

# Conventional 2-Wire Detectors



UCPD-2W - Optical Detector



## Conventional Detectors

### Overview

This range of UL conventional detectors have been specifically designed to operate with the Cooper range of intelligent addressable control panel interfaces.

The optical detector (UCPD-2W) is suitable for most applications giving the fastest response to slow burning or smouldering fires which give rise to large visible smoke particles.

The photo-thermal detector (UCPT-2W) will respond quickly to fast clean burning fires yet maintain the advantage of optical detectors when detecting smouldering fires. The thermal enhancement of this detector allows a higher alarm threshold which provides a greater rejection of false alarms. The detector will also raise an alarm at temperatures exceeding 60°C.

The fixed heat detectors (UCHT-2W) and (UCHTI-2W) will detect temperatures above 135°F and 194°F. There are two versions of the rate of rise heat detector the (UCHR-2W) and the (UCHRI-2W) these are used to detect rapid increases in temperature with a maximum threshold of 135°F and 194°F. These detectors are designed to be used in environments where the ambient conditions might cause false alarms if smoke detection were to be used, for example where there is a high level of dust, fumes, steam or smoke under normal conditions.

### Features

- Two wire connection
- 360° visibility LED using lightpipe technology
- Wide range of detector types
- Drift compensation
- Removable detector chamber
- Aesthetically pleasing

### Benefits

- Quick and simple to install
- Wide viewing angle for increased LED visibility
- Common mounting base
- Positive "lock" indication
- Discreet design for incorporation in to any decor
- Easy to maintain/service



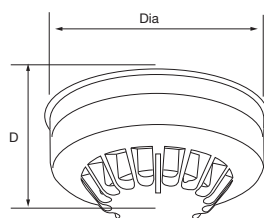
UCPT-2W - Photo-Thermal Detector

UCHT-2W / UCHTI-2W / UCHR-2W / UCHRI-2W  
Heat Detectors

## Technical Specification

Code	UCPD-2W	UCPT-2W	UCHT-2W	UCHTI-2W	UCHR-2W	UCHRI-2W
Description	Conventional Detector Optical, 2 Wire	Conventional Detector Photo-Thermal, 2 Wire	Conventional Detector Fixed Heat, 135°F, 2 Wire	Conventional Detector Fixed Heat, 194°F, 2 Wire	Conventional Detector Rate of Rise & Fixed Heat 135°F, 2 Wire	Conventional Detector Rate of Rise & Fixed Heat 194°F, 2 Wire
Standards	UL268	UL268	UL521	UL251	UL251	UL251
<b>Supply Ratings</b>						
Working Voltage	15V dc to 30V dc	15V dc to 30V dc	15V dc to 30V dc	15V dc to 30V dc	15V dc to 30V dc	15V dc to 30V dc
Voltage Waveform ripple @120Hz	Filtered dc +/- 1 V (max), ripple @120Hz	Filtered dc +/- 1 V (max), ripple @120Hz	Filtered dc +/- 1 V (max), ripple @120Hz	Filtered dc +/- 1 V (max), ripple @120Hz	Filtered dc +/- 1 V (max), ripple @120Hz	Filtered dc +/- 1 V (max), ripple @120Hz
Standby Current	95 $\mu$ A (average)	95 $\mu$ A (average)	70 $\mu$ A (average)	70 $\mu$ A (average)	70 $\mu$ A (average)	70 $\mu$ A (average)
Alarm Current	must be held externally to 40mA (max)	must be held externally to 40mA (max)	must be held externally to 40mA (max)	must be held externally to 40mA (max)	must be held externally to 40mA (max)	must be held externally to 40mA (max)
Surge Current	340 $\mu$ A (max)	340 $\mu$ A (max)	340 $\mu$ A (max)	340 $\mu$ A (max)	340 $\mu$ A (max)	340 $\mu$ A (max)
<b>Timings</b>						
Start-up Time	20 seconds	20 seconds	20 seconds	20 seconds	20 seconds	20 seconds
Reset Time	2 seconds (max)	2 seconds (max)	2 seconds (max)	2 seconds (max)	2 seconds (max)	2 seconds (max)
<b>Sensitivity</b>						
Sensitivity	2.55+/- 0.33%/ft	2.55+/- 0.33%/ft	N/A	N/A	N/A	N/A
Sensitivity Checker	Use No-Climb, TRUTEST, UL Listing 77TL	Use No-Climb, TRUTEST, UL Listing 77TL	Use No-Climb, TRUTEST, UL Listing 77TL	Use No-Climb, TRUTEST, UL Listing 77TL	Use No-Climb, TRUTEST, UL Listing 77TL	Use No-Climb, TRUTEST, UL Listing 77TL
<b>Heat Class</b>						
Heat Element Rating	N/A	135°F	135°F	194°F	135°F	194°F
Heat Detector Spacing	N/A	50ft (heat alone operation)	50ft	50ft	50ft	50ft
Mounting Position	Ceiling in open areas	Ceiling in open areas	Ceiling in open areas	Ceiling in open areas	Ceiling in open areas	Ceiling in open areas
<b>Environmental</b>						
Operating Temperature	32°F to 100°F	32°F to 100°F	32°F to 100°F	32°F to 150°F	32°F to 150°F	32°F to 150°F
Mounting Position	Ceiling in open areas	Ceiling in open areas	Ceiling in open areas	Ceiling in open areas	Ceiling in open areas	Ceiling in open areas
<b>Compatibility</b>						
Compatibility Identifier	W001	W001	W001	W001	W001	W001
Compatible Base	CB2E	CB2E	CB2E	CB2E	CB2E	CB2E
Suitable for use with	Cooper UL Fire Systems	Cooper UL Fire Systems	Cooper UL Fire Systems	Cooper UL Fire Systems	Cooper UL Fire Systems	Cooper UL Fire Systems

## Dimensions



Description	Dia (mm)	D (mm) (excl base)	D (mm) (incl base)
Optical	101	33	45
Photo-Thermal	101	43	55
Heat	101	43	55

## Installation

1. Detectors are fixed and wired via common mounting base (CB2E).
2. Cable entry into base can be rear or side.
3. A locking facility is provided which can be activated if required to prevent unauthorised detector removal without the use of a special tool.
4. Positive click mechanism incorporated to provide clear indication when detector is correctly located in base.

**Note:** For wiring information please see CB2E Base.

## User Interface

1. Red LED to indicate alarm condition.
2. Amber LED to indicate chamber fault/drift compensation limit (UCPD-2W and UCPT-2W models only).
3. All wiring connections are via a common mounting base (supplied separately).

## Product Codes

Code	Description
UCPD-2W	Conventional 2-Wire Detector, Optical
UCPT-2W	Conventional 2-Wire Detector, Photo-Thermal
UCHT-2W	Conventional 2-Wire Detector, Fixed Heat 135°F
UCHTI-2W	Conventional 2-Wire Detector, Fixed Heat 194°F
UCHR-2W	Conventional 2-Wire Detector, Rate of Rise and Fixed Heat 135°F
UCHRI-2W	Conventional 2-Wire Detector, Rate of Rise and Fixed Heat 194°F
CB2E	Conventional 2-Wire Standard Base