

FIRE DETECTOR TYPE ED 320

Electronic Devices Ltd, long established in the field of electronic detection and alarm equipment, now has available fully approved equipment which offers a new era in reliability and integrity, although the ED320 is NOT marine approved it is built using the same proven circuitry and high standard of workmanship as our approved models. Assistance with independent installations allows an economic solution to an evermore costly but necessary requirement reliable fire detectors. Early contact with our design team is advised to avoid expensive mistakes which can easily be prevented.

Control Unit Front Panel Facilities

- 2 zone capability mixed heat, smoke, call points etc.
- Two wire detector circuits, continuous fault monitoring.
- Immediate and delayed fire alarm signals
- Alarm and fault accept capability.
- Alarm test button.
- Alarm-voltage free contacts 240V, 5A.
- Fused maintained supply available for external functions.



- Integral automatic emergency power changeover.
- Internal fire audio alarm.
- Separate 240V Mains Driven Power Supply / Battery Charger is also available and allows independent Mains/Emergency Supplies.

HAZARDOUS AREA OPERATION BASEEFA Certificate No. Ex93C2538U

A BASEEFA certified Interface Unit which may include zener barriers and intrinsically safe relays is also available. This facility enables fire zones and alarms to be made intrinsically safe. The Interface Unit is not Department of Transport (Marine Safety Agency) or Lloyd's Register of Shipping Approved, but is provided in a stove enamelled steel enclosure to IP54 protection.

All Hazardous area equipment for example detection heads, audible alarms etc. should be certified intrinsically safe to the appropriate gas group, zone, temperature etc. and must be compatible with the relevant zener barriers. Attention is also drawn to the need for cable having the correct electrical parameters of capacitance, inductance and inductance to resistance ratio. These parameters will vary depending on the gas group certification required. For further information contact Electronic Devices Ltd

Approved By:



BASEEFA
Certified.
Intrinsically
safe where
necessary.



Quality Assurance
to BASEEFA (HSE)
Regulations Certificate
Number: MO344

Certificate No. M0344

DETECTION HEADS

Any conventional approved heads requiring not greater than 18.5V supply in the standby condition is compatible with the ED320 when fitted with a zone resistor in the range 200-820 ohms. In particular we supply the Apollo S60 range of marine approved detectors which connect 470 ohms across the zone line in the alarmed condition.

CALL POINTS

Although many call points have been approved by various Classification Societies, UK Department of Transport Approval has only been granted to our EDCP and EDCP/W break glass units. In many instances approval has been granted to a lower standard, for example Lloyd's ENV 1, 2 & 3 which excludes both low temperature and salt spray tests thereby making them unsuitable for external use. It is also essential to use call point units which have proper facilities for zone line resistors (as distinct from end of line resistors) thus avoiding unsatisfactory connections in a unit which may be the last line of defence for personnel trapped in various machinery or other spaces.

AUDIBLE

Recent tests have shown the lack of reliability of the traditional fire alarm bell when used on board ships and to avoid failure in service of a crucial part of a fire detection system Electronic Devices Ltd can now offer fully Department of Transport and Lloyd's Register of Shipping Approved, electronic audible alarms. The robust construction of these devices offers reliability and freedom from alarms due to resonant vibration at particular engine speeds thus making them much more attractive than an unreliable bell.

The wide range of user selectable tones allows distinctive sounds to be chosen amongst the multiplicity of alarms prevalent in modern shipboard installations, while low current consumption offers battery back up times under worst case conditions suitable for any installation.

CONVENTIONAL FIRE DETECTION - PRINCIPLE OF OPERATION

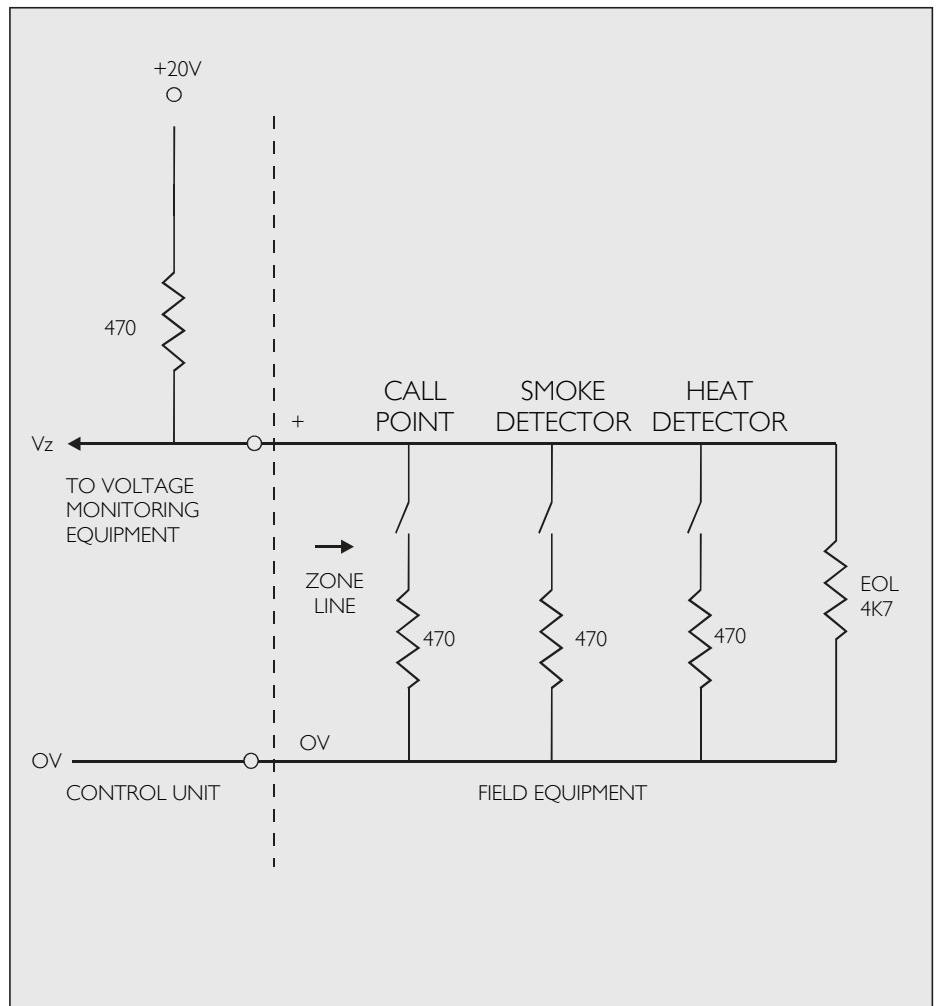
The diagram below shows the essential principle of the conventional ED 320 Fire Detection System. The Zone line completes a potential divider chain across a stabilised 20V supply. The internal 470 ohm resistor mounted in the control unit is the top half of the divider and in normal operation the end of line 4.7Kohm resistor completes the potential divider so that V_z is at 10/11 of $V = 18.2V$

Any detector placed across the line will be electrically equivalent to a

normally open switch with a series 470ohm resistor. If any of the detecting elements operates, the voltage V_z will drop to just below half of the supply which initiates an alarm via the voltage monitoring equipment in the control unit.

If the zone line goes open circuit, V_z becomes 20V and an open circuit alarm is given.

If the zone line becomes short circuited, V_z drops to 0V and a short circuit alarm is given.



Also available in this range of Fire Detectors are the following models:

ED 820, ED 816 and 832 ALL MARINE APPROVED.

ELECTRONIC DEVICES LIMITED

ENIGMA HOUSE, ENIGMA BUSINESS PARK, MALVERN, WORCESTERSHIRE WR14 1GD ENGLAND.

TELEPHONE : +44 (0) 1684 891500 FACSIMILE: +44 (0) 1684 891600

EMAIL: sales@electronicdevice.demon.co.uk WEB SITE: www.electronicdevice.demon.co.uk