







INVENTORY MANAGEMENT

POINT LEVEL & CONTINUOUS MANAGEMENT

AIRMATIC

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CONTINUOUS LEVEL Easy Wireless **Bluetooth** Set-Up Series Series 400 200 **Gateway** App SILO PATROL® SE **RADAR RIGHT™ SILO TRACK ™ INVENTORY MANAGEMENT NON-CONTACT RADAR CABLE-BASED SMART SENSOR** Non-contact, Continuous Level Sensor Performance Unaffected by • Web-based Application to Access Real-time Measurement...Nothing to "Touch" the Process Material Composition...Works in Tough Material Inventory Data from Any Device that and Dusty Conditions Proven Pulse Radar Technology has an Internet Connection Intuitive, Wireless Set-up / Configuration Using a Free App on an Android™-based • Small Beam Angle to Concentrate Energy for **-EATURES** Intuitive. Flexible and Powerful Graphical High Accuracy and Reliability

• Small "Dead Band" ("Blanking Zone") for User Interface for Monitor's RS-485 Device with Bluetooth® Modbus™ Connectivity
 Continuous or On-Demand (Modbus Comp.) Continuous Level Sensors Optimum Measurement In Vessel Securely View Distance, Level, Volume, Weight, Advanced Micro-processor and Unique Measurements with Lock Out Override Percentage and Ullages (Empty Space) for Silos Echo Processing Technology Easy to Install & Virtually Maintenance Free Set Level Alarms and Monitor Sensor Status... No Moving Parts to Wear; Low Maintenance Smart Sensing Reliability Combining Optic and Hall-Effect Technologies Configure E-mail and Text Notifications Easy Set-up / Configuration with LCD Create, Save & Generate Configurable Reports Push Button Display Module (Included) Measuring Range Up to 150 ft (46m) • Models Available for Various Applications Hazardous Location Approvals for Dust Universal 85-265VAC or 24VDC • 0°, 5° or 10° Freeze-Resistant Series 400 - For Powders & Bulk Solids Operating Voltage (Gateway) Mounting Flange in Vessels Up To 100 ft (30m) High Cellular or Ethernet Connectivity from Outputs: Smart RS-485 with Modbus Series 200 - For Liquids Up To 100 ft (30m) SNOITAC Gateway(s) to the Cloud-based Server Variety of Antenna (Horn) Sizes Connectivity or 4-20mA Analog Standard or High Gain Antenna (Gateway) Local Indication (HMI²) Selection of Flanges • Wireless EZ Communication Interface • Dust Protection Options (Air Purge or Dust Shield) SiloTrack™ CLOUD or SiloTrack™ PC for Series 400 Inventory Management Systems SiloTrack ™ CLOUD Web-based Remote Inventory Auxiliary Output Enclosure (AOE) Management App or HMI² Control Panel for RS-485 Version with Relay and/or Analog Outputs • 4-20mA Analog or Smart RS-485 (Modbus Comp.) • Use when it is important that the level Use when target material characteristics Optimize frequency of deliveries & **APPLICATIONS** instrument does not contact your process. may change thereby eliminating need for transportation costs. Reliable choice for most powders & bulk solids. Receive timely material inventory re-calibration. For real-time level measurements. levels from anywhere. Reliable inventory management system. Gimbal (swivel) mounting on Series 400 Access data history and create Great economical choice when accurate customizable reports to share inforto aim sensor for optimal measurements yet occasional measurements are required. and to avoid vessel obstructions. mation across functional departments. Series 200 is designed for liquid applications. SiloTrackTM CLOUD Gateway Power Requirements:
AC: 115-230VAC ± 15%, 50/60 Hz; DC: 24VDC ± 15%
Power Requirements:
AC: 70W (1.5A max @ 115VAC); DC: 18W max
AUX 24VDC Output: 1.7A max (AC Version Only)
Cellular Wireless Interface [LTE - North America (M5)]:
LTE CAT 4: 700(B12,13)/850(B5)/AWS(B4)/1900(B2);
3G HSPA+: 850/1900 MHz; Transfer rate (max):
150 Mbps down, 50 Mbps up
Sensor Comm.: RS-485 half-duplex, non-isolated,
Modbus RTI L protocol 9600/8/V/1 Power: 24VDC (16-26 VDC) Power: 115 VAC; 230 VAC ±15% Power: 24VDC (16-26 VDC)
Ambient Temp: -40 to +150°F (-40 to +65°C)
Frequency Range: 26 GHz
Measurement Accuracy: Series 400: ±0.39in (±10mm);
Series 200: ±0.12in (±3mm)
3dB Beam Angle: 3" (78mm) Dia. Antenna: 12°,
4" (98mm) Dia. Antenna: 8°, 5" (123mm) Dia. Antenna: 6°,
Dead Band: 12" to 30" (305mm to 762mm) - Antenna
and/or Application Dependent **Ambient Temp:** SMU: -40° to +150°F (-40° to 65°C); HMI²/AOE: -4² to +131°F (-20° to 55°C)
Int. Bin Temp: Up to 300°F (149°C)
SMU Output:
Smart: RS-485 half-duplex, isolated
Analog: 4-20mA, isolated SPECIFICATION Mounting: Flange with 7.0" (177.8mm) bolt circle Signal Output: Smart RS-485 / Modbus RTU (2-wire); Approvals: CSA_{US/C}: Ordinary Locations; 4-20mA Analog (2-wire, loop powered)

Mounting: Gimbal/Swivel (400) or 1-1/2" NPT (200); Modbus RTU protocol, 9600/8/N/1 CSA_{US/C}: Class II & III ; ATEX: III 1/2 D c Ex tb IIIC 775°C Db IP66 (Ta -40°C to +65°C) IECEx: Ex tb IIIC 775°C Db IP66 (Ta -40°C to +65°C); Sensor Channels: One (1) 32-channel network (32 channels total)
Ambient Temp: -30° F to 149° F (-34° C to 65° C)
Enclosure Material: PBT / PC
Environ. Protection: ENCLOSURE TYPE 4X, IP65
Approvals: UL Listed (Power Supply & Router) K-Flanges and ANSI Flanges
Approvals: CE Mark; TÜV Rheinland US/C, Ordinary Loc.
Housing Enclosure: Die cast aluminum, ENCLOSURE
TYPE 4X, IP66 Enclosure Protection: NEMA 4X: IP66







POINT LEVEL FEATURES OPTIONS • Use "true" fail-safe product if **APPLICATIONS**





KA, KAX

• Basic Electro-Mechanical Operation

• DC Powered Models Use Longer Life

Enclosure Provides Ample Wiring

Access and a Twist ON/OFF Cover

Maximized Sensor Life via Motor

Economical and Versatile

Shut-Off Feature

AC Motor

ROTARY PADDLE

ROTARY PADDLE, FAIL-SAFE

- Self-Validating "TRUE" Fail-Safe Design with Microcontroller-Based Reliability
- Patented Magnetic Sensing Technology
- Maximized Sensor Life via Motor Shut-Off Feature
- Externally Viewable LED Sensor Status Indicator (Except Hazardous Location Units)
- Independent Sense and Fault Outputs
- Enclosure Provides Ample Wiring Access and a Twist ON/OFF Cover
- Hazardous Location Approvals for Gases and Dust
- Variety of Paddle Designs for Material Detection and Sensor Longevity
- High Temperature Unit (Top Mount)
- Pipe Extension Models
 - 144" (365cm) Maximum Length
- Field Adjustable Cable Extension
 - 78" (2m) Maximum Length

- Hazardous Location Approvals for Gases and Dust (Model KAX)
- · Variety of Paddle Designs for Material Detection and Sensor Longevity
- High Temperature Unit (Top Mount)
- Pipe Extension Models
- 144" (365cm) Maximum LengthField Adjustable Cable Extension
 - 78" (2m) Maximum Length
- Excellent when facility personnel are expected to perform in-field troubleshooting and maintenance with virtually no prior training.
- Low-cost and long-life can be achieved by specifying a DC powered model. A voltage converting circuit permits use of a reliable AC motor.
- Capable of sensing materials as light as 5 lbs/ft³ (80kg/m³).

undetected sensor failure could result in catastrophic process problem. LED provides means for personnel to view sensor status without visiting control room.

Capable of sensing materials as light as 5 lbs/ft3 (80kg/m3).

Power: 115 VAC; 230 VAC; 24 VAC/DC **Ambient Temp:** -40° to +150°F (-40° to +65°C) **Int. Bin Temp:** to 250°F (121°C)

With Hi-Temp Unit: 250-500°F (121-260°C) without air-cooling 500-750F (260-400°C) with air-cooling [0.5 psig / 2.14 CFM]
Sense Output: SPDT, 5A @ 250 VAC/30 VDC
Fault Output: SPDT, 5A @ 250 VAC/30 VDC
Mounting: 1-1/4" NPT or R 1-1/2" (BSPT)

Pressure: 30 PSI (2 bar) max

Approvals: CSA_{us/c}: Ordinary Locations; CSA_{us/c}: Class I & II : ATEX: ☑II 1/2 D c T 85°C, ExtD A20/A21 T 85°C, (Ta -40°C to +65°C), IP6x; IECEx: DIP A21 IP6X T_A 100°C, -40°C to +65°C; CE Mark Enclosure Protection: NEMA 4: IP66

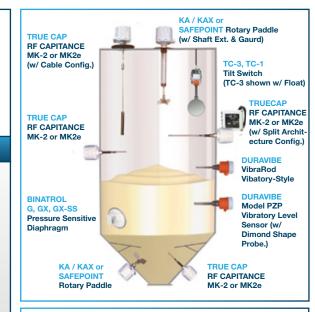
Power: 115 VAC; 230 VAC; 24 VAC; 48 VAC; 12/24 VDC Ambient Temp: -40° to +200°F (-40° to +93°C) Int. Bin Temp: to 300°F (150°C)

Hi-Temp Unit: 300-500°F (150-260°C) without air-cooling, Output: 2-Circuit Config - Two SPDT 15A @ 250 VAC max, One DPDT 10A @ 250 VAC max, One DPDT 10A @ 250 VAC max, One DPDT 10A @ 250 VAC max Mounting: 1-1/4" NPT or R 1-1/2" (BSPT)

Pressure: 30 PSI (2 bar) max

Approvals: KA - UL & CSA: Ordinary Loc.; CE Mark KAX - UL & CSA: Class | & || ; CE Mark; **ATEX**: **(L)** II 1/2 D c T 100°C, ExtD A20/A21 T 100°C,

(Ta -40° C to $+93^{\circ}$ C), IP6x; **IECEx:** DIP A21 IP6X T_a 100°C, -40°C to +93°C; **Enclosure Prot:** NEMA 4; 1P66







SILO TRACK™

Software to view silo level measurements anytime, from any location using a device with internet connection.



SILO TRACK™ PC

PC Based Server with Multi-User Access. (Available for SiloPatrol only.)



Operator Interface Control Console



WirelessEZ

Wireless Communication Modem



SPECIFICATION





POINT LEVEL	TRUE CAP® MK-2	TRUE CAP® MK-2e	PROXIMITY SWITCH
		RF CAPACITANCE	
FEATURES	 Maximized Reliability via Smart Sensing Algorithms Including "Self- Validating" Fail-Safe Protection Simple, Convenient Push-Button Calibration and Test Driven Shield Technology Overcomes Material Build-up Externally Viewable LED Sensor Status Indicator (Ordinary Loc. Unit) Universal Power Supply Superior 0.5pF Sensitivity Enhanced Temp. Compensation 	 Economical Design Potentiometer-Adjusted Calibration / Sensitivity and Delay Driven Shield Technology Overcomes Material Build-up Externally Viewable LED Sensor Status Indicator (Ordinary Loc. Unit) Superior 0.5pF Sensitivity Temperature Compensation 	 Compact Potted Packaging Versatile Application Sensing Electronic Solid State Outputs AC Model (PAC-30U) in 2-Wire Series Configuration DC Models (PDC-30) in 3-Wire Sinking / Sourcing Configurations Field Selectable Normally Open or Normally Closed Economical LED Status Indicator Adjustable Calibration
OPTIONS	 Hazardous Location Approvals for Gases and Dust Split Architecture Model for High Temperatures or High Vibration Quick-Connect Tri-Clamp Process Connection Variety of Probe Variations for Chemical Compatibility, Food Grade, Abrasion Resistance 	 Hazardous Location Approvals for Gases and Dust Split Architecture Model for High Temperatures or High Vibration Quick-Connect Tri-Clamp Process Connection Variety of Probe Variations for Chemical Compatibility, Food Grade, Abrasion Resistance 	 Mounting Well Converts 30mm to 1 1/4" NPT, Delrin® PDC-30 DC Models: 10-40 VDC NPN (Current Sinking) Output PNP (Current Sourcing) Output PAC-30U AC Model: 20-265 VAC
APPLICATIONS	 Smart sensing maximizes reliability with material having low dielectrics and applications with wide temperature swings. LED provides means for personnel to view sensor status without visiting control room. Excellent performance in solids over 15 lbs/ft³ (240kg/m³). 	 Perfect for tight budgets where excellent performance is still required but without the advanced features that increase the cost. LED provides means for personnel to view sensor status without visiting control room. Excellent performance in solids over 15 lbs/ft³ (240kg/m³). 	 Use for sensing materials that are solid, liquid, conductive, non-conductive, in direct contact or non-contact, slow moving or in part counting mode. A good choice when the output is required to be electronic, bounceless, long-life, and easily interfaced to other electronic equipment.
SPECIFICATION	Power: Universal 48-240 VAC, 24-48 VDC Ambient Temp: -40° to +150°F (-40° to +65°C) Int. Bin Temp: Alum mount: to +176°F (80°C); SS mount: to 400°F (204°C); Split architecture probe: to 450°F (232°C) Output Relay: DPDT, 5A @ 250 VAC or 30 VDC Mounting: 1-1/4" NPT or 1-1/2" BSPT alum, Optional 3/4" NPT 316SS Pressure: 50-150 PSI (3.5 - 10 bar) Approvals: CSA _{USC} : Ordinary Locations; CSA _{USC} : Class I & II; CE Mark Enclosure Protection: NEMA 4; IP66	Power: 115 VAC; 230 VAC; 24 VDC Ambient Temp: -40° to +150°F (-40° to +65°C) Int. Bin Temp: Alum mount: to +176°F (80°C); SS mount: to 400°F (204°C); Split architecture probe: to 450°F (232°C) Output Relay: SPDT, 5A @ 250 VAC or 30 VDC Mounting: 1-1/4" NPT or 1-1/2" BSPT alum, Optional 3/4" NPT 316SS Pressure: 50-150 PSI (3.5 - 10 bar) Approvals: CSA _{USIC} : Ordinary Locations; CSA _{USIC} : Class I & II; CE Mark Enclosure Protection: NEMA 4; IP66	Power: PAC-30U: 20-265 VAC; PDC-30: 10-40 VDC Operating Temp: -13° to +176°F (-25° to 80°C) Output: PAC-30U: N.O./N.C. field selectable; PDC-30: NPN or PNP Mounting: 30mm thread Load Current: PAC-30U: 10-500mA; PDC-30: 0-200mA Approvals: UL & CSA: Ordinary Locations (PAC-30U Only); CE Mark Enclosure Protection: NEMA 4; IP67







POINT LEVEL	DURA VIBE™ MODEL PZP	DURA VIBE™ VIBRAROD	G, GX, GX-SS	TC-1, TC-3
	VIBRATORY	VIBRATORY	DIAPHRAGM TYPE	TILT SWITCHES
FEATURES	 Unaffected by Changes in Environment and Materials Exceptional Sensitivity with No Calibration Required Industry-Leading Probe Strength: Diamond Shape Single-Probe with Gusset Reinforced Design Universal Power Supply Fail-Safe on Power Failure Adjustable Sensitivity Bi-color LED Status Indication 	 Economical, Yet Versatile Design Unaffected by Changes in Environment and Materials Good Sensitivity with No Calibration Required Stainless Steel Single-Probe Design Universal Power Supply Fail-Safe on Power Failure Adjustable Sensitivity for Optimum Performance Bi-color LED Status Indication 	 Basic Pressure-Sensing Operation Electrically-Passive Sensing Method Reliable, Durable, and Low Maintenance Operation Low-Profile, Non-Intrusive Mounting Adjustable Sensitivity Over-Pressure Protection 	 Basic Angular-Sensing Operation Electrically-Passive, Mercury-Free Sensing Method Durable, Low Maintenance and Low-Cost Performance No Calibration RequiredOutput Switch Closes When Tilted Approximately 17° Easily Adjustable Sensing Point by Repositioning Hanging Height
OPTIONS	 Probe Extensions Available: Cable Extension Pipe Extension Remote Electronics Design for High Vibration or High Temperatures (Probe up to 302° F (150° C) Process Temp.) 	Pipe Extension Probes Available	 Hazardous Location Approvals for Dust Ultra-Sensitive Switch Option Choice of Neoprene®, Teflon®, or Stainless Steel Diaphragm Hycar® Diaphragm Cover For Abrasive Materials 	Ball Type Actuators available to limit material contact with tilt switch enclosure and provide increased "tilt" sensitivity (TC-3 only)
APPLICATIONS	 Ideal choice when material properties or environmental conditions are variable Excellent sensitivity for materials down to 1.5 lbs/ft³ (24 kg/m³) Tip sensitive probe eliminates false signals caused by product bridging between probe and vessel wall. Ordinary and Hazardous location approvals; Intrinsically safe probe 	 Economical vibratory solution Ideal choice when material properties or environmental conditions are variable Good sensitivity for materials down to 10 lbs/ft³ (160 kg/m³) Tip sensitive probe eliminates false signals caused by product bridging between probe and vessel wall. Ordinary and Hazardous location approvals; Intrinsically safe probe 	 Excellent when facility personnel are expected to perform in-field troubleshooting and maintenance with virtually no prior training. Provides "green" operation with no power consumption Low-profile eliminates need for internal baffles. Good performance in solids from 10 - 60 lbs/ft³ (160 - 960 kg/m³) Plugged chute applications 	 Basic operation and minimal parts create a low-cost and easily maintained solution. Provides environmentally-safe, "green" operation with no power consumption TC-3: 15 - 60 lb/ft³ (240-960 kg/m³) TC-1: 45+ lb/ft³ (>720 kg/m³) Ideal for high level detection Works for open stock piles
SPECIFICATION	Power: 22-27VDC (±10%); 22-232VAC (±10%), 50/60 Hz Ambient Temp: -22° to 149° F (-30° to 65° C) Process Temp: -22° to 176° F (-30° to 80° C); High Temp. Probe: -22° to 302° F (-30° to 150° C) Output Relay: VAC: SPDT isolated; 3A @ 250VAC max VDC: SPDT isolated; 3A @ 30VDC max Process Connect: 1-1/2" NPT Pressure: 145 PSI (10 bar) Approvals (Integral Unit): CSA _{USC} : Ordinary Loc; Class II, Div. 1 & 2, Groups E, F, G; Class III Hazardous Locations with Intrinsically Safe Probe ATEX: Il 2D Ex to [ia Da] IIIC T75°C Db IECEx: Ex to [ia Da] IIIC T75°C Db	Power: 22-27VDC (±10%); 22-232VAC (±10%), 50/60 Hz Ambient Temp: -22° to 149° F (-30° to 65° C) Process Temp: -4° to 176° F (-20° to 80° C) Output Relay: VAC: SPDT isolated; 3A @ 250VAC max VDC: SPDT isolated; 3A @ 30VDC max Process Connect: 1-1/4" NPT Pressure: 145 PSI (10 bar) Approvals: CSA _{USIC} : Ordinary Locations; Class II, Div. 1 & 2, Groups E, F, G; Class III Hazardous Locations with Intrinsically Safe Probe ATEX: I 2D Ex to [ia Da] IIIC T75°C Db IECEx: Ex to [ia Da] IIIC T75°C Db	Int. Bin Temp: Neoprene: -40° to +180°F (-40° to 82°C) Teflon®: -40° to +250°F (-40° to 121°C) 321SS: -40° to +250°F (-40° to 121°C) Output: SPDT, 15A @ 250 VAC Mounting: Flange with 7.5" (190.5mm) bolt circle Pressure: Atmospheric only Approvals: CSA _{USIC} : Ordinary Loc. (G); UL & CSA: Class II (GX, GX-SS); CE Mark Enclosure Protection: NEMA 4/ENCLO-SURE TYPE 4, IP66 (Model G only); IP65 (Model GX and GX-SS)	Operating Temp: TC-3: -40° to +175°F (-40° to 80°C) TC-1: -40° to +250°F (-40° to 121°C) Output: TC-3: SPDT, 10A @ 250 VAC TC-1: SPDT, 15A @ 250 VAC Mounting: TC-3: suspend by chain, 3/4" (19mm) ID eyebolt TC-1: suspend by chain, 1-3/32" (27.7mm) ID eyebolt Approvals: Ordinary Locations; CE Mark Enclosure Protection: NEMA 4; IP56





DUST CONTROL







AIR PAD / EVASSER



FEATURES

















• Easy Auto Set-up Button to Automatically Configure Parameters / Alarms
Exceptional and Reliable Sensitivity via

ADVANCED TRIBOELECTRIC

- Proven AC Triboelectric Technology with Advanced Algorithms to Filter Out Noise
- Excellent Repeatability Not Affected by Variations in Relative Humidity, Process Temperature or Pressure DustTrend™ ES *Adds...*
- Continuous Trend Measurements
- 4-20mA Analog Output and/or Enhanced Modbus(RS-485) output
- Connect with the Free Dust Config ™ Software to Set Custom Alarm Points, View Live Activity Within the Duct, or Review Data History for up to a 24-hour Period

 Customer Specified Stainless Steel Probe
- Lengths from 4.75" (120mm) to 20" (508mm)
- Available Probe Extensions to Provide up to an Additional 2" (51mm) to 24" (610mm) of Probe Length

 • Quick-Connect Mounting Kits
- Provides monitoring of dust levels where it is critical to safety, maintenance, equipment operation, plant efficiency, environment, etc.
- · Ideal for exhaust ducts on dust collectors, baghouses and cyclones.
- Use triboelectric technology as a costeffective alternative to opacity monitoring.Exceptional sensitivity is capable of
- detecting minute amounts of material (less than what is visible by the human eye).

BIN AERATION

- Aeration Alternative to Vibration
- Quiet, Inexpensive, Non-Electrical **Aeration Solution**
- Simple Designs Facilitate Trouble-Free Operation
- Evasser Provides An Air Flow That Tends to Sweep the Vessel Wall
- · Air Pad Comes in the Industry-Standard Low-Profile Footprint
- Multiple Configurations Available
- Boot Options for Evasser:
- White, Food Grade
 - Black, General Purpose
- Rectangular Air Pads:
 - Cotton or Fiberglass Diffuser
- Air-based solutions eliminate potential damage to surrounding equipment (such as level controls) that could be inflicted by pneumatic or electric vibrators.
- Aerators can reduce installation and maintenance expense associated with mechanical vibration systems.
- Solve problems such as arching, bridging, and rat-holing which reduce discharge flow.

to +180°F (82°C) w/external mounting kit; to +650°F (343°C) w/internal mounting kit

Evasser:

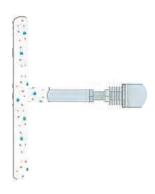
Neoprene Boot: to +175°F (80°C); Bronze Insert: to +900°F (480°C)

Air Consumption: dependent on application

QUANTI MASS™

In-Line Mass Flow Measurement

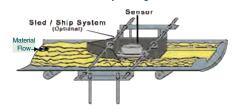
Sensor location should be in an area where the sensor's measurement energy will be exposed only to target materials that are fully suspended in the conveying air stream (pneumatic [dilute phase] or gravity conveying). Solid particulates should be evenly distributed in the air stream.



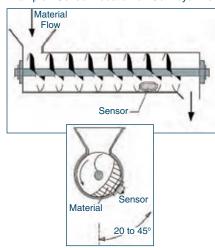
HUMI CORE™

In-Line Moisture Measurement

The sensor is designed to be installed in the production flow stream at a location that ensures the bulk material to be measured is fed over the sensor at a constant layer height.



Example - Sensor Location on Conveyor Belt



Example - Sensor Location on Screw Conveyor

Power: 95-240VAC (±10%), 50/60 Hz; 18-28VDC (±10%)

Starting Ambient Temp: 4° to 140°F (-20° to 60°C) Running Ambient Temp: -40° to 140°F (-40° to 60°C) Process Temp: Max: 300°F (150°C) at probe loc. Output (DustAlarm ES): Relay(2 Isolated SPDT) and/or RS-485(Modbus)

Output (DustTrend ES): 4-20mA, Relay(2 Isolated SPDT) and/or RS-485(Modbus)

Mounting: 1" Tri-Clamp Quick-Disconnect, 316 SS Pressure: 40 psi maximum Approvals: CE Mark

Enclosure Protection: NEMA 4X, ENCLOSURE TYPE 4X, IP66

Int. Bin Temp:

Air Pads:

with fiberglass diffuser

Pressure Range: Typically 3-5 PSI (0.2-0.35 bar)

(Consult Factory)







MONITOR SYSTEMS SFD SFI Sensor Desktop Controller **DIN-Rail** DIN-Rail Transmitter Transmitter Desktop Controller **QUANTI MASS™ HUMI CORE** ™ SFD & SFI **HIGH FREQUENCY FIELD MICROWAVE MICROWAVE DOPPLER** • Continuous In-Line Moisture Non-Contact Flow Detection Continuous In-Line Mass Flow Measuring Measurement System Provides Without the Use of Weight Scales Non-Intrusive Flush Mounting Real-Time Data • Measure Flow of Quantities in Pneumatic **FEATURES** Excellent Sensitivity • Ensure Product Quality Through Conveying & Free-Falling Processes Externally Viewable LED Sensor Moisture Control...Provide Optimal Microwave Doppler Effect Technology Status Indicator (SFD-2) Moisture Content for Finished Product • Sturdy, Non-Intrusive Design • Maintenance Free - No Moving Parts High Frequency Field Technology Minimizes Maintenance Measures Moisture Inside the Material Relay Output (SFD-2) or Compact Size for Easy Installation Into Core...Not Just the Surface Analog Output (SFI) **Existing Processes** Compact Size; Easy Installation and Hazardous Location Approvals for Fast Measuring & Adjustable Sensitivity Calibration Dust (Sensors Only) Polyamide 6.6 Sensor Process Face • Integrated Temperature Compensation • Electrical Enclosure for SFD-2 • Choose from Ultra Version with a Controller • Choose from Ultra Version with a Controller PS/Conditioning Board for Local Interface & Data Logging or OPTIONS for Local Interface & Data Logging or Saddle Clamp and Gasket PRO Version with DIN-Rail Transmitter PRO Version with DIN-Rail Transmitter 1 1/2" Mounting Adapters 115 VAC / 24 VAC/DC -or- 230 VAC / Standard or High Temperature Styles Tri-Clamp Adapters 24 VAC/DC 304 SS or 316 SS Sensor Housing 1 1/4" NPT Lock Nut Polyacetal or Ceramic Process Surface Construction Variety of Sled Plates • Use in flow applications where the Monitor for variable flow quantities due Installation locations include: non-contact attributes of microwave to disturbances like different densities. conveyor belts, screw conveyors, **APPLICATIONS** technology can eliminate challenges Measure for proper mixing of additives. silos, funnels, etc. associated with temperature, light, · Non-contact, in-line mass flow • Suitable for grain, feed, seed, cereal, acoustics and pressure. measurement system for most bulk flour, sugar, coal, sand, wood Non-intrusive mounting will allow solids and many dusts (Ex. coal dust, shavings, dried food, fertilizer, natural flow of material, and will tobacco, powder, pigments, plastic saw dust). eliminate any risk of material being Suitable for powders, dust, pellets, and granules, sand, cement & more. damaged by striking a sensing probe. Limit dusty areas by monitoring & granular up to 0.75 inch (2cm). Senses Flow / No Flow conditions controlling material moisture levels to in gravity chutes and pneumatic lines. reduce cleaning and/or filtering costs. Either Sensor: Ambient Temp: -40° to +185°F (-40° to 85°C) Process Data: Process Data: Process Temperature: +14 to +194°F (-10 to +90°C); up to +284°F (140°C) with cooling Pipe Diameter: 1" to 12" (25mm to 300mm) Ambient Temp: -40° to +185°F (-40° to 85°C) Process Temp: to +250°F (121°C) Pressure: Teflon®: 75 PSI (5bar) intermittent Ryton® (or equiv.): 300 PSI (20 bar) Mounting: 1-1/4" NPT Approvals: CSA_{USC}: Class II, Div. 1, E,F,G; CE Mark Enclosure Protection: NEMA 4; IP66 SFD-2 Power Supply: Power: 100-240 VAC Operating Temp: -40° to +158°F (-40° to 70°C) Output Relay: DPDT, 5A @ 250 VAC, 30 VDC Approvals: CSA_{USC}: Ordinary Loc.; CE Mark SFI Only: Output: Analog 4-20mA, Detection range based on application Particle Size: .001 micron to 0.75" (1nm to 20mm) Moisture: Depending on the product Pressure: Up to 6 bar (Optional up to 30 bar) Temperature: -4 to +194°F (-20 to +90°C) SPECIFICATION Sensor Data: Measuring Surface: Polyacetal or Ceramic Housing Material: 304 SS (Higher temperatures on request) Sensor Data: Material-touched Parts: Polyamide 6.6 & 304SS or 316SS Housing Material: 304 SS or 316 SS Protection Class: IP67 Sensor Dimensions: 4.57" dia. x 2.02" H (116mm dia. x 51.5mm) Protection Class: IP 65 Accuracy: 0.1 to 0.3% typical Sensor Dimensions: 11.42"L x 2.36"W x 2.36"H Interconnection: 4 wires, RS-485, 3,280 ft (290 x 60 x 60mm) Accuracy: 1 to 3% typical Power: Controller - 115 VAC / 24 VAC/DC; Power: Controller - 115 VAC / 24 VAC/DC; 230 VAC / 24



on application

VAC/DC. Transmitter - 24 VAC/DC

230 VAC / 24 VAC/DC. Transmitter - 24 VAC/DC



AIRMATIC founded in 1944, is a woman-owned Industrial Distributor, with installation and maintenance capabilities, offering equipment, machinery, and shop supplies to the Industrial, Construction, Utility, Government, and Commercial Markets. Our products and services are sold through three business units:

The **MATERIALS MANAGEMENT GROUP** provides products and services to industries that convey, store, transport, and process powders and bulk solids from aggregates, cement, and chemicals to foods, grains, metals, power generation, and waste water treatment applications;

The **SERVICE GROUP** provides fabrication, installation, and maintenance services to improve bulk materials handling efficiency; mechanical clean-out services for silos and hoppers to eliminate material flow problems; and shop repair/rebuilding and modifications services of products sold by the Company.

The **TOOL GROUP** provides power tools, personal protective equipment, materials-handling equipment, shop equipment and MRO supplies used for production, fabrication, assembly, metal removal, maintenance, and storage in manufacturing, construction, utility, and commercial applications.

Our Customers tell us that by choosing AIRMATIC to solve their problems, they gain increased productivity, decreased costs, and a safer, cleaner work environment.



MONITOR TECHNOLOGIES LLC focus remains that of instrumentation for powder and bulk solids applications. They offer superior solutions in level monitoring, solids flow detection, moisture measurement, particle emission monitoring and bin aeration.

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