



Description

The DC voltage monitoring relay type E27D is a digital or microcontroller base relay, commonly used for monitoring battery voltage conditions, but can be used in any applications which dc voltage level is critical too. The relay is provided with 1 volt step adjustable pickup and dropout voltage with time delay 0 ~ 60 seconds set point. Moreover, it has watchdog function to monitor the healthy of itself.

Under Voltage Function

When power is applied to the relay the green LED (Healthy) will start flashing (watchdog function is working), simultaneously the orange LED (P/U) will light up to show that the DC voltage is on normal condition or the input voltage exceeds the pickup setting (P/U). When the monitor voltage falls below the dropout setting (D/O), the time delay is initiated and the red LED (27 - Under voltage LED display) start flashing until time delay reached the set point value. (the response time delay of the relay can be adjusted between 0 ~ 60 seconds) Then the LED stop flashing but steady on, simultaneously with relay energizes or switches to its operating position. The relay will reset once the monitored voltage rises above the pickup set point, the time delay is initiated and the orange LED (P/U) start flashing until time delay reached the set point value. Then the LED stop flashing but steady on, simultaneously with relay reset to normal.

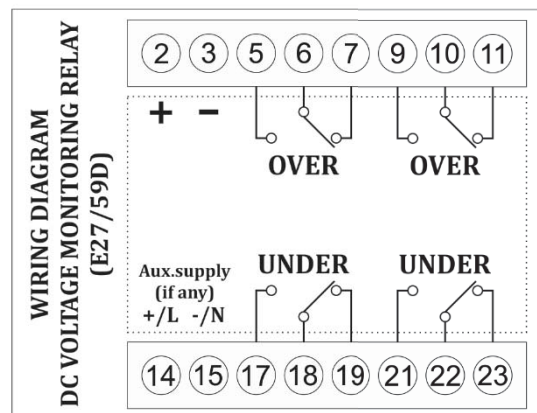
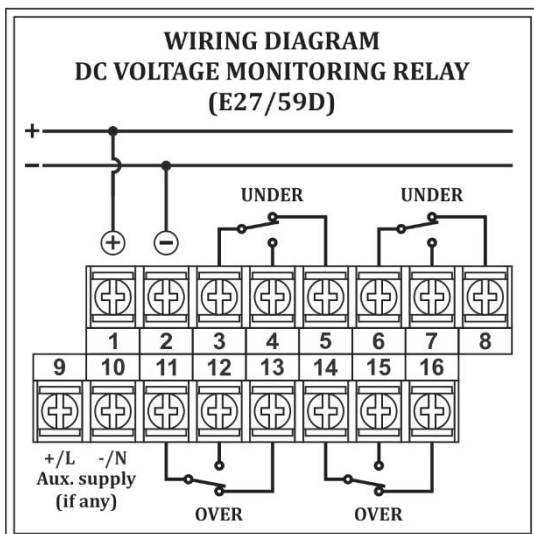
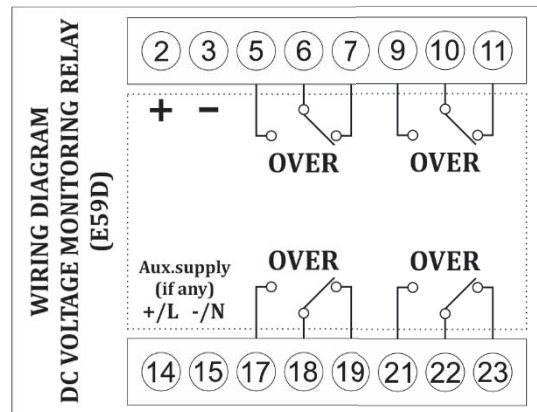
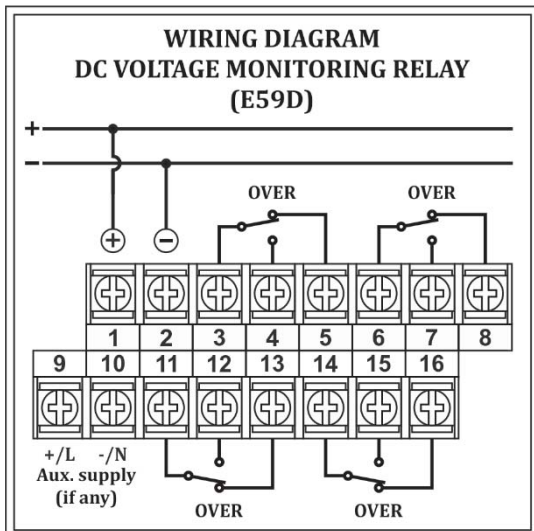
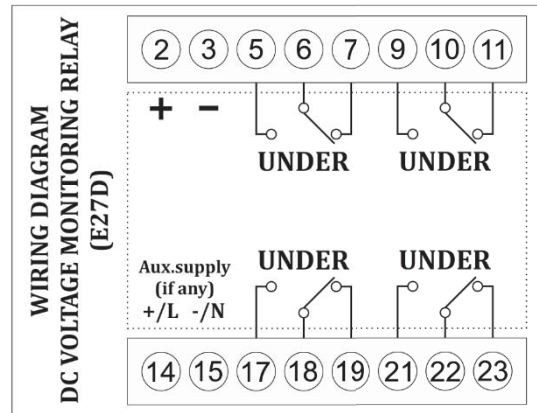
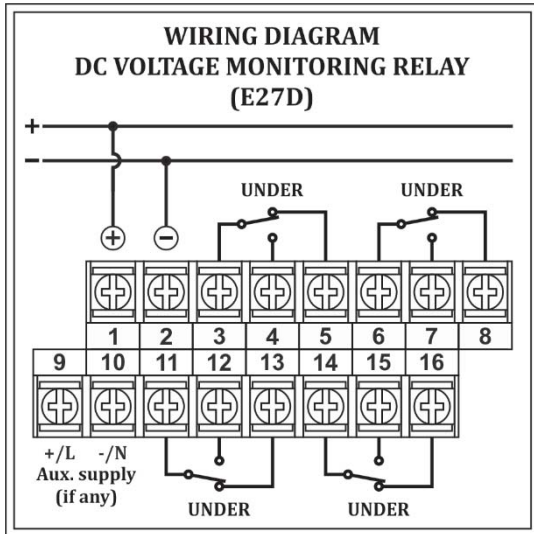
Over Voltage Function

In case of voltage increased to the over voltage set point the orange LED (over) will flashing to show that voltage had reached the set point value until the setup time delay is time out than the orange LED (over) stop flashing but study on and over voltage contact output close or become NC status.

Technical Data

Input voltage	24, 48, 110, 125, 220 VDC
Under & Over voltage setting range Accuracy class 3% (of reading)	24VDC : 18 ~ 30VDC
	48VDC : 36 ~ 60VDC
	110VDC : 83 ~ 138VDC
	125VDC : 93 ~ 156VDC
	220VDC : 165 ~ 275VDC
Response time delay setting range	0 ~ 60 seconds
Operating time accuracy (of reading)	±3%
Burden	< 5VA
Overload	1.2 x Un continuously
	2.0 x Un for 3 seconds
Relay output	4 changeovers
Outputs relay contact	5A at 240Vac non - inductive
Auxiliary power supply	Self-supply (equal to input voltage)
Option for auxiliary supply	Auxiliary Supply 90 ~ 250VAC
Operating temperature	0 ~ 55°C
Storage temperature	Up to 70°C
Relative humidity	Up to 90% (no dew drop)
Function indicator (E27D)	Healthy (LED color: Green)
	27 (P/U) (LED color: Orange)
	27 (D/O) (LED color: Red)
Function indicator (E59D)	Healthy (LED color: Green)
	59 (P/U) (LED color: Orange)
	59 (D/O) (LED color: Red)
Function indicator (E27/59D)	Healthy (LED color: Green)
	59 (LED color: Orange)
	27 (LED color: Red)

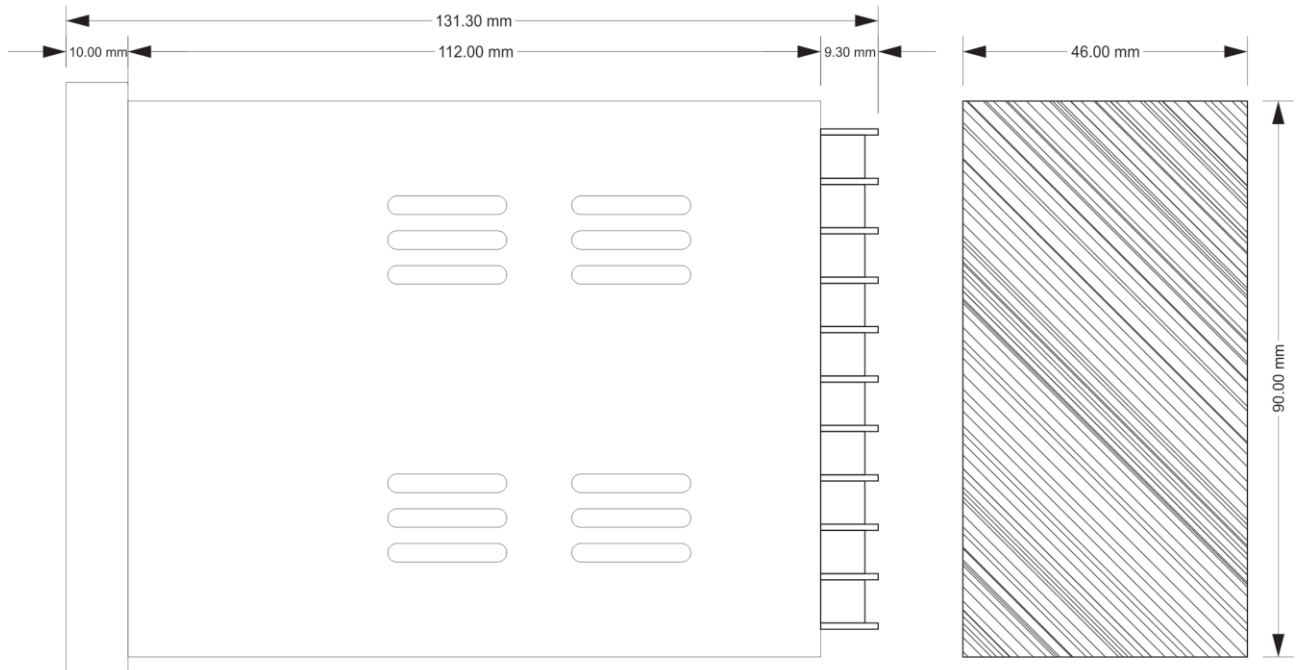
Connection Diagrams



Flush mount type

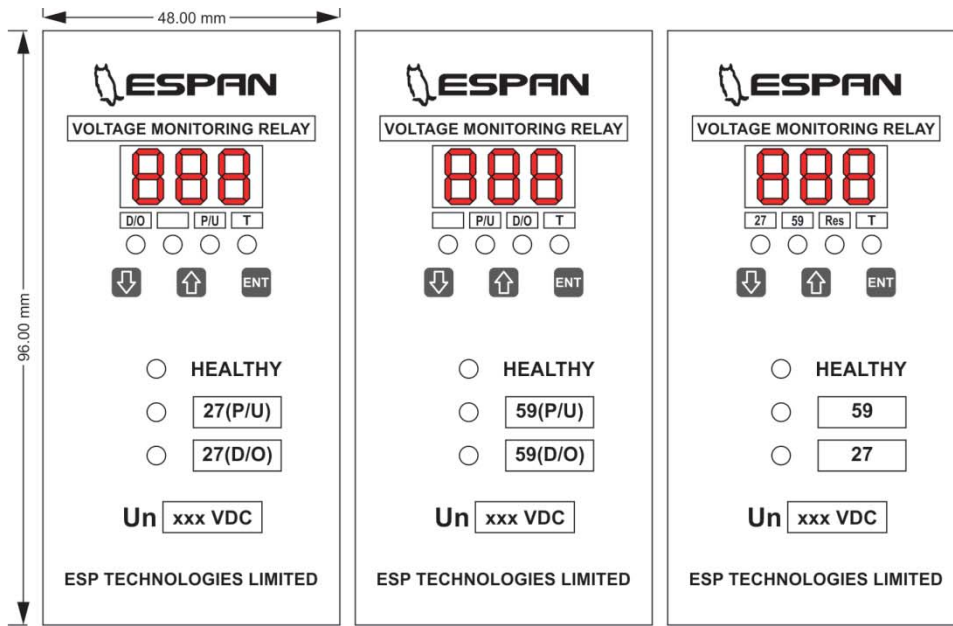
Din rail type

Dimension



Side view

Cut out



E27D

E59D

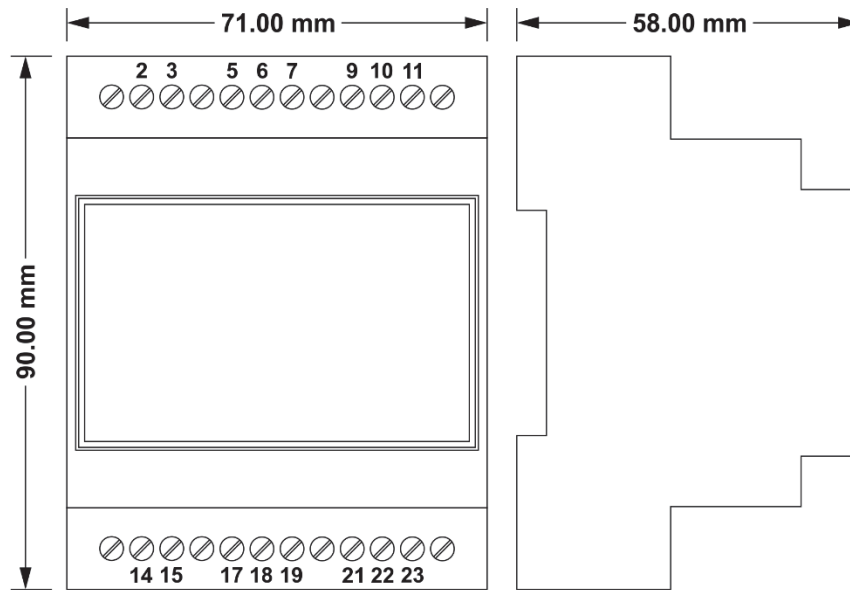
E27/59D

Front view

Flush mount type

Ratio 1:1 mm.

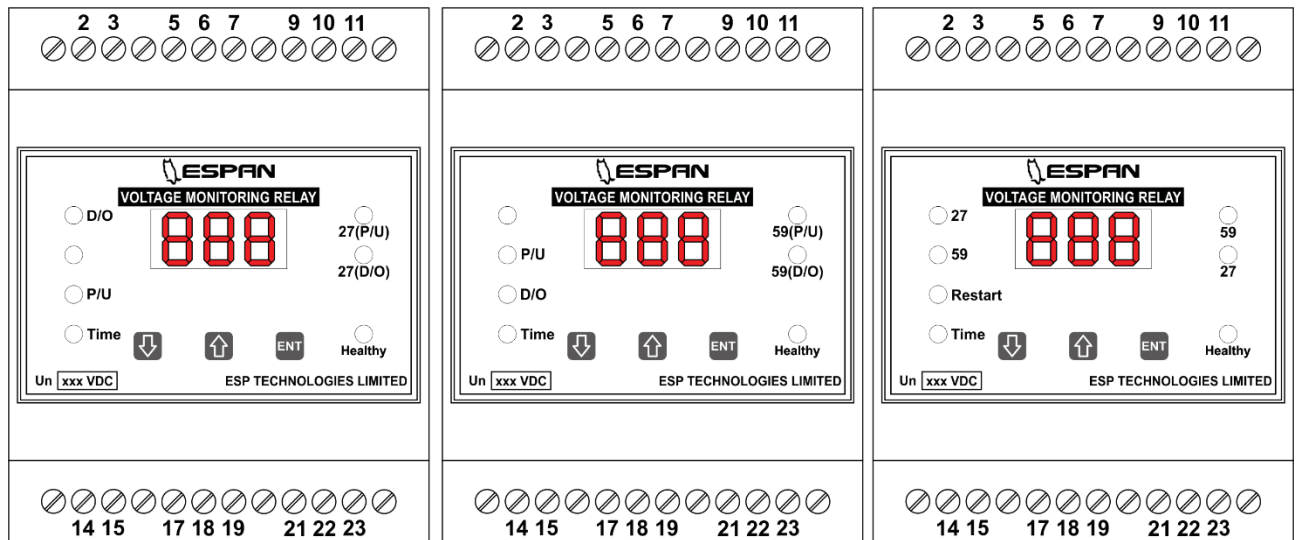
Dimension



Front view

Side view

Admissible din rail: TS35/7.5 or TS35/15



E27D

E59D

E27/59D

Front view

Din rail type

Ratio 1:1 mm.

Product Coding

E27D - 110 - A - F

Model ←

E27D	DC under voltage relay
E59D	DC over voltage relay
E27/59D	DC under & over voltage relay

→ **Mounting type**

F	Flush mount
D	Din rail

↓ **Power supply**

A	Aux. supply 90 ~ 250VAC
S	Self-supply

↓ **Input voltage**

24	24 VDC
48	48 VDC
110	110 VDC
125	125 VDC
220	220 VDC

*Input voltage are available upon request