



The AST-IS Industrial Transmitters contain a non-dispersive, infrared sensor for the accurate and reliable detection of carbon dioxide (CO₂). There are 4 models available with different options. All models are low maintenance and a key component for climate control of buildings and other processes.

AST-IS3 is a duct mount, IP54 rated enclosure for installation in the ventilation duct. Standard 0 - 2,000 ppm range.

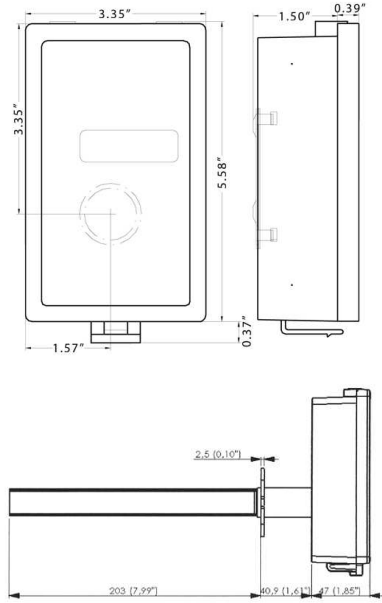
AST-IS6 is a wall mount enclosure with protection class IP54, includes a display and is ideal for most large spaces. Standard 0 - 2,000 ppm range.

AST-IS12 is a duct mount, IP54 rated enclosure for installation in the ventilation duct, includes a display, relay and Modbus® output. Standard 0 - 2,000 ppm range.

AST-IS18 is a wall mount, IP65 rated enclosure that is specially coated PCB with an extra dust/water protection filter suited for greenhouses, wineries and similar environments. It offers a 0 - 4% vol range, two relays (unless the optional temperature sensor is installed) and a display.

The **AST-IS18-M** transmitter is the same as the AST-IS18 but with Modbus® output for communicating with a Controller or a Business Automation System (BAS).

TECHNICAL DRAWING



KEY FEATURES

- » Operating power 24 VDC or 24 VAC nominal
- » 4 - 20 mA or 0 - 10 VDC linear output signal
- » Relay output (AST-IS12 and AST-IS18 only)
- » Single internal infrared CO₂ sensor
- » LCD digital display (AST-IS6, AST-IS12 and AST-IS18 only)
- » 0 - 2,000 ppm standard range (AST, IS3, AST-IS6 and AST-IS12)
- » 0 - 4% volume measurement range (AST-IS18 for winery applications)
- » Low maintenance, easy calibration

APPLICATIONS

- » Commercial Buildings
- » Greenhouses
- » Schools / Educational Institutions
- » Wineries
- » Office Buildings
- » ... and many more



TECHNICAL SPECIFICATIONS

GAS TYPE

Carbon Dioxide (CO₂)

MECHANICAL

AST-IS3 Enclosure Industrial Housing PVC, IP54 rated

Size 151.3 mm x 84 mm x 46 mm
(5.96" x 3.31" x 1.81")

Probe Length 246 mm (9.68")

AST-IS6 Enclosure Industrial Housing PVC, IP54 rated

Size 177 mm x 85 mm x 38 mm
(7.0" x 3.35" x 1.5")

AST-IS12 Enclosure Industrial Housing, PVC, IP54 rated

Size 151.8 mm x 84.7 mm x 47 mm
(5.98" x 3.33" x 1.85")

Probe Length 243.9 mm (9.6")

AST-IS18 & AST-IS-M Enclosure Industrial Housing PVC, IP65 rated

Size 177 mm x 85 mm x 38 mm
(7.0" x 3.35" x 1.5")

USER INTERFACE

Display LCD, 4 digits, 7 segments with ppm indicator

INPUT / OUTPUT

Linear Outputs Linear 4 - 20 mA or 0 - 10 VDC signal

Relay Output (contact free)
(AST-IS12, AST-IS18 & AST-IS18-M) min load: 1 mA / 5V
rated load: 0.5 A / 125 VAC; 1 A / 24 VDC

Communication
(AST-IS12 & AST-IS18-M) RS-485 Modbus®

ELECTRICAL

Power Requirement 24 VDC or VAC, 50/60 Hz (half-wave rectifier input)

Power Consumption 1 W to 3 W average

SENSORS

Infrared CO₂ Sensor

Sampling Method Non-dispersive infrared

Monitoring Method Diffusion

Range 0 - 2,000 ppm

0 - 4% volume (AST-IS18 & AST-IS18-M)

Accuracy ± 30 ppm, ± 3% of reading

Life Expectancy > 15 years

Temperature Sensor Range

(standard with AST-IS12,
optional for AST-IS18 & AST-IS18-M) 0°C to 50°C (32°F to 122°F) range

TECHNICAL SPECIFICATIONS... continued

ENVIRONMENTAL

Operating Temperature 0°C to 50°C (32°F to 122°F)

Humidity 0 - 85% RH non-condensing

CERTIFICATION

CE and compliance with ISO 9001:2008

EMC 2004/108/EC directive, EN 61326-1:2006, Class B equipment

RoHS directive 2011/65/EU

PRODUCT CODES

AST-IS3 (analog) Carbon dioxide (CO₂), duct mount with mounting kit, IP54 industrial enclosure, no display, 0 - 2,000 ppm measurement range

AST-IS6 (analog) Carbon dioxide (CO₂), wall mount with bracket, IP54 industrial enclosure, LCD digital display, 0 - 2,000 ppm measurement range

AST-IS12 (digital) Carbon dioxide (CO₂), duct mount with mounting kit, IP54 industrial enclosure, LCD digital display, relay, temperature sensor, Modbus output, 0 - 2,000 ppm measurement range

AST-IS18 (analog) Carbon dioxide (CO₂), wall mount with bracket, IP65 industrial enclosure, LCD digital display, two relays (unless optional temperature sensor is installed), 0 - 4% volume measurement range

AST-IS18-M (digital) Carbon dioxide (CO₂), wall mount with bracket, IP65 industrial enclosure, LCD digital display, two relays (unless optional temperature sensor is installed), Modbus® output, 0 - 4% volume measurement range, optional temperature sensor

ACCESSORIES

CET-715A-CK1 Calibration Kit for 17 - 100 L cylinders, 0.5 LPM flow regulator & adapter to fit 17 L cylinder

SCS-8000-RSG Small galvanized metal, 16 gauge protective guard