



BRASCH

ENVIRONMENTAL TECHNOLOGIES

Engineering Presentation

Introduction

1964

Jerry Brasch founds Brasch Manufacturing Company to make Electric Duct Heaters.



2002

Brasch Manufacturing releases the first generation of GSE detectors using new electrochemical sensing technology.



2017

Ray Adams purchases Brasch Manufacturing from Jerry Brasch.



2021

Brasch Environmental Technologies releases an entirely new product lineup with Generation 2.



1994

Brasch Manufacturing begins producing gas detectors with the BGS line.



2008

Brasch Manufacturing releases the new GDCP-A.



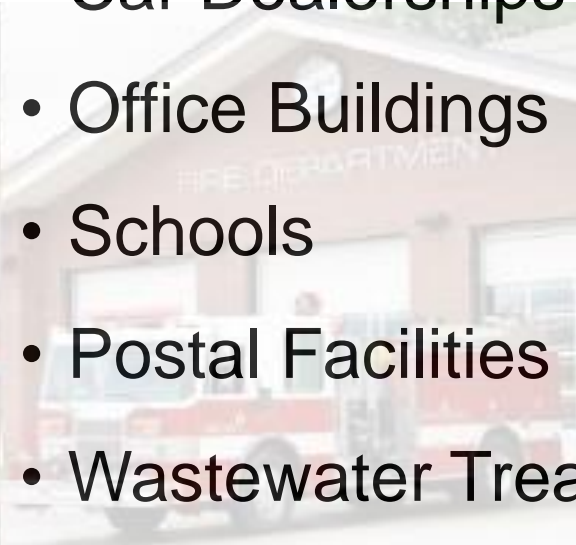
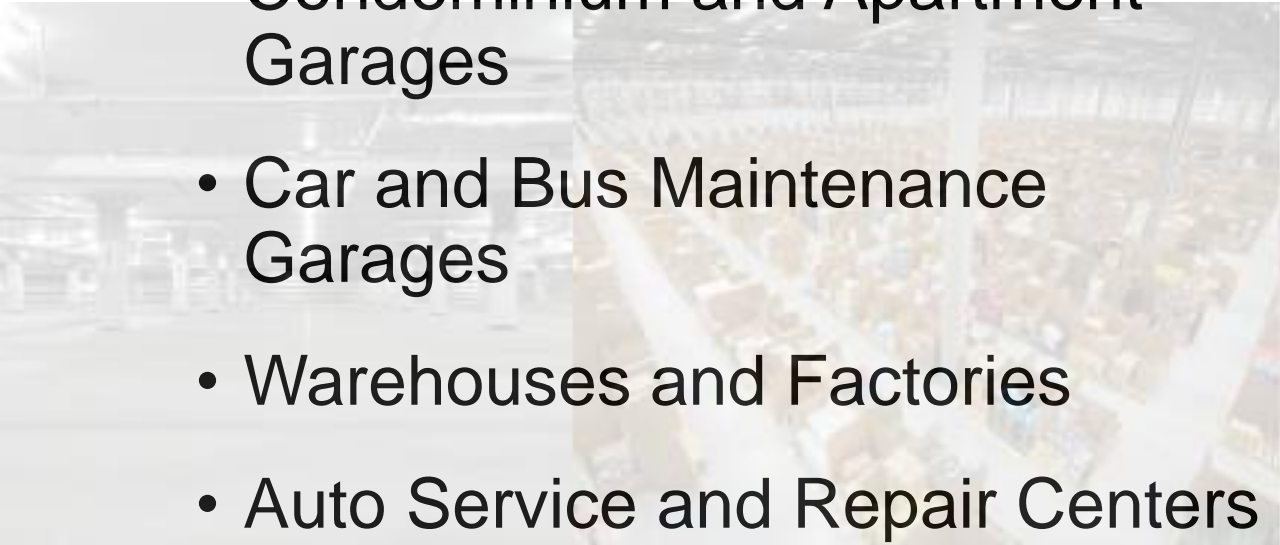
2019

The Brasch Manufacturing electric duct heater division is sold to ASPEQ Heating. The gas detector division is retained and rebranded as Brasch Environmental Technologies.

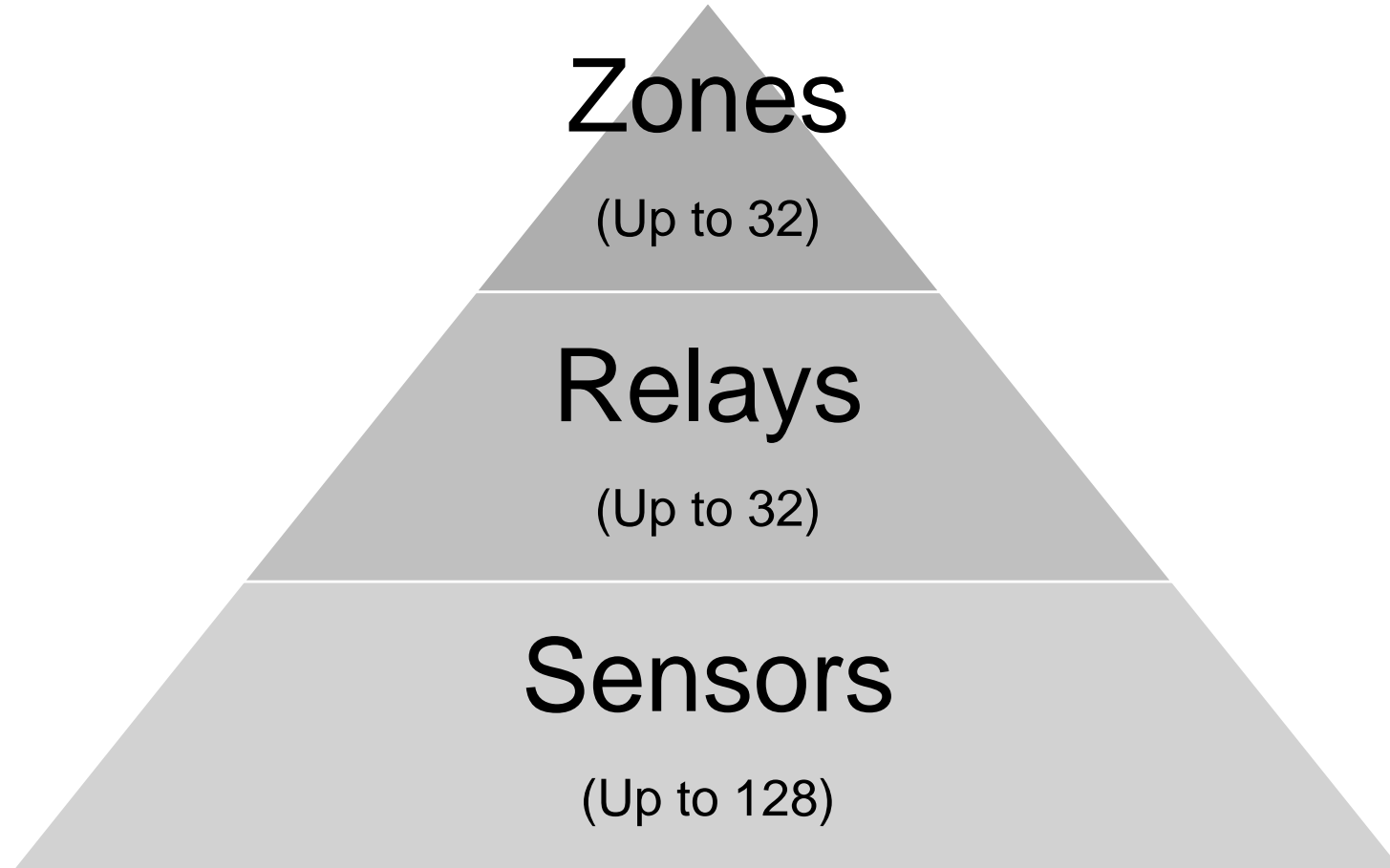


Typical Applications

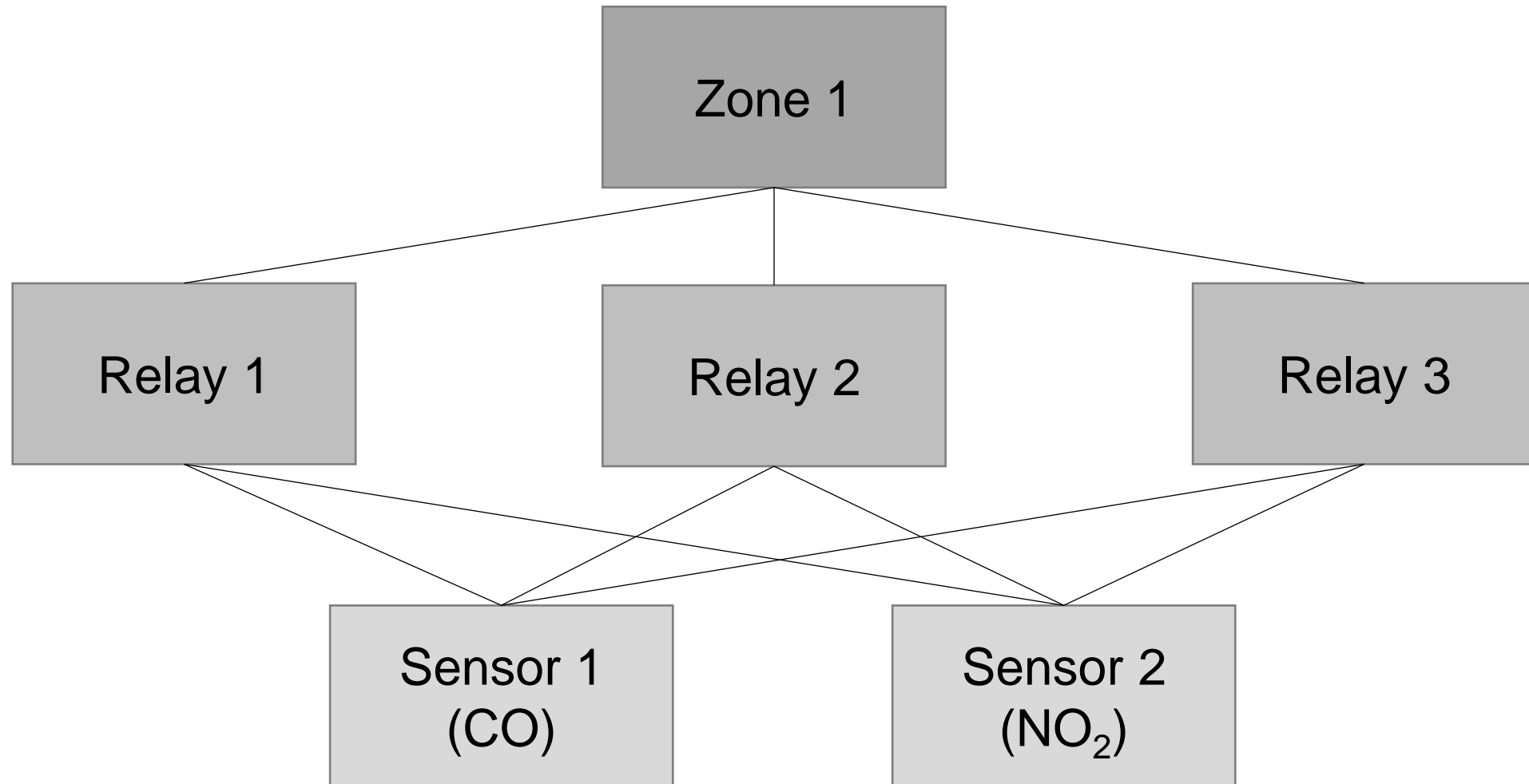
- Commercial Parking Garages
- Condominium and Apartment Garages
- Car and Bus Maintenance Garages
- Warehouses and Factories
- Auto Service and Repair Centers
- Delivery Docks
- Firehouses
- Car Dealerships
- Office Buildings
- Schools
- Postal Facilities
- Wastewater Treatment Plants



Basics of Gas Detection



System Configuration



Standards



Carbon Monoxide

PEL – TWA: 50 PPM

Nitrogen Dioxide

PEL – STEL: 1 PPM

PEL – C: 5 PPM



Carbon Monoxide

REL – TWA: 35 PPM

Nitrogen Dioxide

REL – STEL: 1 PPM



Carbon Monoxide

TLV – TWA: 25 PPM

TLV – STEL: 400 PPM

Nitrogen Dioxide

TLV – TWA: 3 PPM

TLV – STEL: 5 PPM

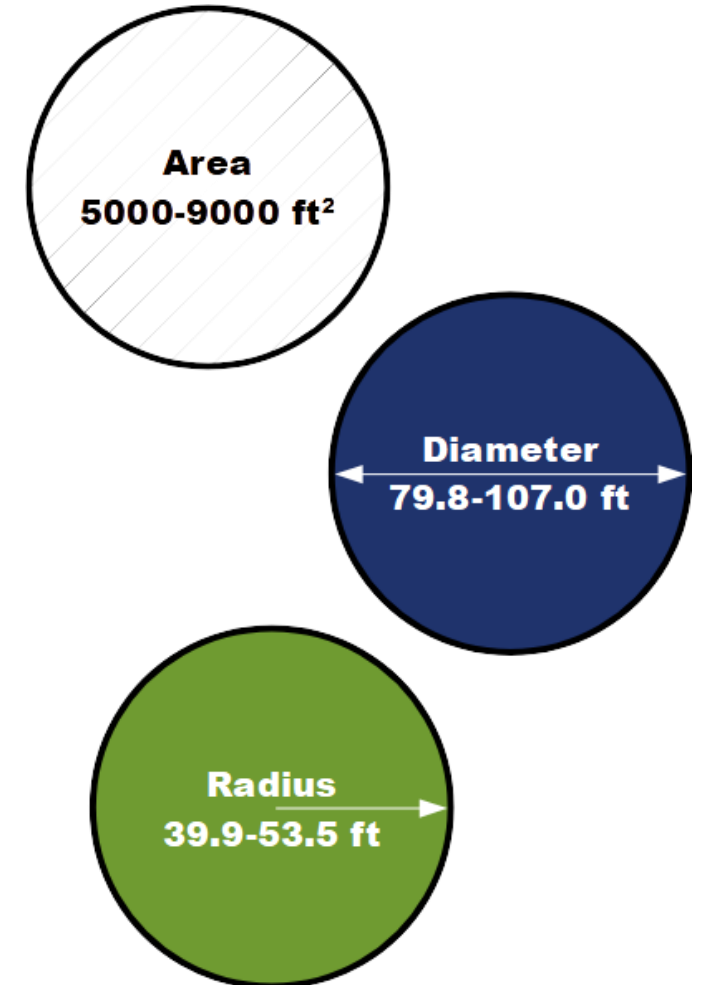
Sequence of Operations

- Normal Operation
- Low Alert
- Medium Alert
- High Alert
- Alarm
- Delays
- Additional Outputs

CO (PPM)	NO ₂ (PPM)
0	0
35	1.0
75	3.0
100	5.0
200	10.0

Estimated Coverage

- Factors to Consider
 - Ceiling Height
 - Air Change Rate
 - Application
 - Obstructions
 - Interference



Gas Detection Products

- GSE Generation 2
 - Standalone Detector
- GDCP-Touch
 - Multi-Zone Control Panel
- TRNS Generation 2
 - BMS Transmitter
- BGS
 - Carbon Dioxide
 - Oxygen



Standalone Detectors

- Detects CO and NO₂
- Monitors up to 4 Sensors and 36,000 sq. ft.
- User-Adjustable Setpoints, Delays, and Relays
- Built-in Manual Fan Activation
- Rainproof Water Resistance
- Simple Service and Maintenance
- Preconfigured Wiring
- Factory Calibration
- Customized Programming
- Works with New and Existing Building Controls Systems



Control Panel

- Fully Configurable Zones, Relays, Setpoints, Delays, and Outputs
- On-Demand Ventilation Control by Gas Concentration, Timer, Schedule, or User Input
- 7" Full Color LCD Touch Screen
- Monitoring for up to 128 CO and/or NO₂ Sensors
- NEMA 4X Water and Dust Resistance
- BACnet IP and Modbus RTU Communication for BMS Interfacing
- Customized Factory Programming and Configuration for Every Job



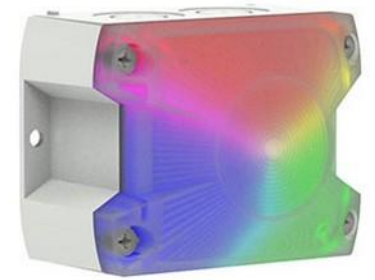
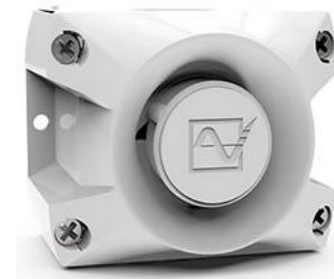
Other Gases

- BGS-CD-STD
 - Carbon Dioxide Detector
- BGS-OX
 - Oxygen Depletion Detector



Accessories

- Horn/Strobes
 - 76 cd Multicolor RGB LED
 - 100 dB @ 1 m
- GDCP-PowerPack
 - 120 VAC to 24 VAC Transformer
- GDCP-ExpansionPack
 - 4 Relays
 - 1 Analog Output
 - Signal Repeater



Resources

- Brasch
 - [Website](#)
 - [Project Calculator](#)
 - [Education](#)
 - White Papers
 - Videos
 - [Downloads](#)
 - Customer Service
 - customerservice@braschenvttech.com
 - 314-291-0440
- ARCAT
 - [CSI Specification](#)
 - [Drawings and Diagrams](#)