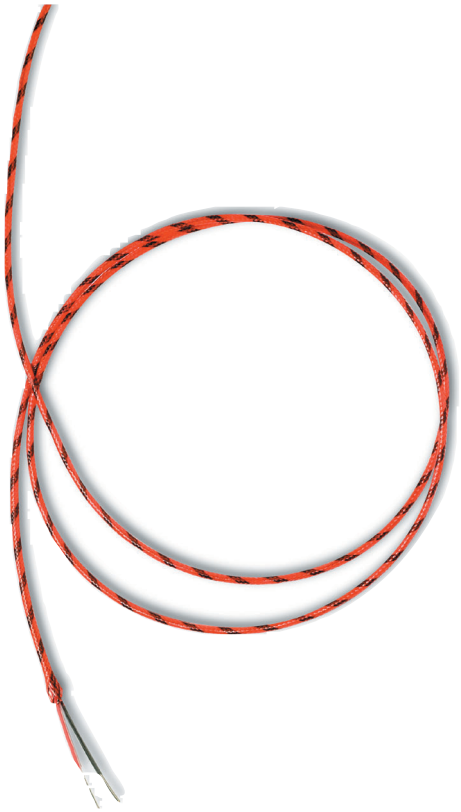
Kidde Fire Protection

ALARMLINE DIGITAL

Linear Heat Detection

Alarmline Digital is a twin conductor cable with temperature-sensitive insulation protected by a special braid, PVC or high temperature, chemical resistant polymer outer sheath to meet specific application requirements. This concept of point-of-risk detection can also be employed as cabling for electrical fire alarm systems, subject to local standards (eg British Standards) or customer specification restrictions.



Features

- Twin-conductor switching heat sensing cable
- Effective monitoring at precise point of risk
- Economical, reliable and durable detection
- Simple and easy to install
- Applied where other types of fire detection are unsuitable

Operation

Alarmline Digital cable operates by short-circuiting in a fire condition or where acceptable operating temperature levels are exceeded, to provide a quick, positive and reliable signal.

Alarmline Digital may be used as a stand-alone detection facility with a sensor open circuit (FAULT) or short circuit (FIRE) condition, monitored by an associated simple electrical device.

As an integral part of a fire protection system, Alarmline Digital cable may be used as a conventional detector and operate automatic extinguishing systems via an Extinguishing Control Panel (ECP). See Kidde Fire Protection Centrol Conventional Panel datasheet 6214.

Alarmline Digital is a cable and detector in one. It can be installed close to potential sources of fire, and provides economical detection for a wide range of applications including:

- Rack storage
- Vehicle engine bays
- Car parks
- Floating roof fuel storage tanks
- Turbines
- Boiler fronts
- Ships' holds
- Rail locomotives and rolling stock

All these applications fall well within Alarmline Digital cable's continuous operating ambient limits of -65°C to +200°C.

Installation

Ease of handling and stripping of the cable permits quick installation and allows conventional or proprietary methods of support to be employed.

A complete range of support clips is available from Kidde Fire Protection see Alarmline Accessories datasheet 6249.

Nail type cable clips should not be used to fit Alarmline cable. Care must be taken to avoid mechanical impact, kinking, unacceptable heat sources or other factors which may affect the integrity and functionality of the cable.

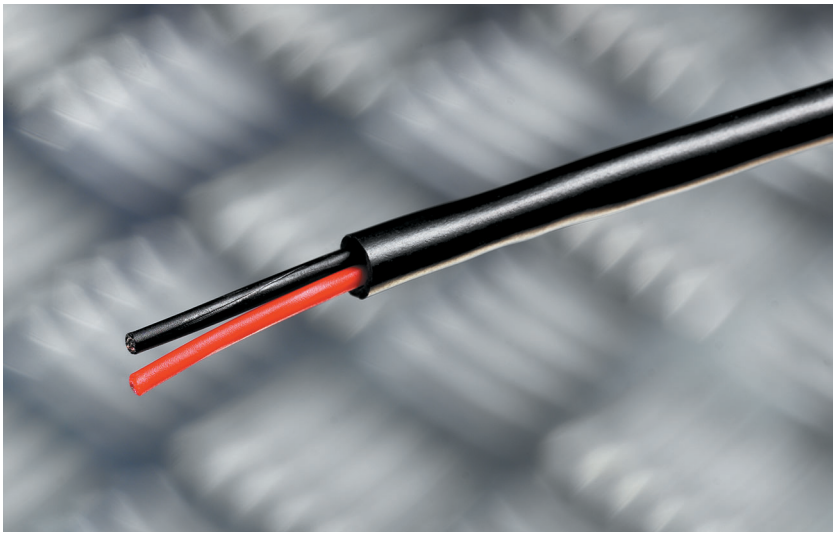
Control Units
Kidde Fire Protection manufactures a range of "Centrol" Conventional Control Units from 2 to 8 zones of detection, plus a range of Extinguishing Control Panels (ECP).

Approvals
1. FM Global approval granted to all Alarmline Digital cable variants.

2. UK Power Generation Industry (formerly CEGB) Approval category "A" approval granted to 26794-2xx/H8045.

3. Chinese Approval (Shenyang).

Ordering Data
Alarmline Digital cables are available in lengths of 50 metres, 100 metres, and then 100 metre increments up to 1000 metres. The last three digits of the cable reference denotes the cable length, i.e. D5387-068-100 specifies a requirement for 1000 metres.



Note: Refer to table on Page 3 for Part Number cross-reference.

Short lengths of cable may be joined by crimp connectors, using a crimping tool to achieve longer sensor runs.

WARNING: Alarmline Digital cables must never be connected to mains electrical supplies.

Specification

All cables	Tinned copper-covered steel Conductor diameter 0.9mm (nominal)
Maximum conductor resistance (per km at 20°C)	100 ohms
Voltage Rating	100V DC
Insulation Material	Temperature sensitive to 1.55mm thickness
Inner Cores	H8028, H8040, H8040N, H8045, H8045N: each two cores (red, black) twinned together: 3.0mm dia (nominal) H8069: two cores (black, black and white) twinned together: 3.0mm dia (nominal) H9650: two cores (white, black) twinned together: 3.0mm dia (nominal)
Outer Sheath	H8040: Polythene braid (red with green ID tracer): 3.65mm dia (nominal) H8040N: (black nylon) 3.0mm dia (nominal) H8045: Polythene braid (red with black ID tracer): 3.65mm dia (nominal) H8045N: (black nylon) 3.0mm dia (nominal) H9650: Fluoropolymer (white) 3.5mm dia (nominal) H8028: PVC (black): 4.25mm dia (nominal) H8069: PVC (red): 4.25mm dia (nominal)

Part Number	Ref.	Maximum Ambient Temp (°C)	Minimum Alarm Temp (°C)	Maximum Alarm Temp (°C)	Appropriate Detection Time (S)–small flame	Application
D5387-068	H8040	45	63	70	4	Internal only
D5387-368	H8040N*	45	63	70	4	Internal/External
D5387-085	H8045	45	79	95	5	Internal only
D5387-385	H8045N*	45	79	95	5	Internal/External
D5387-105	H8028	70	101	108	10	Internal/External
D5387-174	H8069	105	177	189	20	Internal/External
D5387-227	H9650	200	229	251	20	Internal/External

Note: External cables should not be installed in direct sunlight, and should be provided with a suitable cover.

*Provides Ultra Violet (UV) Stabilisation

ASTEC B.V.

Kerkweg 70
6155 KN Puth (NL)
Tel.: +31 (0)46 443 55 77
Fax: +31 (0)46 443 04 82
E-mail: info@astec.nl
Internet: www.astec.nl

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FM 00215

Kidde Fire Protection
Thame Park Road, Thame, Oxfordshire OX9 3RT
Tel: +44 (0)1844 265003. Fax: +44 (0)1844 265156. E-mail: info@kfp.co.uk Web: www.kfp.co.uk

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