PolyGard®2 DGC6 Multi-Point RS-485 Digital Gas Detection and Control System Network Overview

Up to 96 PolyGard®2 daisy-chained digital sensors (DT6-/DR6-/DC6-Series), or combination of DC6 digital sensors with piggybacked AT6 analog sensors

- 1 or 2 digital sensors for DT6- or DC6-Series;
- 1 digital sensor for DR6-Series;
- 1 analog sensor for AT6-Series;

DGC6 Central Control Unit

- GC-06 Built-in Controller Programming Module
  - User Interface: LCD, LED, Touch Buttons
  - 4 Digital Inputs
  - 4 Digital Alarm Relay Outputs
  - 2 Analog (4-20 mA) Outputs
- CON5-A RS-485 Trunk Module, optional
  - Trunk/Bus Protector
  - 24 VDC Power Supply
- EP-06 Relay/AI/AO Expansion Module, optional;
  - (5) additional internal modules max., assigned to system as EP-06-01, EP-06-02, EP-06-03, etc.
  - 4 Digital Alarm Relay Outputs
  - 2 Analog (4-20 mA) Outputs
- BACnet-IP Gateway Coupler, optional
- Modbus RTU Interface, optional

DGC6

REP5-PS24 (Repeater & Power Booster)

- Required for:
  - Trunk length over 2,900 ft (900 m)
  - 24 VDC power boosting
- "Requires an external 24 VDC power supply"

EP-06-I-100 Remote Relay/AI/AO Expansion Module

- Power booster, trunk splitter, AR & AO outputs
- Simulates "t-drop" wiring configurations
- Max. total of (7) EP-06 modules on network, located within the DGC6 and/or remotely installed on the trunk/bus

Cabling & Wiring Guidelines

- RS-485 Com Link & 24 VDC Power Trunk/Bus:
  - Connect Air #N202P-2288INTEC cable or equivalent recommended; 20 AWG, 4-conductor, one shielded twisted pair (for comm), all wires different colors
- Daisy-Chained Wiring Configuration,
  - wire-splitting of the communication lines possible only with optional remote EP-06-I-10 modules;
  - see specific datasheets for detailed wiring diagrams
- Max. total (7) repeaters (CON5-A RS-485, REP5-PS24 or EP-06-I-100) allowed on the network

\[ R = 560 \Omega \text{ end-of-line terminating resistor} \]