

Innovating new worlds in automation



Lining up new products
Time and again...



Alarm Annunciators



Sequential Timers



Digital Timers



Digital Time Switch (Daily/Weekly)

Ahead of change

Rising above the ever-evolving challenges in the world of electronic automation, EAPL's differentiated innovations have changed the paradigms across a wide-spectrum of industries. The EAPL products are designed as universal automation applications to capacitate high performance in a secure environment.



EAPL

A humble beginning in 1985, a breakthrough launch of A1D1- X and a giant leap resulting in a towering presence in the Electronic Automation sector- the success story of EAPL has more to it than all these. Synonymous with quality and high performance products for varied industry requirements, the goodwill the organization has gained over the years provides the best testimony for innovation at par with global standards. The organization has received several recognitions and has been approved by CSA and UL for complying with safety regulatory norms. An extensive production capacity, an unmatched customer base across 50 cities and even GCC countries, an innovation spree that knows no limits –all these make EAPL carve a niche in the highly competitive electronic automation sector.

Forbes India Listing



Heartiest congratulations to Electronic Automation Pvt Ltd. for being among the “30next”

“30next – Future of Indian Economy” is an ode to the undying spirit of Indian entrepreneurs who have started out small, and now have notched a sizable market share, immense goodwill and brand awareness for their business. The name is synonymous with the next 30 companies who define success not only by their bottom line, but also by their contribution to the community, dedication by providing great customer service, and by promoting the culture of excellence.

Why count on us?

- Pioneering since 1985
- Affably priced products
- Conforming to global parameters
- Adhering to international standards
- Global recognitions

Product feature highlights

- Leading-edge technology
- Sleek, compact & Elegant enclosures
- UL graded plastics
- Designed as per DIN standard
- Indigenous & innovative designs
- Ease of programming & Operations
- Compliance IS5834/IEC guidelines

Our 'inventives'

Imagine any world in electronic automation between 'from' and 'to'. Our innovations are there to keep it stretching. Timers, Annunciators, Sequence Timers, Protection Relays, Multifunction Meters, temperature controllers, tachometers, switches and whatever! Unmatched performance of products, for us is only a beginning. Redefining the very notion of performance is where we arrive at.

EAPL - Global presence

Today EAPL is all set to redefine the boundaries and expand the reach of cost effective innovation through initiatives across the length and breadth of the globe.



Awards & Recognitions



Awarded as a winner in the category of Electronics system by 'Make in India-2016', India Today.

ISO & EHS Certification



Business Excellence Award from ELCINA, Dun & Bradstreet - 2006-07



NATIONAL AWARD – 2008 From Government of India Ministry of MSME

Listed by SAP India for Global Reference Program -2008



Approvals and Clientele



EAPL infrastructure



An astounding production capacity- 5 Lakh units per Annum

EAPL's facility is equipped with the latest machinery and devices that meet international standards of performance and safety. Highly scalable and suited to fulfil demands of any range and capacity, EAPL is on the way of augmenting its production further through new additions that raise the benchmark to the next high.



A highly resourceful R&D centre approved by Dept. of Electronics Govt. of India.



Quality infrastructure to meet IS and IEC standard.

An association to facilitate innovation



Proud to be a part of Lahari a Make in India initiative under the aegis of Govt. of India to facilitate the manufacturing of quality electronic products. Now EAPL will benefit from the privileged access to testing, inspection and certification. More heights to conquer.

Quality in policy and practice

As an innovation driven, people first organization, EAPL is distinguished for its stringent adherence to quality, not just in processes or products, but in the ensuing customer satisfaction that results from quality in practice.

A blend of quality products and happy people is all that takes to ensure a satisfied customer. At EAPL, we resort to every possible and even impossible way to keep the quality quotient intact.

Business Operations

Head quartered in Bangalore, EAPL is spread over a vast expanse of around 22,000 sq. feet with infrastructure capable of manufacturing more than 5,00,000 units annually.

EAPL is one of the earliest establishments in Bangalore to be certified under ISO 9001:2008 by UL (Underwriters Laboratory, USA) and has currently upgraded to ISO 9001:2015. The organization has also adopted the SAP B1 as a part of enterprise resource management and fact-based decision making. At present, the production units are equipped with the latest SMT technology. The Quality Control department compliments these efforts by executing timely quality checks ranging from raw material to different stages of manufacturing and concluding with the final product. (IS5834/IEC guidelines)

The organization also has its very own tool room and plastic injection moulding facility which uses UL graded material and consistently abides by quality and safety protocol. Moreover, the in-house EMI/EMC lab strives to strengthen the validation process in assuring finesse in the quality of products.

The Company's vision for the future is to acquaint itself with emerging technologies and develop new products in accordance with the requirements and expectations of its customers.

Products Range

Electronic Timers
 Auxiliary Relays
 Programmable Alarm Annunciators
 Protection Relays
 Energy Meters
 Digital Time Switches
 Digital Counters

Power Supply Modules
 Digital Temperature Controllers
 Tachometer
 Photo Sensing Relay, Light Switch
 GSM pump controllers, SPPT - Auto Switch
 Light Switch

ISO Compliance Certifications

CERTIFICATE

This is to certify that

Electronic Automation Private Limited
 25, K.H.S. Industrial Area
 Yelahanka
 Bangalore - 560 084
 Karnataka
 INDIA.

has implemented and maintains a **Quality Management System**.

Scope:
 The Design, Development and Manufacture of Industrial Electronic Instruments for Control, Measurement and Display of Process Variables and Electrical Control Panels as per defined specifications.

Through an audit, documented in a report, it was verified that the management system fulfills the requirements of the following standard:

ISO 9001 : 2015

Certificate registration no. 20000879 QM15
 Date of original certification 1997-03-26
 Date of certification 2021-09-09
 Valid until 2029-09-04

DQS Inc.
Brad McCombe
 Brad McCombe
 Managing Director

I-Net

Accredited Body, IZS Srl, 100953-Corona Polesine, Strada 002, Sotterburg, 01027/11-1204, Accreditation Office, Standard Quality Institute GmbH, P.O. Box 120, 39100 Bolzano, Italy
 VET, 104, Avenue Road, Neutral, Bangalore-560 011, India

CERTIFICATE

This is to certify that

Electronic Automation Private Limited
 25, K.H.S. Industrial Area
 Yelahanka
 Bangalore - 560 084,
 Karnataka
 INDIA.

has implemented and maintains an **Environmental Management System**.

Scope:
 The Environmental activities and supporting processes associated with the Design, Development and Manufacture of Industrial Electronic Instruments for Control, Measurement and Display of Process Variables and Electrical Control Panels.

Through an audit, documented in a report, it was verified that the management system fulfills the requirements of the following standard:

ISO 14001 : 2015

Certificate registration no. 20000879 UM15
 Date of certification 2021-05-18
 Valid until 2024-05-18

DQS Inc.
Brad McCombe
 Brad McCombe
 Managing Director

I-Net

Accredited Body, IZS Srl, 100953-Corona Polesine, Strada 002, Sotterburg, 01027/11-1204, Accreditation Office, Standard Quality Institute GmbH, P.O. Box 120, 39100 Bolzano, Italy
 VET, 104, Avenue Road, Neutral, Bangalore-560 011, India

CERTIFICATE

This is to certify that

Electronic Automation Private Limited
 25, K.H.S. Industrial Area
 Yelahanka
 Bangalore - 560 084,
 Karnataka
 INDIA.

has implemented and maintains an **Occupational Health and Safety Management System**.

Scope:
 The Occupational Health and Safety activities and supporting processes associated with the Design, Development and Manufacture of Industrial Electronic Instruments for Control, Measurement and Display of Process Variables and Electrical Control Panels.

Through an audit, documented in a report, it was verified that the management system fulfills the requirements of the following standard:

ISO 45001 : 2018

Certificate registration no. 20000879 OHS18
 Valid from 2021-05-18
 Valid until 2024-05-18
 Date of certification 2021-05-18

DQS Inc.
Brad McCombe
 Brad McCombe
 Managing Director

I-Net

Accredited Body, IZS Srl, 100953-Corona Polesine, Strada 002, Sotterburg, 01027/11-1204, Accreditation Office, Standard Quality Institute GmbH, P.O. Box 120, 39100 Bolzano, Italy
 VET, 104, Avenue Road, Neutral, Bangalore-560 011, India

Electronic Timers

EAPL offers a gamut of models to meet diverse user requirements. Quite friendly to the user in terms of setting and operations, these models are classified in series based on size starting from ultra-slim ETR series to well-known compact A series and B series. H series generally refers to plug in type pin inserted in base timers.



A-Series (22.5mm)

Features

- Suitable for Din Rail / Screw Mounting.
- LED indication for timing in progress.
- Terminal Block safety Protective cover.

Applications

- AMF Panels, Automation Panels, HT / LT Panels, MCC Panels, C & R Panels, RTCC Panels, Transformer Panels and many more.



Ordering Information

Model	Function	Source Voltage	Time Selection	Output	CE	UL	Dimensions
A1D1	On Delay	240V AC	0.3Secs to 30Mins	2 C/o Relay	✓	✓	Over-All 22.5 mm W 75mm H 102mm D
A1D1-X	On Delay	X-Version *	0.3Secs to 30Mins	2 C/o Relay	✓	✓	
A1D1-X(60M)	On Delay	X-Version *	0.6Secs to 60Mins	2 C/o Relay	✓	✓	
A1DE-X	Interval	X-Version *	0.3Secs to 30Mins	2 C/o Relay	✓	✓	
A1DCS-X	Cyclic Equal Off- On	X-Version *	0.6Secs to 60Mins	2 C/o Relay	✓	✓	
A1DN-X	Auxiliary Relay	X-Version *	20m Sec	2 C/o Relay	✓	✓	
A1D1(8-30V DC)	On Delay	8V to 30V DC	0.3Secs to 30Mins	2 C/o Relay	-	-	
A1DA ¹	Signal-Off Delay	110V AC / 240V AC	0.3Secs to 30Mins	1 C/o Relay	-	-	
A1D-S	Star Delta	110V AC / 240V AC / 415V AC	0.6Secs to 60Secs ##TD 40ms / 100ms	1 C/o (C-NO)Star 1 C/o (C-NO)Delta	-	-	
A1D1(WB)	On Delay (Wide band)	266V AC to 456V AC	3Secs to 30Secs	1 C/o Relay	-	-	
A1DH-1	Power-Off Delay	240V AC**	18Secs to 180Secs	2 C/o Relay ***	-	-	
A1DM-X ² (NEW)	Multi Function Timer	X-Version*	0.1 mins to 10 hrs	2 C/o Relay	-	-	
A1DCA-X (NEW)	Adjustable cyclic Timer	X-Version*	6 secs to 60 mins	2 C/o Relay	-	-	

*X-Version - 24V AC to 240V AC, 24V DC to 220V DC | **Minimum 2secs of aux. supply has to be applied for each cycle, else timer may malfunction |

***:Contact Rating: 0.5 A @ 250 V AC / 28V DC Resistive | ##: TD – Transfer Delay time is the time between closure of star function and start of delta. |

1: Energizes the timer relay with a free from potential signal Command and on removal starts the timing.

2: Function: a: ON Delay, b: Interval C: ON Delay Cyclic D: Interval Cyclic

Electronic Timers

ETR-Series (17.5mm)



Features

- Slim and Compact design.
- Finger guard protection.
- LED indication for timing in progress

Applications

- Automation Panels, HT / LT Panels, MCC Panels, C & R Panels, RTCC Panels, Transformer Panels and many more.

Ordering Information

Model	Function	Source Voltage	Time Selection	Output	Dimensions
ETR1-X	On Delay	X-Version*	0.3Sec to 30Min	1 C/o Relay	Over-All 17.5 x 89 x 62 mm (W X H X D)
ETRCs-X	Cyclic Equal Off-On		0.6Sec to 60Min		
ETRE-X	Interval		0.3Sec to 30Min		
ETRN-X	Auxiliary		20m Sec		
ETR-S	Star Delta	240V AC	6Sec to 60Sec ##TD 100ms	1 C/o (C-NO)Star 1 C/o (C-NO)Delta	
ETR-Sa			12Sec to 120Sec ##TD 100ms		

*: X-Version - 24V AC to 240V AC, 24V DC to 220V DC | ##: TD - Transfer Delay time is the time between closure of star function and start of delta. |

B-Series (45mm)

Features

- Din sized enclosure.

Applications

- Lubricating systems, Hot air tumblers, Washing Machines, DG Sets, MCC panels, Pump panels and many more.



Ordering Information

Model	Function	Source Voltage	Time Selection	Output	Dimensions
B1DCA-X	Cyclic Adjustable On-Off	X-Version*	0.6Secs to 60Mins	2 C/o Relay	45 x 75 x 116 mm (W X H X D)
B1DCA-T ¹	Cyclic Adjustable On-Off	110V AC / 240V AC	0.1Secs to 10Hrs	2 C/o Relay	
B1DS	Star Delta	440V AC	0.6Secs to 60Secs ##TD 40ms / 100ms	1 C/o (C-NO)Star 1 C/o (C-NO)Delta	
B1DH-Q	Power-Off Delay	110V AC to 240V AC 110V DC to 220V DC**	6Secs to 60Secs	2 C/o Relay	
B1DF	On Delay with instant contact	110V AC / 240V AC	0.3Secs to 30Mins	1 C/o On Delay 1 C/o Instant	
B1DF-R ²	Forward/Reverse with Pause Time	240V AC	Forward & Reverse - 0.6Min to 6Mins Pause- 0.1Min to 1Min	1C/o relay forward and 1c/o reverse	

*: X-Version - 24V AC to 240V AC, 24V DC to 220V DC | **: Minimum 1Sec of auxiliary supply has to be applied for each cycle, else timer may malfunction

##: TD - Transfer Delay time is the time between closure of star function and start of delta.

1: Hold/Restart – User Selectable, Enabling/disabling of select button for time range selection-field selectable.

2: Pause time between Forward and Reverse functions and vice versa is programmable.

Electronic Timers

H Series (48mm)

Features

- Timer with base(Refer Note 3)
- Large transparent knob.
- Knob lock ring is provided

Applications

- Textile Machine, Vending machine and many more.



Ordering Information

Model	Function	Source Voltage	Time Selection	Output	Over-All Dimensions	Cut-Out Dimensions
H3D1 ^{1,3}	Multifunction (8 terminals) screw type	X-Version*	0.3Secs to 60Mins	2 C/o Relay	48 x 48 x 94mm (W x H x D)	46 x 46 mm (W x H)
H1D1-X ¹	Multifunction (11 Pin) plug-in type		0.3Secs to 60Mins			
H1DA-X ²	Signal Off-Delay (11 Pin) plug-in type		0.6Secs to 60Mins			
H1DT-10	On-Delay (11 Pin) plug in type.		1Secs to 10Secs			
H1DT-30			3Secs to 30Secs			
H1DT-60			6Secs to 60Secs			
H4DT-10	On-Delay (8 Pin) plug-in type.		1Secs to 10Secs			
H4DT-30			3Secs to 30Secs			
H4DT-60			6Secs to 60Secs			

*X-Version - 24V AC to 240V AC, 24V DC to 220V DC | 1: Multifunction - On-Delay / Interval / Equal Cyclic On / Equal Cyclic Off - programmable | 2: Energizes the timer relay with potential Signal Command(12V to 240V AC, 12V to 220V DC) and on removal starts the timings | 3: Timer without base.

APD Series

Features

- Suitable for Din Rail / Screw Mounting.
- Universal voltage range.
- Terminal Block safety Protective cover.

Applications

- Relay panels, circuit breakers, Contact multiplying relay circuits, interlocking circuits and many more.



Ordering Information

Model	Function	Source Voltage	Time Range	Output	Dimensions
APD-100	Antipumping relays	X-Version*	80m Sec	1 C/o Relay	22.5 x 75 x 102mm (W X H X D)
APD-300			80m Sec	2 C/o Relay	
APD-500			20m Sec	4 Relays: 3 (C-NO), 1(C-NC)	45 x 73 x 88 mm (W X H X D)

*: X-Version - 24V AC to 240V AC, 24V DC to 220V DC

Digital Time Switch (Daily/Weekly)

Time switches are control devices that switch ON loads with reference to real-time and then operate for a predefined duration irrespective of power failure occurrence.

Features

- Time switch with 4 relay outputs.
- 112 Switchings(4 Switching per day) for each relays independent programming for each day of the week.
- LED indicators for relay status.
- Bright LCD display with backlight for better visibility.
- User friendly programming with manual over ride facility.
- Available in Din rail / Panel mounting.

Applications

- Street lighting, Advertising boards, DG sets, Pumps, Compressors, Exhaust fans, ATM air conditioners and many more.



Ordering Information

Model	Function	Source Voltage	Output	Over-All Dimensions	Cut-Out Dimensions
KTS-4R ¹	Digital Daily/ Weekly time switch with 4 relays output	240V AC	1 c/o rated for 16A	110 x 86 x 68mm (L x W x D)	NA
ETS-4R ²				96x96x53(L x W x D)	92 X 92mm (W X H)

1: Real time clock operates on external batteries | 2: Inbuilt rechargeable battery

Digital Time Switches

Features

- Switches ON-OFF 4 times in a day with respect to real time
- Manual over riding possible.

Applications

- Street lighting, Advertising boards, DG sets, Pumps, Compressors, Exhaust fans, ATM air conditioners and many more.



Ordering Information

Model	Function	Source Voltage	Output	Over-All Dimensions	Cut-Out Dimensions
TS-203 ¹	Digital Daily Time Switch with 4 Program	240V AC	1 C/o, 16A resistive	72 X 72 X 84mm (W X H X D)	69 X 69mm (W X H)
TS-203R ²				110 X 86 X 68mm (W X H X D)	NA
TS-203B ³					

1: Real time clock operates on external batteries | 2: Inbuilt rechargeable battery | 3: Allows user to activate program buttons during programming

Sequential Timers

EAPL Sequential Timers are multi-channel control devices which capacitate predefined loads in a sequence without overlapping for a stipulated time between two scheduled time gaps. Sequential Timers are available in sturdy and compact UL graded flame retardant plastic enclosures.

Features

- Hold /Restart - User Selectable.
- Program of the first relay can be copied to all remaining relays or individually programmed for each relay.
- Non potential pulse start signal for initiation. (Refer Note 3)
- single/repeat cycle (Refer Note 1), Time inhibit / Pause & Cascading of units are available (Refer Note 5).

Applications

- Bag Filter systems, Dust pollution systems, Air handling systems, MCC panels, Pneumatic Conveyors, Process Industries and many more.



Ordering Information

Model	Function	Source Voltage	Time Selection	Output	Dimensions
ST4-M1 ^{1,2,3,5}	Sequential Switching 4 channels	240V AC	0.1S/M/H to 1S/M/H	1 C/o NO Relay for each channel	110 x 86 x 68mm (W X H X D)
ST6-M1	Sequential Switching 6 channels	85V to 270V AC / DC	0.1Secs to 99Hrs 59Mins	1 C/o NO Relay for each channel	200 x 130 x 45mm (W X H X D)
ST10-M1	Sequential Switching 10 channels			Triac O/p for each channel**	
ST10-M2			0.01Secs to 99Hrs 59Mins	Triac O/p for each channel**	
ST6-M1(IP)	Sequential Switching 6 channels with IP Enclosure		0.1Secs to 99Hrs 59Mins	1 C/o NO Relay for each channel	291 x 214 x 68mm (W X H X D)
ST10-M1(IP)	Sequential Switching 10 channels with IP Enclosure	0.01Secs to 99Hrs 59Mins	Triac O/p for each channel**		
ST10-M2(IP)			Triac O/p for each channel**		
ST15-M2 ^{1,3,4,5}	Sequential Switching 15 channels	85V to 270V AC	0.01Secs to 99Hrs 59Mins	Triac O /p for each channel**	200 x 130 x 45mm (W X H X D)
ST15-M2(IP) ^{1,3,4,5}	Sequential Switching 15 channels with IP Enclosure				291 x 214 x 68mm (W X H X D)

** : Suitable for 240V AC / 110V AC loads only.

1: Repeat Cycles only | 2: On/Off Time selection is common for all relays | 3: Healthy continuous non potential start signal for operation

4: Healthy Continuous non potential differential pressure signal to operate timer | 5: Time inhibit, cascading of units not applicable.

Sequential Timers

Microseries

Features

- State of art microcontroller design.
- Eight-channel sequential timer in elegant and compact housing design.
- Suitable for Panel/Flush mounting.
- Universal auxiliary voltage and 8 outputs relays rated for 10A.
- Single cycle/ Repeat Cycle, Cascading of multiple units are available.
- Non potential pulse start signal for initiation.



Ordering Information

Model	Function	Source Voltage	Time Selection	Output	Over-All Dimensions	Cut-Out Dimensions
ST-8M1	Sequential timer 8 channels	85-270V AC/DC	0.1Sec to 99Hrs 59Min	1 C/o NO Relay for each channel	96 x 96 x 53 (W x H x D)	92 x 92(W x H)

Sequential Timers

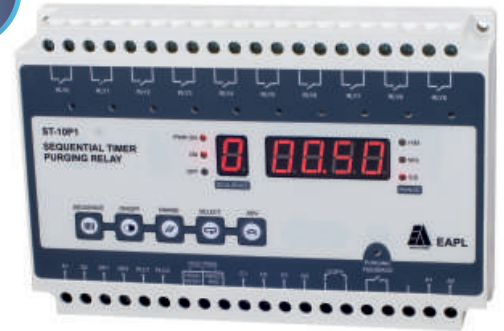
with Purging Feedback

Features

- 1 separate additional relay for healthy purging feedback.
- Suitable for screw mounting.
- Non potential pulse start signal for initiation.
- Hold/Restart facility during power failure conditions.
- Program of the first relay can be copied to all remaining relays or individually programmed for each relay.
- Single cycle/ Repeat Cycle, Cascading of multiple units are available.

Applications

- Bag Filter systems, Dust pollution systems, Air handling systems, MCC panels, Pneumatic Conveyors, Process Industries and many more.



Ordering Information

Model	Function	Source Voltage	Time Selection	Output	Over-All Dimensions
ST-10P1	Sequential timer 10 channels with 1 purging feedback relay	85-270V AC/DC	0.1Sec to 99Hrs 59Min	1 C/o NO Relay for each channel	200 x 130 x 45mm (W X H X D)

Combination Timers

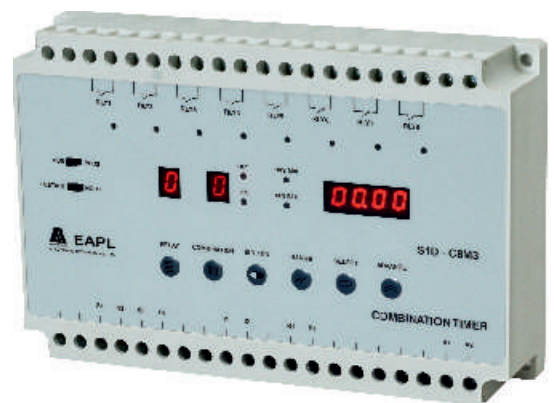
Microcontroller designed Combination Timers operate multiple loads in a predefined program sequentially or non-sequentially with or without overlapping. Comprising of multifarious features, they enable a varied range of applications.

Features

- Independently programmable - 8 Relays, 8 ON-OFF Timings Programmable for each relays (Overall 64 combination)
- Hold /Restart, single/repeat cycle, Time inhibit / Pause - User Selectable.
- Non potential pulse start signal for timer initiation.

Applications

- Air dryers, Nitrogen and other gas plants, Process industries and many more.



Ordering Information

Model	Function	Source Voltage	Time Selection	Output	Dimensions
S1DC8-M3 ¹	Combination Switching 8 channels, 8 Combinations	85V to 270V AC / DC	0.1Secs to 99Hrs 59Mins	1C/o NO Relay for each Channel	200 x 130 x 45mm (W X H X D)

1: Erasing of entire programs to default values is possible by shorting reset terminals.

Digital Timers

EAPL's programmable Digital Timers feature digital displays in a sturdy plastic enclosure for precise settings and higher accuracies. These timers are panel / flush mounted. These multi-function devices afford a wide user selection of features.

Features

- Function (programmable): ON DELAY / INTERVAL / CYCLIC.
- Type of start signal (programmable): No START SIGNAL / PULSE¹ / CONTINUOUS.
- Program lock facility, Hold/Restart - User Selectable.

Applications

- Injection molding machine Granite processing machines, Packaging / Printing machines Hot stamping machines and many more.



Ordering Information

Model	Function	Source Voltage	Time Selection	Output	Over-All Dimensions	Cut-Out Dimensions
H3PT-MU	Multifunction Up-counting	85V to 270V AC / DC	0.1Secs to 99Hrs 59Mins	1C/o Instant ² , 1 C/o Delayed or 2c/o Delayed	48 x 48 x 95.5mm (W X H X D)	46 x 46mm (W X H)
C3PT-MU					72 x 72 x 128.5mm (W X H X D)	69 x 69mm (W X H)
E3PT-MU				1 C/o Instant ² , 2 C/o Delayed or 3 C/o Delayed	96 x 96 x 117mm (W X H X D)	92 x 92mm (W X H)

1: When pulse signal is initiated the timer resets and immediately the new cycle begins. | 2: Instant feature is not available when cyclic function is programmed.

Features

- Din sized enclosure built in a sturdy plastic enclosure.
- Precise settings and higher accuracies.
- Bigger & brighter display for process value and set value.
- On Delay function.
- Hold / Restart facility during power failure condition.



Ordering Information

Model	Function	Source Voltage	Output	Time Selection	Over-All Dimensions	Cut-Out Dimensions
DTMR-1*	On Delay	85V to 270V AC / DC	1 c/o rated for 5A	0.1Sec to 99Hrs 59Mins	72 x 72 x 84 (W x H x D)	69 x 69 (W x H)
H3DT**	On Delay with Thumb wheel time setting					

** Thumb wheel time setting

* Type of start signal (programmable): No START SIGNAL / PULSE(When pulse signal is initiated the timer resets and immediately the new cycle begins) /CONTINUOUS

Preset Counters

Preset counters are used for counting components produced or counting the number of strokes in a given process.

Features

- Counts the digital pulses, input sensing-proximity sensor, Photo sensor, Limit Switch and potential free signals.
- Hold / Restart user selectable.
- Configurable preset count for batch counting.

Applications

- Injection molding machine Granite processing machines, Packaging / Printing machines Hot stamping machines and many more.



Ordering Information

Model	Function	Source Voltage	Range	Output	Over-All Dimensions	Cut-Out Dimensions
CT-5	Preset counter (LED Display), 5 digits	85V AC to 270V AC / DC	1 to 99,999 counts	1 C/o, 5A resistive	72 x 72 x 128mm (W X H X D)	69 x 69mm (W X H)
H3CT-5U'					48 x 48 x 95.5mm (W X H X D)	46 x 46mm (W X H)
H3CT-6U	Preset counter (LED Display), 6 digits		1 to 9,99,999 counts		98 x 50 x 79mm (W X H X D)	92 x 46mm (W X H)

1. Frequency of counts programmable

Digital Non-Contact Tachometer

Digital Tachometers also known as RPM meters, are designed to measure revolutions per minute (RPM) of any rotating surface. EAPL offers digital hand-held non-contact type tachometers that are manufactured using world-class technology. The input sensing is through reflective beam falling on reflective sticker.

Features

- Portable, Light weight, strong and elegant ABS enclosure.
- Last reading memory retention.
- High Accuracy and resolution.

Applications

- Motors, Pumps, Generators, Engine and many more



Ordering Information

Model	Function	Source Voltage	Range	Over-All Dimensions
DT-2001B	Digital Hand Held Non Contact Tachometer	6V DC (4 x 1.5V, AA size battery)	1 to 99,999RPM (with one reflecting mark)	72 x 170 x 38mm (W X H X D)

Note: Calibration certificate with NABL standard traceability.

Programmable Alarm Annunciators

EAPL annunciators comes in UL rated ABS sleek, compact and light enclosures. The windows glow slides/caps can be replaceable at site based on colour requirement. For programming fault input & relay output configuration, front buttons are provided in addition to terminals at the rear.

M2 Series

Features

- Super bright SMD LEDs.
- Sequence of operation - Manual /Auto Reset / Manual Reset with ring back/FIFO - User Selectable (Refer Note 2).
- RS-485 Mod-bus communication available in select models. (Refer Note 1).

Applications

- C&R panels, Transformer panels, DG set panels, Fire annunciation panels, Instrumentation panels and many more.



Ordering Information

Model	No of Windows	Source voltage	Stand By Voltage	Output	Window Sizes (W x H) in mm	Over-All Dimensions	Cut-Out Dimensions
M2-4 ²	4	85V to 270V AC/DC (or) 18V to 90V AC/DC	N A	Trip Relay - (C-NO), Alarm Relay - (C-NO),	Bigger windows 66 X 27.5	73.5 x 142.5 x 78 mm (W x H x D)	69 x 141 mm (W x H)
M2-6 ²	6				Top 2 Windows: 66 X 27.5 Bottom 4 windows: 31.5 X 27.5		
M2-8 ²	8				Smaller windows 31.5 X 27.5		
M2-8P ^{2,3}	8	85-270V AC/DC	N A	Same as above	Smaller windows 31.5 X 27.5	Same as above	Same as above
M2-12/ M2-12R ¹	12	85V to 270V AC/DC	12V DC	Trip Relay - (NC-C-NO), Alarm Relay - (NC-C-NO), Hooter Relay - (C-NO), AC fail Relay - (C-NO)	Big window 63 X 28	291 x 187 x 79mm (W x H x D)	285 x 181mm (W x H)
M2-16/16a, M2-16R ¹	16				Bigger windows 63.0 x 28.0 Smaller windows 28.0 x 28.0		
M2-20/ M2-20R ¹	20						
M2-24/ M2-24R ¹	24				Small window: 28 x 28		

1 : Annunciators with RS485 mod-bus RTU protocol to communicate healthiness/Unhealthiness of each specified parameters and Availability will be for bulk quantity |
2 : Only Manual / Auto reset available in basic Models. 3 : Removable back terminals for easy wiring.

Alarm Indicator

Features

- Available in 4 and 8 windows respectively.
- Sleek, light weight, ABS enclosure.

Applications

- C&R panels, Transformer panels, DG set panels, Instrumentation panels and many more.



Ordering Information

Model	No. of Windows	Input	Output	Window Sizes (W x H) in mm	Over-All Dimensions (W x H x D) in mm	Cut-Out Dimensions (W x H) in mm
AI-4	4	24V DC ±10%	Window Facia LEDs on front	4 Bigger windows 66 x 27.5	74 X 143 X 78	63 X 138
AI-8	8			8 smaller windows 31.5 x 27.5		

M3 Series



Features

- Super bright SMD LEDs
- Master and slave units are available in 4,6 & 8 windows.
- Incorporates a built-in buzzer in addition to fault alarm relay output.
- User-selectable sequence of operations- Manual/Auto reset/ Manual reset with ring back / FIFO.
- RS485 communication output with field selectable device Ids.
- Repeat Relay card Option available.



Applications

- C&R panels, Transformer panels, DG set panels, Fire annunciation panels, Instrumentation panels and many more.

Ordering Information

Model	No of Windows	Product size	Source voltage & Standby voltage	Output	Window Sizes (W x H) in mm	Over-All Dimensions	Cut-Out Dimensions
M3-4/M3-4R	4	1D	85-270V AC/DC & 12V DC	Trip Relay - (C-NC-NO), Alarm Relay - (C-NC-NO), AC Fail - (C, NO), DC Fail - (C, NO).	4 Bigger windows 68.0 x 31.0	72 x 144 x 121 mm (W x H x D)	66 x 139 mm (W x H x D)
M3-6/M3-6R	6				2 Bigger windows 68.0 x 31.0 4 Smaller windows 34.0 x 31.0		
M3-8/M3-8R	8				8 Smaller windows 34.0 x 31.0		
M3-8/M3-8R	8	2D	85-270V AC/DC & 85-270V AC/DC	Trip Relay - (C-NC-NO), Alarm Relay - (C-NC-NO), AC Fail - (C, NO), DC Fail - (C, NO).	8 Bigger windows 68.0 x 31.0	144 x 144 x 121 mm (W x H x D)	139 x 139 mm (W x H x D)
M3-12/M3-12R	12				4 Bigger windows 68.0 x 31.0 8 Smaller windows 34.0 x 31.0		
M3-16/M3-16R	16				16 Smaller windows 34.0 x 31.0		
M3-12/M3-12R	12	3D	24-48V AC/DC & 12V DC	Trip Relay - (C-NC-NO), Alarm Relay - (C-NC-NO), AC Fail - (C, NO), DC Fail - (C, NO).	12 Bigger windows 68.0 x 31.0	216 x 144 x 121 mm (W x H x D)	212 x 139 mm (W x H x D)
M3-20/M3-20R	20				4 Bigger windows 68.0 x 31.0 16 Smaller windows 34.0 x 31.0		
M3-24/M3-24R	24				24 Smaller windows 34.0 x 31.0		
M3-32/M3-32R	32	4D	85-270V AC/DC	Trip Relay - (C-NC-NO), Alarm Relay - (C-NC-NO), AC Fail - (C, NO), DC Fail - (C, NO).	32 Smaller windows 34.0 x 31.0	288 x 144 x 121 mm (W x H x D)	283 x 139mm (W x H x D)
M3-40/M3-40R	40	5D			40 Smaller windows 34.0 x 31.0	360 x 144 x 121 mm (W x H x D)	355 x 139mm (W x H x D)

Models no. with suffix R has RS485 communication port. Multicolor (Red / White / Amber / Green) windows are available on request.

Electronic Solid state Buzzer

Features

- Low Power Consumption.
- Two user selectable ring tones.
- Generates no radio frequency signal.

Applications

- Electrical Control Panels, Automation Panels, Safety devices, Annunciators, Audio-visual warnings, Emergency Warning, Banks & commercial premises, Warning systems

Ordering Information

Model	Source Voltage	Audio Output range	Over-All Dimensions (W X H X D)	Cut-Out Dimensions (W X H)
ESB-03	85 to 270V AC/DC & 24V DC	90db to 110db	96 x 96 x 88.5 mm	92 x 92 mm



Protection Relays

Also known as single phase preventers, they help the user to monitor the functionality of given power parameters and control the same by taking appropriate action through relay output. Both analog and digital versions are available. While analog versions come with few parameters and factory set values, digital versions are more versatile helping the user to select the parameters and limits. These units display functional faults and help user to monitor the instant values while functioning faultlessly.

Single phase preventers

Features

- Resetting possible in manual mode from front button / rear terminals.

Applications

- Motors, pumps, generators and Compressor panels and many more.



Ordering Information

Model	Function	Input Voltage	Output	Over-All Dimensions (W X H X D)
PMD-01a	Phase Unbalance, Phase Failure, Phase Sequence, Under Voltage, Monitor & Control	440V AC 3phase, 3 wire, Self powered	2 c/o, 5A resistive	45 x 75 x 116mm
PMD-01	Phase Unbalance, Phase Failure, Phase Sequence, Under Voltage, Monitor & Control	440V AC 3phase, 3 wire, Self powered	1 c/o, 5A resistive	45 x 75 x 116mm
PMD-02	Phase Sequence, Phase Failure, under voltage	415V AC 3phase, 3 wire, Self powered		22.5 x 75 x 96mm
PMD-03	Monitor and Control			17.5 x 89 x 62mm
SPP-T ¹	Phase Unbalance, Phase Failure, Phase Sequence, Monitor & Control	415V AC 3phase, 3 wire, Self powered		45 x 75 x 116mm

1: Auto/Manual switch provided

SPPT - Autoswitch

Features

- Color coded wires for easy wiring with DOL starters.
- Factory set On-delay time 35s-45s in Auto mode & 3-5Sec in Manual mode.
- Mode of operation: Normal reset & Delayed reset.

Applications

- Irrigation pumps



Ordering Information

Model	Function	Source voltage	Input Voltage	Output	Over-All Dimensions
SPPT-Autoswitch ¹	Phase Failure, Reverse phasing, Phase Unbalance with Autoreset facility	240V AC/110V AC	415V AC 3phase, 3 wire, Self powered	1 c/o, 5A resistive	34 x 101 x 82mm (W x H x D)

1: Auto/Manual switch provided

Protection Relays

Digital Version

Features

- Displays instant values of specified parameters during healthy condition and type of fault during fault conditions
- Programmable trip delay time and limits for each parameter
- Relays NO/NC status during healthy condition – User Selectable.
- bypass option for undesired protection feature

Applications

- Any 3 phase 4 wire systems like motors, pumps, generators / distribution / MCC panels, air conditioners, elevators, cranes, escalators and many more.



Ordering Information

Model	Function	Input Voltage	Output	Over-All Dimensions (W X H X D)	Cut-Out Dimensions (W X H)
PVMR-A ^{1,4a,5a}	Phase Voltage Monitoring Device	415V AC 3 phase, 4 wire & auxiliary supply 100-270 V AC	1 c/o, 10A resistive	96 x 96 x 95.5mm	92 x 92mm
PVMD-G ^{2,4a,5a}		415V AC 3 phase, 4 wire, Self powered		76 x 78 x 115mm	NA
PVIMR-A ^{1,3,4b,5b}	Phase Voltage Current Monitoring Device	415V AC 3 phase, 4 wire & auxiliary supply 100-270 V AC		96 x 96 x 95.5mm	92 x 92mm
PVIMD-G ^{2,3,4b,5b}		415V AC 3 phase, 4 wire, Self powered		76 x 78 x 115mm	NA
PVIMD-R ^{1,3,4c,5b}	Phase Voltage Current & Energy Monitoring Device 415V AC 3 phase, 4 wire with RS485	415V AC 3 phase, 4 wire & auxiliary supply 85-270 V AC/DC	2 c/o, 5A resistive	96 x 96 x 117mm	92 x 92mm
PMR-01A ^{1,3,4d,5c}	Power Monitoring Relay	415V AC 3 phase, 4 wire & auxiliary supply 100-270 V AC	1 c/o 10A resistive	96 x 96 x 95.5mm	

1: Panel Mounting | 2: Din rail mounting | 3: Nominal current and inrush time user programmable. CT primary user selectable secondary default is 5 |

4: Displays the following parameters during healthiness by the following models:

- PVMR-A/PVMD-G: 3-phase voltage L-L, L-N
- PVIMR-A/PVIMD-G: 3-phase voltage L-L, L-N, Current L-N
- PVIMD-R: 3-phase voltage L-L, L-N, Current L-N, frequency, PF, active power, active energy
- PMR-01A: 3-phase voltage L-L, L-N, Current L-N, frequency |

5: Monitors and displays the following parameters during unhealthiness by the following models.

- PVMR-A, PVMD-G : Monitors and trips the circuit after the set trip delay time when ever power unhealthiness (phase failure, phase sequence, phase unbalance under voltage or over voltage) occurs.
- PVIMR-A, PVIMD-G, PVIMD-R: Monitors and controls any 3 phase 4 wire circuit after the set trip delay time when ever power unhealthiness (phase failure, phase sequence, phase unbalance under voltage, over voltage, under current or over current) occurs.
- PMR-01A: Monitors and trips the circuit after the set trip delay time when ever power unhealthiness (phase failure, phase sequence, phase unbalance under voltage, over voltage, under frequency, over frequency or earth leakage current, under current, over current) occurs.

Reverse Power Relay

Features

- Displays instant values of specified parameters during healthiness and type of fault during fault conditions.
- Monitors and trips the circuit after the set trip delay time whenever fault occurs (under voltage, over voltage & reverse power).

Applications

- Solar Power Systems, Generator Synchronization Panel and etc.



Ordering Information

Model	Function	Input Voltage	Output	Over-All Dimensions
RPR-01	Reverse Power Device	85V - 270V AC, self powered	1 c/o 5A	76 x 78 x 115mm

Switch Mode Power Supplies

Switch mode power supplies incorporate a switching regulator for efficient conversion of electric power. EAPL offers SMPS from a wide -band single phase AC to low ripple and low harmonics DC supply.

MS-Series

Features

- Regulated Voltage.
- Output Voltage fine tuning in select models.
- Protection against over voltage, over load and short circuit.

Applications

- PLC, DC panels, DC solenoids, DC relay boards, Battery charging panels and many more.



Ordering Information

Model	Function	Input Voltage	Output	Over-All Dimensions (W X H X D)
MS-01 ¹	Switch Mode Power Supply	192V - 264V AC	24V DC, 1A, 24W / 12V DC, 1A, 12W	45.5 x 77.4 x 116mm
MS-02		170V - 300V AC	24V DC, 2.1A, 50W / 24V DC, 1.46A, 35W / 24V DC, 1.04A, 25W / 24V DC, 0.63A, 15W / 15V DC, 2.1A, 31.5W	110 x 86 x 71mm
			12V DC, 4.2A, 50W / 12V DC, 2.9A, 35W / 12V DC, 2.08A, 25W / 12V DC, 1.25A, 15W / 5V DC, 6A, 30W / 5V DC, 5A, 25W / 5V DC, 3A, 15W	
MS-03			24V DC, 5A, 120W	
MS-05 ¹		5V DC, 1A, 5W	22.5 x 75 x 96.5mm	

¹: Output Voltage fine tuning not applicable for MS-01, MS-05.

Multifunction Meters

Presenting an extensive array of Multifunction Meters- ranging from Energy Meters to simple volt/amperes/frequency meters suitable for Submetering/analysing the consumption pattern. Meters are available with RS485 communication port & WiFi connectivity. All our Meters are conforming to the latest IEC standards and accuracy class 1.0, 0.5, 0.2s.

Features

- High brightness alpha numeric LED display for parameters and numeric for corresponding values.
- user programmable CT/PT primary and secondary.
- Program is password protected.
- Accuracy Class: 1.0 / 0.5 / 0.2

Applications

- Sub metering panels, Distribution panels, HT / LT panels and DG panels and many more.



Ordering Information

Model	Function	Source Voltage	Display Parameters		Over-All Dimensions	Cut-Out Dimensions
EMS-01	3 Phase Multi Function Meter with RS 485	85V to 270 V AC/DC	Basic	V(R,Y,B), V(RY,YB,BR), A(R,Y,B), Hz, PF(R,Y, B,T), Phase Angle(R,Y, B), RPM, W(R, Y, B,T), VAr(R,Y, B,T), VA(R,Y, B, T), Device ID (Communication Status)	96 x 96 x 95.5mm (W x H x D)	92 x 92 mm (W x H)
EMS-01 IOT ²	3 Phase Multi Function Meter with wifi		Total	KWhT, KVrhCT, KVrhIT, KVAhT, LT (Load Hours Total)		
			Import	KWhI, KVrhCI, KVrhII, KVAhI, LI (Load Hours Import)		
			Export	KWhE, KVrhCE, KVrhIE, KVAhE, LE (Load Hours Export)		
			Old-Total	KWhT, KVrhCT, KVrhIT, KVAhT, LT (Load Hours Total)		
			Old-Import	KWhI, KVrhCI, KVrhII, KVAhI, LI (Load Hours Import)		
EMS-01T ³	3 Phase Multi Function Meter with THD		THD (available in EMS-01T)	Voltage (%) (R, Y, B), Ampere (%) (R, Y, B)		
EMS-03	KWH Meter		W(T), PF(T), KWh, MWh, Device ID (Communication Status)			
EMS-09	Basic / Energy Meter	V(R,Y,B), V(RY,YB,BR), A(R,Y,B), Hz, PF(R,Y,B,T), W(R,Y, B,T), KWh, MWh, LH, KWh(Old) MWh(Old), LH(Old), Device ID (Communication Status)				
EMS-09m	Basic /Energy Meter with 2 Event Counter	V(R,Y,B), V(RY,YB,BR), A(R,Y,B), Hz, PF (R,Y, B,T), W(R,Y,B,T), Job count 1,Job count 2,VA,(R,Y,B,T) KVAh, KWh, MWh, LH, Device ID (Communication Status)				
EMS-17 ¹	Dual Source Energy Meter	V(R, Y, B), V(RY,YB, BR), A(R,Y,B), Hz, PF(R,Y, B,T), RPM*, Phase angle(R, Y, B), W(R,Y, B,T), KWh(M), MWh(M), KVAh(M), LH(M), KWh(G), MWh(G), LH(G) All energy parameters are available in-Mains(M) and generator mode(G), KVA, KVAh(G&M)	96 x 96 x 115.0mm (W x H x D)			

1: Separate Mains and Generator registers are available for energy load on hour's parameters. | 2: RS 485 communication is not available, instead it will be through Wi-Fi, device id display also will not be available | 3: THD available only for EMS-01T.

Maximum Demand Meters

Features

- Programmable demand techniques block / sliding window
- Programmable demand parameters Apparent / Active power
- Programmable Alarm / hysteresis settings
- 4 control outputs (C-NO) for alarm and trip
- Class of Accuracy – Cl. 1.0 for KWh Cl. 2.0 for KVARh

Applications

- Industries & Commercial buildings.



Ordering Information

Model	Function	Source Voltage	Display Parameters		Over-All Dimensions (W X H X D)	Cut-Out Dimensions (W X H)
EMS-15	Maximum Demand Indicator	240V AC/DC	Basic	V(R, Y, B), V(RY, YB, BR), A(R,Y, B), Hz, RTC Time	96 x 96 x 117mm	92 x 92 mm
EMS-15C	Maximum Demand Controller		Power	PF(R, Y, B, T), W(R, Y, B, T), VAr(R, Y, B, T), VA(R, Y, B, T)		
			Integral	KWh, KVArh-C, KVArh-I, KVAh, LH		
			Demand	Md (Fixed / Sliding), Md Time (Fixed / Sliding), Wd (Fixed / Sliding), Rd (Fixed), Elapsed Time (Fixed / Sliding)		

DC Multifunction Meters

Features

- DC Multifunction Meter with RS485 communication port. (Refer Note 1).
- Wide Measuring Voltage range.
- Programmable Shunt ratios.

Applications

- Solar projects, Battery monitoring systems, DC rectifier systems, EV charging stations.



Ordering Information

Model	Function	Source Voltage	Display Parameters		Input Voltage	Over-All Dimensions (W X H X D)	Cut-Out Dimensions (W X H)
SNM-03 ¹	DC Multi Function meter	85V-270V AC / DC		V, A, KW, KWh, MWh, LH, OLd KWh, OLd MWh, OL, DEV Id	5V DC to 1000V DC	96 x 96 x 95.5mm	92 x 92 mm
DCM-01 ¹	Bi-Directional Solar Energy Meter		Main	V, ±A, ±KW, F-KWh, F-MWh, F-Load on Hours, RA, R-KW, R-KWh, R-MWh, R-Load on Hours, Device ID & Communication Status	5V DC to 1000V DC		
			Old Energy	F-KWh, F-MWh, F-Load on Hours, R-KWh, R-MWh, R-Load on Hours			

1: Only Single Channel Available

Basic Meters

Features

- User programmable CT/PT primary and secondary.
- Built in selector switch.
- Model available with standard 96x96mm size and compact size of 98x50 mm

Applications

- Distribution panels, HT / LT panels, DG panels and many more.



Ordering Information

3-Phase Basic meters

Model	Function	Source Voltage	Display Parameters	Over-All Dimensions (W X H X D)	Cut-Out Dimensions (W X H)
EMS-11 ^{1,3}	Ammeter	240V AC / 110V AC	A(R, Y, B)	96 x 96 x 95.5mm	92 x 92 mm
EMS-12 ^{2,3}	Voltmeter		V(R, Y, B), V(RY, YB, BR)		
EMS-13 ⁴	Frequency Meter		Hz. (Avg)		
EMS-18 ^{1,2,4}	VAF Meter	85V - 270V AC / DC	V [®] , Y, B), V(RY, YB, BR), A(R, Y, B), Hz		
EMS-11a ^{1,3}	Ammeter	240V AC	A(R, Y, B)	98 x 50 x 79mm	92 x 46 mm
EMS-12a ^{2,3}	Voltmeter		V(R, Y, B), V(RY, YB, BR)		
EMS-13a ⁴	Frequency Meter		Hz. (Avg)		

1: CT primary & secondary programmable | 2: PT primary & secondary programmable | 3: Accuracy class - 1.0, 0.5 | 4: Accuracy class -1.0

1-Phase Basic meters

Model	Function	Source Voltage	Display Parameters	Over-All Dimensions (W X H X D)	Cut-Out Dimensions (W X H)
EMS-11s ^{1,3}	Ammeter	240V AC	A	96 x 96 x 95.5mm	92 x 92 mm
EMS-12s ^{2,3}	Voltmeter		V		
DPM-01 ¹	Volt - Amps		A, V		

1: CT primary & secondary programmable | 2: PT primary & secondary programmable | 3: Accuracy class - 1.0, 0.5

Universal Temperature Controller

Temperature controllers measure the temperature of a given object / system by means of thermocouple / sensor and controls the same within specified limits through in-built relays switching ON and OFF the heating / cooling devices. EAPL's range of temperature controllers are characterized by accuracy. They come with attractive UL graded flame retardant sturdy plastic enclosure of different sizes to monitor the process value against the set value.

Features

- Program lock is available to lock all programs except temperature setting.
- Temperature offset is available in most of the models (Refer Note 1).
- Dual set point models available in heater/alarm type.
- Multifunction temperature controller models have all features rolled into one

Applications

- Furnace, Heat Treatment Equipment Oven, Boilers, Plastic and Rubber Machinery and many more.



Ordering Information

Model	Function	Source Voltage	Sensor	Range	Output	Over-All Dimensions (W x H x D)	Cut-Out Dimen.(WxH)		
H3TX-Ua ^{3,4}	On-Off / Self-Tune Function (Single Set Point)	85V to 270V AC / DC	J K PT-100 (Self-Tune)* PT-100 (On-Off)	0°C - 600°C 0°C -1200°C 0°C -400°C -100°C -400°C	1 relay 1c/o, 5A resistive	48 x 48 x 95.5mm	46 x 46mm		
TX7-Ua ^{3,4}						72 x 72 x 128mm	69 X 69mm		
EX9-Ua ^{3,4,5}						96 x 96 x 95.5mm	92 x 92mm		
H3TX-2U ³						48 x 48 x 95.5mm	46 x 46mm		
TX7-2U						72 x 72 x 128mm	69 X 69mm		
EX9-2U ^{3,5}						96 x 96 x 95.5mm	92 x 92mm		
H3TX-2H-U ¹	On-Off - Heater type Function (Dual Set Point)		85V to 270V AC / DC	J K PT-100 (On-Off)	0°C - 600°C 0°C -1200°C 0°C - 300°C	2 relay 1c/o, 5A resistive	48 x 48 x 95.5mm	46 x 46mm	
TX7-2H-U ¹							72 x 72 x 128mm	69 X 69mm	
EX9-2H-U ¹							96 x 96 x 95.5mm	92 x 92mm	
H3TX-2A-U ¹	On-Off - Alarm type Function (Dual Set Point)			85V to 270V AC / DC	J K PT-100 (On-Off)	0°C - 600°C 0°C -1200°C 0°C - 300°C	2 relay 1c/o, 5A resistive	48 x 48 x 95.5mm	46 x 46mm
TX7-2A-U ¹								72 x 72 x 128mm	69 X 69mm
EX9-2A-U ¹								96 x 96 x 95.5mm	92 x 92mm
H3TX-MU ^{3,5}	Multi function Temperature Controller On-Off- Forward and Reverse Type (Dual Set Point)	85V to 270V AC / DC			J K PT-100	0°C - 600°C 0°C -1200°C 0°C - 400°C	relay 1 - 1c/o, 5A relay 2 - 1c/o, 3A	48 x 48 x 95.5mm	46 x 46mm
H3TX-MU-RS ^{2,3,5}	Multi function Temperature Controller On-Off - Forward and Reverse Type (Single/ Dual Set Point) with SSR and Relay output				J K PT-100	0°C to 600°C 0°C to 1200°C 0.0°C to 400°C	2 relay 1C/o, 5A resistive 12V DC to drive SSR	48 x 48 x 95.5mm	46 x 46mm
H3TX-U-RS ^{2,3,5}	On-Off / Self-Tune Function (Single Set Point) with SSR and Relay output				J TYPE K TYPE PT100(ON/OFF) PT100(SELF TUNE)*	0°C to 600°C 0°C to 1200°C -100°C to 400°C 0°C to 400°C	1 relay 1c/o, 5A resistive, 12V DC to drive SSR	48 x 48 x 95.5mm	46 x 46mm
H3TX-2U-RS ^{2,3}					J K PT-100	0°C to 600°C 0°C to 1200°C 0.0°C to 400°C	1 relay 1c/o, 5A resistive, 12V DC to drive SSR	48 x 48 x 95.5mm	46 x 46mm

* : Hysteresis not applicable | 1: Temperature offset is not available | 2: Both relay and SSR drive outputs available | 3: Now available in reduced depth with redesigned cabinet for better aesthetics and eliminating protective cover yet retaining the IP Class | 4: Single display window height has been increased for longer visibility | 5: Minimum and Maximum temperature user settable for ease of setting set values.

Heater / Reverse: Both relays change over to NO at room temperature. Relay1 reverts back to NC at 1st set point. It once again changes over to NO when temperature falls by 1st Set point minus hysteresis1. Relay2 reverts back to NC at 2nd set point. It once again changes over to NO when temperature falls by 2nd Set point minus hysteresis2.

Alarm / Forward: First relay changes over to NO at room temperature and reverts back to NC at 1st set point. It once again changes over to NO when temperature falls by the respective Set point minus hysteresis1. The 2nd relay switches ON at 2nd set point and will switch OFF when temperature falls below the 2nd set point - hysteresis2.

Photo Control-Series

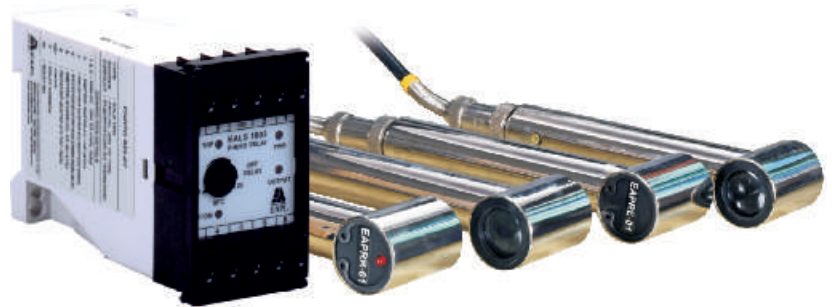
Photo Sensing Relay

Features

- Design for industrial environment
- High intensity pulse infra red emitter
- Time Delay up to 20 Sec
- Highly immune to Ambient light
- Din rail mounting

Applications

- Textile industries



Function

When both the receivers receive the rays from the emitter the control units relay is energized to operate the feed motor load. Once the bin is filled and the signal to the top receiver interrupted the set delay time counting starts and on completion of the set time the relay de-energises the relay thus switches off the feeder motor. The feeder motor operated once again when the bottom receiver starts to get the signal from the emitter.

Ordering Information

Model	Function	Source Voltage	Time Selection	Output	Over-All Dimensions
EALS-1003	Photo sensing & Control relay	240V AC	2Sec to 20Sec	1 C/O rated for 5A@ 250V AC/28VDC	145 x 75 x 116mm (W x H x D)
EAPRE-01	Photo sensing & Control relay - Emitter Probe	NA	NA	NA	19.2 x 35.5 x 1257.5mm (W x H x D)
EAPR R-01	Photo sensing & Control relay - Receiver Probe	NA	NA	NA	

Light Switch

Features

- This is a light switch working on direct or reflective transmission principle
- It consists of high intensity emitter source and high sensitive receiver
- The signal received from the receiver will operate a relay with ON delay or OFF delay depending on mode selected
- The time range can be 0.3 sec / 30 sec

Applications

- Textile industries



Function

- On-delay mode: When the light from the emitter is received by the receiver probe, the set time counting starts and operates the relay on the completion of the set time and switching on the load. Relay will reset on power interruption or when the signal gets interrupted.
- OFF-delay mode: When the light from the emitter is received by the receiver probe, immediately relay contacts change over and the set time counting starts, on the completion of the set time relay reverts back to original position and switching off the load.

Ordering Information

Model	Function	Source Voltage	Time Selection	Output	Over-All Dimensions
EALS-4505	Electronic Stop Motion Light Switch	240V AC	2Sec to 20Sec	1 C/O rated for 5A@ 250V AC/28VDC	145 x 75 x 116mm (W x H x D)
EALSE-01	Photo sensing & Control relay - Receiver Probe	NA	NA	NA	
EALSR-01	Electronic Stop Motion Light Switch - Receiver Probe	NA	NA	NA	

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