





















## **TIMERS STAR DELTA TIMER**

Type: SD-A-R1-P1



'elmex' make SD-A-R1-P1 is used with Star Delta starters and provides desired monitoring and control in Motor operations.



• 17.5 mm DIN Rail Housing.

- Sealable Front Cover for Temper Proofing.
- Provision of Multi-meter prob for parameters measurement.

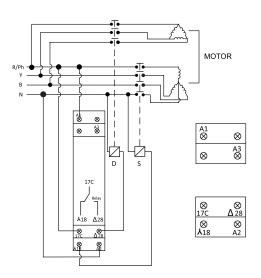
## • SPDT relay output. • One Red LED for Star mode Indication. • Second Red LED for Delta mode Indication. **Technical Specification Supply Voltage** Supply voltage (A1-A2/A3-A2) 240V AC/ 24V AC-DC Frequency 50 / 60 Hz **Power Consumption** 8 VA **Delays** Delta mode on time delay (T1) 1.5 sec. to 150 sec. 60 msec. Fixed Pause Timing (P) **Output Specifications** Star-1 'NO'; Delta-1 'NO' **Output Contact** Contact Detail 5Δ @240V ΔC / 28V DC (Resistive)

Contact Detail	5A @240V AC / 28V DC (RESISTIVE)
LED Indications	
Star mode indication	3 mm Red LED
Delta mode indication	3 mm Red LED
<b>Environmental Specifications</b>	
Temperature	Operating: 0 to 50 $^{\circ}$ C (32 to 122 $^{\circ}$ F)
	Storage: -20 to 75 $^{\circ}$ C (-4 to 167 $^{\circ}$ F)
Humidity (non-condensing)	95% RH
Protection Level	IP40 for Casing
	IP20 for Terminals

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



### **Connection Diagram**



### **Functional Diagram**

# Star Delta Timer Supply 🛱 240V AC/24V AC 50/60 Hz, 24V DC Timer (T1) 1.5 s - 150 s Pause Time (P) 60 ms T1 = \(\bar{A}\) Time, P = Pause Time

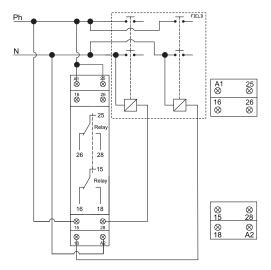
# TIMERS STAR DELTA TIMER

Type: SD-D-R2-P2

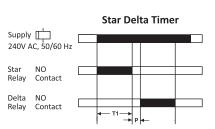




## **Connection Diagram**



## **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 SD-D-R2-P2 is used with Star Delta starters and provides desired monitoring and control in Motor operations.

- 17.5 mm DIN Rail Housing.
- DPDT relay output.
- One Red LED for Star mode Indication.
- Second Red LED for Delta mode Indication.
- Sealable Front Cover for Temper Proofing.
- Provision of Multi-meter prob for parameters measurement.

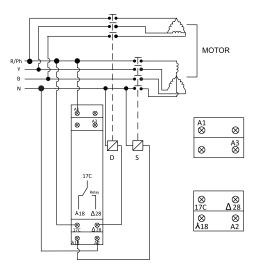
Tank wind Consideration	
Technical Specification	
Supply Voltage	
Supply voltage (A1-A2)	240V AC
Frequency	50 / 60 Hz
Power Consumption	8 VA
Delays	
Delta mode on time delay (T1)	3-30sec 6-60 sec.
Pause Timing (P)	50 msec. / 100 msec.
Output Specifications	
Output Contact	DPDT
Contact Detail	5A @240V AC / 28V DC (Resistive)
LED Indications	
Star mode indication	3 mm Red LED
Delta mode indication	3 mm Red LED
<b>Environmental Specifications</b>	
Temperature	Operating: 0 to 50°C (32 to 122°F)
remperature	Storage: -20 to 75 $^{\circ}$ C (-4 to 167 $^{\circ}$ F)
Humidity (non-condensing)	95% RH
Protection Level	IP40 for Casing
Protection Level	IP20 for Terminals
Housing	
Material	Polycarbonate
Colour	White
Dimension(H x D x W)	85 x 70.05 x 17.5 mm
Mounting	TS 35 DIN Rail

# TIMERS STAR DELTA TIMER

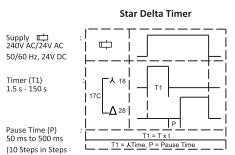
Type: SD-A-R1-P3



## **Connection Diagram**



## **Functional Diagram**



of 50 ms)



## **Application**

*'elmex'* make SD-A-R1-P3 is used with Star Delta starters and provides desired monitoring and control in Motor operations.

- 17.5 mm DIN Rail Housing.
- SPDT relay output.
- One Red LED for Star mode Indication.
- Second Red LED for Delta mode Indication.
- Sealable Front Cover for Temper Proofing.
- Provision of Multi-meter prob for parameters measurement.

Technical Specification	
Supply Voltage	
Supply voltage (A1-A2/A3-A2)	240V AC/ 24V AC-DC
Frequency	50 / 60 Hz
Power Consumption	8 VA
Delays	
Delta mode on time delay (T1)	1.5 sec. to 150 sec.
Pause Timing (P)	50 - 500 msec. (in steps of 50 msec.)
Output Specifications	
Output Contact	Star-1 'NO'; Delta-1 'NO'
Contact Detail	5A @240V AC / 28V DC (Resistive)
LED Indications	
Star mode indication	3 mm Red LED
Delta mode indication	3 mm Red LED
<b>Environmental Specifications</b>	
Temperature	Operating: 0 to 50 $^{\circ}$ C (32 to 122 $^{\circ}$ F)
remperature	Storage: -20 to 75 $^{\circ}$ C (-4 to 167 $^{\circ}$ F)
Humidity (non-condensing)	95% RH
Protection Level	IP40 for Casing
Protection Level	IP20 for Terminals
Housing	
Material	Polycarbonate
Colour	White
Dimension(H x D x W)	85 x 70.05 x 17.5 mm
Mounting	TS 35 DIN Rail

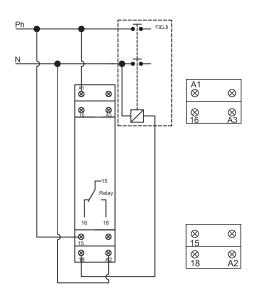
# TIMERS ON DELAY TIMER

Type: OD-A-R3

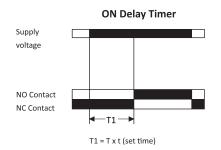




## **Connection Diagram**



## **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.

- 17.5 mm DIN Rail Housing.
- 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 Temper Proofing.
- Provision of Multi-meter prob for parameters measurement.

Technical Specification	
Supply Voltage	
Supply voltage (A1-A2/A3-A2)	240V AC/ 24V AC-DC
Frequency	50 / 60 Hz
Power Consumption	8 VA
Accuracy	
Settings	±5% of F.S.
Repeat	±0.5%(F.S.=FullScale)
Output Specifications	
Output Contact	SPDT (1C/O)
Contact Detail	5A @240V AC / 28V DC (Resistive)
LED Indications	
Power On	3mm Green LED
Relay On	3mm Red LED
Functional Specifications	
Mode	ON Delay
Time Danges	0.1 - 1sec., 0.3 - 3sec., 1 - 10sec., 3 - 30sec., 0.1 - 1min.,
Time Ranges	0.3 - 3 min., 1 - 10min., 3 - 30 min., 0.1 - 1 hr., 0.3 - 3hr.
<b>Environmental Specifications</b>	
To see a cuelo sue	Operating: 0 to 50 °C (32 to 122 °F)
Temperature	Storage: -20 to 75 $^{\circ}$ C (-4 to 167 $^{\circ}$ F)
Humidity (non-condensing)	95% RH
	IP40 for Casing
Protection Level	IP20 for Terminals
Housing	
Material	Polycarbonate
Colour	White
Dimension(H x D x W)	85 x 70.05 x 17.5 mm
Mounting	TS 35 DIN Rail

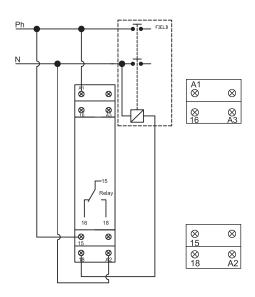
# TIMERS ON DELAY TIMER

Type: OD-A-R4

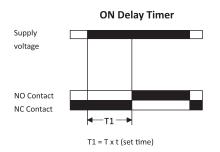




## **Connection Diagram**



## **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.

- 17.5 mm DIN Rail Housing.
- 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 Temper Proofing.
- Provision of Multi-meter prob for parameters measurement.

Technical Specification	
Supply Voltage	
Supply voltage (A1-A2/A3-A2)	240V AC/ 24V AC-DC
Frequency	50 / 60 Hz
Power Consumption	8 VA
Accuracy	
Settings	±5% of F.S.
Repeat	±0.5%(F.S.=FullScale)
Output Specifications	
Output Contact	SPDT (1C/O)
Contact Detail	5A @240V AC / 28V DC (Resistive)
LED Indications	
Power On	3mm Green LED
Relay On	3mm Red LED
Functional Specifications	
Mode	ON Delay
Time Ranges	0.3 sec 30 hr.
<b>Environmental Specifications</b>	
Temperature	Operating: 0 to 50 °C (32 to 122 °F)
	Storage: -20 to 75 $^{\circ}$ C (-4 to 167 $^{\circ}$ F)
Humidity (non-condensing)	95% RH
	IP40 for Casing
Protection Level	IP20 for Terminals
Housing	
Material	Polycarbonate
Colour	White
Dimension(H x D x W)	85 x 70.05 x 17.5 mm
Mounting	TS 35 DIN Rail

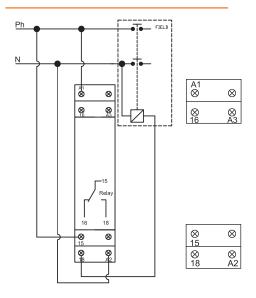
# TIMERS ON DELAY/ INTERVAL TIMER

Type: ODI-A-R4

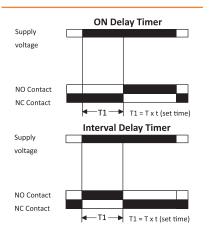




## **Connection Diagram**



### **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.

- 17.5 mm DIN Rail Housing.
- 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 Temper Proofing.
- Provision of Multi-meter prob for parameters measurement.

Technical Specification	
Supply Voltage	
Supply voltage (A1-A2/A3-A2)	240V AC/ 24V AC-DC
Frequency	50 / 60 Hz
Power Consumption	8 VA
Accuracy	
Settings	±5% of F.S.
Repeat	±0.5%(F.S.=FullScale)
Output Specifications	
Output Contact	SPDT (1C/O)
Contact Detail	5A @240V AC / 28V DC (Resistive)
LED Indications	
Power On	3mm Green LED
Relay On	3mm Red LED
Functional Specifications	
Mode	ON Delay/Interval
Time Ranges	0.3 sec 30 hr.
Environmental Specifications	
Temperature	Operating: 0 to 50 °C (32 to 122 °F)
	Storage: -20 to 75 $^{\circ}$ C (-4 to 167 $^{\circ}$ F)
Humidity (non-condensing)	95% RH
	IP40 for Casing
Protection Level	IP20 for Terminals
Housing	
	Polycarbonate
Material	
Material Colour	White

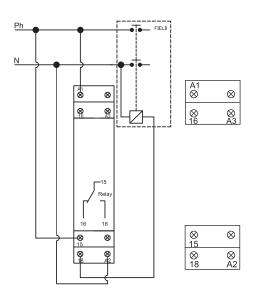
# TIMERS OFF DELAY TIMER

Type: OFF-A-R3

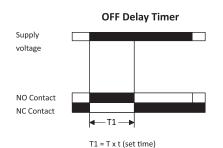




## **Connection Diagram**



## **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.

- 17.5 mm DIN Rail Housing.
- 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 Temper Proofing.
- Provision of Multi-meter prob for parameters measurement.

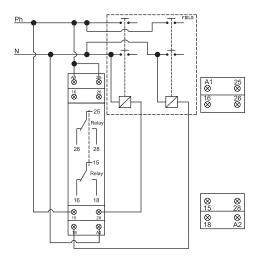
Technical Specification	
Supply Voltage	
Supply voltage (A1-A2/A3-A2)	240V AC/ 24V AC-DC
Frequency	50 / 60 Hz
Power Consumption	8 VA
Accuracy	
Settings	±5% of F.S.
Repeat	±0.5%(F.S.=FullScale)
Output Specifications	
Output Contact	SPDT (1C/O)
Contact Detail	5A @240V AC / 28V DC (Resistive)
LED Indications	
Power On	3mm Green LED
Relay On	3mm Red LED
Functional Specifications	
Mode	OFF Delay
Timo Pangos	0.1 - 1sec., 0.3 - 3sec., 1 - 10sec., 3 - 30sec., 0.1 - 1min.,
Time Ranges	0.3 - 3 min., 1 - 10min., 3 - 30 min., 0.1 - 1 hr., 0.3 - 3hr.
<b>Environmental Specifications</b>	
Tomporaturo	Operating: 0 to 50 °C (32 to 122 °F)
Temperature	Storage: -20 to 75 $^{\circ}$ C (-4 to 167 $^{\circ}$ F)
Humidity (non-condensing)	95% RH
	IP40 for Casing
Protection Level	IP20 for Terminals
Housing	
Material	Polycarbonate
Colour	White
Dimension(H x D x W)	85 x 70.05 x 17.5 mm
— Differsion(11 x D x W)	

# TIMERS MULTI FUNCTION TIMER

Type: M05-D-R3



## **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.

- 17.5 mm DIN Rail Housing.
- 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 Temper Proofing.
- Provision of Multi-meter prob for parameters measurement.

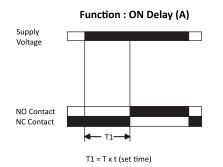
Technical Specification	
Supply Voltage	
Supply Voltage (A1-A2)	240V AC
Frequency	50 / 60 Hz
Power consumption	12 VA
Accuracy	
Settings	Settings: ±5% of F.S.
Repeat	Repeat: ±0.5%(F.S.=FullScale)
Output Specifications	
Output Contact	DPDT (2 C/O) Relay
Contact Detail	5A @240V AC / 28V DC (Resistive)
LED Indications	
Power On	3mm Green LED
Relay On	3mm Red LED
Functional Specifications	
	On Delay (A)
	Interval (B)
Modes	Cyclic equal OFF first (C)
	Cyclic equal ON first (Ci)
	Pulse output (One Shot)(D)
	0.1 - 1sec., 0.3 - 3sec.,
Time Devices	1 - 10sec., 3 - 30sec., 0.1 - 1min.,
Time Ranges	0.3 - 3min., 1 - 10min.,
	3 - 30 min., 0.1 - 1 hr., 0.3 - 3hr.
<b>Environmental Specifications</b>	
_	Operating: 0 to 50 $^{\circ}$ C(32 to 122 $^{\circ}$ F)
Temperature	Storage: -20 to 75 $^{\circ}$ C(-4 to 167 $^{\circ}$ F)
Humidity (non-condensing)	95% RH
Dratastian Laval	IP40 for Casing
Protection Level	IP20 for Terminals
Housing	
Material	Polycarbonate
Colour	White
Dimension(H x D x W)	85 x 70.05 x 17.5 mm
Mounting	TS 35 DIN Rail
	10

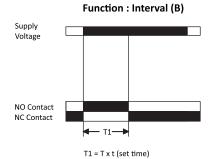
# TIMERS MULTI FUNCTION TIMER

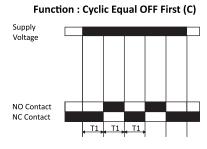
Type: M05-D-R3



## **Functional Diagram**

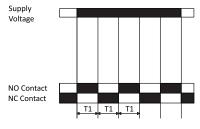






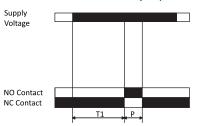
T1 = T x t (set time)

#### Function: Cyclic Equal ON First (Ci)



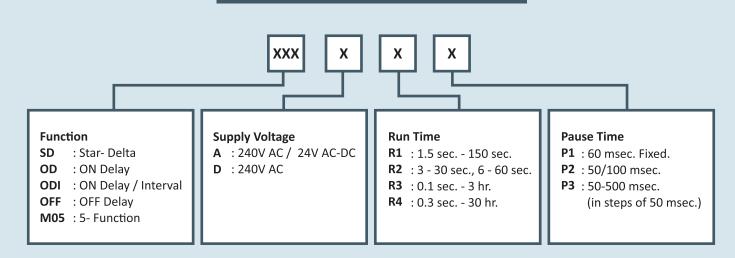
T1 = T x t (set time)

#### Function: Pulse Output (One Shot)(D)



T1 = T x t (set time); P = 500 msec.

#### **TIMER CODE DESCRIPTION**





# Elmex Controls Pvt. Ltd. | Elmex Electric Pvt. Ltd.

12, GIDC Estate, Makarpura, Vadodara -390010, Gujarat, India

- 0265-2642021 / 23
- marketing@elmex.net
- www.elmex.net







