



Reyrolle
Protection
Devices

7PG1110- 7AE10 AR901

CT Shorting Relay

Energy Management

SIEMENS

7PG1110- 7AE10

AR901

CT Shorting Relay



Description

The 7PG1110-7AE10 AR901 electromechanical CT Shorting relay is a variant of our standard 7PG11/AR series of relays.

It is provided with 4 pairs of contacts and is electrically operated and reset.

The Epsilon case, size E2, is fitted with case shorting contacts which will short connected CTs in the event that the relay is withdrawn.

Technical Data

Inputs and Outputs

| | |
|--------------------|------------------------------|
| Rated Voltage (Vn) | |
| D.C. | 30, 50, 125, 240V |
| Operating Range | |
| D.C. | 70% to 115% of rated voltage |
| Burden | |
| | 3 to 5W |

Output Contacts

| | |
|------------------------------|---|
| Make and carry continuously | 1250VA within the limits of 660V and 5A |
| Make and carry for 3 seconds | 50A RMS |
| Minimum number of operations | 1000 at maximum load |

Electrical Tests

Insulation

IEC 60255-5 RMS levels for 1 minute

| | |
|--|--------|
| Between contacts to earth and to the coil | 2.0 kV |
| Between any case terminal and earth | 2.0 kV |
| Between case terminals of independent circuits | 2.0 kV |
| Across normally open contacts | 3.0 kV |

Transient Overvoltage

IEC 60255-5

| | |
|---|---------------------------------|
| Between all terminals and earth or between any two independent circuits without damage or flashover | 5 kV 1.2/50 μ s 0.5 J |
|---|---------------------------------|

Mechanical

Vibration (Sinusoidal)

| | |
|-------------------------------|--|
| IEC 255-21-1 | The relays meet the requirements of Class 1 for vibration response and endurance |
| BS142 section 2.1 category S2 | relays will withstand a 20G shock or impact on the panel without operating |

Shock Bump

| | |
|----------------------------------|------------------|
| IEC 255-21-2 | Class 1 severity |
| BS142, sub-section 1.5.2. (1989) | Class 1 severity |

Mechanical Life

| | |
|------------|---|
| Durability | in excess of 10,000 operations with the contact rating at a rate of 600 operations per hour |
|------------|---|

Environmental

Temperature

IEC 68-2-1/2

| | |
|-----------|------------------|
| Operating | -10 °C to +55 °C |
| Storage | -25 °C to +70 °C |

Humidity

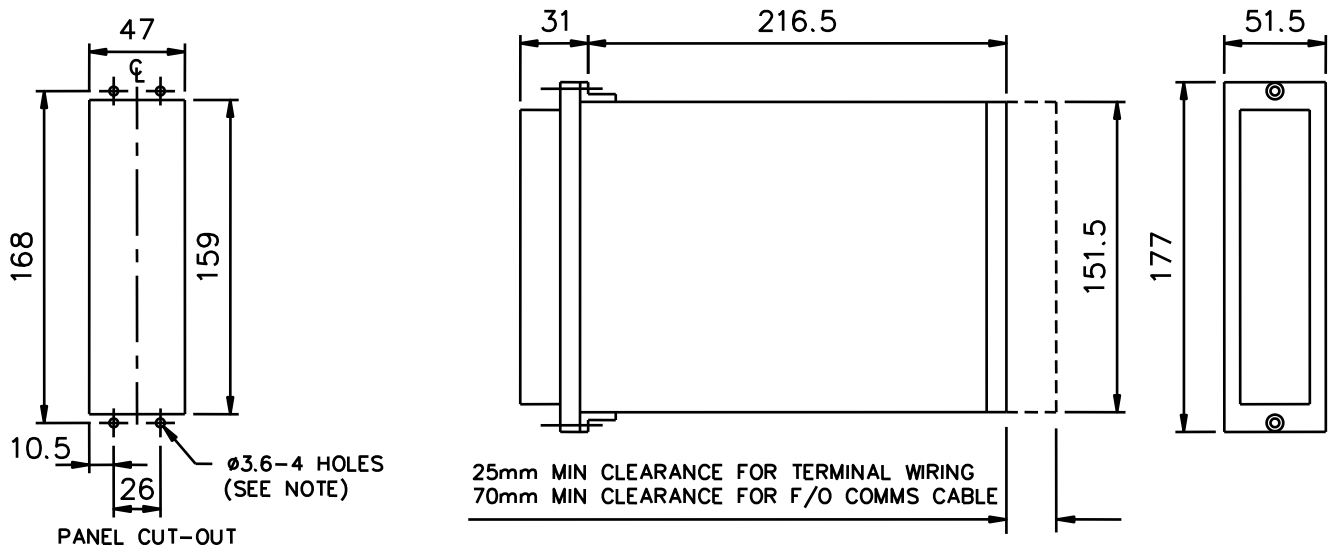
IEC 68-2-3

| | |
|------------------|-----------------------------|
| Operational test | 56 days at 40 °C and 95% RH |
|------------------|-----------------------------|

Performance

| | |
|------------------------------|--------------|
| Instantaneous Operating time | |
| Typically | 40ms |
| Range | 30ms to 50ms |

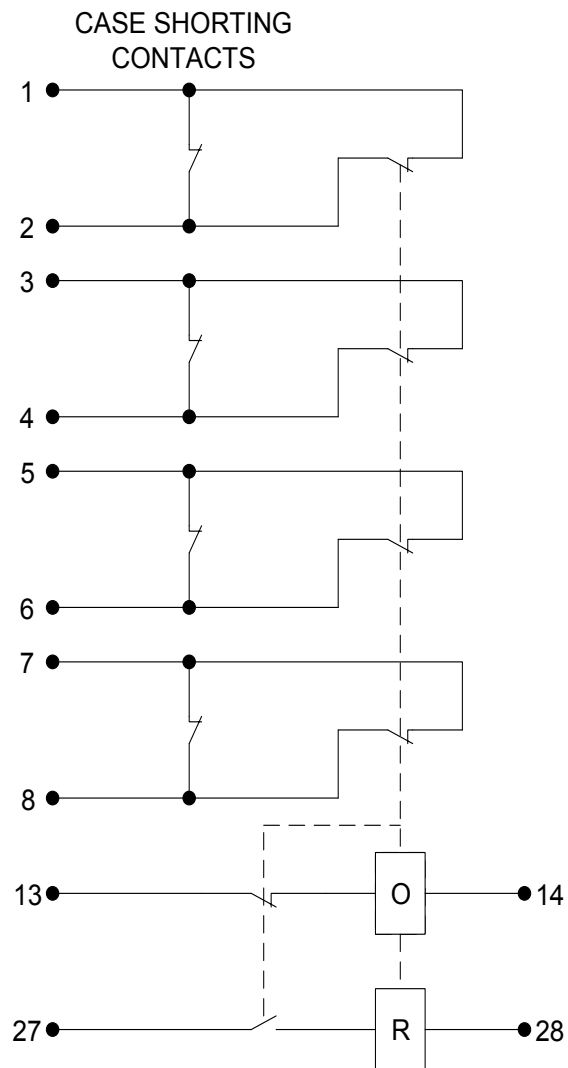
Case Dimensions



NOTE:
 THE $\phi 3.6$ HOLES ARE FOR M4 THREAD FORMING (TRILOBULAR) SCREWS. THESE ARE SUPPLIED AS STANDARD AND ARE SUITABLE FOR USE IN FERROUS/ALUMINIUM PANELS 1.6mm THICK AND ABOVE. FOR OTHER PANELS, HOLES TO BE M4 CLEARANCE (TYPICALLY $\phi 4.5$) AND RELAYS MOUNTED USING M4 MACHINE SCREWS, NUTS AND LOCKWASHERS (SUPPLIED IN PANEL FIXING KIT).

Fig 1. E2 Case Dimensions

Connection Diagram 7PG11 AR



Terminal Numbering (E2 Case) Viewed from Rear

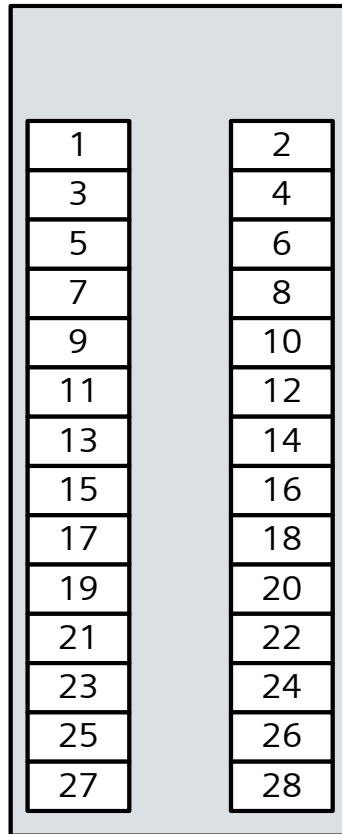


Fig 2. Connection Diagrams

Ordering Information – 7PG110-7AE10 AR 901

| Product description | Variants | Order No. |
|---|--|---|
| Auxiliary relay (AR901) D.C. voltage operated relay. | <u>Number of elements</u> Single element | 7 P G 1 1 1 0 - 7 A E 1 0 - 0 A □ 0 ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ 1 0 7 A E 1 0 0 A □ 0 |
| <u>Type of flag</u> No flag | <u>Contact operation</u> CT shorting contacts | |
| <u>Contact arrangement – NO</u> 0 NO | <u>Contact arrangement NC</u> 4 NC | |
| <u>Number of contacts ²⁾</u> Four | <u>Contact type ¹⁾</u> NO (Standard) / NC (Standard) | |
| <u>Time delay</u> No additional time delay | <u>Housing size</u> Case size E2 (4U high) | |
| <u>Voltage rating</u> 30V DC 50V DC 125V DC 240V DC | <u>Back emf suppression diode</u> Not Fitted | |

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