SPECIFICATIONS

AST "I" SERIES

INDUSTRIAL INFRARED SENSOR / TRANSMITTERS

Description & Specifications

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

Signal Output:	4-20 mA linear analog (10 bit resolution with current limit)	
Range:	0 – 5.0% Volume Carbon Dioxide (CO2) 0 – 20% Volume Carbon Dioxide (CO2) 0 – 100% Volume Carbon Dioxide (CO2) 0 – 100% LEL Methane (CH4) 0 – 100% Volume Hydrocarbons (HC) 0 – 1000 ppm, 0 – 1% Volume Nitrous Oxide (N2O)	
Input Power:	24VDC nominal (12-30 VDC) (polarity protected) 5W maximum	
Warm-Up:	Warm-Up time to final zero:	< 20-seconds @ 20 deg. C to final zero +/- 2% full scale < 30-minutes @ 20 deg. C. to specification
Fusing:	500 mA anti-surge in-line fuse for supplied power	
Current:	70 to 100 mA	
Resolution:	All sensors: 1% of measuring range	
Repeatability:	CO2: 0 – 5% Volume: Zero or Span: +/- 50 ppm @ 20 deg. C. CO2: 0 – 100% Volume, CH4: 0 – 100% LEL, HC: 0 – 100% Volume: Zero: +/- 1% full scale @ 20 deg. C. Span: +/- 2% full scale @ 20 deg. C. N2O: Both ranges: Zero & Span: +/- 40 ppm @ 20 deg. C.	
Zero Drift:	Long term zero drift:	CO2: 0 – 5% Volume: +/- 50 ppm / month @ 20 deg. C CO2: 0 – 100% Volume: +/- 1% full scale / month @ 20 deg. C. CH4: 0 – 100% LEL: +/- 1% LEL / month @ 20 deg. C. N2O: Both ranges: +/- 20 ppm / month @ 20 deg. C.
Response Time:	T90 <30s @ 20 deg. C.	
Humidity:	Operating range: 0 to 95% RH non-condensing	
Temperature:	Operating: -20 deg. C to + 50 deg. C	
Indicators:	LCD digital display (internal for service only)	
Controls:	4-button keypad for service only	
Enclosure:	Water/dust tight, corrosion resistant polycarbonate	
Adjustments:	Sensor and Output zero and span adjustments (digital)	
Calibration:	Frequency suggested at once per year for best performance	

Note: Placement of sensor head is important. Watertight enclosure is non-metallic, and therefore does not provide total RFI protection. Avoid installation locations that may expose the sensor head to a lot of RFI. Do not water spray sensor head.