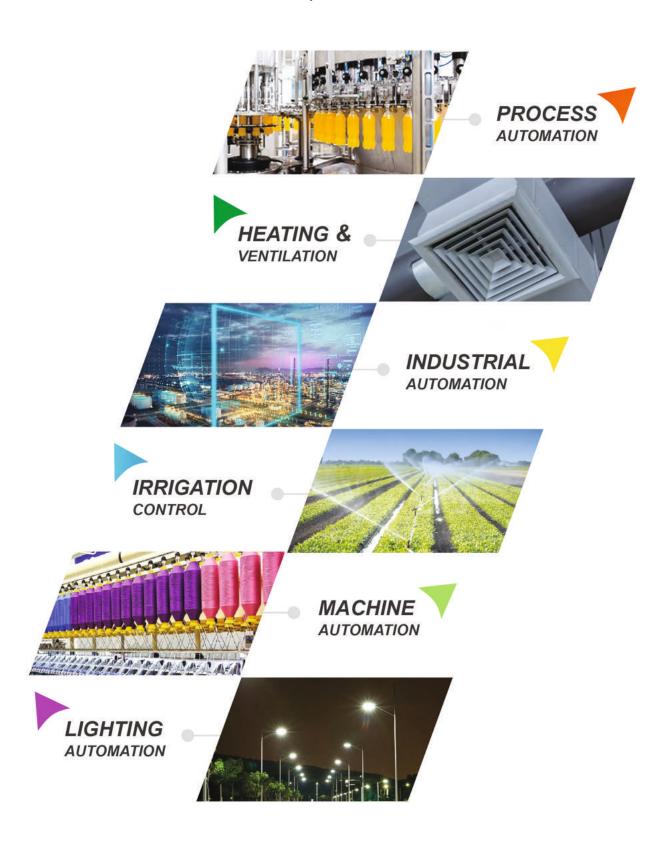




# YOUR NEEDS, OUR SOLUTIONS

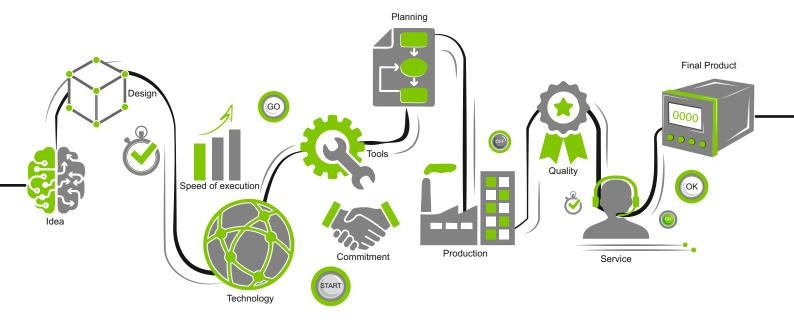


# Committed to EXCELLENCE

We at GIC, understand how important it is to provide our customers with the best experience. It is important that we create such an experience that they feel strongly connected to our brand, time and again.

We understand that for our customers to excel, we need to excel in everything that we offer. The foundation of excellence lies in being relevant to market needs, ensuring excellence in our products, a deep understanding of customer satisfaction, ensuring dependable services, and encouraging our people to excel, thus ensuring innovation and quality.

We stay committed to being Excellent.



#### **ABOUT GIC**

Established in 1972, General Industrial Controls Private Limited (GIC) located in Pune, India, manufactures Process Control, Automation and Instrumentation products. GIC was the first company to launch Time Switches and Timers in India.

What started as a small venture four decades back, is now a company that offers an array of world-class products. With relentless focus on customer satisfaction, GIC has successfully innovated and continuously improved their capabilities to build a product portfolio that embodies finesse and excelled quality.

Today, we are an ISO 9001:2015, ISO 14001:2015,ISO 45001:2018 & IATF 16949 certified organization with state-of-the-art plants having integrated facilities for everything from 'design to delivery' under one roof.

Our high performance products for Process Control and Automation application, together with our ingenious tooling and component manufacturing solutions, have garnered us an excellent reputation world over.

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# Mini PLC PL-100

- Supports up to 112 IOs
- · Relay Base & Transistor Low Side Base modules
- Stacking using FRC cable up to maximum 6
   Expansion Modules
- Isolated Digital Inputs with sourcing & sinking capability
- Isolated Digital Transistorized Outputs (Low Side and High side driver)
- High Speed Inputs Single / Quadrature (1x/2x/4x)
- High Speed Outputs (PTO / PWM / S-Profile)
- · CE, UKCA and RoHS complied

- Analog Voltage/Current Inputs and Outputs of 0-10 V / 4-20 mA
- PC Software for programming, online & offline simulation
- Standard RS232/RS485 port with RJ11 & 2 wire terminal for HMI/SCADA Interface
- · Modbus RTU support
- 128 Weekly, Monthly & Yearly Time Switches each
- Multiple Timers, Counters including retentive counters, Hour meters & many more function blocks



## **Ordering Information**

Cat. N	o.	Description
Cat. N	o.	Description

**Base Models:** 

PC10BD16005D1 DC Base with 8 Digital I/Ps, 8 Relay Outputs With 2 Port.
PC10BD14006D1 DC Base with 8 Digital I/Ps (4 Normal I/Ps + 4 High Speed I/Ps)

6 Transistor Low Side Outputs (4 Normal O/Ps + 2 High Speed O/Ps) With 2 Port.

**Extension Models:** 

PC10ED08001N Extension with 8 Digital Inputs
PC10ED08002N Extension with 8 Relay Outputs

PC10ED16003N Extension with 8 Digital Inputs and 8 Relay Outputs
PC10ED08004N Extension with 8 Transistor Low Side Outputs
PC10ED08005N Extension with 8 Transistor High Side Outputs

PC10EA04001N Extension with 4 Analog Inputs (Max. 24, 0-10V / 4-20mA)
PC10EA02002N Extension with 2 Analog Outputs (Max. 12, 0-10V / 4-20mA)

**Programming Software:** 

PC10SN000N PL-Soft Pro

**Accessories:** 

PC10AC2 RS232 Communication Cable, PL-100 to HMI / SCADA

PC10AC3 RS485 Communication Cable, PL-100 to HMI / SCADA (DB9 Female to RJ-11)
PC10AC4 RS485 Communication Cable, PL-100 to HMI / SCADA (DB9 Male to RJ-11)



## GSM Alarm Modem

- GSM Alarm Modem is specifically designed to provide GSM features to Mini PLC PL-100
- GSM Alarm Modem enables monitoring of inputs, outputs and controlling of outputs of Mini PLC PL-100 through SMS facility
- The preset and current value related to special function blocks (SFB) that are available in the ladder logic can be monitored
- Analog input and output values can also be effectively monitored and controlled
- Diagnostic information about all the inputs and outputs of devices connected in the system is available for users

- Device and Clock settings can be configured by sending respective queries to the device
- User can integrate Special Function Blocks such as Send and Receive SMS along with others like Timers, Time Switches, Counters, etc. for various applications
- Alert messages can be received from the GSM Alarm Modem depending on the ladder logic
- Power Failure condition can also be effectively reported
- · CE, UKCA and RoHS complied



# **Ordering Information**

Cat. No. Description

40B2BBVAA 24 VDC, Module for GSM Alarm Modem with wire type antenna



# I Genie™- ∧X

- Supports up to 48 I/Os (32 Digital Inputs & 16 Digital Outputs)
- · 250 lines of ladder programming
- 16 soft text messages, Time Switches, Compare Counters, Timers, Counters and 12 Analog functions, 4 Hour Meters
- Backlit LCD Screen for display & modification of pre-selected parameters of functional blocks, viewing I/O status & programming on the device
- PC software for programming, online & offline simulation, documentation & printing
- Designed for use in automation for commercial & Industrial sectors
- Multi level password and run time parameter save facility
- · CE, UKCA and RoHS complied
- DST Feature Available







RS-485 Module

Cat. No.	Description	
G7DDT11	110 - 240 VAC, Base Module, with LCD Display	
G7DDT11B	110 - 240 VAC, Base Module, without LCD Display	
G8DDT11	12 - 24 VDC, Base Module, with LCD Display	
G8DDT11B	12 - 24 VDC, Base Module, without LCD Display	
G9DDT11	24V AC/DC, Base Module, with LCD Display	
G9DDT11B	24VAC/DC, Base Module, without display	
G9ADT11	24V AC/DC, Base Module with 2 Analog I/P(for 24V DC on	ly), with LCD Display
G9ADT11B	24V AC/DC, Base Module with 2 Analog I/P (for 24V DC or	nly), without Display
G7DDT10E	110 - 240 VAC, Extension Module	
G8DDT10E	12 - 24 VDC, Extension Module	
G9DDT10E	24V AC/DC, Extension Module	
G9ADT10E	24V AC/DC, Extension Module with 2 Analog I/P (for 24V D	OC only)
GFDNN3M	Memory Card	
GFDNN2S	RS232 Serial Communication Cable	
GFDNN1	Programming Cable	
GNXNN2	Software supplied on CD-ROM compatible with Windows	7, 8, 8.1 & 10
G7XDTR4	110 - 240 VAC, RS485 Communication Module	
G8XDTR4	12 - 24 VDC, RS485 Communication Module	UL approval is not applicable



# GSM Controller

- Load can be made ON / OFF using mobile phone from remote location either by making an IVRS call, missed call or sending SMS to the device
- Device is suitable for Single Phase and Three Phase supply
- Device is compatible with SASD, FASD & DOL starters and controllers
- One Master & two other Master or Monitor numbers can be configured to control and monitor the Load operation
- · Powered with Android App "M-Remote"

- Load can be operated in Manual Mode,
   GSM Auto Mode, Timer Mode, Retentive Timer
   Mode or Multiple Daily Timer Mode
- Wire antenna for flexible positioning to get proper signal strength
- User can get information of events like Load ON/ OFF, Phase error, Error recovery, Power Fail,
   Power ON, Phase fail, Contactor pick up fault through SMS and call back from device
- · Anti-theft feature



Cat. No.	Description
26A11AV	180 - 500 VAC, Module For Mobile Starter with wire type antenna
26A21AV	85 - 265 VAC, Module For Mobile Starter with wire type antenna
26A11AVL	Module for regulating pump side ON/OFF operation for remote water level management
26A12AVT	Module for controlling level at tank side for remote water level management
26A10AVD	180-500 VAC, Module for door open/close SMS

Accessories	Description	
26100V0	Wire type antenn	

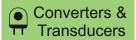
# Human Machine Interface

- 4.3", 7" & 10.1" with color TFT display options with & without Ethernet model
- CPU Cortex-M7, 600MHz, 1284 DMIPS
- RAM 32 MB , ROM 32 MB (Without Ethernet model)
   & 64 MB (With Ethernet model)
- 4 wire Resistive display with > 1,000,000 touch
- Builtin RTC with accuracy of ± 2 Sec/Day
- · Inbuilt picture library with high resolution images.
- Data logging function available via Internal Memory, USB Host, SD Card.
- · Recipe, Alarms, Trends, Password management.

- Application upload/download function available via USB Slave, USB Host, SD Card, Serial & Ethernet port.
- · Shock & Vibration protection as per IEC Standard
- Operating temperature range: 0 to +50 °C,
   Storage temperature range: -20 to +60 °C
- IP 65 protection for front panel with Class 2 Pollution Degree
- · CE, UKCA and RoHS Compliant



Cat. No.	Description
HM104B-0000	4.3" TFT Display, 24VDC, 2 Serial ports*(1 RS232/RS485, 1 RS422/RS485), 1 USB Slave,
	1 USB Host
HM104B-N000	4.3" TFT Display, 24VDC, 2 Serial ports*(1 RS232/RS485, 1 RS422/RS485), 1 USB Slave,
	1 USB Host, 1 SD Card Slot, 1 Ethernet
HM107B-0000	7" TFT Display, 24VDC, 2 Serial ports (1 RS232/RS485, 1 RS232/RS422/RS485),
	1 USB Slave, 1 USB Host
HM107B-N000	7" TFT Display, 24VDC, 2 Serial ports (1 RS232/RS485, 1 RS232/RS422/RS485),
	1 USB Slave, 1 USB Host, 1 SD Card Slot, 1 Ethernet
HM110B-0000	10.1" TFT display, 24VDC, 2 Serial ports (1 RS232/RS485, 1 RS232/RS422/RS485),
	1 USB Slave, 1 USB Host
HM110B-N000	10.1" TFT display, 24VDC, 2 Serial ports(1 RS232/RS485, 1 RS232/RS422/RS485),
	1 USB Slave, 1 USB Host, 1 SD Card Slot, 1 Ethernet

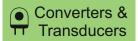


# | Lynx+Gateway

- Serial protocol support for Modbus (RTU and ASCII) Master/Slave
- Network protocol support for Modbus TCP (Server/Client)
- Supports Raw Serial to Ethernet conversion with Telnet RFC2217
- Serial Interface support for RS232, RS422 and RS485 network
- · Configurable using Embedded Web server and Application software
- Network Protocols: ARP, TCP/IP, HTTP, BOOTP, TFTP, ICMP, TELNET, DHCP, AutoIP, UPnP
- · CE, UKCA and RoHS complied



Cat. No.	Description
25A11A0	12 - 24 VDC, Protocol Converter, Modbus TCP - Modbus RTU/ASCII
25B11A0	12 - 24 VDC, Serial to Ethernet Converter



## Interface Converters

#### USB to RS232 / RS485 / RS422 Converter

- Input: USB 2.0 Protocol
- Output: RS232 on DB9 Male connector compatible to PC RS485/RS422 on terminal block.
- Communication Speed: 300bps to 230Kbps.
- Galvanic Isolation of 1.5kV
- RS232/RS485 line protection: +/- 15kV ESD.
- LED Indication for Transmit Receive signals.
- Input power from USB port, no external power required.
- Virtual COM port USB Drivers provided for Windows 7, 8, 8.1 and 10
- · CE, UKCA and RoHS complied



#### RS232 to RS485 / RS422 Converter

- Isolated RS485/RS422 on terminal block.
- RS232 with DB9 Female connector
- Auto direction control for RS485-2W transmission.
- Galvanic Isolation of 1500V for RS485/RS422.
- Supports Baud rate up to 230Kbps.
- Internal 1.5 kV ESD protection both RS232 & RS485/RS422.
- LED Indication for Transmit, Receive signal communication traffic.
- Input power supply range 9 to 26.4 VDC
- · CE, UKCA and RoHS complied



## **Ordering Information**

#### USB to RS232 / RS485 / RS422 Converter

Cat. No.	Description
28A11A0	USB to RS232 / RS485 / RS422 Converter
28G11A0	USB to RS485 Converter
28D33B0	Accessory for Converter 28A11A0, USB 2.0 Cable, Type A Male to B Male
28NNN10	Accessory for Converter 28A11A0, Software CD for Windows 8, 8.1 and 10

#### RS232 to RS485 / RS 422 Converter

Cat. No.	Description
28B21A0	RS232 to RS485/RS422 Converter
28E34B0	Accessory for Converter 28B21A0, Cable, DB9 Female to DB9 Male



# I Signal Transducer

- Input / Output configuration selected via DIP switch combinations
- · Choice of multiple analog input-output configurations
- Provides 3-way galvanic isolation of 3.75kV
- Fast output Response Time (<100ms)
- · Sleek 22.5mm wide
- · CE, UKCA and RoHS complied



Cat. No.	Description
2SC3D11CC3	24 VDC, 1 Input & 1 Output, Voltage & Current, 3 Port Isolation, Base / DIN, Input Signal: 0-10 VDC, 2-10 VDC, 0-20 mA, 4-20 mA
2SC3D11DC3	24 VDC, 1 Input & 1 Output, Voltage & Current, 3 Port Isolation, Base / DIN, Input Signal: 0-5 VDC, 1-5 VDC, 0-20 mA, 4-20 mA
2SC3D11EC3	24 VDC, 1 Input & 1 Output, Voltage & Current, 3 Port Isolation, Base / DIN, Input Signal: 0-10 VDC, 2-10 VDC, 0-10 mA, 2-10 mA



# I Switched Mode Power Supply - DIN Mount

- Excellent Load & Line Regulation
- · High Noise Immunity & Low Ripple
- No Load Power Consumption of less than 0.5W
- · Overload & Short Circuit Protection
- · High Efficiency of Operation
- Suitable for Temperatures upto 55°C
- · Small Form Factor
- Peak Power Capacity
- · Compact Design with DIN mounting
- · CE, UKCA and RoHS complied



Cat. No.	Description
24AS244D6D	96W, 230 VAC, 24 VDC / 4A, Switched Mode Power Supply (6M Size)
24AS126D6D	72W, 230 VAC, 12 VDC / 6A, Switched Mode Power Supply (6M Size)
24BS24AD4E	60W, 110 - 240 VAC, 24 VDC / 2.5A, Switched Mode Power Supply (4M Size)
24BS241D2F	24W, 110 - 240 VAC, 24 VDC / 1A, Switched Mode Power Supply (2M Size)
24BS24BD1F	12W, 110 - 240 VAC, 24 VDC / 0.5A, Switched Mode Power Supply (1M Size)
24BS121D2F	12W, 110 - 240 VAC, 12 VDC / 1.0A, Switched Mode Power Supply (2M Size)
24BS101D2F	10W, 110 - 240 VAC, 10 VDC / 1.0A, Switched Mode Power Supply (2M Size)
24BS051D1F	5W, 110 - 240 VAC, 5 VDC / 1.0A, Switched Mode Power Supply (1M Size)



# Switched Mode Power Supply - DIN Mount / Panel Mount

- Excellent Load & Line Regulation
- · High Noise Immunity & Low Ripple
- · Overload, Short Circuit & Over Temperature Protection
- High Efficiency of Operation
- Suitable for Temperatures upto 70°C
- Small Form Factor
- · Peak Power Capacity
- · Compact Design with DIN / Panel mount
- · CE, UKCA and RoHS complied



**SMPS 150W** 



**SMPS 100W** 

Cat. No.	Description
PS150W24V	150W, 85 - 132 VAC/170 - 264 VAC, 24 VDC/ 6.25A, Terminal Block Facing Upward
PS150W24VF	150W, 85 - 132 VAC/170 - 264 VAC, 24 VDC/ 6.25A, Terminal Block Facing Forward
PS100W24V	100W, 90 - 264 VAC/130 - 373 VDC, 24 VDC/ 4.5A, Terminal Block Facing Upward
PS100W24VF	100W, 90 - 264 VAC/130 - 373 VDC, 24 VDC/ 4.5A, Terminal Block Facing Forward
Accessories	Description
L15024	Mounting Bracket for SMPS
L10024	Mounting Bracket for SMPS



# Slim Relays

#### 1 change over

- · Compact 6.2 mm slim design
- Variety of Operating voltages (24VDC, 24VAC/DC, 120VAC/DC, 230VAC, 230VAC/DC)
- Output Relay: 1 C/O for high switching current up to 6A at 250VAC
- · All sockets with LED for relay status
- Shorting Link, Marker & end clamp available as accessories
- · CE, UKCA and RoHS complied



#### 2 change over

- · Compact 14 mm slim design
- Variety of Operating voltages (12VAC/DC, 24VAC/DC, 120VAC/DC, 230VAC/DC)
- Output Relay: 2 C/O for high switching current up to 8A at 230VAC
- All sockets with LED for relay status
- Shorting Link, Marker & end clamp available as accessories
- · CE, UKCA and RoHS complied



# **Ordering Information**

#### 1 change over

Cat. No.	Description
SR24D61RM	Slim Relay Module with Plugin Relay 24VDC, 1 C/O DIN Mount <sup>1</sup>
SR24U61RM	Slim Relay Module with Plugin Relay 24VAC/DC, 1 C/O DIN Mount <sup>1</sup>
SR120U61RM	Slim Relay Module with Plugin Relay 120VAC/DC, 1 C/O DIN Mount <sup>1</sup>
SR230A61RM	Slim Relay Module with Plugin Relay 230VAC, 1 C/O DIN Mount <sup>1</sup>
SR230U61RM	Slim Relay Module with Plugin Relay 230VAC/DC, 1C/O DIN Mount <sup>1</sup>

#### 2 change over

Cat. No.	Description
SR12U82RM	Slim Relay Module with Plugin Relay 12VAC/DC, 2 C/O DIN Mount <sup>1</sup>
SR24U82RM	Slim Relay Module with Plugin Relay 24VAC/DC, 2 C/O DIN Mount <sup>1</sup>
SR120U82RM	Slim Relay Module with Plugin Relay 120VAC/DC, 2 C/O DIN Mount <sup>1</sup>
SR230U82RM	Slim Relay Module with Plugin Relay 230VAC/DC, 2 C/O DIN Mount¹

NOTE: 1 - Pack of 10nos



# I Digital Timer Eliso®

- Compact 17.5mm wide DIN mount housing & 48x48mm panel mounting
- Multi-function: Non-signal & signal based functions
- · Multi Voltage
- · Wide Timing Range
- Relay output in 1C/O , 2C/O or 2 NO
- · High Timing Accuracy
- CE, UKCA and RoHS complied







**Panel Mounting** 

# **Ordering Information**

#### **DIN Mounting**

Cat. No.	Description
V0DDTS	24 - 240 VAC/DC, Multi-Function Digital Timer - Eliro (8 Functions), 1 C/O
V0DDTD	24 - 240 VAC/DC, Multi-Function Digital Timer - Eliro (8 Functions), 2 NO
V0DDTS1	24 - 240 VAC/DC, Multi-Function Digital Timer - Eliro (18 Functions), 1 C/O
V0DDTD1	24 - 240 VAC/DC, Multi-Function Digital Timer - Eliro (18 Functions), 2 NO

#### **Panel Mounting**

Cat. No.	Description
DT124S	110 - 240 VAC/DC, Multi-Function Digital Timer - Eliro (4 Functions), 2 C/O
DT125S	110 - 240 VAC/DC, Forward-Reverse Digital Timer - Eliro , 2 C/O



- Compact 17.5mm wide DIN mount housing
- Mono & Multi-function: Non-signal & signal based functions
- · Multi Voltage
- · Wide Timing Range

- Relay output in 1C/O or 2C/O
- High Timing Accuracy
- · LED indicators for power supply & relay status
- IEC 60669 Compliant
- · CE, UKCA and RoHS complied



Staircase Timer



Delay On Break Timer (SSR Output)



Multi Function Timer

## **Ordering Information**

#### **Staircase Timer**

Cat. No.	Description
27B2B3B2	Staircase Timer 1M - 230 V With Mono Mode, With Pre-Warning
27B2C3B2	Staircase Timer 1M - 230 V With Mono Mode, Without Pre-Warning

#### **Delay On Break Timer**

Cat. No.	Description
1G1DTT	Delay On Break Timer, 25VAC, 1A, SSR Output Base/DIN Mount

#### **Multi Function Timer**

Cat. No.	Description
1CMDT0	12 - 240 VAC/DC, Multi Function Timer (10 Modes), 1 C/O
1CQDT9	12 - 240 VAC/DC, Multi Function Timer (10 Modes), 1 C/O - 16A
1CVDT9	12 - 240 VAC/DC, Multi Function Timer (10 Modes),1 C/O - 16A
1CJDT0	12 - 240 VAC/DC, Asymmetric Timer, 1 C/O
1CMDTF	12 - 240 VAC/DC, Multi Function Timer (10 Modes), 2 C/O
1CZDTF	12 - 240 VAC/DC, Forward-Reverse Timer , 2 C/O



- Compact 17.5mm Wide
- · Integrated Dual Voltage
- Wide Time Range
- LED Indications for Power and Relay status
- Low Power Consumption
- · CE, UKCA and RoHS complied
- Key Functions: ON Delay, Interval, Star Delta,
   One Shot, Signal Off Delay



**ON Delay Timer** 



ON Delay / Interval Timer

Cat. No.	Description
110DT4	110 VAC / 24 VAC/DC, ON Delay Timer, 1 C/O
12ODT4	240 VAC / 24 VAC/DC, ON Delay Timer, 1 C/O
15ODT4	12 VDC, ON Delay Timer, 1 C/O
11RDT4	110 VAC / 24 VAC/DC, Signal OFF Delay Timer, 1 C/O
12RDT4	240 VAC / 24 VAC/DC, Signal OFF Delay Timer, 1 C/O
15DDT4	12 VDC, Signal OFF Delay Timer, 1 C/O
11BDT4	110 VAC / 24 VAC/DC, One Shot Timer, 1 C/O
12BDT4	240 VAC / 24 VAC/DC, One Shot Timer, 1 C/O
15BDT4	12 VDC, One Shot Timer, 1 C/O
11WDTC	110 VAC / 24 VAC/DC, ON Delay & Interval Timer, 1 C/O
12WDTC	240 VAC / 24 VAC/DC, ON Delay & Interval Timer, 1 C/O
11SDT0	110 VAC, Star Delta Timer, 1 NO (Star) + 1 NO (Delta)
12SDT0	240 VAC, Star Delta Timer, 1 NO (Star) + 1 NO (Delta)
14SDT1S	240-415V AC, Star Delta Timer, 1C/O (Star) + 1C/O (Delta), 3-30 Sec



- · Multi-function with Signal based & Non Signal based
- Relay output in 1 C/O or 2 C/O (1I +1D Configurable)
- Wide Input Signal & Supply range: 24-240 VAC/DC
- Wide Timing Range
- High timing Accuracy
- · LED indicators for Power Supply & Relay Status
- · 22.5 mm DIN Mount Housing
- · CE, UKCA and RoHS complied



Signal Based Timer



Non Signal Based Timer

## **Ordering Information**

#### **Signal Based Timer**

Cat. No.	Description
2A8DT6	24-240 VAC/DC, Signal Based Multi - Function, 1 C/O (Delayed) & 1 C/O
	(Configurable as either Delayed or Instant)
2ANDT0	24 - 240 VAC/DC, Signal Based Multi Function Timer, 1 C/O

#### **Non Signal Based Timer**

Cat. No.	Description
2A5DT5	24 - 240 VAC/DC, Multi-Function Timer (5 Modes), 2 C/O
2B5DT5	240 - 415 VAC, Multi-Function Timer (5 Modes), 2 C/O
2A6DT6	24 - 240 VAC/DC, Multi-Function Timer (6 Modes), 2 C/O (1 Instant + 1 Delayed for 6th Mode)
2B6DT6	240 - 415 VAC, Multi-Function Timer (6 Modes), 2 C/O (1 Instant + 1 Delayed for 6th Mode)
2AODT5	24 - 240 VAC/DC, ON Delay, 2 C/O
2AADT5	24 - 240 VAC/DC, Asymmetric ON/OFF Timer, 2 C/O

NOTE: UL Approval not applicable for Cat No. 2A6DT6 & 2B6DT6



- · Multi-function with Signal based & Non Signal based
- Available in Relay output or SSR output in 1 C/O or 2 C/O (1I +1D Configurable)
- Wide Input Signal & Supply range: 24-240 VAC/DC
- Wide Timing Range
- · High timing Accuracy
- · LED indicators for Power Supply & Relay Status
- 22.5 mm DIN Mount Housing
- · CE, UKCA and RoHS complied







Asymmetric Timer



True OFF Delay Timer

## **Ordering Information**

#### Timers with solid state output

Cat. No.	Description
20NDTT	110 - 240 VAC, Signal Based Multi Function Timer with Solid State Output
20.IDTT	110 - 240 VAC Asymmetric Timer with Solid State Output

#### **Star Delta Timers**

Cat. No.	Description
2ASDT0	24 - 240 VAC/DC, Star Delta Timer, 1 NO (Star) + 1 NO (Delta)
2ASDT1	24 - 240 VAC/DC, Star Delta Timer, 1 NO (Star) + 1 NO (Delta)
2BSDT0	240 - 415 VAC, Star Delta Timer, 1 NO (Star) + 1 NO (Delta)
2BSDT1	240 - 415 VAC, Star Delta Timer, 1 NO (Star) + 1 NO (Delta)

#### **True OFF Delay Timer**

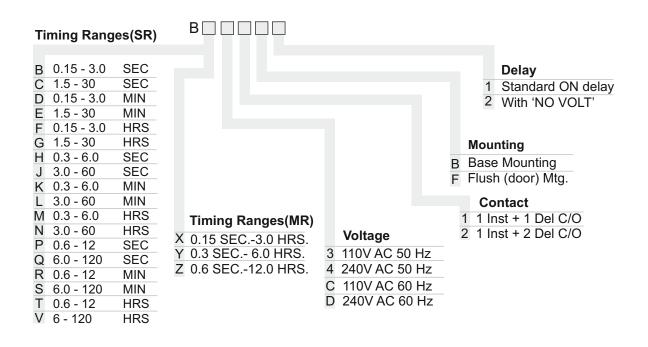
Cat. No.	Description
23GDT0	24-240 VAC/DC, True OFF Delay (Power OFF Delay) Timer, 2 C/O



# Synchronous Timer - Series EM 1000

- · Time delay is independent of normal voltage and temperature fluctuations
- Black pointer gives clear indication of the time set on the calibrated dial while the red one indicates the time left to complete the cycle
- · Automatic reset on de-energisation of the clutch coil
- · Base mounting or flush mounting versions
- · No-volt feature available
- · CE, UKCA and RoHS complied







# I Analog Time Switch

- · Modular construction
- · Inbuilt over-ride facility
- · High switching capacity
- · Tamper proof sealing
- · Daily/Weekly programming
- · CE, UKCA and RoHS complied



# **Ordering Information**

Cat. No.	Description
J648B1	FM/1 QT 240 VAC, Daily Dial, Base / DIN Mounting*
J848B1	FM/1 QW 240 VAC, Weekly Dial, Base / DIN Mounting*
J638B1	FM/1 QT 110 VAC, Daily Dial, Base / DIN Mounting*
J838B1	FM/1 QW 110 VAC, Weekly Dial, Base / DIN Mounting*
S648B1	FM/1 SYNCHRON 240V AC, Daily, Base Mounting

NOTE: For Flush Mounting model and Module, replace B by F and M in Cat. No. respectively.



# I Digital Time Switch Weekly

- · LCD Display with Green backlight
- Precise time Programming for Daily / Weekly / Pulse switching
- · Bar graph showing Daily program
- 50 ON/OFF programs, 10 Holiday Programs
- · Settable DST feature & Password protection
- 16A Single and Dual relay outputs

- Two Separate Relay outputs with independent Programming
- 12/24 Hour Display Format
- · 6 Years Battery reserve
- Simple reset & Manual Override
- · Service / Load hours measurement
- Compliant with IEC 60730-2-7



Crono®



Crono® Pro

# **Ordering Information**

#### Digital Time Switch Crono ® Pro-

Cat. No.	Description
WT1SCDS	240 VAC, Digital Time Switch - Crono Pro, 1 C/O
WT2DCDS	110-240 VAC, Digital Time Switch - Crono Pro, 2 C/O

#### Digital Time Switch Crono® / Pulse

Cat. No.	Description
67DDT0	110 - 240 VAC, Digital Time Switch - Crono, 1 C/O
6GHDT0	24 VDC, Digital Time Switch - Crono, 1 C/O
69HDT0	12 VDC, Digital Time Switch - Crono, 1 C/O
67DDT9	110 - 240 VAC, Digital Time Switch - Pulse, 1 C/O
6GHDT9	24 VDC, Digital Time Switch - Pulse, 1 C/O
69HDT9	12 VDC, Digital Time Switch - Pulse, 1 C/O



# I Digital Time Switch Astronomical

- · LCD Display with Green backlight
- Precise time programming for Astro / Daily / Weekly / Pulse / Cyclic switching
- Latitude / Longitude Database for 45 Countries and 280 cities
- Settable Latitude / Longitude precise to the minute with time zone
- Sunrise/Sunset or Twilight rise/set trigger modes
- · Ease of Day selection in Weekly programming

- 50 ON/OFF programs, 10 Holiday Programs
- · Settable DST feature & Password protection
- 16A Single and Dual relay outputs
- Two Separate Relay outputs with independent Programming
- 12/24 Hour Display Format
- · 6 Years Battery reserve
- · Simple Reset & Manual Override
- · Service/Load hours measurement



Astro Mini



Astro Pro

Cat. No.	Description
AT1SCDS	240 VAC, Digital Time Switch - Astro Pro+, 1 C/O
AT2DCDS	110-240 VAC, Digital Time Switch - Astro Pro+, 2 C/O
AS1SCDS	240 VAC, Digital Time Switch - Astro Pro, 1 C/O
AS2DCDS	110-240 VAC, Digital Time Switch - Astro Pro, 2 C/O
T2DDT7	110-240 VAC, Digital Time Switch - Astro Mini, 1 C/O



# Insulation Monitoring Relay

- Monitors insulation resistance of unearthed IT Systems in compliancewith IEC 61557-8, EN 50155, IEC 61373 and EN 45545 HL-2/3
- Wide auxiliary supply voltage range 24V 240V AC/DC
- · Monitor system voltage from 0 520V AC
- Adjustable trip resistance value from 1K to 100Kohm
- 2 Relay outputs (1C/O + 1NO) for fail safe and non fail safe operation
- · Test / Reset function with Manual and remote facility
- · Configurable Auto / Manual Reset
- · LED indication for insulation fault, Power and Relay output
- · DIN Rail / Base Mounting
- · CE, UKCA and RoHS complied



## **Ordering Information**

Cat. No. Description

IMR122 Insulation Control, Rated Voltage 0-520 VAC System with 2 output (1C/O + 1NO),

Control Voltage 24-240VAC/DC



- · LCD Display with Green backlight
- Multi-Voltage: Three Phase 4 Wire & Three Phase 3 Wire @ 145-500 VAC
- Protection against Phase loss, Phase Sequence, Phase Asymmetry, Under Voltage, Over Voltage, Neutral Open, Over Frequency & Under Frequency
- Can be configured for 3 Phase 3 Wire or 3 Phase 4 Wire system
- Selectable Over Voltage/ Under Voltage, Asymmetry, Phase Loss, Phase Sequence, Over Frequency/ Under Frequency

- Adjustable ON/OFF Time Delay in seconds/ minutes
- 5A Single and Dual relay outputs
- Two Separate Relay outputs with independent Programming
- Password protection
- Log of 5 previous faults for better monitoring
- · Fail safe/ Non-Fail safe relay output
- Latch (Manual) and Non-Latch (Auto) Modes
- · CE, UKCA and RoHS complied



Cat. No.	Description
DMS110	145-500 VAC, Digital Voltage Monitoring Relay, 1C/O
DMS120	145-500 VAC, Digital Voltage Monitoring Relay, 1C/O + 1C/O
DMA220	85- 500 VAC, Digital Voltage Monitoring Relay with Auxiliary supply 85-300 VAC/DC,
	1C/O + 1C/O



- · Compact 17.5 mm Wide
- Multi-Voltage: Three Phase 3 Wire @ 208-480
   VAC or Three Phase 4 Wire @ 120-277 VAC
- Can be configured for 3 Phase 3 Wire or 3 Phase 4 Wire system
- Protection against Phase loss, Phase Sequence,
   Phase Asymmetry, Under Voltage & Over Voltage
- 1 C/O Configuration

- Selectable Under Voltage / Over Voltage, Asymmetry and Phase Sequence
- LED Indication for all Faults & for change in dip switch settings during runtime for better security
- Adjustable ON/OFF Time Delay in seconds / minutes
- · CE, UKCA and RoHS complied



Cat. No.	Description
MAG03D0424	208-480 VAC, UV/OV, Phase Loss, Phase Sequence, Phase Asymmetry Monitoring, 1 C/O
MAG03D0425	415 VAC (3P, 3W) / 240 VAC (3P, 4W), UV/OV, Phase Loss, Selectable Phase Sequence,
	Phase Asymmetry, 1C/O
MAG03D0426	415 VAC (3P, 3W) / 240 VAC (3P, 4W),UV/OV, Selectable Phase Sequence & Phase
	Asymmetry, ON Delay and OFF Delay (in sec/min), 1C/O
MAG03D0427	208-480 VAC (3P, 3W), Phase loss Monitoring, 1 C/O
MAG03D0428	208-480 VAC (3P, 3W), Phase Loss, Phase Sequence, 1C/O



- · Compact 17.5 mm Wide
- · Protects against Phase Loss, Phase Reversal & Phase Asymmetry
- Multi-Voltage: Three Phase Three Wire @ 208 480 VAC
- Selectable Under Voltage / Over Voltage & Asymmetry
- · LED Indication for all Faults & for change in settings during run time for better security
- · Adjustable Time Delay
- 1 C/O Configuration
- · CE, UKCA and RoHS complied



# **Ordering Information**

Cat. No.	Description
MN21D5	208 - 480 VAC, Phase Loss Monitoring, 1 C/O
MK21D5	208 - 480 VAC, Phase Loss, Phase Sequence Monitoring , 1 C/O
MC21D5	208 - 480 VAC, Phase Loss, Phase Sequence, Phase Asymmetry Monitoring
	(30% Fixed), 1 C/O
MA21DN	208 - 480 VAC, Phase Loss, Phase Sequence, Phase Asymmetry Monitoring
	(5% to 15% Variable), 1 C/O
MOF1D51	208 - 480 VAC, Phase Loss, Phase Asymmetry Monitoring (10% Fixed), with
	trip time < 65 ms,1 C/O
MD21DF	208 - 480 VAC, UV/OV, Phase Loss & Sequence with Selectable OFF Delay, 1 C/O
MG21DH	208 - 480 VAC, UV/OV & SPP with Selectable ON Delay, 1 C/O
MG21DF	208 - 480 VAC, UV/OV & SPP with Selectable OFF Delay, 1 C/O
MGD1DR	400 VAC, UV/OV & SPP with Selectable ON Delay & OFF Delay, 1 C/O
MAE03D0200 <sup>1</sup>	240 VAC/DC, UV/OV with Selectable ON & OFF Delay, 1 C/O
MAE03D0201 <sup>1</sup>	240 VAC/DC, Fix UV/OV, Fix ON & OFF Delay, 1 C/O
MAE03D0202 <sup>1</sup>	115 VAC/DC, UV/OV with Selectable ON & OFF Delay, 1 C/O
MAE03D0203 <sup>1</sup>	115 VAC/DC, Fix UV/OV, Fix ON & OFF Delay, 1 C/O
MF41B0 <sup>1</sup>	230 VAC, Single Phase Under Voltage Relay
MF51B0 <sup>1</sup>	400 VAC, Three Phase Under Voltage Relay

NOTE: 1. UL not applicable



- · Protects against Phase Loss, Phase Reversal & Phase Asymmetry
- · No Auxiliary Supply needed
- · Voltage Sensing principle
- 1 C/O & 2 C/O Configurations
- Designed to meet Industrial and Agricultural segment applications
- · CE, UKCA and RoHS complied



Cat. No.	Description
MA51BC	415 VAC, Single Phasing Preventor with 65 VAC Asymmetry, 1 C/O
MA51BK	415 VAC, Single Phasing Preventor with 40 VAC Asymmetry, 1 C/O
MC21B5	415 VAC, Single Phasing Preventor with 65 VAC Asymmetry, 2 C/O
MA59B5	415 VAC, Phase Loss Monitoring with Non Fail Safe Type, 1 C/O



- · True RMS Measurement
- Can be configured for 3 Phase 4 Wire or 1 Phase system
- Selectable Over Voltage / Under Voltage Trip level
- · Selectable Time Delay



Phase Monitoring Relay

- · LED Indications for Power and Fault conditions
- Protects against UV/OV, Phase Loss, Phase Reversal, Phase Asymmetry & Neutral Loss
- 1 C/O or 2 C/O Configuration
- · CE, UKCA and RoHS complied



**Neutral Monitoring Relay** 

# **Ordering Information**

Cat. No.	Description
MD71BH	240 VAC, UV /OV with Selectable ON Delay (0.5 sec to 15 sec), 1 C/O
MD71BF	240 VAC, UV/OV with Selectable OFF Delay (0.5 sec to 15 sec), 1 C/O
MD71B9	240 VAC, UV/OV with Selectable ON Delay (0.5 sec to 15 min), 1 C/O
MG73B9	240 VAC, UV/OV & Single Phasing Preventor (SPP) with Selectable ON Delay
	(0.5 sec to 15 min), 2 C/O
MG73BH	240 VAC, UV/OV & SPP with Selectable ON Delay (0.5 sec to 15 sec), 2 C/O
MG73BF	240 VAC, UV/OV & SPP with Selectable OFF Delay (0.5 sec to 15 sec), 2 C/O
MG73BQ	120 - 240 VAC Selectable, UV / Selectable OV & SPP with Selectable OFF
	Delay(0.5 sec to 15 sec), 2 C/O
MG73BR	240 VAC, Fixed UV / OV & SPP, 20% Asymmetry with Fixed ON (10 sec) & OFF
	(5 sec) Delay, 2 C/O
MGH3BH	220 VAC, UV/OV & SPP with Selectable ON Delay (0.5 sec to 15 sec), 2 C/O
MGH3BF	220 VAC, UV/OV & SPP with Selectable OFF Delay (0.5 sec to 15 sec), 2 C/O
MGI3BF	230 VAC, UV/OV & SPP with Selectable OFF Delay (0.5 sec to 15 sec), 2 C/O

#### **Neutral Monitoring Relay**

Cat. No.	Description
MAC04D0100	415 VAC, Neutral Loss Protection with Phase and Voltage Control, 2 C/O
MAC04D0119	380 VAC, Neutral Loss Protection with Phase and Voltage Control, 2 C/O
MAC04D0121	415 VAC, Neutral Loss Protection with Phase & Voltage Control, Phase reverse disable, 2C/O
MAC04D0123	Selectable reference voltage (220-480VAC), Neutral Loss Protection with Phase & Voltage
	Control, 2C/O

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- Protects against Phase Loss, Phase Reversal & Phase Asymmetry
- · Suitable for 3 Phase 3 Wire system
- Selectable Under Voltage / Over Voltage Trip level
- · Selectable Time Delay

- · LED Indications for Power and Fault conditions
- · Voltage Sensing Principle
- 2 C/O Configuration
- Models for Selectable Phase Asymmetry
- · CE, UKCA and RoHS complied



Cat. No.	Description
MG53BH	415 VAC, UV/OV & SPP with Selectable ON Delay (0.5 to 15 sec), 2 C/O
MG53BF	415 VAC, UV/OV & SPP with Selectable OFF Delay (0.5 to 15 sec), 2 C/O
MG53BT	415 VAC, UV/OV & SPP with Selectable OFF Delay (0 to 5 sec), 2 C/O
MG53BI	415 VAC, UV/OV & SPP with 65 V Asymmetry, 2 C/O
MG53BO	415 VAC, UV/OV & SPP with 3 min ON Delay & 5s OFF Delay, 2 C/O
MB53BM	415 VAC, UV/OV (110% Fixed) & SPP with Selectable Asymmetry (5% to 17%), 2 C/O
MG53BQ	415 VAC, UV/OV & SPP with 30 V Asymmetry, 3 Sec ON Delay, 2 C/O
MG63BH	220 VAC, UV/OV & SPP with Selectable ON Delay (0.5 to 15 sec), 2 C/O
MG63BF	220 VAC, UV/OV & SPP with Selectable OFF Delay (0.5 to 15 sec), 2 C/O



- True RMS Measurement
- · Wide supply monitoring range from 500V 1000V AC
- · Monitors own supply & detects fault conditions on one or more phases
- Protection against phase loss, phase sequence, phase asymmetry, under voltage (UV), over voltage (OV) & 3 phase interruption
- · Adjustable UV, OV & Phase asymmetry trip settings through potentiometer
- · LED indication for supply & fault status
- Selectable ON or OFF delay through DIP switch & adjustable delay time settings through potentiometer
- Two SPDT relay outputs which can be configured separately for UV & OV fault through DIP switch
- · CE, UKCA and RoHS complied



## **Ordering Information**

Cat. No. Description

SMB110 500-1000V AC, Measuring and Monitoring Relay, 1C/O + 1C/O



# Current Monitoring Relay

- Protects against Overload, Phase Reverse,
   Phase Loss and Phase Unbalance faults
- Wide Range of Sensing Current : 1A-45A
- Models for 1 Phase and 3 Phase systems
- · Auto/Manual Reset selection
- · Fail-Safe Protection

- Inverse Time model with Underload, Locked Rotor Protection and Selectable Trip Class
- Definite Time model with Underload and selectable Start and Trip time
- · CE, UKCA and RoHS complied



Cat. No.	Trip Type	Current	Auto Reset Time
17C112EB0	Inverse	3 A - 9 A	As per trip class
17C212EB0	Inverse	8 A - 24 A	As per trip class
17C312EB0	Inverse	15 A - 45 A	As per trip class
17C412EB0	Inverse	2 A - 5 A	As per trip class
17B822MM0	Definite	0.5 - 3 A	As per trip class
17B922MM0	Definite	0.2 - 1.4 A	As per trip class
17D112DA0	Definite	3 A - 9 A	6 min
17D212DA0	Definite	8 A - 24 A	6 min
17D312DA0	Definite	15 A - 45 A	6 min
17D412DA0	Definite	2 A - 5 A	6 min
Cat. No.	Trip Type	Current	Auto Reset Time
17A122CB0	Inverse	3 A - 9 A	As per trip class
17A222CB0	Inverse	8 A - 24 A	As per trip class
17A322CB0	Inverse	15 A - 45 A	As per trip class
17A422CB0	Inverse	2 A - 5 A	As per trip class
17B122AA0	Definite	3 A - 9 A	6 min
17B222AA0	Definite	8 A - 24 A	6 min
17B322AA0	Definite	15 A - 45 A	6 min
17B422AA0	Definite	2 A - 5 A	6 min
17B122PA0	Definite	3 A - 9 A	Instant ( < 500 msec)
17B222PA0	Definite	8 A - 24 A	Instant ( < 500 msec)
17B322PA0	Definite	15 A - 45 A	Instant ( < 500 msec)
17B422PA0	Definite	2 A - 5 A	Instant ( < 500 msec)



# Earth Leakage Relay

- Flush Mounting Version 96x96 mm with Digital Seven Segment Display
- Monitors, Detects and Protects Power systems from Earth Leakage Fault (Type 'A' & 'AC')
- Wide range of selectable Earth Leakage Current:
   30 mA 30 A
- Configurable Earth Leakage Trip time: 0 10 s
- Wide Auxiliary Supply Range:110 240 VAC / DC
- Nano Crystaline CBCT measures the leakage current to the highest accuracy
- RS485 Communication

- Instantaneous Trip for 5 times of set value of Leakage current
- Test feature to check complete product functionality
- LED Indication for Relay Status, Earth Leakage Fault & Alarm Condition
- · Manual / Remote Reset feature
- Continuous Scrolling display for Set Current and Set time
- 1 C/O (Alarm Relay) + 1 C/O (Fault Relay)
- · CE, UKCA and RoHS complied







**CBCT** 

Cat. No.	Description
17K716QF4N	110-240 VAC / DC, Current Range 30 mA - 30 A, 2 C/O
17K716QF4M	110-240 VAC / DC, Current Range 30 mA - 30 A, 2 C/O with RS485
17K726QF4N	220-415 VAC / 220 VDC, Current Range 30 mA - 30 A, 2 C/O
17K726QF4M	220-415 VAC / 220 VDC, Current Range 30 mA - 30 A, 2 C/O with RS485
17H7NNHN3	CBCT 38 mm, Type A & AC Current
17H7NNIN3	CBCT 57 mm, Type A & AC Current
17H7NNQN3	CBCT 70 mm, Type A & AC Current
17H7NNJN3	CBCT 92 mm, Type A & AC Current
17H7NNLN3	CBCT 120 mm, Type A & AC Current
17H7NNKN3	CBCT 210 mm, Type A & AC Current
17H7NNRN3	CBCT 38 mm, Type AC Current
17H7NNVN3	CBCT 57 mm, Type AC Current
17H7NNSN3	CBCT 70 mm, Type AC Current
17H7NNTN3	CBCT 92 mm, Type AC Current
17H7NNUN3	CBCT 120 mm, Type AC Current



# I Earth Leakage Relay

- Monitors, Detects and Protects Power systems from Earth Leakage Faults
- Wide range of selectable Earth Leakage Current:
   30 mA 30 A
- Configurable Earth Leakage Trip time: 0 10 s
- 2 C/O Configuration
- · Available in DIN mount/ Base mount

- Available in external & integral CBCT
- LED Bar graph for Leakage Current indication
- Wide Auxiliary Supply Range:

110 - 240 V AC / DC, 220 - 415 V AC / 220 V DC

• CE, UKCA and RoHS complied



Earth Leakage Relay



Integral Earth Leakage Relay

# **Ordering Information**

Cat. No.	Description
17G715GF2	110-240 VAC / DC, Current Range 30 mA - 30 A, 1 C/O + 1 NO, Manual Reset
17G715KF2	10-240 VAC / DC, Current Range 30 mA - 30 A, 1 C/O + 1 NO, Auto Reset
17G745GF2	220-415 VAC / 220 VDC, Current Range 30 mA - 30 A, 1 C/O + 1 NO, Manual Reset
17G745KF2	220-415 VAC / 220 VDC, Current Range 30 mA - 30 A, 1 C/O + 1 NO, Auto Reset
17G755GF2	15 VDC, Current Range 30 mA - 30 A, 1 C/O + 1 NO, Manual Reset
17G755KF2	15 VDC, Current Range 30 mA - 30 A, 1 C/O + 1 NO, Auto Reset
17G815GF2	110-240 VAC / DC, Current Range 30 mA - 10 A, 1 C/O + 1 NO, Manual Reset
17G815KF2	110-240 VAC / DC, Current Range 30 mA - 10 A, 1 C/O + 1 NO, Auto Reset
17G845GF2	220-415 VAC / 220 VDC, Current Range 30 mA - 10 A, 1 C/O + 1 NO, Manual Reset
17G845KF2	220-415 VAC / 220 VDC, Current Range 30 mA - 10 A, 1 C/O + 1 NO, Auto Reset

#### **Integral Earth Leakage Relay**

Cat. No.	Description
ELR3A2030	Integral Earth Leakage Relay, 35mm CBCT, 240VAC(±15%), 50/60Hz, Fix 30mA
ELR3A2100	Integral Earth Leakage Relay, 35mm CBCT, 240VAC(±15%), 50/60Hz, Fix 100mA
ELR3A2300	Integral Earth Leakage Relay, 35mm CBCT, 240VAC(±15%), 50/60Hz, Fix 300mA



## Liquid Level Monitoring Relay

- · Fully Automatic operation enabling both draining and filling simultaneously with a single device
- · Adjustable sensitivity level from 1k to 200k Ohm
- · Includes provision for Manual start
- · Protects submersible pumps against dry running and prevents overfilling
- · Enables maximum utilization of incoming liquid (eg. water) supply
- · Specially designed corrosion and shock resistant sensors to ensure trouble free operation
- · CE, UKCA and RoHS complied



### **Ordering Information**

Cat. No.	Description
4411AD1	110 VAC, 1 C/O,1K to 200K Sensitivity, Draining & Filling
4421AD1	240 VAC, 1 C/O,1K to 200K Sensitivity, Draining & Filling
4431AD1	415 VAC, 1 C/O,1K to 200K Sensitivity, Draining & Filling
44S0003	Accessories, Set of 3 Stainless Steel Sensors, -10 $^{\circ}$ C to +65 $^{\circ}$ C
44S0006	Accessories, Set of 6 Stainless Steel Sensors, -10 $^{\circ}$ C to +65 $^{\circ}$ C
44S0013	Accessories, Set of 3 Stainless Steel Sensors, -20 C to +165 C
44S0016	Accessories, Set of 6 Stainless Steel Sensors, -20°C to +165°C

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# I PTC Thermistor Relay

- · Monitors and Protects Motors with Integrated PTC Resistor sensors
- Protection against Over heating for Heavy Duty Load, High Switching
   Frequency, High operating temperature & Insufficient cooling conditions
- Wide Auxiliary Supply Voltage: 24 VAC/DC, 110 240 VAC & 220 415 VAC
- · LED Indications for Healthy, Unhealthy, Sensor Open/Short conditions
- 1 C/O & 2 C/O Configuration
- Reset Options: Auto, Manual and Remote
- · Protection against phase loss, phase sequence & phase asymmetry in selected model
- CE, UKCA and RoHS complied





PTC Thermistor Relay

PTC Thermistor Relay with SPP

## **Ordering Information**

#### **PTC Thermistor Relay**

Cat. No.	Description
MJ83BK	110 - 240 VAC, PTC Thermistor Relay, 2 C/O
MJ93BK	220 - 440 VAC, PTC Thermistor Relay, 2 C/O
MJA3BK	24 VAC/DC, PTC Thermistor Relay, 2 C/O
MJ81BK	110 - 240 VAC, PTC Thermistor Relay, 1 C/O
MJ91BK	220 - 440 VAC, PTC Thermistor Relay, 1 C/O

#### **PTC Thermistor Relay with SPP**

Cat. No.	Description
ML64BS	230 VAC, Three Phase Three Wire PTC Thermistor & SPP, 1 NO + 1 NO
ML67BS	230 VAC, Three Phase Three Wire PTC Thermistor & SPP, 1 NO + 1 NC
MLD4BS	400 VAC, Three Phase Three Wire PTC Thermistor & SPP, 1 NO + 1 NO
MLD7BS	400 VAC, Three Phase Three Wire PTC Thermistor & SPP, 1 NO + 1 NC

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# I Temperature Controller - PR 69

- Flush Mounting 48x48 mm
- · Lower Depth of 65mm
- Universal Input
- · Single and Dual LED Display
- · Configurable Output: Relay or SSR Drive
- °C & °F temperature unit selectable
- Ramp & Soak profile with Power Failure resumption mode

- RS485 Communication
- Multiple device programming with SD card support
- · Rapid Set Point change feature
- · Alarm Functionality
- Single/Dual acting PID controllers with 4 Control modes
- · Auto-tuning PID with provision for Soft-Start



Single Display



**Dual Display** 

Cat. No.	Description
TCS1T100	3 digit single display, RTD & thermocouple input, 10A SPDT relay or SSR
TCS2T100	3 digit dual display, RTD & thermocouple input, 10A SPDT relay or SSR
TCS4T2A0	4 digit dual display, RTD & thermocouple input, 10A SPST relay or SSR & 5A SPST relay
TCS4T300	4 digit dual display, RTD & thermocouple input, 10A SPDT relay, SSR & 5A SPDT relay
TCS4U4A0	4 digit dual display, RTD, thermocouple & Analog input, 3 relay output 5A SPST, Analog
	output with CT
TCS4U50C	4 digit dual display, RTD, thermocouple & Analog input, 2 relay output 5A SPST, SSR &
	Analog output with Modbus
TCS4U40C	4 digit dual display, RTD, thermocouple & Analog input, 3 relay output 5A SPST, Analog
	output with Modbus
TCS4U5A0	4 digit dual display, RTD, thermocouple & Analog input, 2 relay output 5A SPST, SSR &
	Analog output with CT



# I Temperature Controller - PR 69

- Flush Mounting 96x96 mm
- · Highly Accurate Performance
- Wide supply range:110-240 VAC/DC, -20 to +10% of Un
- Thermocouple (J, K & T), RTD 3-wire (Pt-100) sensor inputs
- · Control Modes: Proportional, ON-OFF Asymmetric, ON-OFF Symmetric
- · Control Output: Relay or SSR Drive
- · CE, UKCA and RoHS complied



Cat. No.	Description
151M42B	Relay Output (SPDT 10A) & SSR driving output (12 VDC, 24mA max), One Relay Output (SPDT 5A)
151N42B	Relay Output (SPDT 10A) & SSR driving output



# I Temperature Controller - PR 69

- Flush Mounting Version 96x96 mm with Dual Line Digital Seven Segment Display
- Universal Input
- · Configurable Output combination
- Configurable: Band, Deviation, Sensor break & Loop break alarms
- Single/Dual acting PID controllers with 4 Control modes
- Analog Voltage/Current Inputs (0-5V, 1-5V, 0-10V / 4-20mA) & Outputs (0-10V / 4-20mA)
- · Auto-tuning PID with provision for Soft-Start

- 6 Segment Ramp & Soak profile with Power Failure resumption modes
- · Rapid Set Point change feature
- RS485 Communication
- Bumpless Auto-Manual transfer
- IP 20 (for Terminals & Enclosure) IP 40 (for Front Panel only)
- Timer functionality with settable time from 1 min to 9999 min
- CE, UKCA and RoHS complied



### **Ordering Information**

#### **Single Acting PID Controller**

Cat. No.	Description
151F42B	2 Relays (SPST 5A each), SSR driving output (12VDC, 24mA)
151G42B	1 Relay (SPST 5A), Analog output (0-10V, 4-20mA), SSR driving output (12VDC, 24mA)
151H42B	2 Relays (SPST 5A each), Analog output (0-10V, 4-20mA)
151J42B	3 Relays (SPST 5A each)
151K42B	1 Relay (1 C/O 10A), SSR driving output (12VDC, 24mA)
151L42B	2 Relays (1 C/O 10A & SPST 5A), SSR driving output (12VDC, 24mA) without Analog I/P

#### **Dual Acting PID Controller**

Cat. No.	Description
151F43B	2 Relays (SPST 5A each), SSR (12VDC, 24mA)
151G43B	1 Relay (SPST 5A), Analog output (0-10V, 4-20mA), SSR (12VDC, 24mA)
151H43B	2 Relays (SPST 5A each), Analog output (0-10V, 4-20mA)
151J43B	3 Relays (SPST 5A each)
151F43B1	2 Relays (SPST 5A each), SSR (12VDC, 24mA) with RS485
151G43B1	1 Relay (SPST 5A), Analog output (0-10V, 4-20mA), SSR (12VDC, 24mA) with RS485
151H43B1	2 Relays (SPST 5A each), Analog output (0-10V, 4-20mA) with RS485
151J43B1	3 Relays (SPST 5A each) with RS485



## Automatic Changeover Current Limiter

#### **For Three Phase**

- · True RMS measurement
- · Wide operating supply voltage range
- Seamless transfer of Load to healthy power source (EB or DG)
- 6 Digit 7 segment LED display
- · Energy metering for EB & DG
- · Class 1 Accuracy
- · Protection against under voltage, over voltage & over load
- · Settable DG ON time to safeguard DG from abrupt overloading
- · Easy programming



<b>Mains Rating</b>	Genset Rating	Description
32A	32A	240 VAC, 3P4W, 50 Hz, plastic enclosure
40A	32A	240 VAC, 3P4W, 50 Hz , plastic enclosure
40A	40A	240 VAC, 3P4W, 50 Hz , plastic enclosure
50A	50A	240 VAC, 3P4W, 50 Hz , metal enclosure
63A	50A	240 VAC, 3P4W, 50 Hz, metal enclosure
63A	63A	240 VAC, 3P4W, 50 Hz , metal enclosure
80A	80A	240 VAC, 3P4W, 50 Hz , metal enclosure
125A	125A	240 VAC, 3P4W, 50 Hz , metal enclosure



## Automatic Changeover Current Limiter

#### For Single Phase

- Wide operating supply voltage range (180V to 265V AC)
- Seamless transfer of Load to healthy power source (EB or DG)
- · Protection of Load against Over Load current for DG
- · LED indication for EB, DG & Over load
- · Over Load warning cycles before final lockout
- · Provision of reset key to resume operation after over load recovery



Mains Rating	Genset Rating	Description
30A	1A	240 VAC, Single phase, 50 Hz
30A	1.5A	240 VAC, Single phase, 50 Hz
30A	2A	240 VAC, Single phase, 50 Hz
30A	2.5A	240 VAC, Single phase, 50 Hz
30A	3A	240 VAC, Single phase, 50 Hz
30A	4A	240 VAC, Single phase, 50 Hz
30A	4.5A	240 VAC, Single phase, 50 Hz
30A	5A	240 VAC, Single phase, 50 Hz
30A	6A	240 VAC, Single phase, 50 Hz
30A	9A	240 VAC, Single phase, 50 Hz
30A	12A	240 VAC, Single phase, 50 Hz
30A	15A	240 VAC, Single phase, 50 Hz
30A	20A	240 VAC, Single phase, 50 Hz
30A	30A	240 VAC, Single phase, 50 Hz



## Digital Hour Meter & Counter

- Suitable for Hour meter & Counter (Up / Down) application
- · Wide Hour meter range from 1 sec to 9999999 hrs
- Wide counter range from 1 to 9999999 counts
- · Prescaling facility for Counter
- · Runtime set point change & Alarm facility for both Hour meter & Counter
- Configurable NO/NC Relay & MOSFET Output with Over Load detection
- Retentive & Non-Retentive modes
- 7 Digit LCD with luxurious green backlight & Password Protection
- · Compact size
- · Suitable for panel mounting
- · CE, UKCA and RoHS complied



### **Ordering Information**

Cat. No.	Description
----------	-------------

Z2301N0G1FT00 9-30 VDC (with dual MOSFET output)Z2221N0G2FT00 85-265 VAC/DC (with Relay output)



## Hour Meter Series HM 36

- Robust design with high Accuracy & Compact size
- · Frequency independent for AC applications
- Indicates operating time in hours and tenths with running indicators
- Panel / DIN mountable with 7 Bezel options
- 6 Digit Non-Resettable with automatic recycle to zero
- · Wide supply voltage range
- Shock & Vibration Proof
- · CE, UKCA and RoHS complied



**Panel Mount** 



**DIN Mount** 

## **Ordering Information**

#### **Panel Mount Series**

Cat. No.	Description
LA21F1	90 - 264 VAC, Rectangular Bezel
LA22F1	90 - 264 VAC, Rectangular 2 holes Bezel
LA23F1	90 - 264 VAC, Round Bezel
LA24F1	90 - 264 VAC, Round 3 holes Bezel
LA25F1	90 - 264 VAC, Square Mount Bezel
LA26F1	90 - 264 VAC, Cup Mount Bezel
LA27F1	90 - 264 VAC, Stirrup Mount Bezel
LD11F1	10 - 80 VDC, Rectangular Bezel
LD12F1	10 - 80 VDC, Rectangular 2 holes Bezel
LD13F1	10 - 80 VDC, Round Bezel
LD14F1	10 - 80 VDC, Round 3 holes Bezel
LD15F1	10 - 80 VDC, Cup Mount Bezel
LD16F1	10 - 80 VDC, Stirrup Mount Bezel
LD17F1	10 - 80 VDC, Square Mount Bezel
LC31F1	4 - 36 VAC/DC, Rectangular Bezel
LC32F1	4 - 36 VAC/DC, Rectangular 2 holes Bezel
LC33F1	4 - 36 VAC/DC, Round Bezel
LC34F1	4 - 36 VAC/DC, Round 3 holes Bezel
LC35F1	4 - 36 VAC/DC, Cup Mount Bezel
LC36F1	4 - 36 VAC/DC, Stirrup Mount Bezel
LC37F1	4 - 36 VAC/DC, Square Mount Bezel

#### **DIN Mount Series**

Cat. No.	Description
30A6B1	90 - 264 / 270 - 460 VAC, Hour Meter, Base/DIN
30A7B1	48 VAC, Hour Meter, Base/DIN
30D1B1	10 - 80 VDC, Hour Meter, Base/DIN
30D4B1	110 VDC, Hour Meter, Base/DIN
30C3B1	4 -36 VAC/DC, Hour Meter, Base/DIN



# Digital Hour Meter

- 6-digit LCD
- In-built nonvolatile memory (EEPROM) offering exceptional reliability
- · Wide range of supply voltage
- · Remote reset
- · Available in 3 different Bezels
- Low Power Consumption



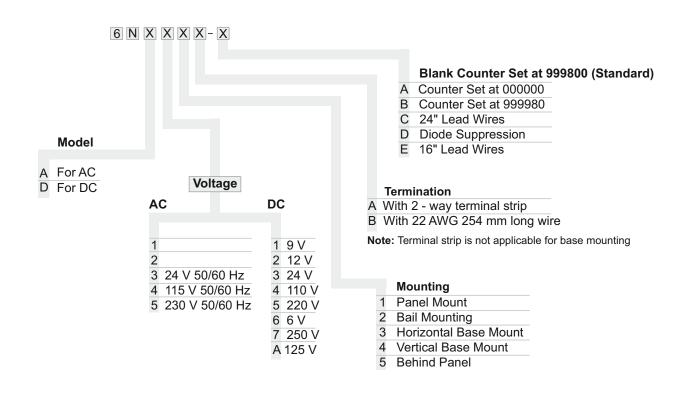
Cat. No.	Description
Z71FBX	85-265 VAC model
ZJ1FBX	12-48 VAC/DC model
ZH1FBX	10-80 VDC model
Χ	A = Round Bezel, B = 24x48 Bezel, C = Screw Mount Bezel



## Impulse Counter Series CR 26

- · 6-digit Compact Non Reset and Robust Design
- · High Accuracy and Reliability
- · Requires no lubrication or maintenance
- · Ideal where space is limitation
- · Three mounting options: Bail, Panel, Base, Behind Panel
- · CE, UKCA and RoHS complied





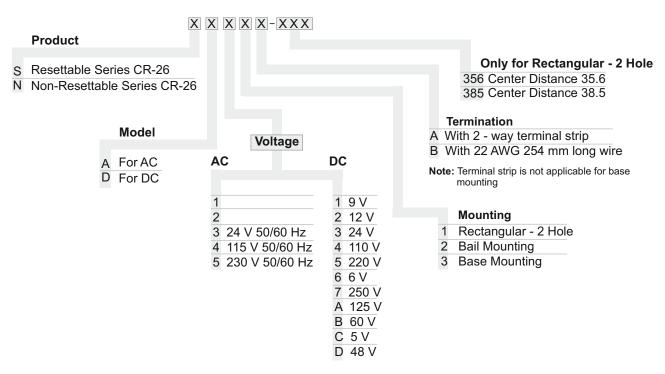


## Impulse Counter Series CR 26

- 6-digit Compact and Robust Design
- · Push-button quick reset
- · High Accuracy and Reliability
- · Requires no lubrication or maintenance
- · Optional locking for reset button
- · Ideal where space is limitation
- · Three mounting options: Bail, Panel, Base
- · CE, UKCA and RoHS complied



## **Ordering Information**



NOTE: Other voltages will be made available upon request.

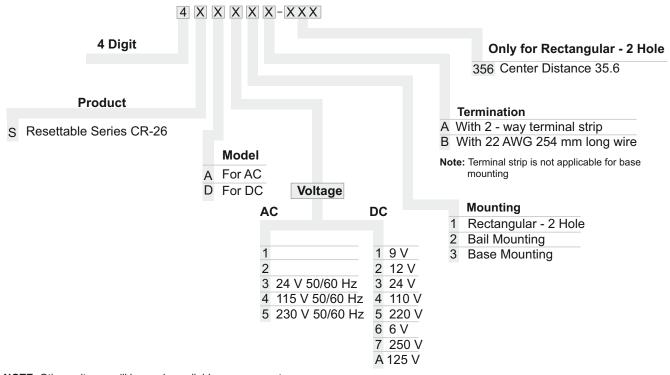


## Impulse Counter Series CR 26 (4-Digit)

- · 4-digit Compact and Robust Design
- · Push-button quick reset
- · High Accuracy and Reliability
- · Requires no lubrication or maintenance
- Optional locking for reset button
- · Ideal where space is limitation
- · Three mounting options: Bail, Panel, Base
- · CE, UKCA and RoHS complied



### **Ordering Information**



NOTE: Other voltages will be made available upon request.



# I Digital Counter

- 6-digit LCD
- In-built nonvolatile memory (EEPROM) offering exceptional reliability
- · Wide range of supply voltage
- · Remote reset
- Available in 3 different shaped Bezels
- Low Power Consumption



Cat. No.	Description
Z72FBX	85-265 VAC model
ZJ2FBX	12-48 VAC/DC model
ZH2FBX	10-80 VDC model
Χ	A=Round Bezel, B=24x48 Bezel, C=Screw Mount Bezel



## Process Indicators

- · Flush Mounting Version 96X48 mm with 7 segment display
- Thermocouple (J, K, T, R & S) / RTD 3-wire (Pt-100) sensor inputs
- Analog Inputs (0-10 VDC / 0-20mA / 4-20mA), mV (Linear) 5 to 56mV
- Alarm Outputs, Analog (0-20mA/ 4-20mA or 0-10V/ 0-5V) & Relay 5A for alarm indication
- · Configurable Band, Deviation Alarms
- °C & °F temperature unit selectable
- · Short depth of 65 mm
- RS485 Communication
- IP 20 (For terminal and enclosure) & IP 55 (For Front Panel only)
- CE, UKCA and RoHS complied



## **Ordering Information**

Cat. No.	Description
PIA200	180-270 VAC, Process Indicator, Analog Input (0-10 VDC / 4-20 mA)
PIT200	180-270 VAC, Process Indicator, Thermocouple & RTD input
PIB110	85-270 VAC/DC, Process Indicator, Analog Input (0-10 VDC / 4-20 mA), Thermocouple & RTD Input, 24 VDC sensor supply
PIB120	85-270 VAC/DC, Process Indicator, Analog Input (0-10 VDC / 4-20 mA), Thermocouple & RTD Input, Alarm Outputs - Analog (0-10 V / 0-5 V, 0-20 mA / 4-20 mA) & Relay 5A for alarm indication, 24 VDC sensor supply
PIB12C	85-270 VAC/DC, Process Indicator, Analog Input (0-10 VDC / 4-20 mA), Thermocouple & RTD Input, Alarm Outputs - Analog (0-10 V / 0-5 V, 0-20 mA / 4-20 mA) & Relay 5A for alarm indication with RS-485 Modbus communication, 24 VDC sensor supply

NOTE: For White Display, add W after Cat id. e.g. PIA200W



### Alarm Annunciators

- Standard models available from 2 to 48 windows
- Choice of 3 window sizes and 6 different window colours
- Optically isolated fault inputs with wide fault input voltage range (12 - 240V AC/DC +/-10%)
- AC-DC Fail Annunciation with universal supply range of 90 to 270V AC/DC
- Field selection for NO / NC fault input contacts, grouping of alarms, window size configuration
- Space saving due to lower depth of only 100mm
- Integral push buttons for Test, Acknowledge, Mute and Reset operations with remote terminals

windows); X = 2.....48.

- Four SPDT relay outputs (2 for grouping {Trip/ Non Trip}, 1 for external hooter, 1 for ring back sequence or Supervisory)
- 6 Field selectable operation sequences as per ISA standard
- · Integral buzzer for audible alarm output of 90dB
- Communication interface with RS485 Modbus RTU protocol
- Replaceable LEDs, Fast Scan, Manned / Unmanned, Supervisory Relay & Supply fail annunciation available
- CE, UKCA and RoHS complied



		Α	X	XX	X	X	X		
Α	Alarm Annunciator							R	AB and AC series with replaceable LED
U	Supply Voltage 90-270 VAC/DC  DC Supply Voltage 18-60 VDC							Р	Big push button + Slow Scan time (100ms) (Fault I/P voltage external 12 to 265VAC/DC & 12 VDC Internal) + Non-Replaceable LED PCB type
В	90-270V AC/DC auxiliary supply / 18-60V DC standby supply Supply fail annunciation						L	Nil	Small push button + Slow Scan time (100ms) (Fault I/P voltage external 12 to 265VAC/DC & 12 VDC Internal) + Non-Replaceable LED PCB type
С	90-270V AC/DC auxiliary supply / 90-270V AC/DC standby supply Supply fail annunciation							03	Small push button + Fast Scan time (10ms) (Fault I/P voltage 12 Internal) + Replaceable LED PCB type
1D	Panel Cutout Size 66 X 138 mm.							P3	Big push button + Fast Scan time (10ms) (Fault I/P voltage external 12 V Internal) + Replaceable LED PCB type
2D 3D	Panel Cutout Size 138 X 138 mm.  Panel Cutout Size 210 X 138 mm.							S	Small Window, Size 34(W) x 31(H) mm.
4D	Panel Cutout Size 282 X 138 mm.							M	Medium Window, Size 68(W) x 31(H) mm.
5D	Panel Cutout Size 358 X 138 mm.							L	Large Window, Size 68(W) x 63(H) mm.
6D	Panel Cutout Size 431 X 138 mm.							ı	Intermix Window (Combination of Small, Medium and Large window size)
Х	Number of Windows (minimum 2 and maximum 48								





Cat. No.	Product Size	No. of Windows	Window Size	Keys
AU1D8S	1D	8	Small	Small
AU1D6SP	1D	6	Small	Big
AD1D8S	1D	8	Small	Small
AD1D6SP	1D	6	Small	Big
AB1D8S	1D	8	Small	Small
AB1D6SP	1D	6	Small	Big



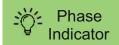
AU2D16S	2D	16	Small	Small
AU2D14SP	2D	14	Small	Big
AD2D16S	2D	16	Small	Small
AD2D14SP	2D	14	Small	Big
AB2D16S	2D	16	Small	Small
AB2D14SP	2D	14	Small	Big
AC2D16S	2D	16	Small	Small
AC2D14SP	2D	14	Small	Big



AU3D24S	3D	24	Small	Small
AU3D22SP	3D	22	Small	Big
AD3D24S	3D	24	Small	Small
AD3D22SP	3D	22	Small	Big
AB3D24S	3D	24	Small	Small
AB3D22SP	3D	22	Small	Big
AC3D24S	3D	24	Small	Small
AC3D22SP	3D	22	Small	Big



AU4D32S	4D	32	Small	Small
AU4D30SP	4D	30	Small	Big
AD4D32S	4D	32	Small	Small
AD4D30SP	4D	30	Small	Big
AB4D32S	4D	32	Small	Small
AB4D30SP	4D	30	Small	Big
AC4D32S	4D	32	Small	Small
AC4D30SP	4D	30	Small	Big



## I Phase Indicator

- Compact 17.5 mm Wide
- Available for Single, Two and Three Phase indications
- · Choice of four colours
- · LED technology for long life
- · Integrated front product labeling
- CE, UKCA and RoHS complied







Cat. No.	Description
MM1NDV	240V AC, Single Phase Indicator, Red
MM1NDW	240V AC, Single Phase Indicator, Yellow
MM1NDX	240V AC, Single Phase Indicator, Blue
MM1NDY	240V AC, Single Phase Indicator, Green
MMENDVW	240V AC, Two Phase Indicator, Red & Yellow
MM3ND	240V AC, Three Phase Indicator, Red, Yellow & Blue
MM3NDVH	240V AC, Three Phase Indicator, Red, Yellow & Green
MM3NDVD	240V AC, Three Phase Indicator, Red
MM3NDZ	240V AC, Three Phase Indicator, Green
MM3NDXD	240V AC, Three Phase Indicator, Blue
MM2NDVH	24V AC/DC, Single Phase Indicator, Red, Yellow & Green
MM2NDV	24V AC/DC, Single Phase Indicator, Red
MM2NDW	24V AC/DC, Single Phase Indicator, Yellow
MM2NDY	24V AC/DC, Single Phase Indicator, Green

#### WARRANTY POLICY

All the products sold carry a warranty against manufacturing defects for a period of 24 months from the date of manufacturing.

Should the product prove to be defective due to faulty workmanship or otherwise, we will remedy the defect or replace the faulty parts or the whole product at our discretion, as soon as possible, free of cost. In no event shall the responsibility of GIC for any act exceed the individual price of the product on which the liability is asserted.

The warranty is however subject to the provision of proper usage, efficient maintenance and does not cover defects arising out of fire, accident, inefficient maintenance, faulty operation and willful or accidental damage. It also does not cover damage to power electronic components like Thyristors, IGBTs etc. which fail predominantly due to over temperature or over voltage. The user needs to take adequate precautions to eliminate these conditions. GIC shall not be liable for any consequential loss, injury or damages attributable to defect or failure of its products.

\*Proof of Purchase to be retained to avail warranty.

#### Note:

- · Innovation being a continuous process, design and specifications are subject to change without prior notice.
- User is recommended to ensure the suitability of the products for intended application.
- GIC is not responsible for consequential damage out of use of its products.

Notes			

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To view our complete range of products and their detailed specifications, Visit our website: **www.gicindia.com** 



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