Triple IR Flame Detector

Model: ZT-30P

User Guide

Document Ref: GLT-300-7-1

Zeta Alarms Limited

72 – 78 Morfa Road, Swansea, SA1 2EN, United Kingdom

Phone: +441792 455 175   Fax: +441792 455 176

Website: www.zetaalarmsystems.com   Email: info@zetaalarmsystems.com

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1   Unpack & Checking Contents

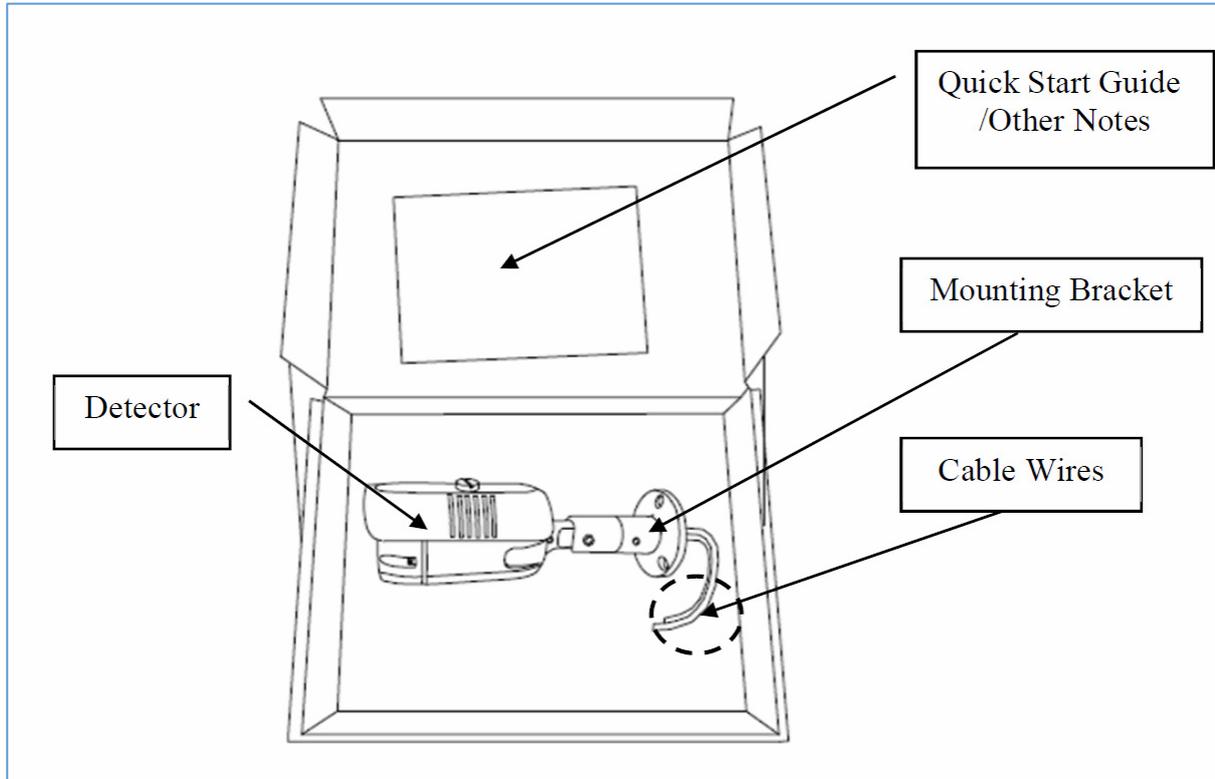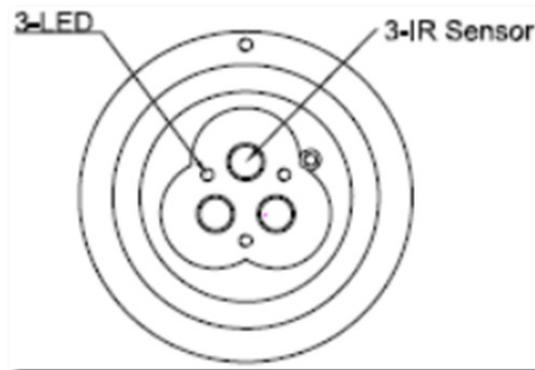- Unpack the delivered pack and check the following contents.

Figure 1. Product Contents & Outline Indication

Front View

ZT-30P
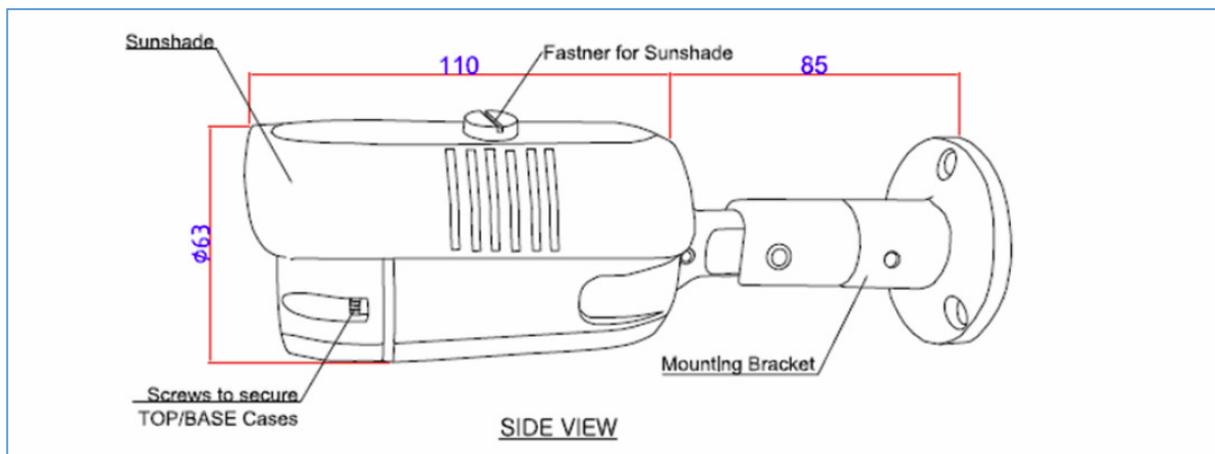
2   DIP Switch Settings (If necessary)

1). After removing the Sunshade, separate TOP Cover & Base cover and change the Setting of the DIP Switch.

2) Unscrew the two HEX screws to separate TOP/BASE Covers.

1) Unscrew the nut to separate Sunshade

3)DIP Switch (6pins)
*Note. Table 2 DIP Switch Setting

Figure 2. Change of DIP Switch Setting

2). After completing the change of DIP Switch Setting, combine the TOP Cover and BASE Cover by screwing together.

Make sure that they are screwed together securely otherwise the detector may fail to be waterproof.
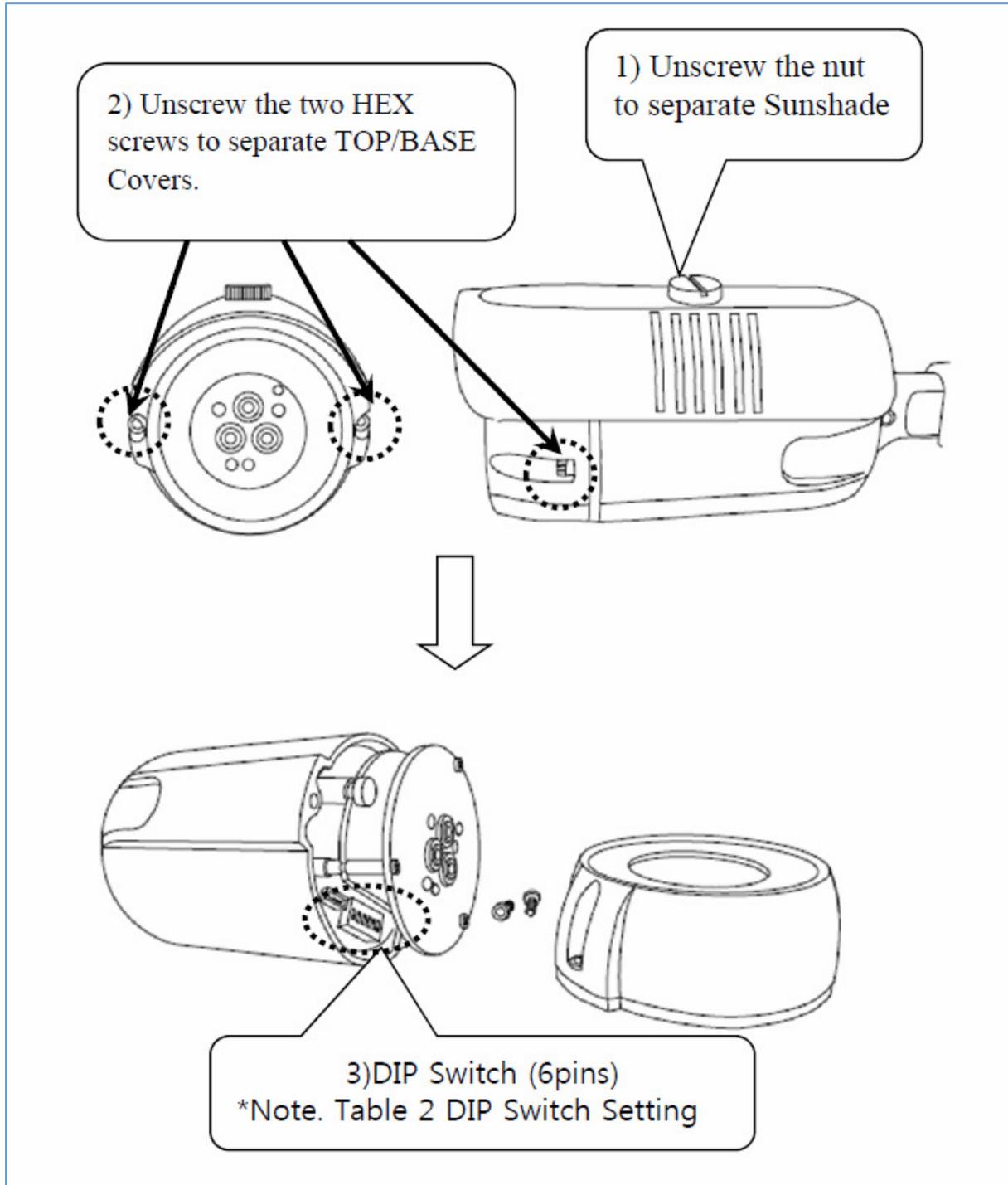
3   Installation

1). Shown Fig.3, after screwing Top / Base Covers & Sunshade, place the detector in its designated locations on the wall and secure it with the provided three (3) fasteners through three (3) holes of detector mounting bracket.

Release the locking three (3) "Hexagonal Socket Set Screws" in such a way that allows rotating detector and point the detector towards the protected area and make certain the view of area I unobstructed.

Secure the detector that position by tightening the locking three (3) "Hexagonal Socket Set Screws" on the mounting bracket.
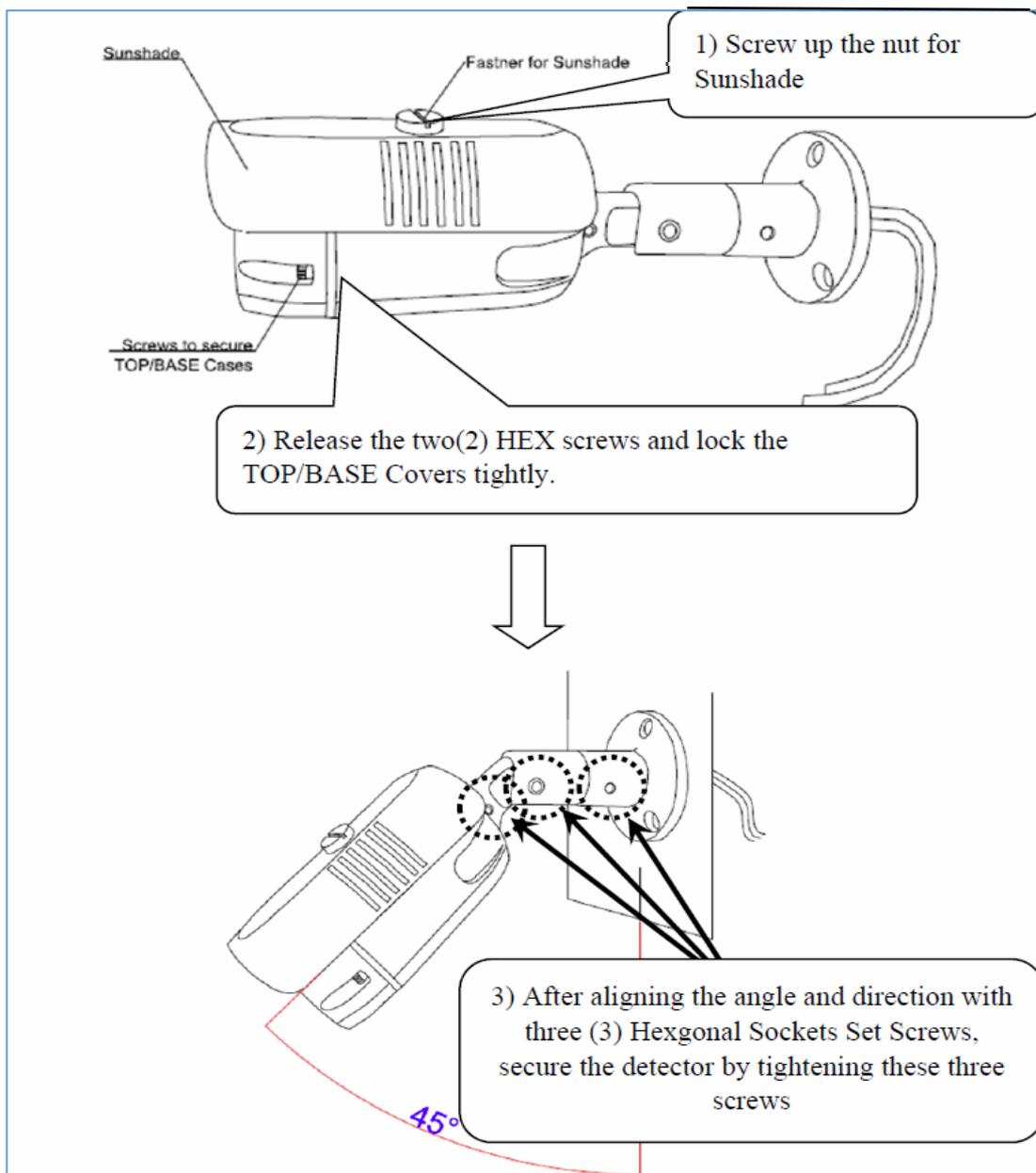
Figure 3. Final installation & Adjustment

The Detector is now correctly located, aligned and ready to be connected to the system.

4   Operation

Once powered up, the detector will begin appr. 20 sec start-up routine. During this time, all three (3) LED indicators will be blinking. Once the start-up procedure has finished and no faults are present, the detector will begin normal operation (Green LED will remain on).

Table1. Output Signals/LED Indicator versus Detector State

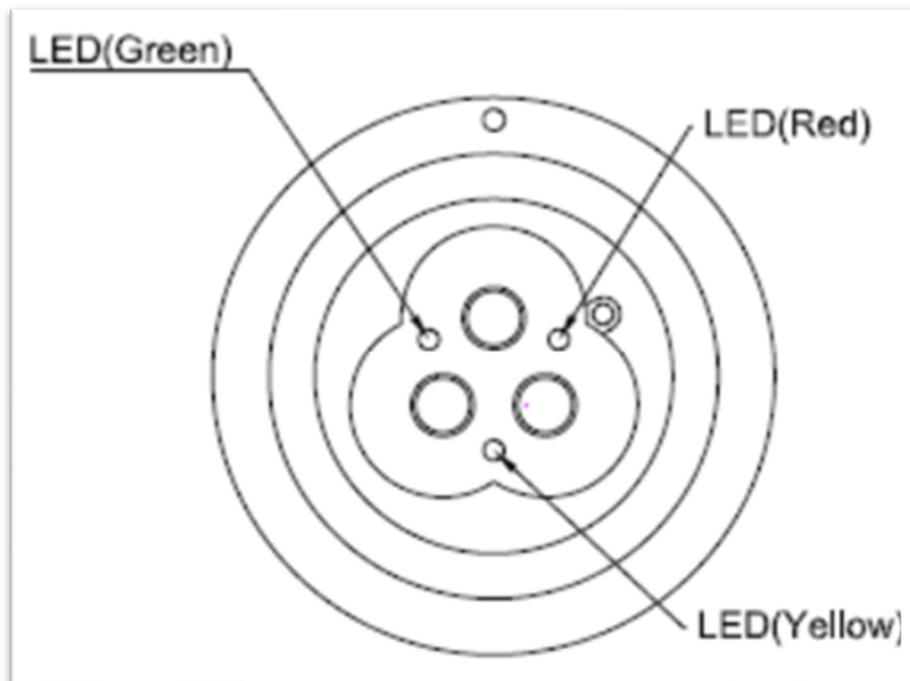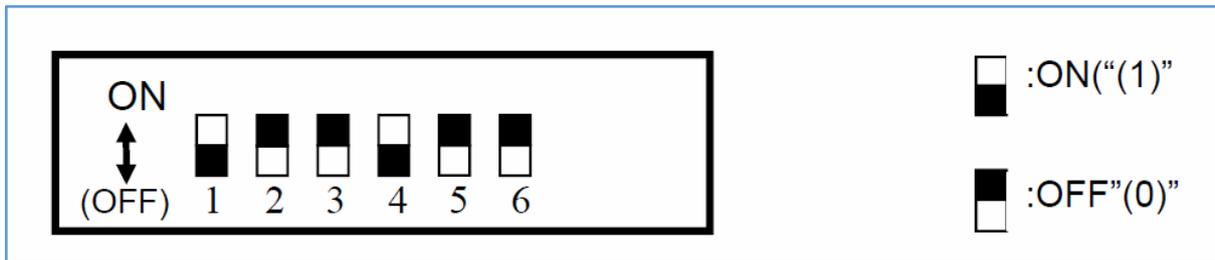| Detector Status	Green LED (Power)	Red LED (Alarm)	Yellow LED (Fault)
Power Up – 20 Second Start Delay	Flicker		
Internal Power Fault or System Power Out of Range / Fault	Off	Off	Blinking
Normal Operation (Stand-By)	On	Off	Off
Fire Detection (Warning)	Off	On	Off
Fire Confirmed	All LEDs Blinking Simultaneously		

Table 2. DIP Switch Settings

DIP Switch Position No.						Mode Selections
1	2	3	4	5	6	
●	●					Sensitivity Range (1) OFF-OFF(00) : Highest OFF-ON(01) : High ON-OFF(10) : Medium <default> ON-ON(11) : Low
		●	●			Alarm Delay Time (2) OFF-OFF(00) : 1 Sec OFF-ON(01) : 3 Sec ON-OFF : 7 Sec <default>
				●		Alarm Latch Setting (3) OFF(0) : 20 Sec <default> ON(1) : Until Reset
					●	Reserved (for design Setting) OFF(0) : <default>

Notes:

(1).   The detector offers four (4) sensitivity settings. The settings refer to the n-Heptane fore of 33 cm-sq.

(2).   When an Alarm (Detection) level condition is encountered, the detector delays the execution of the Alarm output relay by the specified period of time. The detector will then, additionally, evaluate the fire condition during the specified Alarm Delay Time. If the Alarm level is still present, the Alarm outputs will be activated. If this condition no longer exists, the detector will return to its standby state. The LED will indicate warning level during the delay time only if the fire condition exists.

(3)   The detector has a selectable latched alarm output capability, which operates according to the selectable function. If selected, upon the detection of a fire, the detection signal is latched until manually reset (disconnecting the power supply or performing a manual BIT). Latching affects the ALARM RELAY, 4-20mA output, the ALARM LED…

7
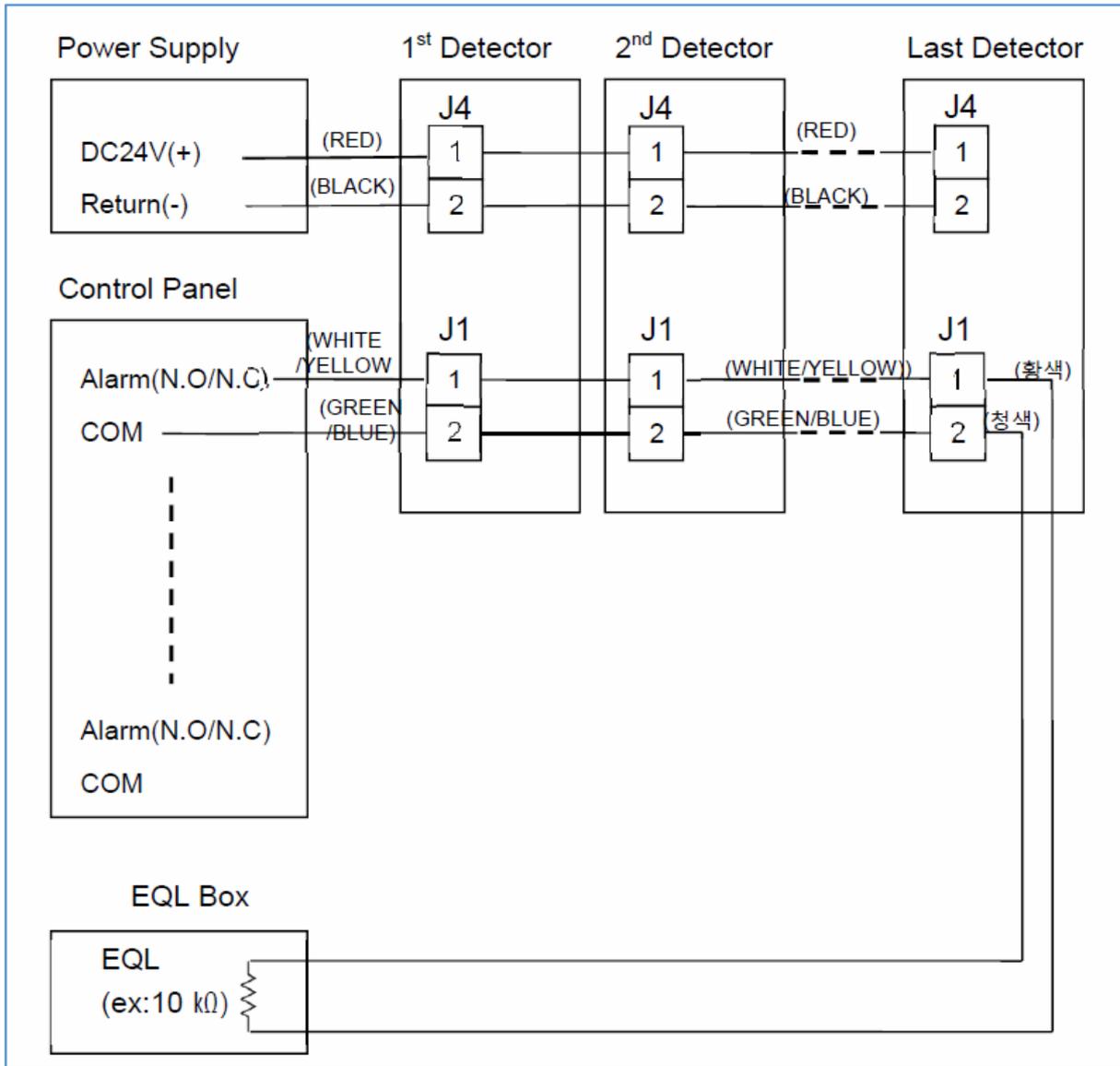
Notes: 1. (   ): denotes an example of optional colour wirings.

5   Techncial Specification

Model	ZT-30P	
Part Number	47-156	
Spectrum Response	Three IR Bands (IR3)	
Spectrum Response (at highest sensitivity setting for 0.1m^2 pan fire)	**Fuel** n-Heptane Gasoline Diesel LPG* Ethanol IPA Methane**	**Distance** 65m 65m 45m 30m 40m 40m 35m
	*0.5m high/0.2m width plume fire, **30" plume fire	
Response Time	Typically 5 seconds	
Adjustable Time Delay	Up to 20 seconds	
Sensitivity Range	4 sensitivity ranges for 0.1m^2 n-Heptane pan fire from 15m to 65m	
Field of View	Horizontal / Vertically Typical 120º & 120º Max	
Built-in-Test	Automatic self-check to verify the lens cleanliness/electronic circuits & etc	
Temperature Range	Operating/Storage:-40ºC to 75ºC	
Humidity	Up to 95% non-condensing	
Operating Voltage	24VDC nominal (18-32VDC)	
Power Consumption	Standby: max. 50mA, Alarm: max. 70mA	
Cable Entry	1 x Ø6mm	
Wiring	According to the requirements	
Electromagnetic Compatibility	Complies with EN 61000-6-4 and EN 50130-4	
Electrical Interface	4-Wiring relay contact outputs	
Relays	Alarm(N.O.), Fault(N.C) SPST volt-free contacts rated 5A at 30VDC or 250VAC	
RS-485 (option)	RS-485 Modbus compatible communication link that can be used in computer controlled installations	

Materials	Heavy duty copper free aluminium with white powder coating
Mounting (Tilt Mount)	Heavy duty copper free aluminium with white powder coating
Dimensions	Detector 63(D) x 110 (L) mm
Weight	Detector & Mounting Bracket (Aluminium): 0.3kg
Water and Dust	IP65
EMI/RFI	EN61000
Hazardous Area	N/A
Performance	Designed to meet FM3260 (EN54-10)

- END -