

T8013 Telaire[®] CO₂ Switch

Wall-Mounted Switch for Ventilation Control

Features:

- Reliable (15 years of low-cost infrared sensor manufacturing)
- Intuitive Light display (VLI)
- 115/230 Vac power supply
- 230 V 8A rated output relay
- Pre-calibrated
- Maintenance free (calibration maintained with patented ABC Logic)
- User selectable output switch point

The Telaire[®] T8013 series CO₂ switch is a low-cost wall mounted sensing solution for ventilation control. The 8013 provides an intuitive VLI (Visual Level Indicator) display for CO₂ thresholds, to maintain air quality in enclosed spaces (i.e., school classrooms, offices, gymnasiums, theatres, etc. . .)

The simple LED array indicates increased CO₂ concentrations based on predetermined thresholds. The LED smoothly transitions between blue, green, yellow and red as the CO₂ concentration increases.



Unlike scientific displays, training to understand PPM values is not prerequisite with this innovative product. Indication shows under ventilation (red) or over ventilation (blue), which translates to low air quality (red) or too much energy being used to heat or cool unnecessary outside air (blue). In a heating only application the blue should be ignored if windows are opened to provide cooling.



ABC Logic™ (Automatic Background Calibration)

The Telaire product line offers patented ABC Logic™ software for self-correction of drift to better than ± 20 ppm per year. The system is virtually free of maintenance, and typically has a lifetime of more than 10 years.

Specifications

Sampling Method

Non-dispersive infrared (NDIR), gold plated optics, (with Telaire's patented ABC Logic self calibration algorithm). Diffusion sampling.

Measurement Range

600-2,000 ppm factory calibrated.

Temperature Dependence

0.2% FS per °C

Stability

<2% of FS over life of sensor (15 year typical)

Non Linearity

<1% of FS

Pressure Dependence

0.135 of reading per mm Hg

Calibration Interval

Not required

Response Time

<2 minutes for 90% step change typical

Signal Update

Every 4 seconds

Warm Up Time

- <2 minutes (operational)
- 10 minutes (maximum accuracy)

Operating Conditions

- 32°F to 122°F (0°C to 50°C)
- 0 to 95% RH, non condensing

Storage Conditions

-40°F to 158°F (-40°C to 70°C)

Output

SPDT Switch 230 V 8A resistive

Display Colored LEDs

- <600 1st Single Blue
- <800 2nd Single Blue
- <1000 Green
- <1500 Yellow
- <2000 Single Red
- >2000 Double Red

Connections

Screw terminals for 18 to 28 AWG.

1. Line Input
2. Neutral Output
3. Output Switch Common
4. Output Switch High Value (ON)
5. Output Switch Low Value (OFF)

Output Switch Levels

User selectable at 1000 ppm (default) or 1500 ppm with hysteresis of 300ppm

Auto-On-Off Manual Switch

Auto - Relay operated by CO₂, LEDs indicate CO₂ concentration

On - Relay is in the powered "on" state, all LEDs lit continuously

Off -Relay is in the powered "off" state, all LEDs are off

Anti-recycle Time

Minimum ON or OFF period: 10 minutes (in Auto)

Power Supply Requirements

85 VAC to 265 VAC

Power Consumption

<1.5 W average

Dimensions

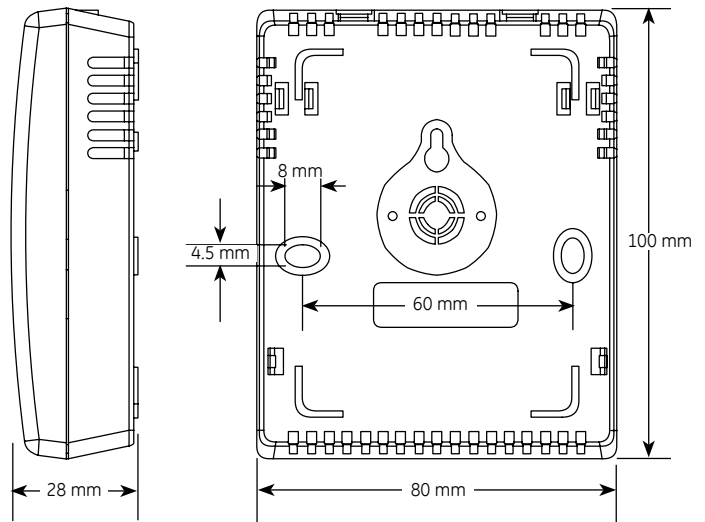
100 mm x 80 mm x 28 mm (h x w x d)

Agency/Certifications

CE, WEEE

Warranty Term

18 months



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920-580A