

TIMERS

STAR DELTA TIMER

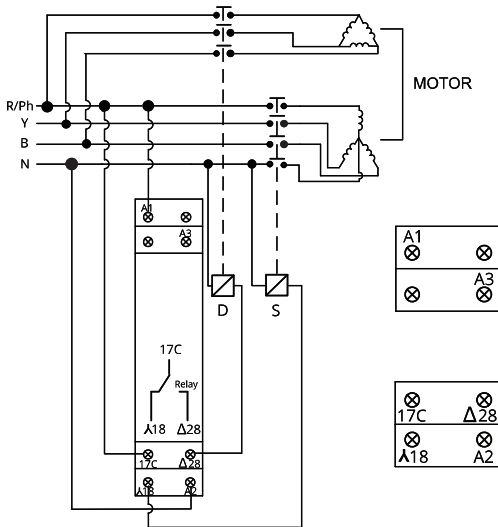
Type : SD-A-R1-P1



Certification



Connection Diagram



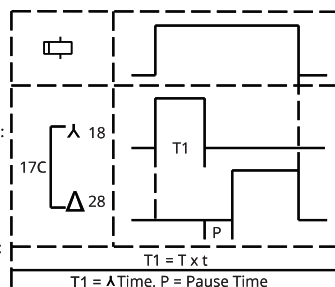
Functional Diagram

Supply :
240V AC/24V AC
50/60 Hz, 24V DC

Timer (T1)
1.5 s - 150 s

Pause Time (P)
60 ms

Star Delta Timer



Application

'elmex' make Star Delta Timer is used with Star Delta starters and provides desired monitoring and control in Motor operations.

Salient Features

- 17.5 mm DIN Rail Mount.
- Star-Delta.
- Star Mode - 1 NO.
- Delta Mode - 1 NO.
- Slim, Space Saving Design.
- One Red LED for Star mode Indication.
- Second Red LED for Delta mode Indication.
- Sealable Front Cover for Tamper Proofing.
- Provision of Multimeter probe for parameters measurement.

Technical Specification

Input Specifications

Supply voltage A1-A2/A3-A2	240V AC/ 24V AC-DC*
Frequency	50/60 Hz
Supply Variation	-20% to +10%
Power Consumption	8VA (max)
Accuracy	Settings: $\pm 5\%$ of Full Scale

Functional Specifications

Delta mode on time delay (T1)	1.5 sec to 150 sec
Pause timing(P)	60 ms(Fix)
Output	5A @240V AC / 28V DC (Resistive)

LED Indications

Star mode indication	3 mm Red LED
Delta mode indication	3 mm Red LED

Environmental Specifications

Temperature	Operating: -10 to 55 °C(14 to 131 °F) Storage: -20 to 70 °C(-4 to 158 °F)
Humidity(non-condensing)	95% RH
Protection Level	IP40 for Casing IP20 for Terminals

Housing

Housing Material	Polycarbonate
Colour	White
Dimension (H x D x W)	85 x 70.05 x 17.5 mm
Weight	70 gms
Mounting	TS 35 DIN Rail

* Other Voltages on Request

TIMERS

STAR DELTA TIMER

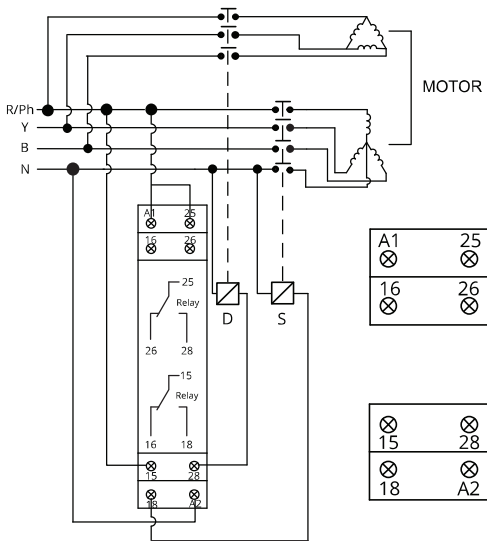
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Certification

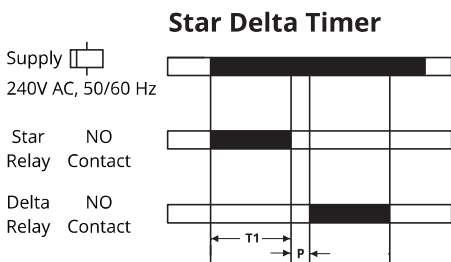


Connection Diagram



Note: Short 15-25 externally to make common 'Pole'

Functional Diagram



T1 = T x t (Run up time (3 - 30 s, 6 - 60 s))
P = Pause time (50 ms / 100 ms)

Application

'elmex' make Star Delta Timer is used with Star Delta starters and provides desired monitoring and control in Motor operations.

Salient Features

- 17.5 mm DIN Rail Mount.
- Star-Delta.
- Star Mode - 1 C/O.
- Delta Mode - 1 C/O.
- Slim, Space Saving Design.
- One Red LED for Star mode Indication.
- Second Red LED for Delta mode Indication.
- Sealable Front Cover for Tamper Proofing.
- Provision of Multimeter probe for parameters measurement.

Technical Specification

Input Specifications	
Supply voltage A1-A2	240V AC*
Frequency	50/60 Hz
Supply Variation	-20% to +10%
Power Consumption	8VA (max)
Accuracy	Settings: $\pm 5\%$ of Full Scale
Functional Specifications	
Delta mode on time delay (T1)	3-30sec, 6-60 sec
Pause timing(P)	50 msec / 100 msec.
Output	5A @240V AC / 28V DC (Resistive)
LED Indications	
Star mode indication	3 mm Red LED
Delta mode indication	3 mm Red LED
Environmental Specifications	
Temperature	Operating: -10 to 55 °C(14 to 131 °F) Storage: -20 to 70 °C(-4 to 158 °F)
Humidity(non-condensing)	95% RH
Protection Level	IP40 for Casing IP20 for Terminals
Housing	
Housing Material	Polycarbonate
Colour	White
Dimension (H x D x W)	85 x 70.05 x 17.5 mm
Weight	70 gms
Mounting	TS 35 DIN Rail

* Other Voltages on Request

TIMERS

STAR DELTA TIMER

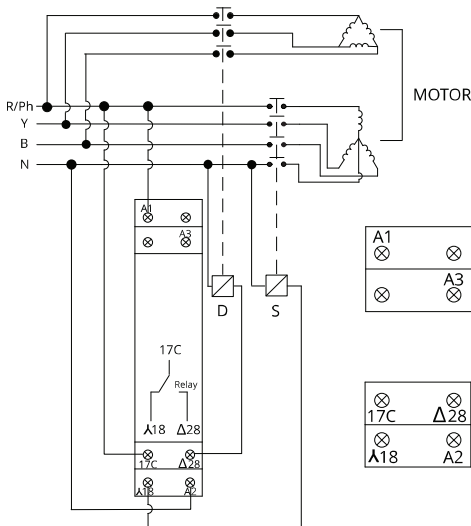
Type : SD-A-R1-P3



Certification



Connection Diagram



Note: Short 15-25 externally to make common 'Pole'

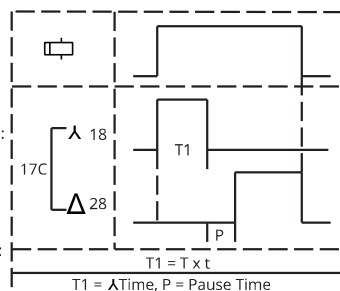
Functional Diagram

Supply 240V AC/24V AC
50/60 Hz, 24V DC

Timer (T1)
1.5 s - 150 s

Pause Time (P)
50 ms to 500 ms
(10 Steps in Steps
of 50 ms)

Star Delta Timer



Application

'elmex' make Star Delta Timer is used with Star Delta starters and provides desired monitoring and control in Motor operations.

Salient Features

- 17.5 mm DIN Rail Mount.
- Star-Delta.
- Star Mode - 1 NO.
- Delta Mode - 1 NO.
- Slim, Space Saving Design.
- Wide range of pause time.
- One Red LED for Star mode Indication.
- Second Red LED for Delta mode Indication.
- Sealable Front Cover for Tamper Proofing.
- Provision of Multimeter probe for parameters measurement.

Technical Specification

Input Specifications	
Supply voltage A1-A2/A3-A2	240V AC/ 24V AC-DC*
Frequency	50/60 Hz
Supply Variation	-20% to +10%
Power Consumption	8VA (max)
Accuracy	Settings: $\pm 5\%$ of Full Scale
Functional Specifications	
Delta mode on time delay (T1)	1.5 sec to 150 sec
Pause timing(P)	50 to 500 msec. in steps of 50 msec.
Output	5A @240V AC / 28V DC (Resistive)
LED Indications	
Star mode indication	3 mm Red LED
Delta mode indication	3 mm Red LED
Environmental Specifications	
Temperature	Operating: -10 to 55 °C(14 to 131 °F) Storage: -20 to 70 °C(-4 to 158 °F)
Humidity(non-condensing)	95% RH
Protection Level	IP40 for Casing IP20 for Terminals
Housing	
Housing Material	Polycarbonate
Colour	White
Dimension (H x D x W)	85 x 70.05 x 17.5 mm
Weight	70 gms
Mounting	TS 35 DIN Rail

* Other Voltages on Request

TIMERS

ON DELAY TIMER

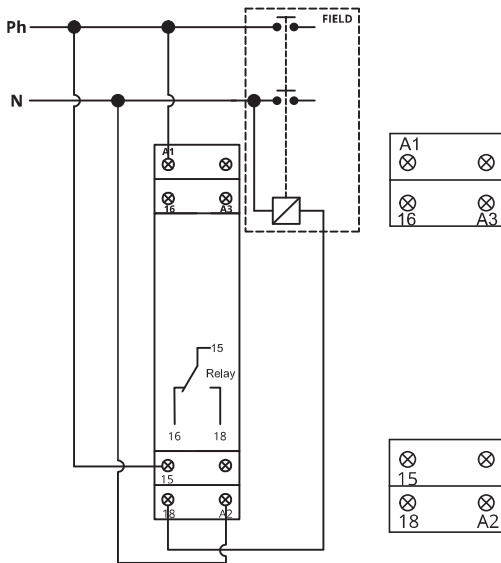
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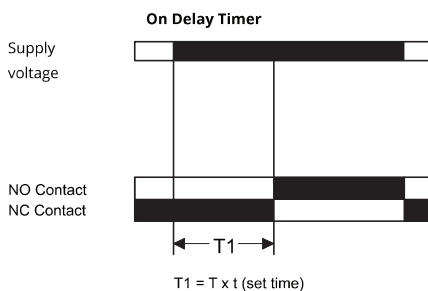
Certification



Connection Diagram



Functional Diagram



Application

'elmex' On Delay Timer is used for facilitating simple, Reliable and economical control for definite purpose solution in Industrial Application or in OEMs.

Salient Features

- 17.5 mm DIN Rail Mount.
- On Delay.
- 10 Time Ranges.
- Front knobs for Time Range & Time Scale.
- Slim, Space Saving Design.
- Green LED for Power ON.
- Red LED for Relay ON.
- Sealable Front Cover for Tamper Proofing.
- Provision of Multimeter probe for parameters measurement.

Technical Specification

Input Specifications	
Supply voltage A1-A2/A3-A2	240V AC/ 24V AC-DC*
Frequency	50/60 Hz
Supply Variation	-20% to +10%
Power Consumption	8VA (max)
Accuracy	Settings: ±5% of Full Scale
Functional Specifications	
Mode	On Delay
Output Contact	SPDT(1C/O)
Contact Rating	5A @240V AC / 28V DC (Resistive)
Time Ranges	0.1 - 1 sec, 0.3 - 3 sec, 1 - 10 sec, 3 - 30sec, 0.1 - 1 min, 0.3 - 3 min, 1 - 10 min, 3 - 30min, 0.1 - 1 hrs, 0.3 - 3 hrs
LED Indications	
Power ON	3 mm Green LED
Relay ON	3 mm Red LED
Environmental Specifications	
Temperature	Operating: -10 to 55 °C(14 to 131 °F) Storage: -20 to 70 °C(-4 to 158 °F)
Humidity(non-condensing)	95% RH
Protection Level	IP40 for Casing IP20 for Terminals
Housing	
Housing Material	Polycarbonate
Colour	White
Dimension (H x D x W)	85 x 70.05 x 17.5 mm
Weight	62 gms
Mounting	TS 35 DIN Rail

* Other Voltages on Request

TIMERS

ON DELAY TIMER

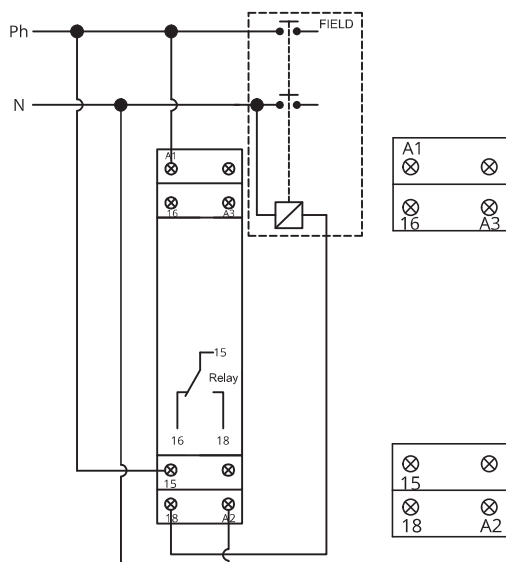
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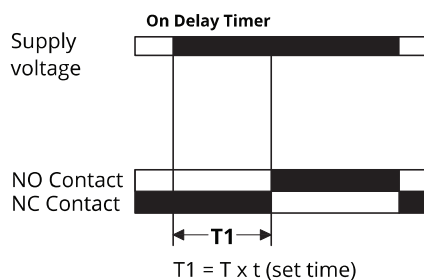
Certification



Connection Diagram



Functional Diagram



Application

'elmex' On Delay Timer is used for facilitating simple, Reliable and economical control for definite purpose solution in Industrial Application or in OEMs.

Salient Features

- 17.5 mm DIN Rail Mount.
- On Delay.
- 6 Time Ranges.
- Front knobs for Time Range & Time Scale.
- Slim, Space Saving Design.
- Green LED for Power ON.
- Red LED for Relay ON.
- Sealable Front Cover for Tamper Proofing.
- Provision of Multimeter probe for parameters measurement.

Technical Specification

Input Specifications	
Supply voltage A1-A2/A3-A2	240V AC/ 24V AC-DC*
Frequency	50/60 Hz
Supply Variation	-20% to +10%
Power Consumption	8VA (max)
Accuracy	Settings: $\pm 5\%$ of Full Scale
Functional Specifications	
Mode	On Delay
Output Contact	SPDT(1C/O)
Contact Rating	5A @240V AC / 28V DC (Resistive)
Time Ranges	0.3 - 3 sec, 3 - 30sec, 0.3 - 3 min, 3 - 30min, 0.3 - 3 hrs, 3 - 30 hrs
LED Indications	
Power ON	3 mm Green LED
Relay ON	3 mm Red LED
Environmental Specifications	
Temperature	Operating: -10 to 55 °C(14 to 131 °F) Storage: -20 to 70 °C(-4 to 158 °F)
Humidity(non-condensing)	95% RH
Protection Level	IP40 for Casing IP20 for Terminals
Housing	
Housing Material	Polycarbonate
Colour	White
Dimension (H x D x W)	85 x 70.05 x 17.5 mm
Weight	62 gms
Mounting	TS 35 DIN Rail

* Other Voltages on Request

TIMERS

ON DELAY/ INTERVAL TIMER

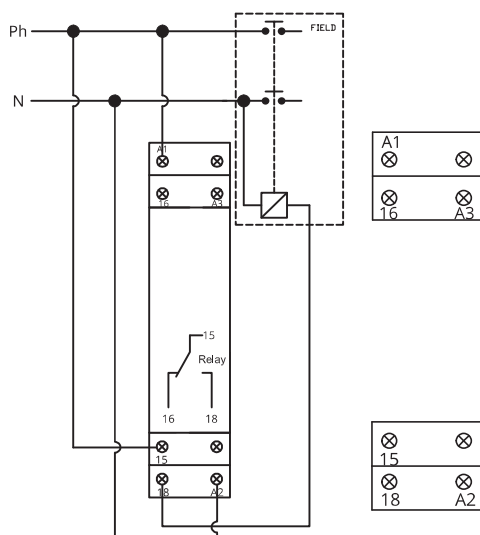
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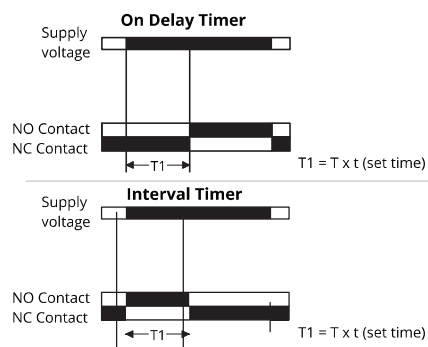
Certification



Connection Diagram



Functional Diagram



Application

'elmex' On Delay / Interval timer is used for facilitating simple, Reliable and economical control for definite purpose solution in Industrial Application or in OEMs.

Salient Features

- 17.5 mm DIN Rail Mount.
- On Delay/ Interval.
- 6 Time Ranges.
- Front knobs for Time Range, Time Scale & Mode Setting.
- Slim, Space Saving Design.
- Green LED for Power ON.
- Red LED for Relay ON.
- Sealable Front Cover for Tamper Proofing.
- Provision of Multimeter probe for parameters measurement.

Technical Specification

Input Specifications	
Supply voltage A1-A2/A3-A2	240V AC/ 24V AC-DC*
Frequency	50/60 Hz
Supply Variation	-20% to +10%
Power Consumption	8VA (max)
Accuracy	Settings: $\pm 5\%$ of Full Scale
Functional Specifications	
Mode	On Delay/ Interval (Selectable)
Output Contact	SPDT(1C/O)
Contact Rating	5A @240V AC / 28V DC (Resistive)
Time Ranges	0.3 - 3 sec, 3 - 30 sec, 0.3 - 3 min, 3 - 30 min, 0.3 - 3 hrs, 3 - 30 hrs
LED Indications	
Power ON	3 mm Green LED
Relay ON	3 mm Red LED
Environmental Specifications	
Temperature	Operating: -10 to 55 °C(14 to 131 °F) Storage: -20 to 70 °C(-4 to 158 °F)
Humidity(non-condensing)	95% RH
Protection Level	IP40 for Casing IP20 for Terminals
Housing	
Housing Material	Polycarbonate
Colour	White
Dimension (H x D x W)	85 x 70.05 x 17.5 mm
Weight	70 gms
Mounting	TS 35 DIN Rail

* Other Voltages on Request

TIMERS

OFF DELAY TIMER

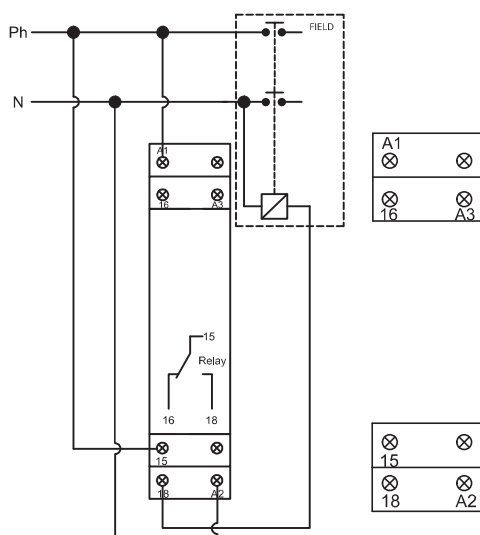
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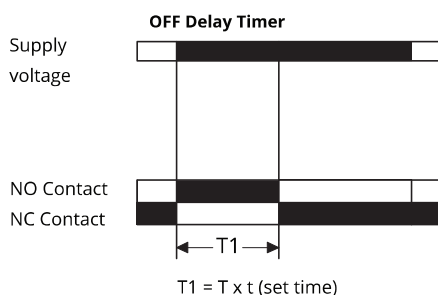
Certification



Connection Diagram



Functional Diagram



Application

'elmex' Off Delay Timer is used for facilitating simple, Reliable and economical control for definite purpose solution in Industrial Application or in OEMs.

Salient Features

- 17.5 mm DIN Rail Mount.
- Off Delay.
- 10 Time Ranges.
- Front knobs for Time Range & Time Scale.
- Slim, Space Saving Design.
- Green LED for Power ON.
- Red LED for Relay ON.
- Sealable Front Cover for Tamper Proofing.
- Provision of Multimeter probe for parameters measurement.

Technical Specification

Input Specifications	
Supply voltage A1-A2/A3-A2	240V AC/ 24V AC-DC*
Frequency	50/60 Hz
Supply Variation	-20% to +10%
Power Consumption	8VA (max)
Accuracy	Settings: $\pm 5\%$ of Full Scale
Functional Specifications	
Mode	Off Delay
Output Contact	SPDT(1C/O)
Contact Rating	5A @240V AC / 28V DC (Resistive)
Time Ranges	0.1 - 1 sec, 0.3 - 3 sec, 1 - 10 sec, 3 - 30sec, 0.1 - 1 min, 0.3 - 3 min, 1 - 10 min, 3 - 30min, 0.1 - 1 hrs, 0.3 - 3 hrs
LED Indications	
Power ON	3 mm Green LED
Relay ON	3 mm Red LED
Environmental Specifications	
Temperature	Operating: -10 to 55 °C(14 to 131 °F) Storage: -20 to 70 °C(-4 to 158 °F)
Humidity(non-condensing)	95% RH
Protection Level	IP40 for Casing IP20 for Terminals
Housing	
Housing Material	Polycarbonate
Colour	White
Dimension (H x D x W)	85 x 70.05 x 17.5 mm
Weight	62 gms
Mounting	TS 35 DIN Rail

*Other Voltages on Request

TIMERS

MULTI FUNCTION TIMER

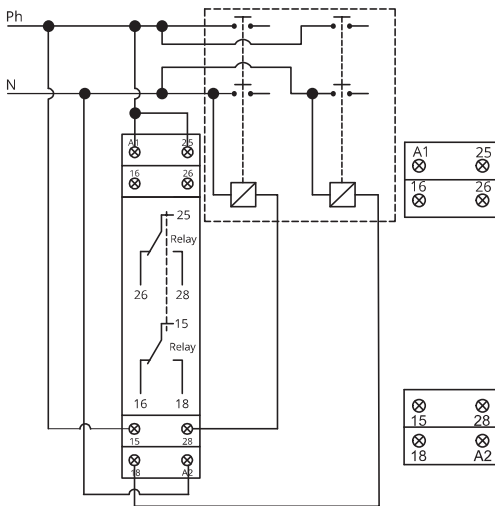
Type : M05-D-R3



Certification



Connection Diagram



Application

'elmex' Multi-Function timer is used for facilitating simple, Reliable and economical control for definite purpose solution in Industrial Application or in OEMs.

Salient Features

- 17.5 mm DIN Rail Mount.
- 5 Function.
- 10 Time Ranges.
- Front knobs for Time Range, Time Scale & Mode Setting.
- Slim, Space Saving Design.
- Green LED for Power ON.
- Red LED for Relay ON.
- Sealable Front Cover for Tamper Proofing.
- Provision of Multimeter probe for parameters measurement.

Technical Specification

Input Specifications	
Supply Voltage A1-A2	240V AC*
Frequency	50/60 Hz
Supply Variation	-20% to +10%
Power Consumption	12VA (max)
Accuracy	Settings: $\pm 5\%$ of Full Scale
Functional Specifications	
Mode	On Delay/ Interval (Selectable)
Output Contact	DPDT(2 C/O)
Contact Rating	5A @240V AC / 28V DC (Resistive)
Time Ranges	0.1 - 1 sec, 0.3 - 3 sec, 1 - 10 sec, 3 - 30sec, 0.1 - 1 min, 0.3 - 3 min, 1 - 10 min, 3 - 30min, 0.1 - 1 hrs, 0.3 - 3 hrs
LED Indications	
Power ON	3 mm Green LED
Relay ON	3 mm Red LED
Environmental Specifications	
Temperature	Operating: -10 to 55 °C(14 to 131 °F) Storage: -20 to 70 °C(-4 to 158 °F)
Humidity(non-condensing)	95% RH
Protection Level	IP40 for Casing IP20 for Terminals
Housing	
Housing Material	Polycarbonate
Colour	White
Dimension (H x D x W)	85 x 70.05 x 17.5 mm
Weight	70 gms
Mounting	TS 35 DIN Rail

* Other Voltages on Request

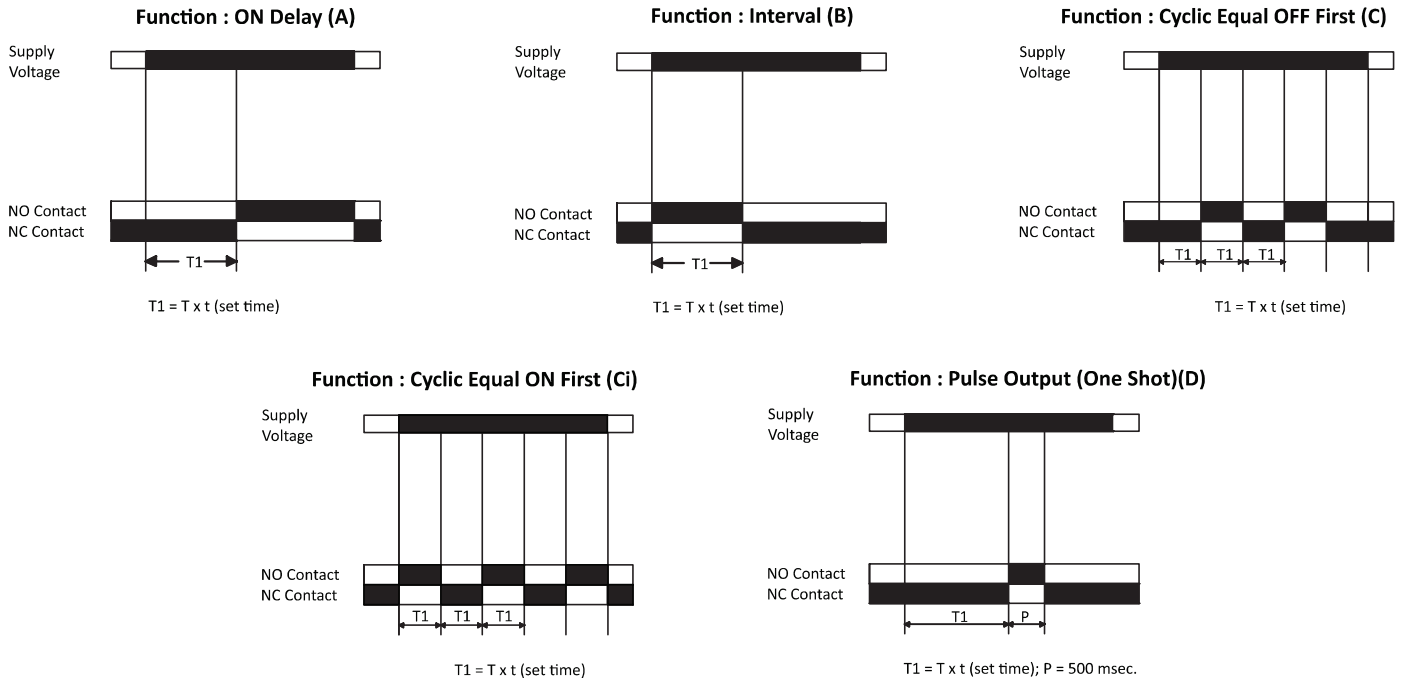
TIMERS

MULTI FUNCTION TIMER

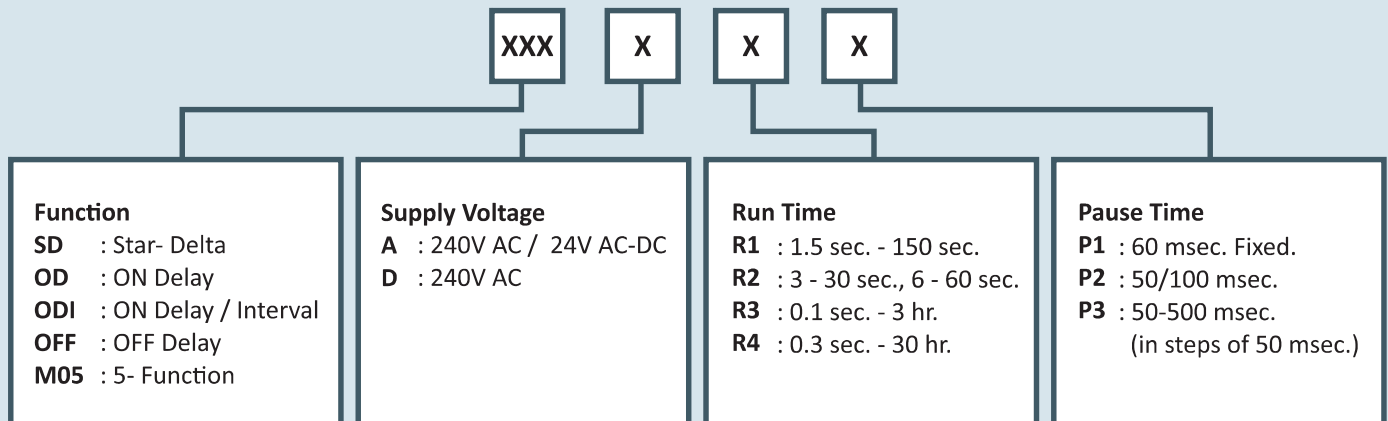
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Functional Diagram



TIMER CODE DESCRIPTION



TIMERS

MULTI FUNCTION TIMER

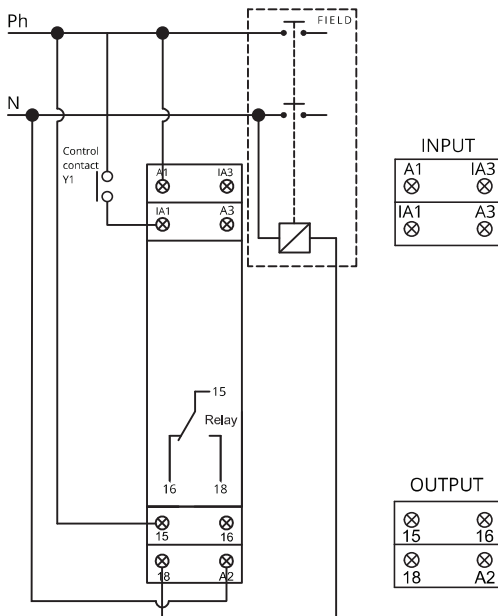
Type : M10-A-R6



Certification



Connection Diagram



Application

'elmex' Multi-Function timer is used for facilitating simple, Reliable and economical control for definite purpose solution in Industrial Application or in OEMs.

Salient Features

- 17.5 mm DIN Rail Mount.
- 10 Function.
- 7 Time Ranges.
- Green LED for Power ON.
- Red LED for Relay ON.
- Front knobs for Time Range, Time Scale & Mode Setting.
- Slim, Space Saving Design.
- Sealable Front Cover for Tamper Proofing.
- Provision of Multimeter probe for parameters measurement.

Technical Specification

Input Specifications	
Supply Voltage A1-A2	240V AC/ 24V AC-DC
Frequency	50/60 Hz
Supply Variation	-20% to +10%
Power Consumption	12VA (max)
Accuracy	Settings: $\pm 5\%$ of Full Scale
Functional Specifications	
Mode	Signal ON Delay (stn), Cyclic Equal ON/OFF (cnf), Cyclic Equal OFF/ON (cfn), Signal OFF Delay (sf), Signal OFF/ON (sfn), Accumulative Delay ON Signal (san), Impulse ON/OFF (inf), Leading Edge Impulse (iL), Trailing Edge Impulse (it), Leading Edge Bi-Stable (sbi)
Output Contact	SPDT(1C/O)
Contact Rating	5A @240V AC / 28V DC (Resistive)
Time Ranges	0.1 - 1 sec, 1 - 10 sec, 0.1 - 1 min, 1 - 10 min, 0.1 - 1 hrs, 1 - 10 hrs, 10 - 100 hrs
LED Indications	
Power ON	3 mm Green LED
Relay ON	3 mm Red LED
Environmental Specifications	
Temperature	Operating: -10 to 55 °C(14 to 131 °F) Storage: -20 to 70 °C(-4 to 158 °F)
Humidity(non-condensing)	95% RH
Protection Level	IP40 for Casing IP20 for Terminals
Housing	
Housing Material	Polycarbonate
Colour	White
Dimension (H x D x W)	85 x 70.05 x 17.5 mm
Weight	70 gms
Mounting	TS 35 DIN Rail

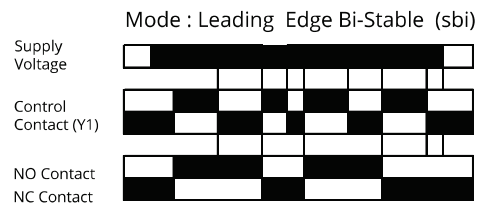
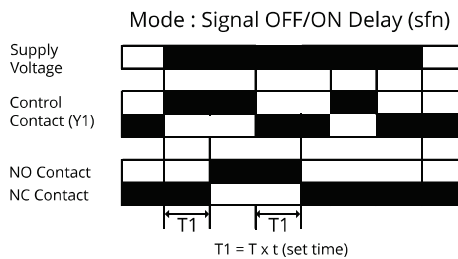
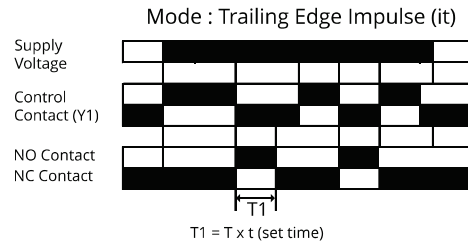
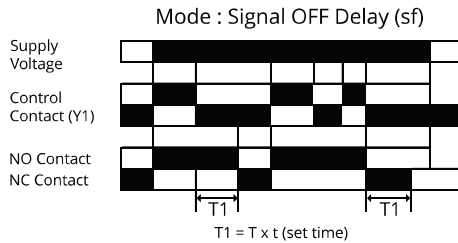
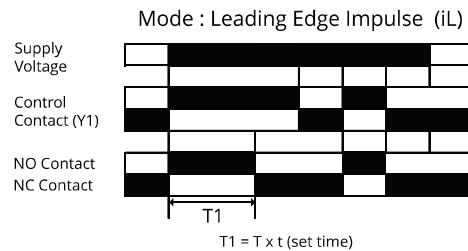
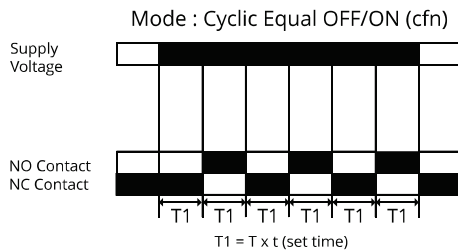
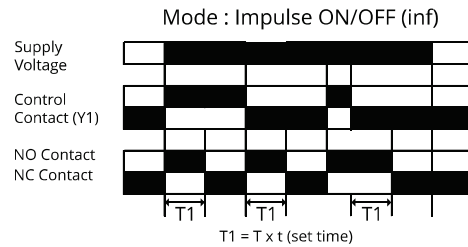
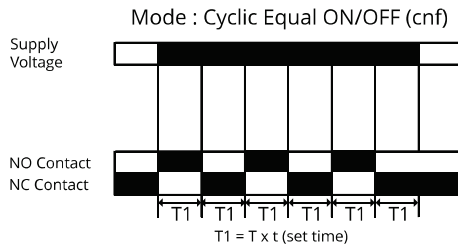
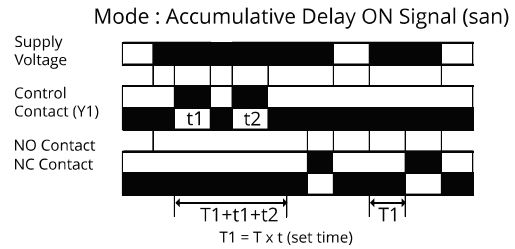
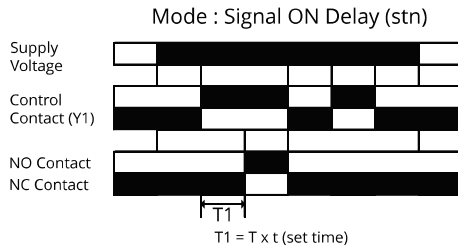
TIMERS

MULTI FUNCTION TIMER

Type : M10-A-R6



Functional Diagram



TIMERS

MULTI FUNCTION TIMER

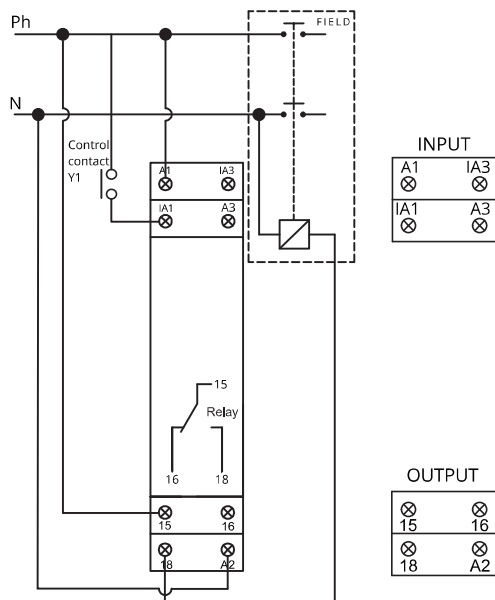
Type : M13-A-R3



Certification



Connection Diagram



Application

'elmex' Multi-Function timer is used for facilitating simple, Reliable and economical control for definite purpose solution in Industrial Application or in OEMs.

Salient Features

- 17.5 mm DIN Rail Mount.
- 13 Function.
- 10 Time Ranges.
- Green LED for Power ON.
- Red LED for Relay ON.
- Front knobs for Time Range, Time Scale & Mode Setting.
- Slim, Space Saving Design.
- Sealable Front Cover for Tamper Proofing.
- Provision of Multimeter probe for parameters measurement.

Technical Specification

Input Specifications	
Supply Voltage A1-A2	240V AC/ 24V AC-DC
Frequency	50/60 Hz
Supply Variation	-20% to +10%
Power Consumption	12VA (max)
Accuracy	Settings: $\pm 5\%$ of Full Scale
Functional Specifications	
Mode	On Delay(A), Interval(B), Cyclic equal OFF first (C), Cyclic equal ON first (Ci), Pulse output, 500ms fixed (D), Delay ON break (E), Delay ON make/Delay ON break (F), Interval after break(H), Single Shot (I), Retriggerable Single shot(J), Latching Relay (K), Delay with Totalise (Ai), Interval with Totalise (Bi)
Output Contact	SPDT(1C/O)
Contact Rating	5A @240V AC / 28V DC (Resistive)
Time Ranges	0.1 - 1 sec, 0.3 - 3 sec, 1 - 10 sec, 3 - 30sec, 0.1 - 1 min, 0.3 - 3 min, 1 - 10 min, 3 - 30min, 0.1 - 1 hrs, 0.3 - 3 hrs
LED Indications	
Power ON	3 mm Green LED
Relay ON	3 mm Red LED
Environmental Specifications	
Temperature	Operating: -10 to 55 °C(14 to 131 °F) Storage: -20 to 70 °C(-4 to 158 °F)
Humidity(non-condensing)	95% RH
Protection Level	IP40 for Casing IP20 for Terminals
Housing	
Housing Material	Polycarbonate
Colour	White
Dimension (H x D x W)	85 x 70.05 x 17.5 mm
Weight	70 gms
Mounting	TS 35 DIN Rail

TIMERS

MULTI FUNCTION TIMER

Type : M13-A-R3



Functional Diagram

