

1. The Analogue Linear Heat Detection Cable (LHDC) is to be designed to provide an early detection of fire conditions and overheating in circumstances where other forms of detection would not be viable.
2. Single zone lengths of the LHDC should be installed with the ability of triggering alarms for HOTSPOTS and fire conditions on short sections of the overall zone length.
3. The Analogue LHDC construction should be suitable for use in a harsh environment.
4. The Analogue LHDC installation should be easy with a range of available fixings.
5. The Analogue LHDC shall be of a coaxial cable construction with a copper coated steel central conductor, an inner insulation (dielectric), a tinned copper braid layer, and an overall protective PVC sheath. The primary mechanism of heat (fire) detection is that the resistance of the dielectric, monitored between the central conductor and braid layer, has a negative temperature coefficient (NTC).
6. The Analogue LHDC shall be a high impedance system.
7. The Analogue LHDC shall employ a recoverable & re-settable (testable) operation.
8. A stainless steel outer braid armour shall be used where the possibility of mechanical damage may occur.
9. Final installation should ensure that the Analogue LHDC is not in contact with any heat sink material which may delay the sensing process.
10. The Analogue LHDC shall be terminated / joined with manufacturers' recommended junction / termination boxes.
11. Cable ties should not be used directly on the cables. A neoprene or PTFE sleeve must be employed to prevent mechanical deformation of the Analogue LHDC cable from over tight fixings.
12. The Analogue LHDC shall have a variable alarm temperature and be capable of installation where intrinsically safe configurations in hazardous areas are required.
13. The Analogue LHDC must be used in conjunction with the manufacturers' recommended monitoring unit.
14. Reference should be made to Guidelines for routing Analogue LHDC document for installation guidance (web search this document).
15. Reference should be made to Analogue LHDC Data Sheet document for determination of temperature operation and ambient cable selection (web search this document).
16. The Analogue LHDC monitoring unit must be designed to monitor a zonal length of the cable for both an elevated temperature (Fire) condition, and Fault Status (Open & Short Circuit). A test facility shall be provided for Fire and Fault conditions.
17. Each Analogue LHDC 'zone' controller must offer two adjustable levels of alarm, one of which may be optionally employed as a 'Pre-Alarm'.
18. The Analogue LHDC 'zone' controller must have an output for the initiation of extinguishing media.
19. The Analogue LHDC must have the ability of being tested without the need for removing / replacing the tested section using a proprietary 1m test oven.
20. The Analogue LHDC monitoring unit must be able to trigger a Fault signal if the LHDC has an Open or Short circuit condition.
21. The Analogue LHDC may be installed in Hazardous Areas using the manufacturers' recommended Safety Barrier.
22. The Analogue LHDC shall be able to be installed in very close proximity to monitored hazards.