



Main

Range of product	Zelio Control
Product or component type	Industrial measurement and control relays
Relay type	Control relay
Product specific application	For 3-phase supply
Relay name	RM4-T
Relay monitored parameters	Phase failure detection Phase sequence
Time delay type	Without
Measurement range	198...484 V
Contacts type and composition	2 C/O
Poles description	3P

Complementary

Maximum switching voltage	440 V AC
Output contacts	2 C/O
Setting accuracy of time delay	10 P
Run-up delay at power-up	< 650 ms
Measuring cycle	<= 80 ms
Marking	CE
Overvoltage category	III conforming to IEC 60664-1
[Ui] rated insulation voltage	500 V conforming to IEC
Supply frequency	50/60 Hz +/- 5 %
Operating position	Any position without
Connections - terminals	Screw terminals 2 x 1.5 mm², flexible cable with cable end Screw terminals 2 x 2.5 mm², flexible cable without cable end
Tightening torque	0.6...1.1 N.m
Mechanical durability	<= 30000000 cycles
[Ith] conventional free air thermal current	8 A
[Ie] rated operational current	2 A at 70 °C 24 V DC-13 conforming to IEC 60947-5-1/1991 2 A at 70 °C 24 V DC-13 conforming to VDE 0660 3 A at 70 °C 115 V AC-15 conforming to IEC 60947-5-1/1991 3 A at 70 °C 115 V AC-15 conforming to VDE 0660

	3 A at 70 °C 24 V AC-15 conforming to IEC 60947-5-1/1991
	3 A at 70 °C 24 V AC-15 conforming to VDE 0660
	3 A at 70 °C 250 V AC-15 conforming to IEC 60947-5-1/1991
	3 A at 70 °C 250 V AC-15 conforming to VDE 0660
	0.1 A at 70 °C 250 V DC-13 conforming to IEC 60947-5-1/1991
	0.1 A at 70 °C 250 V DC-13 conforming to VDE 0660
	0.3 A at 70 °C 115 V DC-13 conforming to IEC 60947-5-1/1991
	0.3 A at 70 °C 115 V DC-13 conforming to VDE 0660
Switching capacity in mA	10 mA at 12 V
Switching voltage	250 V AC
Contacts material	90/10 silver nickel contacts
Number of cables	2
Height	78 mm
Width	22.5 mm
Depth	80 mm
Terminals description ISO n°1	(15-16-18)OC (25-26-28)OC (L1-L2-L3)CO ALT
Output relay state	Tripped, fault present
9 mm pitches	2.5
Product weight	0.11 kg
Terminals description ISO n°2	(21-22-24)OC (11-12-14)OC ALT (L1-L2-L3)CO

Environment

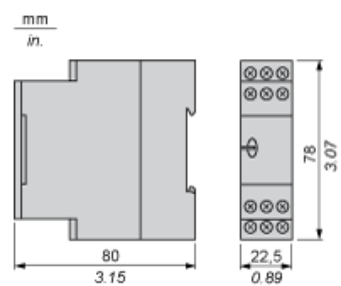
Electromagnetic compatibility	Electrostatic discharge - test level 6 kV, level 3 - contact discharge conforming to IEC 61000-4-2 Electrostatic discharge - test level 8 kV, level 3 - air discharge conforming to IEC 61000-4-2 Resistance to electrostatic discharge - test level 6 kV - contact conforming to IEC 61000-4-2 level 3 Resistance to electrostatic discharge - test level 8 kV - air conforming to IEC 61000-4-2 level 3
Standards	EN/IEC 60255-6
Product certifications	UL GL CSA
Directives	73/23/EEC - low voltage directive 89/336/EEC - electromagnetic compatibility
Ambient air temperature for storage	-40...85 °C
Ambient air temperature for operation	-20...65 °C
Relative humidity	15...85 % 3K3 conforming to IEC 60721-3-3
Vibration resistance	0.35 ms (f = 10...55 Hz) conforming to IEC 60068-2-6
Shock resistance	15 gn for 11 ms conforming to IEC 60068-2-27
IP degree of protection	IP20 (terminals) conforming to IEC 60529 IP50 (casing) conforming to IEC 60529
Pollution degree	3 conforming to IEC 60664-1
Dielectric test voltage	2.5 kV
Non-dissipating shock wave	4.8 kV
Resistance to electrostatic discharge	6 kV contact conforming to IEC 61000-4-2 level 3 8 kV air conforming to IEC 61000-4-2 level 3
Resistance to electromagnetic fields	10 V/m conforming to IEC 61000-4-3 level 3
Resistance to fast transients	2 kV conforming to IEC 61000-4-4 level 3
Disturbance radiated/conducted	CISPR 22 - class A CISPR 11 group 1 - class A

Contractual warranty

Warranty period	18 months
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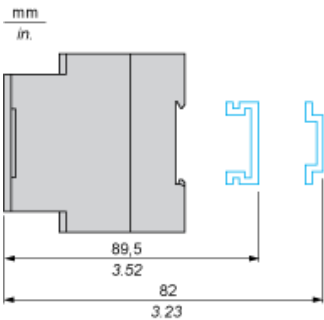
3-phase Supply Control Relays

Dimensions

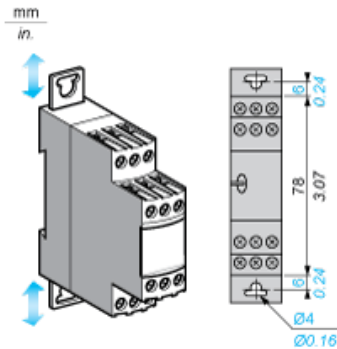


3-phase Supply Control Relays

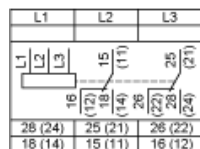
Rail mounting



Screw fixing



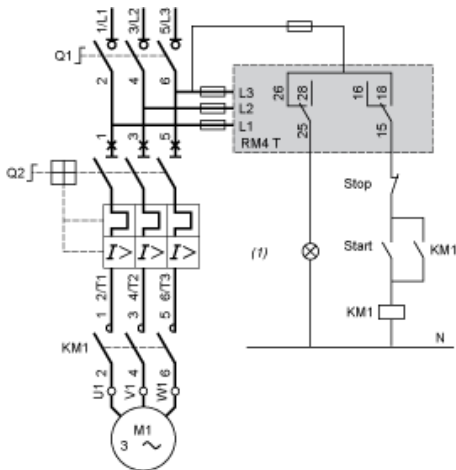
Wiring Diagram



15(11)-18(14) C/5 (11) to 16(12) the output relay
25(21)-28(24) C/5 (21) to 26(22) the output relay

Application Scheme

Example

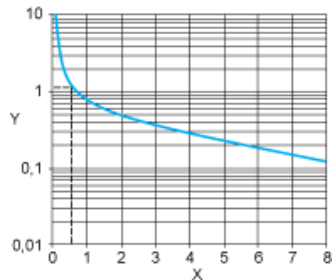


(1) Fault

Electrical Durability and Load Limit Curves

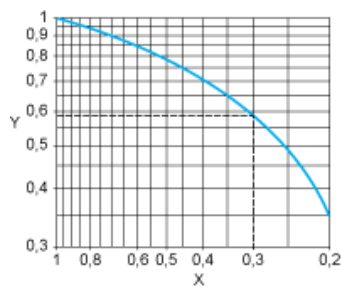
AC Load

Curve 1: Electrical durability of contacts on resistive load in millions of operating cycles



X Current broken in A
Y Millions of operating cycles

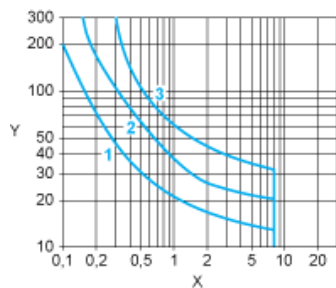
Curve 2: Reduction factor k for inductive loads (applies to values taken from durability Curve 1)



X Power factor on breaking ($\cos \phi$)
Y Reduction factor K

DC Load

Load limit curve



X Current in A
Y Voltage in V
1 $L/R = 20$ ms
2 L/R with load protection diode
3 Resistive load

