# 2-Wire Smoke Detectors

## NEO HS2016 / HS2032 / HS2064 / HS2128 v1.35+

The PowerSeries NEO supports compatible 2-wire smoke detectors directly from the main panel's AUX+ and PGM2 terminals, with up to 90mA (current limited) of available current draw for the 2-wire smoke loop.

AUX+ and PGM2 provides the power and the detection circuit for the 2-wire smoke loop.

The 2-wire smoke loop is monitored by the NEO for three states of the fire circuit:

- Normal = 2.2k Ω of resistance in the 2-wire smoke detection loop.
- Alarm = Reduction of resistance toward 0 Ω. (Alarm or shorted circuit)
- Trouble = Increase of resistance toward ∞ Ω. (Loose or broken circuit)

➢ ***Tech Tip:*** Test each smoke detector for alarm state and the loop for trouble state. Follow the manufacturer's instructions as needed for testing.

### Compatible Cross Listed Smoke Detectors:

**System Sensor** – United States (UL)
2W-B…… 2-wire Standard i3 Detector
2WT-B……. 2-wire Standard i3 Detector with Fixed 135°F Thermal Sensor
2WTA-B….. 2-wire Standard i3 Detector with Fixed 135°F Thermal Sensor and Sounder

**System Sensor** – Canada (ULC)
C2W-BA….. 2-wire Standard i3 Detector
C2WT-BA... 2-wire Standard i3 Detector with Fixed 57.2°C Thermal Sensor
C2WTA-BA. 2-wire Standard i3 Detector with Fixed 57.2°C Thermal Sensor and Sounder

➢ ***Tech Tip:*** Only use compatible cross listed 2-wire smoke detectors.

➢ ***Tech Tip:*** It is recommended to replace smoke detectors every 7 – 10 years as suggested by most manufactures.

➢ ***Tech Tip:*** If you are taking over an existing installation, replace the smoke detectors. Reconnecting old smoke detectors is not recommended.

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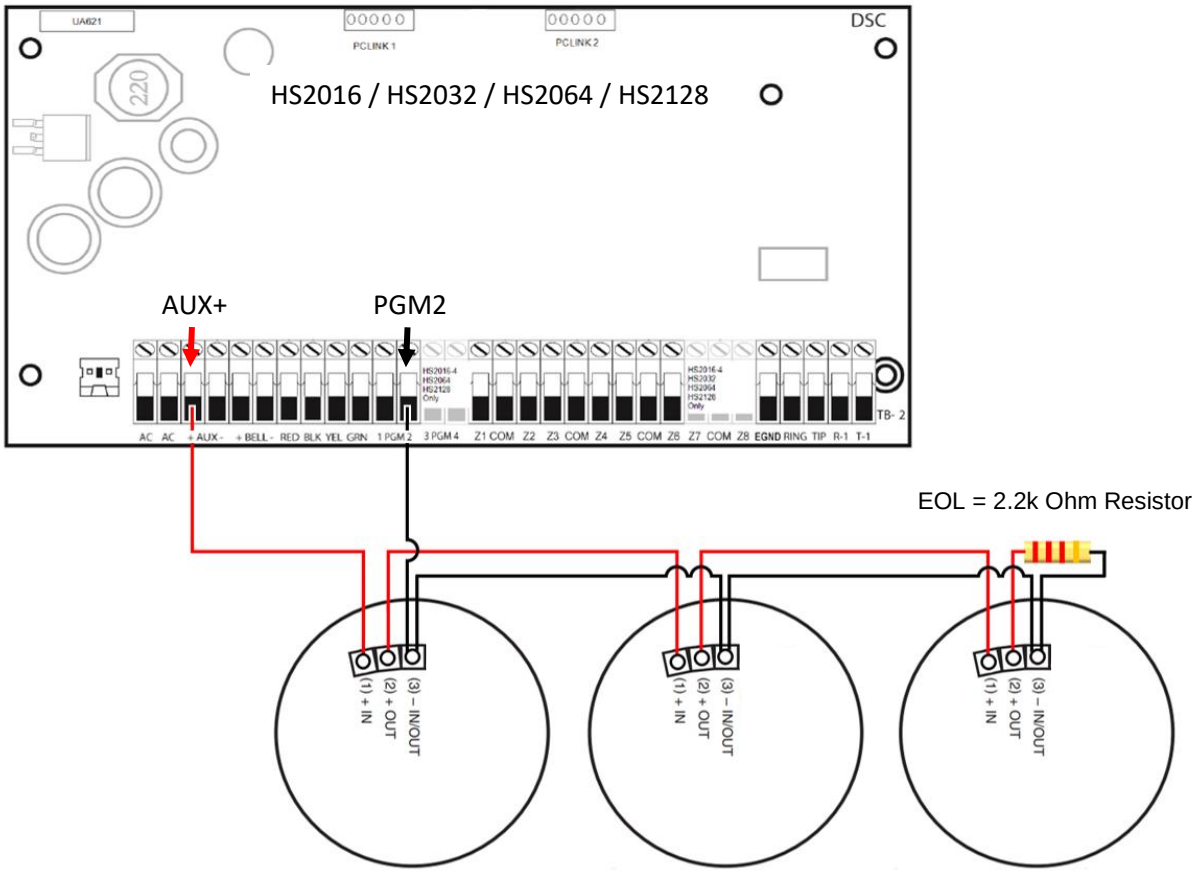
- ***Tech Tip:*** Follow the manufacturer's installation instructions for testing, power calculations, operation, and installation requirements as needed.

## Wiring:




## Panel Programming:

[ ] = NEO Panel Section / Solid ~ Red Lock light in programming /
{ } = NEO Subsection / Single Flashing ~ Red Lock light in programming /
( ) = Data / Solid ~ Green Check light in programming /

**Section [009]** PGM Definition Programming
**{002} (104)** Program PGM2 as (104) 2-Wire Smoke