



Main

Range of product	Zelio Control
Product or component type	Modular measurement and control relays
Relay type	Level control relay
Relay name	RM22L
Relay monitored parameters	Detection by resistive probes
Time delay type	Adjustable 0.1...30 s, +/- 10 % of the full scale value on crossing the threshold Tt
Switching capacity in VA	2000 VA
Measurement range	250 Ohm...1 MOhm

Complementary

Reset time	<= 1750 ms
Maximum switching voltage	250 V AC
Minimum switching current	10 mA at 5 V DC
Maximum switching current	8 A AC
[Us] rated supply voltage	24...240 V AC/DC, 50/60 Hz
Supply voltage limits	20.4...264 V AC/DC
Control circuit voltage limits	- 15 % + 10 % Un
Power consumption in VA	5 VA AC
Power consumption in W	1.5 W DC
Output contacts	2 C/O
Nominal output current	8 A
Run-up delay at power-up	< 0.6 s < 2.5 s
Maximum electrode voltage	12 V AC
Maximum electrode current	1 mA
Repeat accuracy	+/- 2 % time delay
Measurement error	< 1 % over the whole range with voltage variation 0.05 %/°C with temperature variation

Sensitivity scale	0.25...5 kOhm at LS (Low Sensitivity) 5...100 kOhm at St (Standard Sensitivity) 50...1000 kOhm at HS (High Sensitivity)
Sensitivity adjustment	5...100 %
Supply current for sensors	<= 1 mA
Cable distance between devices	1000 m between probe and delay
Cable capacitance	1 nF at HS (High Sensitivity) for probe cable 2.2 nF at St (Standard Sensitivity) for probe cable 4.7 nF at LS (Low Sensitivity) for probe cable
Overvoltage category	III conforming to IEC 60664-1
Insulation resistance	> 100 MOhm at 500 V DC conforming to IEC 60255-27
Insulation	Between supply and measurement
Mounting position	Any position
Connections - terminals	Screw terminals 2 x 0.5...2 x 2.5 mm ² - AWG 20...AWG 14, solid cable without cable end Screw terminals 2 x 0.2...2 x 1.5 mm ² - AWG 24...AWG 16, flexible cable with cable end Screw terminals 1 x 0.5...1 x 3.3 mm ² - AWG 20...AWG 12, solid cable without cable end Screw terminals 1 x 0.2...1 x 2.5 mm ² - AWG 24...AWG 14, flexible cable with cable end
Tightening torque	0.6...1 N.m conforming to IEC 60947-1
Housing material	Self-extinguishing plastic
Status LED	LED yellow for relay ON LED green for power ON
Mounting support	35 mm DIN rail conforming to EN/IEC 60715
Electrical durability	100000 cycles
Mechanical durability	10000000 cycles
Utilisation category	AC-1 conforming to IEC 60947-4-1 DC-1 conforming to IEC 60947-4-1 AC-15 conforming to IEC 60947-5-1 DC-13 conforming to IEC 60947-5-1
Safety reliability data	B10d = 170000 MTTFd = 182.6 years
Contacts material	Cadmium free
Width	22.5 mm
Product weight	0.11 kg
Functionality	Resistive probe detection
Compatibility code	RM22

Environment

Immunity to microbreaks	100 ms DC 90 ms AC
Electromagnetic compatibility	Conducted and radiated emissions class B conforming to CISPR 22 Immunity for residential, commercial and light-industrial environments conforming to EN/IEC 61000-6-1 Electrostatic discharge 6 kV level 3 contact discharge conforming to IEC 61000-4-2 Electrostatic discharge 8 kV level 3 air discharge conforming to IEC 61000-4-2 Radiated radio-frequency electromagnetic field immunity test 10 V/m level 3 conforming to IEC 61000-4-3 Electrical fast transient/burst immunity test 4 kV level 4 direct conforming to IEC 61000-4-4 Electrical fast transient/burst immunity test 2 kV level 4 capacitive coupling conforming to IEC 61000-4-4 Surge immunity test 4 kV level 4 common mode conforming to IEC 61000-4-5 Surge immunity test 2 kV level 4 differential mode conforming to IEC 61000-4-5 Conducted and radiated emissions class B group 1 conforming to CISPR 11 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 EN/IEC 61000-6-2
Standards	EN/IEC 60255-1
Product certifications	CSA RCM GL UL EAC China RoHS

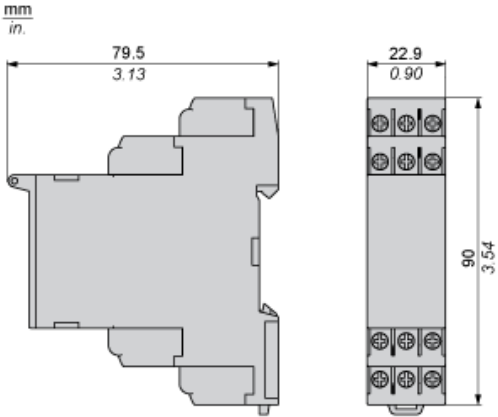
CE
CCC

Ambient air temperature for storage	-40...70 °C
Ambient air temperature for operation	-20...50 °C at 60 Hz -20...60 °C at 50 Hz AC/DC
Relative humidity	93...97 % at 25...55 °C conforming to IEC 60068-2-30
Vibration resistance	0.075 mm (f = 10...58.1 Hz) (not in operation) conforming to IEC 60068-2-6 1 gn (f = 10...58.1 Hz) (not in operation) conforming to IEC 60068-2-6 0.035 mm (f = 58.1...150 Hz) (in operation) conforming to IEC 60068-2-6 0.5 gn (f = 58.1...150 Hz) (in operation) conforming to IEC 60068-2-6
Shock resistance	15 gn for 11 ms (not in operation) conforming to IEC 60068-2-27 5 gn for 11 ms (in operation) conforming to IEC 60068-2-27
IP degree of protection	IP20 on terminals conforming to IEC 60529 IP40 on housing conforming to IEC 60529 IP50 on front panel conforming to IEC 60529
Pollution degree	3 conforming to IEC 60664-1
Dielectric test voltage	2.5 kV for 1 min AC 50 Hz conforming to IEC 60255-27

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 1524 - Schneider Electric declaration of conformity Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold Reference not containing SVHC above the threshold
Product environmental profile	Available Product environmental
Product end of life instructions	Available End of life manual

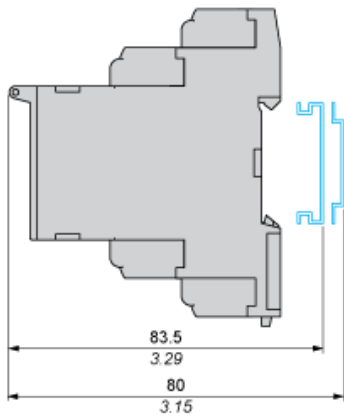
Dimensions



Mounting and Clearance

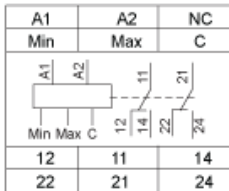
Rail Mounting

mm
in.



Level Control Relay

Wiring Diagram



A1,A2 : Supply voltage

Max : High level

Min : Low level

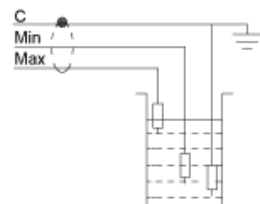
C : References or Tank earth electrode

11-14,12 : 1st C/O contact of output relay

21-24,22 : 2nd C/O contact of output relay

Control by Electrodes

Wiring Diagram



A1,A2 : Supply voltage

Max : High level

Min : Low level

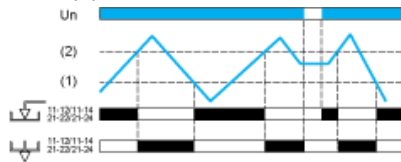
C : References or Tank earth electrode

11-14,12 : 1st C/O contact of output relay

Function Diagrams

Control of Two Levels

Fill/Empty function



Legend

U_n Supply voltage

(1) Min. level

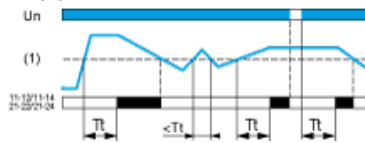
(2) Max. level

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

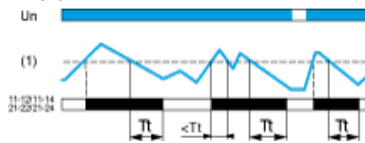
Relay status: black color = energized.

Control of One Level

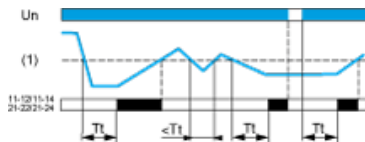
Empty function T on



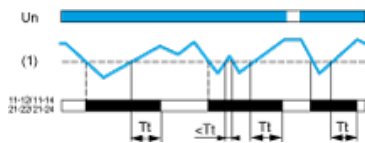
Empty function T off



Fill function T on



Fill function T off



Legend

T_t Time delay after crossing of threshold

U_n Supply voltage

(1) Level threshold

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

Relay status: black color = energized.