

What does self-holding mean in relay protection



Overview

Self-holding refers to a circuit where a relay coil maintains its own ON state through its own contact.

Key Takeaways

Self-holding in relay protection refers to a circuit design where a relay maintains its energized state through its own contact, keeping the circuit active even after the initiating signal is removed.

Definition and Principle

In relay protection, a self-holding circuit (also called a seal-in circuit) allows a relay coil to remain energized after the start signal is released. When a pushbutton or initiating device momentarily energizes the relay, one of the relay's own normally open (NO) contacts closes and provides a continuous path for current to flow through the coil. This holding path keeps the relay in the ON state until a separate stop signal or normally closed (NC) contact interrupts the current, de-energizing the relay.

How It Works

Start Signal Activation: Pressing a start button or triggering a protection condition energizes the relay coil. **Contact Closure:** The relay's NO contact closes, creating a parallel path that bypasses the start button. **Maintained State:** Even after releasing the start button, current continues to flow through the relay coil via its own contact, keeping the relay energized.

Deactivation: Pressing a stop button or opening an NC contact breaks the holding path, cutting off current and resetting the relay.

Applications in Relay Protection

Sequence Control: Self-holding ensures that protective relays remain active until a fault is cleared or a manual reset occurs, preventing rapid switching due to transient conditions. Motor and Circuit Control: It is widely used in start/stop motor circuits, where the relay must stay energized to maintain operation without continuous manual input.

PL

C Ladder Logic: The concept is directly applied in ladder diagrams, where the relay's own contact "remembers" the start command, simplifying control logic. Key Points Self-holding does not require continuous pressing of the start button; the relay sustains itself. A stop mechanism (NC contact) is essential to safely interrupt the holding path.

It prevents relay chatter and ensures stable operation in protection circuits, especially under fluctuating conditions. In summary, self-holding is a fundamental technique in relay protection that allows a relay to maintain its energized state autonomously, ensuring reliable operation and simplified control logic until a deliberate stop action occurs.

Article Content

Self-Holding Circuit Explained with 16 Diagrams | Sequence Control

Self-holding refers to a circuit where a relay coil maintains its own ON state through its own contact. Once you press the push button to turn it ON, even after releasing the button, the coil's

Relay Control: Self-Holding and Step Control Explained | Sequence ...

What is self-holding? By connecting the coil's contact in parallel with the push-button switch, even after releasing the switch, the coil continues to supply current to itself through its own

Everything You Need to Know About Self Holding Relay ...

Unlike a standard electromagnetic relay that requires continuous current to stay activated, a self-holding relay uses a permanent magnet and a bistable mechanism to lock into position after a brief pulse of

Relay Circuits and Ladder Diagrams | Relay Control Systems | Textbook

This means the pressure switch contact will be closed when the applied pressure is less than its trip point (50 PSI), and the relay switch contact will be closed when the relay coil is de-energized.

Latching Relay: What is it? (Circuit Diagram And How it Works)

A latching relay (also known as a bistable, keep, impulse, stay relay, or simply a "latch") is defined as a two-positional electromechanical switch. It is an electrically actuated switch used to

Relay Technical Information

If you must use a single stable relay, use a sealed type relay that is not easily affected by ambient conditions and provide a failsafe circuit design that considers the possibility of contact failure or

User's Manual and Technical Descriptio

To prevent the supervision relay from providing spurious alarm signals, for instance, at circuit breaker operation, the measuring current of the control circuit is routed so as to bypass the break contact

058319-[1-8] dd

With increasingly complicated facilities, more and more timers and self-holding circuits are added to the outside of a protection relay as a condition for operation, closing, or warning of a breaker.

ELECTRONICS HOBBY CIRCUITS | Circuit Overview: | Facebook

Circuit Overview: This is a latching relay circuit (also known as a self- hold relay) that uses two push buttons: one for ON and one for OFF, along with two electromagnetic relays.

LATEST US ECONOMY ANALYSIS & MACRO ANALYSIS

Seeking Alpha's contributor analysis focused on U.S. economic events. Come learn more about upcoming events investors should be aware of.

Today's Stock Market Articles And Analysis | Seeking Alpha

Seeking Alpha contributor analysis of daily and long-term outlook on U.S. and global markets. View our extensive list of stock market analysis articles.

Technical Information

Flux-protection Relays Special design construction prevents flux from penetrating into the relay housing, for example, due to capillary action up the terminals when the relay is soldered onto a PCB. This

Latest Investment Portfolio Strategy Analysis | Seeking Alpha

Seeking Alpha contributors share their investment portfolio strategies and techniques. Click to learn more and improve your portfolio strategy.

Google Translate

Google's service, offered free of charge, instantly translates words, phrases, and web pages between English and over 100 other languages.

What is a Static Relay?

Definition: The relay which does not contain any moving parts is known as the static relay. In such type of relays, the output is obtained by the static components like magnetic and electronic circuit etc. The

Support Home | Official Samsung Support US

Samsung Care is here to help. Samsung Support Home will help you find helpful content about popular topics and features, troubleshooting, and videos to help you do more with all your Samsung products

Relays in Ladder Logic Tutorials | Instrumentation Tools

Electromechanical relays may be connected together to perform logic and control functions, acting as logic elements much like digital gates (AND, OR, etc.).

The Complete Guide To Latching Relays | RS

The unique structure of a latching relay enables it to do so using a much smaller current to activate the switch than many other types of switching devices require, and the latching relay does

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

Contact Us

Continue your research online:

Website: <https://bagyou.es>

Technical inquiry: <https://bagyou.es/project-enquiry.html>

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

