



### 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	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
Measurement range	250 Ohm...1 MOhm
Electrical connection	1 conductor cable 0.2...2.5 mm <sup>2</sup> AWG24...AWG12 flexible cablewith cable end conforming to IEC 60947-1 1 conductor cable 0.5...4 mm <sup>2</sup> AWG20...AWG11 solid cablewithout cable end conforming to IEC 60947-1 2 conductors cable 0.2...1.5 mm <sup>2</sup> AWG24...AWG16 flexible cablewith cable end conforming to IEC 60947-1 2 conductors cable 0.5...2.5 mm <sup>2</sup> AWG20...AWG14 solid cablewithout cable end conforming to IEC 60947-1
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

### Complementary

Reset time	1750 ms
Maximum switching voltage	250 V AC/DC
[Un] rated nominal voltage	24...240 V AC/DC
Supply voltage limits	20.4...264 V AC/DC
Operating voltage tolerance	- 15 % + 10 % Un
Power consumption	<= 1.5 W DC
Width	35 mm
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
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 %

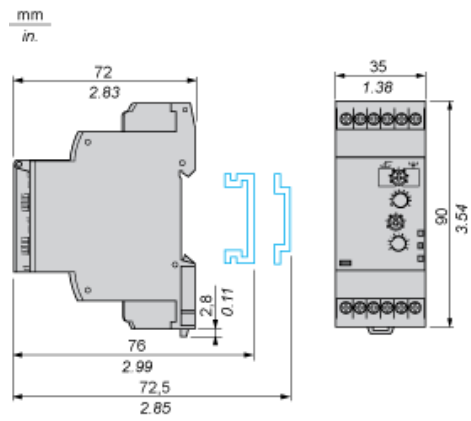
Supply voltage of sensors	<= 12 V
Supply current for sensors	<= 1 mA
Cable length	100 m between probe and delay
Cable capacitance	<= 1 nF HS (High Sensitivity) probe cable <= 2.2 nF St (Standard Sensitivity) probe cable <= 4.7 nF LS (Low Sensitivity)
Marking	CE : 73/23/EEC CE : EMC 89/336/EEC
Overvoltage category	III conforming to IEC 60664-1
Insulation resistance	> 500 MOhm at 500 V DC conforming to IEC 60255-5 > 500 MOhm at 500 V DC conforming to IEC 60664-1
[Ui] rated insulation voltage	250 V conforming to IEC 60664-1
Supply frequency	50/60 Hz +/- 10 %
Insulation	Between supply and measurement
Operating position	Any position without derating
Tightening torque	0.6...1 N.m conforming to IEC 60947-1
Housing material	Self-extinguishing plastic
Status LED	1 LED green for power ON 1 LED yellow for relay ON 1 LED yellow for timing 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 under full load

## 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 C-Tick GL GOST UL
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/IEC 60255-21-1 1 gn (f = 57.6...150 Hz) conforming to IEC 60068-2-6/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 AC 50 Hz, 1 min conforming to IEC 60255-5 2 kV AC 50 Hz, 1 min conforming to IEC 60664-1
Non-dissipating shock wave	4 kV conforming to IEC 60255-5 4 kV conforming to IEC 60664-1 4 kV conforming to IEC 61000-4-5
RoHS EUR status	Compliant
RoHS EUR conformity date	0701

Level Control Relays

Dimensions and Mounting

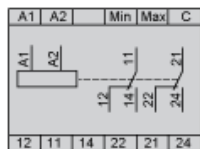


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Level Control Relays

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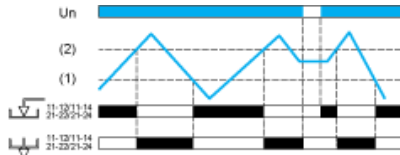
Wiring Diagram



Function Diagrams

Control of Two Levels

Fill/Empty function

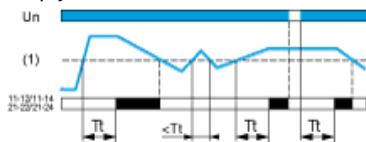


Un Supply voltage  
 (1) Min. level  
 (2) Max. level  
 11-12/21-24, relays connections (refer to Connections and Schema)  
 21-22/21-24

Relay status: black color = energized.

Control of One Level

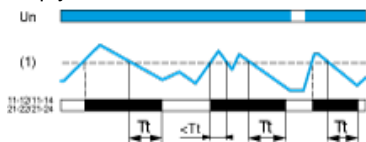
Empty function T on



Tt Time delay after crossing of threshold (adjustable on front panel)  
 Un Supply voltage  
 (1) Level threshold  
 11-12/21-24, relays connections (refer to Connections and Schema)  
 21-22/21-24

Relay status: black color = energized.

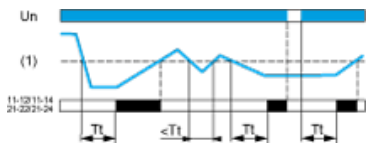
Empty function T off



Tt Time delay after crossing of threshold (adjustable on front panel)  
 Un Supply voltage  
 (1) Level threshold  
 11-12/21-24, relays connections (refer to Connections and Schema)  
 21-22/21-24

Relay status: black color = energized.

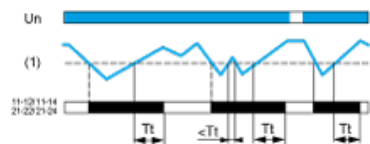
Fill function T on



Tt Time delay after crossing of threshold (adjustable on front panel)  
 Un Supply voltage  
 (1) Level threshold  
 11-12/21-24, relays connections (refer to Connections and Schema)  
 21-22/21-24

Relay status: black color = energized.

### Fill function T off



$T_t$  Time delay after crossing of threshold (adjustable on front panel)

$U_n$  Supply voltage

$(1)$  Level threshold

11-12/21-24, relays connections (refer to Connections and Schema)

21-22/21-24

Relay status: black color = energized.