AST-IS Standard CO_2 Transmitter

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 maintenance free 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 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.

Field calibration is not required as the units are lifetime calibrated.

KEY FEATURES

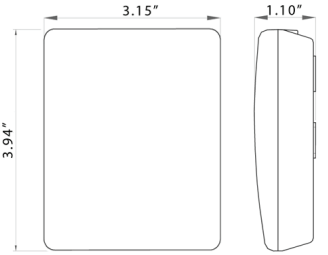
» 4 - 20 mA or 0 - 10 VDC linear output signal
» Operating power 24 VDC or 24 VAC nominal
» Maintenance free, lifetime calibration
» 0 - 2,000 ppm standard range
» Relay output (AST-IS5 model only)
» 1 LEED credit (AST-IS14 model only)
» Attractive PVC enclosures ideal for indoor use
» RoHS compliant circuit boards
» CE certified

APPLICATIONS

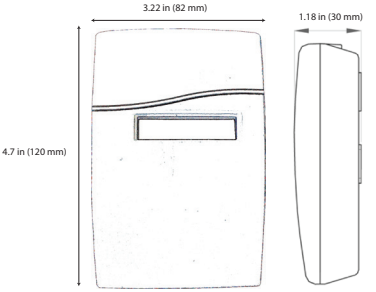
» Residential Buildings
» Commercial Buildings
» Schools / Educational Institutions
» Offices
» ... and many more

TECHNICAL DRAWING

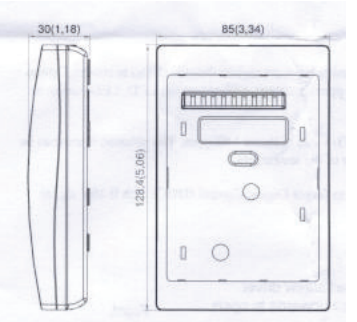
AST-IS1 (measurements are in inches)



AST-IS5



AST-IS14 (measurements are in mm and inches)



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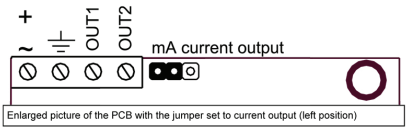
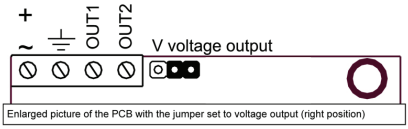
AST-IS Standard CO_2 Transmitter

WIRING



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



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 SPDT 50 VAC@1A; 24 VAC@1A (1000 ppm)

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 & 1 LEED Credit	**AST-IS14**

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

CE