



The AST-I series of analog transmitters are high quality, industrial, dual beam, referenced transmitters with miniature infrared sensors, analog output and water / dust tight, corrosion resistant, non-metallic enclosures.

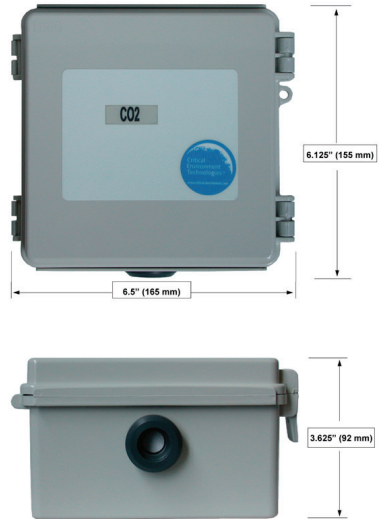
The AST-ICD detects Carbon Dioxide (CO₂) with a choice of one of three different ranges.

The AST-IHC detects Hydrocarbons (Methane (CH₄), Propane (C₃H₈) jet fuel vapours). Specify target gas at time of order.

The AST-INI detects Nitrous Oxide (N₂O)

Care should be taken to not spray the sensor head. The sensor vent opening has a microporous PTFE filter attached which provides splash protection only, it is not designed to provide protection from the application of pressurized water.

TECHNICAL DRAWING



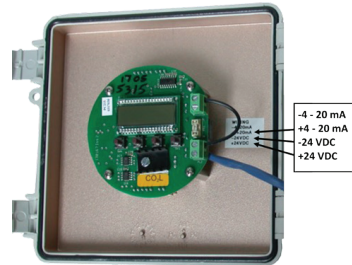
KEY FEATURES

- » Single sensor
- » Low power consumption
- » Dual temperature compensated pyroelectric infrared detectors
- » Fast response with accurate low-level gas detection
- » Long sensor life
- » 4 - 20 mA linear output signal
- » Operating power 24 VDC nominal
- » NEMA 4, IP66, water / dust tight / corrosion resistant polycarbonate enclosure
- » RoHS compliant circuit boards

APPLICATIONS

- » Commercial Buildings
- » Institutional Buildings
- » Waste Water Treatment Plants
- » Oil and Gas Plants
- » Manufacturing Plants
- » ... and many more

WIRING



TECHNICAL SPECIFICATIONS

GAS TYPE

Infrared	Carbon Dioxide (CO ₂), Hydrocarbons (CH ₄ , C ₂ H ₆ , or jet fuel vapours), Nitrous Oxide (N ₂ O)
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MECHANICAL

Enclosure	Water/dust tight, corrosion resistant ABS with hinged, secure door, copper coated interior to reduce RF interference
Weight	244 g (8.6 oz)
Size	165 mm x 156 mm x 92 mm (W x H x D) 6.5 in x 6.125 in x 3.625 in

USER INTERFACE

Display	Internal 4 digit, 7 segment LCD
Adjustments	4 internal push buttons for servicing

INPUT / OUTPUT

Output	Linear 4 - 20 mA analog (10 bit resolution with current limit)
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ELECTRICAL

Power Requirement	24 VDC nominal (12 - 30 VDC) (polarity protected) 5 W maximum input
Current Draw	70 - 100 mA
Wiring	3-conductor, 16 to 20 AWG stranded, shielded
Fuse	500 mA anti-surge in-line fuse for supplied power

ENVIRONMENTAL

Operating Temperature	-20°C to 50°C (-4°F to 122°F)
Humidity	0 - 95% RH non-condensing

CERTIFICATIONS

Conforms to	EMC standards EN55022-10-A and EN550022-3-A
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PRODUCT CODES

Internal Infrared Sensor

AST-ICD-BW	CO ₂ sensor (0 - 5% volume)
AST-ICD-CW	CO ₂ sensor (0 - 100% volume)
AST-ICD-DW	CO ₂ sensor (0 - 20% volume)
AST-IHC-BW	Hydrocarbons sensor (0 - 100% LEL) specify target gas at time of order (CH ₄ , C ₃ H ₈ jet fuel vapours)
AST-INI-EW	N ₂ O sensor (0-100 ppm / 0-1% vol)

ACCESSORIES

PUM-4-N	Splash Guard
CET-715A-CK1	Calibration Kit for 34, 58, 74, 100 L cylinders, 0.5 LPM flow regulator & adapter to fit 15 L and 17 L cylinders
SCS-8000-RSG	Metal protective guard, small, 16 gauge, powder coated steel metal guards for transmitters



shown with splash guard installed

