



# 8 CHANNEL SCANNER WITH DATA LOGGER

MSU-1248U

## APPLICATIONS

Pharma & Chemical Industry application

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Generator  
Monitoring & Protection

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Remote terminal unit (RTU) For SCADA

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Compressor/Pump/DG set monitoring

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Machine Condition Monitoring

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As a distributed I/O module  
for interface with PLC/DCS/SCADA

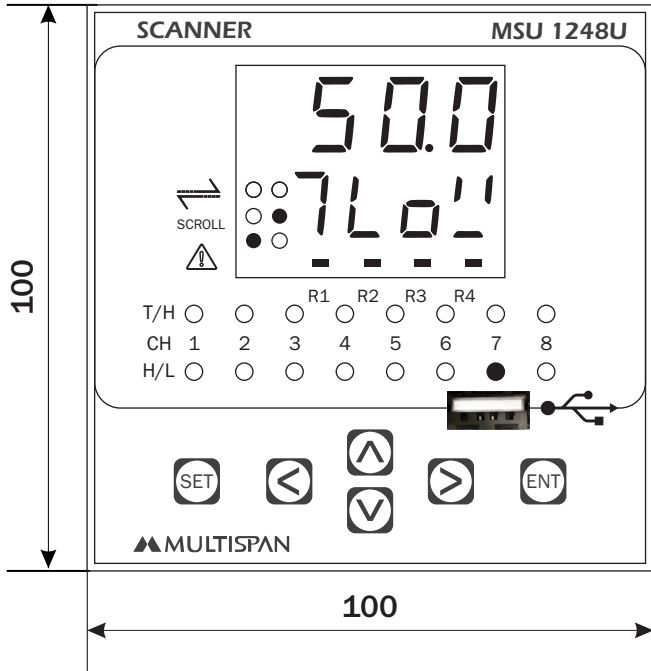
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Laboratory Equipment Monitoring

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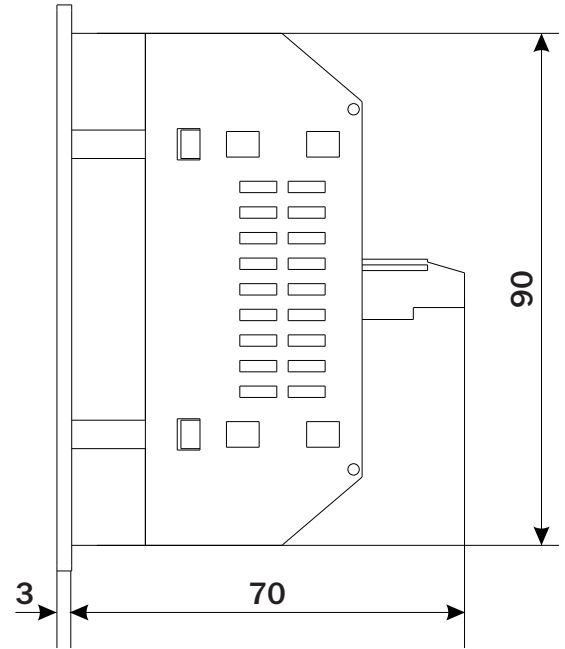
# Mechanical Dimensions

## Body Dimensions



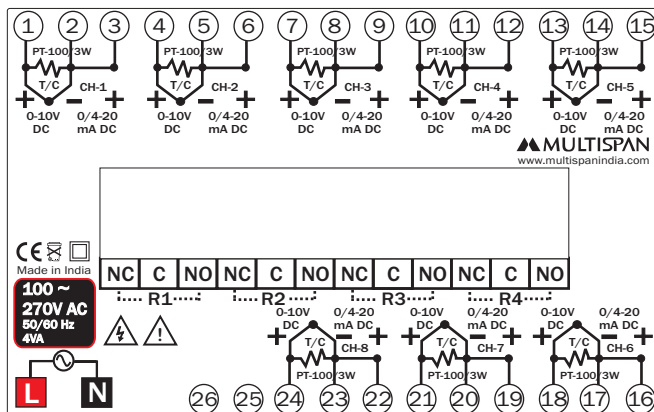
**FRONT VIEW**

All dimensions are in mm

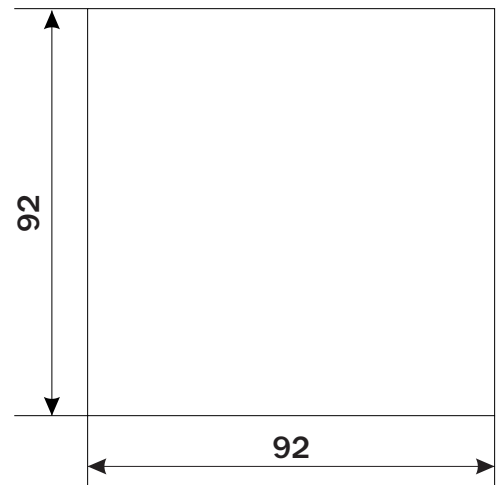


**RIGHT SIDE VIEW**


## Connection Diagram



## Panel Cutout



# TECHNICAL DATA

<b>Input</b>	<b>Thermocouple</b>	J / K
	<b>RTD</b>	PT-100 3 Wire / 2 Wire / Pt.1
	<b>Analog</b>	0-10V DC/ 0-20mA DC/ 4-20mA DC
<b>Range</b>	J: 0 to 600° C, K: 0 to 1200° C PT-100: -99° C to 400° C , PT.1: -99.0° C to 400.0° C Analog : -999 to 9999	
<b>Output</b>	<b>Output 1</b>	4 Relay With Grouping Facility
	<b>Output 2</b>	USB Port With Data Logging Facility
<b>Power Supply</b>	100 to 270V AC (SMPS) ,50/60Hz,Approx 4VA	
<b>Accuracy</b>	± 1 % FSD	
<b>Certification</b>		

Input	
<b>ADC Resolution</b>	12 Bit
<b>Display Resolution</b>	Thermocouple : 1° C RTD : 1° C / 0.1° C Analog input : 0000/000.0/00.00/0.000 Decimal Point Selectable
<b>Sampling Rate</b>	250 mS / Channel

Power Supply	
<b>Standard</b>	100 - 270V AC @ 50/60Hz
<b>Optional</b>	24V DC
<b>Consumption</b>	4VA

Relay Output	
<b>No of Relay</b>	4
<b>Type</b>	1 C/O , NO , C , NC
<b>Rating</b>	5A @ 230V AC / 30V DC

Input Range	
<b>Input Type</b>	Range
<b>J</b>	0 to 600° C
<b>K</b>	0 to 1200° C
<b>PT-100</b>	-99 to 400° C
<b>PT.1</b>	-99.9 to 400.0° C
<b>4-20 mA DC</b>	-999 to 9999
<b>0-20 mA DC</b>	-999 to 9999
<b>0-10 V DC</b>	-999 to 9999

Display	
<b>Process Value</b>	<b>Upper</b> : 0.70" 4 Digit Red LED 7 Segment Display
<b>Channel No. and Relay Status</b>	<b>Lower</b> : 0.50" 4 Digit Green LED 7 Segment Display
<b>LED Indications</b>	Status of each relay and Alarm

Keys
6 controlling keys for configuration and operation

### Accuracy

J , K , PT-100 , PT.1 , 4-20mA DC , 0-20mA DC, 0-10V DC	± 1 % FSD
CJC error	±3 °C
Sensor Open	J , K ,PT-100 , PT.1
T/C Burnout current	1.10uA
RTD excitation current	0.2mA
CMRR	> 120 db ( Typical )
Input Impedance	> 1 M
Max Voltage	20V DC

### Data Logging (Optional)

Memory Type	Non Volatile ( 2mb )
Data logging type	Periodic
RTC time format	DD/MM/YY HH:MM:SS
Sampling Time	1 Sec minimum(Programmable)
USB Port	1 ( USB 2.0 ) Mass Storage
USB Function	For retrieving logged data only
Storage device format	FAT 32
Data fetch file format	.csv ( Microsoft Excel )
Data retrieving option	Full data fetch
Periodic logging sample numbers	8000 max.
Alarm indication for memory full	After 75% memory occupied

### Environmental Characteristics

Working Temperature	0 to 55 °C
Storage Temperature	0 to 55 °C
Relative Humidity	95% RH Non-condensing
Ingress Protection	IP 65 (Front Side)

### Mechanical Characteristics

Mounting Type	Panel Mount
Dimension (HxWxD) mm	100 x 100 x 70
Panel Cutout (HxW) mm	92 x 92
Material	Body Enclosure
	Polycarbonate (PC) ABS
Terminal Screw Size	M3.5
Screw Torque (N.m)	1
Wire Gauge (AWG)	26-14
Weight (Approx) gms	Unpacked : 320 Packed : 375
Accessories	1 Pair of Clamps