



4 CHANNEL SCANNER WITH DATA LOGGER AND MODBUS FACILITY

MSU-1244U-M1

APPLICATIONS

Pharma & Chemical Industry application

Generator
Monitoring & Protection

Remote terminal unit (RTU) For SCADA

Compressor/Pump/DG set monitoring

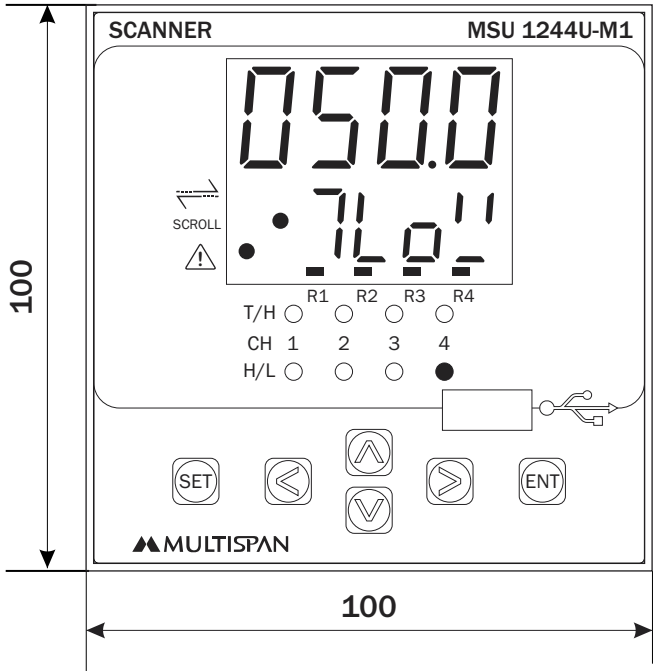
Machine Condition Monitoring

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

Laboratory Equipment Monitoring

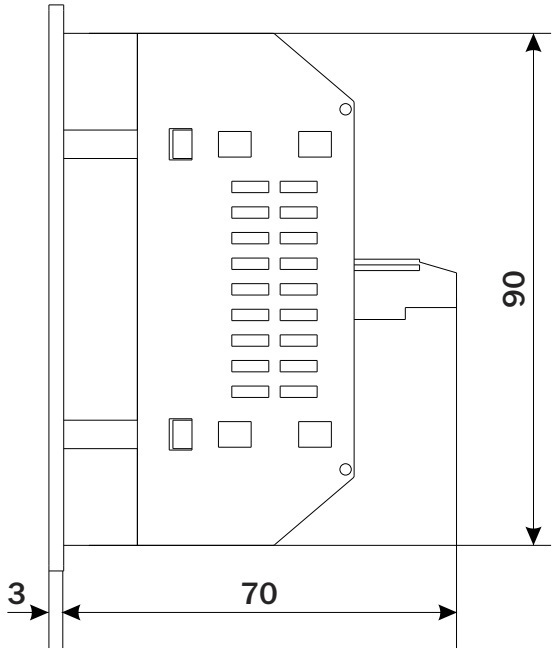
Mechanical Dimensions

Body Dimensions



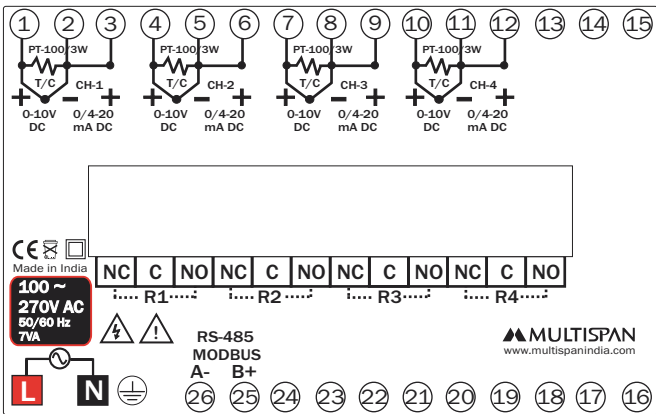
FRONT VIEW

All dimensions are in mm

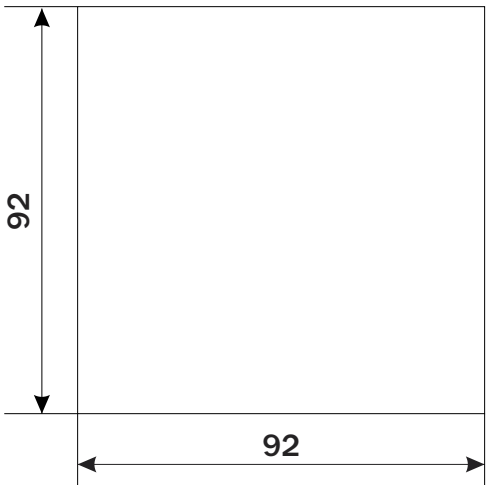


RIGHT SIDE VIEW

Connection Diagram



Panel Cutout



TECHNICAL DATA

Input	Thermocouple	J / K (Configurable)
	RTD	PT-100 3 Wire / 2 Wire (Configurable)
	Analog	0-10V DC/ 0-20mA DC/ 4-20mA DC (Configurable)
Range	Thermocouple	J: 0 to 600° C, K: 0 to 1200° C
	RTD	PT-100: -99° C to 400° C , PT.1: -99.9° C to 400° C
	Analog	-999 to 9999
Output	Output 1	4 Relay With Grouping Facility
	Output 2	RS 485 MODBUS Communication
	Output 3	USB Port With Data Logging Facility
Power Supply		100 to 270V AC , 50/60Hz, Approx 4VA
Accuracy		± 1 % FSD
Certification		CE

Input		
Input	Thermocouple	J / K
	RTD	PT 100/3W
	Analog	0 - 10V DC, 4 - 20mA DC 0 - 20mA DC
ADC Resolution		16 Bits
Display Resolution		Thermocouple : 1° C RTD : 1° C / 0.1° C Analog input : 0000/000.0/00.00 Decimal Point Selectable
Sampling Rate		250 mS/Channel
Accuracy		± 1 % FSD
CJC error		±3° C
Sensor Open		J / K / PT
T/C Burnout current		1.10uA
RTD excitation current		0.2mA
CMRR		> 120 db (Typical)
Input Impedance		> 1 M
Max Voltage		20V DC

Input Range	
Input Type	Range
J	0 to 600° C
K	0 to 1200° C
PT-100	-99 to 400° C
PT.1	-99.0 to 400° C
4-20 mA DC	-999 to 9999
0-20 mA DC	-999 to 9999
0-10 V DC	-999 to 9999

Power Supply	
Standard	100 - 270V AC @ 50/60Hz
Optional	24V DC
Consumption	7VA

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

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

Communication (Optional)

Type	RS 485
Protocol	MODBUS RTU
Baud Rate	4800, 9600, 19200 (Configurable)
Isolation	2500 V _{RMS} Isolation as per UL 1577

Keys

6 controlling keys for configuration and operation

Relay Output

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

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)	0.5
Wire Gauge (AWG)	28-12
Weight (Approx) gms	Unpacked : 320 Packed : 375
Accessories	1 Pair of Mounting Clamps