

Product data sheet

Characteristics

RM35LV14MW

Harmony, Modular liquid level control relay, 5 A, 1 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 discrete sensors
Time delay	Adjustable 0.1...5 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
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	1000 Ms 4000 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	1 C/O
Nominal output current	5 A
Delay at power up	0.5 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 adjustment	5...100 %
Maximum supply current for sensors	40 mA
Cable capacitance	10 nF for probe cable
Marking	CE : EMC 89/336/EEC CE : 73/23/EEC
Overvoltage category	III conforming to IEC 60664-1

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Insulation resistance	> 500 MΩ at 500 V DC between supply and relay output conforming to IEC 60255-5 > 500 MΩ at 500 V DC between measurement and relay output conforming to IEC 60664-1 > 1 MΩ at 500 V DC between supply and measurement conforming to IEC 60255-5 > 500 MΩ at 500 V DC between supply and relay output conforming to IEC 60664-1 > 500 MΩ at 500 V DC between measurement and relay output conforming to IEC 60255-5 > 1 MΩ at 500 V DC between supply and measurement conforming to IEC 60664-1
[Ui] rated insulation voltage	250 V conforming to IEC 60664-1
Operating position	Any position without derating
Connections - terminals	Screw terminals, 1 x 0.5...1 x 4 mm ² (AWG 20...AWG 11) solid without cable end Screw terminals, 2 x 0.5...2 x 2.5 mm ² (AWG 20...AWG 14) solid without cable end Screw terminals, 2 x 0.2...2 x 1.5 mm ² (AWG 24...AWG 16) flexible with cable end Screw terminals, 1 x 0.2...1 x 2.5 mm ² (AWG 24...AWG 12) flexible with cable end
Tightening torque	0.6...1 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	GOST CSA UL GL C-Tick
Ambient air temperature for storage	-40...70 °C
Ambient air temperature for operation	-20...50 °C
Relative humidity	95 % at 55 °C conforming to IEC 60068-2-30
Vibration resistance	0.35 mm (f= 5...57.6 Hz) conforming to IEC 60068-2-6 1 gn (f= 57.6...150 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

Package 1 Weight	0.136 kg
Package 1 Height	0.450 dm
Package 1 width	0.780 dm
Package 1 Length	0.970 dm

Offer Sustainability

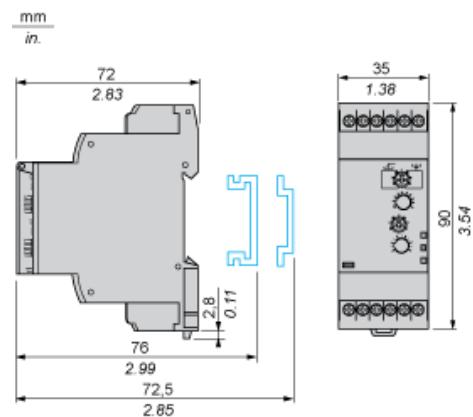
Sustainable offer status	Green Premium product
REACH Regulation	<input checked="" type="checkbox"/> REACH Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <input checked="" type="checkbox"/> EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	<input checked="" type="checkbox"/> Yes
China RoHS Regulation	<input checked="" type="checkbox"/> China RoHS Declaration
Environmental Disclosure	<input checked="" type="checkbox"/> Product Environmental Profile
Circularity Profile	<input checked="" type="checkbox"/> End Of Life Information

Contractual warranty

Warranty	18 months
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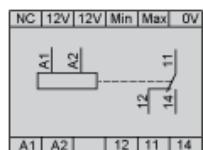
Level Control Relays

Dimensions and Mounting



Level Control Relays

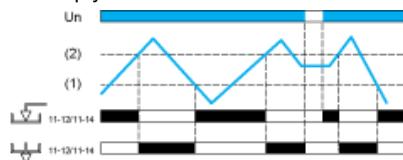
Wiring Diagram



Function Diagrams

Control of Two Levels

Fill/Empty function



Legend

Un Nominal supply voltage

(1) Min. level

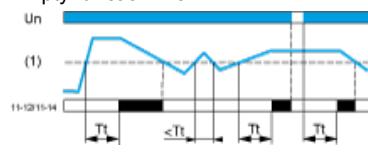
(2) Max. level

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

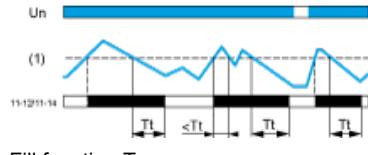
Relay status: black color = energized.

Control of One Level

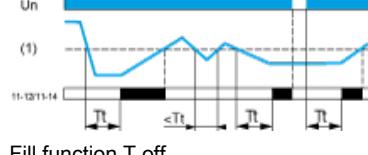
Empty function T on



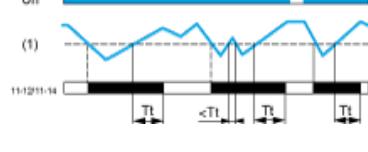
Empty function T off



Fill function T on



Fill function T off



Legend

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.