AST-IS Standard CO$_2$ Transmitter

Critical
Environment
Technologies™

FIXED SYSTEMS

AST-IS14

AST-IS5

Critical Environment Technologies

AST-IS1

Critical Environment Technologies

TECHNICAL DRAWING

AST-IS1 (measurements are in inches)

3.15"

1.10"

3.94"

The AST-IS standard transmitters contain a non-dispersive, infrared sensor for accurate and reliable, indoor, carbon dioxide (CO$_2$) detection and are available in 3 models with different options. All models are low maintenance and a key component for climate control of buildings and other processes.

AST-AS1 is a simple, low-cost, transmitter without a display for fixed installation in the climate zone.

AST-IS5 measures both CO$_2$ and temperature in the ambient air, has a display and relay and can transmit data to a BAS system or controller.

AST-IS14 features a display and has an alarm with sound and light that alerts when the levels of CO$_2$ exceed defined levels.

The AST-IS standard transmitters feature 4 - 20 mA or 0 - 10 VDC linear output signals, low 24 VDC / VAC nominal voltage, standard 0 - 2,000 ppm range and CE certification.

AST-IS5

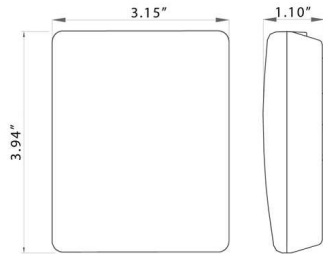3.22 in (82 mm)

1.18 in (30 mm)

4.7 in (120 mm)

KEY FEATURES

» 4 - 20 mA or 0 - 10 VDC linear output signal
» Operating power 24 VDC or 24 VAC nominal
» Low maintenance, easy calibration
» 0 - 2,000 ppm standard range
» Relay output (AST-IS5 model only)
» Attractive PVC enclosures ideal for indoor use
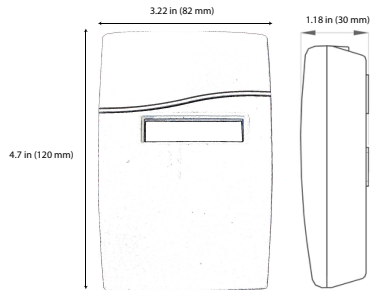» RoHS compliant circuit boards
» CE certified

AST-IS14 (measurements are in mm and inches)

30(1,18)

85(3,34)

128.6(5,06)

APPLICATIONS

» Residential Buildings
» Commercial Buildings
» Schools / Educational Institutions
» Offices
» ... and many more

FIXED SYSTEMS

WIRING
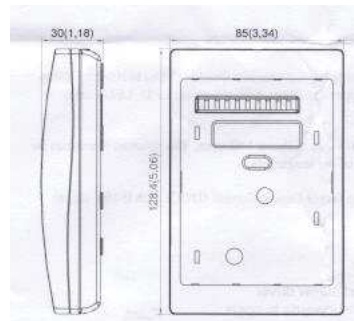

mA current output

Enlarged picture of the PCB with the jumper set to current output (left position)

V voltage output

Enlarged picture of the PCB with the jumper set to voltage output (right position)
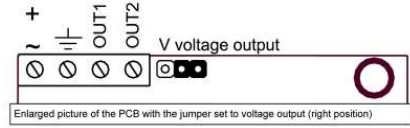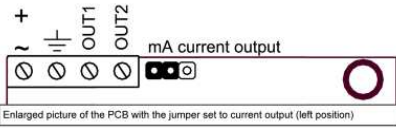
TECHNICAL SPECIFICATIONS

GAS TYPE

Carbon Dioxide (CO$_2$)

MECHANICAL

AST-IS1 Enclosure	General purpose PVC, IP30 rated
Size	3.94" x 3.15" x 1.1" (100 mm x 80 mm x 28 mm)
AST-IS5 Enclosure	General purpose PVC, IP30 rated
Size	4.7" x 3.2" x 1.2" (120 mm x 82 mm x 30 mm)
AST-IS14 Enclosure	General purpose PVC, IP30 rated
Size	5.11" x 3.34" x 1.18" (130 mm x 85 mm x 30 mm)

ELECTRICAL

Power Requirement	24 VDC or VAC
Linear Outputs	Linear 4 - 20 mA or 0 - 10 VDC signal
Relay Output (AST-IS5 only)	1 SPST isolated N.O. dry contact relay rated for 1mA @ 5V up to 1A @ 50 VAC or 24VDC

SENSOR

Infrared CO$_2$ Sensor	
Sampling Method	Non-dispersive infrared
Monitoring Method	Diffusion
Range	0 - 2,000 ppm 0 - 4% volume (AST-IS18 only)
Temperature Sensor Range (AST-IS5 only)	0°C to 50°C (32°F to 122°F)
Accuracy	± 30 ppm, ± 3% of reading

ENVIRONMENTAL

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

CERTIFICATION

CE and compliance with ISO 9001:2008

PRODUCT CODES

Carbon dioxide (CO$_2$), office wall mount	**AST-IS1**
Carbon dioxide (CO$_2$), wall mount with LCD digital display, temperature sensor & relay	**AST-IS5**
Carbon dioxide (CO$_2$), wall mount with LCD digital display, visual/audible alarm, mute button	**AST-IS14**

ACCESSORIES

Metal protective guard, small, 16 gauge, galvanized metal guards for transmitters	**SCS-8000-RSG**

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