



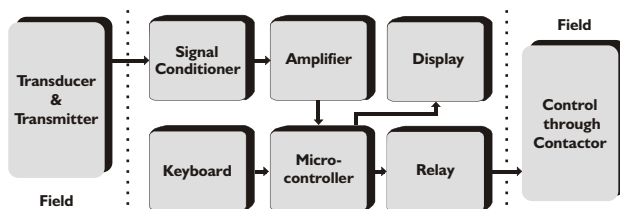
### INTRODUCTION

Flow Indicators / Controllers play an important part in any process industry. Quick and accurate measurement / control of flow improves the final product quality, reliability and reduce rejection. Flow indication and totalisation is therefore one of the prime considerations in any process industry. The FIT 72 series is microcontroller based programmable flow indicator/totalizer designed for fast and accurate measurement/control. 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 FIT 72 series accepts 4 - 20 mA as input. The instrument is immune to mechanical vibrations. Even the mounting position will not affect the measurement accuracy. The alpha numeric LCD display allows better messaging and can also



display unit of measurement. 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. Wide ranges of measurements are available depending on the sensor used.

### PRINCIPLE OF OPERATION



The FIT 72 series is based on the principle of a high input impedance amplifier feeding a microcontroller followed by a relay and an inbuilt ADC. The signal from the transducer is fed to a signal conditioning amplifier, output of which is given to the 13 bit analog to digital convertor which is inbuilt the microcontroller. This microcontroller then switches the relay ON or OFF depending upon the process value with respect to the setpoint. Linearisation of the transducer signal is done by software. The microcontroller also drives the LCD display, indicating the actual flow.

### APPLICATION

The FIT 72 series flow controllers can be used in monitoring and controlling continuous as well as batch flow processes in almost any industry.

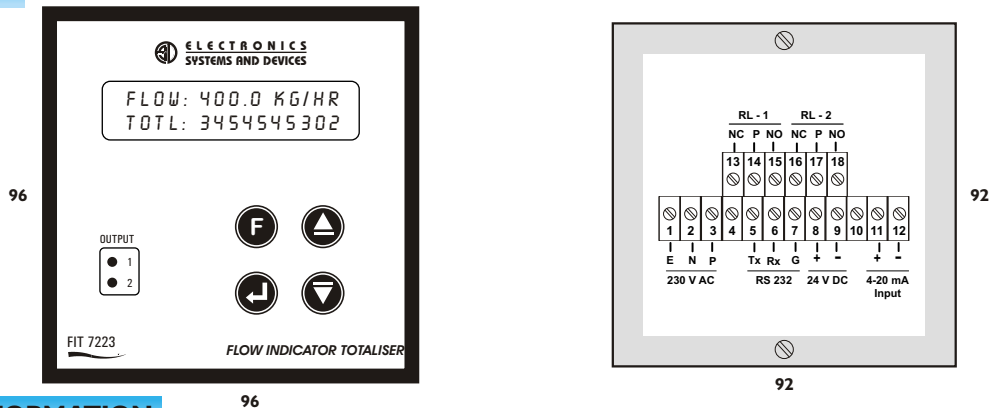
### FEATURES

- ✓ Linear or Square root extractor type input
- ✓ 10 digit totaliser
- ✓ Setpoint on flow or totaliser
- ✓ LCD display with yellow back LED
- ✓ Proven trouble-free field performance
- ✓ Highly compact
- ✓ Dust and vermin proof enclosure with epoxy powder coating
- ✓ Fast response time
- ✓ Highly accurate
- ✓ Maximum MTBF and minimum MTTR
- ✓ Feather touch push button
- ✓ Wide supply variation and environmental band
- ✓ User friendly programming

## SPECIFICATIONS

Model	: FIT 7223	Control action	: ON / OFF
Range	: Programmable from 0 to 9999	Set point Adjust	: Thr' Flat Membrane key pads
Decimal Position	: Selectable	On / Off differential	: From 0.1 to 9.9
Input	: 4 - 20 mA / 0 - 5 V DC	Relay Output	: One set of potential free relay change over contact rated 5 Amp resistive at 230V AC per setpoint.
Input type	: Linear / Square root selectable	Supply for Transmitter	: 24 V DC +/- 1V, @30mA
Indication	: 16 x 2 Alfa numeric LCD display	Relay logic	: User selectable High or Low
Character size	: 3 (W) x 4.4 (H) mm	Relay ON indication	: 3 mm Red LED
Indication accuracy	: +/- 0.1 % of fullscale +/- 1 digit	Front facia	: ABS plastic suitable for IP 55 having size 96 x 96 mm
Totalizer display	: 10 digit	Mounting	: Flush panel
Flow Unit	: Selectable bet'n gram, litre, kilog, galon, cubic feet, cubic mtr, ton	Enclosure	: Mild steel CRCA sheet with powder coating
Time base	: Selectable bet'n secs, mins and hour	Termination	: Screwed type suitable for 2.5mm <sup>2</sup> wire
Power supply	: 230 V AC, +/- 10 % , 50 Hz	Panel cutout	: 92 x 92 mm
Relative Humidity	: 90 % Non Condensing	Optional :	
Ambient Temperature	: 0 to 55 °C	A)Retransmission O/p	: Isolated 4- 20 mA for retransmission
Accuracy deviation due to		Resolution	: 10 bit (0.016 mA step change)
a) Temperature change	: +/- 0.002 % / °C, ref at 25 °C	Load resistance	: Maximum 500 ohms
b) Supply Variation	: +/- 0.001 % / V	B)Serial Interface	: Isolated RS 485(2wire) / RS 485
Recalibration (if reqd)	: By software using keypad	Protocol	: Modbus RTU
Programming	: Using 4 keys membrane keypad. Default password is 134		
Power consumption	: 6 VA		
Setpoints	: Two (Configurable on flow or totaliser)		

## INSTALLATION



## ORDERING INFORMATION

<b>FIT 72 X1</b> Setpoints 2 - Two	<b>X2</b> Panel Cutout 3 - 92 x 92	<b>X3</b> Input 1 - 4 to 20 mA 2 - 0 to 5V DC 3 - Other	<b>X4</b> Relay Output 1 - 1 C/O 5 Amp 2 - Other	<b>X5</b> Power Supply 1 - 230 V AC 2 - 110 V AC 3 - 24 V DC 4 - Other	<b>X6</b> Optional O/p 1 - NIL 2 - RS 232 3 - RS 485 4 - 4-20mA Retransmission 5 - Other	<b>Ordering eg. FIT 7223 - 1114</b> FIT 92 Setpoint - Two (2) Panel cutout - 92 x 92 mm (3) Input - 4- 20 mA (1) Relay output - 1 C/O 5 Amp (1) Power Supply - 230 V AC (1) Optional O/p - 4-20 Retrans. (4)
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ALSO SELECT ESD ...

### BACKEND

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

### SAME RANGE

- ✓ Flow Totaliser with Data Logging
- ✓ Profile Controllers

### FRONT END

- ✓ Alarm Annunciators
- ✓ Automation Panels



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