



Description

ESPAN-04 series is designed to use as an alarm for general switchgear cubicle or local control panel of GIS, local control cabinet of power transformer and all of control panel, which needs alarm function. It indicates fault status by using special high brightness LED. The ESPAN-04 series can be selected by the number of alarm input 8,10,16 alarm or 20 alarm which specified when order.

Features

- ✓ Aluminum housing, DIN format 96 x 96 mm.
- ✓ Operating delay time can be selected by software starting from 200 ms. Up to 2400 ms.
- ✓ Built-in three push buttons for Acknowledge, Reset and Test
- ✓ The label is a single paper sheet which slides into a small transparent envelope recessed in the front panel.
- ✓ All inputs are isolated with opto-couple, NO or NC volt-free contact can be selected by software.
- ✓ Alarm sequences (Auto/Manual Reset /Indicator) of each input can be selected by software.
- ✓ Alarm sound type (Bell/Buzzer) of each input can be selected by software.
- ✓ High brightness LED display (3 mm.) in 3 colors (R,G,A) can be selected by Software
- ✓ Integrated two test functions (Lamp Test & Function Test) in one push button ("TEST")
- ✓ Time of auto acknowledge function can be set from 1-240 seconds.
- ✓ Aux. power supply 24, 48Vdc and 95-265Vac/dc (specify when order also same as Fault input voltage)
- ✓ Built-in heart beat function which illuminated by LED lamp to display healthy status as self-supervision function.
- ✓ Supervisory contact (watchdog) for warning status
- ✓ Communication port : USB for configuration, RS485 – Modbus RTU for serial interface
- ✓ Alarm monitor software for remote monitoring and control (Ack / Reset / Test)

Option

- ✓ Relay output module : The auxiliary contact output or repeat relay module, normally used for remote alarm or remote control as given design

Technical Data

Auxiliary Power Supply	VDC 24V, 48V and 95 – 265 VAC/DC
Power consumption (max)	10W
Relay contact rating	VDC 30V/10A , VAC 120V/5A
Response time (Operating time)	5 - 50 ms
Operating temperature	0-55°C
Storage temperature	up to 70°C
Relative Humidity	up to 90% (no dew drop)

Operating Principle

When an alarm signal is occurred, it will initiate Bell/Buzzer to operate. Meanwhile, it will produce output direct to the display LED, which makes LED flicking. After pressing an acknowledged push button, Bell or Buzzer remains silence but LED is steady on. If an alarm signal is return to normal status then the alarm is cancelled. However, the light of the indicating display LED will be sustained. Unless the reset push button switch is activated. Then the LED will be turn off and return to its initial condition. The "TEST" push button includes two functions; the first function is "Lamp TEST" if push and hold this push button less than 3 seconds, it will light up all LED lamps at the front panel only. The second function is "Function Test" if push and hold this push button more than 3 seconds, the LED lamp will start flicking and Bell/Buzzer alarms. This "TEST" push button is provided for checking purpose of all LED and operating functions at normal condition. While checking all LED and suddenly some of the alarm signals are occurred, the alarm sequence will be operated as usual without effect from the lamp test sequence. Alarm sequence can be selected by software for manual reset sequence or auto reset sequence as described as below.

SEQUENCE1 : MANUAL RESET

When an alarm signal is occurred, the LED would gently flash and Bell or Buzzer will activate continuously. To stop the sound of Bell or Buzzer, "ACK" push button has to be pressed. Then Bell/Buzzer is silenced but LED is still steady on. Reset is only possible by pressing "RESET" push button when alarm input returns to normal status.

SEQUENCE2 : AUTO RESET

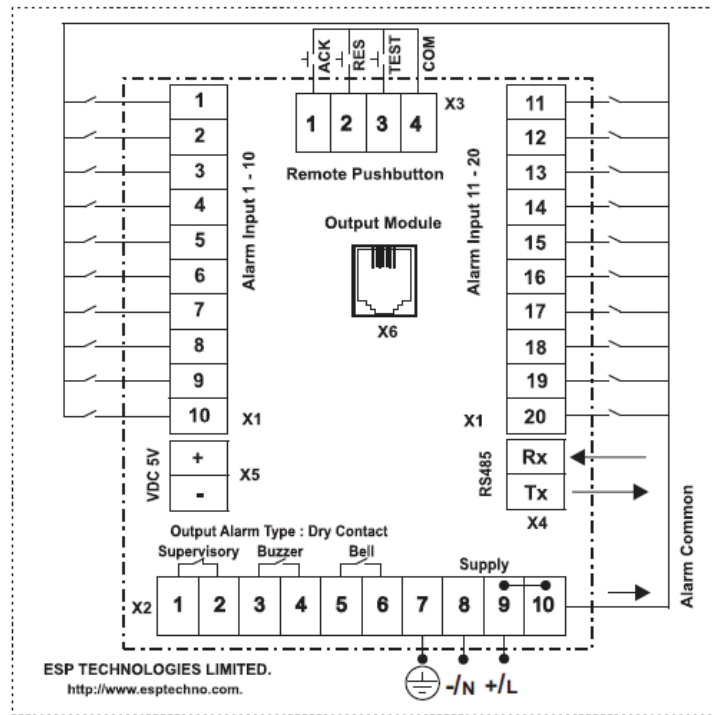
When an alarm signal is occurred, the LED would gently flash and Bell or Buzzer will activate continuously. To stop the sound of Bell or Buzzer, "ACK" push button has to be pressed. Then Bell/Buzzer is silenced but lamp is steady on. Auto reset will take place simultaneously when alarm input returns to normal status.

INPUT INDICATOR FUNCTION

This function is same as indicator lamp. When an alarm signal feed through an assigned input of Annunciator, the LED display lamp of that design fault will lid or steady on. After alarm input returns to normal then the display lamp will automatically switch off.

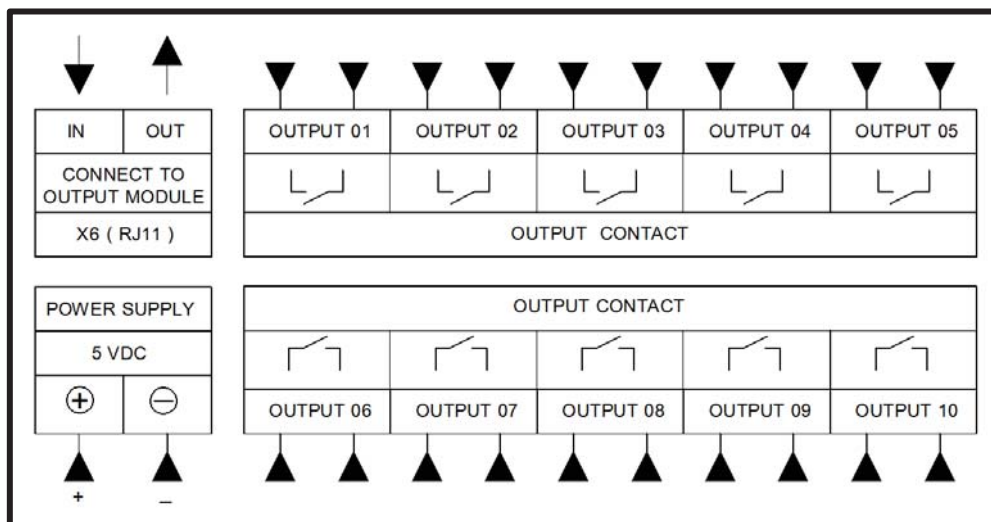
Connection Diagram

Connection diagram at the rear side of ESPAN04

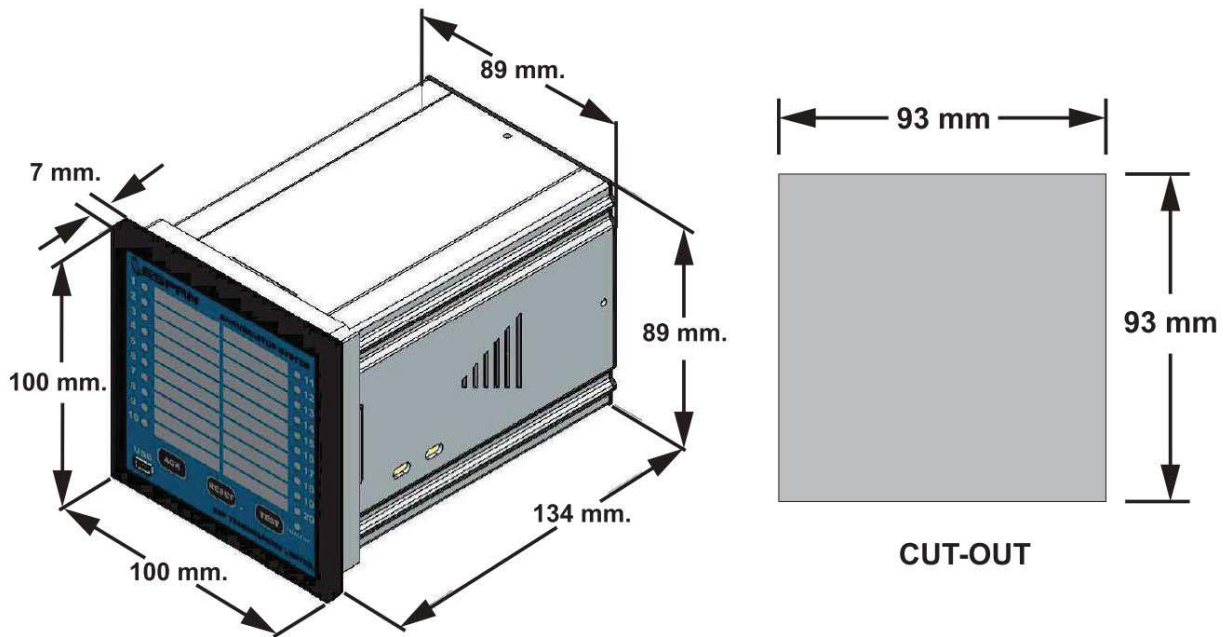


Remark: Aux. supply and Fault input voltage shall be the same source.

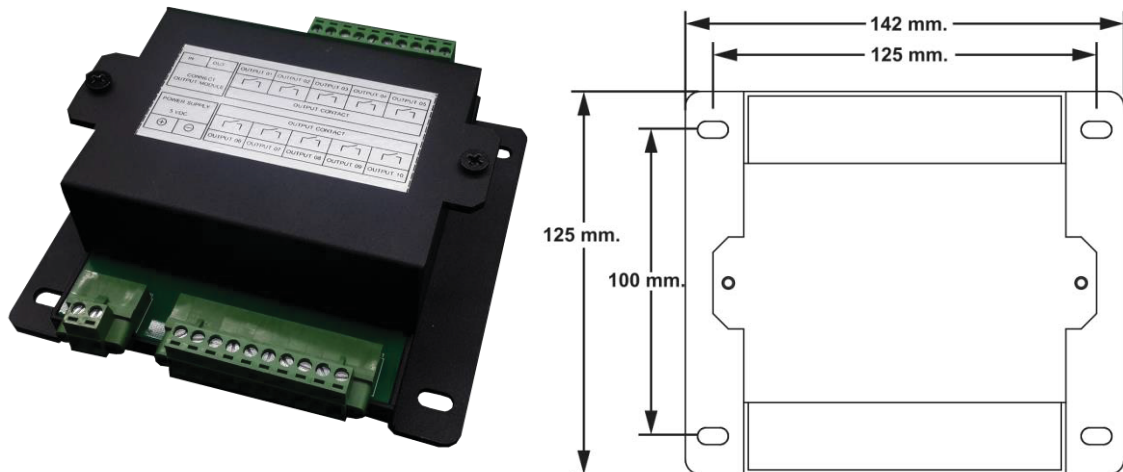
Connection diagram of ESPAN04 Relay Output Module



Dimension and Cut – Out



Relay Output Module



Product Coding

ESPAN04 / 16 – D24

Basic type

Number of alarm input

08	8 alarm input
10	10 alarm input
16	16 alarm input
20	20 alarm input

Fault input voltage

24	24VDC
48	48VDC
11	110VDC
13	125VDC
22	220VDC
11A	110VAC
22A	220VAC

Aux. Supply type

D	DC
A	AC