Product data sheet

Characteristics

RM4TG20
three-phase network control relay RM4-T - range 200..500 V

Price**: 202.00 USD

Commercial status

Discontinued: 31 December 2016
End-of-service: 31 December 2016

RM4TG20 has not been replaced. Please contact your customer care center for more information.

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
Time delay 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
Delay at power up 650 ms
Maximum measuring cycle 80 ms
Marking CE
Overvoltage category III IEC 60664-1
[UI] rated insulation voltage 500 V IEC
Supply frequency 50/60 Hz +/- 5 %
Operating position Any position without
Connections - terminals Screw terminals, 2 x 1.5 mm² flexible with cable end
Screw terminals, 2 x 2.5 mm² flexible without cable end
Tightening torque 5.31…9.74 lbf.in (0.6…1.1 N.m)
Mechanical durability 300000000 cycles
[Ith] conventional free air thermal current 8 A
[Ie] rated operational current 2 A 158 °F (70 °C) 24 V DC-13 IEC 60947-5-1/1991
2 A 158 °F (70 °C) 24 V DC-13 VDE 0660
3 A 158 °F (70 °C) 115 V AC-15 IEC 60947-5-1/1991
3 A 158 °F (70 °C) 115 V AC-15 VDE 0660

Disclaimer: 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
### Switching capacity in mA

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
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<tr>
<td>10 mA</td>
<td>12 V</td>
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### Switching voltage

250 V AC

### Contacts material

90/10 silver nickel contacts

### Number of cables

2

### Height

3.07 in (78 mm)

### Width

0.89 in (22.5 mm)

### Depth

3.15 in (80 mm)

### Terminals description ISO n°1

- (L1-L2-L3)CO
- (15-16-18)OC
- (25-26-28)OC
- ALT

### Output relay state

Tripped, fault present

### 9 mm pitches

2.5

### Net weight

0.24 lb (US) (0.11 kg)

### Terminals description ISO n°2

- (11-12-14)OC
- ALT
- (L1-L2-L3)CO
- (21-22-24)OC

### Environment

#### Electromagnetic compatibility

- Electrostatic discharge 6 kV contact discharge)level 3 IEC 61000-4-2
- Electrostatic discharge 8 kV air discharge)level 3 IEC 61000-4-2
- Resistance to electrostatic discharge 6 kV contact) IEC 61000-4-2 level 3
- Resistance to electrostatic discharge 8 kV air) IEC 61000-4-2 level 3

#### Standards

- EN/IEC 60255-6

#### Directives

- 73/23/EEC - low voltage directive
- 89/336/EEC - electromagnetic compatibility

#### Ambient air temperature for storage

-40...185 °F (-40...85 °C)

#### Ambient air temperature for operation

-4...149 °F (-20...65 °C)

#### Relative humidity

15...85 % 3K3 IEC 60721-3-3

#### Vibration resistance

0.35 ms 10...55 Hz)IEC 60068-2-6

#### Shock resistance

15 gn 11 ms IEC 60068-2-27

#### IP degree of protection

- IP20 IEC 60529 terminals)
- IP50 IEC 60529 casing)

#### Pollution degree

- 3 IEC 60664-1

#### Dielectric test voltage

2.5 kV

#### Non-dissipating shock wave

4.8 kV

#### Resistance to electrostatic discharge

- 6 kV contact IEC 61000-4-2 level 3
- 8 kV air IEC 61000-4-2 level 3

#### Resistance to electromagnetic fields

- 9.14 V/m (10 V/m) IEC 61000-4-3 level 3

#### Resistance to fast transients

- 2 kV IEC 61000-4-4 level 3

#### Disturbance radiated/conducted

- CISPR 11 group 1 - class A
- CISPR 22 - class A

### Ordering and shipping details

#### Category

22376-RELAYS-MEASUREMENT(RM4)

#### Discount Schedule

CP2

#### GTIN

00785901481638
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<th>0.29 lb(US) (0.131 kg)</th>
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<td>Returnability</td>
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<td>Country of origin</td>
<td>ID</td>
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**Contractual warranty**

| Warranty | 18 months |
Product data sheet
Dimensions Drawings

3-phase Supply Control Relays

Dimensions

[Diagram with dimensions]

RM4TG20
3-phase Supply Control Relays

Rail mounting

Screw fixing
3-Phase Supply Control Relays

Wiring Diagram

L1, L2, L3
Supply to be monitored
15(11)-18(14), 15(11)-16(12)
1st C/O contact of the output relay
25(21)-28(24), 25(21)-26(22)
2nd C/O contact of 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

\[ Y = \text{Current broken in A} \]
\[ X = \text{Millions of operating cycles} \]

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

\[ Y = \text{Reduction factor } K \]
\[ X = \text{Power factor on breaking (cos } \varphi) \]

DC Load
Load limit curve

\[ Y = \text{Voltage in V} \]
\[ X = \text{Current in A} \]

1 L/R = 20 ms
2 L/R with load protection diode
3 Resistive load