Product data sheet
Characteristics

RM35LM33MW
liquid level control relay RM35-L - 24..240 V AC/DC



Main

range of product	Zelio Control
product or component type	Modular measurement and control relays
relay type	Level control relay
relay name	RM35L
relay monitored parameters	Detection by resistive probes
time delay type	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 in VA	<= 5 VA AC
measurement range	250 Ohm...1 MOhm
utilisation category	AC-13 conforming to IEC 60947-5-1 AC-15 conforming to IEC 60947-5-1 AC-14 conforming to IEC 60947-5-1 AC-12 conforming to IEC 60947-5-1 DC-13 conforming to IEC 60947-5-1 DC-12 conforming to IEC 60947-5-1

Complementary

reset time	1750 ms
maximum switching voltage	250 V AC/DC
[Us] rated supply voltage	24...240 V AC/DC 50/60 Hz +/- 10 %
supply voltage limits	20.4...264 V AC/DC
control circuit voltage limits	- 15 % + 10 % Un
power consumption in W	<= 1.5 W DC
output contacts	2 C/O
nominal output current	5 A
run-up 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
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 %
supply current for sensors	<= 1 mA
cable length	100 m between probe and delay
cable capacitance	<= 2.2 nF St (Standard Sensitivity) probe cable <= 4.7 nF LS (Low Sensitivity) <= 1 nF HS (High Sensitivity) probe cable
marking	CE : 73/23/EEC CE : EMC 89/336/EEC
overvoltage category	III conforming to 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	> 1 MOhm at 500 V DC between supply and measurement conforming to IEC 60255-5 > 500 MOhm at 500 V DC between supply and relay output conforming to IEC 60664-1 > 500 MOhm at 500 V DC between supply and relay output conforming to IEC 60255-5 > 500 MOhm at 500 V DC between measurement and relay output conforming to IEC 60664-1 > 500 MOhm at 500 V DC between measurement and relay output conforming to IEC 60255-5 > 1 MOhm at 500 V DC between supply and measurement conforming to IEC 60664-1
[Ui] rated insulation voltage	250 V conforming to IEC 60664-1
[Uimp] rated impulse withstand voltage	4 kV conforming to IEC 60255-5 4 kV conforming to IEC 61000-4-5 4 kV conforming to IEC 60664-1
operating position	Any position without derating
connections - terminals	Screw terminals 2 x 0.5...2 x 2.5 mm² - AWG 20...AWG 14, solid cable without cable end Screw terminals 1 x 0.5...1 x 4 mm² - AWG 20...AWG 11, solid cable without cable end Screw terminals 1 x 0.2...1 x 2.5 mm² - AWG 24...AWG 12, flexible cable with cable end Screw terminals 2 x 0.2...2 x 1.5 mm² - AWG 24...AWG 16, flexible cable 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 yellow for timer ON LED green for power ON
mounting support	35 mm symmetrical DIN rail conforming to EN/IEC 60715
electrical durability	100000.0 cycles
mechanical durability	30000000 cycles
operating rate	<= 360 operations/hour under full load
safety reliability data	MTTFd = 182.6 years B10d = 170000
width	35 mm
functionality	Resistive probe detection
compatibility code	RM3

Environment

immunity to microbreaks	90 ms AC 100 ms DC
electromagnetic compatibility	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 Emission standard for industrial environments conforming to EN/IEC 61000-6-4
standards	EN/IEC 60255-6
product certifications	UL GOST GL C-Tick CSA
ambient air temperature for operation	-20...50 °C
relative humidity	95 % at 55 °C conforming to IEC 60068-2-30
vibration resistance	1 gn (f = 57.6...150 Hz) conforming to IEC 60255-21-1 0.35 mm (f = 5...57.6 Hz) conforming to IEC 60068-2-6
shock resistance	15 gn for 11 ms conforming to IEC 60255-21-1
IP degree of protection	IP30 (casing) conforming to IEC 60529 IP20 (terminals) conforming to IEC 60529
pollution degree	3 conforming to IEC 60664-1
dielectric test voltage	2 kV AC 50 Hz, 1 min conforming to IEC 60664-1 2 kV AC 50 Hz, 1 min conforming to IEC 60255-5

Offer Sustainability

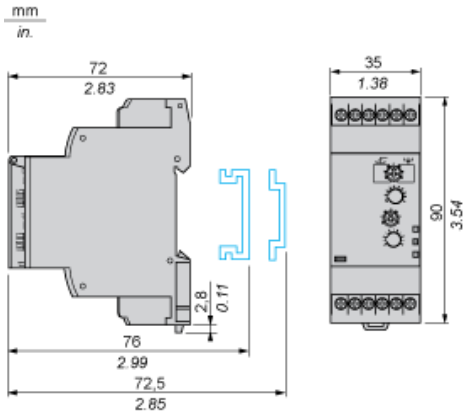
Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0701 - Schneider Electric declaration of conformity Schneider Electric declaration of conformity
REACh	Reference not containing SVHC above the threshold
Product environmental profile	Available Product Environmental
Product end of life instructions	Available Product Environmental

Contractual warranty

Warranty period	18 months

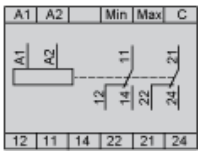
Level Control Relays

Dimensions and Mounting



Level Control Relays

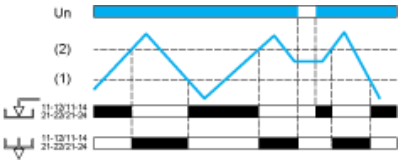
Wiring Diagram



Function Diagrams

Control of Two Levels

Fill/Empty function

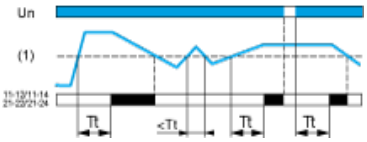


Legend

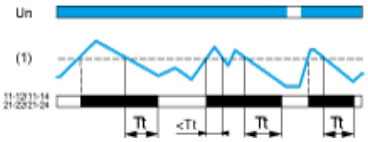
Un Supply voltage
(1) Min. level
(2) Max. level
11-12/11-14, 21-22/21-24 Output relay connections
Relay status: black color = energized.

Control of One Level

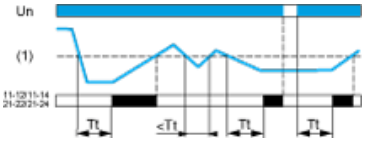
Empty function T on



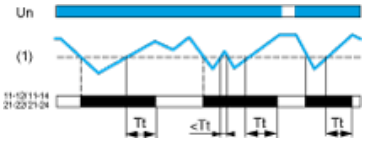
Empty function T off



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.