

**Features**

- Low burden
- Contacts picked up for healthy supply condition contacts
- Slug time delay
- Hand reset flag indicator
- 2 C/O contacts standard
- Draw out case
- Equivalent function to MVAX12
- 1TM11 specification

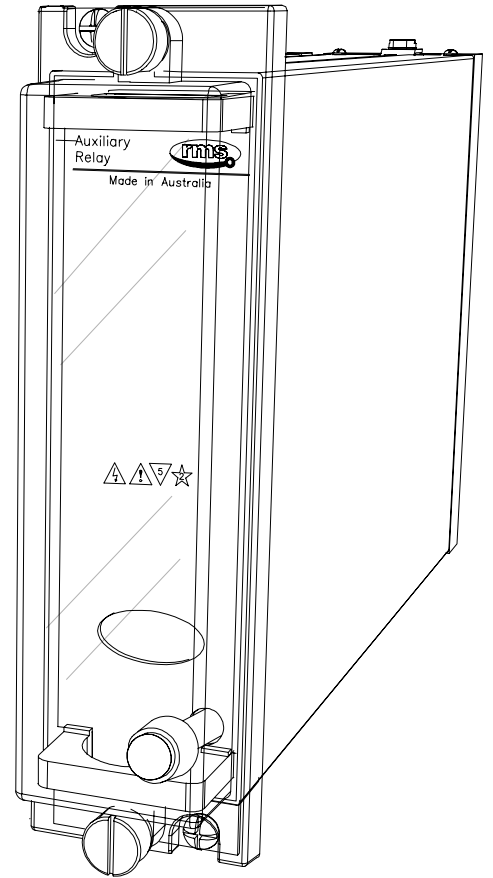
**Application**

The operating element for the 6R MATRIX supervision relay functional elements are designated 6RX & are based on our 6R Series relays.

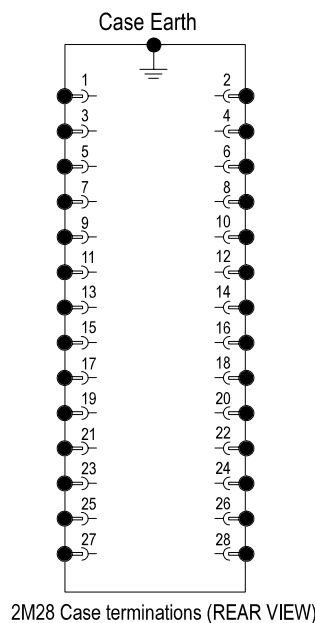
The operating element of the 6RX12 comprises a single 6R heavy-duty attracted armature control relay with a single operating coil & delay slug. The relay is normally operated to indicate a healthy trip circuit supply while a slug is fitted to provide a delay on drop out & avoid nuisance tripping due to transients.

Under healthy conditions, the coil is energized & if the supply fails, the relay will drop out after a short time delay to initiate a supply fail alarm.

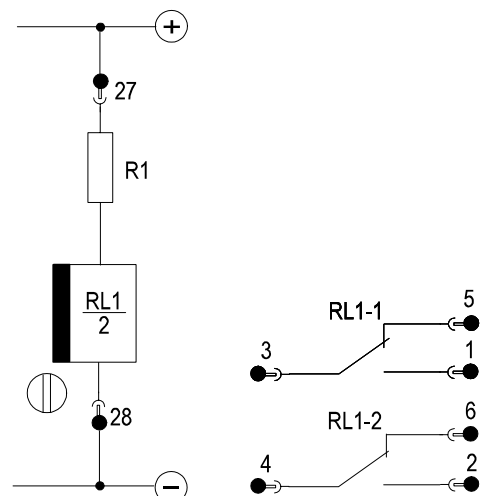
Contacts are constructed from silver / copper alloy, shaped & positioned to ensure very reliable, low resistance operation. Over travel of the contacts during each operation causes a wiping action ensuring a clean "make".



2M28 draw out case



2M28 Case terminations (REAR VIEW)



Contacts shown with CB Open & circuit de-energised

### CIRCUIT RESISTANCE & BURDEN

The 6RX12 circuit design is optimized to minimize the supervision current to minimize the burden on the supervised supply. The total series resistance provided by R1 & RL1 is tabulated below.

Nominal supply	~Resistance (ohms)	Current (mA)	Burden (Watts)
24V DC	1,200	20	<0.6
32V DC	1,600	20	<1.0
48V DC	2,400	20	<1.0
110V DC	11,000	10	<1.2
125V DC	11,000	11	<1.5
220V DC	22,000	10	<2.5
240V DC	24,000	10	<2.5
250V DC	24,000	11	<2.7

### THERMAL RATING

All circuits are designed to withstand continuous application of 120% of nominal voltage.

### FLAG OPERATION

Each relay element is supplied with a flag (target) indicator. The indicator consists of a high visibility solid dayglow orange mechanical flag.

Operation: Drops on coil de-energisation.  
Reset: Hand reset.

### OPERATING VOLTAGE RANGE

Guaranteed operation between 65% & 120% of nominal rated operating voltage.

### DROP OUT VOLTAGE

Drop out between 25 & 40% of nominal rated operate voltage.

### RESET TIME

Not less than 200ms when supply is switched from 100% of nominal rated operating voltage to off.

### NOMINAL OPERATING VOLTAGES

24, 32, 48, 110, 220, 240 125, 220, 240 & 250V DC available.

### CONTACTS

Standard: 2 C/O  
Other contact arrangements: On application  
Drop out delay: 200ms approx.

## Ordering Codes

Generate the required ordering code as follows:  
e.g. 6RX12-D

6RX12 

1
---

### 1 NOMINAL OPERATE VOLTAGE

A 24V DC	E 125V D
B 32V DC	G 220V DC
C 48V DC	H 240V DC
D 110V DC	F 250V DC

### 6R RELAY CONTACT RATINGS

#### Make & Carry Continuously

3,000 VA AC resistive with maximums of 660V & 12A  
3,000 W DC resistive with maximums of 660V & 12A

#### Make & Carry for 3 Seconds

7,500 VA AC resistive with maximums of 660V & 30A  
7,500 W DC resistive with maximums of 660V & 30A

#### AC Break Capacity

3,000 VA AC resistive with maximums of 660V & 12A

#### DC Break Capacity (Amps)

Voltage		24V	48V	125V	250V
Resistive rating		12	2	0.5	0.25
L/R=40ms	Maximum break	12	1	0.25	0.15

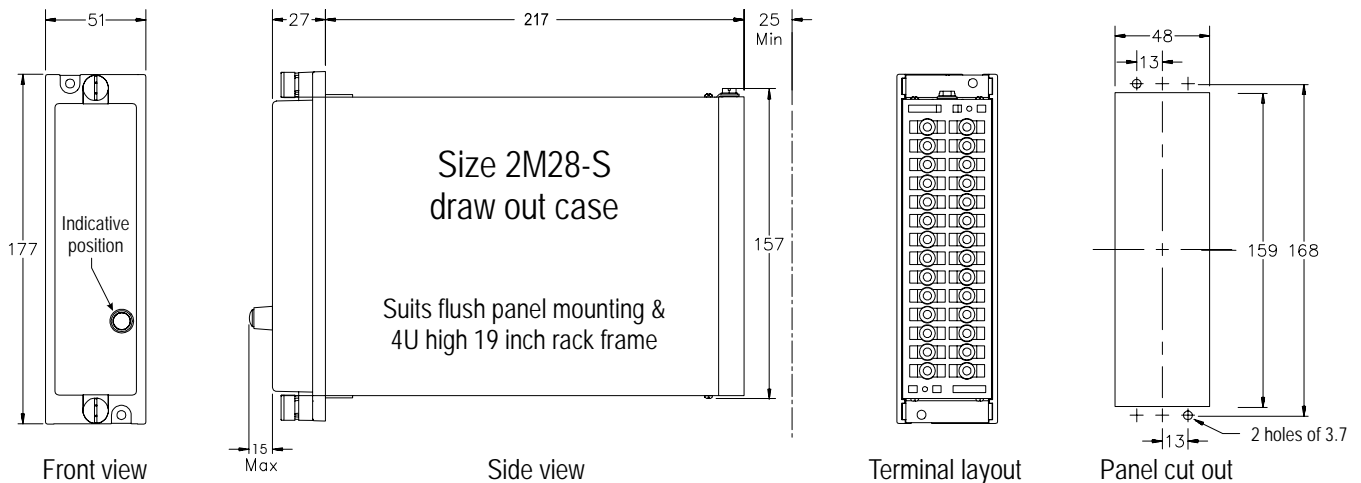
### INSULATION WITHSTAND in accordance with IEC 255-5:

2KV RMS & 1.2/50 5KV impulse between:

- ◆ all terminals & frame
- ◆ each contact group
- ◆ all contacts & coil

### CASE SIZE

2M28-S draw out case



## **Australian Content**

Unless otherwise stated the product(s) quoted are manufactured by RMS at our production facility in Melbourne Australia. Approximately 60% of our sales volume is derived from equipment manufactured in house with a local content close to 90%. Imported components such as semi-conductors are sourced from local suppliers & preference is given for reasonable stock holding to support our build requirements.

## **Quality Assurance**

RMS holds NCSI (NATA Certification Services International), registration number 6869 for the certification of a quality assurance system to AS/NZS ISO9001-2008. Quality plans for all products involve 100% inspection and testing carried out before despatch. Further details on specific test plans, quality policy & procedures may be found in section A4 of the RMS product catalogue.

## **Product Packaging**

Protection relays are supplied in secure individual packing cardboard boxes with moulded styrene inserts suitable for recycling. Each product & packing box is labeled with the product part number, customer name & order details.

## **Design References**

The products & components produced by RMS are based on many years of field experience since Relays Pty Ltd was formed in 1955. A large population of equipment is in service throughout Australia, New Zealand, South Africa & South East Asia attesting to this fact. Specific product & customer reference sites may be provided on application.

## **Product Warranty**

All utility grade protection & auxiliary relay products, unless otherwise stated, are warranted for a period of 24 months from shipment for materials & labour on a return to factory basis. Repair of products damaged through poor application or circumstances outside the product ratings will be carried out at the customer's expense.

## **Standard Conditions of Sale**

Unless otherwise agreed RMS Standard Terms & Conditions (QF 907) shall apply to all sales. These are available on request or from our web site.



## **Relay Monitoring Systems Pty Ltd**

6 Anzed Court, Mulgrave, Victoria 3170, AUSTRALIA

Tel: +61 3 8544 1200 Fax: +61 3 8544 1201 Email: [rms@rmspl.com.au](mailto:rms@rmspl.com.au) Web: [www.rmspl.com.au](http://www.rmspl.com.au)