



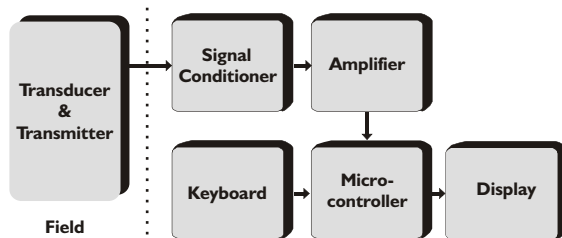
INTRODUCTION

Process indicators play an important part in any process industry. Quick and accurate measurement of a process parameter will improve the final product quality, reliability and reduce rejection. Process indication is therefore one of the prime considerations in any process industry. The ESD AM series is microcontroller based programmable process indicator designed for fast and accurate measurement. The instrument is designed using highly reliable electronic components. The process parameter is displayed in digits, which gives better resolution compared to analog indicator. The ESD AM series accepts 4 - 20 mA as input. Wide range of measurements are available depending on the sensor used. The instrument is immune to mechanical vibrations. Even the mounting position will not affect the measurement accuracy. The large bright RED LED seven segment display allows long distance readability. Use of highly reliable electronic components with lowest temperature



coefficient ensure long and trouble free service. The instrument is tested for its performance under various climatic conditions. .

PRINCIPLE OF OPERATION



The Sleek 90 series is based on the principle of high input impedance amplifier feeding an ADC. The signal from the transducer is fed to a sensor compensation circuit, where automatic ambient compensation in case of thermocouple & lead resistance compensation in case of Pt-100 is achieved. Duly compensated signal is fed to a signal conditioning amplifier, output of which is given to digital display. The microprocessor then converts the signal into the range selected by the user and displays the value of the process parameter accordingly.

APPLICATION

The ESD AM series process indicators can be used in almost any industry, laboratory etc. where accurate process value measurement is needed to be carried out.

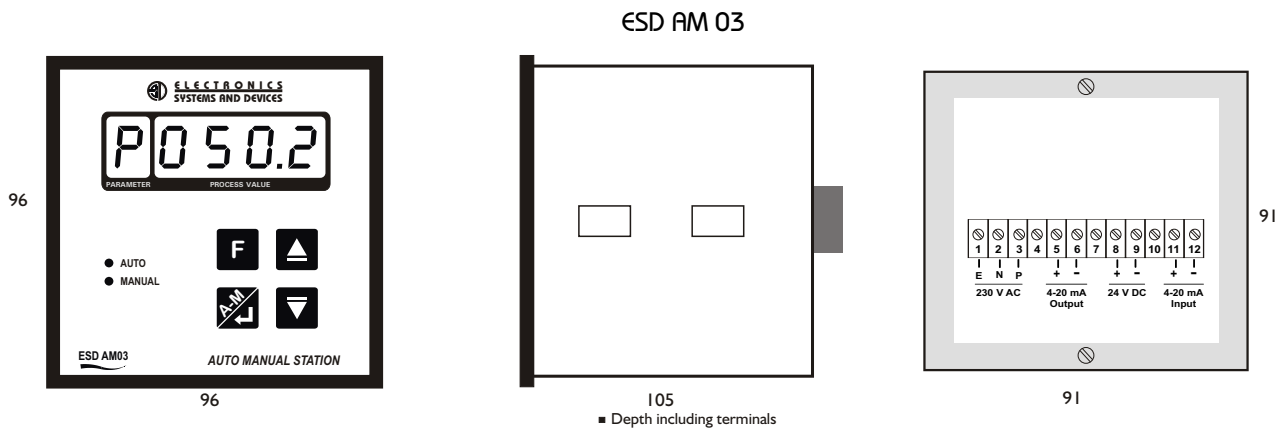
FEATURES

- ✓ Proven trouble free field performance
- ✓ Highly compact
- ✓ Dust and vermin proof enclosure with epoxy powder coating
- ✓ LED display gives better readability at long range
- ✓ Fast response time
- ✓ Highly accurate
- ✓ Available in different DIN std. cutouts
- ✓ Programmable range
- ✓ Decimal selection facility
- ✓ Maximum MTBF and minimum MTTR
- ✓ Feather touch push button
- ✓ Wide supply variation and environmental band
- ✓ User friendly programming

SPECIFICATIONS

Model	: ESD AM03	Transmitter supply	: 24 V DC @ 30mA
Ranges	: Programmable from -999 to 9999	Front facia	: ABS plastic suitable for IP 55 having size 96 x 96 mm
Input	: 4 - 20 mA	Mounting	: Flush panel
Indication	: 4 digit 12.5 mm RED LED for process value 1 digit 12.5 mm GREEN LED for parameter	Enclosure	: Mild steel CRCA sheet with powder coating
Indication accuracy	: +/- 0.25 % of full scale +/- 1 digit	Termination	: Screwed type suitable for 2.5mm ² wire
Least count	: Selectable	Panel cutout	: 92 x 92 mm
Auto Manual Selection	: Selection by key	Weight	: 900 grams approximately
Auto Manual Indication	: 3 mm RED LED	Output	: Isolated 4 to 20mA proportional to input in Auto mode and as per set value in Manual model
Power supply	: 230 V AC, +/- 10 % , 50 Hz with earth	Resolution	: 10 bit (0.016 mA step change)
Relative humidity	: Less than 90 % non condensing	Load resistance	: Maximum 500 ohms
Ambient temperature	: 0 to 55°C		
Accuracy deviation due to			
a) Temperature change	: +/- 0.002 % /°C, ref at 25°C		
b) Supply variation	: +/- 0.001 % / V		
Recalibration (if reqd)	: By software using keypad		
Programming	: Using 4 keys membrane keypad. Default password is 134		
Power consumption	: 6 VA		

INSTALLATION



ORDERING INFORMATION

ESD AM 03	X1 Panel Cutout 3 - 92 x 92	X3 Input 1 - 0 to 20 mA 2 - 4 to 20 mA 3 - 0 to 2V DC 4 - Other	X4 Range 0 - Programmable	X1 Power Supply 1 - 230 V AC 2 - 24 V AC 3 - 24 V DC 4 - Other	Ordering eg. ESD AM03 - 201 Process Indicator Sleek 9013D Panel cutout - 92 x 92 mm (3) Input - 4 to 20 mA (2) Range - Programmable (0) Power supply - 230 V AC (1)
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ALSO SELECT
ESD ...

BACK END

- ✓ Pt - 100
- ✓ Thermocouples
- ✓ Thermowells
- ✓ Compensating Cables

SAME RANGE

- ✓ Dual Channel Indicators
- ✓ Supersize Indicators
- ✓ Loop Powered Indicators
- ✓ Portable Indicators
- ✓ Field Mounting Indicators
- ✓ Flameproof Indicators
- ✓ Auto Manual Station

FRONT END

- ✓ ON OFF Controllers
- ✓ PI Controllers
- ✓ Process Scanners
- ✓ Automation Panels



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