Series GSTA

Series SCD

While many parking garage applications require a carbon monoxide transmitter with a current or voltage signal to feed a BMS controller, there are applications for smaller garages or service stations for the carbon monoxide sensor to provide relay contacts to control the fan or damper operation directly without the BMS Controller. These systems are considered stand alone systems. The Dwyer GSTA series and CMT200 series transmitters can meet the need of the applications that just require a current or voltage output. For stand alone systems, these transmitters can be combined with a SCD series process controller.

The SCD series controller accepts the signal input from the carbon monoxide transmitter and allows the user to adjust the set point and differentials for the fan / damper operation (typically around 25 PPM). In addition to the set point, the user can also set a high gas concentration alarm (normally set around 100 PPM). For systems that need to communicate with a building management system or other online management system, the SCD series has Modbus® RS-485 serial communications as a standard offering to give feedback of the current gas concentration, set points, and output status.

For additional energy savings, the SCD series controller has PID capabilities that can be used to drive a VFD to have better ventilation control. Both the transmitters and the SCD can be powered using a common 24 VDC power supply such as our model SCD-PS. For applications that require additional sensors, pluggable slave modules are available that allow the controller to be expanded to have multiple carbon monoxide sensor loops.

Programming Guide for the SCD Series

All programming will be configured either at the factory or using the communications port. For the communication port, programmer will need a model MN-1 RS-485 to USB converter, laptop, and SCD-SW configuration software.

SERIES SCD PARAMETER SETTINGS

INITIAL SETTING PARAMETERS
Input: 4 to 20 mA.
Units: None.
Scale High: 200.
Scale Low: 0.
Control Mode: On-Off (PID if using with VFD).
Heat/Cool Selection: Cool.
Alarm 1 Type: 11-high alarm with hysteresis.
Communication Data: Set to match BMS settings.

OPERATING SETTING PARAMETERS
Set Point: 25 (or different PPM value depending on local requirements)
Alarm 1 Set Point: 100 (or different PPM value depending on local requirements)

REGULATION SETTING PARAMETERS
Cooling Hysteresis (Differential): 5 (or different PPM setting depending on local code)
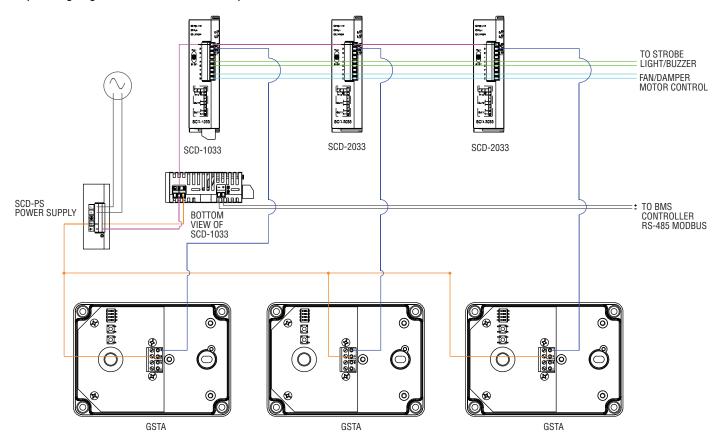**Process Input Offset:** Only if there is any adjustment required due to sensor drift or error due wire resistance.

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Sample Wiring Diagram for 3 Carbon Monoxide Loops

SCD-1033

SCD-2033

SCD-2033

TO STROBE
LIGHT/BUZZER

FAN/DAMPER
MOTOR CONTROL

SCD-PS
POWER SUPPLY

BOTTOM
VIEW OF
SCD-1033

TO BMS
CONTROLLER
RS-485 MODBUS

GSTA

GSTA

GSTA