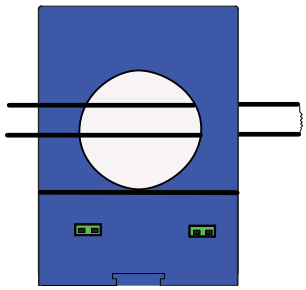
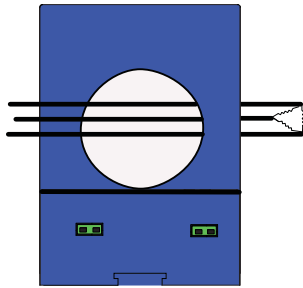


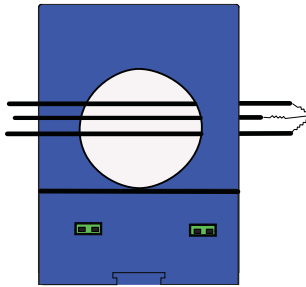
Installation & Wiring



Single Phase (Phase & Neutral or Phase to Phase)

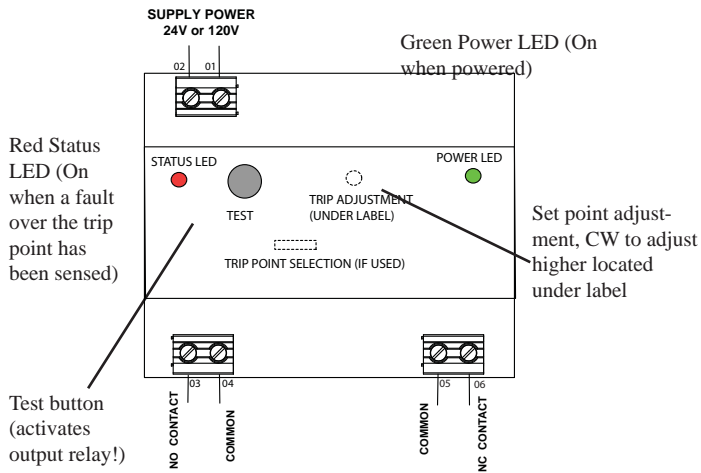


3 Phase Delta (Include neutral if the load uses neutral)



3 Phase Wye (Include neutral if load uses neutral)

Power Supply Input (1&2)



Output Connection:

DEN output action

(3 & 4), NO closes on fault, (5 & 6) NC opens on fault.

ENE output action

(3 & 4), NO closes with power to the sensor, opens on fault or loss of power to the sensor.

(5 & 6), NC opens with power to the sensor, closes on fault or loss of power to the sensor.

AGL Series relays work in the same environment as motors, contactors, heaters, pull-boxes, and other electrical enclosures. They can be mounted in any position or hung directly on wires with a wire tie. Just leave at least one inch distance between relay and other magnetic devices. Run all current carrying conductors through the opening in the relay. (See “Principal of Operation”) Be sure all wires are oriented so current flows in the same direction.

AGL sensors are designed to mount securely to a standard DIN rail, but the securing spring clip can also be used with a sheet metal screw to hold the sensor in place. NK Technologies can also provide our DINKIT, including a 175mm long piece of rail and two end stops for added convenience when installing.

Operation

AGL Series Auto-Reset Ground fault relays operate in one of two states: Normal or Tripped. The DEN versions trips the output only with fault current over the set point. The ENE versions trip (change state) when the power is applied to the relay and reverts back to shelf state if power is removed or a fault is sensed. To test operation, gently press the TEST button. This simulates a fault and tests the internal switching circuits.

CAUTION: Any circuit connected to the relay will be operated.

The normally open contact closes on sensed fault current over the set point, and the normally closed contact opens on fault.

The triple range, field selectable models use a jumper to select the trip point. With the jumper off the pins, the relay will trip at the lowest set point. The jumper can be placed over two pins to set the trip point at the medium level, or the other two pins to be set at the highest trip point.

Output Type	No Power at Sensor		Power Applied		Fault Sensed (or Loss of Power- ENE models)	
	3-4	5-6	3-4	5-6	3-4	5-6
DEN	Open	Closed	Open	Closed	Closed	Open
ENE	Open	Closed	Closed	Open	Open	Closed

Wiring

Use up to 14 AWG 75/90°C copper wire and tighten terminals to 5.3 inch-pounds torque. See Diagram.

Power

Connect power wiring to Terminals 1 & 2. Be sure that the power supply matches the power rating on the relay label. Green LED (Power) will light.

Output

Connect output wiring to Terminals 3 & 4 or 5 & 6.

Test Button

Pressing the TEST button will simulate a fault, and trip the output relay.

Field Setpoint Adjustment

While not as precise as having it set at the factory, the set point can be adjusted in the field through use of the small potentiometer located beneath the label to the right of the leads exiting the case. Though not recommended, if a field adjustment of setpoint is desired, the recommended steps are as follows:

1. Develop a load of the magnitude at which you want the relay to trip; e.g., a 4000 ohm resistor at 120 VAC should provide a load of 30 mA while 4 watt “night light” bulb would create a load of approximately 33.3 mA.

2. With the load energized and passing through the sensing aperture, turn the potentiometer counterclockwise (CCW) until the relay trips. Then turn the pot back (CW) one eighth of a turn. Use extreme caution as there is power at the sensor terminals!

NOTE: The tri-set models cannot be adjusted higher nor lower than the factory settings.

When used with an external CT, the relay will be set to trip at a point much lower than without the CT. This set point adjustment should be done with the load passing through the CT in that application.