



# Custom Engineered Controls for Gas Insulated Switchgear



## Controls Custom Designed for Your Switchgear

Phoenix Electric Corporation custom-engineers ANSI/NEMA control, protection, and interlocking systems for leading medium- and high-voltage gas insulated switchgear (GIS) manufacturers throughout the United States and the world. Phoenix Electric provides specification support, extensive design experience, meticulous assembly, and thorough testing to ensure reliable controls operation and years of trouble-free service.

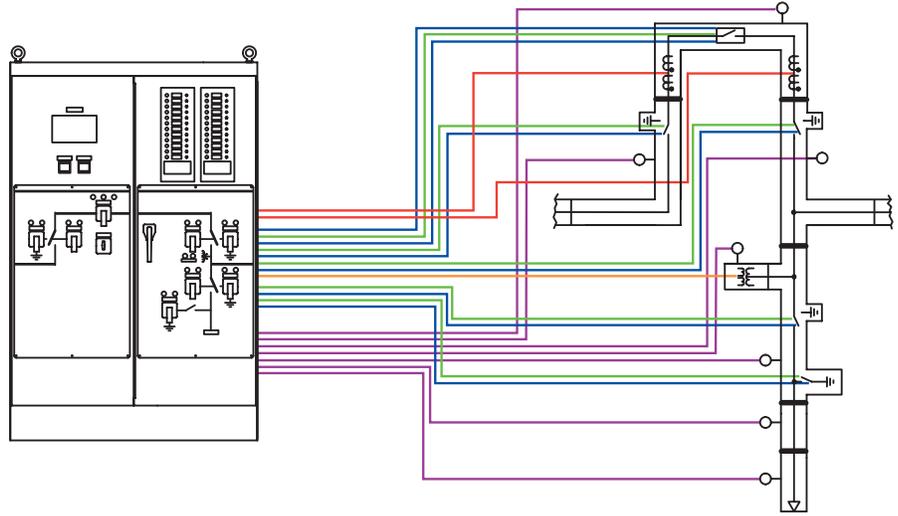
## Designed to US Utility Standards

All Phoenix-designed controls utilize familiar control philosophies/interlocking protocols that conform to US Utility Standards and Procedures for safe, reliable operation.

Controls are assembled using heavy-duty, UL-listed components readily available in the United States. Provided with the controls, complete ANSI drawings facilitate design, engineering, switchgear installation and commissioning, testing, routine maintenance, and troubleshooting.



- Cables for controls
- Cables for power supplies
- Cables for 3-phase CTs
- Cables for 3-phase PT
- Cables for gas density monitors



## Complete ANSI Drawings Package

Phoenix Electric provides a complete package of drawings prepared in accordance with ANSI standards for every controls job.

Drawings include:

- One-line relaying / metering diagram
- AC three-line relaying / metering diagram
- Schematic diagram per ANSI C37.11
- Control device designations per ANSI C37.2
- Interlocking logic diagram per ANSI C37.122
- Secondary panel outline drawing
- Wiring connection diagram with opposite end designations
- Wiring system per NEC

In addition to providing drawings with each job, Phoenix Electric maintains an archive of complete drawings for every job shipped.

## Premium-Quality, Heavy-Duty Components

Phoenix Electric uses only premium quality components in its controls. All components are heavy-duty, industry-accepted, and readily available from US suppliers.

They include:

- Heavy-duty 600 V industrial relays
- 600 V/30 A terminal blocks
- Cross-linked polyethylene (XLPE) SIS conductors
- Ring-tongue terminal lugs
- Heat-shrink wire markers
- Heavy-duty controls / pushbuttons
- Annunciation with ISA sequencing
- Mimic diagram incorporating ANSI controls (front of enclosure/cabinet)
- NEMA-type enclosure with 3-point latching

## Complete Inspection and Testing

All controls are thoroughly inspected and tested per ANSI requirements.

Tests and inspections include:

- General assembly inspection
- Equipment list check
- Nameplate check
- Component device check
- Point-to-point wiring check
- Control system functionality check
- Control wire high-voltage check
- Overall appearance inspection
- Final preshipment inspection
- All cabinets are serialized

## Specify Phoenix Electric Controls by Name!

Controls are the “brains” of your switchgear, so don’t settle for anything less than the best. Specify Phoenix Electric Controls on your next switchgear order.