

WATER SUPPLIES DEPARTMENT
STANDARD SPECIFICATION E-82-21
TRIP / ALARM AMPLIFIER UNIT

1. GENERAL

Trip / alarm amplifier unit is used for deriving control and / or alarm signal from level, pressure or flow analogue input signal.

2. DESIGN

The trip / alarm amplifier unit shall meet the following design requirements :

Input signal	:	4-20 mA d.c.
Input resistance	:	Not exceeding 250 ohms
Output	:	One or two separate trip / alarm set-point(s) as specified in the Particular Specification, each complete with a pair of changeover contacts rated at 2A, 220V, 50 Hz resistive
Set-point adjustment		
- Method	:	By integral potentiometer, with 0-100% markings
- Range	:	0-100% of input span
- Setting accuracy	:	$\pm 0.5\%$ of range
Set-point operation		
- Hysterisis	:	$\pm 1\%$ of range
- Repeatability	:	Better than 0.3% of range
- Maximum error due to temperature variation	:	$\pm 0.02\%$ of range per $^{\circ}\text{C}$
Relay operation	:	Field selectable to energise at either above or below the set-point
Power supply	:	220V 50 Hz or 24V d.c. as specified in the Particular Specification
Supply protection	:	Quick blow fuse to IEC 60269-1&4

- Operating conditions : 0 °C to 60 °C
5 % to 95 % relative humidity
- Monitoring facilities : The trip / alarm status shall be indicated by LED(s) which will be lit when the set-point(s) is / are activated.

3. CONSTRUCTION

The trip / alarm amplifier unit shall be suitable for internal panel mounting.

4. EQUIPMENT PARTICULARS

The following equipment particulars will be specified in the Particular Specification :

- (a) Power supply
- (b) Number of trip/alarm set-point required (single or dual)
- (d) Mounting space constraints (optional)
- (e) Fail safe features (optional)