

ELECTRONIC TIMERS

ELECTRONIC TIMERS

Minilec offers timers for various functions and applications, in various enclosures/sizes and with multi voltage options



MODELS

ETS D1, ETA D1,
P1 STS1, P1 STM1,
ESD D1, ESR D1,
D1 ETM1, S2ETM1
ETR D2, D2 ETR1,
S2 ETM2

FEATURES

- Single voltage & Multi-voltage
- Single function and multi-function
- Wide time range
- Better repeat Accuracy
- Choice of enclosures (DIN-Rail, & Plug-in)
- Models with Micro-Controller based design
- Use of SMD Technology (S2 Series models)

FUNCTIONS

- On Delay
- Interval Delay
- Cyclic ON/OFF
- Multi-Attempt (for Engine Starting)
- Star-Delta changeover

Ordering Instructions

- ✓ Product Family Name
- ✓ Model Name
- ✓ Aux. Supply/Control supply voltage
- ✓ Application

ON DELAY TIMERS



ETS D1 On Delay Timer



On Delay, time range upto 3 hours,
2 CO output relay

ETA D1 On Delay Timer (Multivoltage)



On Delay, time range 30 Minutes, Multi-voltage supply,
2 CO output relay

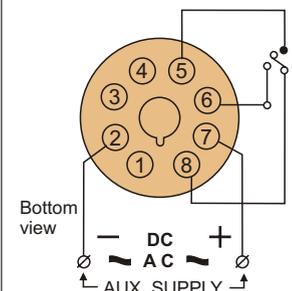
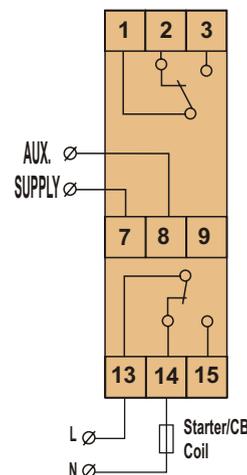
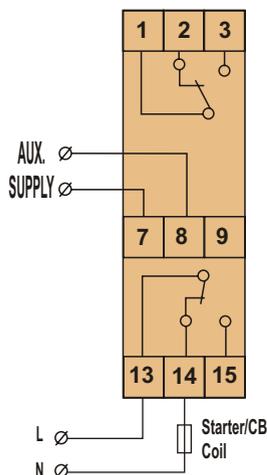
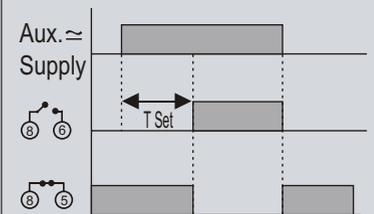
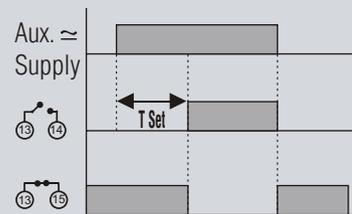
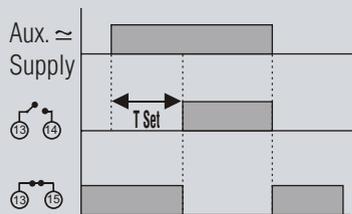
P1 STS1 On Delay Timer (Seconds)



On Delay, time range upto 60 seconds,
1 CO output relay

Supply Voltage Auxiliary	24/110 / 240 / 380 / 415 V AC \pm 20%, 12 / 24 V DC \pm 20%	24-240 V AC / DC +10%, -20%	110 / 230 / 380 / V 415 V AC \pm 10%, 12/24 V DC
Output Contacts	2 CO	2 CO	1 CO
Time Range	0.3 - 3, 0.6 - 6 secs. 1 - 10, 3 - 30, 6 - 60, 18 - 180 (secs. or mins.)	0.7 secs. - 30 mins. (4 ranges) On Delay	0-3, 0-10, 0-30, 0-60 secs.
Operating Modes	On Delay	On Delay	On Delay
Weight	300 gms.	160 gms.	175 gms.
Dimensions (mm)			
Overall (L x W x D)	76 x 30.5 x 120	76 x 30.5 x 117.5	50 x 40 x 80
Mounting (L x W)	68 mm centre to centre / 35 mm Rail Mounting	68 centre to centre / 35 mm Rail Mounting	8 - pin plug-in

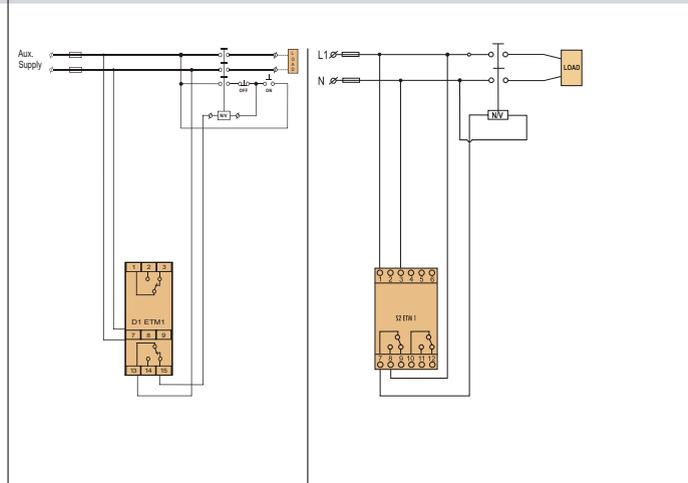
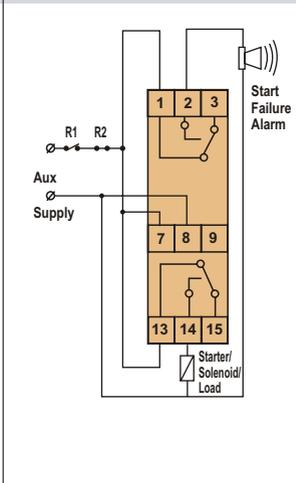
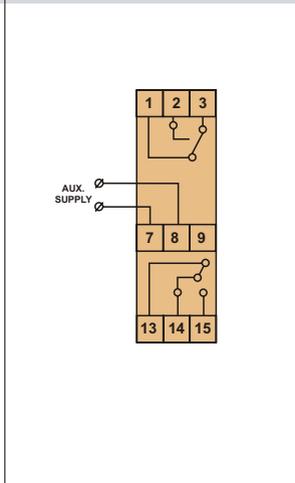
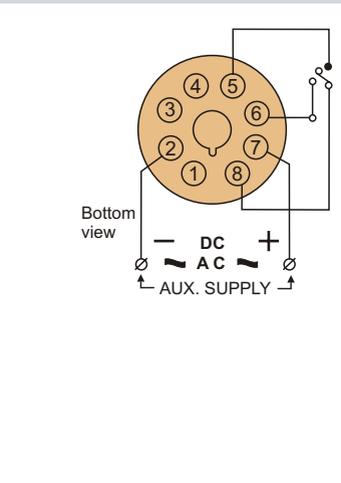
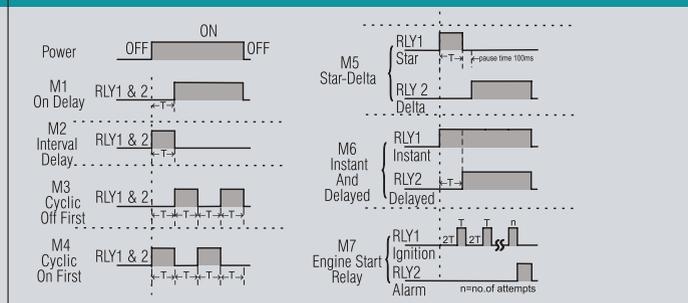
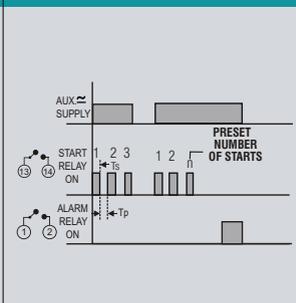
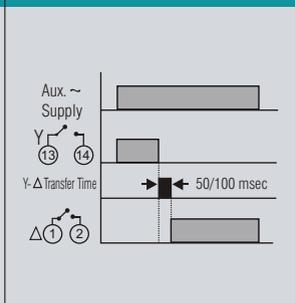
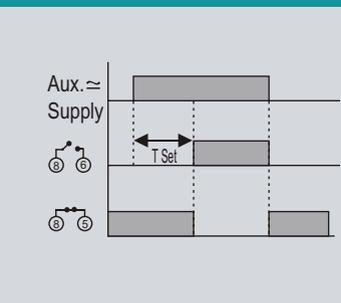
Wherever not specified
Contact Rating :
5A @ 230 V AC (resistive)



Relay contact position shown in 'Time Elapsed' condition

SPECIAL FUNCTION TIMERS

P1 STM1 On Delay Timer (Minutes)	ESD D1 Star Delta Timer	ESR D1 Multi Attempt Timer	D1 ETM1 Multi Function Timer	S2 ETM1 Multi Function Timer
On Delay, time range upto 60 minutes, 1 CO output relay	Star to Delta Changeover timer, Time range upto 60 seconds, 2x1NO output relays	Generator Engine starting relay, Upto 15 attempts, start time & pause time selectable, 2x1CO output relays	Microcontroller based Multi-function timer (On delay, interval delay, cyclic, star-delta, Engine starting), time range upto 100 Hrs, 2x1CO output relays	Microcontroller based, SMD technology Multi-function timer (On delay, interval delay, cyclic, star-delta, Engine starting), time range upto 100 Hrs, 2x1CO output relays
110 / 230 / 380 / V 415 V AC $\pm 10\%$, 12/24 V DC	110 / 240 / 380 / 415 V AC -20% +10% to -20%	110/240 V AC $\pm 20\%$, 50/60 Hz 12 / 24 V DC $\pm 20\%$	*24/110/240/415VAC, $\pm 20\%$, 12/24 VDC	*24/110/240/415VAC, $\pm 20\%$, 12/24 VDC
1 CO	1 NO-Star relay (NO) 1 NO-Delta relay (NO)	1 CO + 1 CO	1 CO + 1 CO	1 CO + 1 CO
0-3, 0-10, 0-30, 0-60 mins	0.7 – 60 secs. in 2 diff. ranges	Start Time - 1 - 15 secs Pause Time - 2 - 16 secs.	0.1-1, 1- 10, 6 - 60, 60-600 seconds 0.1- 1, 1-10, 10-100 hours	0.1-1, 1- 10, 6 - 60, 60-600 seconds 0.1- 1, 1-10, 10-100 hours
On Delay	Star Delta Changeover Time 50 / 100 m.secs.	Start Attempts - 1 - 15 nos.	M1 - ON Delay M2 - Interval (Selectable By Rotary Switch) M3 - Cyclic Instant M4 - Cyclic Delayed M5 - Star Delta * M6 - Instant & Delayed M7 - Engine Start Mode	M1 - ON Delay M2 - Interval (Selectable By Rotary Switch) M3 - Cyclic Instant M4 - Cyclic Delayed M5 - Star Delta * M6 - Instant & Delayed M7 - Engine Start Mode
175 gms.	175 gms.	175 gms.	200 gms (Approx.)	150 gms (Approx.)
50 x 40 x 80	76 x 30.5 x 117.5	76 x 30.5 x 117.5	76 x 30.5 x 117.5	35 x 90 x 60
8 - pin plug-in	68 centre to centre	68 centre to centre	68 mm centre to centre / 35 mm Rail Mounting	35 mm Rail Mounting
			*CE/CSA Not available for 110VAC models	*CE/CSA Not available for 110VAC models



Relay contact position shown in 'Time Elapsed' condition

Relay position shown in 'Power off' condition 31

CYCLIC TIMERS

ETR D2 Cyclic Timer



Unequal cyclic function, on time and pause time selectable, 2x1CO output relays

D2 ETR1 Cyclic & Forward-Reverse Timer



Unequal cyclic and forward-reverse functions, on time and pause time selectable, 2x1CO output relays

S2 ETM2 Cyclic & Forward-Reverse Timer



Microcontroller based, SMD technology Unequal cyclic and forward-reverse functions, on time and pause time selectable, 2x1CO output relays

Supply Voltage Auxiliary	110/240/415 V AC $\pm 20\%$ 24 V DC	*24/110/240/415VAC, $\pm 20\%$, 12/24 VDC	*24/110/240/415VAC, $\pm 20\%$, 12/24 VDC
Output Contacts	1 CO + 1 CO	1 CO + 1 CO	1 CO + 1 CO
Time Range	0.7 secs. – 30 mins. in 4 diff. ranges	On Time - 0.1 Sec.To 100 Hrs. Pause Time- 0.1 Sec.To 100 Hrs	On Time- 0.1 Sec.To 100 Hrs. Pause Time- 0.1 Sec.To 100 Hrs
Operating Modes	Forward / Reverse Cycle with pause time	Mode 1 Unequal Cyclic Operation Mode 2 Forward Reverse Cyclic Operation	Mode 1 Unequal Cyclic Operation Mode 2 Forward Reverse Cyclic Operation
Weight	410 gms.	200 gms (Approx.)	100 gms (Approx.)
Dimensions (mm)			
Overall (L x W x D)	76 x 56.5 x 117.5	76 x 56.5 x 117.5	35 x 90 x 60
Mounting (L x W)	67 x 46 / 35 mm Rail Mounting	67 x 46 / 35 mm Rail Mounting	35 mm Rail Mounting

*CE/CSA mark not available for 110VAC models

*CE/CSA mark not available for 110VAC models

Wherever not specified
Contact Rating :
5A @ 230 V AC (resistive)

