



INTRODUCTION

Process indicators play an important part in any process industry. Quick and accurate measurement of process value will improve the final product quality, reliability and reduce rejection.

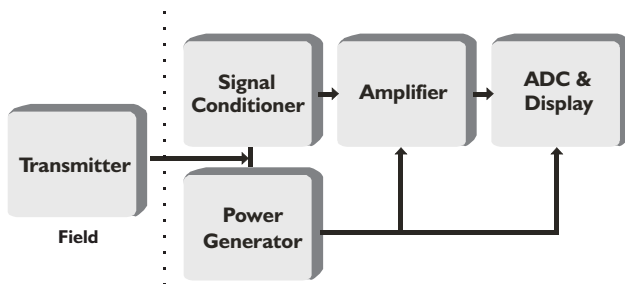
The Sleek 90 series loop power indicators are designed for fast and accurate measurement of the process value. These indicators are used where only 2 wires are available for signal as well as power. The instrument is designed using highly reliable electronic components. The process value is displayed directly in digits, which gives better resolution compared to analog indicator. The Sleek 90F series accepts 4 - 20 mA as input. Wide ranges of measurements are available depending on the application. The instrument is immune to mechanical vibrations. Even the mounting position will not affect the measurement accuracy. Use of highly reliable electronic components with low temperature coefficients ensure long and trouble free service. The instrument is tested for its



performance under various climatic conditions.

These indicators are popular in applications where AC supply voltage is not available. These indicators are very popular due to reduced wiring.

PRINCIPLE OF OPERATION



The ESD 90 loop power indicator series is based on the principle of a high input impedance amplifier feeding an analog to digital convertor. The input signal generated by the transmitter is fed to the amplifier output of which is given to digital display. The linearisation of the input signal from the transducer is done by hardware in the input circuit. This gives a standardized signal to the analog to digital convertor which drives the seven segment LED display, indicating the process value directly. The power supply required for the indicator is derived from the loop itself. The whole circuitry operates on a voltage level of 6 V and consumes less than 3 mA.

APPLICATION

These process indicators are specially designed for applications where wiring is to be eliminated and where local indication is required.

FEATURES

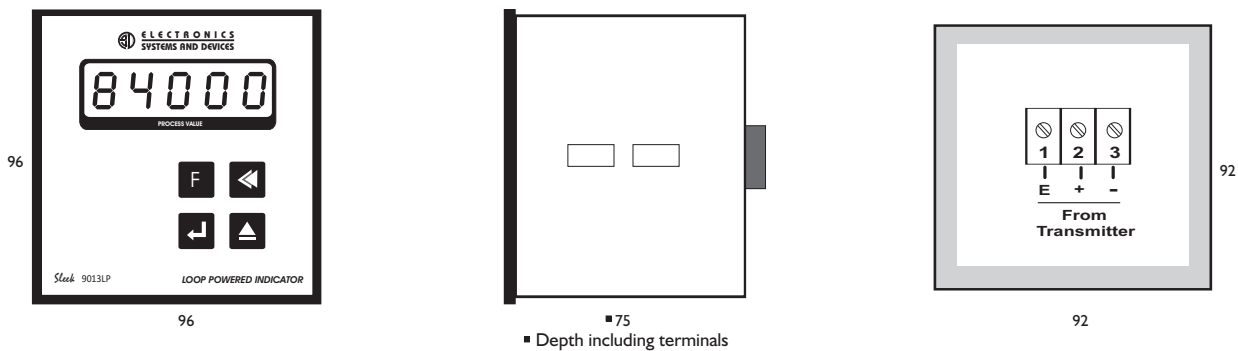
- ✓ Proven trouble free field performance
- ✓ Highly compact
- ✓ IP 55 enclosure
- ✓ Low voltage drop
- ✓ Fast response time
- ✓ Maximum MTBF and minimum MTTR
- ✓ Wide environmental band
- ✓ DIN standard cutouts

SPECIFICATIONS

Model	: Sleek 9013 LP	Recalibration (if reqd)	: By software using keypad
Ranges	: Programmable -999 to 99999	Programming	: Using 4 keys membrane keypad. Default password is 134
Input	: 4 - 20 mA	Front facia	: ABC plastic suitable for IP 55 having size 96x96
Indication	: 5 digit 12.5 mm RED LED display	Mounting	: Flush panel
Indication accuracy	: +/- 0.2 % of full scale +/- 1 digit	Enclosure	: Mild steel CRCA sheet with powder coating
Least count	: Selectable	Termination	: Screwed type suitable for 2.5mm ² wire
Power supply	: 24 V DC, loop powered	Weight	: 500 grams approximately
Input load resistance	: 50 ohms		
Maximum voltage drop	: Less than 6 V		
Current consumption	: Less than 3 mA		
Relative humidity	: Less than 90% non condensing		
Ambient temperature	: 5 to 55°C		
Accuracy deviation due to temperature change	: +/- 0.005 % /°C, ref at 25°C		
Sensor break indication	: <i>O P E N</i>		

INSTALLATION

Sleek 9013 LP



Note: All models from loop powered indicator series are mentioned in the chart below

	Field mounting indicators	Panel mounting indicators	Flameproof indicators
LED display	Sleek 90LF	Sleek 9013LP	Sleek 90LX
LCD display	Sleek 70LF	Sleek 7013LP	Sleek 70LX

ALSO SELECT ESD ..

BACK END

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

SAME RANGE

- ✓ Temperature Indicators
- ✓ Dual Channel Indicators
- ✓ Supersize 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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