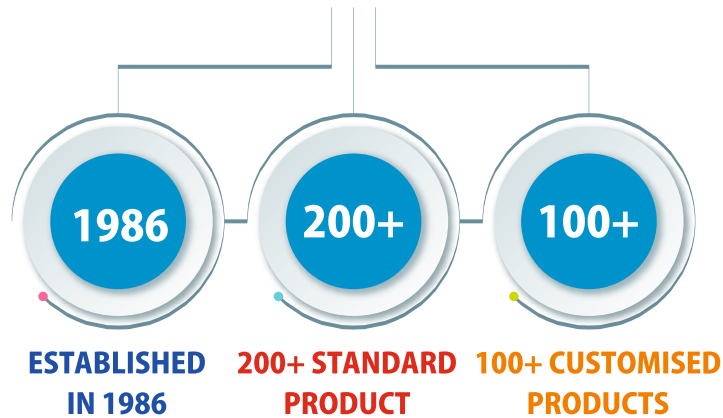




- ◆ Process Control Instruments
- ◆ Temperature Controller
- ◆ Digital Timers & Counters
- ◆ Power & Energy Meters
- ◆ Protection Relays
- ◆ Jumbo Displays

# MULTISPAN



## Electronic Manufacturing

Fully Integrated SMT Line



## Plastic Manufacturing

Injection Moulding Machines



## Electronic Assembly

Established in 1986, Multispan has grown significantly as a professionally managed organization. The company has a proven track record of performance & quality of its products till date. Over the years, Multispan has developed proficiency in product design, product development and product testing, with vertically integrated manufacturing facility, infrastructure and a cutting edge, 30 member strong R&D division, with over 3000 software applications, 200+ standard products and 100+ customized products.



## Testing & Reliability Lab

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# PROCESS CONTROL INSTRUMENT

## 8 CHANNEL SCANNER WITH RS-485 MODBUS CONNECTIVITY

### 8 Channel Indicator



|                      |          |                                                                                         |                                                 |
|----------------------|----------|-----------------------------------------------------------------------------------------|-------------------------------------------------|
| <b>MODEL</b>         |          | <b>MS-1208</b>                                                                          | <b>MS-1208A</b>                                 |
| Dimension (HxWxD) mm |          | 96 x 96 x 52                                                                            | 96 x 96 x 52                                    |
| Panel Cutout (mm)    |          | 92 x 92                                                                                 | 92 x 92                                         |
| <b>INPUT</b>         | Inputs   | J / K / PT-100 2Wire or 3Wire (Configurable)                                            | 0-10V DC / 4-20mA DC / 0-20mA DC (Configurable) |
|                      | Range    | J (0°C - 400°C), K (0°C - 1200°C) ,<br><b>PT-100 2Wire or 3Wire</b> (-99.9°C - 400.0°C) | (-999 to 9999 )                                 |
| <b>OUTPUT</b>        | Output   | RS-485 MODBUS Communication (Optional)                                                  |                                                 |
| <b>SPECIFICATION</b> | Accuracy | ±1% of FSD                                                                              |                                                 |
|                      | Supply   | 100-270V AC (SMPS), 50/60 Hz                                                            |                                                 |

## 8 CHANNEL SCANNER WITH RS-485 MODBUS CONNECTIVITY

Upto 4 Relay Outputs, [Data Logging with Pen Drive compatibility \(USB\)](#)



|                      |                                  |                                                                                                                           |                                                                                                                                                |
|----------------------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>MODEL</b>         |                                  | <b>MS-1248U</b>                                                                                                           | <b>MSU-1248U</b>                                                                                                                               |
| Dimension (HxWxD) mm |                                  | 96 x 96 x 52                                                                                                              | 96 x 96 x 52                                                                                                                                   |
| Panel Cutout (mm)    |                                  | 92 x 92                                                                                                                   | 92 x 92                                                                                                                                        |
| <b>INPUT</b>         | Inputs                           | J / K / PT-100 2Wire or 3Wire (Configurable)                                                                              | J / K / PT-100 2Wire or 3Wire / 0 To 10V DC / 4 To 20mA DC / 0 To 20mA DC (Configurable)                                                       |
|                      | Range                            | J ( 0°C to 600°C ) K ( 0°C to 1200°C )<br><b>PT-100 2Wire or 3Wire</b><br>(-99.9°C to 400.0°C, -99.9°C to 400.0°C)        | J (0°C - 400°C), K (0°C - 1200°C) , <b>PT-100 2Wire or 3Wire</b><br>(-99.9°C - 400.0°C)(For Temperature I/P)<br>(-999 to 9999 For Analog I/P ) |
| <b>OUTPUT</b>        | Output 1<br>Output 2<br>Output 3 | 4 Relay with grouping facility<br>RS 485 MODBUS Communication (Optional)<br>USB Port with Data logging facility(Optional) |                                                                                                                                                |
| <b>SPECIFICATION</b> | Control Action                   | ON/OFF                                                                                                                    |                                                                                                                                                |
|                      | Accuracy                         | ±1% of FSD                                                                                                                |                                                                                                                                                |
|                      | Supply                           | 100-250V AC (SMPS), 50/60 Hz                                                                                              |                                                                                                                                                |



# PROCESS CONTROL INSTRUMENT

## 16 CHANNEL SCANNER WITH RS-485 MODBUS & USB CONNECTIVITY

Upto 8 Relay Outputs, [Data Logging with Pen Drive compatibility \(USB\)](#)



### MODEL MS-5716RU-M1

Dimension (HxWxD) mm

192 x 96 x 165

Panel Cutout (mm)

188 x 92



### INPUT

Sensor

J / K / PT-100 2Wire or 3Wire

Analog Input

0-10V DC / 4-20mA DC/ 0-20mA DC (Configurable)

Range

**J** (0°C - 400°C), **K** (0°C - 1200°C) , **PT-100 2Wire or 3Wire**  
(-99.9°C - 400.0°C)(For Temperature I/P)  
( -999 to 9999 For Analog I/P )

### OUTPUT

Output 1

RS-485 MODBUS Communication (Optional)

Output 2

8 Relay With Grouping Facility (Optional)

Output 3

USB Port with Data logging facility(Optional)

### SPECIFICATION

Accuracy

±1% of FSD

Supply

100-250V AC (SMPS), 50/60 Hz



# PROCESS CONTROL INSTRUMENT

## FLOW RATE INDICATOR



|                      |          |                                                                             |                                                            |
|----------------------|----------|-----------------------------------------------------------------------------|------------------------------------------------------------|
| <b>MODEL</b>         |          | <b>MFC-1048P</b>                                                            | <b>MFC-3016D 16 X 2 LCD Display</b>                        |
| Dimension (HxWxD) mm |          | 96 x 96 x 52                                                                | 48 x 96 x 65                                               |
| Panel Cutout (mm)    |          | 92 x 92                                                                     | 46 x 92                                                    |
| <b>INPUT</b>         | Inputs   | 4 To 20mA DC / 0 To 10V DC / Pulse (Factory set)                            |                                                            |
|                      | Range    | 0 To 99999999 For Total Flow<br>0 To 9999 For Flow Rate                     |                                                            |
| <b>OUTPUT</b>        | Output 1 | 4-20mA DC/0-10V DC Retransmission (Factory Set) (Optional)                  | 4-20mA DC/0-10V DC Retransmission (Factory Set) (Optional) |
|                      | Output 2 | 24V DC Transmitter Supply@30mA (by default)                                 | 24V DC Transmitter Supply@30mA (For Analog I/P)            |
|                      | Output 3 | 1Relay / 2Relay 5A, 230V AC (resistive load) (1 Relay by default)           |                                                            |
|                      | Output 4 | RS-485 MODBUS Communication (Optional)                                      | RS-485 MODBUS Communication                                |
| <b>SPECIFICATION</b> |          | Accuracy<br>Supply                                                          |                                                            |
|                      |          | ±1% of FSD<br>100-270V AC (SMPS), 50/60 Hz <b>or</b> 24V DC ( Factory set ) |                                                            |

## LOAD CELL INDICATOR / CONTROLLER



|                      |        |                                                                     |
|----------------------|--------|---------------------------------------------------------------------|
| <b>MODEL</b>         |        | <b>LD-1006</b>                                                      |
| Dimension (HxWxD) mm |        | 96 x 96 x 100                                                       |
| Panel Cutout (mm)    |        | 92 x 92                                                             |
| <b>INPUT</b>         | Input  | 0-20mV DC/0-30mV DC from load cell (Factory set)                    |
|                      | Range  | 0 to 9999                                                           |
| <b>OUTPUT</b>        | Output | 1Relay & 2Relay (1 Relay by default)                                |
|                      |        | 10V DC@20mA DC Load cell supply (by default)                        |
|                      |        | 0-10V DC /4-20mA DC Retransmission (Any One Factory Set) (Optional) |
|                      |        | RS-485 MODBUS (Optional)                                            |
| <b>SPECIFICATION</b> |        | Accuracy<br>Supply                                                  |
|                      |        | ±1% of FSD<br>230V AC ± 10% , 50Hz                                  |



# PROCESS CONTROL INSTRUMENT

## FAULT ANNUNCIATOR

Upto 10 Fault Inputs & 3 Outputs



### MODEL

Dimension (HxWxD) mm  
Panel Cutout (mm)

**FA-11**

96 x 96 x 52  
92 x 92

**16 X 2 LCD Display**

### PC INTERFACE SOFTWARE

### DISPLAY INPUT

Input

16 Character by 2 line with GREEN back light LCD display

10 Input potential free contact

### OUTPUT

3 Relay 1C/O for audio alarm, visual alarm & Machine Trip

### SPECIFICATION

Supply

100-270V AC (SMPS), 50/60 Hz

Indication

1) Audio Alarm 2) Visual Alarm 3) Machine Output

Features

Fault Type NO or NC Configurable  
Last 10 fault history saved in memory

Note

**RS 232 Serial PC Interfacing to define Soft / Hard fault , RS-485 MODBUS is available as per request**

## DUAL PROCESS INDICATOR



### MODEL

Dimension (HxWxD) mm  
Panel Cutout (mm)

**DPI-122**

96 x 96x 52  
92 x 92

**DPI-1824**

96 x 96x 52  
92 x 92

### INPUT

Input 1 & 2

PT-100 3Wire / 4-20mA DC / 0-20mA DC /  
0-10V DC (Any two factory set)

J / K / PT-100 2Wire or 3Wire (Factory set)  
0-10V DC / 4-20mA DC / 0-20mA DC (Configurable).

### RANGE

-999 to 9999 For Analog I/P,  
**PT-100** (0.0°C - 400.0°C)

( -999 To 9999 for Analog Input )  
**J** (0°C to 600°C), **K** (0°C to 1200°C), **PT-100 2Wire or 3Wire**  
(-99°C TO 400°C, -99.9°C TO 400.0°C) For Temperature Sensor

### OUTPUT

Output

1 Relay / 2 Relay (Optional)  
24V DC Transmitter Supply@30mA (Optional)  
RS-485 Modbus (Optional)

4 Relay + 2 Retransmission + 24V DC Transmitter @30mA DC

### SPECIFICATION

Control Action

ON-OFF

Accuracy

±1% of FSD

Supply

100-270V AC (SMPS), 50/60 Hz

# PROCESS CONTROL INSTRUMENT

## PROCESS INDICATORS



| MODEL                |                    | PI-38                                                                                                                                                    | PI-54        | PI-41        | UPI-38                                                                       |
|----------------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|------------------------------------------------------------------------------|
| Dimension (HxWxD) mm |                    | 48 x 96 x 26                                                                                                                                             | 38 x 62 x 65 | 48 x 48 x 46 | 48 x 96 x 65                                                                 |
| Panel Cutout (mm)    |                    | 46 x 92                                                                                                                                                  | 31 x 54      | 45 x 45      | 46 x 92                                                                      |
| INPUT                | Inputs             | 0-10V DC / 0-20mA DC / 4-20mA DC (Configurable)                                                                                                          |              |              | J / K / PT-100 2Wire or 3Wire ,<br>0-10V / 4-20mA / 0-20mA DC (Configurable) |
|                      | Range              | J (0°C to 600°C), K (0°C to 1200°C), PT-100 2Wire or 3Wire (-99°C TO 400°C, -99.9°C TO 400.0°C) For Temperature Sensor, (-999 To 9999 for Analog Input ) |              |              |                                                                              |
| RESOLUTION           | Display resolution | 0.000/00.00/000.0/0000 ( Configurable, for Analog Input)                                                                                                 |              |              |                                                                              |
| FEATURES             | Feature            | Correction Factor, Offset, Filtration Rate, Reverse Scaling                                                                                              |              |              |                                                                              |
|                      | Supply             | 100-270V AC (SMPS), 50/60 Hz                                                                                                                             |              |              |                                                                              |

## PROCESS CONTROLLER



| MODEL                |                | PIC-1101                                                                             | PIC-38       | PIC-4202             |
|----------------------|----------------|--------------------------------------------------------------------------------------|--------------|----------------------|
| Dimension (HxWxD) mm |                | 96 x 96 x 52                                                                         | 48 x 96 x 65 | 48 x 48 x 95         |
| Panel Cutout (mm)    |                | 92 x 92                                                                              | 46 x 92      | 45 x 45              |
| INPUT                | Inputs         | 0 To 10V DC/ 4 To 20mA DC/ 0 To 20mA DC (Configurable)                               |              |                      |
|                      | Range          | -999 To 9999 (Configurable)                                                          |              |                      |
| OUTPUT               | Output 1       | 1 Relay (By default)                                                                 |              | 2 Relay (By default) |
|                      | Output 2       | 2 Relay (Optional)                                                                   |              |                      |
|                      | Output 3       | 24V DC Transmitter Supply@30mA (By default)                                          |              |                      |
|                      | Output 4       | 4-20mA / 0-20mA DC Retransmission Output (Factory Set)(Optional)                     |              | NA                   |
| SPECIFICATION        | Operating Mode | High / Low / Inband / Outband / Absolute Low / Absolute Outband Alarm (Configurable) |              |                      |
|                      | Accuracy       | ±1% of FSD                                                                           |              |                      |
|                      | Supply         | 100-270V AC (SMPS), 50/60 Hz                                                         |              |                      |

# TEMPERATURE

## UNIVERSAL PROGRAMMABLE CONTROLLER

Auto Tune PID, RS-485 MODBUS Facility



| MODEL                | PTC L12A-M1                                                                                                                                                                                                                                                                         | PTC-4202A-M1 | PTC-382A-M1  | UTC-4201A                        |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|----------------------------------|
| Dimension (HxWxD) mm | 96 x 96 x 52                                                                                                                                                                                                                                                                        | 48 x 48 x 95 | 48 x 96 x 65 | 48 x 48 x 95                     |
| Panel Cutout (mm)    | 92 x 92                                                                                                                                                                                                                                                                             | 45 x 45      | 46 x 92      | 45 x 45                          |
| <b>INPUT</b>         | Input J / K / PT-100 2Wire or 3Wire, 0-10V / 4-20mA / 0-20mA (Configurable).<br>Range <b>J</b> (0°C to 600°C), <b>K</b> (0°C to 1200°C),<br><b>PT-100 2Wire or 3Wire</b> (-99°C to 400°C, -99.9°C to 400.0°C) For Temperature Sensor,<br>(-999 To 9999 for Analog Input )           |              |              | J / K / PT-100 2Wire or 3Wire    |
| <b>OUTPUT</b>        | Output 1 1Relay 1C/O 5A,230V AC (resistive load) or SSR Drive O/P 12V DC,20mA ( Factory Set )<br>Output 2 1Relay 1C/O 5A,230V AC (resistive load) or SSR Drive O/P 12V DC, 20mA ( Factory Set )<br>Output 3 0-10V DC/4-20mA DC (Factory Set) (Controlling/Retransmission Selection) |              |              | 0-10V DC/4-20mA DC (Factory Set) |
| PC Communication     | RS-485 MODBUS Communication (Optional)                                                                                                                                                                                                                                              |              |              |                                  |
| <b>SPECIFICATION</b> | Control Action PID / ON-OFF (Configurable)<br>Accuracy ±1% of FSD<br>Supply 100-250V AC (SMPS), 50/60 Hz                                                                                                                                                                            |              |              |                                  |

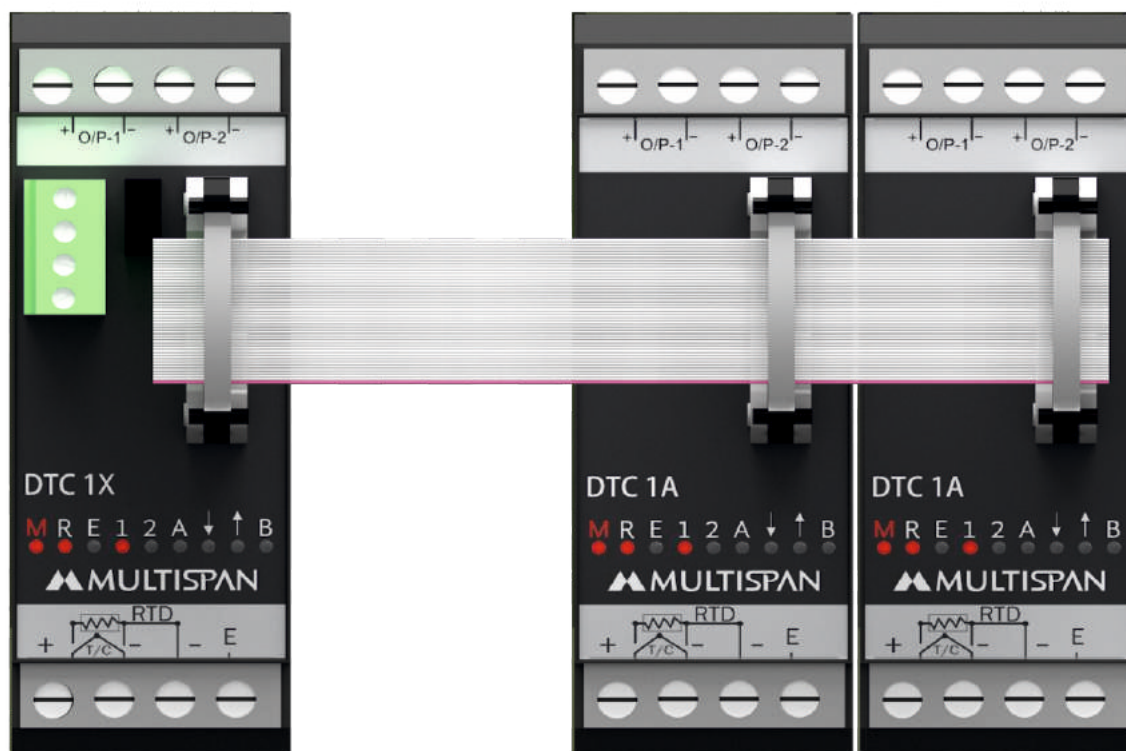
## PID TEMPERATURE CONTROLLER BUILT IN AMPERE INDICATION



| MODEL                | PID 2303-1C/3C (With CT Module)                                                                                                                            | PID-4203-1C (With CT Module)                                                                                                                            |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dimension (HxWxD) mm | 72 x 72 x 85                                                                                                                                               | 48 x 48 x 95                                                                                                                                            |
| Panel Cutout (mm)    | 68 x 68                                                                                                                                                    | 45 x 45                                                                                                                                                 |
| <b>INPUT</b>         | Sensor J / K (Configurable) + CT Input<br>Range <b>J</b> (0°C to 400°C), <b>K</b> (0°C to 500°C)                                                           | J / K / PT-100 (Configurable)<br><b>J</b> (0°C to 600°C), <b>K</b> (0°C to 1200°C)<br><b>PT-100 2Wire or 3Wire</b> (-99°C to 400°C, -99.9°C to 400.0°C) |
| <b>CT INPUT</b>      | 1 CT (30A or 60A Rail Mounting)<br>3 CT (30A or 60A Rail Mounting)                                                                                         | 1 CT (30A or 60A Rail Mounting)                                                                                                                         |
| <b>OUTPUT</b>        | 3 Relay 1C/O 5A,230V AC (resistive load) or SSR Drive O/P 12V DC, 20mA (Factory Set)(3 Set point)                                                          | 3 Relay 1C/O 5A,230V AC (resistive load) or 3 SSR Drive O/P 12V DC,20mA (Factory Set)(3 Set point) <b>(Heat + Cool + Alarm)</b>                         |
| <b>SPECIFICATION</b> | Control Action PID / ON-OFF (Configurable)<br>Accuracy ±1% of FSD<br>Supply 100-250V AC (SMPS), 50/60 Hz<br>Note RS-485 Output available in PID 2303-1C/3C | PID / ON-OFF (Configurable)<br>±1% of FSD<br>100-250V AC (SMPS), 50/60 Hz                                                                               |



# TEMPERATURE PID Temperature Controller Modules



Master Module

Slave Modules

| MODEL                |                   | DTC-1X (Master Module)                                                                 | DTC-1A (Slave Module) |
|----------------------|-------------------|----------------------------------------------------------------------------------------|-----------------------|
| Dimension (HxWxD) mm |                   | 76 x 27 x 116                                                                          | 76 x 27 x 116         |
|                      | Panel Cutout (mm) | Din Rail Mounting                                                                      | Din Rail Mounting     |
| INPUT                | Input             | J / K / PT-100 (Configurable).                                                         |                       |
|                      | Range             | J (0°C to 600°C), K (0°C to 1200°C), PT-100 (-99.0°C TO 400.0°C), (-99.0°C TO 400.0°C) |                       |
| OUTPUT               |                   | 2 Relay 1C/O, 230V AC, 5A or SSR Drive O/P 12V DC, 20mA (Factory Set)                  |                       |
|                      | Communication     | RS-485 MODBUS Communication                                                            |                       |
| SPECIFICATION        | Control Action    | PID / TP / ON-OFF (Configurable)                                                       |                       |
|                      | Accuracy          | ±1% of FSD                                                                             |                       |
|                      | Supply            | 24V DC (For Master Module)                                                             |                       |
|                      |                   |                                                                                        |                       |

## Features

MODBUS RS-485 communication for HMI Indication

Connection upto 1 Master + 7 Slave modules.

## Note :

For more than 8 modules, master module can be repeated with 7 slaves



# TEMPERATURE

## HUMIDITY + TEMPERATURE CONTROLLER



| MODEL                |        | MHC-1101 (Humidity Controller)            | MHT-1202 (Humidity + Temp. Controller)                                                                    |
|----------------------|--------|-------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Dimension (HxWxD) mm |        | 96 x 96 x 52                              | 96 x 96 x 52                                                                                              |
| Panel Cutout (mm)    |        | 92 x 92                                   | 92 x 92                                                                                                   |
| INPUT                | Sensor | Humidity Sensor                           | S-1: PT-100 2Wire or 3Wire (RTD) S-2: Humidity Sensor                                                     |
|                      | Range  | 0.0 to 100.0%                             | PT-100 2Wire or 3Wire (-50°C to 199.9°C)<br>Humidity Sensor (0.0 to 100.0%)                               |
| OUTPUT               |        | 1Relay 1C/O, 5A @230V AC (Resistive Load) | 1 <sup>st</sup> Relay for Temperature and 2 <sup>nd</sup> Relay for Humidity.<br>RS-485 Modbus (Optional) |
| SPECIFICATION        |        | ON-OFF                                    | ON-OFF                                                                                                    |
| Control Action       |        | ±1% of FSD                                | ±1% of FSD                                                                                                |
| Accuracy             |        | 100-270V AC (SMPS), 50/60 Hz              | 100-270V AC (SMPS), 50/60 Hz                                                                              |
| Supply               |        |                                           |                                                                                                           |

# TEMPERATURE

## 9 STAGE PROFILE CONTROLLER



| MODEL                |        | PRC-1202 (Profile Controller)                                                                       |
|----------------------|--------|-----------------------------------------------------------------------------------------------------|
| Dimension (HxWxD) mm |        | 96 x 96 x 100                                                                                       |
| Panel Cutout (mm)    |        | 92 x 92                                                                                             |
| INPUT                | Sensor | J/ K/ PT-100 2Wire or 3Wire (Factory Set)                                                           |
|                      | Range  | J (0°C to 600°C), K (0°C to 1200°C),<br>PT-100 2Wire or 3Wire<br>(-99°C to 400°C, 0.0°C to 400.0°C) |
| OUTPUT               |        | 2 Relay 1C/O (9 set point), 2 <sup>nd</sup> Relay for Alarm.                                        |
| SPECIFICATION        |        | ON-OFF                                                                                              |
| Control Action       |        | ±1% of FSD                                                                                          |
| Accuracy             |        | 100-270V AC (SMPS), 50/60 Hz                                                                        |
| Supply               |        |                                                                                                     |

## TEMPERATURE

### TEMPERATURE CONTROLLER - UNIVERSAL

Double Display PID Controller - 3 Relay



|                      |                |                                                                                                          |                 |
|----------------------|----------------|----------------------------------------------------------------------------------------------------------|-----------------|
| <b>MODEL</b>         |                | <b>UTC-4203</b>                                                                                          | <b>UTC-3203</b> |
| Dimension (HxWxD) mm |                | 48 x 48 x 95                                                                                             | 96 x 48 x 85    |
| Panel Cutout (mm)    |                | 45 x 45                                                                                                  | 92 x 45         |
| <b>INPUT</b>         | Sensor         | J / K / PT-100 2Wire or 3Wire (Configurable)                                                             |                 |
|                      | Range          | J (0°C to 600°C), K (0°C to 1200°C)<br><b>PT-100 2Wire or 3Wire</b> (-99°C to 400°C, -99.9°C to 400.0°C) |                 |
| <b>OUTPUT</b>        |                | 3 Relay 1C/O 5A, 230V AC (resistive load) or 3 SSR Drive O/P 12V DC, 20mA (3 Set point)                  |                 |
| <b>SPECIFICATION</b> | Control Action | PID / TP / ON-OFF (Configurable)                                                                         |                 |
|                      | Accuracy       | ±1% of FSD                                                                                               |                 |
|                      | Supply         | 100-270V AC (SMPS), 50/60 Hz                                                                             |                 |

### TEMPERATURE CONTROLLERS

Single Display, PID - Economy Range



|                      |                |                                                                                                                                                                                     |                |                 |
|----------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------|
| <b>MODEL</b>         |                | <b>UTC-114</b>                                                                                                                                                                      | <b>UTC-214</b> | <b>UTC-413P</b> |
| Dimension (HxWxD) mm |                | 96 x 96 x 52                                                                                                                                                                        | 72 x 72 x 45   | 48 x 48 x 70    |
| Panel Cutout (mm)    |                | 92 x 92                                                                                                                                                                             | 68 x 68        | 45 x 45         |
| <b>INPUT</b>         | Sensor         | J/ K/ PT-100 2Wire or 3Wire (Configurable)                                                                                                                                          |                |                 |
|                      | Range          | J (0°C to 400°C or 0°C to 600°C), <b>PT-100 2Wire or 3Wire</b> (-99°C to 400°C),<br>K (0°C to 1200°C),<br>J (0°C to 600°C), K (0°C to 999°C),<br><b>PT-100</b> (-50.0°C to 200.0°C) |                |                 |
| <b>OUTPUT</b>        |                | 1Relay 1C/O 5A, 230V AC(resistive load) & SSR Drive O/P 12V DC, 30mA ( Parallel to Relay ) (1 Set point)                                                                            |                |                 |
| <b>SPECIFICATION</b> | Control Action | PID / ON-OFF (Configurable)                                                                                                                                                         |                |                 |
|                      | Accuracy       | ±1% of FSD                                                                                                                                                                          |                |                 |
|                      | Supply         | 100-270V AC (SMPS), 50/60 Hz                                                                                                                                                        |                |                 |

# TEMPERATURE

## TEMPERATURE CONTROLLERS

### Dual Output PID Controller - FULL FEATURED



| MODEL                | UTC-1202G                                                                                                                                                 | UTC-2202G    | UTC-4202G    | UTC-3202                               |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|----------------------------------------|
| Dimension (HxWxD) mm | 96 x 96 x 52                                                                                                                                              | 72 x 72 x 85 | 48 x 48 x 95 | 96 x 48 x 85                           |
| Panel Cutout (mm)    | 92 x 92                                                                                                                                                   | 68 x 68      | 45 x 45      | 92 x 45                                |
| INPUT                | Sensor J / K / PT-100 2Wire or 3Wire (Configurable)                                                                                                       |              |              | J / K / PT-100 2Wire or 3Wire (Confi.) |
|                      | Range J (0°C to 600°C, 0.0 to 400.0), K (0°C to 1200°C, 0.0 to 500.0°C)                                                                                   |              |              |                                        |
|                      | PT-100 2Wire or 3Wire (-50°C to 400°C, -50.0°C to 400.0°C)                                                                                                |              |              |                                        |
| OUTPUT               | 2 Output : ( SSR parallel to 1 <sup>st</sup> Relay ) + 1Relay or 1SSR Drive O/P ( 2 Relay 1C/O 5A,230V AC (resistive load) & SSR Drive O/P 12V DC, 20mA ) |              |              |                                        |
| SPECIFICATION        |                                                                                                                                                           |              |              |                                        |
| Operating Mode       | Heat / Cool / Alarm                                                                                                                                       |              |              |                                        |
| Alarm                | High / Inband / Absolute Low / Absolute Outband / Outband / End Alarm/ Low Alarm Outband + Soak Timer                                                     |              |              |                                        |
| Control Action       | PID / TP / ON-OFF (Configurable)                                                                                                                          |              |              |                                        |
| Accuracy             | ±1% of FSD                                                                                                                                                |              |              |                                        |
| Supply               | 100-270V AC (SMPS), 50/60 Hz                                                                                                                              |              |              |                                        |

## TEMPERATURE CONTROLLER

### Double Display, Autotune PID



| MODEL                | UTC-121G                                                                                                | UTC-221G     | UTC-421G     | UTC-321P     |
|----------------------|---------------------------------------------------------------------------------------------------------|--------------|--------------|--------------|
| Dimension (HxWxD) mm | 96 x 96 x 52                                                                                            | 72 x 72 x 85 | 48 x 48 x 95 | 96 x 48 x 85 |
| Panel Cutout (mm)    | 92 x 92                                                                                                 | 68 x 68      | 45 x 45      | 92 x 45      |
| INPUT                | Sensor J / K / PT-100 2Wire or 3Wire (Configurable)                                                     |              |              |              |
|                      | Range J (0°C to 600°C, 0.0 to 400.0), K (0°C to 1200°C, 0.0 to 500.0°C)                                 |              |              |              |
|                      | PT-100 2Wire or 3Wire (-50°C to 400°C, -50.0°C to 400.0°C)                                              |              |              |              |
| OUTPUT               | 1Relay 1C/O 5A,230V AC(resistive load) & SSR Drive O/P 12V DC, 20mA ( Parallel to Relay ) (1 Set point) |              |              |              |
| SPECIFICATION        |                                                                                                         |              |              |              |
| Control Action       | PID / ON-OFF (Configurable)                                                                             |              |              |              |
| Accuracy             | ±1% of FSD                                                                                              |              |              |              |
| Supply               | 100-270V AC (SMPS), 50/60 Hz                                                                            |              |              |              |

# TEMPERATURE

## TEMPERATURE CONTROLLER

### Single Output PID Controller



| MODEL                |        | UTC-121P                                                                                                | UTC-221P     | UTC-421P     |
|----------------------|--------|---------------------------------------------------------------------------------------------------------|--------------|--------------|
| Dimension (HxWxD) mm |        | 96 x 96 x 52                                                                                            | 72 x 72 x 45 | 48 x 48 x 70 |
| Panel Cutout (mm)    |        | 92 x 92                                                                                                 | 68 x 68      | 45 x 45      |
| INPUT                | Sensor | J/ K/ PT-100 2Wire or 3Wire (Configurable)                                                              |              |              |
|                      | Range  | J (0°C to 600°C), K (0°C to 999°C),<br>PT-100 2Wire or 3Wire (-99°C to 400°C)                           |              |              |
| OUTPUT               |        | 1Relay 1C/O 5A,230V AC (resistive load) & SSR Drive O/P 12V DC,30mA ( Parallel to Relay ) (1 Set point) |              |              |
| SPECIFICATION        |        |                                                                                                         |              |              |
|                      |        | Control Action                                                                                          |              |              |
|                      |        | PID / TP/ ON-OFF (Configurable)                                                                         |              |              |
|                      |        | Accuracy                                                                                                |              |              |
|                      |        | ±1% of FSD                                                                                              |              |              |
|                      |        | Supply                                                                                                  |              |              |
|                      |        | 100-270V AC (SMPS), 50/60 Hz                                                                            |              |              |



| MODEL                |        | TC-421P                                                                                          | TC-442                                                                                                                                    | TC-443                                                                                                                                     |
|----------------------|--------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Dimension (HxWxD) mm |        | 48 x 48 x 70                                                                                     | 48 x 48 x 70                                                                                                                              | 48 x 48 x 95                                                                                                                               |
| Panel Cutout (mm)    |        | 45 x 45                                                                                          | 45 x 45                                                                                                                                   | 45 x 45                                                                                                                                    |
| INPUT                | Sensor | J Type                                                                                           |                                                                                                                                           |                                                                                                                                            |
|                      | Range  | J (0°C to 600°C)                                                                                 |                                                                                                                                           |                                                                                                                                            |
| OUTPUT               |        | 1Relay 1C/O 5A,230V AC (resistive load) & SSR 12V DC,30mA DC ( Parallel to Relay ) (1 Set point) | 2 Output : ( SSR parallel to 1 <sup>st</sup> Relay ) + 1Relay<br>( 2Relay 1C/O 5A,230V AC (resistive load) & SSR Drive O/P 12V DC, 20mA ) | 3 Output : ( SSR parallel to 1 <sup>st</sup> Relay ) + 2 Relay<br>( 3 Relay 1C/O 5A,230V AC (resistive load) & SSR Drive O/P 12V DC,20mA ) |
| SPECIFICATION        |        |                                                                                                  |                                                                                                                                           |                                                                                                                                            |
|                      |        | Control Action                                                                                   |                                                                                                                                           |                                                                                                                                            |
|                      |        | PID / ON-OFF (Configurable)                                                                      |                                                                                                                                           |                                                                                                                                            |
|                      |        | Accuracy                                                                                         |                                                                                                                                           |                                                                                                                                            |
|                      |        | ±1% of FSD                                                                                       |                                                                                                                                           |                                                                                                                                            |
|                      |        | Supply                                                                                           |                                                                                                                                           |                                                                                                                                            |
|                      |        | 100-270V AC (SMPS), 50/60 Hz                                                                     |                                                                                                                                           |                                                                                                                                            |



# TEMPERATURE

## DIGITAL TEMPERATURE CONTROLLERS

(Fixed Input)



| MODEL                |        | TC-19                                                                                                               | TC-29        | TC-49                                                                                       |
|----------------------|--------|---------------------------------------------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------------------|
| Dimension (HxWxD) mm |        | 96 x 96 x 42                                                                                                        | 72 x 72 x 45 | 48 x 48 x 70                                                                                |
| Panel Cutout (mm)    |        | 92 x 92                                                                                                             | 68 x 68      | 45 x 45                                                                                     |
| INPUT                | Sensor | J/ K/ R/ S / PT-100 2Wire or 3Wire (Factory Set)                                                                    |              | J/ K (Configurable) or PT-100 2Wire or 3Wire (Factory Set)                                  |
|                      | Range  | J (0°C to 400°C or 0°C to 600°C),<br>K (0°C to 1200°C),<br>PT-100 2Wire or 3Wire (0°C to 400°C, -50.0°C to 200.0°C) |              | J (0°C to 600°C),<br>K (0°C to 999°C),<br>PT-100 (-50.0°C to 200.0°C)                       |
| OUTPUT               |        | 1Relay 1C/O 5A, 230V AC (resistive load) or SSR ( Factory set )                                                     |              | 1Relay 1C/O 5A, 230V AC (resistive load) & SSR Drive O/P 12V DC, 20mA ( Parallel to Relay ) |
| SPECIFICATION        |        | TP / ON-OFF (Factory Set)                                                                                           |              | TP/ ON-OFF (Configurable)                                                                   |
| Control Action       |        | ±1% of FSD                                                                                                          |              | ±1% of FSD                                                                                  |
| Accuracy             |        | 230V AC ± 10%, 50Hz                                                                                                 |              | 100-270V AC (SMPS), 50/60 Hz                                                                |
| Supply               |        |                                                                                                                     |              |                                                                                             |

## PID TEMPERATURE CONTROLLER

Economy Range



| MODEL                |        | TC-29P                                                                                                              | TC-221P          | TC-49P                                                             |
|----------------------|--------|---------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------|
| Dimension (HxWxD) mm |        | 72 x 72 x 45                                                                                                        | 72 x 72 x 45     | 48 x 48 x 70                                                       |
| Panel Cutout (mm)    |        | 68 x 68                                                                                                             | 68 x 68          | 45 x 45                                                            |
| INPUT                | Sensor | J/ K/ PT-100 2Wire or 3Wire (Factory Set)                                                                           | J Type           | J/ K (Configurable) or PT-100 2Wire or 3Wire (Factory Set)         |
|                      | Range  | J (0°C to 400°C or 0°C to 600°C),<br>K (0°C to 1200°C),<br>PT-100 2Wire or 3Wire (0°C to 400°C, -50.0°C to 200.0°C) | J (0°C to 600°C) | J (0°C to 600°C), K (0°C to 999°C),<br>PT-100 (-50.0°C to 200.0°C) |
| OUTPUT               |        | 1Relay 1C/O 5A,230V AC (resistive load) & SSR Drive O/P 12V DC,20mA ( Parallel to Relay ) (1 Set point)             |                  |                                                                    |
| SPECIFICATION        |        | PID/ ON-OFF (Configurable)                                                                                          |                  |                                                                    |
| Control Action       |        | ±1% of FSD                                                                                                          |                  |                                                                    |
| Accuracy             |        | 100-270V AC (SMPS), 50/60 Hz                                                                                        |                  |                                                                    |
| Supply               |        |                                                                                                                     |                  |                                                                    |



A brand by **MULTISPAN**



| MODEL                |        | CC-5010                                                                          | CC-5020                                                                         | CC-5012                                                                 | CC-5052                 |
|----------------------|--------|----------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------|
| Dimension (HxWxD) mm |        | 40 x 80 x 67                                                                     | 40 x 80 x 67                                                                    | 40 x 80 x 67                                                            | 40 x 80 x 67            |
| Panel Cutout (mm)    |        | 30 x 71                                                                          | 30 x 71                                                                         | 30 x 71                                                                 | 30 x 71                 |
| INPUT                | Sensor | NTC (Thermistor)                                                                 |                                                                                 |                                                                         |                         |
|                      | Range  | (-40°C to 90.0°C)                                                                |                                                                                 |                                                                         |                         |
| OUTPUT               |        | 1Relay 1C/O <b>10A</b> , 230V AC<br>(Resistive Load)<br>(With Defrost Facility)  | 1Relay 1C/O <b>20A</b> , 230V AC<br>(Resistive Load)<br>(With Defrost Facility) | 1 <sup>st</sup> Relay for Compressor<br>2 <sup>nd</sup> Relay for Alarm | 2 Relays for Compressor |
| SPECIFICATION        |        | ON-OFF (Cooling Mode)<br>230V AC $\pm$ 10%, 50Hz / 24V DC / 12V DC (Factory set) |                                                                                 |                                                                         |                         |
|                      |        | Control Action                                                                   |                                                                                 |                                                                         |                         |
|                      |        | Supply                                                                           |                                                                                 |                                                                         |                         |

## HUMIDITY CONTROLLER



| MODEL                |        | MHC-5012 (Humidity Controller)                                 |
|----------------------|--------|----------------------------------------------------------------|
| Dimension (HxWxD) mm |        | 40 x 80 x 67                                                   |
| Panel Cutout (mm)    |        | 30 x 71                                                        |
| INPUT                | Sensor | Humidity Sensor                                                |
|                      | Range  | 0.0 to 100.0%                                                  |
| OUTPUT               |        | 2 Relay 1C/O, 5A @230V AC (Resistive Load)                     |
| SPECIFICATION        |        | ON-OFF                                                         |
|                      |        | Accuracy $\pm$ 1% of FSD                                       |
|                      |        | Supply 230V AC $\pm$ 10%, 50Hz / 24V DC / 12V DC (Factory set) |

# TIMER

## UP TO 12 CHANNEL SEQUENTIAL TIMER

With Cascading Facility For 8 + 8 Outputs

4,8 and 12 Channel  
Sequential Timer



| MODEL                |       | SQT-1044/SQT-1244 ( Sequential Timer)                                                                                                                                                                                               | SQT-1044 (Combination Timer) | SQT-1022 ( Sequential Timer)                                                             |
|----------------------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------------------------------------------------------------------------------|
| Dimension (HxWxD) mm |       | 96 x 96 x 52                                                                                                                                                                                                                        | 96 x 96 x 52                 | 96 x 96 x 52                                                                             |
| Panel Cutout (mm)    |       | 92 x 92                                                                                                                                                                                                                             | 92 x 92                      | 92 x 92                                                                                  |
| <b>RANGE</b>         | Range | 99.99 Sec / 999.9 Sec / 99.59 Min / 999.9 Min / 99.59 Hrs / 999.9 Hrs (Configurable)                                                                                                                                                |                              |                                                                                          |
| <b>OUTPUT</b>        |       | 8Relay/12Relay 1C/O 5A,230V AC (resistive load) or SSR Drive O/P 12V DC, 20mA Output (Any one factory set)                                                                                                                          |                              | 4Relay 1C/O 5A,230V AC (resistive load) or SSR 12V DC, 20mA Output (Any one factory set) |
| <b>SPECIFICATION</b> |       | Operating Mode Delayed ON / Delayed OFF / Cycle Mode (Configurable)<br>Count Direction Up / Down (Configurable)<br>Memory Yes / No (Configurable)<br>Reset Front & Back Both Reset Available<br>Supply 100-270V AC (SMPS), 50/60 Hz |                              |                                                                                          |
| NOTE                 |       | Cascading facility available in SQT-1044 (8 Relay) Sequential timer up to 1 + 3 parallel<br>SSR output is available on request<br>Cascading facility available on request in SQT-1022 Sequential Timer                              |                              |                                                                                          |



| MODEL                |       | RTC-1048 (Real Time Clock Timer)                                                  |
|----------------------|-------|-----------------------------------------------------------------------------------|
| Dimension (HxWxD) mm |       | 96 x 96 x 52                                                                      |
| Panel Cutout (mm)    |       | 92 x 92                                                                           |
| <b>RANGE</b>         | Range | 23:59:59 Hrs / Min / Sec                                                          |
| <b>OUTPUT</b>        |       | 1Relay 1C/O                                                                       |
| <b>SPECIFICATION</b> |       | Parameters ON Time / OFF Time (16 Program)<br>Supply 100-270V AC (SMPS), 50/60 Hz |

## TIMER

### PROGRAMMABLE TIMER

Universal Range - 1Relay Output



| MODEL                |             | UTR-1044                                                                                                                                                                                             | UTR-2044     | UTR-444      | UTR-413                                      |
|----------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|----------------------------------------------|
| Dimension (HxWxD) mm |             | 96 x 96 x 52                                                                                                                                                                                         | 72 x 72 x 45 | 48 x 48 x 70 | 48 x 48 x 70                                 |
| Panel Cutout (mm)    |             | 92 x 92                                                                                                                                                                                              | 68 x 68      | 45 x 45      | 45 x 45                                      |
| INPUT                | Start Pulse | Micro Switch / Limit Switch / Proximity (Configurable)                                                                                                                                               |              |              |                                              |
|                      | Range       | 9999 / 999.9 / 99.99 Sec/Min/Hrs (Configurable)                                                                                                                                                      |              |              | 999 / 99.9 / 9.99 Sec/Min/Hrs (Configurable) |
| OUTPUT               |             | 1Relay 2C/O 5A, 230V AC(resistive load) or SSR Drive O/P 12V max 20mA DC (Any one factory set)                                                                                                       |              |              |                                              |
| SPECIFICATION        |             | Delayed ON / Delayed OFF / Cycle Mode (Configurable)<br>Up / Down (Configurable)<br>Memory Yes / No (Configurable)<br>Reset Front & Back Both Reset Available<br>Supply 100-270V AC (SMPS), 50/60 Hz |              |              |                                              |

### PROGRAMMABLE TIMER

UNIVERSAL TIMER - 2Relay output



| MODEL                |             | UTR-1244                                                                                                                                                                                                                                 | UTR-2244     | UTR-4244     |
|----------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|
| Dimension (HxWxD) mm |             | 96 x 96 x 52                                                                                                                                                                                                                             | 72 x 72 x 45 | 48 x 48 x 70 |
| Panel Cutout (mm)    |             | 92 x 92                                                                                                                                                                                                                                  | 68 x 68      | 45 x 45      |
| INPUT                | Start Pulse | Micro Switch / Limit Switch / Proximity (Configurable)                                                                                                                                                                                   |              |              |
|                      | Range       | 9999 / 999.9 / 99.99 Sec / Min / Hrs (Configurable)                                                                                                                                                                                      |              |              |
| OUTPUT               |             | 2Relay 1C/O 5A, 230V AC (resistive load) or SSR Drive O/P 12V DC Output (Any one factory set)                                                                                                                                            |              |              |
| SPECIFICATION        |             | Forward - Reverse Mode / Cyclic Mode / Sequential Mode / Combination Mode (Configurable)<br>Up / Down (Configurable)<br>Memory Yes / No (Configurable)<br>Reset Front & Back Both Reset Available<br>Supply 100-270V AC (SMPS), 50/60 Hz |              |              |



# TIMER

## PROGRAMMABLE TIMER

### Time Totalizer



| MODEL                | DTT-1000                                                                                                                                                    | DTT-2000     | DTT-3000     | DTT-5000     | DTT-56G      |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|--------------|--------------|
| Dimension (HxWxD) mm | 96 x 96 x 42                                                                                                                                                | 72 x 72 x 60 | 48 x 96 x 26 | 36 x 72 x 95 | 38 x 62 x 65 |
| Panel Cutout (mm)    | 92 x 92                                                                                                                                                     | 68 X 68      | 46 x 92      | 32 x 68      | 31 x 54      |
| RANGE                | Range 1) 9999.59 hr/min. 2) 9999.59 min/sec 3) 99999.9 sec 4) 999999 sec 5) 9999.99 sec 6) 99999.9 min 7) 999999 min 99999.9 hr 9) 999999 hr (Configurable) |              |              |              |              |
| INPUT                | Input Micro Switch/ Limit Switch / Proximity Switch / 230V AC (Factory Set)                                                                                 |              |              |              |              |
| SPECIFICATION        | Supply 230V AC $\pm$ 10%, 50Hz                                                                                                                              |              |              |              |              |

## DIGITAL PRESETABLE TIMER

### Multi range- Thumbwheel Setting



| MODEL                | MDT-1310F                                                                                     | MDT-2312F    | MDT-4310                        | DIN-63            | DIN-63C               |
|----------------------|-----------------------------------------------------------------------------------------------|--------------|---------------------------------|-------------------|-----------------------|
| Dimension (HxWxD) mm | 96 x 96 x 52                                                                                  | 72 x 72 x 60 | 48 x 48 x 102                   | 76 x 28 x 85      | 76 x 28 x 85          |
| Panel Cutout (mm)    | 92 x 92                                                                                       | 68 x 68      | 45 x 45                         | DIN rail mounting | DIN rail mounting     |
| RANGE                | Range 999 , 99.9, 9.99 Hour / Min / Sec (Configurable)                                        |              |                                 |                   |                       |
| OUTPUT               | 1Relay 2C/O 5A,230V AC (resistive load) & SSR Drive O/P 12V max 20mA DC (Any one factory set) |              |                                 |                   |                       |
| SPECIFICATION        | Operation Mode Delayed ON / Delayed OFF (Configurable)                                        |              |                                 |                   | Cycle ON / Cycle OFF  |
|                      | Counting Direction UP / DOWN (Configurable)                                                   |              |                                 |                   |                       |
|                      | Memory YES / NO (Configurable)                                                                |              |                                 |                   | YES/NO (Configurable) |
|                      | Supply 230V AC $\pm$ 10%, 50Hz                                                                |              | 100-270V AC/DC (SMPS), 50/60 Hz |                   |                       |

## PHOTO ELECTRIC CONTROLLERS For Fully Pneumatic Packaging Machine

NEW  
LAUNCH

|                      |              |                                       |
|----------------------|--------------|---------------------------------------|
| <b>MODEL</b>         |              | <b>PFLC-68</b>                        |
| Dimension (HxWxD) mm |              | 96 X 96 X 52                          |
| Panel Cutout (mm)    |              | 92 x 92                               |
| <b>INPUT</b>         | Input 1      | 2 NPN Proximity Switch ( Factory Set) |
|                      | Input 2      | Color Mark Sensor (NPN/PNP Selection) |
| <b>OUTPUT</b>        | Output 1     | Clutch & Brake                        |
|                      | Output 2     | H-Sealer Relay                        |
|                      | Output 3     | V-Sealer Relay                        |
|                      | Output 4     | Nitrogen Filling Relay                |
|                      | Output 5     | Batch Cutter Relay                    |
|                      | Output 6     | Batch Coding Relay                    |
|                      | Output 7     | Auger Relay                           |
|                      | Output 8     | Unwinding Relay                       |
| <b>SPECIFICATION</b> | Memory Reset | Non-Volatile Memory<br>Manual Reset   |
|                      | Supply       | 24V DC                                |



Touch  
Screen



|                      |              |                                           |
|----------------------|--------------|-------------------------------------------|
| <b>MODEL</b>         |              | <b>MPC-1065</b>                           |
| Dimension (HxWxD) mm |              | 96 X 96 X 52                              |
| Panel Cutout (mm)    |              | 92 x 92                                   |
| <b>INPUT</b>         | Input 1      | 2 NPN/PNP Proximity Switch ( Factory Set) |
|                      | Input 2      | Color Mark Sensor (NPN/PNP Selection)     |
| <b>OUTPUT</b>        | Output 1     | Clutch & Brake                            |
|                      | Output 2     | H-Sealer Relay                            |
|                      | Output 3     | Nitrogen Filling Relay                    |
|                      | Output 4     | Batch Cutter Relay                        |
|                      | Output 5     | Unwinding Relay                           |
| <b>SPECIFICATION</b> | Memory Reset | Non-Volatile Memory<br>Manual Reset       |
|                      | Supply       | 24V DC                                    |

# COUNTER

## PHOTO ELECTRIC CONTROLLERS



## VIBRATOR CONTROLLER



For Mechanical Machine

| MODEL                |              | MPC-1061L / MPC-1062L                                                         | MPC-5062                                                                            | MVC-72N                                                              |
|----------------------|--------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Dimension (HxWxD) mm |              | 96 x 96 x 52                                                                  | 192 x 96 x 100                                                                      | 72 x 72 x 45                                                         |
| Panel Cutout (mm)    |              | 92 x 92                                                                       | 188 x 92                                                                            | 68 x 68                                                              |
| DISPLAY              |              | 16 Character by 2 line with GREEN back light LCD display                      |                                                                                     |                                                                      |
| INPUT                | Input 1      | 1 or 2 NPN Proximity switch (Factory set)<br>Color Mark Sensor                | 1 or 2 NPN Proximity Switch ( Factory Set)<br>Color Mark Sensor                     | NPN/PNP Proximity Switch                                             |
|                      | Input 2      |                                                                               |                                                                                     |                                                                      |
| OUTPUT               |              | 2 Output (Forward & Reverse Winding),<br>2A, 110V AC / 230V AC+ Buzzer Output | 2 Output (Forward & Reverse Winding),<br>2A@110V AC / 230V AC (Any one factory set) | 0-110V AC Corresponding to percentage input.                         |
| SPECIFICATION        | Memory Reset | Non-Volatile Memory<br>Manual Reset                                           | Non-Volatile Memory<br>Manual Reset                                                 |                                                                      |
|                      | Supply       | For MPC-1061: 110V AC, +10%, 50Hz<br>For MPC-1062: 230V AC, +10%, 50Hz        | 110V AC / 230V AC $\pm$ 10%, 50Hz (Factory Set)                                     | 230V AC $\pm$ 10%, 50Hz                                              |
|                      | Note         |                                                                               |                                                                                     | Vibrator load should not more than 5Amps<br><b>Range : 1 to 99 %</b> |

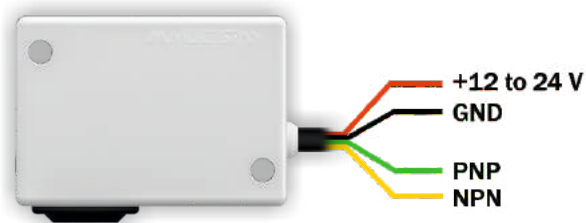
# COUNTER

## CLUTCH BRAKE CONTROLLER

For Packaging Machine Application



| MODEL                |        | MC-1003                                                                                        | MMC-1046T    |
|----------------------|--------|------------------------------------------------------------------------------------------------|--------------|
| Dimension (HxWxD) mm |        | 96 x 96 x 52                                                                                   | 96 x 96 x 52 |
| Panel Cutout (mm)    |        | 92 x 92                                                                                        | 92 x 92      |
| INPUT                |        | Input 1: NPN Proxy for clutch<br>Input 2: NPN Color mark sensor (CMS)<br>Input 3: Micro Switch |              |
| RANGE                |        | Range: Clutch ON Time : 0-99.99 Sec.<br>: 0-99.99 Sec                                          | 0-99.99 Sec  |
| OUTPUT               |        | Output 1: For Clutch<br>Output 2: For Inching<br>Output 3: For Batch Counter                   | For Clutch   |
| SPECIFICATION        | Reset  | Front Reset                                                                                    |              |
|                      | Memory | Non-Volatile Memory                                                                            |              |
|                      | Supply | 100-270V AC (SMPS), 50/60 Hz                                                                   |              |



# COUNTER

## COLOR MARK SENSOR for Packaging Machine & Printing Industries

**NEW  
LAUNCH**



### CMS-5X

|                           |                                                                                      |                             |
|---------------------------|--------------------------------------------------------------------------------------|-----------------------------|
| Model                     | CMS-5X                                                                               |                             |
| Power Supply              | 12-24V DC                                                                            |                             |
| Current Consumption       | 35mA max.@ 24V DC                                                                    |                             |
| Output                    | NPN/PNP Output                                                                       |                             |
| Output Current            | 25mA max                                                                             |                             |
| Response Time             | 2 Millisecond                                                                        |                             |
| Indications               | LED 1: Mark LED (Green)    LED 2: Output LED (Red)<br>LED 3: Background LED (Yellow) |                             |
| Push Buttons              | Button 1: Mark Button                                                                | Button 2: Background Button |
| Minimum Mark Output Delay | 20ms                                                                                 |                             |
| Operating Temperature     | -10 to 50C                                                                           |                             |
| Storage Temperature       | -20 to 70C                                                                           |                             |
| Operating Distance        | 10 mm - 15mm                                                                         |                             |
| Minimum Spot Diameter     | 5 mm                                                                                 |                             |
| Emission type             | RED (630 nm) GREEN (520 nm) BLUE (465 nm)                                            |                             |
| Ambient Light Rejection   | Yes                                                                                  |                             |
| Vibration                 | 0.5 mm Amplitude, 10 to 55 Hz Frequency                                              |                             |
| Housing Material          | ABS                                                                                  |                             |
| Lens Material             | Glass                                                                                |                             |
| Connection                | Shielded 4 Wire Cable                                                                |                             |



# COUNTER

## DIGITAL BATCH COUNTER



| MODEL                |        | BC-1046D                                                                                  | BC-2046      | BC-445                                                                     |
|----------------------|--------|-------------------------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------|
| Dimension (HxWxD) mm |        | 96 x 96 x 42                                                                              | 72 x 72 x 50 | 48 x 48 x 95                                                               |
| Panel Cutout (mm)    |        | 92 x 92                                                                                   | 68 x 68      | 45 x 45                                                                    |
| INPUT                | Input  | NPN/ PNP Proximity Switch / Micro Switch ( Configurable ) / 230V AC Pulse ( Factory Set ) |              | NPN/ PNP Proximity Switch / Micro Switch / 230V AC Pulse (Factory Set)     |
| RANGE                | Range  | Upper display range ( 0 -999999 Count )<br>Lower display range ( 0 -9999 )                |              | Upper display range ( 0 -999999 Count )<br>Lower display range ( 0 -9999 ) |
| OUTPUT               |        | 1Relay+Buzzer / SSR + Buzzer                                                              |              |                                                                            |
| SPECIFICATION        | Memory | Non-Volatile Memory                                                                       |              |                                                                            |
|                      | Reset  | Auto reset / Manual reset / Back reset                                                    |              |                                                                            |
|                      | Supply | 230V AC $\pm$ 10%, 50Hz                                                                   |              | 100-270V AC (SMPS), 50/60 Hz                                               |
|                      | Note   |                                                                                           |              |                                                                            |

## DIGITAL LENGTH COUNTER

With Proximity /Single & Dual Channel Encoder Input



| MODEL                |           | LC-1046D                                                                                                                                                                                                 | LC-2046      | LC-3006       | LC-445                                             |
|----------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------|----------------------------------------------------|
| Dimension (HxWxD) mm |           | 96 x 96 x 42                                                                                                                                                                                             | 72 x 72 x 50 | 48 x 96 x 110 | 48 x 48 x 95                                       |
| Panel Cutout (mm)    |           | 92 x 92                                                                                                                                                                                                  | 68 x 68      | 46 x 92       | 45 x 45                                            |
| INPUT                | Input     | NPN/PNP Proximity Switch (Configurable) / Encoder (Factory set)                                                                                                                                          |              |               |                                                    |
| RANGE                | Range     | 0-99999.9 / 0-999999 / 0-9999.99 / 0-999.999 Meter (Configurable)                                                                                                                                        |              |               | 0-9999.9 / 0-99999 / 0-999.99 Meter (Configurable) |
| OUTPUT               |           | 1Relay 1C/O 5A@230V AC (resistive load)                                                                                                                                                                  |              |               |                                                    |
| SPECIFICATION        | MPM Range | 999.9 MPM                                                                                                                                                                                                |              |               |                                                    |
|                      | Diameter  | 0-9999.99 MM                                                                                                                                                                                             |              |               |                                                    |
|                      | Memory    | Non-Volatile Memory                                                                                                                                                                                      |              |               |                                                    |
|                      | Reset     | Auto Reset / Manual reset facility & front and back reset                                                                                                                                                |              |               |                                                    |
|                      | Supply    | 230V AC $\pm$ 10%, 50Hz                                                                                                                                                                                  |              |               | 100-270V AC (SMPS), 50/60 Hz                       |
|                      | Note      | In LC-445 if back reset option is required , then Input would be Proximity Sensor (NPN OR PNP) (Factory Set)<br>RS-485 MODBUS Communication is available as per requirement in 96 X 96 Size (LC-1048-M1) |              |               |                                                    |

## COUNTER SPEED / RATIO INDICATOR



### MODEL

Dimension (HxWxD) mm  
Panel Cutout (mm)

### MPM-1044 / MPM-2044

96 x 96 x 52 / 72 x 72 x 75  
92 x 92 / 68 x 68

### RPM-1044 / RPM-2044

96 x 96 x 52 / 72 x 72 x 75  
92 x 92 / 68 x 68

### INPUT RANGE

Start Pulse

NPN/PNP Proximity Switch (Configurable), Proximity Input (Stretch Ratio Indicator)

Range

0 to 9999 or 0 to 999.9 MPM (Factory set), 0 to 9999 RPM

### OUTPUT

1Relay on RPM/MPM (Factory Set) &  
Retransmission Output ( 4-20mA DC / 0-10V DC ) (Factory set) (Optional)

### SPECIFICATION

Diameter Range

0 to 999.9 MM ( Only for MPM / Stretch Ratio MPM)

Accuracy

±1% of FSD

Supply

100-270V AC (SMPS), 50/60 Hz

## PROGRAMMABLE COUNTER COUNTER + RPM



### MODEL

Dimension (HxWxD) mm  
Panel Cutout (mm)

### MMC-1046RD

96 x 96 x 42  
92 x 92

### MMC-2046R

72 x 72 x 50  
68 x 68

### INPUT RANGE

Input

NPN/PNP Proximity switch / Micro Switch (Configurable) / 230V AC Pulse(Factory Set)

Range

Upper Display Range: (0-999999 Count) , Lower Display Range: (0-9999 RPM)

### OUTPUT

Output

1Relay 1C/O 5A, 230V AC (resistive load)

### SPECIFICATION

Memory

Non-Volatile Memory

Reset

Auto Reset / Manual Reset / Back Reset

Supply

230V AC ± 10%, 50Hz

# COUNTER

## DIGITAL PROGRAMMABLE COUNTER



| MODEL                |                 | PC-1044                                                                                         | PC-2044      | PC-3006       | PC-444                       | PC-1006D     | PC-2006             |
|----------------------|-----------------|-------------------------------------------------------------------------------------------------|--------------|---------------|------------------------------|--------------|---------------------|
| Dimension (HxWxD) mm |                 | 96 x 96 x 52                                                                                    | 72 x 72 x 45 | 48 x 96 x 120 | 48 x 48 x 70                 | 96 x 96 x 42 | 72 x 72 x 60        |
| Panel Cutout (mm)    |                 | 92 x 92                                                                                         | 68 x 68      | 46 x 92       | 45 x 45                      | 92 x 92      | 68 x 68             |
| INPUT                | Sensor          | NPN/PNP Proximity Switch / Micro Switch (Configurable) / 230V AC Pulse / Encoder (Factory Set)  |              |               |                              |              |                     |
|                      | Range           | 0 - 9999 / 0 - 999.9 Count                                                                      |              |               |                              |              | 0 - 999999 Count    |
| OUTPUT               |                 | 1Relay 1C/O 5A, 230V AC (resistive load)                                                        |              |               |                              |              |                     |
| SPECIFICATION        |                 |                                                                                                 |              |               |                              |              |                     |
|                      | Count Direction | Up / Down (Configurable)                                                                        |              |               |                              |              |                     |
|                      | Memory          | Yes / No (Configurable)                                                                         |              |               |                              |              |                     |
|                      | Reset           | Auto Reset / Manual Reset / Reset at back                                                       |              |               |                              |              |                     |
|                      | Supply          | 230V AC ± 10%, 50Hz                                                                             |              |               | 100-270V AC (SMPS), 50/60 Hz |              | 230V AC ± 10%, 50Hz |
|                      | Note            | Dual Set Point, Scale factor & 2 Relay Option Available on customer request in PC-1044,PC-2044. |              |               |                              |              |                     |

## DIGITAL PRESETTABLE COUNTER

With Thumbwheel Setting



| MODEL                | TWS-1400F                                                                                             | TWS-2500F    |
|----------------------|-------------------------------------------------------------------------------------------------------|--------------|
| Dimension (HxWxD) mm | 96 x 96 x 52                                                                                          | 72 x 72 x 85 |
| Panel Cutout (mm)    | 92 x 92                                                                                               | 68 x 68      |
| <b>INPUT</b>         | Input: NPN/PNP Proximity switch / Micro Switch (Configurable) / 230V AC Pulse / Encoder (Factory Set) |              |
|                      | Range: 0 To 9999                                                                                      |              |
| <b>OUTPUT</b>        | 1Relay 2C/O 5A, 230V AC (resistive load)                                                              |              |
| <b>SPECIFICATION</b> | Operating Mode: Delayed ON/ Delayed OFF (Configurable)                                                |              |
|                      | Count Direction: Up / Down (Configurable)                                                             |              |
|                      | Memory: Yes / No (Configurable)                                                                       |              |
|                      | Speed Selection: Medium(Up to 5000 rpm), Fast(Up to 15000 RPM) (Configurable)                         |              |
|                      | Supply: 100-250V AC (SMPS), 50/60 Hz                                                                  |              |

# COUNTER

## DIGITAL RPM INDICATOR



| MODEL                |        | RPM-1201                                       | RPM-2201     | RPM-3201                     | RPM-4201     |
|----------------------|--------|------------------------------------------------|--------------|------------------------------|--------------|
| Dimension (HxWxD) mm |        | 96 x 96 x 42                                   | 72 x 72 x 60 | 48 x 96 x 26                 | 48 x 48 x 70 |
| Panel Cutout (mm)    |        | 92 x 92                                        | 68 x 68      | 46 x 92                      | 45 x 45      |
| SPECIFICATION        | INPUT  | Input NPN/PNP Proximity Switch ( Configurable) |              |                              |              |
|                      | RANGE  | Range 4 - 5000 RPM                             |              |                              |              |
|                      | SUPPLY | 230V AC $\pm$ 10%, 50Hz                        |              | 100-270V AC (SMPS), 50/60 Hz |              |

## DIGITAL COUNT TOTALISER



| MODEL                |        | CT-1000                                                                                                     | CT-2000      | CT-3000                      | CT-5000      | CT-56G                  |
|----------------------|--------|-------------------------------------------------------------------------------------------------------------|--------------|------------------------------|--------------|-------------------------|
| Dimension (HxWxD) mm |        | 96 x 96 x 42                                                                                                | 72 x 72 x 60 | 48 x 96 x 26                 | 36 x 72 x 95 | 38 x 62 x 65            |
| Panel Cutout (mm)    |        | 92 x 92                                                                                                     | 68 x 68      | 46 x 92                      | 32 x 68      | 31 x 54                 |
| SPECIFICATION        | INPUT  | Input NPN/PNP Proximity Switch / Micro Switch (Configurable), 230V AC Pulse / Encoder (Any one factory set) |              |                              |              |                         |
|                      | RANGE  | Range 0 To 999999 Count                                                                                     |              |                              |              |                         |
|                      | Memory | Non-Volatile Memory                                                                                         |              |                              |              |                         |
|                      | Reset  | Manual Reset, Back Reset (Optional)                                                                         |              |                              |              |                         |
|                      | SUPPLY | 230V AC $\pm$ 10%, 50Hz                                                                                     |              | 100-270V AC (SMPS), 50/60 Hz |              | 230V AC $\pm$ 10%, 50Hz |



# PROTECTION RELAY

## AUTOMATIC POWER FACTOR CONTROLLER

Intelligent PF Correction Relay

# 6/8/12/14/16 STAGE APFC RELAY



With  
Graphical LCD Display

14 & 16  
Stage Available

| MODEL                |                        | APFC-96-L6                                                                                                                                                                                             | APFC-9606    | APFC-1448                                                          | APFC-1412                                                           |
|----------------------|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------------------------------------------------------|---------------------------------------------------------------------|
| Dimension (HxWxD) mm |                        | 96 x 96 x 52                                                                                                                                                                                           | 96 x 96 x 52 | 144 x 144 x 70                                                     | 144 x 144 x 70                                                      |
| Panel Cutout (mm)    |                        | 92 x 92                                                                                                                                                                                                | 92 x 92      | 137 x 137                                                          | 137 x 137                                                           |
| INPUT                | Current                | 50mA to 5AMP AC, (Without CT) (CT Ratio selectable 5/5 A to 9995/5 A) For main CT & capacitor CT                                                                                                       |              |                                                                    |                                                                     |
|                      | Controlling PF Range   | +0.80 (Lag) To -0.80 (Lead)                                                                                                                                                                            |              |                                                                    |                                                                     |
|                      | Min. Operating Current | 1% to 10 % of primary CT in PF & KVAR Mode (User selectable) Factory set 3 % of primary CT in all controlling mode                                                                                     |              |                                                                    |                                                                     |
|                      | Input Voltage          | 30 to 240V AC (P-N) CAT III                                                                                                                                                                            |              | 380 to 450V AC (P-P) CAT III                                       |                                                                     |
| OUTPUT               | SENSING                | Single CT based sensing, True RMS, 5 Sec. update time (2 sec. on request)                                                                                                                              |              |                                                                    |                                                                     |
|                      |                        | NO-C<br>6 Relay for capacitor bank                                                                                                                                                                     |              | NO-C<br>8 Relay for capacitor bank +<br>1 Alarm Relay +1 Fan Relay | NO-C<br>12 Relay for capacitor bank +<br>1 Alarm Relay +1 Fan Relay |
|                      | PROGRAMMABLE FUNCTIONS | Set PF, Relay Switch ON Time, Control Modes, Mains Primary CT Ratio, Relay Steps to be used ,<br>Capacitor Primary CT Ratio (To be used if actual capacitor value is to be measured at any given time) |              |                                                                    |                                                                     |
| SPECIFICATION        |                        |                                                                                                                                                                                                        |              |                                                                    |                                                                     |
|                      | Control Mode           | Auto, Manual, KVAR (Set capacitor bank value), Rotational                                                                                                                                              |              |                                                                    |                                                                     |
|                      | Accuracy               | Class 0.5 as per IEC 62053-22                                                                                                                                                                          |              |                                                                    |                                                                     |
|                      | Power Supply           | 230 V AC +20% Supply , 50Hz                                                                                                                                                                            |              | NO Power Supply to be given separately                             |                                                                     |
|                      | Note:                  | RS-485 MODBUS is available in APFC-1414 as per request                                                                                                                                                 |              |                                                                    |                                                                     |

# PROTECTION RELAY

## EARTH LEAKAGE RELAY & EARTH TO NEUTRAL VOLTAGE



| MODEL                           | ELR-19N-M1                                                                                                   | ELR-63                                          | EN-19N-M1                            |
|---------------------------------|--------------------------------------------------------------------------------------------------------------|-------------------------------------------------|--------------------------------------|
| Dimension (HxWxD) mm            | 96 x 96 x 52                                                                                                 | 76 x 28 x 85                                    | 96 x 96 x 52                         |
| Panel Cutout (mm)               | 92 x 92                                                                                                      | DIN Rail Mounting                               | 92 x 92                              |
| <b>INPUT RANGE</b> Input Signal | 30mA To 3AMP AC thru. external CBCT                                                                          | 30mA To 3.00A AC thru external CBCT             | 0 To 10 Voltage AC                   |
| <b>OUTPUT</b>                   | 30mA To 3.00A AC                                                                                             | 30mA To 3.00A AC                                | 00.00 To 10.00 Voltage AC            |
| <b>SPECIFICATION</b>            | 1 Relay ( NO-C-NC )<br>5A,230V AC (resistive load)                                                           | 1 Relay ( NO-C )<br>5A,230V AC (resistive load) | 1 Relay 1 C/O<br>Contact 230V AC, 5A |
| Accuracy                        | Class 0.5                                                                                                    |                                                 |                                      |
| Power Supply                    | 100-270V AC (SMPS), 50/60 Hz, Approx 4VA                                                                     |                                                 |                                      |
| Note:                           | RS-485 MODBUS is available in ELR-19N & EN-19N as per request, CBCT available as per required Inner Diameter |                                                 |                                      |

## SINGLE PHASE - CURRENT RELAYS



| MODEL                | CC-11                                                                                                  | CC-12        |
|----------------------|--------------------------------------------------------------------------------------------------------|--------------|
| Dimension (HxWxD) mm | 96 x 96 x 52                                                                                           | 96 x 96 x 52 |
| Panel Cutout (mm)    | 92 x 92                                                                                                | 92 x 92      |
| <b>INPUT</b> Current | 5A AC Direct ( CT ratio selectable 5/5A to 1600/5A )                                                   |              |
| <b>OUTPUT</b>        | 1 Relay ( NO-C-NC ) 5A,230V AC (resistive load)                                                        |              |
| <b>SPECIFICATION</b> | Tripping Facility High / Low / Inband / Outband / Absolute Low / Absolute Outband Alarm (Configurable) |              |
| Accuracy             | Class 0.5                                                                                              |              |
| Power Supply         | 100-270V AC (SMPS), 50/60 Hz, Approx 4VA                                                               |              |

# PROTECTION RELAY

## PROTECTION DEVICE - 3 PHASE

DINRAIL  
MOUNT



| MODEL                |                   | MPD-192                                                                                                                                                                                                                                                                                                                       |                 |                |                  | MPD-152                                           |  |
|----------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------|------------------|---------------------------------------------------|--|
| Dimension (HxWxD) mm |                   | 96 x 96 x 52                                                                                                                                                                                                                                                                                                                  |                 |                |                  | 75 x 55 x 110                                     |  |
| Panel Cutout (mm)    |                   | 92 x 92                                                                                                                                                                                                                                                                                                                       |                 |                |                  | Din Rail Mounting                                 |  |
| INPUT                | Input Signal      | 3 Ø 4 Wire / 3 Ø 3 Wire                                                                                                                                                                                                                                                                                                       |                 |                |                  |                                                   |  |
|                      | Voltage           | 50 - 520V AC (L-L) , 30 - 300V AC (L-N)                                                                                                                                                                                                                                                                                       |                 |                |                  |                                                   |  |
| OUTPUT               | Current           | 60mA to 5A (CT Selection 5A- 6000A Ac)(Additional Leakage Current Measurement thru CBCT in MPD-19 EL)                                                                                                                                                                                                                         |                 |                |                  |                                                   |  |
|                      |                   | 1 <sup>st</sup> Relay (NO-C-NC) 10 A, 230V AC, (resistive load)<br>2 <sup>nd</sup> Relay (NO-C) 5A (with simultaneous actuation)                                                                                                                                                                                              |                 |                |                  | 1 Relay ( NO-C-NC ) 10 A,230V AC (resistive load) |  |
| PARAMETER            | Tripping Facility | Over Current                                                                                                                                                                                                                                                                                                                  | Under Current   | Short Circuit  | Lock Rotor Point | Earth Leakage (In MPD 19EL)                       |  |
|                      |                   | Over Voltage                                                                                                                                                                                                                                                                                                                  | Under Voltage   | Phase sequence | Unbalance        |                                                   |  |
| SPECIFICATION        |                   | Over Frequency                                                                                                                                                                                                                                                                                                                | Under Frequency | Phase Loss     | Neutral Loss     |                                                   |  |
|                      | Accuracy          | Class 1.0                                                                                                                                                                                                                                                                                                                     |                 |                |                  |                                                   |  |
|                      | Power Supply      | 100 to 270V AC (SMPS), 50/60Hz                                                                                                                                                                                                                                                                                                |                 |                |                  |                                                   |  |
|                      | Note:             | <b>MPD-192 is also available in 415V AC ± 10%, 50Hz Power Supply (ON Request)</b><br><b>RS-485 MODBUS Communication (Optional) MPD-19 EL-M1</b><br><b>Earth leakage features are available(Optional) MPD-19 EL ,CBCT Available As per Required Inner Diameter</b><br><b>External CT 30A,60A,100A Available As per Request</b> |                 |                |                  |                                                   |  |

## THREE PHASE VOLTAGE & CURRENT PROTECTION RELAY

DINRAIL  
MOUNT



| MODEL                |                   | VPR-126                                                                                                                        | VPR-3P                                                                                                          | CPR-126 (3 CT )                                                            | CPR-126-1C (1 CT )            |
|----------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|-------------------------------|
| Dimension (HxWxD) mm |                   | 75 x 45 x 110                                                                                                                  | 75 x 45 x 110                                                                                                   | 75 x 45 x 110                                                              | 75 x 45 x 110                 |
| INPUT                | Mounting          | Din Rail Mounting                                                                                                              |                                                                                                                 |                                                                            |                               |
|                      | Input Signal      | 3Ø 3W / 3Ø 4W                                                                                                                  |                                                                                                                 | 3Ø 3W                                                                      | 1Ø 2W                         |
|                      | Voltage           | 30 to 300V AC (L-N),<br>50 to 520V AC (L-L)                                                                                    | 160 to 300V AC (L-N)<br>280 to 520V AC (L-L)                                                                    |                                                                            |                               |
| OUTPUT               | Current           |                                                                                                                                |                                                                                                                 | 0.1 to 5Amp (CT Selection 5/5 To 999/5 A AC)                               |                               |
|                      |                   | 1 <sup>st</sup> Relay (NO-C-NC)<br>2 <sup>nd</sup> Relay (NO-C) 5A (Optional)                                                  | 1 <sup>st</sup> Relay (NO-C-NC)<br>2 <sup>nd</sup> Relay (NO-C)                                                 | 1Relay (NO-C-NC)                                                           |                               |
| PARAMETER            | Tripping Facility | Over Voltage<br>Under Voltage<br>Over Frequency<br>Under Frequency<br>Phase Loss<br>Phase Sequence<br>Asymmetry & Neutral Loss | Over Voltage<br>Under Voltage<br>Over Frequency<br>Under Frequency<br>Phase Loss<br>Phase Sequence<br>Asymmetry | Over Current<br>Under Current<br>Asymmetry<br>Single Phase Preventer (SPP) | Over Current<br>Under Current |
| SPECIFICATION        | Accuracy          | Class 1.0                                                                                                                      | No Power Supply to be<br>given separately                                                                       | Class 1.0                                                                  |                               |
|                      | Power Supply      | 100 to 270V AC (SMPS), 50/60Hz                                                                                                 |                                                                                                                 | 100 to 270V AC (SMPS), 50/60Hz                                             |                               |
|                      | Note              | External CT 30A,60A,100A Available with CPR-126 & CPR-126-1C As per Request                                                    |                                                                                                                 |                                                                            |                               |

## PROTECTION RELAY

### DIN RAIL PROTECTION RELAY

## EARTH FAULT RELAY

|                           |                                        |
|---------------------------|----------------------------------------|
| <b>MODEL</b>              | <b>EFR-63</b>                          |
| Dimension (HxWxD) mm      | 76 x 28 x 85                           |
| Panel Cutout (mm)         | Din Rail Mounting                      |
| <b>INPUT</b>              | Input                                  |
| <b>OUTPUT</b>             | 1 Relay (5A, 230V AC (Resistance load) |
| <b>TRIPPING PARAMETER</b> | Earth Fault Current                    |
| <b>POWER SUPPLY</b>       | 100 to 270V AC (SMPS), 50/60Hz         |

DINRAIL  
MOUNT



NEW  
LAUNCH

## MULTI CHANNEL CURRENT TRANSDUCER

### CT upto 100A

DINRAIL  
MOUNT



|                      |                                                                       |
|----------------------|-----------------------------------------------------------------------|
| <b>MODEL</b>         | <b>MCS-63</b>                                                         |
| Dimension (HxWxD) mm | 76 x 28 x 116                                                         |
| Panel Cutout (mm)    | Din Rail Mounting                                                     |
| <b>INPUT</b>         | Input                                                                 |
| <b>OUTPUT</b>        | RS-485 Modbus                                                         |
| <b>POWER SUPPLY</b>  | 24V DC                                                                |
| Note                 | 3CT, 4CT & 6CT Available in MCS-63 / 100 amp also available in MCS-63 |

## VOLTAGE MONITOR RELAY

|                           |                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <b>MODEL</b>              | <b>VMR-13</b>                                                                                                               |
| Dimension (HxWxD) mm      | 96 x 96 x 42                                                                                                                |
| Panel Cutout (mm)         | 92 x 92                                                                                                                     |
| <b>INPUT</b>              | Input                                                                                                                       |
| <b>OUTPUT</b>             | 1 <sup>st</sup> Relay 5A, 230V AC (Resistance load)<br>2 <sup>nd</sup> Relay (Optional)                                     |
| <b>TRIPPING PARAMETER</b> | Over Voltage / Under Voltage<br>Over Frequency / Under Frequency<br>Phase Loss / Phase Sequence<br>Asymmetry & Neutral Loss |
| <b>POWER SUPPLY</b>       | 230V AC $\pm$ 20%, 50Hz                                                                                                     |
| Note                      | RS-485 Modbus is Available in VMR-13                                                                                        |

NEW  
LAUNCH





# ENERGY

## MULTIFUNCTION METER



### MFM Meters

### VAW Meter 1Ø

| MODEL                |                             | AVH-14N                                                        | AVH-13N                             | PM-11H (Single phase)              |
|----------------------|-----------------------------|----------------------------------------------------------------|-------------------------------------|------------------------------------|
| Dimension (HxWxD) mm |                             | 96 x 96 x 52                                                   | 96 x 96 x 52                        | 96 x 96 x 52                       |
| Panel Cutout (mm)    |                             | 92 x 92                                                        | 92 x 92                             | 92 x 92                            |
| INPUT                | Input Signal                | 3Ø 3 Wire / 3Ø 4Wire                                           | 3Ø 4Wire                            | 1Ø 2Wire                           |
|                      | Voltage                     | 300V AC (L-N) / 520V AC (L-L)                                  | 300V AC (L-N) / 500V AC (L-L)       | 20-300V AC                         |
| PARAMETER            | Current                     | 5/5A to 6000/5A CT Ratio Selectable                            | 5/5A to 4000/5A CT Ratio Selectable | 5/5A to 400/5A CT Ratio Selectable |
|                      | Voltage (L-L)               | 50 - 520V AC                                                   | 50 - 520V AC                        | 20 - 300V AC                       |
|                      | Voltage (L-N)               | 30 - 300V AC                                                   | 30 - 300V AC                        | 5/5A to 400/5A CT Ratio Selectable |
|                      | Current ( ~A )              | 5/5A to 6000/5A CT Ratio Selectable                            | 5/5A to 6000/5A CT Ratio Selectable | 0.000 - 9999W                      |
|                      | KW Total                    | 0.000 - 9999 kW                                                | 0.000 - 9999 kW                     | 0.000 - 999999 kWh                 |
|                      | KW Per Phase                | 0.000 - 9999 kW                                                | 0.000 - 9999 kW                     | 0.100 - 1.000                      |
|                      | KWH Total                   | 000.000 - 999999 kWh                                           | 000.000 - 999999 kWh                | 0.000 - 999999 kWh                 |
|                      | Power Factor Average (PF)   | 0.100 - 1.000                                                  | 0.100 - 1.000                       | 0.100 - 1.000                      |
|                      | Power Factor per phase (PF) | 0.100 - 1.000                                                  | 0.100 - 1.000                       | 0.000 - 9999 kVA                   |
|                      | KVA Total                   | 0.000 - 9999 kVA                                               | 0.000 - 9999 kVA                    | 45 - 60 Hz                         |
|                      | KVAh Total                  | 000.000 - 999999 KVAh                                          | 45 - 60 Hz                          |                                    |
|                      | Frequency (Hz)              | 45 - 60 Hz                                                     |                                     |                                    |
|                      | KVAr Total                  | 0.000 - 9999 kVAr                                              |                                     |                                    |
|                      | KVArh Total                 | 000.000 - 999999 KVArh                                         |                                     |                                    |
|                      | Load hours                  | 9999.59 Hrs/Min.                                               |                                     |                                    |
|                      | No load hours               | 9999.59 Hrs/Min.                                               |                                     |                                    |
| COMMUNICATION        | RPM                         | 1500 RPM                                                       |                                     |                                    |
|                      |                             | RS-485 MODBUS ( Optional)                                      |                                     |                                    |
| SPECIFICATION        |                             |                                                                |                                     |                                    |
|                      | Accuracy                    | For Voltage & Current Class 0.5 / For Power & Energy Class 1.0 |                                     |                                    |
|                      | Power Supply                | 100-270V AC (SMPS), 50/60 Hz, Approx 4VA                       |                                     | 230V AC ±10%, 50Hz                 |

## DUAL SOURCE MULTIFUNCTION METER



### MODEL

Dimension (HxWxD) mm  
Panel Cutout (mm)

### DSM-14N

96 x 96 x 52  
92 x 92

### INPUT

Input Signal  
Voltage  
Current  
DG Pulse

Note :-

Display both DG & EB All Parameters

## 3 PHASE ENERGY &amp; POWER METER



| MODEL                | EPM-13N                                                      | EM-10                                                                                                                                                                                                                                                   | EM-1P (Single phase)                                                                           |
|----------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Dimension (HxWxD) mm | 96 x 96 x 52                                                 | 96 x 96 x 52                                                                                                                                                                                                                                            | 96 x 96 x 52                                                                                   |
| Panel Cutout (mm)    | 92 x 92                                                      | 92 x 92                                                                                                                                                                                                                                                 | 92 x 92                                                                                        |
| <b>INPUT</b>         | Input Signal<br>Voltage<br>Current                           | 3Ø 4 Wire<br>300V AC (L-N) / 520V AC (L-L)<br>5/5 to 6000/5A AC CT Ratio Selectable                                                                                                                                                                     | 1Ø 2Wire<br>30 - 300V AC (L - N)<br>5/5 to 4000/5A AC                                          |
| <b>SPECIFICATION</b> | Reset<br>Measuring Range<br>Accuracy<br>Power Supply<br>Note | kWh Reset by front key<br>0.000 to 9999 kW (Active power)<br>0 to 999999 kWh (Active energy)<br>Class 0.5<br>230V AC $\pm$ 10%, 50Hz<br><b>1 Relay on kW available in EPM-13N, Pulse Output &amp; RS-485 Modbus Available in EPM-13N As Per Request</b> | By front Keypad<br>0 to 999999 kWh (Active energy)<br>Class 0.5<br>230V AC $\pm$ 10%, 50Hz     |
|                      |                                                              |                                                                                                                                                                                                                                                         | Reset by front key<br>0 to 99999.9 kWh (Active energy)<br>Class 0.5<br>230V AC $\pm$ 10%, 50Hz |

## 3 PHASE AND 1 PHASE PANEL METER

## VAF Meter



NEW LAUNCH



| MODEL                | AVF-29D                                                                                                       | AVF-19D                                                                                                            | AVF-133                                                                                                             |
|----------------------|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Dimension (HxWxD) mm | 72 x 72 x 45                                                                                                  | 96 x 96 x 52                                                                                                       | 96 x 96 x 52                                                                                                        |
| Panel Cutout (mm)    | 68 x 68                                                                                                       | 92 x 92                                                                                                            | 92 x 92                                                                                                             |
| <b>INPUT</b>         | Input Signal<br>Voltage<br>Current                                                                            | 3Ø 4 Wire / 3Ø 3Wire / 1Ø 2 Wire<br>30 To 300V AC (L-N) / 50 To 520V AC (L-L)<br>Primary : 6000A<br>Secondary : 5A | 3Ø 4 Wire / 3Ø 3Wire / 1Ø 2 Wire<br>30 To 300V AC (L-N) / 50 To 520V AC (L-L)<br>Primary : 10000A<br>Secondary : 5A |
| <b>PARAMETER</b>     | Voltage (L-L)<br>Voltage (L-N)<br>Average Current (L1,L2 & L3)<br>Line Current (L1,L2 & L3)<br>Phase Sequence | Average Voltage (L-N)<br>Average Voltage (L-L)<br>Frequency<br>Load Hour/No Load Hour<br>RPM                       | Voltage (L-L)<br>Voltage (L-N)<br>Average Current (L1,L2 & L3)<br>Line Current (L1,L2 & L3)<br>Phase Sequence       |
| <b>SPECIFICATION</b> | Accuracy<br>Power Supply                                                                                      | Class 0.5<br>230V AC 50Hz                                                                                          | Class 0.5<br>100 To 270V AC(SMPS), 50/60Hz                                                                          |

# ENERGY

## 3 PHASE AMPERE METER



| MODEL                |  | AMP-19N                             | AMP-13                                 | AMP-23                              |
|----------------------|--|-------------------------------------|----------------------------------------|-------------------------------------|
| Dimension (HxWxD) mm |  | 96 x 96 x 42                        | 96 x 96 x 42                           | 72 x 72 x 60                        |
| Panel Cutout (mm)    |  | 92 x 92                             | 92 x 92                                | 68 x 68                             |
| INPUT                |  | Current                             | 0.5A to 5A                             | 0.5A to 5A                          |
| SPECIFICATION        |  | Primary : 5A to 6000 AC CT Selction | Primary : 5 to 10K Ampere (Selectable) | Primary : 5A to 6000 AC CT Selction |
|                      |  | Secondary : 5A                      | Secondary : 1A/5A (Selectable)         | Secondary : 5A                      |
|                      |  | Accuracy                            | Class 0.5                              |                                     |
|                      |  | Power Supply                        | 230V AC $\pm$ 10%, 50Hz                |                                     |
|                      |  | Note                                | RS-485 Modbus Available in Amp-13      |                                     |

## 3 PHASE VOLT METER



| MODEL                |  | VOLT-19N     | VOLT-13                                       | VOLT-23                                       |
|----------------------|--|--------------|-----------------------------------------------|-----------------------------------------------|
| Dimension (HxWxD) mm |  | 96 x 96 x 42 | 96 x 96 x 42                                  | 72 x 72 x 45                                  |
| Panel Cutout (mm)    |  | 92 x 92      | 92 x 92                                       | 68 x 68                                       |
| INPUT                |  | Voltage      | 50 to 520V AC (L-L)                           | 50 to 520V AC (L-L) 30 to 300V AC (L-N)       |
| SPECIFICATION        |  |              | Primary : 100 to 999Kv AC (L-L)(Selectable)   | Primary : 100 to 999Kv AC (L-L)(Selectable)   |
|                      |  |              | Secondary : 100 to 520V AC (L-L) (Selectable) | Secondary : 100 to 520V AC (L-L) (Selectable) |
|                      |  | Accuracy     | Class 0.5                                     |                                               |
|                      |  | Power Supply | 230V AC $\pm$ 10%, 50Hz                       |                                               |

## SINGLE PHASE AC PANEL METER VOLT / AMP Meter



| MODEL                | AV-14/11V                                                                 | AV-24/21V    | AV-34/31V    | AV-41CT/41A/41V             |
|----------------------|---------------------------------------------------------------------------|--------------|--------------|-----------------------------|
| Dimension (HxWxD) mm | 96 x 96 x 42                                                              | 72 x 72 x 35 | 48 x 96 x 26 | 48 x 48 x 46                |
| Panel Cutout (mm)    | 92 x 92                                                                   | 68 x 68      | 46 x 92      | 45 x 45                     |
| <b>INPUT</b>         |                                                                           |              |              |                             |
| Ampere (AC)          | 5A AC Direct                                                              |              |              | Primary: 5/5A to 2000/5A AC |
| CT Ratio             | Primary: 5/5A to 4000/5A AC                                               |              |              |                             |
| Voltage (AC)         | 30 to 500V AC                                                             |              |              |                             |
| <b>SPECIFICATION</b> |                                                                           |              |              |                             |
| Accuracy             | Class 0.5                                                                 |              |              |                             |
| Power Supply         | 230V AC $\pm 10\%$ , 50Hz                                                 |              |              |                             |
| Note                 | 30A AC Direct CT Available at back side ( AV-11A, AV-21A, AV-31A, AV-41A) |              |              |                             |

## SINGLE PHASE AC PANEL METER VOLT + AMP meter



| MODEL                | AV-12                                   | AV-22        | AV-33        | AV-44           |
|----------------------|-----------------------------------------|--------------|--------------|-----------------|
| Dimension (HxWxD) mm | 96 x 96 x 42                            | 72 x 72 x 60 | 48 x 96 x 65 | 48 x 48 x 46    |
| Panel Cutout (mm)    | 92 x 92                                 | 68 x 68      | 46 x 92      | 45 x 45         |
| <b>INPUT</b>         |                                         |              |              |                 |
| Current Input        | Primary: 5/5A to 2000/5A AC             |              |              | 30.0A AC Direct |
| Voltage Input        | 30 to 500V AC                           |              |              | 30 to 500V AC   |
| <b>SPECIFICATION</b> |                                         |              |              |                 |
| Accuracy             | Class 0.5                               |              |              |                 |
| Power Supply         | 230V AC $\pm 10\%$ , 50Hz               |              |              |                 |
| Note                 | 30A AC Direct CT Available at back side |              |              |                 |



# ENERGY

## DC PANEL METER

### VOLT / AMP Meter



| MODEL                |              | AV-14DA/14DV                                                                                | AV-24DA/DV   | AV-34DA/34DV | AV-41DV      | VAW-34DC                              |
|----------------------|--------------|---------------------------------------------------------------------------------------------|--------------|--------------|--------------|---------------------------------------|
| Dimension (HxWxD) mm |              | 96 x 96 x 42                                                                                | 72 x 72 x 60 | 48 x 96 x 65 | 48 x 48 x 70 | 48 x 96 x 26                          |
| Panel Cutout (mm)    |              | 92 x 92                                                                                     | 68 x 68      | 46 x 92      | 45 x 45      | 46 x 92                               |
| INPUT                | Ampere (DC)  | 0 to 9999 Ampere DC Through 75mV DC external shunt                                          |              |              |              |                                       |
|                      | Voltage (DC) | 19.99V DC / 49.99V DC / 99.99V DC / 199.9V DC / 750V DC (Factory set)                       |              |              |              |                                       |
|                      | Watt (DC)    |                                                                                             |              |              |              | 750V DC/1000V DC<br>0000 - 7499 KW DC |
| SPECIFICATION        |              |                                                                                             |              |              |              |                                       |
| Accuracy             |              | ± 1% Of Full Range ±1 Count                                                                 |              |              |              |                                       |
| Power Supply         |              | 230V AC ±10%, 50Hz                                                                          |              |              |              |                                       |
| Note                 |              | 0 to 5A DC / 10A DC / 20A DC Direct through shunt is available in model AV-14DZ, 24DZ, 34DZ |              |              |              |                                       |

## SINGLE PHASE AC PANEL METER



| MODEL                           |              | PF-11 / PF-13         | WM-11                                                                    | FRQ-11               |
|---------------------------------|--------------|-----------------------|--------------------------------------------------------------------------|----------------------|
| Dimension (HxWxD) mm            |              | 96 x 96 x 42          | 96 x 96 x 42                                                             | 96 x 96 x 42         |
| Panel Cutout (mm)               |              | 92 x 92               | 92 x 92                                                                  | 92 x 92              |
| INPUT                           | Input Signal | 1Ø 2 Wire / 3Ø 4 Wire | 1Ø 2 Wire                                                                | 1Ø 2 Wire            |
|                                 | Voltage      | 230V AC, 50Hz         | 300V AC (L-N)                                                            | 300V AC (L-N)        |
|                                 | Current      | 5A AC                 | 0.5 to 5Amp (CT Selection 5 - 50A)                                       |                      |
| CT Selection Secondary Function |              |                       | 5A/1A (Configurable)                                                     |                      |
| SPECIFICATION                   |              |                       |                                                                          |                      |
| Measuring Range                 |              |                       |                                                                          |                      |
| Accuracy                        |              | Class 0.5             | 0 to 15Kilo Watt<br>Class 0.5                                            | 50.0 HZ<br>Class 0.5 |
| Power Supply                    |              | 230V AC ±10%, 50Hz    | 230V AC ± 10%, 50Hz                                                      | 230V AC ± 10%, 50Hz  |
| Note                            |              |                       | Also available in 199.9 Watt Range<br>1Relay on kW is available in WM-11 |                      |



## MODEL

Dimension (HxWxD) mm  
Panel Cutout (mm)

## PM-11DC

96 x 96 x 52  
92 x 92

## PARAMETER

Voltage  
Ampere  
Watt  
Kwh

0-200V DC  
0-999A DC (75mV DC through external shunt)  
0-199.0 kW  
0-999999 kWh

## SPECIFICATION

Accuracy  
Power Supply  
Note

± 1% Of Full Range ±1 Count  
230V AC ±10%, 50Hz

**RS-485 MODBUS (Optional)**

## AC-DC TESTING PANEL



## AC DC-15A (RS-485 MODBUS Compatible)

## MODEL

Dimension (HxWxD) mm  
Panel Cutout (mm)

## AC POWER METER

96 x 96 x 52  
92 x 92

## DC POWER METER

96 x 96 x 52  
92 x 92

## PARAMETER

Voltage  
Ampere  
Watt  
PF  
Efficiency

10-300V AC  
10mA-5.000 Amp AC  
0-1500 Watt  
0-1.000 PF

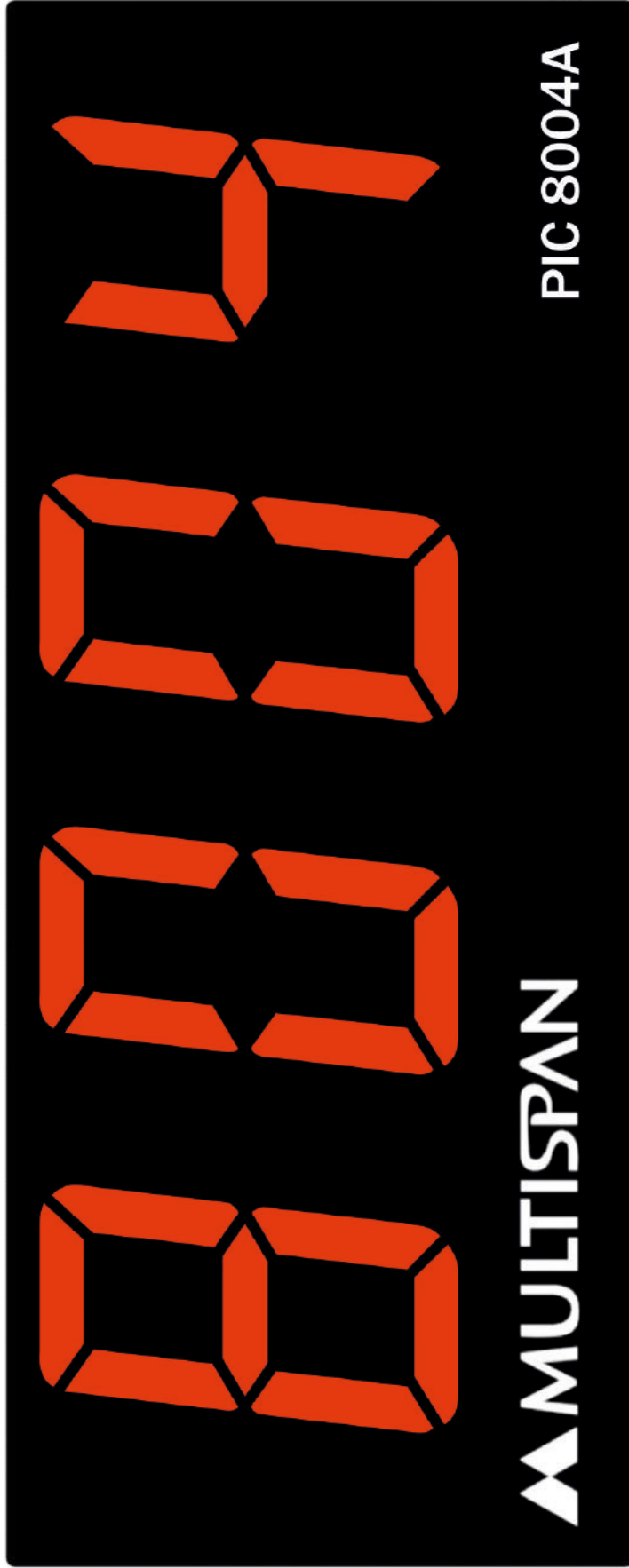
5-150V DC  
10mA-5.000 Amp AC  
0-750 Watt  
0-100.0%

## SPECIFICATION

Accuracy  
Power Supply

Class 1.0  
230V AC ±10%, 50Hz

# Process Indicators- Jumbo



**8" Display**

## Inputs

- Temperature
- Analog
- Digital
- MODBUS



**4" Display**

# JUMBO DISPLAY

## JUMBO DISPLAY INDICATORS

### Single & Double Side



8" Display



4" Display

| MODEL                |          | PIC-8004A                                                                                                                                                                                                  | PIC-6004A/ MSI-6004/ UTI-6004 |
|----------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Dimension (HxWxD) mm |          | 330 x 630 x 50                                                                                                                                                                                             | 160 x 380 x 50                |
| INPUT                | Input    | 0-10V DC / 4-20mA DC / 0-20mA DC (Configurable) , Pulse through Encoder/Proximity (Factory Set)<br>J/ K/ PT-100 2Wire 3Wire (Configurable), RS-485 MODBUS.                                                 |                               |
|                      | Range    | J (0°C - 400°C), K (0°C - 1200°C) , PT-100 2Wire or 3Wire (-99.9°C - 400.0°C),<br>(-999 to 9999, 0 to 9999 Count For Analog Input ),                                                                       |                               |
| OUTPUT               | Output 1 | 2 Relays for Alarm output. (Optional)                                                                                                                                                                      |                               |
|                      | Output 2 | 24V@30mA DC Transmitter Supply for Analog Input (Optional)                                                                                                                                                 |                               |
| SPECIFICATION        | Accuracy | ±1% of FSD                                                                                                                                                                                                 |                               |
|                      | Supply   | 100-270V AC (SMPS), 50/60 Hz / 24V DC (Factory Set)                                                                                                                                                        |                               |
|                      | Note     | <b>1) For Analog Input model : PIC 8004A / PIC 6004A / PIC 3004A</b><br><b>2) For Proximity / Encoder Input Model : MSI 6004 / MSI 3004</b><br><b>3) For Temperature Input Model : UTI 3004 / UTI 6004</b> |                               |

## PROGRAMMABLE JUMBO DISPLAY COUNTER

4" Display



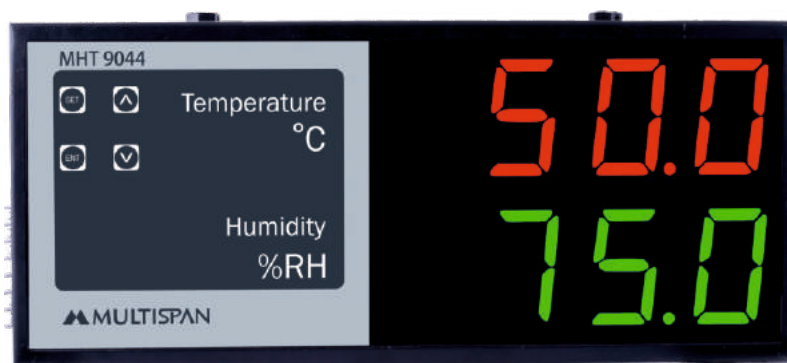
| MODEL                |        | PC-6006 (Single Side)                                                           |
|----------------------|--------|---------------------------------------------------------------------------------|
| Dimension (HxWxD) mm |        | 160 x 570 x 50                                                                  |
| Display              |        | Single Display: 7 Segment, 6 Digit, 4" Red Led Display                          |
| INPUT                | Sensor | NPN/PNP Proximity switch & Micro Switch (Configurable)                          |
|                      | Range  | 0-999999 Count                                                                  |
| OUTPUT               | Output | 1Relay 1C/O 5A,230V AC (resistive load) or SSR Drive O/P 12V DC, 20mA(Optional) |
| SPECIFICATION        | Memory | Non-Volatile Memory                                                             |
|                      | Reset  | Auto / Manual Reset / Back reset                                                |
|                      | Supply | 100-270V AC (SMPS), 50/60 Hz                                                    |
|                      | Note   | <b>RS-485 Input available as per request</b>                                    |



# JUMBO DISPLAY

## HUMIDITY + TEMPERATURE CONTROLLER

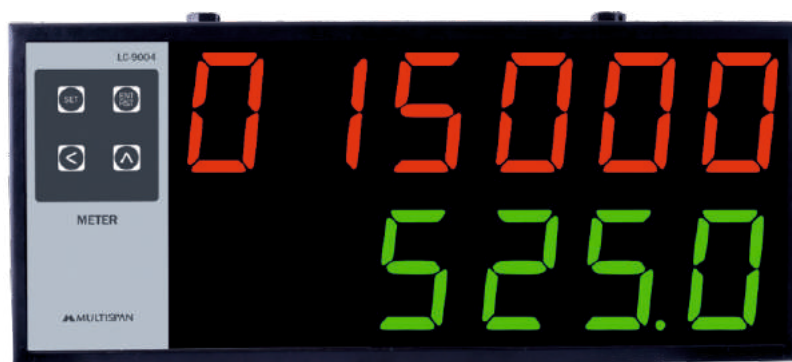
2.25" Display



|                      |                |                                                                               |
|----------------------|----------------|-------------------------------------------------------------------------------|
| <b>MODEL</b>         |                | <b>MHT-9044 (Humidity + Temp. Controller)</b>                                 |
| Dimension (HxWxD) mm |                | 160 x 380 x 50                                                                |
| <b>Display</b>       |                | <b>Upper:</b> 7 Segment, 4 Digit, 2.25" Red Led Display - Temperature         |
|                      |                | <b>Lower:</b> 7 Segment, 4 Digit, 2.25" Green Led Display - Humidity          |
| <b>INPUT</b>         | Input          | S-1: PT-100 2Wire or 3Wire (RTD) S-2: Humidity Sensor                         |
|                      | Range          | <b>PT-100 2Wire or 3Wire</b> (-99°C to 400°C)<br><b>Humidity Sensor</b>       |
| <b>OUTPUT</b>        | Output 1       | 1 <sup>st</sup> Relay for Temperature and 2 <sup>nd</sup> Relay for Humidity. |
| <b>SPECIFICATION</b> | Control Action | ON-OFF                                                                        |
|                      | Accuracy       | ±1% of FSD                                                                    |
|                      | Supply         | 100-250V AC (SMPS), 50/60 Hz                                                  |
|                      |                |                                                                               |

## PROGRAMMABLE JUMBO LENGTH COUNTER

2.25" Display



|                      |             |                                                                                             |
|----------------------|-------------|---------------------------------------------------------------------------------------------|
| <b>MODEL</b>         |             | <b>LC-9004</b>                                                                              |
| Dimension (HxWxD) mm |             | 160 x 380 x 50                                                                              |
| <b>Display</b>       |             | <b>Upper:</b> 7 Segment, 6 Digit, 2.25" Red Led Display - Total Meters                      |
|                      |             | <b>Lower:</b> 7 Segment, 4 Digit, 2.25" Green Led Display - Meter Per Minute                |
| <b>INPUT</b>         | Start Pulse | NPN/PNP Proximity Switch (Configurable) / Encoder (Factory set) , Micro Switch              |
| <b>RANGE</b>         |             | 0-99999.9 / 0-999999 Meter (Configurable)                                                   |
| <b>OUTPUT</b>        |             | 1Relay 1C/O 5A, 230V AC (resistive load) or SSR12V max 20mA DC Output (Any one factory set) |
| <b>SPECIFICATION</b> | MPM Range   | 999.9 MPM                                                                                   |
|                      | Diameter    | 0-9999.99 MM                                                                                |
|                      | Memory      | Non-Volatile Memory                                                                         |
|                      | Reset       | Auto Reset / Manual Reset facility & front and back reset facility                          |
|                      | Supply      | 100-250V AC (SMPS), 50/60 Hz                                                                |
|                      | Note        | <b>RS-485 Input / Output available as per request</b>                                       |

**MODEL**

Dimension (HxWxD) mm  
Mounting

**VPR-22**

90 x 22.5 x 67.5  
Din rail mounting

**INPUT**

Input

Input Voltage : 280 to 520V AC (L-L)  
3Ø-3W

**OUTPUT**

1 Relay (5A, 230V AC (Resistance load)

**TRIPPING  
PARAMETER**

Under Voltage  
Over Voltage  
Phase asymmetry  
Phase sequence  
Phase loss

**POWER SUPPLY**

No Power Supply to be given separately

**MODEL**

Dimension (HxWxD) mm  
Mounting

**SPP-22 (Single Phase Preventor)**

90 x 22.5 x 67.5  
Din rail mounting

**INPUT**

Input

Input Voltage : 280 to 520V AC (L-L)  
3Ø-3W

**OUTPUT**

1 Relay (5A, 230V AC (Resistance load)

**TRIPPING  
PARAMETER**

Phase loss  
Phase sequence  
Phase asymmetry

**POWER SUPPLY**

No Power Supply to be given separately

**MODEL**

Dimension (HxWxD) mm  
Mounting

**CPR-22 (1 CT)**

90 x 22.5 x 67.5  
Din rail mounting

**INPUT**

Input

Input Current : 100mA to 5A AC

**OUTPUT**

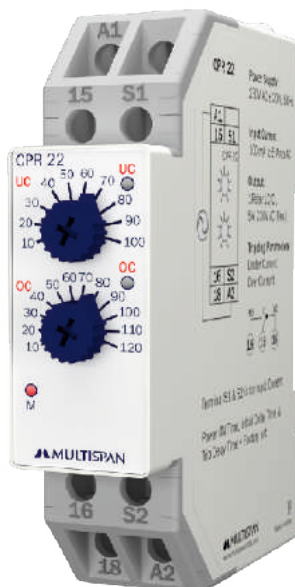
1 Relay (5A, 230V AC (Resistance load)

**TRIPPING  
PARAMETER**

Under Current  
Over Current

**POWER SUPPLY**

230V AC  $\pm 20\%$ , 50Hz



# ANALOG TIMERS

## 22 TIMER SERIES

DINRAIL  
MOUNT



### MODEL

Dimension (HxWxD) mm  
Mounting

### DT 10S , DT 30S, DT 60S, DT-30M

90 x 22.5 x 67.5  
Din rail mounting

### RANGE

Time Range

0 to 10 Sec (For DT 10S)  
0 to 30 Sec (For DT 30S)  
0 to 60 Sec (For DT 60S)  
0 to 30 Min (For DT 30M)

### OUTPUT

1 Relay O/P (ON Delay/ OFF Delay)  
(1 C/O, 5A 230V AC ,Resistive Load)

### POWER SUPPLY

230V AC  $\pm 20\%$ , 50Hz / 24V DC/ 415V AC  
(Factory set)

### MODEL

Dimension (HxWxD) mm  
Mounting

### SD-22

90 x 22.5 x 67.5  
Din rail mounting

### RANGE

Time Range : 0 to 60 Sec  
Pause Time : 50 ms or 100 ms Selection  
by front key

### OUTPUT

2 Relay O/P  
(1 C/O, 5A 230V AC ,Resistive Load)  
1st Relay for star connection &  
2nd Relay for delta connection

### POWER SUPPLY

230V AC  $\pm 20\%$ , 50Hz

Note

415V AC Supply Available on Request



### MODEL

Dimension (HxWxD) mm  
Mounting

### DI-22

90 x 22.5 x 67.5  
Din rail mounting

### RANGE

Time Range

0.1 Sec to 10 Hour

### OUTPUT

1 Relay O/P  
(2 C/O, 5A 230V AC ,Resistive Load)

### POWER SUPPLY

230V AC  $\pm 20\%$ , 50Hz

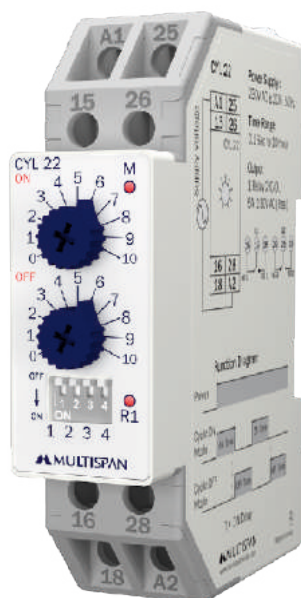
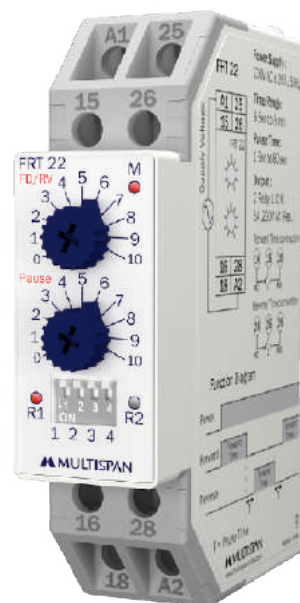




# ANALOG TIMERS

## 22 TIMER SERIES

|                      |                                                                                                               |
|----------------------|---------------------------------------------------------------------------------------------------------------|
| <b>MODEL</b>         | <b>FRT-22</b>                                                                                                 |
| Dimension (HxWxD) mm | 90 x 22.5 x 67.5                                                                                              |
| Mounting             | Din rail mounting                                                                                             |
| <b>RANGE</b>         | Forward & Reverse Time Range : 0.1 sec to 10 Hour<br>Pause Time : 1 Sec to 100 Sec                            |
| <b>OUTPUT</b>        | 2 Relay O/P (1 C/O, 5A 230V AC (Resistive Load)<br>1st Relay for Forward Time &<br>2nd Relay for Reverse Time |
| <b>POWER SUPPLY</b>  | 230V AC $\pm$ 20%, 50Hz                                                                                       |



|                      |                                                    |
|----------------------|----------------------------------------------------|
| <b>MODEL</b>         | <b>CYL-22</b>                                      |
| Dimension (HxWxD) mm | 90 x 22.5 x 67.5                                   |
| Mounting             | Din rail mounting                                  |
| <b>RANGE</b>         | Time Range 0.1 Sec to 10 Hour                      |
| <b>OUTPUT</b>        | 1 Relay O/P<br>(2 C/O, 5A 230V AC (Resistive Load) |
| <b>POWER SUPPLY</b>  | 230V AC $\pm$ 20%, 50Hz                            |



# DC DRIVE



**TD-13B**  
2.0 HP, 3.0 HP



**TD-13B**  
0.5 HP, 1.0 HP



**TD-13M**  
0.5 HP, 1.0 HP, 2.0 HP, 3.0 HP



**TD-144**  
0.5 HP, 2.0 HP  
1.0 HP, 3.0 HP

| DESCRIPTION              | MODEL  | W x H x D (mm)  | RANGE        |
|--------------------------|--------|-----------------|--------------|
| Panel Mounting Type      | TD-144 | 140 x 140 x 190 | 0.5, 1, 2 HP |
| Wall Mounting Mould Type | TD-13M | 170 x 235 x 85  | 0.5, 1, HP   |
|                          | TD-13M | 210 x 285 x 110 | 2, 3 HP      |
| Wall Mounting Panel Type | TD-13B | 165 x 240 x 95  | 0.5, 1 HP    |
|                          | TD-13B | 230 x 300 x 105 | 2, 3 HP      |
| Panel Mounting Type      | TD-11  | 96 x 96 x 110   | 0.5 HP       |

## OTHER PRODUCTS

### SINGLE PHASE THYRISTOR BASED D.C DRIVE

- SOFT START (QUICK START POSSIBLE)
- ARMATURE VOLTAGE : 200V DC
- MIN / STOP FACILITY (OPTIONAL)
- FIELD VOLTAGE 200V DC, TRIP INDICATION BY LED, OVER LOAD, HIGH INPUT CURRENT & FIELD VOLTAGE FAILURE PROTECTION
- 2 SPEED VARIATION (OPTIONAL), SPEED SETTING BY POT
- UPTO 5 HP DC DRIVE AVAILABLE

\_\_\_\_\_

# Sales Network



## 50+

### Channel Partners

Distribution network in all major cities in India with Resident Engineers for technical support.

## 25+

### Countries Export Sales

Presence in countries like Middle East, Egypt, Sri Lanka, Bangladesh, South Africa, Nigeria, Vietnam, Singapore & more.

### ***Multi Span - Multi Industry Company***

Multispan is an established brand name with all major Industries in India. such as Plastics and Packaging Industry. Heat treatment, Machine Tools, Control & Automation, Process Industry, Power Measurement, Textile Industry, Pharmaceuticals Machinery, etc. We not only supply a product, but also provide innovative solutions

### ***Customized Satisfaction - Our Motto at Multispan***

Because of its customization and the ability to listen to customer's requirement, today Multispan is having a basket of 100+ customized products creating its own niche category in the Process Control Industry. What is more is that we can deliver customized OEM specific solutions with a short turn-around time ranging from conceptualizing the product to final testing the product on the running machine.

***"Listening to customized needs and customized satisfaction is our motto!"***

### ***Our Niche Market***

With Technical Sales as its main marketing motto, Multispan operates through a 50+ channel partner network in all major cities in India. It also has a list of famous OEMs and end customers like Tata Motors, NTPC, HAL, E+L, Reliance, Vedanta Aluminum, Jubilant Biosciences, Arvind Mills, Fiat, Crompton Greaves, ISRO and other government companies in its portfolio.

### Certifications





Since 1986

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50+ Channel Partners across India

25+ Export Sales to Countries

## Multispan Control Instruments Pvt Ltd

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