
[Ui] rated insulation voltage	250 V IEC 60664-1
Operating position	Any position without derating
Connections - terminals	Screw terminals, 1 x 0.5...1 x 4 mm² AWG 20...AWG 11) solid without cable end Screw terminals, 2 x 0.5...2 x 2.5 mm² AWG 20...AWG 14) solid without cable end Screw terminals, 2 x 0.2...2 x 1.5 mm² AWG 24...AWG 16) flexible with cable end Screw terminals, 1 x 0.2...1 x 2.5 mm² AWG 24...AWG 12) flexible with cable end
Tightening torque	5.31…8.85 lbf.in (0.6…1 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

Immunity to microbreaks	100 Ms DC 90 ms AC
Electromagnetic compatibility	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
Standards	EN/IEC 60255-6
Product Certifications	CSA GL UL C-tick GOST
Ambient Air Temperature for Storage	-40…158 °F (-40…70 °C)
Ambient air temperature for operation	-4…122 °F (-20…50 °C)
Relative humidity	95 % 131 °F (55 °C) IEC 60068-2-30
Vibration resistance	0.35 mm 5…57.6 Hz)IEC 60068-2-6 1 gn 57.6…150 Hz)IEC 60255-21-1
Shock resistance	15 gn 11 ms IEC 60255-21-1
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
Nbr. of units in pkg.	1
Package weight(Lbs)	4.73 oz (134 g)
Returnability	Yes
Country of origin	ID

Packing Units

Unit Type of Package 1	PCE
Package 1 Height	1.85 in (4.7 cm)
Package 1 width	3.07 in (7.8 cm)
Package 1 Length	3.82 in (9.7 cm)
Unit Type of Package 2	S03
Number of Units in Package 2	48
Package 2 Weight	15.75 lb(US) (7.146 kg)
Package 2 Height	11.81 in (30 cm)
Package 2 width	11.81 in (30 cm)
Package 2 Length	15.75 in (40 cm)
Unit Type of Package 3	P06
Number of Units in Package 3	384
Package 3 Weight	144.76 lb(US) (65.66 kg)
Package 3 Height	29.53 in (75 cm)
Package 3 width	31.50 in (80 cm)
Package 3 Length	23.62 in (60 cm)

Offer Sustainability

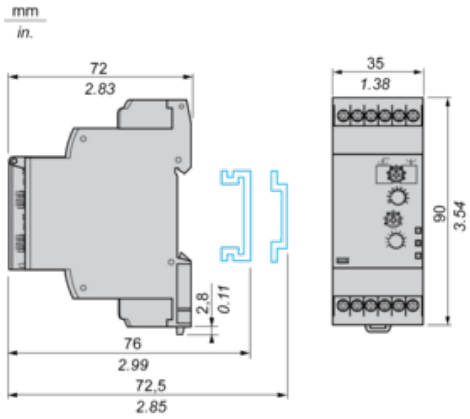
Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov
REACh 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

Warranty	18 months

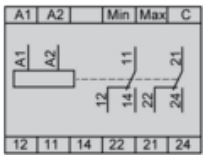
Level Control Relays

Dimensions and Mounting



Level Control Relays

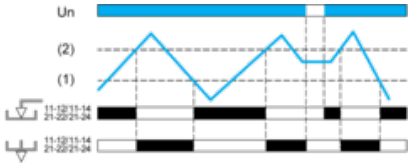
Wiring Diagram



Function Diagrams

Control of Two Levels

Fill/Empty function

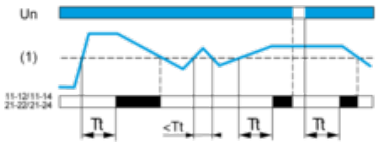


Legend

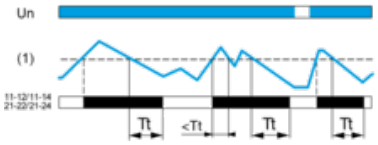
Un Supply voltage
(1) Min. level
(2) Max. level
11-12/11-14, 21-22/21-24 Output relay connections
Relay status: black color = energized.

Control of One Level

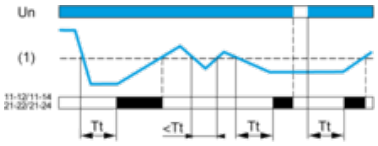
Empty function T on



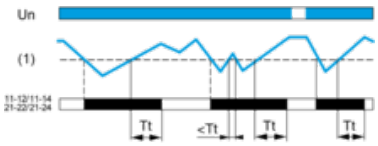
Empty function T off



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.