RedGear Manufacturing ®

ABOUT US

Traditionally the fire industry has adapted off the shelf installation materials to install air sampling smoke and linear heat detection systems. At the request of a manufacturer and with their assistance, RedGear evaluated the installation materials for these systems, and with the assistance of the installers redesigned new, more practical installation supplies made specifically for these systems.

RedGear's new simple designs combine the best of the old with the new by eliminating the need to use multiple parts for a single mount. This results in parts that are faster and easier to install at a significantly lower cost from a single source.

CUSTOM DESIGNED FOR THE FIRE INDUSTRY

- Fire Resistant
- UL Listed
- Lowest Cost Guaranteed
- Pipe is Approved Plenum Spaces
- Meets NFPA Standards
- Designed, Built and Shipped from North Carolina, USA

MADE IN THE U.S.A

RedGear is bringing back jobs to the United States of America. We engineer, build and deliver directly from our manufacturing facility in North Carolina. We combine complex specialty chemicals to optimize the quality and performance of all of our accessories and Pipe fittings.

- Affordable
- Reliable
- Easy to Use
- Single Source

MADE IN THE USA

RedGear ®
Bringing Jobs Back To America

CONTENTS

RedGear Fire Equipment Supplies

RedGear® LHD Supplies

RedPipe Air Sampling

RedGear Manufacturing
113 Indian Trail Rd. North Bldg. 126
Indian Trail, NC 28079
Tel.: 704-839-0223

Web:**RedGearMfg.com**

MADE IN THE USA

RedGear®

Linear Heat Detection Installation Supplies

Compatible with all Linear Heat Detection Systems

- **Analog Linear Heat**
- **Digital Linear Heat**
- **Fiber Optic Linear Heat**
- **Water Leak Cable**
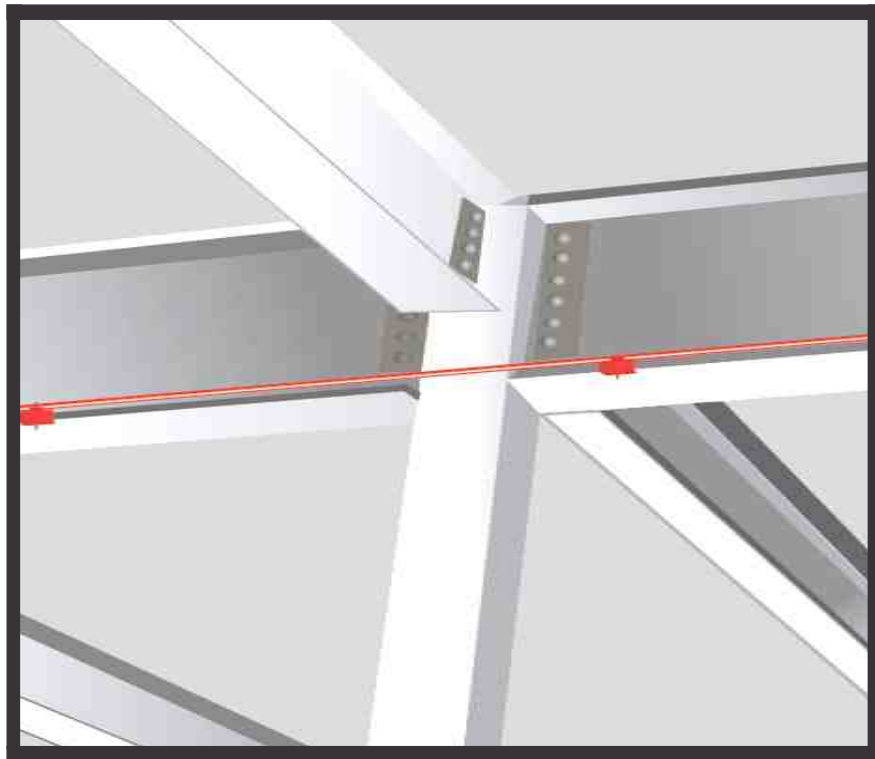
Meets NFPA Standards

Linear Heat Detection Installation Resources:

In this section you will find examples of system applications along with pertinent sections of the 2013 NFPA 72 code for your reference

(Always follow all applicable federal, local and NFPA codes along with the manufacturer's recommendations)

LHD SYSTEM EXAMPLE

1. J-Box
4. Linear Heat Detection Max. 10,000ft.
3. Strain Relief Connector
5. 3ft. (1m) Mounting Accesories 15' when using Guidewire
6. Strain Relief Connector
7. End of Line Test Box
2. Splicing Block or Quick Splice Connectors

Optional Distance Locator

System Components

1. J-Box
2. Splicing Block or Quick Splice Connector
3. Strain Relief Connector
4. Linear Hear Detection Cable
5. Mounting Accessories
6. Strain Relief Connector
7. End of Line Test Box

RedGear® Made In America

CSFM

Linear Heat National Fire Codes

Below you will find portions of the NFPA 72®, 2014 National Fire Alarm and Signaling Codes pertinent to Linear Heat detection. Please refer to the specific NFPA Code publication for additional information.

Chapter 3 Definitions

3.1 General. The definitions contained in this chapter apply to the terms used in this code.

3.3.66.11 *Line-Type Detector.* A device in which detection is continuous along a path, Typical examples are rate-of-rise pneumatics tubing detectors, projected beam smoke detectors, and heat-sensitive cable. (SIG0IDS).

10.5.3 Inspection, Testing and Maintenance Personnel. (SIG-TMS)

10.5.3.3* Service personnel shall be qualified and experienced in the inspections, testing, and maintenance of systems addressed within the scope of this Code. Qualified personnel shall include, but not be limited to, one or more of the following:

(1)*Personnel who are factory trained and certified for the specific type and brand of system being serviced.

10.4   Installation and Design

10.4.1 All systems shall be installed with in accordance with the specifications and standard approved by the authority having jurisdiction.

Chapter 14 Inspection, Testing and Maintenance

14.2.2.1.1 Inspection, testing, and maintenance programs shall satisfy the requirements of this code and conform to the equipment manufacturer's published instructions.

14.2.2.1.2 Inspection, testing, and maintenance programs shall verify correct operation of the system.

14.4.2   Test Methods

Heat test shall be preformed with a heat source per the manufacturer's published instructions. A test method shall be used that is specified in the manufacturer published instructions for the installed equipment, or other method shall be used that will not damage the non-restorable fixed temperature element.

Chapter 17   Initiating Devices

17.5 Requirements for Smoke and Heat Detectors

17.6 Heat-Sensing Fire Detectors

(d) Heat detectors
(1) Fixed Temperature, rate of rise, rate of compensation, restorable line, spot type (excluding pneumatic tube type)

17.6.2 Temperature

17.6.2.1 Classification. Heat-sensing fire detectos of fixed-temperature or rate-comensated, spot type shall be classified as to th temperature of operation in accordance with Table 17.6.2.1.

Table 17.6.2.1 Temperature Classification and Color Code for Heat Sensing Fire Detectors

Temperature Classification	Temperature Rating Range		Maximum Ceiling Temperature		Color Code
	°F	°C	°F	°C	
Low*	100–134	39–57	80	28	Uncolored
Ordinary	135–174	58–79	115	47	Uncolored
Intermediate	175–249	80–121	155	69	White
High	250–324	122–162	230	111	Blue
Extra high	325–399	163–204	305	152	Red
Very extra high	400–499	205–259	380	194	Green
Ultra high	500–575	260–302	480	249	Orange

*Intended only for installation in controlled ambient areas. Units shall be marked to indicate maximum ambient installation temperature.

17.6.3 Location and Spacing

17.6.3.1 Smooth Ceiling

17.6.3.1.1* Spacing. One of the following requirements shall apply:

(1) The distance between detectors shall not exceed their listed spacing and there shall be detectors within a distance of one-half the listed spacing, measured at right angles from all walls or partitions extending upward to within the top 15 percent of the ceiling height.
(2) All points on the ceiling shall have a detector within a distance equal to of less than 0.7 times the listed spacing (0.7S).

17.6.3.1.3.1* Unless otherwise modified by 17.6.3.2.2, 17.6.3.3.2, or 17.6.3.7, spot-type heat-sensing fire detectors shall be located on the ceiling not less than 4 in. (100 mm) from the sidewall or on the sidewalls between 4in and 12 in. (100 and 300 mm) from the ceiling.

17.6.3.3. Beam Construction

17.6.3.3.1 Spacing

17.6.3.3.1.1 A ceiling shall be treated as a smooth ceiling if the beams project no more than 4 in (100 mm) below the ceiling.

17.6.3.3.1.2 Where the beam project more than 4 in. (100 mm) below the ceiling, the spacing, the spacing of spot-type heat detectors at right angles to the direction of beam travels shall be not more than two thirds of the listed spacing.

17.6.3.3.1.3 Where the beams project more than 18 in. (460 mm) and are not more than 96 in (2.44 m) on center each bay formed by the beams shall be treated as a separate area.

17.6.3.3.2 Location. Where the beams are less than 12 in. (300 m) in depth and less that 96 in (2.44 m) on center, detectors shall be permitted to be installed on the bottoms of beams.

17.6.3.4* Sloping Ceilings (Peaked and Shed).

17.6.3.4.1 Spacing.

17.6.3.4.1.1 Ceiling Slope Less Than 30 Degrees. For a ceiling slope of less than 30 degrees, all detectors shall be spaced using the height at the peak.

17.6.3.4.1.3 Spacing shall be measured along a horizontal projection of the ceiling in accordance with the type of ceiling construction.

17.6.3.4.2 Location.

17.6.3.4.2.1 A row of detector shall first be located at or within 36 in. (910 mm) of the peak of the ceiling.

17.6.3.4.2.2 Additional detectors shall be located as determined in 17.6.3.4.1.

17.6.3.5 High Ceilings.
17.6.3.5.1* On ceilings 10 ft to 30 ft (3.0 m to 9.1 m) high, heat detector spacing shall be reduced in accordance with Table 17.6.3.5.1 prior to any additional reductions for beams, joists, or slope, where applicable.

Exception: Table 17.6.3.5.1 shall not apple to the follow detectors, which reply on the integration effect:
(1) Line-Type electrical conductivity detectors (see 3.3.66.11)
In these cases, the manufacturer's published instructions shall be followed for appropriate alarm point and spacing.
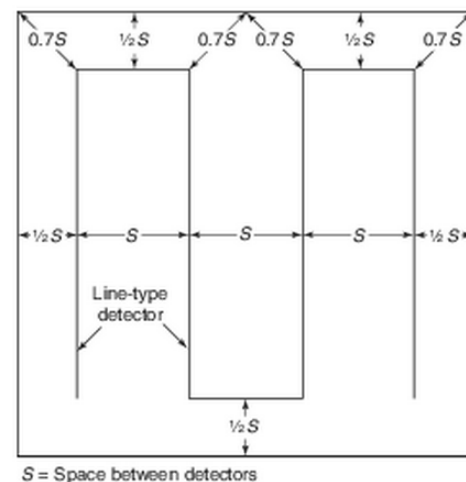
Table 17.6.3.5.1 Heat Detector Spacing Reduction Based on Ceiling Height

Ceiling Height Greater than (>)		Up to and Including		Multiply Listed Spacing by
ft	m	ft	m	
0	0	10	3.0	1.00
10	3.0	12	3.7	0.91
12	3.7	14	4.3	0.84
14	4.3	16	4.9	0.77
16	4.9	18	5.5	0.71
18	5.5	20	6.1	0.64
20	6.1	22	6.7	0.58
22	6.7	24	7.3	0.52
24	7.3	26	7.9	0.46
26	7.9	28	8.5	0.40
28	8.5	30	9.1	0.34

17.6.3.5.2* Spacing Minimum. The minimum spacing of heat detectors shall not be required to be less than 0.4 times the height of the ceiling.

Annex A Explanatory Material.

FIGURE A 17.6.3.1.1 (b) Line-Type Detector - Spacing Layouts, Smooth Ceiling.

FIGURE A.17.6.3.1.1(b)   Line-Type Detectors — Spacing Layouts, Smooth Ceiling.

National Fire Protection Assoication
The authority on fire, electrical and building safety

Examples

MADE IN THE USA

ADDRESSABLE SYSTEM

ADDRESSABLE SYSTEM

Alarm/Release

JBox

Linear Heat Detection Cable

Max. 10,000' per Zone

3' Support Spacing

Annunciation

Contact Monitor Module

Releasing

Addressable Fire Alarm Releasing Panel

Optional Zone Class "A" Return

ONE LINEAR HEAT DETECTION SYSTEM PER CONTACT MONITOR MODULE

CONVENTIONAL SYSTEM

CONVENTIONAL SYSTEM

Alarm/Release

JBox

Linear Heat Detection Cable

Leader Wire
Min. 18 AWG
18,000 ft.

Max. 10,000' per zone

3' Support Spacing

Annunciation

Releasing

Or Any Fire Alarm Releasing Panel

Optional Zone Class "A" Return

ONE LINEAR HEAT DETECTION SYSTEM PER ZONE ON PANEL

Examples

MADE IN THE USA

RACK STORAGE

Sprinkler Pipe

LHD Cable

Sprinkler Pipe
LHD Cable

Double Loop Cable Tie pg. 15

Mount 3' (1m)

OR

Freezer or Rack Mount pg. 18

FLUE

Attach to sprinkler pipe mounting attaching cable every 3' (1m).
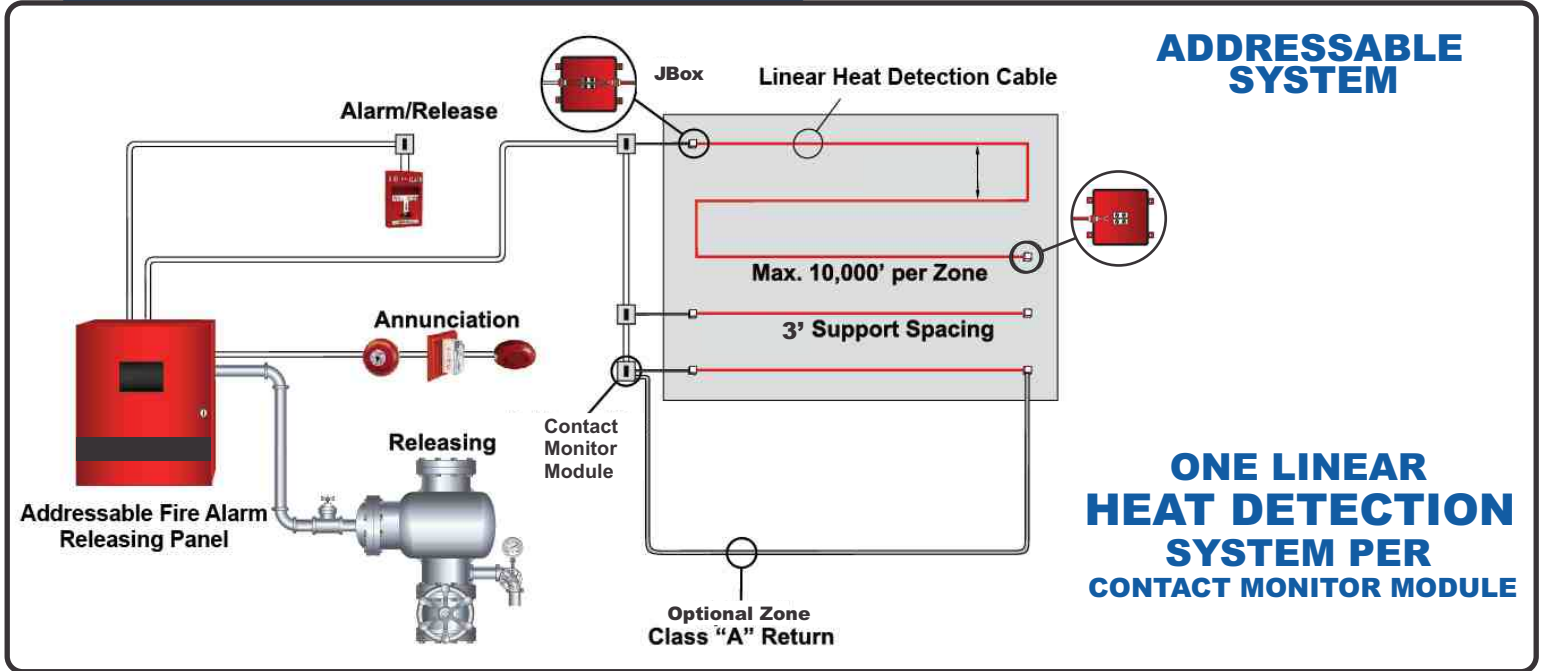
CONVEYORS

RedGear®
Made In America

RedGear®
Guidewire/Messenger Wire Support Supplies

There are **four** areas you could use linear heat detection to protect a conveyor from different fire scenarios

Hood over conveyor collects heat to decrease response time

18" maximum between LHD Cable and load height

Protection from material fire
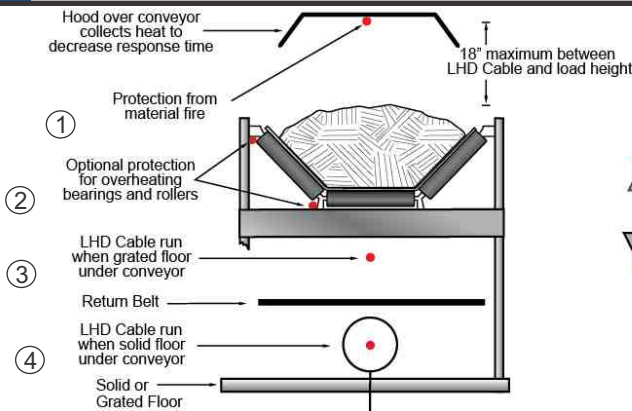
①

Optional protection for overheating bearings and rollers

②

LHD Cable run when grated floor under conveyor

③

Return Belt

LHD Cable run when solid floor under conveyor

④

Solid or Grated Floor

Mount 3' (1m)

Tightens from Both Ends

15' (4.6m) Mounting when using Guidewire/Messenger Wire

New easy to use Tensioner, tighten with a drill and socket.

Linear Heat Detection Zone

Splice, End of Line or Jbox

Jbox or Test Switch

LINEAR HEAT DETECTION

pg. 39

POWER GENERATION   **COOLING TOWERS**

Examples

MADE IN THE USA

GENERATORS

RedGear®

Universal Surface Mount
with built in Cable Tie
Fire Resistant

pg. 20

**Can be mounted with
screw or adhesive.**
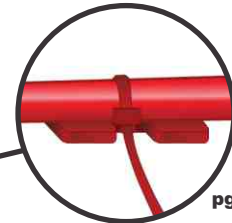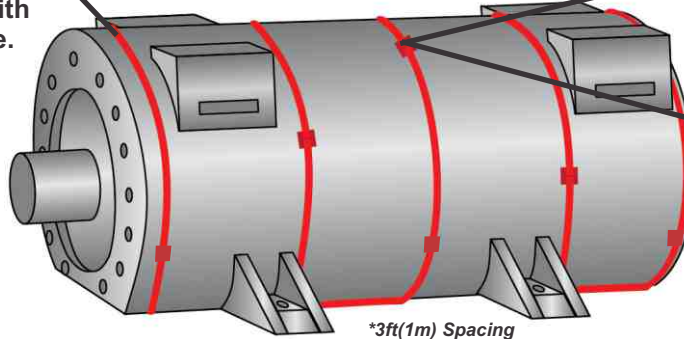
pg. 20

**Mount every
3'(1m) and
at every change
with direction**

pg. 20

Surface Adhesive

3ft(1m) Spacing

TUNNELS

RedGear®
Made In America

Zone 3

Equipment Room

J-Box

Zone 1

LHD Cable — Up to 10,000 ft. per Zone

Zone 1

Leader Wire

Fire Alarm Control Panel

Control Room
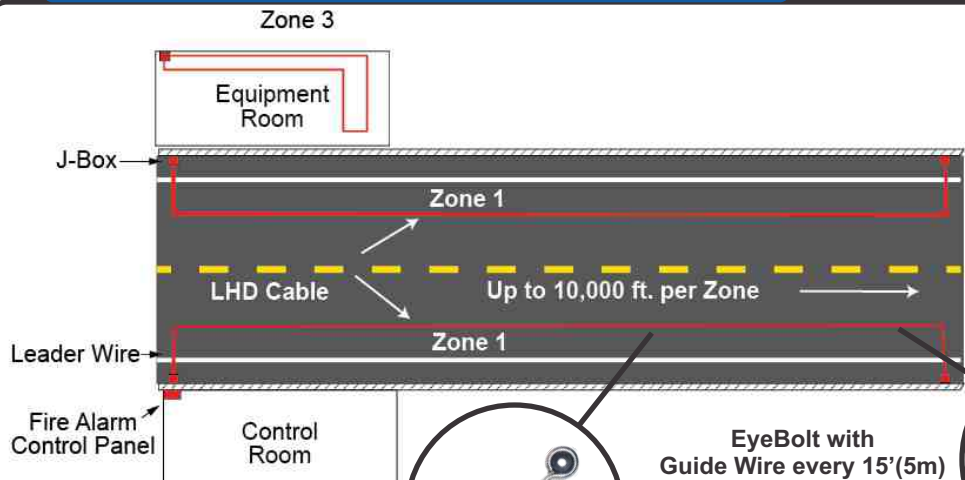
CABLE CLIP TIE

**EyeBolt with
Guide Wire every 15'(5m)**

OR

Cable Clip Ties
every 3'(1m).

pg. 24

pg. 16

RedGear®

Cable Clip Tie
One Piece Cable Clip, All
in one Design.
Fire Resistant

BRIDGES   **PARKING GARAGES**

Examples

MADE IN THE USA
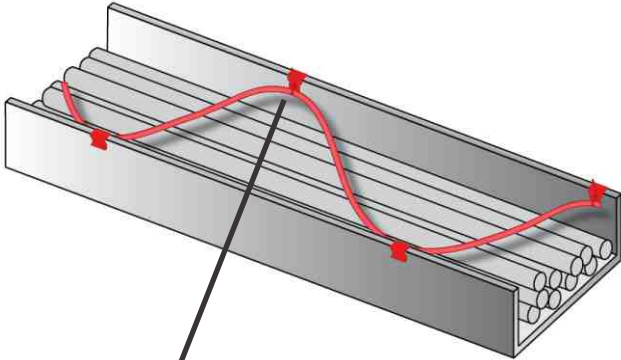
CABLE TRAYS

RedGear®
Cable Tray Clip
One Piece with built-in Cable tie
Fire Resistant
pg. 19
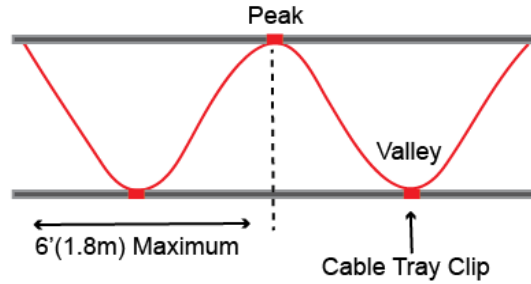
Peak

Valley

6'(1.8m) Maximum

Cable Tray Clip

Cable Tray Length divided by Width Coefficient = Total Length of LHD Cable

Determine the number of clips you need by dividing the length of the cable tray by 3, then add 1.

Cable Tray Width	Width Coefficient
1'6"(.5m)	.87
2'(.6m)	.78
3'(.9m)	.65
4'(1.2m)	.57

Sine Wave Calculation for Cable Tray to determine amount of cable required

FLOATING ROOF TOP TANKS

RedGear®
Made In America

To Determine Cable Amount:
2πr
2 x 3.14 x r =C
r=Radius C=Circumference
Ex. (2 x 3.14 x 40 =252ft of cable)

40=r

ISB
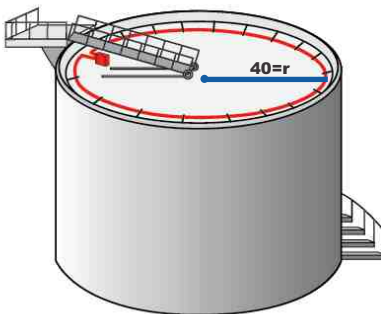
FACP

J-Box
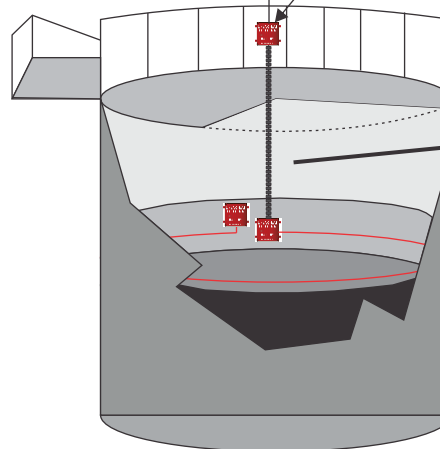
Recoiling Leader Cable
pg. 24

RAILWAYS   **OIL STORAGE**

GUARANTEED
FREE
SHIPPING
MIN. $500 ORDER
DOMESTIC ONLY

RedGear®
Linear Heat Detection
Installation Supplies
Compatible with all Linear Heat Detection Systems

MADE IN THE USA

FEATURES

- ■ **UL Listed**
- ■ **Fire Resistant**

- ■ **Direct from Manufacturer**
- ■ **Easier to Install**

- ■ **Higher Quailty**
- ■ **New "All in One" Designs**

CSFM

UL

CE
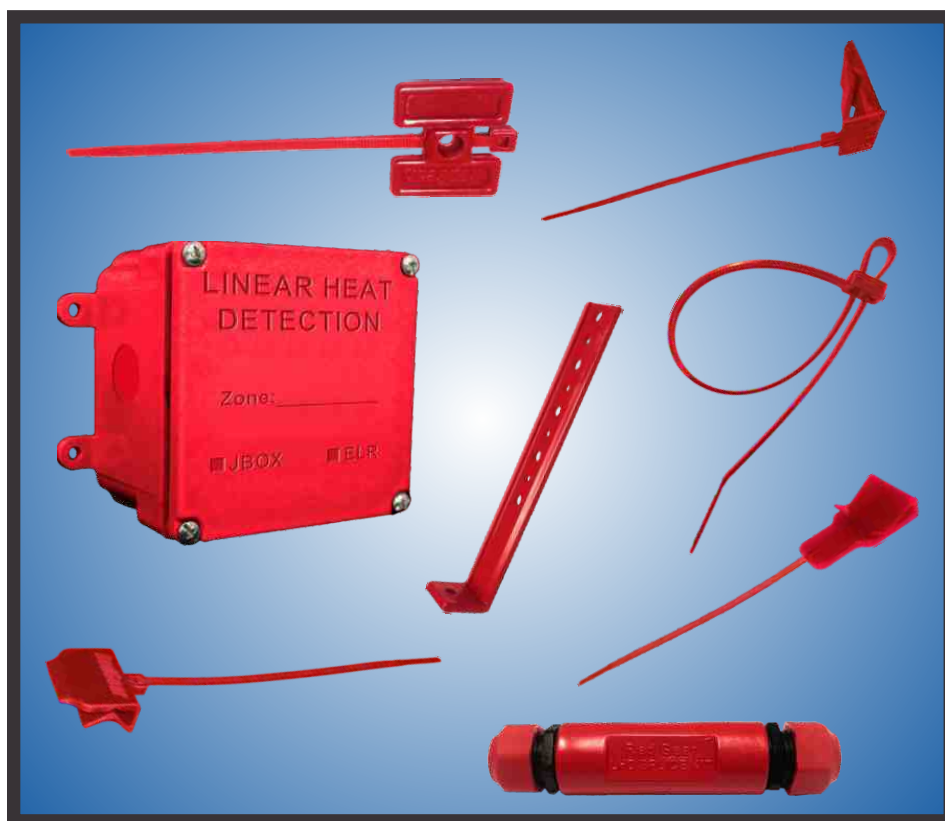
Meets NFPA Standards

J-BOXES

No more Hole Saws Needed
New EZ Knockouts

Text Imprinted Covers

LINEAR HEAT DETECTION
Zone: _____
☒ J-BOX ☐ ELR
www.RedGearMfg.com

NO MORE DRILLING

NOTE: Text on product is not White

Spaces on cover to mark if the box is the J-Box or end of line

Strain Relief Connector

3' (1 m) Mounting
15' (4.6m) when Using Support Cable

Strain Relief Connector

Quick Splice In Line Connector or Screw Terminals

JBox

JBox ELR
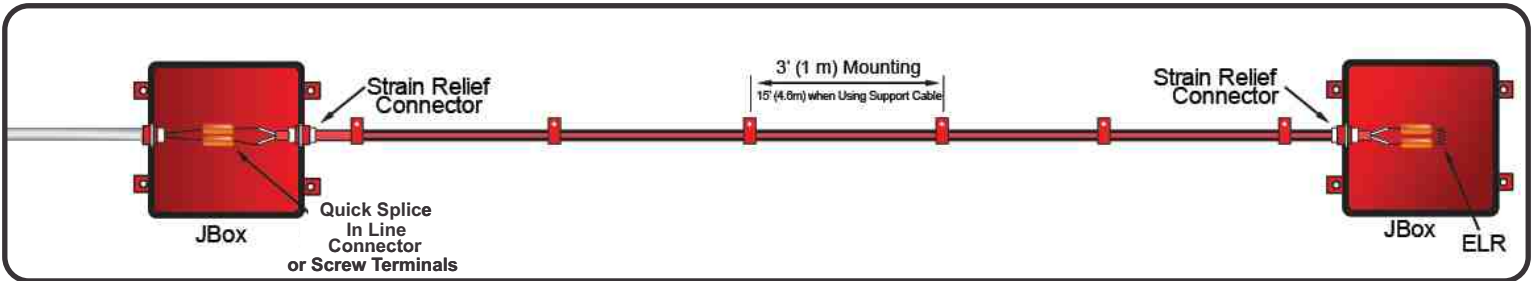
EASY TO USE:

NO MORE HOLE SAWS

NOTE: Text on product is not White

NEW EZ KNOCKOUTS

NO HOLE SAWS
REQUIRED

NEMA 4   (IP66)
NEMA 6P (IP68)
NEMA 4X (IP67)

ACCESSORIES

RedGear ®

1 wire 2 wire 6 wire In-Line
A   B   C   D

RedGear ®
Strain Relief Connectors
Nylon Part #: RG1110

Strain Relief Connectors
Zinc Part# : RS7030

Connectors
For Cable splices and connections in J/ELR-Boxes and HDJ/ELR-Boxes.
A. Screw Terminal Part #: RS7072

B. Screw Terminal Part#: RS7041

FIRE RESISTANT
Nylon 6.6
½" Strain relief connector is designed to secure wire entering or exiting a JBox.

½" strain relief connector is designed to secure wire entering or exiting a JBox.

C. Screw Terminal Part #: RS7047

D. Quick Splice In-Line Connector Part #: RG1127

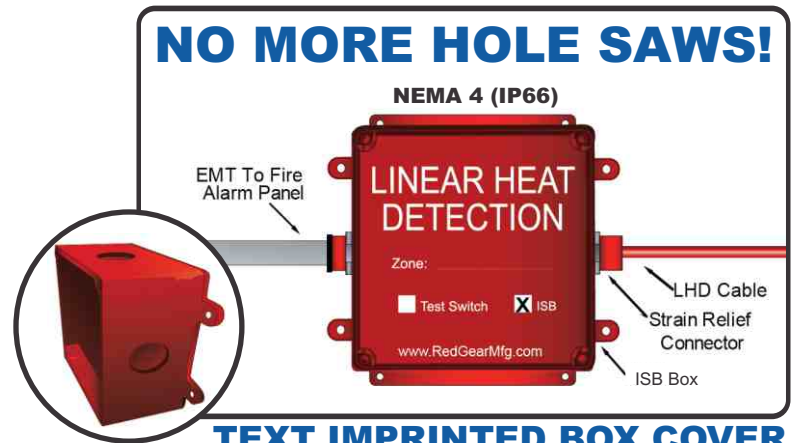*NOTE: Used in both RedGear and Standard JBoxes*

JBOX/EOL Box

RedGear ® JBox Part #: RG5222
FIRE RESISTANT & EZ KNOCKOUTS
Dim.: 4" x 4" x 2" (10cm x 10cm x 5cm) Easy to use JBox requires Screw Terminal or in line connectors and Strain Relief Connectors for installation. Has ½" and 3/4" knockouts. Use at the beginning and end of line of LHD systems.

RedGear ®
RedGear ® JBox
Part #: RG5222

ISB MODULE

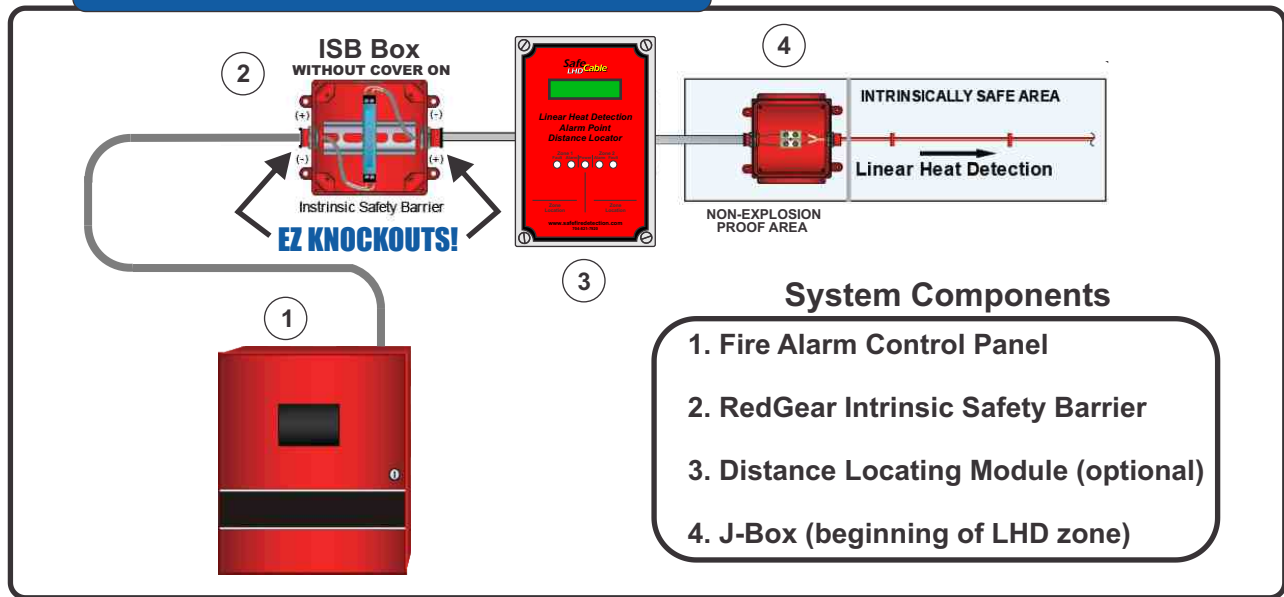*Pre-assembled Intrinsic Safety Barriers for use with LHD, fire alarm, flame detectors, and system in hazardous areas*

NO MORE HOLE SAWS!

NEMA 4 (IP66)

EMT To Fire Alarm Panel

LINEAR HEAT DETECTION

Zone:

☐ Test Switch   ☒ ISB

www.RedGearMfg.com

LHD Cable
Strain Relief Connector
ISB Box

TEXT IMPRINTED BOX COVER
NOTE: Text on product is not White

ISB SYSTEM EXAMPLE

ISB Box
WITHOUT COVER ON

(+)   (-)
(-)   (+)

Instrinsic Safety Barrier

EZ KNOCKOUTS!

Linear Heat Detection
Alarm Point
Distance Locator

INTRINSICALLY SAFE AREA

Linear Heat Detection

NON-EXPLOSION PROOF AREA

System Components

1. **Fire Alarm Control Panel**

2. **RedGear Intrinsic Safety Barrier**

3. **Distance Locating Module (optional)**

4. **J-Box (beginning of LHD zone)**

REPLACEMENT SAFETY BARRIERS

ADDRESSABLE

Standard Intrinsic Safety Barrier

Addressable Part #: RS7124

For Explosive Hazard applications
1 per zone 35mm DIN rail mounting
Requires enclosure, and DIN rail, not included.

CONVENTIONAL

Standard Intrinsic Safety Barrier

Conventional Part #: RS7122

For Explosive Hazard applications
1 per zone 35mm DIN rail mounting
Requires enclosure, and DIN rail, not included.

Note: Intrinsic Safety Barriers are non-restorable. Once activated the Barrier will need to be replaced

PRE-ASSEMBLED INTRINSIC SAFETY BARRIER

CONVENTIONAL

RedGear **Conventional Intrinsic Safety Barrier**
Part #: RG5224

Fire Resistant
NEMA 4 (IP66)
Includes ISB and DIN rail.
Ready to Use.
For Explosive Hazard applications;
1 per zone.
Dim.: 4 5/8" x 4 5/8" x 4 1/8" (11.74cm x 11.74cm x 10.47 cm)

RedGear
EZ KNOCKOUTS

ADDRESSABLE

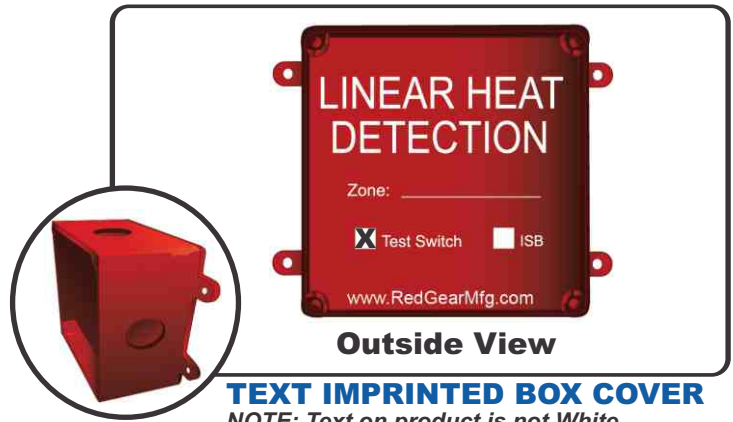**RedGear** **Addressable Intrinsic Safety Barrier**
Part #: RG5225

Fire Resistant
NEMA 4 (IP66)
Includes ISB and DIN rail.
Ready to Use.
For Explosive Hazard applications;
1 per zone.
Dim.: 4 5/8" x 4 5/8" x 4 1/8" (11.74cm x 11.74cm x 10.47 cm)

TEST SWITCH

New easy to use test switch, no more complicated hard wired boxes Now just flick of a switch
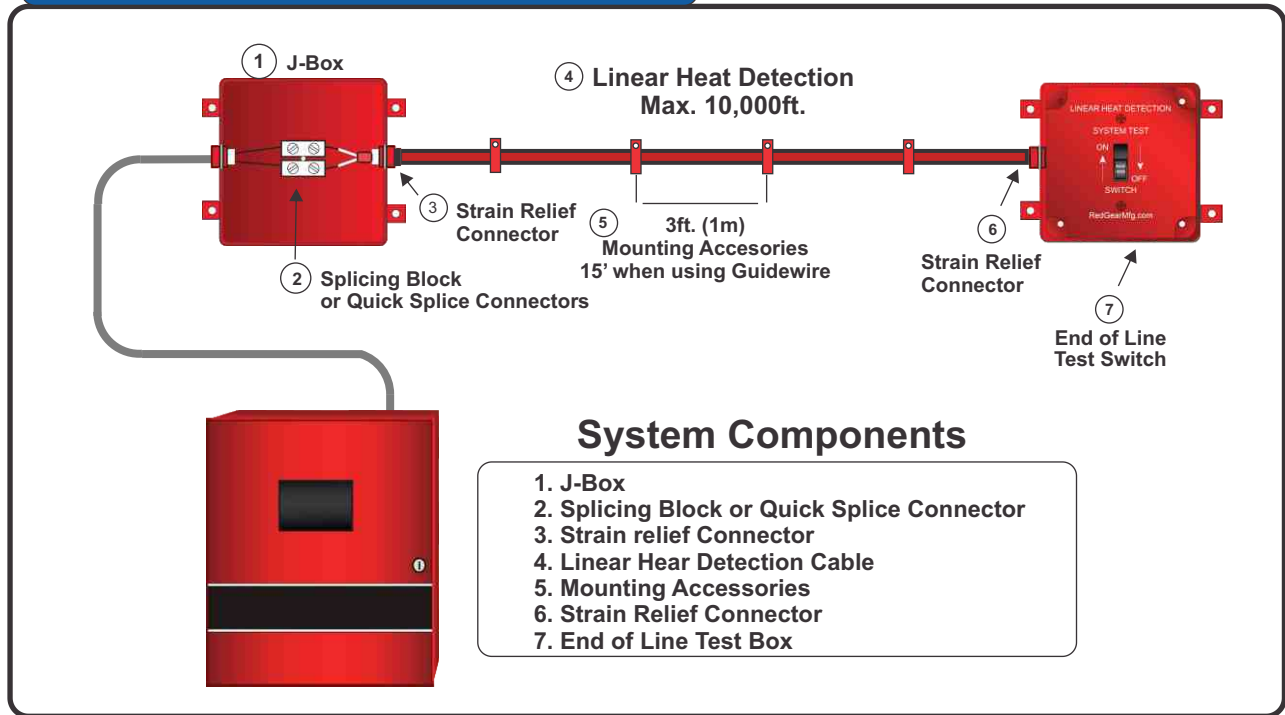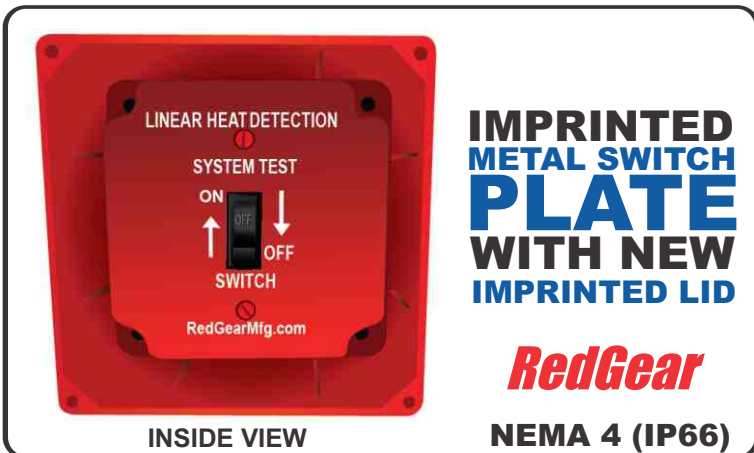
New EZ Knockouts

LINEAR HEAT DETECTION

Zone: _____

☒ Test Switch ☐ ISB

www.RedGearMfg.com

Outside View

TEXT IMPRINTED BOX COVER
NOTE: Text on product is not White

LHD SYSTEM EXAMPLE

1. J-Box

④ Linear Heat Detection Max. 10,000ft.

LINEAR HEAT DETECTION
SYSTEM TEST
ON
OFF
SWITCH
RedGearMfg.com

③ Strain Relief Connector

⑤ 3ft. (1m) Mounting Accesories 15' when using Guidewire

⑥ Strain Relief Connector

② Splicing Block or Quick Splice Connectors

⑦ End of Line Test Switch

System Components

1. J-Box
2. Splicing Block or Quick Splice Connector
3. Strain relief Connector
4. Linear Hear Detection Cable
5. Mounting Accessories
6. Strain Relief Connector
7. End of Line Test Box

NEW EZ To Use Test Switch

LINEAR HEAT DETECTION
SYSTEM TEST
ON OFF
SWITCH
RedGearMfg.com

INSIDE VIEW

IMPRINTED METAL SWITCH PLATE WITH NEW IMPRINTED LID

RedGear

NEMA 4 (IP66)

END OF LINE TEST SWITCH

Outside View

Inside View

RedGear EZ KNOCKOUTS

RedGear HD/ELR-Test Switch
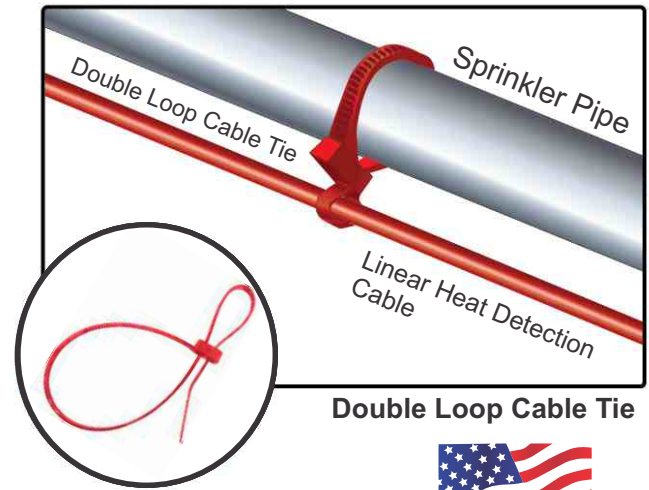Part #: RG5223

FIRE RESISTANT & EZ KNOCKOUTS
Easy to use, Test switch has ½" and 3/4" knockouts. Test Switches are placed at the end of a LHD run and are used for commissioning, system inspections, and testing of the system. Used at the end of an LHD system instead of a J/ELR-box.
Dim.: 4 5/8" x 4 5/8" x 4 1/8" (11.74cm x 11.74cm x 10.47 cm)

CABLE TIES

New RED nylon 6.6 fire resistant cable ties; multiple sizes for use with pre-action sprinkler systems and other applications

Double Loop Cable Tie
Sprinkler Pipe
Linear Heat Detection Cable

Double Loop Cable Tie

Higher Quality ▪ Lower Cost

MADE IN THE USA

UNIVERSAL SMALL SINGLE LOOP TIE

RedGear ® Small Single Loop Cable Ties

Part #: RG1114C 100/pk

Part #: RG1114M 1000/pk

Fire Resistant Nylon 6.6
Used to fasten LHD Cable to a Surface Mount Part#: RS7054C or a Large Single Loop Cable Tie Part#:RS7064L For cold and warm environments. Rated from -100°F to 392°F(-73°C to 200°C).
Length: 5 1/5" (13.21 cm)

PRE ACTION SPRINKLER PIPE DOUBLE LOOP

RedGear ® Pre Action Double Loop Cable Ties

Part #: RG1112C 100/pk

Part #: RG1112M 1000/pk

3/4"- 2"

Fire Resistant Nylon 6.6
Very durable, highly reliable cable ties, use to mount LHD cable on Pre-Action Sprinkler Systems
Fits 3/4"-2" (2cm-5cm) Pipe.
For cold and warm environments. Rated from -100°F to 392°F(-73°C to 200°C).

UNIVERSAL LARGE SINGLE LOOP TIE

Standard Extra Large Single Loop Cable Ties

Part #: RS7064L 50/pk

Nylon
Fits 4" to 6" (10cm - 15cm) pipe Fasten cable to a small Single Loop Tie Part#: RG1114C or RG1114M. For cold and warm environments. Rated from -7°F to 185°F(-60°C to 85°C).
Length: 24 3/4" (62.87 cm)

Note: RS7064L is black in color

PRE ACTION SPRINKLER PIPE DOUBLE LOOP

RedGear ® Pre Action Double Loop Cable Ties

Part #: RG1113C 100/pk

Part #: RG1113M 1000/pk

2 ½" - 3 ½"

Fire Resistant Nylon 6.6
Fits 2½" - 3½" (6cm - 8.9cm) Pipe
Very durable, highly reliable cable ties use for cable ties, to mount LHD cable on Pre-Action Sprinkler Systems. For cold and warm environments. Rated from -100°F to 392°F(-73°C to 200°C).
Length: 14 7/8" (37.78 cm)

New
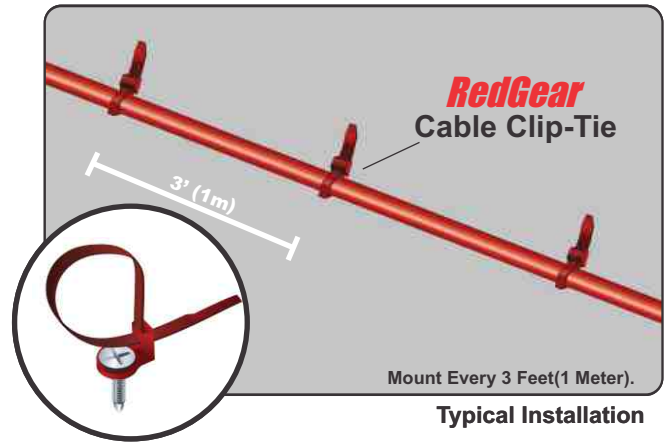
UNIVERSAL CABLE CLIP-TIE

For use in all applications,

No More Need to Buy Multiple Parts

RedGear Cable Clip-Tie

3' (1m)

Mount Every 3 Feet(1 Meter).

Typical Installation

1 Piece Cable Clip-Tie

LESS LABOR TIME AND COST

ONE SIZE FITS ALL

NEW 2 IN 1 MOUNTING CLIP

Cable Clip and Cable Tie All In One!

FIRE RESISTANT

No More Need to Buy Multiple Parts!

OLD STYLE CABLE CLIPS

Standard Cable Clip

Black Nylon 6.6 rated from -7°F to 185°F(-60°C to 85°C)3/16" (4.8mm) mounting hole. Cable clips may be used for ceiling or wall mount applications, as well as at corners.

Part #: RS7049C 100/pk

Part #: RS7049M 1000/pk

Metal Cable Clip

Zinc plated steel cable clip.1/4"(6.4mm) mounting hole. For all temperatures.

Part #: RS7050C 100/pk

Standard Push Pin

Black Nylon 6.6 rated from -7°F to 185°F(-60°C to 85°C) 3/16" Secures cable clip to Beam Clamps, Cable Tray Mounting Clips and L-Brackets through 3/16" mounting hole.

Part #: RS7070 25/pk

2 IN 1 CABLE CLIP-TIE

RedGear Cable Clip-Tie

Fire Resistant Nylon 6.6
Rated from -100°F to 392°F(-73°C to 200°C). 3/16" (4.8mm) mounting hole. Used for most ceiling or wall mount applications.
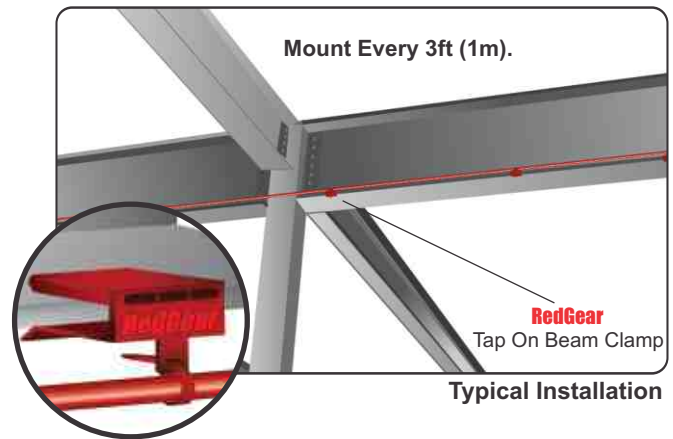
RedGear®

Part #: RG1116C 100/pk

Part #: RG1116M 1000/pk

BEAM CLAMPS

The first tap on beam clamp that does the job of three parts

Built-in Cable Tie

Mount Every 3ft (1m).

RedGear
Tap On Beam Clamp

Typical Installation

Now 1 Part Does The Work of 3

LESS LABOR TIME AND COST

RedGear
Tap On Beam Clamp

OLD STYLE BEAM CLAMPS

(Note: Requires Cable Clip and Push Pin)

Standard Beam Clamp Zinc Plated Steel

For material thickness up to 7/8"(22.2mm.)   **Part #: RS7052L 50/pk**

Standard Beam Clamp Spring Steel

For material thickness up to ½" (12.7mm.)   **Part #: RS7051C 100/pk**

Standard Hammer on Beam Clamp

                                                    Part #: RS7060C (1/8"-1/4") 100/pk

Spring Steel
1/8" to 1/4" (3.2 - 6.4mm) material thickness   **Part #: RS7061C (5/16"-½"100/pk)**
5/16" to 1/2"(7.9 - 12.7mm) material thickness

NEW 3 IN 1 BEAM CLAMP

RedGear®
MADE IN AMERICA

RedGear Beam Clamp (with Built-in Cable Tie)

Fire Resistant Nylon 6.6
Combines a beam clamp and cable tie all in one for easy use. Rated from -100°F to 392°F(-73°C to 200°C).

Size: 1/4", 5/16", 3/8"   **Size: 7/16", 1/2"**
Part #: RG1117L 50/pk   **Part #: RG1118L 50/pk**
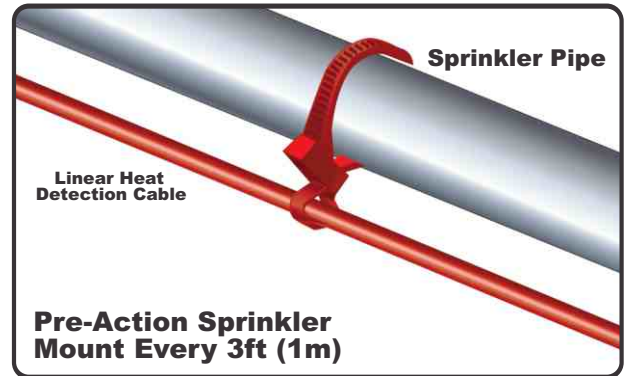
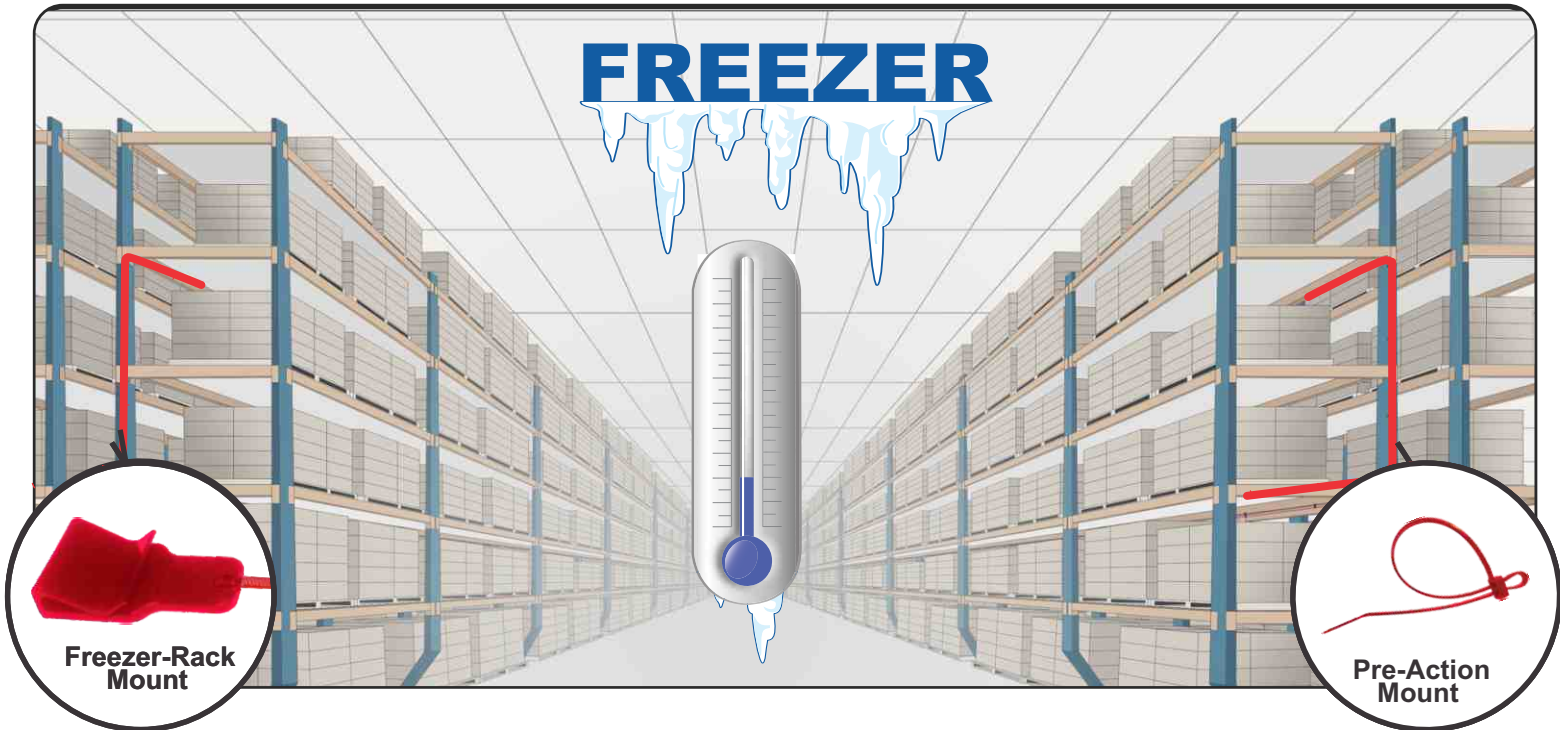**Part #: RG1117C 100/pk**   **Part #: RG1118C 100/pk**

FREEZER MOUNTS

New push on rack mount with built-in cable tie and double loop pre-action sprinkler pipe cable ties
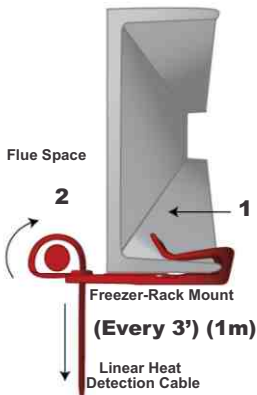
Reduce Installation Time

Sprinkler Pipe

Linear Heat Detection Cable

Pre-Action Sprinkler Mount Every 3ft (1m)

FREEZER

Freezer-Rack Mount

Pre-Action Mount

FREEZER RACK MOUNTS

3" C Channel Rack Mount:

1 Push mount on rack.

2 Secure Linear heat detection cable with built-in cable tie.

Flue Space

2

1

Freezer-Rack Mount

(Every 3') (1m)

Linear Heat Detection Cable

RedGear Freezer-Rack Mount

Fire Resistant Nylon 6.6
Very Durable, cold resistant mount for use in freezers. Mount on C channel in the back of flue space as shown. Rated from -100°F to 392°F(-73°C to 200°C).

Part #: RG1128C 100/pk

Part #: RG1128M 1000/pk

FREEZER PREACTION MOUNTS

3/4"- 2"

RedGear Pre Action Double Loop Cable Ties

Fire Resistant Nylon 6.6
Very durable, highly reliable cable ties, use to mount LHD cable on Pre-Action Sprinkler Systems
Fits 3/4"-2" (2cm-5cm) Pipe.
For cold and warm environments. Rated from -100°F to 392°F(-73°C to 200°C).
Length: 11 7/8" (30.16cm)

Part #: RG1112C 100/pk

Part #: RG1112M 1000/pk

2 ½" - 3 ½"

RedGear Pre Action Double Loop Cable Ties

Fire Resistant Nylon 6.6
Fits 2½" - 3½" (6cm - 8.9cm) Pipe
Very durable, highly reliable cable ties use for cable ties, to mount LHD cable on Pre-Action Sprinkler Systems. For cold and warm environments. Rated from -100°F to 392°F(-73°C to 200°C).
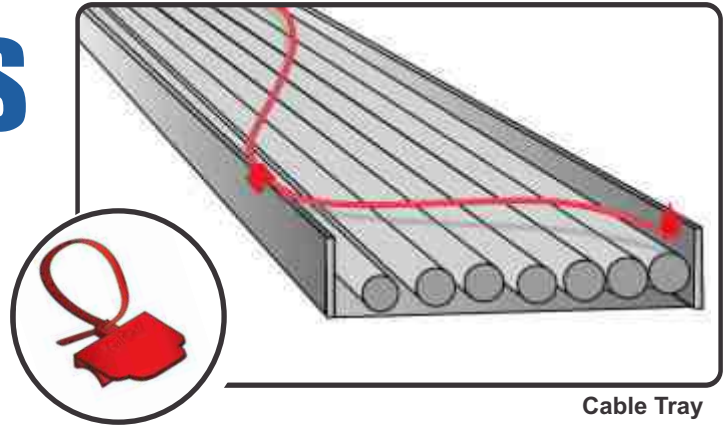Length: 14 7/8" (37.78 cm)
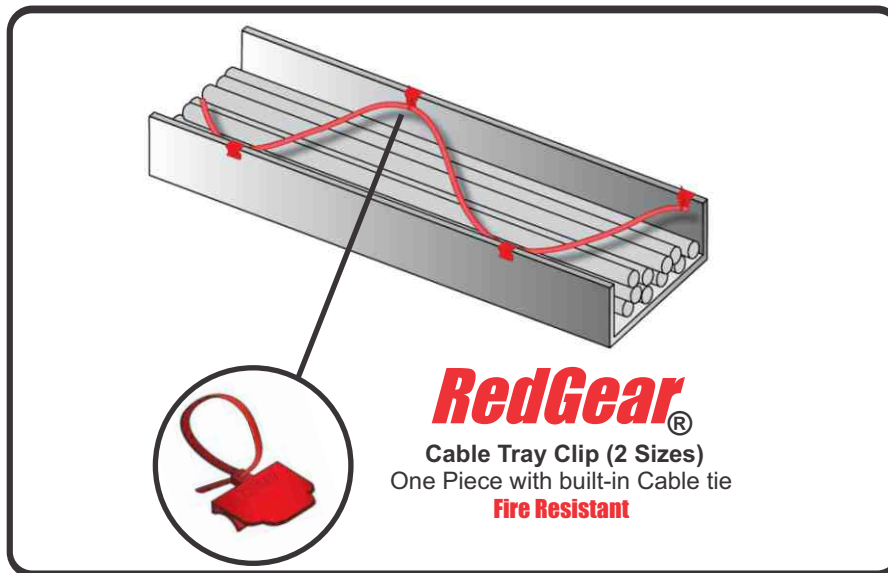
Part #: RG1113C 100/pk

Part #: RG1113M 1000/pk

CABLE TRAY CLIPS

New all in one clip does the job of what used to take three parts
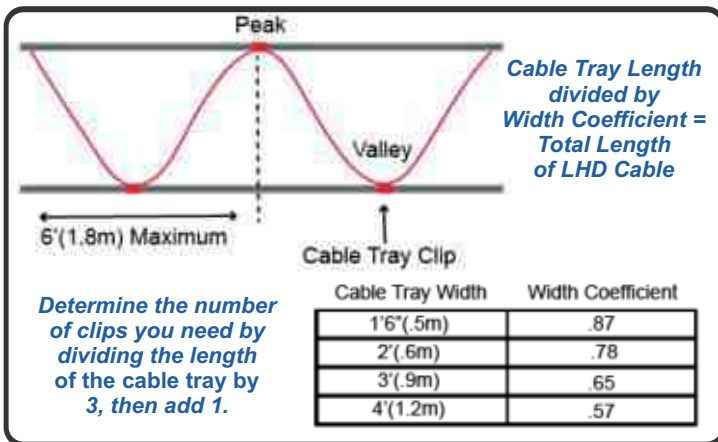
One Part Does it All

Cable Tray

RedGear®

Cable Tray Clip (2 Sizes)
One Piece with built-in Cable tie
Fire Resistant

Deep Cable Tray Clip

Don't Buy Three Parts When You Only Need One!

HOW TO MOUNT CABLE TRAY CLIPS

Peak

Valley

6'(1.8m) Maximum

Cable Tray Clip

Cable Tray Length divided by Width Coefficient = Total Length of LHD Cable

Determine the number of clips you need by dividing the length of the cable tray by 3, then add 1.

Cable Tray Width	Width Coefficient
1'6"(.5m)	.87
2'(.6m)	.78
3'(.9m)	.65
4'(1.2m)	.57

Sine Wave Calculation for Cable Tray

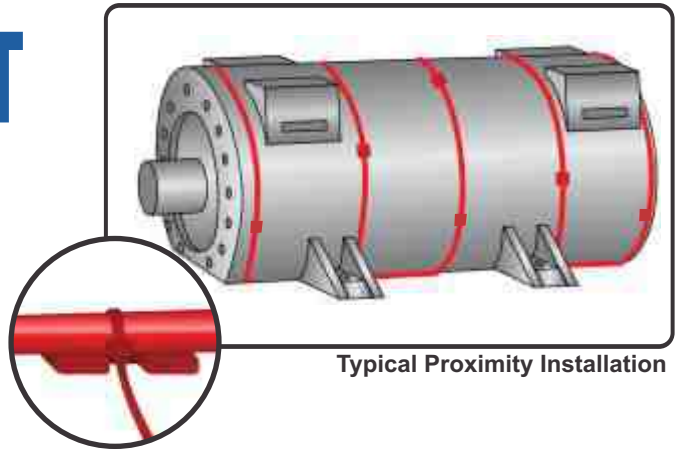### CABLE TRAY CLIP

RedGear

RedGear Cable Tray Clip

Fire Resistant Nylon 6.6
Used in cable trays to mount LHD cable. Rated from -100°F to 392°F(-73°C to 200°C).

Cable Tray
Size: 1/16"-1/4"(1.6 - 4mm)
Part #: RG1120C 100/pk

Part #: RG1120M 1000/pk

UNIVERSAL MOUNT

Surface, ceiling, racks, cabinets, walls, for use in all applications almost anywhere

Typical Proximity Installation

SURFACE MOUNT & CABLE TIE IN ONE

LESS LABOR TIME AND COST

Universal Mount   Linear Heat Detection Cable

Built-in Cable Tie

NEW 2 IN 1 UNIVERSAL MOUNT

FIRE RESISTANT
One Size Fits All LHD Cables

No More Need to Buy Multiple Parts!

SURFACE MOUNT ADHESIVE

Standard Surface Mount Adhesive

For securing Mount to surface. Used with RedGear Surface Mounts to adhere to surface that cannot be drilled into.

Part #: RS7056

2 IN 1 SURFACE MOUNT

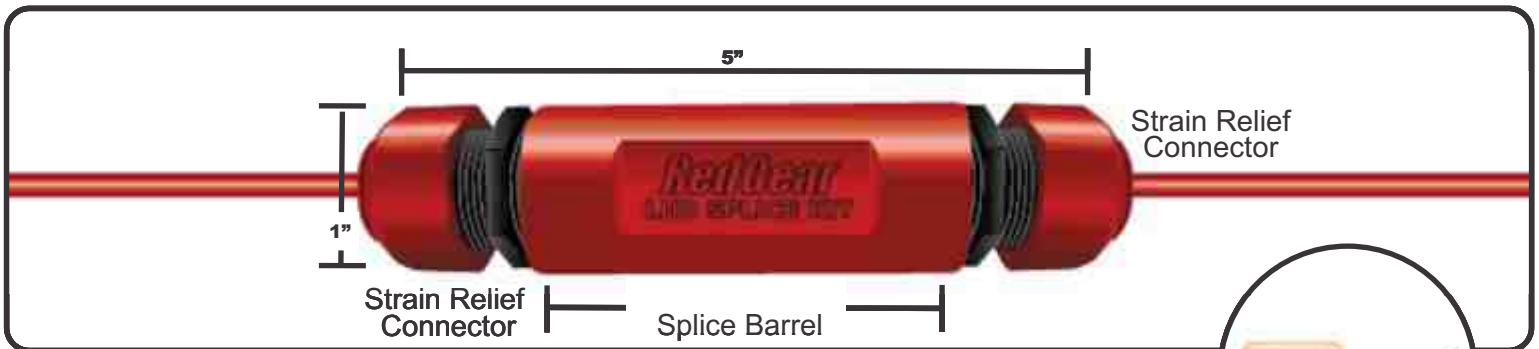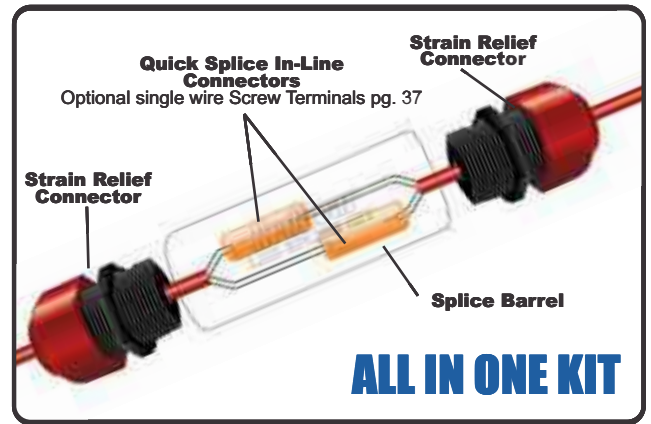**RedGear Universal Mount with Cable Tie**

Fire Resistant
Use with Surface Mount Adhesive or screws and bolts when drilling into mounting surface.
Temperature: Rated from -100°F to 392°F (-73°C to 200°C).
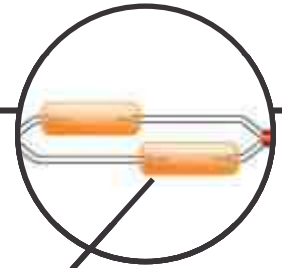
Part #: RG1123C 100/pk
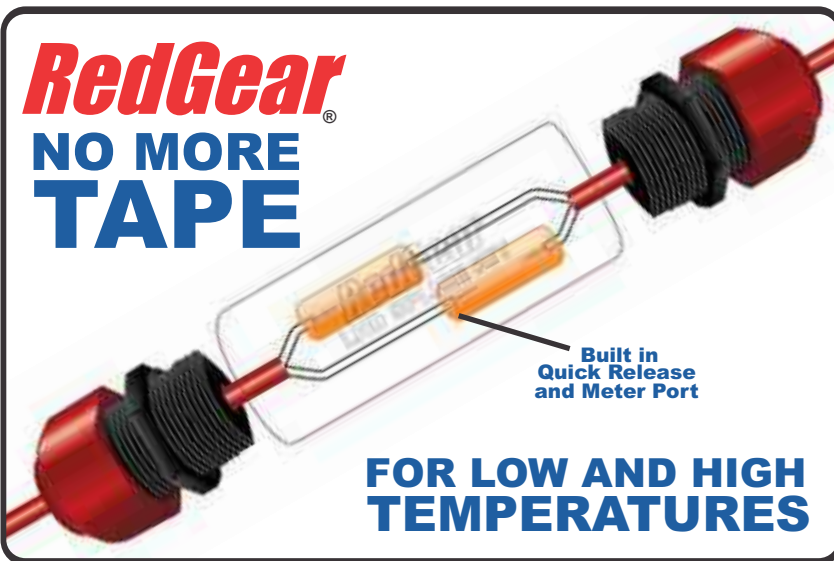
Part #: RG1123M 1000/pk

RedGear®
SPLICE KIT

No need to replace entire cable,
No tape or screws needed

Quick Splice In-Line Connectors
Optional single wire Screw Terminals pg. 37

Strain Relief Connector

Strain Relief Connector

Splice Barrel

ALL IN ONE KIT

5"

1"

Strain Relief Connector

Strain Relief Connector

Splice Barrel

NEW WEATHERPROOF SPLICE FOR LHD
USE WITH QUICK SPLICE IN-LINE CONNECTOR

Built in Quick Release and Meter Port

FAST & EASY TO INSTALL
IN DIFFICULT INSTALLATIONS

RedGear®
NO MORE
TAPE

Built in Quick Release and Meter Port

FOR LOW AND HIGH
TEMPERATURES

SPLICE KIT

RedGear®

RedGear Splice Kit

Fire Resistant
New engineered weatherproof splice kit for LHD cables. Comes with two strain relief connectors, barrel and two Quick Splice In-line Connectors. Rated from -100°F to 392°F(-73°C to 200°C).

Part #: RG1126

NOTE: Optional Single Wire Screw Terminal pg. 23
Due to offset, two point screw Terminals **WILL NOT FIT.**

MADE IN THE USA

TYPICAL SPLICE EXAMPLE:

NEW REDGEAR SPLICE KIT
NO MORE TAPE, NO MORE LEAKS

Existing Cable

Existing Cable

New Cable

WEATHERPROOF
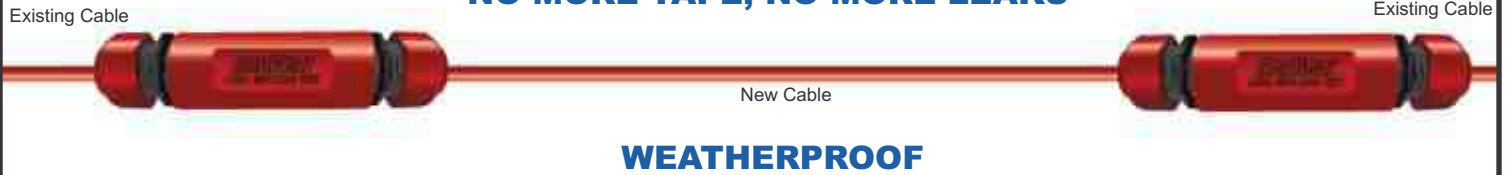
INSTRUCTIONS

1. Strip outer LHD jacket back 2"on 1st end of LHD to be spliced. Cut one of the inner conductors 1" shorter than the other. Strip the inner conductors back ½". Repeat on the other LHD cable to be spliced.

2"

½"

1"
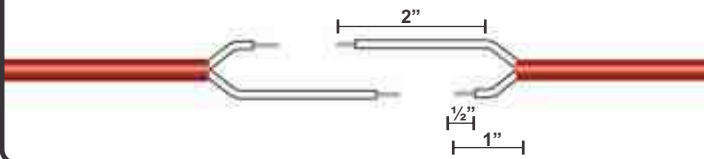
2. Slide a Strain Relief connector on the end of each LHD cable. As illustrated.

Strain Relief Connector

Strain Relief Connector
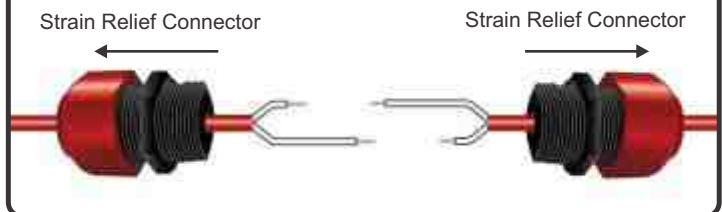
3. Quick Splice In-Line connector on two of the inner conductors on one of the LHD cable ends until it stops.

Quick Splice In-line Connector

Release/Metering Port
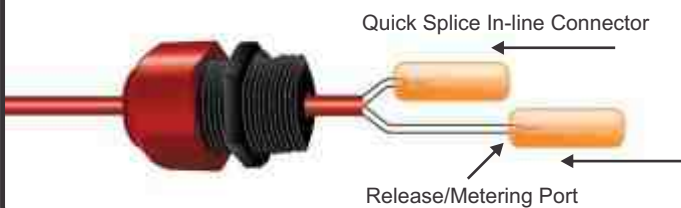
4. Slide the splice barrel onto one of the LHD cable ends.

Splice Barrel

5. Attach the other LHD cable to the opposite end of the Quick Splice In-line connectors to complete the splice.

Release/Metering Port
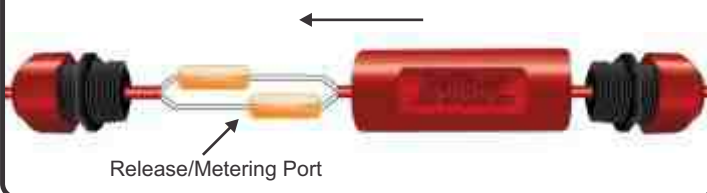
6. Screw the two strain relief connectors onto the splice barrel and tighten. You have completed your splice.

• **Note: The Quick Splice In-Line Connectors have a release and metering port for easy service.**

GUIDEWIRE/MESSENGER WIRE SUPPLIES
New Snap-In Eyebolts

Anchor Point

New easy to use ratcheting tensioner

15' (4.6m) Mounting when using Guidewire/ Messenger Wire

Insulated Snap-In Eyebolt No Grommets Needed

New easy to use ratcheting tensioner

Anchor Point

Jbolt

Jbolt

Mount The Hardware

15' (4.6m) Mounting when using Guidewire/ Messenger Wire

GuideWire/ Messenger Wire

Linear Heat Detection Cable

Snap-In The Cable

Tightens from Both Ends

15' (4.6m) Mounting when using Guidewire/ Messenger Wire

New easy to use Tensioner, tighten with a drill and socket.

Linear Heat Detection Zone

Splice, End of Line or Jbox

Tighten

Jbox or Test Switch

LINEAR HEAT DETECTION

NO MORE PRE-THREADING EYE BOLTS ON CABLE
Easy to use Tensioners ● No more grommets or Turnbuckles

INSULATED EYE BOLTS

4.5"

Insulated Snap-In Eyebolt
Zinc Plated or Stainless Steel
No Grommets Needed

For suspending LHD Cable every 15'.
Includes one 1/4" X 20 (6.4mm) nut. Second nut required to lock #RS7066ZC OR #RS7066SC.
Length: 4.5"

Part #: RG1130X (ZINC) 10/pk

Part #: RG1131 (STAINLESS)

Snap-In System

MADE IN THE USA

Locknut Zinc Plated or Stainless Steel

Use as second nut to lock Eyebolts.
Part #: RS7066ZC (ZINC) 100/pk

Part #: RS7066SC (STAINLESS) 100/pk

TENSIONER

2.4"

5"

Guide Wire Tensioner

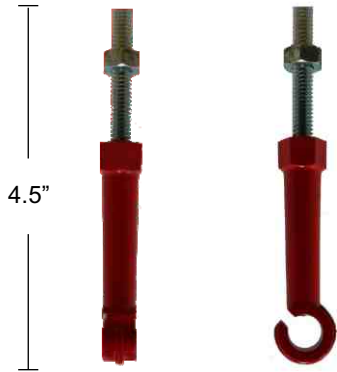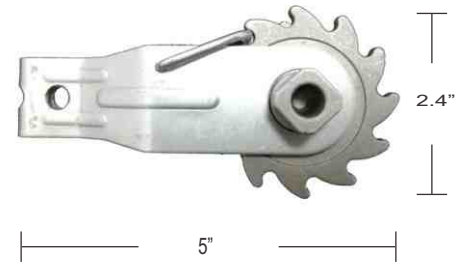New Guidewire/messenger wire tensioner.
Rated from -100°F to 1000°F(-73°C to 200°C).
Zinc Part #: RG1132

Stainless Steel Part #:RG1133

Jbolt Zinc #: RG1134

Jbolt Stainless Steel #: RG1135

L-BRACKETS

**DO NOT USE
L-BRACKETS AS
AN ANCHOR POINT**
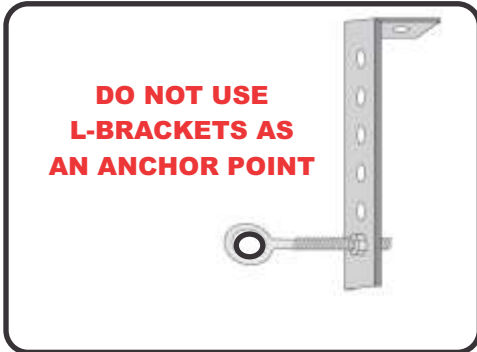
RedGear

RedGear L-Bracket, Nylon 6.6

Fire Resistant
For suspending detection cable on or around equipment or other various uses. Rated from -100°F to 392°F(-73°C to 200°C).
Length: 6 1/2"

10 HOLES

Part #: RG1122X 10/pk

L-Bracket, Zinc Plated Steel

For suspending detection cable on or around equipment or other various uses.
Length: 6 1/2"
Hole Size: 3/16"

6 HOLES

Part #: RS7053

OLD STYLE EYE BOLTS AND TURNBUCKLES

Threaded Eyebolt Zinc Plated or Stainless Steel
Part #: RS7065Z (ZINC) 10/pk

Part #: RS7065S (STAINLESS)

Insulating Grommet
Part #: RS7067C 100/pk

Locknut Zinc Plated or Stainless Steel

Part #: RS7066ZC (ZINC) 100/pk

Part #: RS7066SC (STAINLESS) 100/pk

Turnbuckle Zinc Plated or Stainless Steel

Part #: RS7069Z (ZINC)

Part #: RS7069S (STAINLESS)

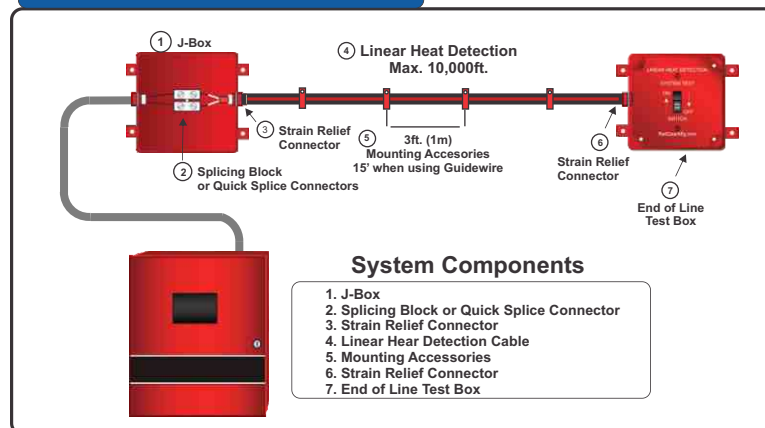## RECOILING LEADER WIRE

Recoiling Leader Cable
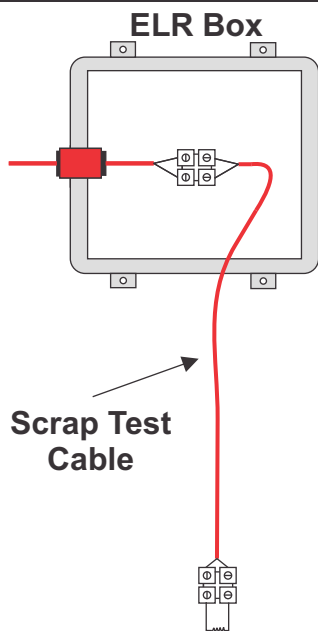62 ft. (18.8 meter) max. extension length
Part #:TC4407

TEST BOX EXAMPLE

① J-Box
④ Linear Heat Detection Max. 10,000ft.
③ Strain Relief Connector
⑤ 3ft. (1m) Mounting Accesories 15' when using Guidewire
② Splicing Block or Quick Splice Connectors
⑥ Strain Relief Connector
⑦ End of Line Test Box

TESTING A LINEAR HEAT DETECTION SYSTEM

Below you will learn both ways to properly test an LHD system

System Components
1. J-Box
2. Splicing Block or Quick Splice Connector
3. Strain Relief Connector
4. Linear Hear Detection Cable
5. Mounting Accessories
6. Strain Relief Connector
7. End of Line Test Box

MANUAL METHOD

ELR Box

Scrap Test Cable

How to test LHD

1. Be sure the LHD Test Cable has the same activation temperature as the installed LHD.

2. From the ELR-Box in the detection zone, install a small length of LHD to be used for testing. Use approved splicing techniques or a zone box.

3. Apply heat to the test wire until it puts the panel into alarm.

4. After the test is completed, the heat actuated portion of the SafeCable should be removed, the end of line resistor replaced, and the system placed back on line.

TEST BOX METHOD

How to test LHD with a Test Box

1. Disconnect any and all suppression systems from the fire detection relay.

2. Remove the cover of the LHD Test Switch Box

3. Turn the Test Switch to the ON position

4. Ensure that the Fire Alarm Panel goes into alarm

5. Turn the Test Switch to the OFF position

6. Put the cover back onto the Test Switch Box

7. Reconnect the Alarm Panel
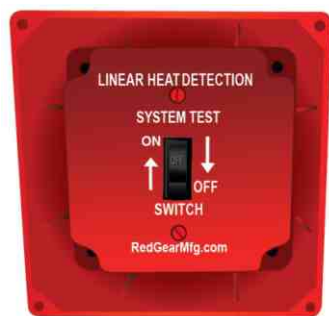
RedGear HD/ELR-Test Box
Part #: RG5223

MADE IN THE USA

RedPipe

Air Sampling Smoke Detection Installation Supplies

Compatible with all Aspirating Smoke Detection Systems

MEETS NFPA STANDARDS

EARLY WARNING AIR SAMPLING SMOKE DETECTION

UL Listed for Plenum Spaces

Air Sampling Smoke Detection Installation Resources:

Enclosed you will find examples of system applications along with pertinent sections of the 2013 NFPA 72 code for your reference

(Always follow all applicable federal, local and NFPA codes along with the manufacturers recommendations)

AIR SAMPLING SYSTEM EXAMPLE

RedPipe Aspirating Pipe and Fittings

RedPipe
3/4" 8ft. Pipe

adaptor

Coupling

Mounting Clip

OR

90° Elbow   90° Radius Bend

Air Sampling Detector

Test Point
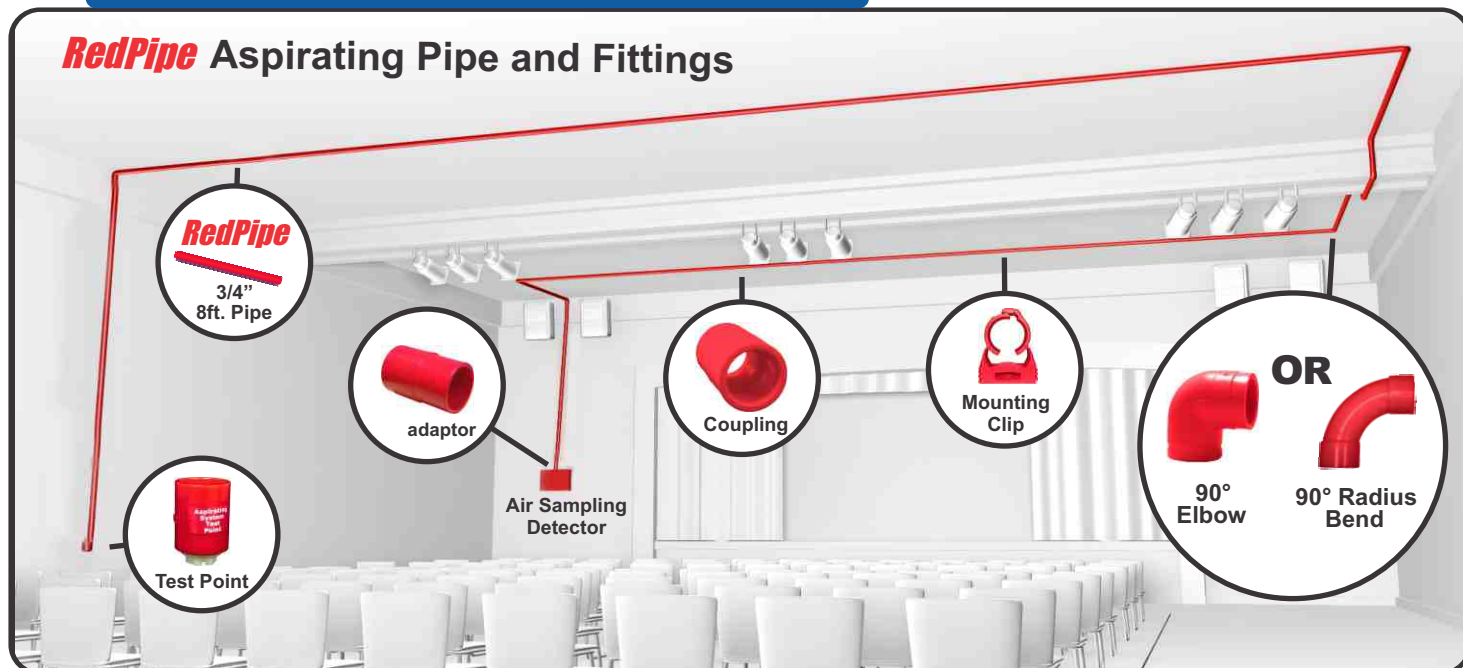
RedGear® Made In America

Air Sampling National Fire Codes

Below you will find portions of the NFPA 72®, 2013 National Fire Alarm and Signaling Codes pertinent to Air Sampling Smoke detection. Please refer to the specific NFPA Code publication for additional information.

Chapter 3 Definitions

3.1 General. The definitions contained in this chapter apply to the terms used in this code.

3.3.6 *Air Sampling-Type Detector*. see 3.3.66, Detector.

3.3.6.1 *Air Sampling-Type Detector*. A detector that consists of a piping or tubing distribution network that runs from the detector to the area(s) to be protected. An aspiration fan in the detector housing draws air from the protected area back to the detector through air sampling ports, piping or tubing. At the detector, the air is analyzed for fire products. (SIG-IDS)

3.3.66 Detector. A device suitable for connection to a circuit that has a sensor that responds to a physical stimulus such as heat or smoke. (SIG-IDS)

3.3.269 Smoke Detection
　　3.3.269.1 *Cloud Chamber Smoke Detection.* The principle of using an air drawn from the protected area into a high humidity chamber combined with a lowering of chamber pressure to create an environment in which the resultant moisture in the air condenses on am smoke particles present, forming a cloud. The cloud density is measured by a photoelectric principle. The density signal is processed and used to convey an alarm condition when it meets preset criteria. (SIG-IDS)

3.3.269.4 *Photoelectric Light-Scattering Smoke Detection.* The principle of using a light source and a photosensitive sensor arranged so that the rays from the light source do not normally fall onto the photosensitize sensor. When smoke particles enter the light path, some of the light is scattered by reflection and refraction onto the sensor. The light signal is processed and used to convey an alarm condition when it meets preset criteria. (SIG-IDS)

10.5.3 Inspection, Testing and Maintenance Personnel. (SIG-TMS)

10.5.3.3* Service personnel shall be qualified and experienced in the inspections, testing, and maintenance of systems addressed within the scope of this Code. Qualified personnel shall include, but not be limited to, one or more of the following:

(1)*Personnel who are factory trained and certified for the specific type and brand of system being serviced.

10.4   Installation and Design

10.4.1 All systems shall be installed with in accordance with the specifications and standard approved by the authority having jurisdiction.

Chapter 14

14.2.2.1.1 Inspection, testing, and maintenance programs
shall satisfy the requirements of this code and conform to the equipment manufacturer's published instructions.

14.2.2.1.2 Inspection, testing, and maintenance programs
shall verify correct operation of the system.

14.4.2   Test Methods

(5) Air Sampling
Per method documented in the manufacturer's published instructions, detectors alarm response shall be verified through the end sampling port on each pipe run; airflow through all other ports shall be verified as well.

Chapter 17   Initiating Devices

17.5 Requirements for Smoke and Heat Detectors.

17.7 Smoke-Sensing For Detectors.

17.7.3 Location and Spacing

17.7.3.2* Spot Type Smoke Detectors.

17.7.3.2.3.1* In the absence of specific performance-based de-sign criteria, smooth ceiling smoke detector spacing shall be a nominal 30 ft (9.1 m).

17.7.3.2.3.2 In all cases, the manufacturer's published instructions shall be followed.

17.7.3.2.3.3 Other spacing shall be permitted to be used depending on ceiling height, different conditions, or response requirements.

17.7.3.2.3.5* For smooth ceilings, all points on the ceiling shall have a detector within a distance equal to 0.7 times the selected spacing.

17.7.3.2.4.2 For level ceilings, the following shall apply:

(1) For ceilings with beam depths of less than 10 percent of the ceiling height (0.1 H), smooth ceiling shall be permitted. Spot-type smoke detectors shall be permitted to be located on ceilings or on the bottom's of beams.

(2) For ceilings with beam depths equal to or greater than 10 percent of the ceiling height (0.1 H), the following shall apply:

(a) where beam spacing is equal to or greater than 40 percent of the ceiling height (0.4 H), spot type detectors shall be located on the ceiling in each beam pocket.

(b) where beam spacing is less than 40 percent of the ceiling height (0.4H), the following shall be permitted for spot detectors:

17.7.3.2.4.6 For sloped Ceilings with solid joists, the detectors shall be located on the bottom of the joist.

17.7.3.3* Peaked. Detectors shall first be spaced and located within 36 in. (910 mm) of the peak, measured horizontally. The number and spacing of additional detectors, if any, shall be based on the horizontal projection of the ceiling.

17.7.3.4 * Shed. Detectors shall first be spaced and located within 36 in. (910 mm) of the high side of the ceiling, measured horizontally. The number and spacing of additional detectors, if any, shall be based on the horizontal projection of the ceiling.

17.7.3.6 Air Sampling-Type Spot Smoke Detector

17.7.3.6.1 Each sampling port of an air sampling-type smoke detector shall be treated as a spot-type detector for the purpose of location and spacing.

17.7.3.6.2 Maximum air sample transport time from the farthest sampling port to the detector shall not exceed 120 seconds.

17.7.3.6.3* Sampling pipe networks shall be designed on the basis of, and be supported by sound fluid dynamic principles to ensure required performance.

17.7.3.6.4 Sampling pipe network design details shall include characteristics of the pipe network and each sample port.

17.7.3.6.5 Air Sampling detectors shall give a trouble signal if the air flow is outside the manufacturers specified range.

17.7.3.6.6* The sampling ports and in-line filter, if used, shall be kept clear in accordance with the manufacturer's published instructions.

17.7.3.6.7 Air-sampling network piping and fittings shall be airtight and permanently fixed.

17.7.3.6.8 Sampling system piping shall be conspicuously identified as "SMOKE DETECTOR SAMPLING TUBE -DO NO DISTURB," as follows:
(1) At changes in direction or branches of piping
(2) At each side of penetrations of walls, floors or other barriers.
(3) At intervals on piping that provide visibility within the space, but no greater than 20 ft. (6.1 m)So far this explanation has considered squares and circles.

17.7.6.3.3.2 Air-Sampling or projected beam smoke detectors shall be installed in accordance with the manufacturer's published instructions.

Rectangles
A = 10 ft × 41 ft = 410 ft² (3.1 m × 12.5 m = 38 m²)
B = 15 ft × 39 ft = 585 ft² (4.6 m × 11.9 m = 54 m²)
C = 20 ft × 37 ft = 740 ft² (6.1 m × 11.3 m = 69 m²)
D = 25 ft × 34 ft = 850 ft² (7.6 m × 10.4 m = 79 m²)
Listed spacing for = 30 ft × 30 ft = 900 ft² (9.1 m × 9.1 m = 84 m²)
heat detectors only

Note: Smoke detectors are not listed for spacing. Use manufacturer's coverage recommendations and this figure.

FIGURE A.17.6.3.1.1.(g) Detector Spacing.

S = Space between detectors
● = Smoke detector or heat detector
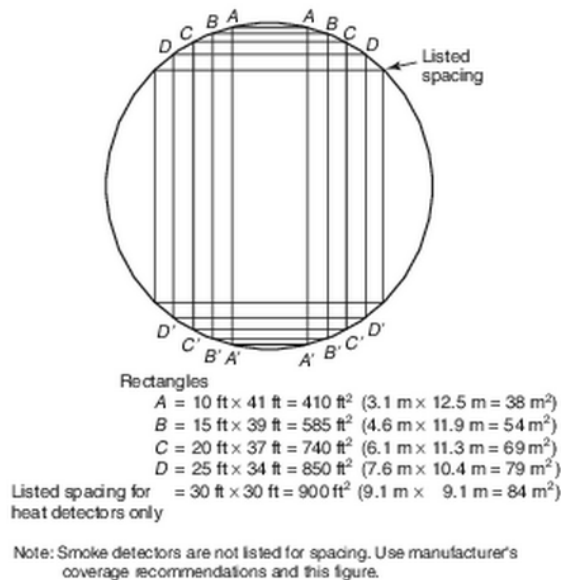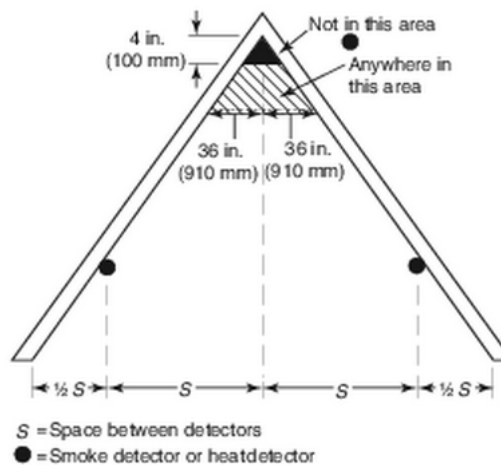
FIGURE A.17.6.3.4(a) Smoke or Heat Detector Spacing Layout, Sloped Ceilings (Peaked Type).

National Fire Protection Association
The authority on fire, electrical and building safety

Examples

MADE IN THE USA

SCHOOLS

RedPipe
3/4"
8ft. Pipe

RedPipe
3/4"
8ft. Pipe

90 Radius Bend

EASY TO INSTALL 8' LENGTHS

NFPA PRINTING RADIUS BENDS 8' PIPE LENGTHS

PREPRINTED NFPA TEXT NO LABEL REQUIRED

NO MORE ELBOW LIMITS
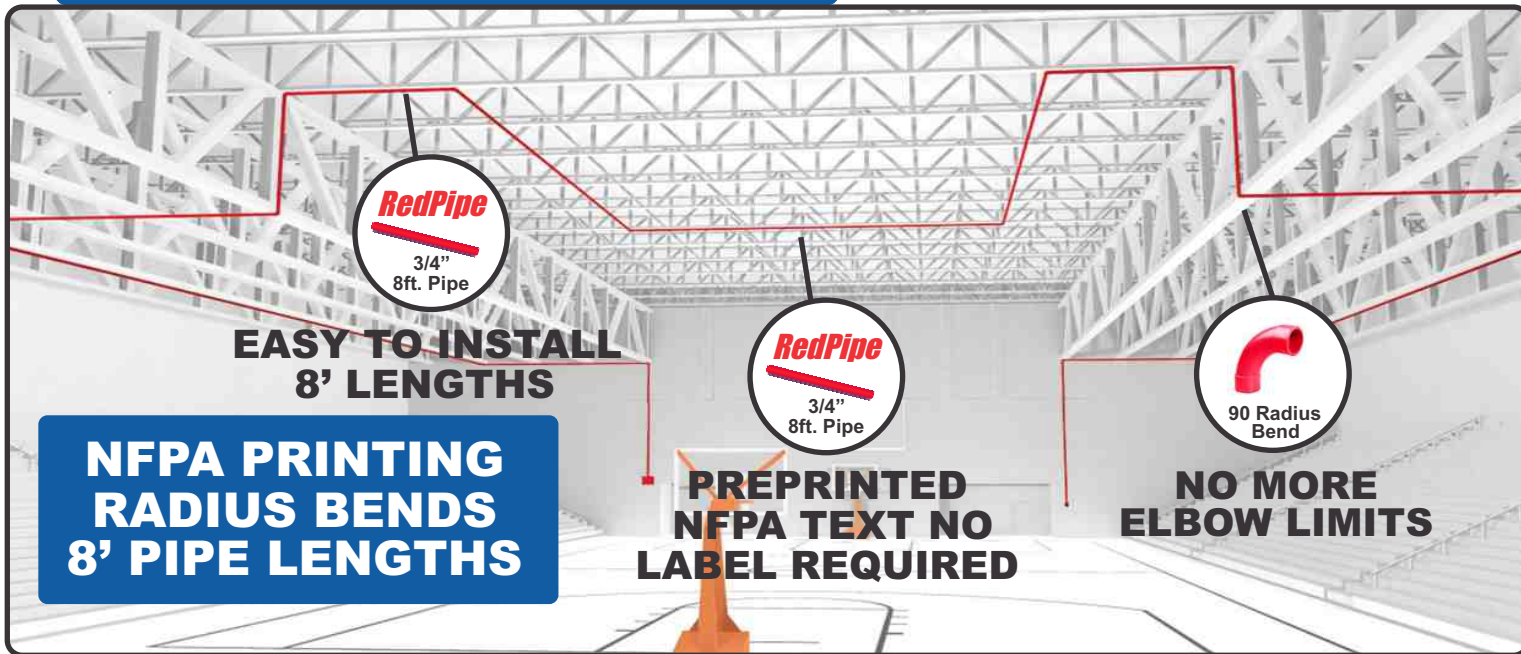
Buy Direct From the Manufacturer

WAREHOUSE

Air Sampling Detector

HOTELS · SHOPS · OFFICES

Examples

HOTEL LOBBY

MADE IN THE USA

90 Radius Bend

RedPipe
3/4" 8ft. Pipe

Mounting Clip

Low Profile Radius Bend

Coupling

MEETS NFPA STANDARDS

Adaptor

Air Sampling Detector

Test Point

RedGearMfg.com

ATRIUM

UL APPROVED FOR PLENUM AREAS
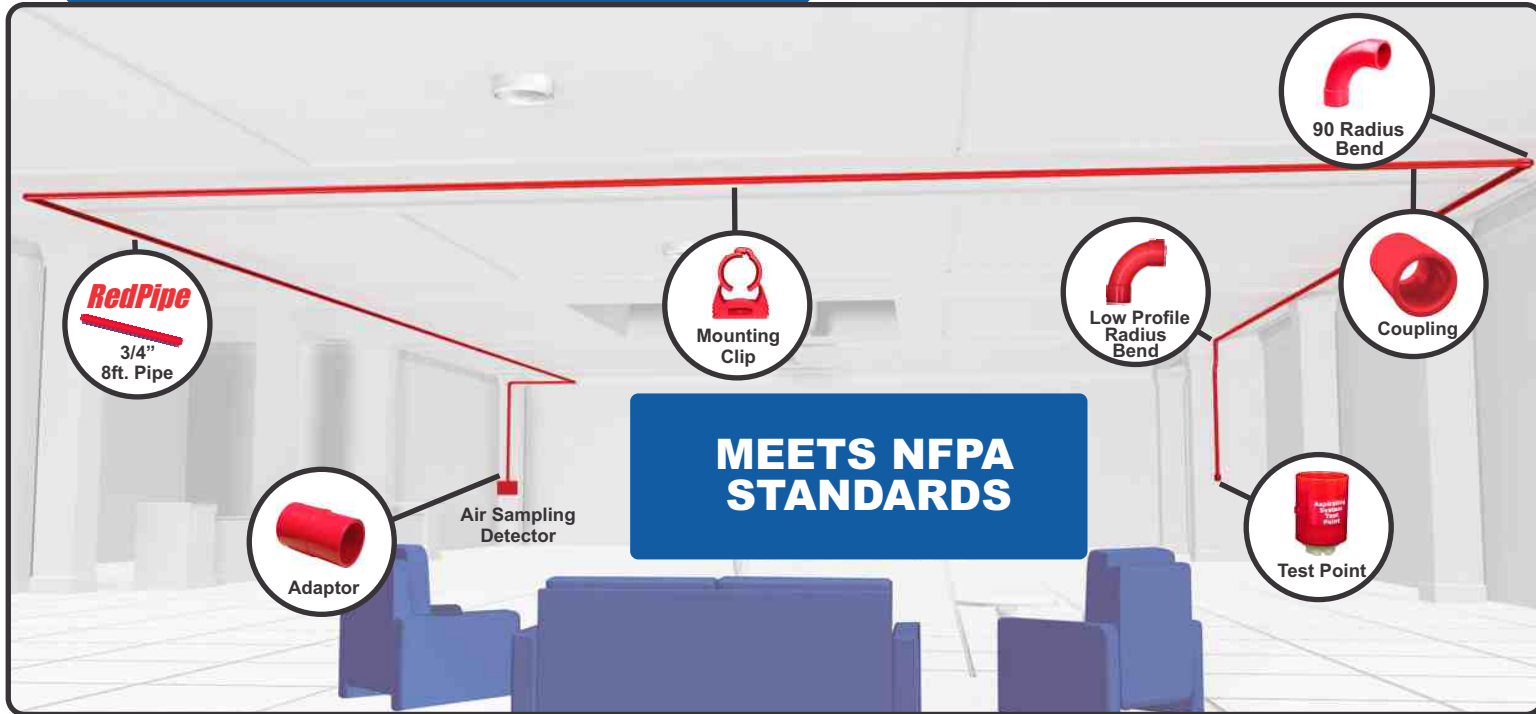
MUSEUMS · PRISONS · DATA & TELECOM

Examples

MADE IN THE USA

SUBWAY STATION

- 90° Elbow
- RedPipe 3/4" 8ft. Pipe
- Tee
- Adaptor
- Air Sampling Detector
- Mounting Clip
- Coupling
- 90 Radius Bend
- Test Point

MEETS NFPA STANDARDS

Buy Direct From the Manufacturer

RACK FILLED WAREHOUSE

UL LISTED FOR PLENUM USE

HOSPITALS · MARINE · TRANSPORTATION

Examples

MADE IN THE USA

COMPUTER SERVER ROOM

90° Elbow

Coupling

RedPipe
3/4" 8ft. Pipe

Adaptor

Air Sampling Detector

Test Point

Mounting Clip

90 Radius Bend

SINGLE SOURCE INSTALLATION SUPPLIES
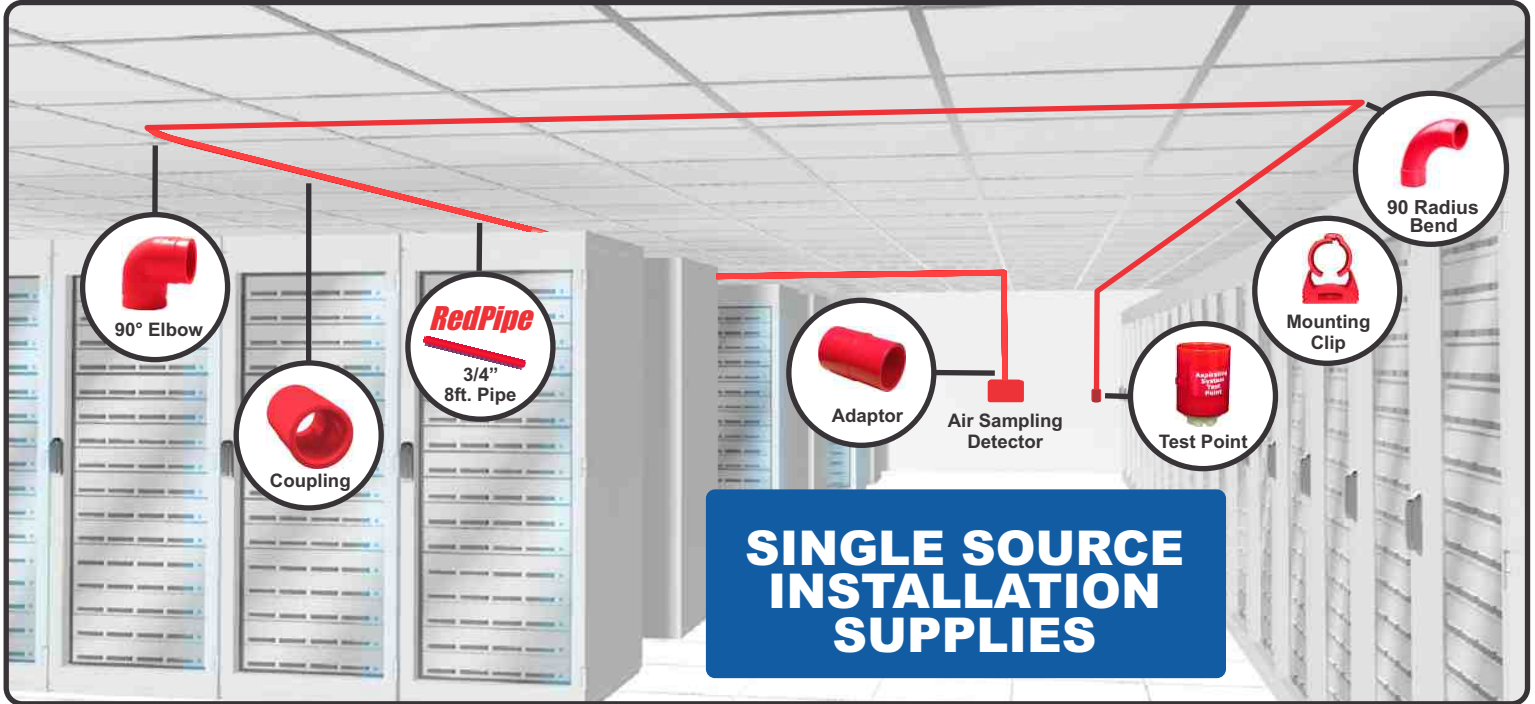
CAPILLARIES

RedGearMfg.com

FALSE/DROP CEILING

THE ONLY PIPE UL LISTED FOR USE WITH AIR SAMPLING SMOKE DETECTORS
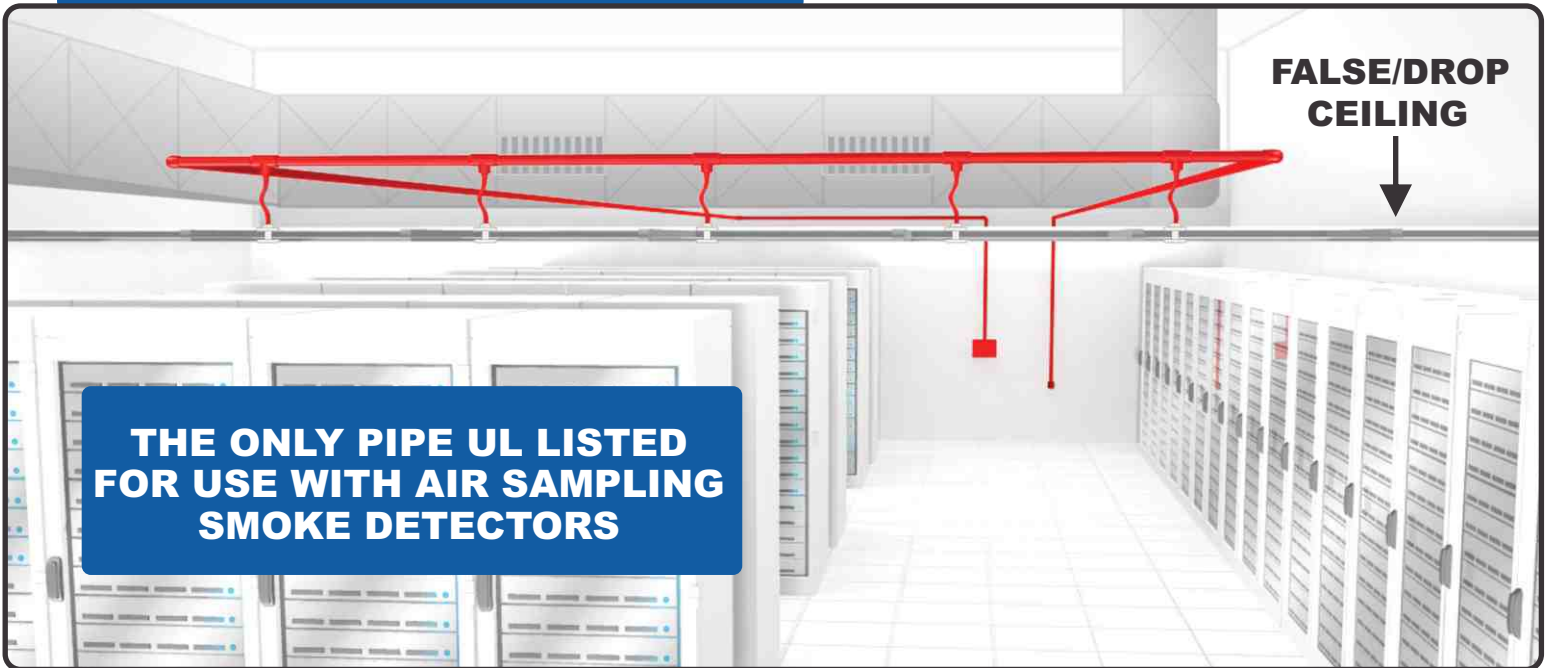
WAREHOUSES • FREEZERS • STORAGE

RedPipe

The Only Pipe Approved Specifically For Use With Air Sampling Smoke Detection Systems

Approved with all Aspirating Smoke Detection Systems

FEATURES

- 8ft Lengths
- Fire Resistant
- Easier to Install
- UL Listed for Plenums
- No Pipe Labels Needed
- Ships Direct to Your Site
- Lowest Cost
- Meets NFPA
- Fire System Red

15' LENGTHS
SHIPPED VIA
SEMI-TRUCK

DIRECTLY TO YOUR OFFICE OR JOB SITE
8' LENGTHS
SHIPS FEDEX GROUND OR AIR
(Overnight Shipping Available)

RedPipe

RedPipe is a UL listed fire resistant 3/4" CPVC pipe UL approved specifically for use with ALL air sampling smoke detectors

NFPA PRINTING ON PIPE

*Available in Spanish **Part #:RP5209S***

UL Listed for Plenum Areas

SMOKE DETECTION SAMPLING TUBE – DO NOT DISTURB

(No Pipe Labels Needed)

MADE IN THE USA

BUY DIRECT FROM THE MANUFACTURER

RedPipe

UL listed for use with all air sampling systems

8'(2.4m) OR 15ft(4.5m) Lengths
3/4" (25mm) *RedPipe* CPVC

FIRE RESISTANT SCH-40 (ID 0.874"/ID 22.1mm)
Approved for use in plenum areas.

(1 each) 8' Length
Part #: RP5209 English & Spanish Text

(1 each) 15' Length
Part #: RP5209-15 English & Spanish Text

CSFM

CE

CLASSIFIED UL

Volume Discounts Available

REDPIPE FITTINGS
UL Listed
3/4" CPVC SCH-40 (ID 0.874/22.1mm)

RedGearMfg.com

NEW 3/4" RADIUS BEND

No Elbow Limits

Change Direction Without Limitations

PIPE FITTINGS

RedPipe   *RedPipe*   *RedPipe*   *RedPipe*

3/4" 90° Radius Bend

(Socket/Socket)
CPVC SCH-40 (ID 0.874/22.1mm)
This new type of elbow is equivalent to a bend. You can now change the direction of the pipe without the design limitations of 90° elbows.

Part #: RP5215X 10/pk

3/4" Low Profile 90° Radius Bend

(Socket/Socket)
(CPVC SCH-40 (ID 0.874"/22.1mm)
Low profile radius bend is made of a fire resistant CPVC.

Part #: RP5230X 10/pk

3/4" 90° Elbow

(Socket/Socket)
CPVC SCH-40 (ID 0.874"/22.1mm)
90-degree elbow is made of a fire resistant CPVC.

Part #: RP5202X 10/pk

3/4"45° Elbow

(Socket/Socket)
CPVC SCH-40 (ID 0.874/22.1mm
45-degree elbow is made of a fire resistant CPVC.

Part #: RP5203X 10/pk

PIPE FITTINGS

RedPipe   *RedPipe*   *RedPipe*   *RedPipe*

3/4" Coupling

(Socket/Socket)
CPVC SCH-40 (ID 0.874/22.1mm)
Coupling is made of a fire resistant CPVC.

Part #: RP5206X 10/pk

Pipe to Detector Adaptor

Sold Individually

Detector to Pipe Adaptor 25mm-3/4"
CPVC SCH-40 (ID 0.874/22.1mm)
Pipe adapter pipe fitting is made of a fire resistant CPVC mixture. Must be used with an air sampling detector to connect pipe system to the detector.

Part #: RP5207

3/4" Tee

(Socket/Socket/Socket)
CPVC SCH-40 (ID 0.874/22.1mm)
Tee is made of a fire resistant CPVC.
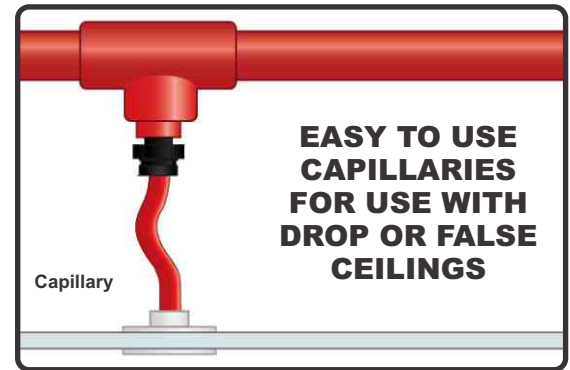
Part #: RP5204X 10/pk

3/4" End Cap

(Socket)
CPVC SCH-40 (ID 0.874/22.1mm)
End Cap is made of a fire resistant CPVC.

Part #:RP5205X 10/pk

REDPIPE
CAPILLARIES

For use with drop/false ceiling installations the flexible tubing allows you to lift the ceiling tile out; the quick disconnect allows you to detach the capillary from the pipe

EASY TO USE CAPILLARIES FOR USE WITH DROP OR FALSE CEILINGS

Capillary

EASY TO USE IN DROP/FALSE CEILING APPLICATIONS
UL LISTED FOR PLENUM SPACES
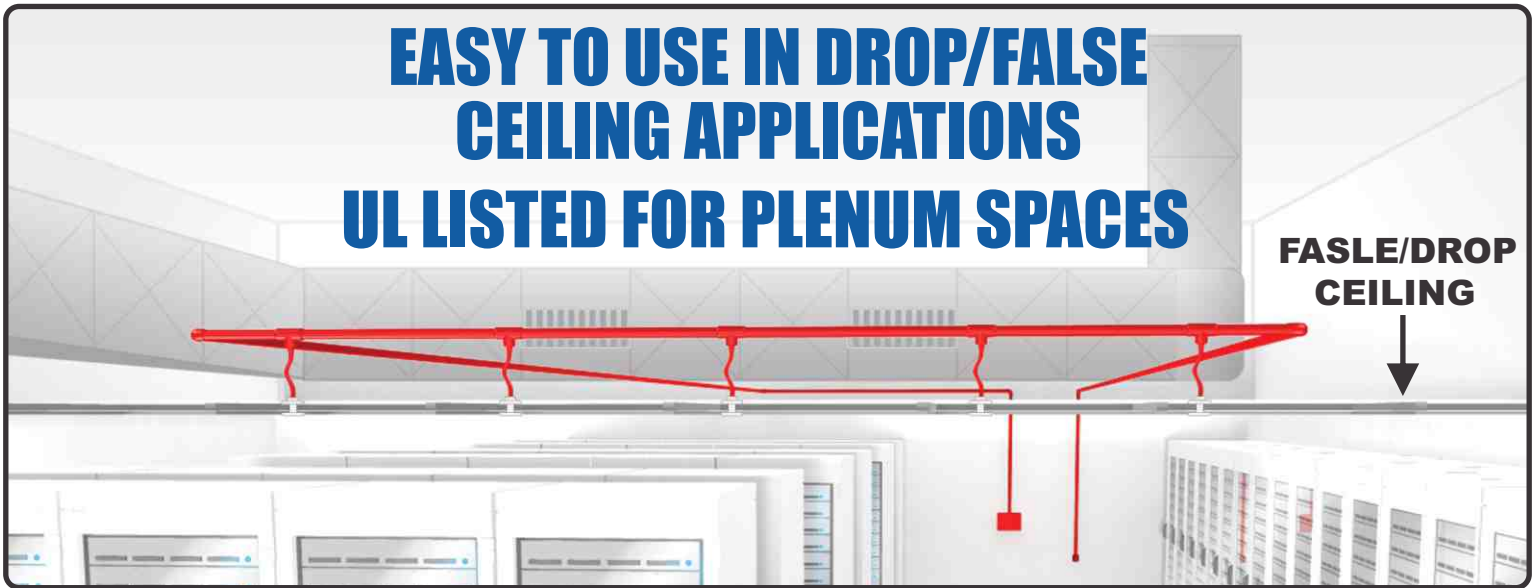
FASLE/DROP CEILING

Also Great For Use with "In-Cabinet" Detection

CAPILLARY

| | A B | | Quick Disconnect ½" tubing | ½ Capillary Tubing | Quick Disconnect 3/8" tubing | 3/8" Capillary Tubing |

3/4" Tee

CPVC SCH-40 (ID 0.874, made of fire resistant material.

Air Sample Points

Use in drop ceiling or in-cabinet applications for air sampling smoke detection.

A Part #: RP5216

B Part #: RP5222

Quick Disconnect ½" tubing

Use in drop ceiling or in-cabinet applications for air sampling smoke detection.

Part #: RP5225

Note: 2 Required for each Capillary Drop

½ Capillary Tubing

Use in drop ceiling or in-cabinet applications for air sampling smoke detection.
Length: 328ft (100m)
3/8"ID 1/2" OD

Part #: RP5227 50ft.

Part #: RP5229 100ft.

Quick Disconnect 3/8" tubing

Use in drop ceiling or in-cabinet applications for air sampling smoke detection.
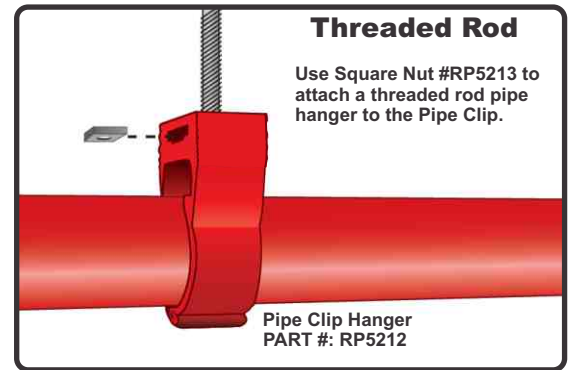
Part #: RP5223

3/8" Capillary Tubing

Use in drop ceiling or in-cabinet applications for air sampling smoke detection.
Length: 328ft (100m)
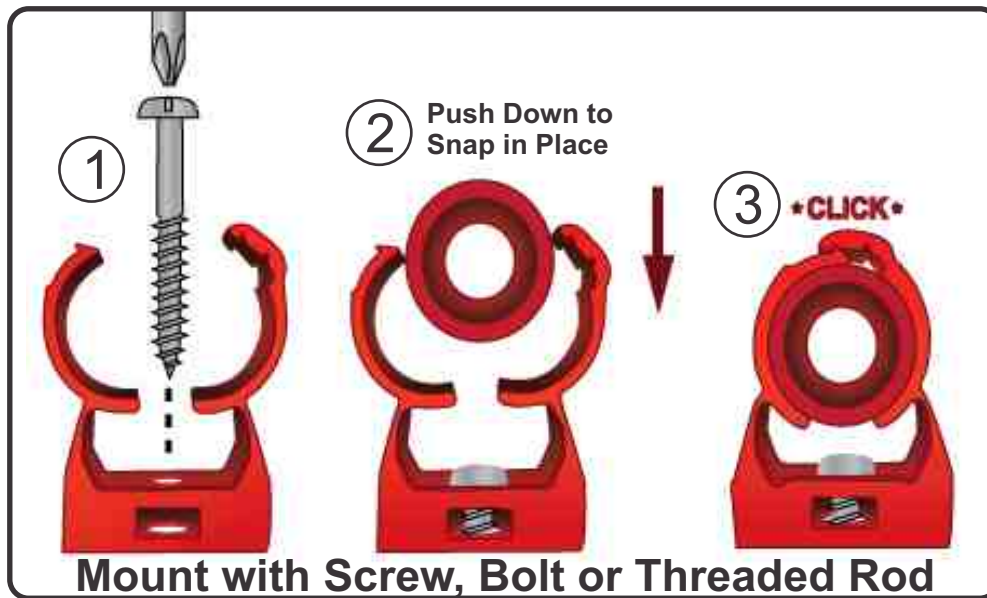1/4"ID 3/8" OD

Part #: RP5219 50ft.

Part #: RP5224 328ft.

Part #: RP5204X 10/pk

REDPIPE CLIP HANGERS

Now you can hang pipe easier and faster with new RedPipe clip hangers

Threaded Rod

Use Square Nut #RP5213 to attach a threaded rod pipe hanger to the Pipe Clip.

Pipe Clip Hanger
PART #: RP5212

EASY TO MOUNT TO CEILING OR DECK

① ② **Push Down to Snap in Place** ③ *CLICK*

JUST SNAP IN PLACE

Mount with Screw, Bolt or Threaded Rod

PIPE HANGERS

Standard Pipe Hanger- Zinc plated for 3/4" Pipe

One Piece Pipe Clip, Pipe Size 3/4 In, Max Load 250 Lb, Bolt Size 3/8 In, For Vertical or Horizontal Tubing Support, Includes Captive Screw and Built In Nut.

Part #: RS7073 Zinc 50/pk

REDGEAR PIPE CLIP HANGERS

JUST SNAP IN PLACE

OPEN   CLOSED

RedPipe 3/4" Pipe Clip Hanger

One Piece Pipe Clip, Pipe Size 3/4 In, Max Load 250 Lb, For Vertical Or Horizontal Tubing Support.
Part #: RP5212 25/pk

RedPipe Square Nut

Required with pipe clip hanger to install threaded rod.
Part #: RP5213 50/pk

REDPIPE ACCESSORIES

Everything you need to complete your installation

RedGearMfg.com

RedPipe

TEST WITHOUT GOING TO CEILING

Test Point

TESTING ACCESSORIES

Smoke Testing Pen

Smoke Pen used in the testing of light scattering, laser, and cloud chamber type Air Sampling Detectors.

Part #: RP5211

(Telescoping) Laser Smoke Detector Tester

Telescoping smoke detector tester. Used to test Laser based and hard to reach smoke detectors.

Part #: RP5228

Blue LED Smoke Detector Tester

Aresol based smoke detector tester. used to test photoelectric and blue LED Smoke Detectors.

Part #: RP5231

AIR SAMPLING ACCESORIES

3/4" Inline Air Filter

Used to filter out dust in the air going into the air sampling smoke detection system. Used in hazardous and industrial environments.

Part #: RP7125

Replacement Filter

Replacement filter for inline filter #RP7125.

Part #: RP7126

PIPE ACCESSORIES

Kobalt 1-5/8-in PVC Cutter

Ratcheting PVC cutter cuts CPVC pipe up to 1 Inch OD. Housing made of steel. Ratcheting feature.

Part #: RP5211

CPVC Pipe Cement

TFP-500 All-Purpose Medium Bodied Cement Container Size: 8 oz. Use for all Air Sampling Smoke pipe systems.

Part #: RP5214

LABELS

SMOKE DETECTION SAMPLING TUBE DO NOT DISTURB

Sample Pipe Labels

NOT Required on RedPipe.

Part #: RP5217 125/roll

AIR · SAMPLING POINT

Sample Point Labels

.90"/.16" hole (23mm/4mm Hole).

Note: *Place a Sample label at each sample point.*

Part #: RP5218 125/roll

AIR SAMPLING TEST POINT

3/4" Test Point

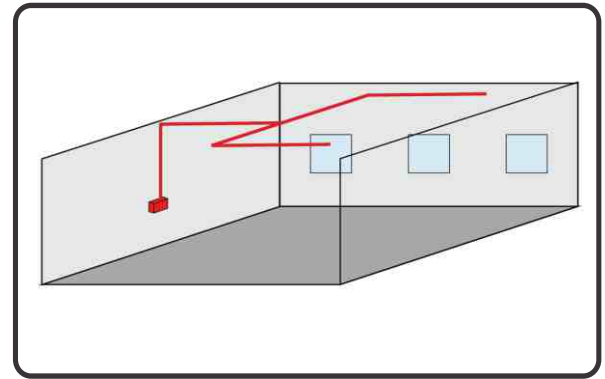Test Point for use with any air sampling smoke detection system.

Part #: RP2226

INSTALLATION KIT

One kit for everything you need for (up to) 50'x50' (15m x15m) area or 2500ft² (225m²)

RedGearMfg.com

Typical System

PIPE KIT 50'X50' AREA

Pipe Kit- 50'x50' (15m x 15m) Area Plenum Rated Fire Resistant

This Kit provides you with everything you need for 'most' 50'x50' (15m x 15m) areas. If the room is 100' (30m) x50' (15m) simply purchase two kits. (see right for exact quantities of each.)

Part #: RP5200
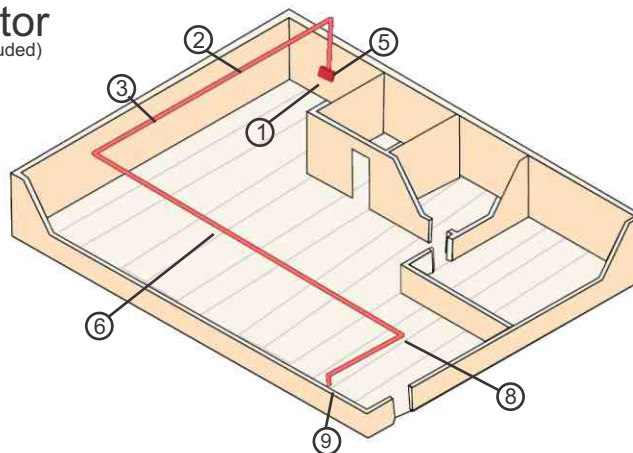
Kit Includes:
1 - Adaptor
8 - 90° Elbows
2 - Test Points
1 - Tee
12- Couplings

1 - CPVC Pipe Cement
1 - Pipe Cutting Tool
35 - Pipe Hangers
25 - Sample Point Labels
96' - RedPipe

STANDARD CONFIGURATION

1. Air Sampling Detector (Not Included)
2. *RedPipe*
3. Pipe Clip Hangers
4. Pipe Cement (Not Shown)
5. Adaptor

6. Couplings
7. Tee (Not Shown)
8. 90° Elbows
9. Test Points

Terms and Conditions

Manufacturer's Warranty:

RedGear Mfg.'s Accessories are made for Linear Heat and Air Sampling Detection Systems only.

Seller warrants that Accessories purchased from RedGear Mfg. will, under normal use and service, be free from defects in material and workmanship for a period of one (1) year from the date of original sale. Seller agrees, upon written notice from Buyer given no later than 30 days after the defect is discovered, to repair or replace, at the Seller's option, any part, which after examination by Seller, is disclosed to have been defective, provided that such product is returned to the Seller transportation prepaid, during the warranty period. This warranty does not apply to any item not completely assembled or damage resulting from accident, improper installation, misuse or abuse. The full extent of Seller's warranty obligations are to repair or replace any defective part. Transportation to and from RedGear is the responsibility of the buyer.

There are no other warranty obligations of seller, including any warranty of merchantability or fitness for a particular purpose, either expressed or implied. Seller is not liable for any other costs, delays, labor charges, shipping or handling charges for warranty parts, or claims, nor for any consequential or incidental damages with respect to the product.

Ordering Information:

• All orders should be placed through RedGearMfg.com or can be emailed to customerservice@RedGearMfg.com.
• All orders placed are subject to approval and acceptance by RedGear MFG.
• RedGear accepts your order on the basis of price in effect at time of shipments.
• Part numbers must be used when placing orders via email. All prices are FOB ship point.
• Most current catalog supercedes all others.

Terms:

•RedGear Guarantees that all Official RedGear Products,(does not include standard products), will be the lowest cost available. If the customer finds a lower "Published" price on a RedGear Item, RedGear will match the price of the item.
• All payments must be made in US dollars.
• Possession of any price sheets does not constitute a valid distributorship.
• A valid distributorship is defined solely by RedGear MFG.
• Customer credits will be applied to open and future orders only.
• All Non-Warranty returns are subject to a minimum 50% Restocking Charge.
• Due to offsite document storage and retrieval, credit memos not applied within the calendar year it is purchased will be forfeited.
• Terms subject to change without notice.
• For credit terms 100.00 minimum order, contact customerservice@redgearmfg.com for details.

Shipping/Freight Information:

• RedGear reserves the right to ship all orders by the shipping service of our choice.
• Free Shipping is for orders over $500.00 US dollars or more and is for DOMESTIC customers only. Subject to change any time, if additional discounts are given free shipping does not apply.
• RedGear reserves the right to ship all orders by the shipping service of our choice.
• Same day shipping is available upon request and availability. Purchase order must be entered into our system by 2:00 PM EST.
• A $100.00 USD expediting charge will be added to the normal shipping charges on any expedited order.
• Customer is responsible for any special shipping request charges.
• Overnight shipping is available for an additional fee, please contact customerservice@redgearmfg.com for details
•Same day shipping is available upon request (please email customerservice@redgearmfg.com for details) and availability. Purchase order must be entered into our system by 2:00PM EST, and is an additional $100.00.
•Customer is responsible for any special shipping request charges.
•Shipments are not insured. Insurance is available for an additional fee. Contact Customer Service at Customerservice@redgearmfg.com for assistance.

Delivery Date:

Unless expressly specified to the contrary, goods in stock will be shipped without delay, and goods not in stock will be shipped as soon as possible. However, all estimates of delivery time are approximate and failure to effect shipment of an accepted order by estimated delivery date will not be considered sufficient cause of cancellation.

Delays:

Seller shall not be liable for any damage, fault or delay caused by or imposed by strikes, fires, major disasters, acts of nature, governmental action, shortage of labor, power, materials, or any other cause or condition beyond Seller's control.

Transportation Charges:
- Unless otherwise specifically provided, the price of the goods sold is FOB Indian Trail, NC.
- Freight will be added to invoice cost plus a $12.00 USD handling fee, $50.00 USD handling for skidding requests and $250.00 USD handling for crating requests.
- Shipments are not insured. Insurance is available for an additional fee. Contact Customer Service at   Customerservice@redgearmfg.com for assistance.
- Title to the goods sold passes to the Buyer upon delivery by   RedGear to the carrier, and any claims for losses or damage in transit shall be filed by Buyer directly with the carrier, regardless of the fact that freight is prepaid by RedGear.
- Cancellation or suspension of orders will be accepted by RedGear only upon terms that will indemnify us against loss. RedGear also reserves the right to charge a cancellation or suspension fee.
- Postponement of deliveries at buyer's request, if for a period of more than thirty (30) days, will not be made without prior approval from RedGear In the absence of such indemnification, RedGear shall be entitled to recover all damages and costs of whatever nature permitted by the Uniform Commercial Code indemnification.

Taxes:
- Prices do not include sales, use, excise or similar taxes, whether federal, state or local.
- The amount of any such taxes applicable to the goods shall be paid by the Buyer in the same manner and with the same effect as if originally included in the purchase price.

General Conditions:
- No agent, salesperson, or other party is authorized to bindRedGear by any agreement, warranty, statement, promise or understanding not herein expressed.
- The sale of the goods pursuant to this order shall be governed by the laws of North Carolina in which the order is accepted and from which the equipment is shipped; and any such sale or contract shall be deemed to be a sale and/or contract of North Carolina. In addition to the rights and remedies conferred upon RedGear by law, RedGear shall not be required to proceed with the performance of any order or contract if Buyer is in default in the performance of any order or contract with RedGear and in case if doubt as to Buyer's financial responsibility, shipments under this order may be suspended or sent sight draft with bill of lading attached by RedGear.
- Any clerical errors are subject to correction.
- By placing an order with RedGear, you accept all terms and conditions expressed herein.

Claims:
- Claims for shortages and damaged goods must be made on the delivering carrier.
- For incorrect material, contact our Customer Service Department at customerservice@redgearmfg.com
- All claims must be made to RedGear within 30 days from date of shipment.

Return Material Authorization (RMA): No RMAs are processed after 2:00 p.m. EST
Warranty RMA Procedure
1. An RMA will be generated by our Customer Service Department and emailed to you.
2. Once the part has shipped, the invoice is emailed to you.
3. You must include the RMA in the box with the returned part and a note indicating the failure.
4. When the part arrives at RedGear, the Technical Department will inspect the returned item for physical damage.
5. Pending approval from our Technical Department, Accounting will email the credit for the amount of the part, but **NOT THE FREIGHT.**

Note:
- All shipping charges are the responsibility of the customer returning the parts.
- Parts must be returned to RedGear within 30 days to receive a credit or a replacement.
- If order was prepaid with credit card, defective parts must be returned prior to replacement being shipped.

Return RMA Procedure
1. An RMA will be generated by our Customer Service Department and emailed to you.
2. You must include a copy of the RMA in the box with the returned part, and a note indicating the reason for the return.
3. When the part arrives at RedGear, the Technical Department will inspect the returned item for physical damage. Only complete part packages and assemblies as originally purchased can be returned.
4. Pending approval from our Technical Department, Accounting will credit you the amount of the part less the restocking fee and freight.
5. All Non-Warranty returns are subject to a minimum 50% Restocking Charge.

Note:.
- All shipping and restocking charges are the responsibility of the customer returning the parts.

Notes:
1. No discount prices are offered, all prices are as printed in this catalog.
2. Please refer to Terms and Conditions.
3. A $100.00 USD expediting fee will be charged on all expedited orders.
4. Subject to $12.00 Handling Fee on all orders.
5. Prices subject to change without notice.
6. All Non-Warranty returns are subject to a minimum 50% Restocking Charge.

RedGear®

MADE IN THE USA

ORDER ONLINE
RedGearMfg.com

AIR SAMPLING SMOKE DETECTION PIPE

Please consider our environment

CLASSIFIED UL

CSFM

UL

CE

The **ONLY** pipe specifically listed for air sampling smoke detectors

RedPipe

UL Listed for use in Plenum Spaces

Printed in the U.S.A.