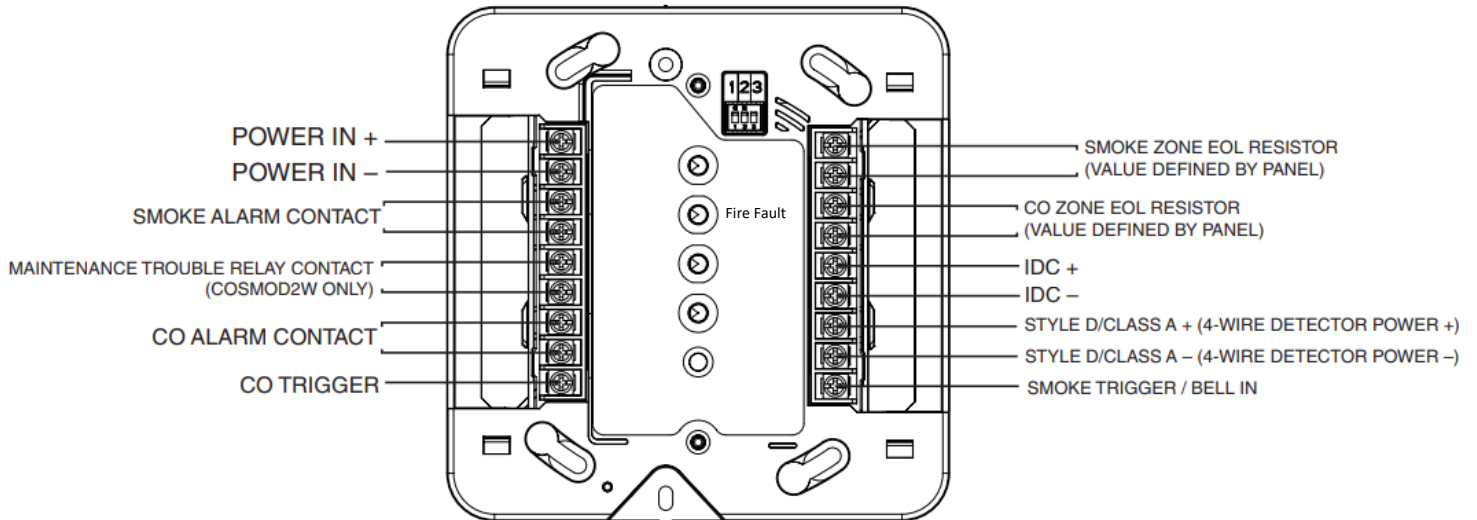# System Sensor – COSMOD2W

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

The PowerSeries NEO supports and is cross listed with the System Sensor COSMOD2W which supports the System Sensor COSMO-2W smoke/co detectors.

The COSMO-2W loop is monitored by the NEO for three states of the detector's circuit through the fire zone connection to the COSMOD2W (SMK IDC +, SMK IDC -).

- 3.9k resistance is a Normal state on the loop. 5.6k is presented to the NEO.
- Reduction of resistance toward 0k is an Alarm state. (Detector alarm or short)
- Increase of resistance toward ∞ is a Trouble state. (Loose or broken wire)

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

> ➢ **_Tech Tip:_** Only use compatible detectors (COSMO-2W and/or 2WTA-B). Do not install other devices on the alarm circuit (e.g., heat detectors, manual pulls, etc.)

> ➢ **_Tech Tip:_** Follow the manufacturer's installation instructions for testing, power calculations, operation, and installation requirements as needed.

System Sensor – COSMOD2W

Wiring:

5.6k Ohms

5.6k Ohms[1]

EOL Resistor = 3.9k Ohms
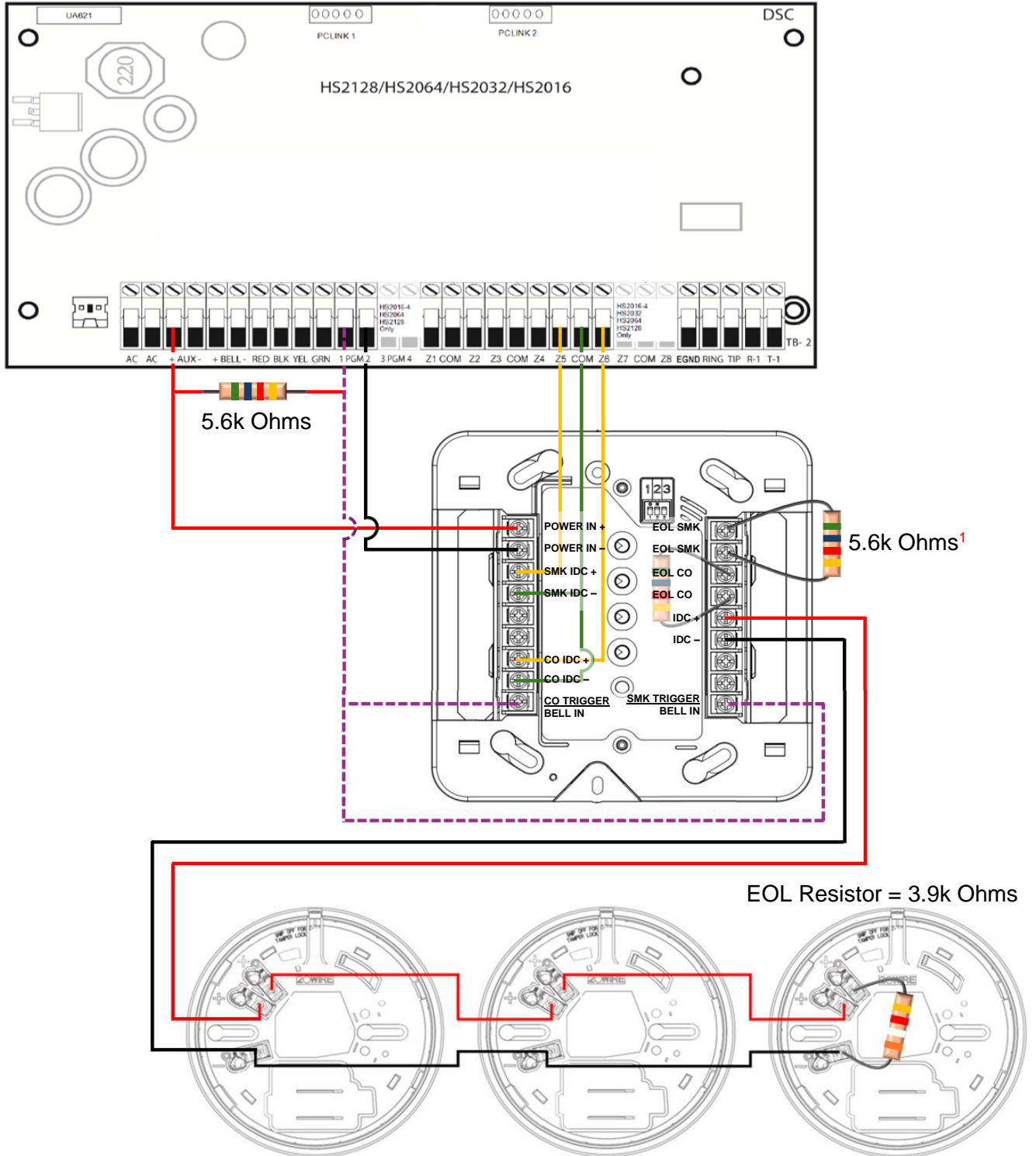
[1] Use 5.6k Ohms resistors for the EOL SMK and EOL CO termination.

System Sensor – COSMOD2W

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 [001] Zone Programming
  {005[2]} (008) Program the zone as (008) Standard 24-Hour Fire
  {006[2]} (041) Program the zone as (041) 24-Hour CO

Section [009] PGM Definition Programming
  {001[2]} (101) Program PGM1 as (101) Burg and Fire Bell Follower
  {002[2]} (103) Program PGM2 as (103) Sensor Reset

➤ ***Tech Tip:*** PGM2 will provide up to 300mA when programmed as
           (103) Sensor Reset.

Section [010] PGM Attributes
 **{001[2]}** Option 1 ~ True Output = 'N'

➤ ***Tech Tip:*** The PGM providing the fire alarm trigger MUST be inverted.
           The panel will not reset properly if the PGM is not inverted.

Section [013] Option 8 ~ Temporal Three Fire Signaling = 'Y'

[2] Zone and PGM sections are based on the diagram on Page 2 – adjusted as needed.

COSMOD2W Setup:

The fire alarm output signal from PGM1 in this setup is coded as Temporal Three Fire Signaling, the COSMOD2W Dip Switch #1 MUST be set to 'ON'.

	DIP SWITCH # 1
ON (DEFAULT)	Bell In
OFF	Smoke Trigger
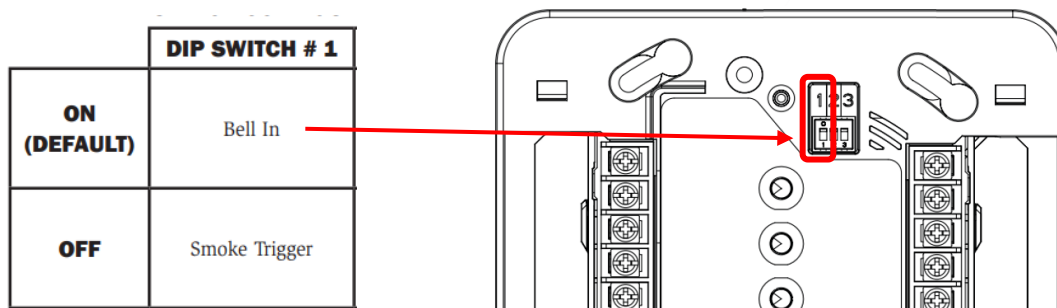
System Sensor – COSMOD2W

- ➤ ***Tech Tip:*** When using the POS+ trigger following the PGM programmed as a (101) Burg and Fire Follower, any zone that trips the bell output will sound with its cadence through the smoke detector sounders (e.g., Fire Alarm – Temporal 3, CO Alarm – Temporal 4, Flood Alarm – 1 second pulse, Burg Alarm – Steady, etc.)

  The annunciation patterns of the sounders will follow the priority assignment of the alarm condition. Higher priority alarms will override the annunciation of the lower priority alarms as needed: Fire, CO, then all other.

- ➤ ***Tech Tip:*** When using a POS+ trigger that follows the (101) Burg and Fire Follower PGM output, the CO Trigger wiring is optional. The COSMOD will automatically follow the bell trigger from the SMK Trigger as mentioned above.

- ➤ ***Tech Tip:*** When a detector is removed from its base, or the IDC detector loop is disconnected/interrupted from the COSMOD a Wire Fault trouble (Wire Fault LED = solid) will occur on the COSMOD, this will cause a Fire Trouble on the assigned fire zone. Once the detector loop is properly restored, the COSMOD's Wire Fault trouble should clear in approximately 60 seconds, at which point clearing the NEO trouble.

  Or once the detector loop is properly restored, the COSMOD's Wire Fault condition can be immediately cleared by resetting the module by entering [*][7][2] or by pressing the RESET function key on the keypad for two seconds.

- ➤ ***Tech Tip:*** **When using the COSMOD with the COSMO-2W devices and connecting the CO IDC output of the module into a zone of the NEO panel for CO monitoring, the COSMOD will trigger a momentary zone fault trouble on the assigned CO zone of the NEO when the fire alarm is reset (e.g., [*][7][2] or RESET.)**

  With the proper setup and wiring of the COSMOD, there is no way to avoid the momentary zone fault on the assigned zone.

  The panel does not momentary shunt the loss of power condition for the CO zones like it does for the fire zones. This is normal.