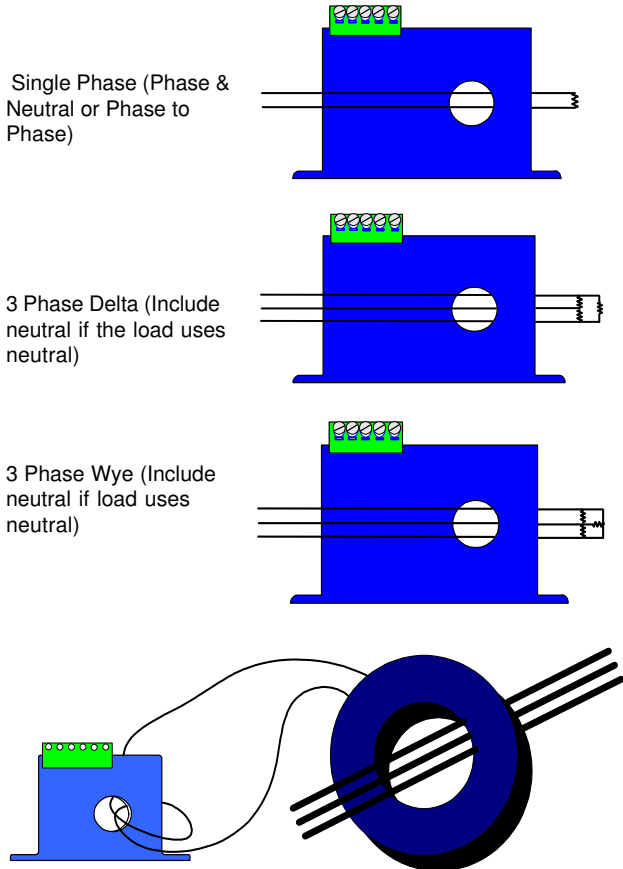


Description

AGL Series sensors monitor all current carrying wires in single or three phase systems to detect ground faults. They provide a contact output that can operate relays, contactors or signal automation systems.

Principal of Operation

Under normal conditions, the current in one wire of a two wire load is equal in strength but opposite in sign to the current in the other wire. The two wires create magnetic fields that cancel, a condition known as “Zero Sum Current”. If any current leaks to ground (Ground Fault), the two currents become unbalanced and there is a net resulting magnetic field. The AG sensor detects this minute field and changes the output state. This concept extends to three phase systems such as 3 wire Delta and to 4 wire Wye.



3 Phase Load, using an auxiliary Current Transformer. Contact factory for details.

Installation & Wiring

AGL Series sensors may be applied in the same environment as motors, contactors, heaters, pull-boxes, and other electrical enclosures. Mounting can be in any position or hung directly on wires with a wire tie. Ensure at least one inch clearance between sensor and other magnetic devices. Route all current carrying conductors through the opening in the sensor being sure all wires are oriented so current flows in the same direction.

Wiring

Use up to 10 AWG copper wire and tighten terminals to 4.5 inch-pounds torque. Refer to photo at right for connections to terminals.

Power

Connect power wiring to terminals 1 & 2. 24VAC supply power is not polarity sensitive, however, be sure that power supply matches the power rating on the sensor label.

Output

Connect output wiring to the appropriate terminals. Note: Circuits connected to output terminals will be energized when “Test” button is pushed.

Red Status LED (On when tripped)

Power Supply Input (1&2)



NO Output (3&4)

NC Output (5&6)

Notes:
Test button will activate output relay

Operation

To test operation, gently press the TEST button. This simulates a fault and tests the internal switching circuits. You should observe the following operation.

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

Normally Energized Models (-ENE) Detects Ground Faults and loss of control power

CONTROL POWER APPLIED

Output Style	NO POWER		No Fault		Fault Detected	
	Output	LED	Output	LED	Output	LED
N.C. Normally Closed	CLOSED	Off	OPEN	ON	CLOSED	OFF
N.O. Normally Open	OPEN	Off	CLOSED	ON	OPEN	OFF

Normally De-Energized Models (-DEN) Detects Ground Faults only.

CONTROL POWER APPLIED

Output Style	NO POWER		No Fault		Fault Detected	
	Output	LED	Output	LED	Output	LED
N.C. Normally Closed	CLOSED	Off	CLOSED	OFF	OPEN	ON
N.O. Normally Open	OPEN	Off	OPEN	OFF	CLOSED	ON

Setpoint Adjustment

AGL3

Move the jumper to the desired setpoint as shown on the label.