



CONSPEC[®]

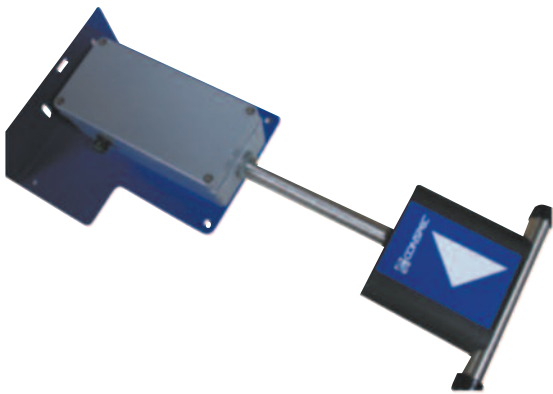
Innovation that digs deeper.

T1355-AV



SMART HEAD[®]

Smart Solutions for Safety and Productivity.



The T1355 Smart Head Remote Air Velocity Sensor provides improved accuracy, response time and long life while reducing cost, equipment redundancy, and configuration time.

Each T1200 Smart Head Controller can interface with up to eight interchangeable Smart Head Sensors for toxic and combustible gases, air velocity, atmospheric conditions (wet and dry-bulb temperatures, barometric pressure, humidity) or any choice of third party analog (4~20mA) sensing devices.

- **Plug and Play Sensor Technology – Smart Head Remote Sensors Store Important Values Including Sensor Technology, Sensor Ranges, Temperature Compensation Tables, Calibration Values and History**
- **Reduced Signal Noise as Sensor Reading is Digitized at the Source**
- **Fully Configurable via T1200 Smart Head Controller/Conspec CDI Software/Conspec Senturion SCADA System**
- **Accurate Measurement of Air Velocity Using a Modified Pilot Tube Design and Pressure Differential Technology**
- **Long Range Sensor Separation – Each Smart Head Remote Sensor Can Be Located Over 4000ft./1200m from T1200 Smart Head Controller**
- **Hot Swappable Replacement Sensor Heads for Ease of Maintenance and Calibration**
- **Low Power Consumption – less than 6mA**
- **One Year Warranty**

Ease of Installation

Smart Head Air Velocity Sensor connects to the T1200 Smart Head Controller by means of pre-measured cables with NEMA 4x/IP66 Quick Connects eliminating the need for complicated field wiring.

Increased Accuracy

Smart Head Air Velocity Sensor uses a modified pilot tube design and pressure differential technology to determine air velocity at a target location thus increasing speed and accuracy over traditional designs

Plug and Play Sensor Technology

The Smart Head Controller auto-detects and configures itself to the default settings for the specific Smart Head Remote Sensor connected to it via local Smart Head Trunk.

High Environmental Immunity

Smart Head Air-Velocity Sensors undergo factory calibration through the full operating range of the sensor to allow individualized compensated readings through the full span of the sensor cell. In addition, as the Smart Head Air Velocity Sensor has no moving parts and comes with removable filters to protect the pilot tube, they are highly immune to the interference that the accumulation of dust/coal dust has on traditional air velocity sensors.

Preventative Maintenance Condition Monitoring

Calibration Alert Mode can be activated to remind users ahead of pre-planned calibration schedule for each attached Smart Head Sensor. Calibration History for all attached Smart Head Sensors is stored and analysis mode can be activated to alert for the need for plug-in sensor replacement.

Increased Sensor Data Through Digital Communications

Each Smart Head Sensor communicates to the Smart Head Controller using digital communications (MODBUS RTU). This ensures that signal noise between the Smart Head Controller and each Smart Head Sensor is significantly reduced and allows for the retrieval of other important operating parameters such as operating temperature and voltage for improved sensor cell performance analysis.

Certified for use in Coal Mines

Smart Head Air Velocity Sensors are internationally certified for use in high methane environments when connected through a Smart Head Controller to a certified intrinsically safe power source.



T1355 Remote Air Velocity Sensor

Mechanical

Enclosure	NEMA 4x/IP54 Fiberglass & Stainless Steel Enclosure
Dimensions	16.9" x 7.1" x 2.4" / 43.0cm x 18.0cm x 6.0cm
Weight	3 lbs / 1.36 kg
Mounting	Plate Mounted with Holes for Suspension
Conduit Entry	One Quick Connect

Electrical

Operating Voltage	12-24VDC
Cable Requirements	4-Conductor 18 AWG Suggested, Conspec P1209-AV Cable Recommended
Cable Connection	1 x Female NEMA 4x/IP66 3 Pin Quick Connects
Current Consumption	6mA
Communication protocol	MODBUS, Conspec Accessor or 4~20mA via Smart Head Controller

Environmental

Operating Temperature	-4°F to 120°F (-20°C to 50°C)
Operating Humidity	10% to 95% RH Non-Condensing
Temperature Compensation	Full Range

System

Operating Modes	2 – Normal and Calibration
Alarm Set Points	3 x User Defined Alarm Set Points
Remote Configuration	T1200 Smart Head Controller, Conspec CDI Windows Software (Included with Purchase), Conspec Senturion SCADA System Software.



T1355 Smart Head Remote Air Velocity Sensor

Specifications

	Smart Head Air Velocity Sensor +/-10m/s (+/-2000fpm) T1355-AV10	Smart Head Air Velocity Sensor +/-16m/s (+/-3150fpm) T1355-AV16
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Specifications

Sensor Type	Dual Pressure Differential	Dual Pressure Differential
Detection Range	+/-10m/s (+/-2000fpm) Bi-Directional	+/-16m/s (+/-3150fpm) Bi-Directional

Performance

Response Time	<1s (with averaging filter <3s)	<1s (with averaging filter <3s)
Accuracy	<1%	<1%
Zero Drift	Max 1%	Max 1%
L-T Output Drift	<1% of signal per year	<1% of signal per year

Certifications

CSA/ESA	Pending, ESA Evaluation Available	Pending, ESA Evaluation Available
IECeX	Pending	Pending
ATEX	Pending	Pending
MSHA	Pending	Pending
UL/FM	Pending	Pending

Replacement Sensor Cell

Part Number	N/A	N/A
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Smart Head Controllers with Internal Electrochemical Sensors for other gasses not listed are available upon request.

See the Smart Head Remote Sensors Spec Sheets for Available Sensors for Remote Connection to the Smart Head Controller.
 Contact Conspec or your local Conspec Distributor for Availability.



T1355 Smart Head Remote Air Velocity Sensor

Accessories

CDI	Conspec CDI Software
EE0261-SHS	Replacement Smart Head Junction Box with NEMA 4x/IP66 Quick Connects for Smart Head Sensor Trunk
EE0261-SHJ	Smart Head Cable Splitter Box with NEMA 4x/IP66 Quick Connects
P1209AV-X	P1209 Smart Head Local Sensor Trunk Cable with NEMA 4x/IP66 Quick Connects for Conspec's T1355 Air Velocity Remote Sensors (XX – Specify Length)
P3013-SH	Smart Head Calibration Cap
P3013-SH-1	Smart Head Calibration Cap w/ 4'x3/16" I.D. x 5/16" O.D Tubing
P1879	Calibration Kits (see Calibration Supplies Specifications Sheet)
P1880	Calibration Gas Cylinders (see Calibration Supplies Specifications Sheet)

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