

How to Select a Ground Fault Relay

[See Additional Resources & Downloads >>>](#)

Two base models are offered:

AG Ground Fault Relay
for wire bundle diameter sizes up to 0.75" diameter



AGL Ground Fault Relay
for wire bundle diameter sizes up to 1.82" diameter



Which AC ground fault relay series to select is based on whether all current carrying conductors fit through the aperture window. Configuring the ground fault relay order code is dependent upon the circuit-interrupter chosen and appliance type. Included is a table, Ground Fault Relay Guide, to ease configuring the ground fault relay order code. To use the Ground Fault Relay Guide table the following details are needed:

- 1) Branch circuit specifications: amperage capacity and load configuration example 50A, 208 VAC, 3 Phase, Delta (3+1)
- 2) Circuit-Interrupter type: Shunt-trip breaker, contactor, or relay
Note: Shunt-trip breaker is recommended
- 3) Optional: appliance type

Recommend either AG or AGL series ground fault relay for commercial kitchens and other wet locations per 2020 Edition National Electric Code (NEC) 210.8 (B) through (F)), and 422.5 special appliances. Which relay is best for the branch circuit is dependent upon whether wire bundle passes through aperture of the ground fault relay.

Ground Fault Selection Guide above is provided to ease the selection process and recommendations are based on using a shunt-trip breaker and THHN wire. Given numerous wire and local code variants, Ground Fault Selection Guide is reference only.

Other than THHN wire and/or non-NEC cable correction factors, use application note [How to Calculate Bundle Diameter](#) to confirm wire bundle will pass through aperture of either AG or AGL ground fault relay.

After verifying all current carrying conductors pass through the relay's aperture, [Click here to select the correct model for you application.](#)

APPLICATION NOTE

5 mA Ground Fault Circuit Interrupter Solutions for Single or Three Phase Circuits up to 100 Amps

Cost Effective, Readily Available, Designed and Assembled in the USA



NK Technologies 5 mA Ground Fault Circuit Interrupter Solution Benefits

- Meets intent of 2020 NEC 210.8 defined term ground fault circuit interrupter.
- Compact relay size allows for multiple mounting opportunities anywhere from the breaker to the appliance.
- Inventory and unrivaled in-house expertise within the USA.
- When you call, chat or email our application support team will answer promptly.
- Industry leading 5-year warranty.

Resources & Downloads

[How to Select a Ground Fault Relay >>>](#)

[Ground Fault Relay Part Number Selection >>>](#)

[Shunt Trip Breaker Selection >>>](#)

[2020 & 2023 NEC Impact to the Market >>>](#)

[What is a 5 mA Ground Fault Interrupter Solution? >>>](#)

[Calculating a Wire Size Bundle >>>](#)

[How to Wire a Shunt Trip >>>](#)

[Frequently Asked Questions >>>](#)

[Go to Commercial Kitchen Overview >>>](#)