

ESTEEM INDUSTRIES INC.

DIGITAL CONTROLLERS & DATA LOGGERS

FLAT SCREEN DATA LOGGER PAPERLESS RECORDER (951 FS TFT)



Introduces first time in India the Economical series of chart less recorders with data logging facility combined in single unit. The product is purely made in India with lot of facilities and customization to compete the high-cost imported products.

951 FS (TFT) is an easy-to-use, reliable and cost effective choice for process parameter monitoring. This unit comes with different no of channels right from 8 channels to 16, 24, 32 or 48 channels. The 8" 256 colour (size 120 ´ 160mm) TFT monitors are used for attractive display. The 15" Display TFT's are also available up to 96 channels . The splash proof 5 keys membrane keypad is given for setting up the user parameters. All channels can be seen on single screen with the internal scan rate of 125 msec / Channel. Inbuilt printer port is available for getting the report in with standard format of the Date, Time and the process value for each channel in separate columns. High Low alarm by visual indication highlighted by different colour. The RS 232 or RS 485 comm. port is also available for communication with Personal Computer (PC) with standard MS Windows based monitoring software for long term retention of data. For better security against tampering of data special passwords given at each stage. The networking of more than one Loggers be done and by using single monitoring software we can be able to view data for all the loggers on PC.

KEY FEATURES OF 951 FS (TFT)

- Microprocessor based highly precise design with 256 colour TFT screen as display unit
- Display resolution of 640 ´ 48 and size of 120 ´ 160 mm which can be upgradeable to for 15" Display.
 - In put: Universal 3 wire PT 100 / (J, K, R, S) Thermocouple / 4 to 20 mAdc / 0 to 5 VDC Selectable using front keys or Defined single input (Any one of given)
- RS 232 or RS 485 communication port for external world communication Optional MODBUS RTU
- Centronic parallel printer port for direct printing without using PC. Which is compatible for DOT Matrix Printer
 - Online as well as offline graph for each channel with different colors
 - Log Time / Print Time selectable from 1 min. to 99 min.
- Memory: Non Volatile 500 to 1000 readings / Channel depending on model MS windows based monitoring software available

POTENTIOMETRIC CIRCULAR CHART



ESTA-PCC.101. POTENTIOMETRIC CIRCULAR CHART

Esteem Industries Inc offers Potentiometric Circular Chart Recorders for various Processes Industries with High Accuracy and fast response to the change in Parameters having rugged assembly for any Environmental conditions. Sealed potentiometers Japan makes are used suitable for environmental conditions. Straight or arc shape charts available. Display with single set point controllers can be incorporated in some models. Pen & charts are available of other makes also. Different models in Single Pen, Two Pens Recorder is manufactured in 152 mm, and 270 mm Chart Diameter having Speed of 24 Hours per Revolution or 7 days per Revolution as per the specifications. Inputs of Temperature, RTD, Thermocouple. Linear Input like 4 - 20 m Amp, 0 - 10 V Dc or as specified are manufactured Taylor made. Useful for Parameters likes, Temperature, Humidity, Flow, Current, Voltage, pH, Conductivity etc.

NEW ARRIVALS: -

PREPROCESSOR BASED PROGRAMMABLE CHART RECORDERS
INPUT = MV / MA / RTD (SELECTABLE), RANGE = PROGRAMMABLE
CHART SPEED - SELECTABLE (15 / 30 / 60 / 120 940 mm / hr)

HIGH / LOW ALARM SELECTABLE

FRONT KEY OPERATED WITH 3 ½ DIGIT LED DISPLAY

OPTIONAL RS 232 / RS 485 SERIAL PORT

SPECIFICATIONS

Model No	Panel Cut Out A(W)xB(H)xC(D)	Overall Size W x H	Weight Kg.
C-60-R (1 pen)	185 x 185 x 120	225 x 200	4
C-60-TP (2 pen)	220 x 220 x 250	275 x 245	9
C-100-R (1 pen)	344 x 344 x 120	385 x 360	9
C-100-TP (2 pen)	344 x 344 x 120	385 x 360	12

For Economical & Suitable Offer Please Specify The Following Points :- 1] Input 2] Range 3]
Chart Speed

STRIP CHART RECORDERS



EST-SCR101.ESTEEM CHART RECORDERS

Esteem offers Potentiometric Strip Chart Recorders for various Processes Industries with High Accuracy and fast response to the change in parameters having rugged assembly for any Environmental conditions. We use sealed potentiometer or conductive plastic potentiometer (Japan) suitable for environmental conditions. Power supply 240vac / 110 vac & for mA or mV dc signals. 24vdc / 12vdc power supply can be incorporated.

Different models in Single Pen, Two Pens and Multi Point (Six Point)

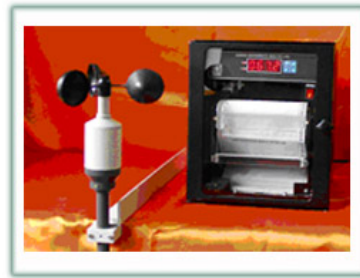
Recorder are manufactured in 100 mm, 120 mm, 180 mm and 250 mm Chart Width having fix Speed of 20 mm, 60 mm and 120 mm or adjustable chart speeds by selector switch upto 960 mm/hr by stepper motor. Inputs of Temperature, RTD, and Thermocouple. Linear Input like 4 - 20 m Amp, 0 - 10 V Dc or as specified are manufactured Taylor made. Useful for Parameters like, Temperature, Humidity, Flow, Current, Voltage, pH, Conductivity, Wind Flow, Wind Direction, Radiation etc.

TECHNICAL SPECIFICATIONS

Model No	Panel Cut Out A(W)x B(H)x C(D)	Overall Size W x H	Weight Kg.
S-100-R (1 PEN)	165 X 165 X 250X	205 X 81	8
S-120-R (1 PEN)	188 X 260 X 250	230 X 275	10
S-120-TP (2 PEN)	188 X 260 X 250	230 X 275	12
S-120-R (6 PEN)	188 X 260 X 250	230 X 275	13
S-180-R (1 PEN)	245X250X255	185 X 270	16
S-180-TP (2 PEN)	245X250X255	285 X 270	17
S-180-TP (3 PEN)	245X250X305	285 X 270	19
S-250-R (1 PEN)	330 X 260 X 250	375 X 270	18
S-250-TP (2 PEN)	330 X 260 X 250	375 X 270	20

**For Economical & Suitable Offer Please Specify The Following Points :-] Input 2]
Range 3] Chart Speed**

SUNSUI HYBRID CHART RECORDER SERIES (UNIVERSAL INPUT).



EST-SHCRS101 SUNSUI HYBRID CHART RECORDER SERIES (UNIVERSAL INPUT).

Pune is well known for “SUNSUI” brand process control instruments especially Chart Recorders and Data Loggers. Now coming up with new and innovative series of Hybrid Chart Recorders. Which has inbuilt microprocessor technology & potentiometric feedback element for accepting most commonly used input signals with scaleable range for each kind of input parameter. Experienced in tremendous market installations spread in various field of applications. This product is specially designed as per the Customer's / Field requirement for monitoring and improving process quality. This New Chart Recorder comes with seven-segment LED display with floating resolution and high accuracy. With added feature of two set point control relay for Hi and Low alarm while monitoring & recording the process parameter, which avoid additional controllers. For cooling appliances with compressor Specially designed model of circular chart recorder comes with the delayed-relay-controller.

KEY FEATURES OF UNIVERSAL INPUT RECORDER

Microprocessor based highly precise design in combination potentiometric feedback for better accuracy.

Field Configurable input signal with the help of splash proof membrane keypad.

Input: Universal 3 wire PT 100 / (J, K) Thermocouple / 4 to 20 mADC / 0 to 5 VDC

Range and decimal point Scaleable as per the requirement.

Indication: 4 Digit, 0.5" 7 Segment, red LED display with separate indication for alarm set points.

Optional one control set point for heater /compressor with max 180 sec delay.

Alarm: Two alarms each having relay with NO and NC potential free relay contacts with rating of 230 V A C, 6 A resistive load.

Response time less than 1 sec.

Calibration through splash proof membrane keypad.

Transmitter supply 24 VDC for powering the transducer (OPTIONAL)

Supply 230 VAC / 110 V AC, 50 Hz \pm 10 % mains powered.

VA rating: 15 VA

Terminal: Screwed type suitable for 2.5 sq. mm conductors

For Economical & Suitable Offer Please Specify The Following Points

:- 1] Input 2] Range 3] Chart Speed

PAPERLESS RECORDER CUM DATA LOGGER



Esteem Industries INC presents 8 ch / 16 ch / 24 ch / 32 channels process scanners & datalogger for any process parameter like pH / cond. / Temp. / Pressure / level / humidity / flow etc. On line/ Off line datalogging with computer printer output as well as Computer connectivity with software available.

Microprocessor based L.E.D/L.C.D. display scanners / Dataloggers in din rack mounted enclosure will have easy operative connectors with feather touch front key operations with menu to feed according to site conditions like speed/logging time/scan time/ Input signals etc Universal input available & suitable scans time with display, with hold / skip facility, common set point & common output for alarm relay 3/5 amp can be incorporated. Individual scan channel indication by separate L.E.D. possible.

Standard tabular data for only printer output is available and standard software for online P.C. with tabular / graphical / statistical analysis available. Both printer & on line software can be changed as per customer requirement with extra charges.

“WE UNDER TAKE VALIDATION / MAPPING CALIBRATION JOB IN HOUSE /ON SITE FOR TEMP. / PRESSURE / HUMIDITY / AIRVELOCITY ETC. TRACABLE TO N.P.L. STANDARDS & CERTIFY THE SAME.”

For Economical & Suitable Offer Please Specify The Following Points : Input 2] Range 3] No. Of Channel



PORTABLE DATALOGGER



Esteem Industries INC Introduces the Low cost Battery operated & Portable Temperature and Temperature + Humidity data loggers. Ideal for cold chain. By using portable loggers this can be able to track and collect data during transportation of material right from loading to unloading. Highly reliable and accurate instruments.

S- TRACK - TH series of loggers comes with temperature and humidity or only temperature. Available with or without alphanumeric LC display for low power consumption. S - TRACK - TH series an external probe connectivity, easily replaceable. IP 65 compatible enclosure with the cable port totally sealed. Built in RTC for the date and time recording. Low battery and % battery power indicated. Rechargeable batteries with charger. HI and Low recharging protection in built for Long battery life.

KEY FEATURES OF S - TRACK - TH SERIES.

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- Battery operated portable sealed Data Logger with LC Display / Without LC Display.
- Rechargeable battery or one time use type.
- Memories capacity 16,000 to 32,000 log time depend on model.
- External Temp + Humidity duplex sensor.
- Range: -50 to 100 °C for temperature and 0 to 100 % RH for humidity.
- RS 232 communication port for external world communication.
- Initialization by PC with YYMMDD & HR MM SS.& Log time interval
- Log Time selectable from 1 min. to 60 min.
- Easily download data by using hyper terminal on excel windows. Size (W) ´ (H) ´ (D) mm with lightweight

For Economical & Suitable Offer Please Specify The Following Points :- 1] Input 2] Range 3] No. of Channel

UNIVERSAL CALIBRATOR



Esteeem Industries INC presents New & unique model of Universal Calibrator suitable for process instruments having mV, mA & RTD signals for calibration of all type of Instruments. Compact battery cum power operated model BUC - 103 which have source / sink facility by rugged mechanical connector & toggle switch. 4-½ digit large display, sufficient large scale for all ¾ sources, self-calibration facilities. Specialty of our calibrator is RTD readings are direct in degree 'C' instead of ohms / resistance & can feed accordingly. Light weight easy to carry in bag. Mains operated as battery consumption will be less & restricted. We provide calibration certification traceable to NPL STD.

FEATURES

Make SUNSUI.

- Hand held, battery operated Portable.
- Source and Sink for mV, mA and RTD.
- Pt-100 reading directly in terms of deg C.
- Typical Accuracy 0.1%. Battery Low indication.
- Test facility to confirm DPM and stabilized circuit.
 - Light weight and with carry bag.
- Only Battery operated and battery cum mains operated.

APPLICATIONS

All Digital and Analog instruments related to all process parameters, instruments and sensors having RTD, mV, and mA inputs and outputs.

Power supply	Two Batteries of 9V, Size PP3, Make Eveready or equivalent.
Indication	4 ½ Digit LCD display with 'Battery Low' over-range and polarity indication.
Operating Temp	0 to 50°C
Effect of temp. change	0.002 % / Ref 25°C
Humidity	Max. 90% RH non-condensing
Storage Temp	0 to 70°C
Battery Life	6 Hours in case of continuous operation for full current output. 30 Hours in case of continuous operation for mV/RTD output.
Size	170(H) x 90(W) x 45(D)
Weight	Max ½ Kg.

Function	Range	Resolution at 25 C	Accuracy	Load
DC mV (source/sink)	199.99	0.1 mV	± 1 % of F.S.D.	5 mA max
DC mA (source/sink)	25 mA	10 m V	± 0.1% of F.S.D	500Ω at 20 mA
RTD (source / sink)	-100 to +400 ° C OR 247.0 W	100 m W	± 0.15% of F.S.D (For 0 to 400 ° C)	0.25 watts

HUMIDITY TEMPERATURE SENSOR TRANSMITTER



Esteem Industries INC offers the capacitive type Humidity Sensors / Transducers with Temperature Sensors along with Digital L.E.D / L.C.D Display Indicators and Controllers required for Process Industries like Pharmaceuticals, food, Textiles, Air Conditioning Plants and Green House in Particularly to measure direct Relative Humidity and controlling the same.

Transducers Out Put in Linear like 0 to 1 V Dc, 0 - 10 V Dc, 4 to 20 m Amp with full range of Humidity i.e. 0 to 100% RH with accuracy less than +/-2% RH. Wall mounting and Duct mounting probes are available. New models for precise process requirements suitable for operating temperature from -40 to 180°C & 0-100% RH. now available. Direct %RH output in mA or digital output/RS 232 for p.c. connectivity available. Models for Dew point Temp./ frost point Temp./wet Bulb Temp./water vapour pressure/mixing ratio/absolute humidity can be arranged within short time.

We also offer Humidifiers & Dehumidifiers & controlling system with Recorders also. We undertake calibration of Humidity/Pressure/Temp./Air velocity traceable to NPL std.

MODEL: HYGROCLIP S / CP



Probe Dia	15 mm * Length 86 mm IP 65.
Output	0 to 1 VDC (4 wire)
Range:	Temp. : - 40 to + 60°C ± 1°C Humidity : 0 to 100 % Rh. ± 1.5 % Rh.
Ex. Voltage	10 to 35 VDC
Cable length	2 mtrs.

MODEL : M-1 SERIES(FIX PROBE)



Prob Dia	15 mm * Length 200mm IP 65
Output	4 - 20 mAdc (2 wire).
Range	Temp : - 40 to +60 °C ± 1°C Humidity: 0 to 100% RH. ± 1.5 % RH
Ex. voltage	10 to 35 VDC

M 2 - SERIES & M-3 SERIES PROBES ARE DETACHABLE /
REPLACABLE With display model available



MODEL : ROLINE -L

Prob Dia	Built in (wall mounting model) 205 mm duct mounting
Output	4 - 20 mA (2 wire).
Range	Temp : - 0 to +50 °C \pm 1°C Humidity: 0 to 100% RH. \pm 1.5 % RH
Ex. voltage	10 to 35 VDC

Portable Battery operated Temp/ % RH meter. Model :



- Integrated probe with \pm 1.5 % rh / 0.3°C accuracy.
- Dew-point measurement & wet bulb temperature.
- 1 point adjustment performed in seconds
- LCD display & hold function key
- Five button key pad.
- RS-232 interface.
- Universal Probe input.
- Interchangeable probes.
- Psychrometric calculations available.

For 1, 2, & 3 probe are detachable and order separately

FEATURES

- Rotronic Hygromer Capacitance sensors
- Accuracy and long term stability < 1.5 % rh / per year Max velocity 20 m/sec.
 - Duct & wall mounting.
 - IP 65 ABS Probe Interchangeability
- Dew Point & wet bulb temp. Operating Temp. -50 to +200°C
Different types of filters

APPLICATIONS

HVAC system Building management system.
Climatic test chambers Paper industries.
Hospital. Pharmaceutical Industries. Cold storages. Museum /
Libraries & Research. Industrial Process monitoring.

PRESSURE SENSOR TRANSMITTER



Esteem Industries INC offers MSI and SENSYM make Strain Gauge type Pressure Sensor in Differential / Absolute and Gauge Pressures. Having Plastic and Stainless Steel Enclosure PCB mounted as well as Mechanical Fitting available Power required 5 to 24 V DC and Out Put 0 to 100 mV, 0 to 6 V DC, 4 to 20 m Amp etc. is available. Pressure range 4" of H₂O to 5000 PSI and about 500 different Models are available of various size and Pressure Ranges. Absolute Vacuum & Vacuum + Pressure compound sensors also available in new models for High Pressure up to 15000 PSI can be supplied in shortest time. Pressure controlling / Recording system can be supplied too & pressure calibrator comparison test pumps can be supplied.

We undertake calibration Job for PRESSURE / TEMP. / HUMIDITY / AIR VELOCITY & certification can be given traceable to NPL STD.

FEATURES

- Make MSI New High accuracy, Digitally compensated.
- One-piece EMI / RFI protected stainless steel construction.
 - Isolated pressure transducer.
- 1% total Error Band, No leaks, No welds, No 'OOO' rings, No silicon oil Amplified output.
 - Low pressure configuration.

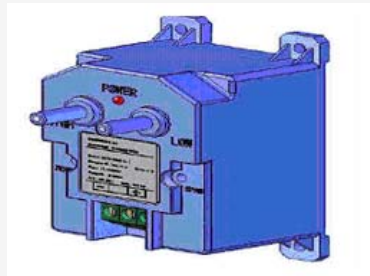
APPLICATIONS

- Pumps & Compressors
- Hydraulic/ Pneumatic systems Off road mobile equipment
- Energy & water management Pressure Instrumentation
 - Refrigeration equipment Agriculture Equipment
 - Train braking system.

ENVIRONMENTAL

- Operating temperature range -40° to 100°C / Compensated temperature range -20°C to 85°C
 - Total error band < +/- 1% of FS (75-10,000PSI)
- Shock 50g, 11msec half sine shock per MIL standard 202F, method 213B, condition A
 - Vibration +/- 20g MIL-STD-810C, Procedure 514.2, curve L.
- EMI/RFI Immunity EN 50081-2, EN 50082-2 (10V/M, 26-1000MHz) , EN 61326 (Effective July 1, 2001)
 - Humidity 95 % RH, condensing.

LOW (DIFF.) PRESSURE SENSOR TRANSMITTER



Esteem Industries Inc Introduces first time in India The Series 211 Differential Pressure Transmitter can accurately measure positive, negative, or differential pressure and send the corresponding 4-20 mA output signal. The Series 211 is not position sensitive and can be mounted in any orientation without compromising accuracy. It also features a power LED, so you always know when the transmitter is operating. The compact, lightweight design makes installation simple and easy.

SPECIFICATIONS

Maximum Pressure	: Ranges \leq 5 PSI -Max 15 PSI , Ranges $>$ 5 PSI -Max 30 PSI
Media compatibility	: Air and compatible non combustibile, non corrosive gasses
Accuracy	: Ranges \leq 4" w.c. 1.0% , Ranges \geq 5" w.c. 0.25%

TEMPERATURE RANGES

Compensated : 15° to 120°F (-10° to 50°C)

Operating : -10° to 155°F (-25° to 70°C)

Thermal Effect : +/- 0.028% FS/°F

Stability : +/- 0.25% FS/year

Output Signal : 4-20 mA, 2-wire

Loop Resistance : 250 ..@ 24 VDC

Power Supply : 12-30 VDC

Housing Material : ABS Plastic

Electrical Connections : screw terminals

Process Connection : Push on connection for 1/8" I.D. tubing

ORDERING INFORMATION : OTHER RANGES AVAILABLE UPON REQUEST.

Model Number	Pressure Range	Accuracy
211-D001I-1	0 - 1"	1%
211-D002I-1	0 -2"	1%
211-D004I-1	0 -4"	1%
211-D006I-3	0 -6"	0.25%
211-D010I-3	0 -10"	0.25%
211-D020I-3	0 -20"	0.25%
211-D040I-3	0 - 40"	0.25%
211-D005P-3	0 -5 PSI	0.25%
211-D010P-3	0 -10 PSI	0.25%
211-D015P-3	0 -15 PSI	0.25%
211-Z001I-1	0.5 -0 - 0.5"	1%
211-Z002I-1	1 -0 - 1"	1%
211-Z004I-1	2 -0 - 2"	1%
211-Z010I-3	5 -0 - 5"	0.25%

OTHER PRODUCTS

The Series A Family of products offers an alternative to the Series 211 when indication or more features are desired. The Series A Family is available with a 4-20 mA output and the A3 and A4 include 2 8A SPDT relays and an associated software package that allows full configuration of variables such as set points, dead band, engineering units and more. The A3 and A4 are also capable of reading out directly in velocity or flow.

MAGNETIC GAUGES FOR LOW (DIFF.) PRESSURE

SERIES S2000

DIFFERENTIAL PRESSURE GAUGES



SPECIFICATIONS

Pressure Limits: -20" Hg to 15 PSI (-0.677 bar to 1.034 bar); MP option: 35 PSI (2.41 bar)

Media compatibility: Air and compatible gasses

Accuracy: +/- 2% full scale (+/- 3% on -0 and +/- 4% on -00) throughout range at 70°F (21°C)

Temperature Ranges: 20° to 140°F (-7° to 60°C)

Housing Material: Die cast aluminum case and bezel, with acrylic cover

Process Connection: 1/8" female NPT duplicate high and low pressure taps - one pair side and one pair back.

Weight: 1 lb 2 oz (510 g), MP & HP 2 lb 2 oz (963 g)

Accessories: Two 1/8" NPT barbed fittings, two 1/8" NPT plugs, and three mounting tabs and screws

MODEL NUMBERS

Model Number	Pressure Range	Model Number	Pressure Range
S2000-00	0 - 0.25" to 0-100"	S2020	0 - 20"
S2000-0	0 - 0.5"	S2025	0 - 25"
S2001	0 - 1"	S2030	0 - 30"
S2002	0 - 2"	S2050	0 - 50"
S2003	0 - 3"	S2100	0 - 100"
S2004	0 - 4"	S2300-0	0.25 - 0 - 0.25"
S2005	0 - 5"	S2301	0.5 - 0 - 0.5"
S2006	0 - 6"	S2302	1 - 0 - 1"
S2008	0 - 8"	S2304	2 - 0 - 2"
S2010	0 - 10"	S2310	5 - 0 - 5"
S2015	0 - 15"	S2320	10 - 0 - 10"

**Other pressure ranges available upon request.*

SERIES A1

DIGITAL DIFFERENTIAL PRESSURE GAUGES



The series A1 is a patent pending microprocessor based digital pressure gauge for positive, negative, and differential measurement designed to be a direct replacement for mechanical gauges. The Series A1 utilize an extremely stable piezoresistive sensing technology to give a standard full scale accuracy of 1%. For applications requiring better accuracy, the A1 is also available with 0.5% accuracy. The A1 also has an optional 4-20 mA output for applications requiring an output signal. The A1 features a bright ½" LED display, which gives the gauge improved readability and precision. The A1 also features 5 user selectable engineering units including in. w.c., mm w.c., cm w.c., kPa, and Pa. The Series A1 offers an improved look, and performance compare to mechanical gauges for a similar price

SPECIFICATIONS

Maximum Pressure: 4" w.c. and less = 2 PSI; 5" w.c. and above = 10 PSI

Media compatibility: Air and compatible non combustible, non corrosive gasses

Accuracy*: Axxx0-xx - 1.00%; Axxx1-xx - 0.50%

Temperature Ranges: Compensated and Operating: -10° to 140°F (-23° to 60°C)

Thermal Effect*: +/- 0.012% FS/°F

Output Signal: 4-20 mA (option)

Loop Resistance: 750 O Max (for internally sourced power); 1800 O Max (for externally sourced power of 36 VDC)

Power Supply: Universal 16-265 VAC or VDC

Housing Material: Glass Filled Nylon

Enclosure Rating: Designed to meet NEMA 4X face; with optional cover the entire product is weatherproof

Electrical Connections: screw terminals

Response Time: <100 ms

Display: 4 Digit, red LED, 1/2" digits

Process Connection: Push on connection for 3/16" tubing

Agency Approvals: Pending - UL, C-UL, CE

** Custom calibration including improved accuracy and thermal effect are available.*

AIR VELOCITY SENSOR TRANSMITTER



AIR VELOCITY TRANSMITTER FOR HVAC APPLICATIONS

EE65 air velocity transmitters are ideal for local accurate ventilation control applications. They are operating on an innovative hot film anemometer principle. The E+E thin film sensor guarantees very good accuracy at low air velocity. Which is not possible for conventional anemometers with commercial temperature sensors or NTC bead thermistors. Moreover, the E+E sensor is much more insensitive to dust and dirt than all other anemometer principles. This means high reliability and low maintenance costs. EE65 series are available with current or voltage output. The measuring range and the response time can be selected with jumpers by the user. Low angular dependence enables easy. Cost - effective installation. An integrated LC display and a version with remote sensing probe are available.

TYPICAL APPLICATION

HVAC

Process and environmental control

FEATURES

low angular dependence

easy installation

Typical Applications

HVAC
process and environmental control

Features

low angular dependence
easy installation
adjustable to application requirements

Technical Data

Measuring values

Working range ¹⁾	0...10m/s (0...2000ft/min)	
	0...15m/s (0...3000ft/min)	
	0...20m/s (0...4000ft/min)	
Output ²⁾	0 - 10 V	-1 mA < I _L < 1 mA
	4 - 20 mA	R _L < 450 Ω
Accuracy at 20 degC (68°F), 45 % RH and 1013hPa	0...10m/s (0...2000ft/min)	± (0.2m/s / 39.4ft/min + 3 % of m. v.)
	0...15m/s (0...3000ft/min)	± (0.2m/s / 39.4ft/min + 3 % of m. v.)
	0...20m/s (0...4000ft/min)	± (0.2m/s / 39.4ft/min + 3 % of m. v.)
Response time τ ₉₀ ¹⁾²⁾	typ. 4 sec. or typ. 0.2 sec.	(at constant temperature)

General

Power supply	SELV 24V AC/DC ± 20 %	SELV = Safety Extra Low Voltage
Current consumption for AC supply	max. 150 mA	
for DC supply	max. 90 mA	
Angular dependence	< 3 % of measurement at Δα < 10°	
Cable gland	M16x1.5	cable Ø 4.5 - 10 mm (0.18 - 0.39 inch)
Electrical connection	screw terminals max. 1.5 mm ² (AWG 16)	
Electromagnetic compatibility	EN 50081-1	
	EN 50082-1	EN 50082-2
Housing/protecting class	Polycarbonat / IP65, Nema 4	with LC display IP40

1) Selectable by jumper

2) Response time τ₉₀ is measured from the beginning of a step change of air velocity to the moment of reaching 90% of the step.





ADJUSTABLE TO APPLICATION REQUIREMENTS.

The EE75 Series air velocity transmitters were developed to obtain accurate measuring results over a wide range of velocities and temperatures. A high quality hot film sensor element based on cutting edge thin film technology ensures maximum sensitivity. Even at lowest mass flows. At the same time, its innovative probe design produces reliable measuring results at high flow velocities of up to 40 m/s. The integrated temperature compensation minimizes the temperature cross sensitivity of the EE75 series which, combined with the robust mechanical design, allows it to be used at process temperatures between 40 to +120°C. In addition to air velocity and temperature values the transmitter calculates the volumetric flow rate in m³ /h, or ft³ /min. The cross section of the duct needs to be determined for this purpose and the volumetric flow rate can be directed to one of the analogue outputs.

The configuration software included in the scope of supply allows to choose the appropriate output parameter and freely scale the display range and signal level of the two analogue outputs. In addition user friendly calibration of air velocity and temperature and the adjustment of key parameters (e.g. response time of velocity measurement, low flow cut-off points, etc) are supported as well. An optional illuminated cover with two control buttons integrated in the cover is available. In addition this enables changes of the configuration to be made directly on the unit.

The EE75 Series has a robust metal housing to protect against possible damage in rough industrial environments. There are five different models providing a comprehensive range of mounting option.

Model A for Wall mounting

Model B for djct mounting

Model C with remote probe

Model E with remote probe, pressure light up to 10 bar. (145ps)

Model P for djct Mounting, pressure light up 10 bar (145ps)

The EE75 series can be used to measure the velocity of other glasses as well, although a correction has to be applied to the unit at the factory.

Typical Applications

- monitoring incoming and outgoing air (energy management) in HVAC applications
- filter monitoring and laminar flow control in cleanrooms
- exhaust systems, exhaust hoods and glove boxes in the pharmaceutical, bio and semiconductor industries
- mass flow measurement during incineration processes
- monitoring and measurement of compressed air systems
- air conveying systems
- wind tunnels and climate simulators

Features

- high accuracy
- working range 0...40 m/s (0...8000ft/min) and -40...120°C (-40...248°F)
- measurement of air velocity and temperature
- calculation of volumetric flow rate
- low dependence of angle of inflow
- probe diameter 8mm (0.3")
- remote probe up to 10m (32.8ft)
- easy mounting and maintenance
- correction for pressure, humidity and media
- low flow cutt-off
- SI and US units selectable

WIND - VANE



Wind Direction Sensor

: Wind Vane.

Sensing

: Vane coupled to linear endless potentiometer.

Starting threshold

: Better than 0.5 meters/sec.

Range

: 0 to 357 degrees (3 degrees electrical gap in the

	Potentiometer
Output	: 0 to 5 kilo ohm resistance (0 to 357 degrees).
Resolution	: 1 degree.
Accuracy	: +/- 3 degrees.
Operating Temperature	: -40 to + 60 degree Celsius
Construction of sensor body	: Brass housing, stainless steel shaft and aluminum vane

PRINCIPLE OF OPERATION

Wind Vane is a counter balanced, low threshold wind vane. A Linear, wire wound endless potentiometer is coupled to the vane by an SS shaft. As the vane turns, it rotates a stainless steel shaft which is coupled to the potentiometer. This potentiometer has excellent linearity, very low starting torque. The north of the wind vane is marked on its body. This line is to be aligned with actual North with the help of prismatic compass, at the time of installation. Sensor gives minimum resistance at North (i.e., 0 degree approximately 20 ohms). The resistance output linearly proportional to the position of the wind vane

ANEMOMETER

Wind speed Sensor	: 3 Cup Anemometer.
Sensing	: 3 cup assembly mounted on friction free shaft and coupled to a chopper.
Starting threshold	: 0.3 meters/sec.
Range	: 0 to 65 meters/sec.
Distance constant	: 2.5 Meters
Output	: TTL pulses output proportional to wind speed Built in line driver to drive long cable > 50 ohms loop resistance.
Accuracy	: Better than 0.5 m/s up to 10 m/s + 2% FSD
Diameter of cup	: 50 mm.

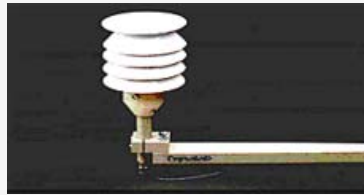
Diameter of cup assembly	: 165 mm.
Construction of sensor body	: Brass housing and stainless steel shaft .

PRINCIPLE OF OPERATION:

ANEMOMETER is a fast response, low threshold op to electronic anemometer. When rotated by wind, a chopper on the anemometer shaft Interrupts an infra red light source , generating pulses from a photo transistor. The signal is amplified and fed through a line driver . The frequency is proportional to wind speed. The anemometer is provided with a 3 pin connector for easy replacement and comes with 10 meters of shielded cable. For operation at low temperature the sensor can be supplied with a built in heater The Anemometer can be supplied with a 20W 24 V DC built in heater for operation at low temperatures.

Note : these specifications are likely to change without notice.

RELATIVE HUMIDITY



Sensing	: Solid state capacity type sensor.
Resolution	: 0.1 %.
Range	: 0 to 100 % operating at -40 C to +50 C
Accuracy	: ± 3% of full scale reading.
Operating Temperature	: -40 o C to +50 o C.

Power requirement	: + 5 volts DC.
Power consumption	: ~ 4 mA.
Output	: 0- 1V for 0 to 100% humidity
Weather Shield	: Weather shield with weather proof reflective white paint coating.
Size of body	: 250 (H) x 90 mm diameter. (with weather shield)

PRINCIPLE OF OPERATION:

Humidity sensor features an improved design to provide highly accurate and rapid measurements. The humidity sensor is a thin film capacitor element. A dielectric polymer absorbs water molecules from the air through a thin metal electrode and this causes a capacitance change proportional to humidity. The response is essentially linear. A sintered filter is provided to protect the sensor element from dirt, atmospheric pollutant and water condensation.

A solid state electronic circuit is built in each probe to produce 0 to 1000 M. Volts output signal corresponding to relative humidity value 0 to 100%. The output is single ended.

RAINFALL SENSOR



Sensor	: Tipping bucket rain gauge.
Sensing	: Magnet and reed switch (on-off output).
Resolution	: 0.5 mm.

Accuracy	: better than + 5%
Operating Temperature	: -40 o C to +50 o C. with built in heater(optional)
Rim diameter	: 203 mm.
Collecting area	: 325 mm ² .
Material	: Raingauge shell made of FRP. Bucket made of stainless steel and mounting assembly of powder coated brass.(SS316 body optional)
Capacity	: Unlimited.
Sensitivity	: 0.5 mm or, 0.2 mm (rainfall per pulse)

PRINCIPLE OF OPERATION:

It uses a tipping bucket mechanism to produce a contact closure every time it receives a predetermined quantity of rainfall . The body and funnel are made of FRP (Fiber glass Reinforced Plastic), rim is made of gun metal. All parts having contact with water are made of stainless steel. Each tip of the bucket produces an on-off output when the magnet passes over the reed switch.

DATA LOGGERS FOR TEMPERATURE/PRESSURE/ HUMIDITY



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PAYMENT TERMS COMMON FOR ALL THE ABOVE MENTIONED MODELS

PAYMENT	WHO ARE OUR BANKERS AND WHAT ARE OUR BANKING PARTICULARS?
	<p>OUR BANKERS ARE:</p> <p>Union Bank Of India, SCF-3, Sector 21-C, Chandigarh, UT, INDIA.</p>

TERMS :

SWIFT CODE: UBININBBCHA

ESTEEM INDUSTRIES INC. A/C NO.: 398905010050309

May you like to Transfer Payment (T/T) to us, then depending upon the currency of remittance kindly choose one of the following methods:

PAYMENT PROCEDURE FOR USD \$

PAYMENT PROCEDURE : For making SWIFT Transfer payment of US\$ _____, please give the following information to your bank:

Intermediary Banks:

1. Citibank. New York ,Swift code: CITIUS33
2. Bank of America. New York, Swift code: BOFAUS3N
3. Bank of New York. New York, Swift code: IRUTUS3N
4. Standard Chartered Bank. New York, Swift code: SCBLUS33
5. JP Morgan Chase Bank. New York, Swift code: CHASUS33
6. American Express Bank. New York, Swift code: AEIBUS33

Beneficiary Bank:

Union Bank Of India,
SCF-3, Sector 21-C, Chandigarh,
UT, INDIA.
Swift Code: UBININBBCHA
Beneficiary: Esteem Industries INC

ACCOUNT NO. 398905010050309

Bank charges (fees) would be shared by buyer. Please fax us a copy of Transfer advice so that we can track payment.

PAYMENT PROCEDURE FOR GBP £

PAYMENT PROCEDURE : For making payment of Sterling Pound £_____, please give the following information to your bank:

Intermediary Banks:

1. National Westminster Bank. London, Swift code: NWBKGB2L
2. HSBC London (Midlands), Swift code: MIDLGB22

Beneficiary Bank: Union Bank Of India,
SCF-3, Sector 21-C, Chandigarh,
UT, INDIA.

Swift Code: UBININBBCHA
Beneficiary: **Esteem Industries INC**

ACCOUNT NO. 398905010050309

Bank charges (fees) would be shared by buyer. Please fax us a copy of Transfer advice so that we can track payment.

PAYMENT PROCEDURE FOR EURO

PAYMENT PROCEDURE : For making payment of Euro_____, please give the following information to your bank:

Intermediary Bank:

1. Commorz Bank Dusseldorf Germany, Swift code: COBAEDDD
2. Bank commercial Italiana, Swift code: BCITITMM
3. Societe Generale Paris, Swift code: SOGEFRPP

4. ABN Amro Bank. Amsterdam, Swift code: ABNANL2A

Beneficiary Bank: Union Bank Of India,
SCF-3, Sector 21-C, Chandigarh,
UT, INDIA.

Swift Code: UBININBBCHA

Beneficiary: **Esteem Industries INC**

ACCOUNT NO. 398905010050309

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