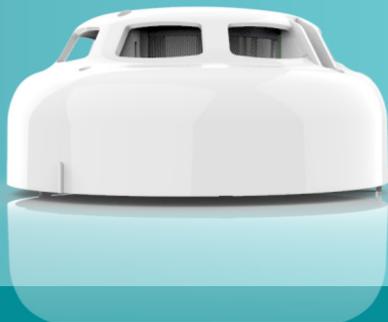


# ACD Multi-Sensor with CO

## Mode Selector Guide



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## 100 Years of Innovation

Introducing the ACD Multi-Sensor with CO. The most sophisticated multi-sensor Hochiki has brought to market to date.

This revolutionary product offers a staggering 24 EN54 approved modes of operation, including combinations of smoke detection, fixed temperature heat detection, rate of rise heat detection, CO detection and COHb toxicity recognition; making it ideal for a broad variety of applications.

The installer also has the ability to select a day mode and a night mode, increasing flexibility.

## False Alarm Reduction

The ACD is also enhanced for false alarm reduction. In the modes featuring the Reduced False Alarm function (+RFA), the sensor will automatically adjust the sensitivity of the optical sensing element over time, learning from its surrounding environment from the moment of installation.

## ESP Protocol

Furthermore, the ACD operates on Hochiki's world renowned, robust and reliable, ESP open protocol, giving specifiers, installers and end users an open choice on system design, installation and maintenance; and therefore complete control over costs.

## COHb Threat Detection

Traditionally, CO detection is integrated into a multi-sensor to assist with the rapid detection of smouldering fires through the release of CO gas. However, the ACD can also recognise the threat of carboxyhaemoglobin toxic poisoning, commonly referred to as carbon monoxide poisoning.

Carbon monoxide poisoning can be suffered as the result of either a sudden high exposure to CO, or a prolonged exposure over time. The ACD therefore monitors for both criteria and will report an alarm condition if either scenario is met.

## Global Approvals

The quality and performance of the ACD has been certified by two world-recognised approval bodies.

The ACD-EN has been approved by LPCB in accordance to EN54 Part 5, Part 7, Part 26, Part 29, Part 30 and Part 31; giving you total peace of mind.

The UL approved variant, the ACD-V, features 16 UL-approved operational modes and is fully compatible with modern UL fire systems.

## Mode Table

Each mode utilises different fire detection technologies either in combination or individually to generate a fire condition. This allows the installer the flexibility to “fine-tune” the ACD for any environment in which it is being fitted.

The table (right) summarises the modes available and details the detection technologies employed by each mode.

|    |                |    |                              |
|----|----------------|----|------------------------------|
| 9A | +S/FT/CO +RFA  | 8D | +S +FT +RoR +CO +COHb        |
| 9B | +CO/RoR        | 8E | +S/FT +COHb +RFA             |
| 80 | +S/H +RFA      | 8F | +S +COHb                     |
| 81 | +S/H           | 93 | +FT +RoR (A1) +COHb          |
| 82 | +S +RFA        | 94 | +FT +RoR (A1R) +COHb         |
| 83 | +S             | 95 | +FT (A1S) +COHb              |
| 87 | +FT +RoR (A1)  | 96 | +FT +RoR (C) +COHb           |
| 88 | +FT +RoR (A1R) | 97 | +FT +RoR (CR) +COHb          |
| 89 | +FT (A1S)      | 98 | +FT (CS) +COHb               |
| 8A | +FT +RoR (C)   | 99 | +S/H/CO +S +FT +RoR +CO/COHb |
| 8B | +FT +RoR (CR)  | 9C | +COHb                        |
| 8C | +FT (CS)       | 9D | +CO                          |

S= Smoke | FT = Fixed Temperature | RoR = Rate of Rise

COHb = CO Toxicity Threat | RFA = Reduced False Alarm

“+” denotes the primary detection element(s) making the fire decision.

”/” denotes the detection element is working in unison with the primary element(s).



## The SMART Algorithm

The ACD features a highly sophisticated algorithm which continually monitors the analogue value reading from a series of multiple samples of the environment and calculating an average value. This 'moving average' value is memorised by the sensor over time to determine the environment's baseline reading. We call this ground-breaking algorithm 'Suitable Moving AveRage Time', "SMART".

If no transient activity is detected within a set time period, the number of samples used to calculate the moving average is reduced, in effect adjusting the sensitivity of the sensor to its environment. If the environment remains clear for another set period, the number of samples used is reduced again.

However, any transient activity will result in the sensor automatically switching to the maximum number of samples, to quickly determine whether the transient is the start of a real fire or a false alarm, such as steam, burning food or cigarette smoke.

In this way the sensor remains as sensitive as it needs to be, based on its environment.

# 9A

## +S/FT/CO +RFA (Default)

This mode provides a multi-sensor operation using the smoke chamber as the primary detection element, supplemented and enhanced by both the heat and the CO elements. The Reduced False Alarm feature is also active, utilising the SMART algorithm. This is the default setting and is good for overall reliable fire protection.

### Application

The best mode for most indoor applications. Smoke detection is modified by heat and CO influence, providing the best detection of an actual alarm while minimising unwanted alarms. Applications include **indoor spaces, offices, classrooms, storage rooms, hallways**, etc. Unwanted alarms are further reduced by Hochiki's RFA Reduced False Alarm function which employs its SMART algorithm.



S= Smoke | FT = Fixed Temperature | RoR = Rate of Rise

COHb = CO Toxicity Threat | RFA = Reduced False Alarm

“+” denotes the primary detection element(s) making the fire decision.

”/” denotes the detection element is working in unison with the primary element(s).

# 9B

## +CO/RoR

This mode provides a multi-sensor operation using the CO element as the primary detection element, supplemented by the RoR heat element. This mode may be useful when a lot of steam or dust is present; the CO element can be monitored as an indication of possible smouldering fire.

### Application

This mode will provide a CO alarm. Use this mode in areas where smoke sensors would not be suitable due to dust, steam, or smoke.

Applications include **laundry rooms, boiler rooms, workshops, enclosed car parks, shower areas, kitchens, etc.**



S = Smoke | FT = Fixed Temperature | RoR = Rate of Rise

COHb = CO Toxicity Threat | RFA = Reduced False Alarm

“+” denotes the primary detection element(s) making the fire decision.

”/” denotes the detection element is working in unison with the primary element(s).

# 80

## +S/H +RFA

This mode provides a multi-sensor operation using the smoke chamber as the primary detection element, supplemented and enhanced by the heat element (“heat-enhanced smoke” operation) where the smoke sensitivity is adjusted according to the variation in temperature. The Reduced False Alarm feature is also active, utilising the SMART algorithm. The algorithm is bypassed if there is a temperature increase.

### Application

Protection of areas that have no special conditions but where unwanted alarm prevention is still a concern. **Indoor spaces, offices, classrooms, data centres, hallways**, etc. are kept safe from fire and unwanted alarms by Hochiki’s multi-sensor technology and their RFA Reduce False Alarm function.



S= Smoke | FT = Fixed Temperature | RoR = Rate of Rise  
COHb = CO Toxicity Threat | RFA = Reduced False Alarm

“+” denotes the primary detection element(s) making the fire decision.

”/” denotes the detection element is working in unison with the primary element(s).

# 81

## +S/H

This mode provides a multi-sensor operation using the smoke chamber as the primary detection element, supplemented and enhanced by the heat element (a “heat-enhanced smoke” operation).

### Application

This mode provides the same operation as the Hochiki Europe ACC-EN multi-sensor. Use the Smoke/Heat Multi mode in combination with another mode for the best in Day/Night protection of **offices, classrooms, theatres, workshops**, etc.



S= Smoke | FT = Fixed Temperature | RoR = Rate of Rise

COHb = CO Toxicity Threat | RFA = Reduced False Alarm

“+” denotes the primary detection element(s) making the fire decision.

”/” denotes the detection element is working in unison with the primary element(s).

# 82

## +S +RFA

This mode provides smoke sensor operation only, plus the Reduced False Alarm feature, utilising the SMART algorithm.

### Application

Excellent for areas where smoke detection is all that's needed, but the possibility of unwanted alarms is still a concern. The RFA Reduce False Alarm function will work to eliminate unwanted alarms from transient smoke or other false alarm sources. Applications include **offices, classrooms, equipment protection, hallways, elevator lobbies**, etc.



S= Smoke | FT = Fixed Temperature | RoR = Rate of Rise

COHb = CO Toxicity Threat | RFA = Reduced False Alarm

“+” denotes the primary detection element(s) making the fire decision.

”/” denotes the detection element is working in unison with the primary element(s).

# 83

+S

This mode provides smoke detection only, operating as a standard smoke sensor.

## Application

Smoke detection for Day or Night when the potential for unwanted alarms does not exist. This mode provides the same functionality as Hochiki Europe's ALN-EN smoke sensor. Applications include **offices, hallways, classrooms**, and other indoor areas where fast reliable detection of smoke is required. Use the Smoke mode in combination with another mode for the best in Day/Night protection.



S= Smoke | FT = Fixed Temperature | RoR = Rate of Rise

COHb = CO Toxicity Threat | RFA = Reduced False Alarm

“+” denotes the primary detection element(s) making the fire decision.

”/” denotes the detection element is working in unison with the primary element(s).

# 87

## +FT +RoR (A1)

In this mode either heat element is able to activate an alarm - either through a sharp rise in temperature (RoR) or after reaching a specific heat threshold (FT). The A1 EN heat classification indicates that in this mode the sensor's fixed temperature alarm threshold is set at 60 °C but that its RoR alarm will activate within a 33 °C rise above the ambient temperature.

### Application

Heat detectors are used for property protection in environments where smoke detectors are not suitable. Each Class (A1, A1R, etc.) provides different alarm thresholds and performance than the others. Applications may include **lift-shafts, plant rooms, boiler rooms**. With six modes to choose from, choose the one that best suits the environment taking into consideration the background temperature and any likely sources of heat.



S= Smoke | FT = Fixed Temperature | RoR = Rate of Rise

COHb = CO Toxicity Threat | RFA = Reduced False Alarm

“+” denotes the primary detection element(s) making the fire decision.

“/” denotes the detection element is working in unison with the primary element(s).

# 88

## +FT +RoR (A1R)

In this mode either heat element is able to activate an alarm - either through a sharp rise in temperature (RoR) or after reaching a specific heat threshold (FT). The A1R EN heat classification indicates that in this mode the sensor's fixed temperature alarm threshold is set at 60 °C but that its RoR alarm will activate within a 19 °C rise above the ambient temperature.

### Application

Heat detectors are used for property protection in environments where smoke detectors are not suitable. Each Class (A1, A1R, etc.) provides different alarm thresholds and performance than the others. Applications may include **lift-shafts, plant rooms, boiler rooms**. With six modes to choose from, choose the one that best suits the environment taking into consideration the background temperature and any likely sources of heat.



S= Smoke | FT = Fixed Temperature | RoR = Rate of Rise

COHb = CO Toxicity Threat | RFA = Reduced False Alarm

“+” denotes the primary detection element(s) making the fire decision.

”/” denotes the detection element is working in unison with the primary element(s).

# 89

## +FT (A1S)

In this mode just the fixed temperature heat element is able to activate an alarm, after reaching a specific heat threshold (FT). The A1S EN heat classification indicates that in this mode the sensor's fixed temperature alarm threshold is set at 60 °C and will not respond to temperatures below 54 °C.

### Application

Heat detectors are used for property protection in environments where smoke detectors are not suitable. Each Class (A1, A1R, etc.) provides different alarm thresholds and performance than the others. Applications may include **lift-shafts**, **plant rooms**, **boiler rooms**, and other applications. With six modes to choose from, choose the one that best suits the environment taking into consideration the background temperature and any likely sources of heat.



S= Smoke | FT = Fixed Temperature | RoR = Rate of Rise

COHb = CO Toxicity Threat | RFA = Reduced False Alarm

“+” denotes the primary detection element(s) making the fire decision.

”/” denotes the detection element is working in unison with the primary element(s).

# 8A

## +FT +RoR (C)

In this mode either heat element is able to activate an alarm - either through a sharp rise in temperature (RoR) or after reaching a specific heat threshold (FT). The C EN heat classification indicates that in this mode the sensor's fixed temperature alarm threshold is set at 88 °C but that its RoR alarm will activate within a 33 °C rise above the ambient temperature.

### Application

Heat detectors are used for property protection in environments where smoke detectors are not suitable. Each Class (A1, A1R, etc.) provides different alarm thresholds and performance than the others. Applications may include **lift-shafts, plant rooms, boiler rooms**. With six modes to choose from, choose the one that best suits the environment taking into consideration the background temperature and any likely sources of heat.



S= Smoke | FT = Fixed Temperature | RoR = Rate of Rise

COHb = CO Toxicity Threat | RFA = Reduced False Alarm

“+” denotes the primary detection element(s) making the fire decision.

”/” denotes the detection element is working in unison with the primary element(s).

# 8B

## +FT +RoR (CR)

In this mode either heat element is able to activate an alarm - either through a sharp rise in temperature (RoR) or after reaching a specific heat threshold (FT). The CR EN heat classification indicates that in this mode the sensor's fixed temperature alarm threshold is set at 88 °C but that its RoR alarm will activate within a 21 °C rise above the ambient temperature.

### Application

Heat detectors are used for property protection in environments where smoke detectors are not suitable. Each Class (A1, A1R, etc.) provides different alarm thresholds and performance than the others. Applications may include **lift-shafts, plant rooms, boiler rooms**. With six modes to choose from, choose the one that best suits the environment taking into consideration the background temperature and any likely sources of heat.



S= Smoke | FT = Fixed Temperature | RoR = Rate of Rise

COHb = CO Toxicity Threat | RFA = Reduced False Alarm

“+” denotes the primary detection element(s) making the fire decision.

”/” denotes the detection element is working in unison with the primary element(s).

# 8C

## +FT (CS)

In this mode just the fixed temperature heat element is able to activate an alarm, after reaching a specific heat threshold (FT). The CS EN heat classification indicates that in this mode the sensor's fixed temperature alarm threshold is set at 88 ° and will not respond to temperatures below 84 °C.

### Application

Heat detectors are used for property protection in environments where smoke detectors are not suitable. Each Class (A1, A1R, etc.) provides different alarm thresholds and performance than the others. Applications may include **lift-shafts, plant rooms, boiler rooms**. With six modes to choose from, choose the one that best suits the environment taking into consideration the background temperature and any likely sources of heat.



S= Smoke | FT = Fixed Temperature | RoR = Rate of Rise

COHb = CO Toxicity Threat | RFA = Reduced False Alarm

“+” denotes the primary detection element(s) making the fire decision.

”/” denotes the detection element is working in unison with the primary element(s).

# 8D

## +S +FT +RoR +CO +COHb

This mode provides smoke detection, fixed temperature heat detection, rate-of-rise heat detection, CO detection and a COHb toxicity threat alarm. Each detection element within the sensor is active, operating independently and is capable of creating an alarm event.

### Application

Complete detection is provided by this mode as it combines smoke, heat, and CO detection in one sensor. Applications include **sleeping rooms, classrooms, day care centres, hospital patient rooms, laboratories**, and so on. The COHb toxicity threat function will indicate a life-threatening concentration of CO that requires urgent action and should be used in environments populated by those most vulnerable to CO poisoning, i.e. the very young and the very old.



S= Smoke | FT = Fixed Temperature | RoR = Rate of Rise  
COHb = CO Toxicity Threat | RFA = Reduced False Alarm

“+” denotes the primary detection element(s) making the fire decision.

”/” denotes the detection element is working in unison with the primary element(s).

# 8E

## +S/FT +COHb +RFA

This mode provides a multi-sensor operation using the smoke chamber as the primary detection element, supplemented and enhanced by the heat element. This mode also provides independent operation of the CO element to monitor for COHb toxicity threat.

### Application

An excellent choice for **sleeping rooms, classrooms, day care centres**, and other similar locations where the possibility of unwanted alarms exists due to smoke, dust, or steam. COHb toxicity threat detection provides protection from CO poisoning based on time and concentration of invisible, yet toxic, CO gas.



S= Smoke | FT = Fixed Temperature | RoR = Rate of Rise  
COHb = CO Toxicity Threat | RFA = Reduced False Alarm

“+” denotes the primary detection element(s) making the fire decision.

”/” denotes the detection element is working in unison with the primary element(s).

# 8F

## +S +COHb

This mode provides independent operation of the smoke chamber and the CO element monitoring for COHb toxicity threat.

### Application

A smoke-only mode with the COHb toxicity threat detection mode included. Hochiki's RFA Reduce False Alarm feature is also applied in this mode. Excellent for rooms where smoke and potential life-threatening CO detection are needed such as **hotel rooms, classrooms, sleeping rooms, hotel hallways, car parks**, and so on.



S= Smoke | FT = Fixed Temperature | RoR = Rate of Rise  
COHb = CO Toxicity Threat | RFA = Reduced False Alarm

“+” denotes the primary detection element(s) making the fire decision.

”/” denotes the detection element is working in unison with the primary element(s).

# 93

## +FT +RoR (A1) +COHb

In this mode either heat element is able to activate an alarm - either through a sharp rise in temperature (RoR) or after reaching a specific heat threshold (FT). The A1 EN heat classification indicates that in this mode the sensor's fixed temperature alarm threshold is set at 60 °C but that its RoR alarm will activate within a 33 °C rise above the ambient temperature. The CO element is also monitoring for COHb toxicity threat, i.e. CO concentration over time.

### Application

Heat detectors with the COHb toxicity threat detection mode are used for property protection in environments where smoke detectors are not suitable. Each Class (A1, A1R, etc.) provides different alarm thresholds and performance than the others. Applications may include **elevator hoist-ways, mechanical rooms, boiler rooms**. With six modes to choose from, choose the one that best suits the environment and use.



S= Smoke | FT = Fixed Temperature | RoR = Rate of Rise

COHb = CO Toxicity Threat | RFA = Reduced False Alarm

“+” denotes the primary detection element(s) making the fire decision.

”/” denotes the detection element is working in unison with the primary element(s).

# 94

## +FT +RoR (A1R) +COHb

In this mode either heat element is able to activate an alarm - either through a sharp rise in temperature (RoR) or after reaching a specific heat threshold (FT). The A1R EN heat classification indicates that in this mode the sensor's fixed temperature alarm threshold is set at 60 °C but that its RoR alarm will activate within a 19 °C rise above the ambient temperature. The CO element is also monitoring for COHb toxicity threat, i.e. CO concentration over time.

### Application

Heat detectors with the COHb toxicity threat detection mode are used for property protection in environments where smoke detectors are not suitable. Each Class (A1, A1R, etc.) provides different alarm thresholds and performance than the others. Applications may include [elevator hoist-ways](#), [mechanical rooms](#), [boiler rooms](#), and other applications. With six modes to choose from, choose the one that best suits the environment and use.



S= Smoke | FT = Fixed Temperature | RoR = Rate of Rise

COHb = CO Toxicity Threat | RFA = Reduced False Alarm

“+” denotes the primary detection element(s) making the fire decision.

”/” denotes the detection element is working in unison with the primary element(s).

# 95

## +FT (A1S) +COHb

In this mode just the fixed temperature heat element is able to activate an alarm, after reaching a specific heat threshold (FT). The A1S EN heat classification indicates that in this mode the sensor's fixed temperature alarm threshold is set at 60 °C and will not respond to temperatures below 54 °C. The CO element is also monitoring for COHb toxicity threat, i.e. CO concentration over time.

### Application

Heat detectors with the COHb toxicity threat detection mode are used for property protection in environments where smoke detectors are not suitable. Each Class (A1, A1R, etc.) provides different alarm thresholds and performance than the others. Applications may include [elevator hoist-ways](#), [mechanical rooms](#), [boiler rooms](#). With six modes to choose from, choose the one that best suits the environment and use.



S= Smoke | FT = Fixed Temperature | RoR = Rate of Rise

COHb = CO Toxicity Threat | RFA = Reduced False Alarm

“+” denotes the primary detection element(s) making the fire decision.

”/” denotes the detection element is working in unison with the primary element(s).

# 96

## +FT +RoR (C) +COHb

In this mode either heat element is able to activate an alarm - either through a sharp rise in temperature (RoR) or after reaching a specific heat threshold (FT). The C EN heat classification indicates that in this mode the sensor's fixed temperature alarm threshold is set at 88 °C but that its RoR alarm will activate within a 33 °C rise above the ambient temperature. The CO element is also monitoring for COHb toxicity threat, i.e. CO concentration over time.

### Application

Heat detectors with the COHb toxicity threat detection mode are used for property protection in environments where smoke detectors are not suitable. Each Class (A1, A1R, etc.) provides different alarm thresholds and performance than the others. Applications may include **elevator hoist-ways, mechanical rooms, boiler rooms**. With six modes to choose from, choose the one that best suits the environment and use.



S= Smoke | FT = Fixed Temperature | RoR = Rate of Rise

COHb = CO Toxicity Threat | RFA = Reduced False Alarm

“+” denotes the primary detection element(s) making the fire decision.

“/” denotes the detection element is working in unison with the primary element(s).

# 97

## +FT +RoR (CR) +COHb

In this mode either heat element is able to activate an alarm - either through a sharp rise in temperature (RoR) or after reaching a specific heat threshold (FT). The CR EN heat classification indicates that in this mode the sensor's fixed temperature alarm threshold is set at 88 °C but that its RoR alarm will activate within a 21 °C rise above the ambient temperature. The CO element is also monitoring for COHb toxicity threat, i.e. CO concentration over time.

### Application

Heat detectors with the COHb toxicity threat detection mode are used for property protection in environments where smoke detectors are not suitable. Each Class (A1, A1R, etc.) provides different alarm thresholds and performance than the others. Applications may include **elevator hoist-ways, mechanical rooms, boiler rooms**. With six modes to choose from, choose the one that best suits the environment and use.



S= Smoke | FT = Fixed Temperature | RoR = Rate of Rise

COHb = CO Toxicity Threat | RFA = Reduced False Alarm

“+” denotes the primary detection element(s) making the fire decision.

”/” denotes the detection element is working in unison with the primary element(s).

# 98

## +FT (CS) +COHb

In this mode just the fixed temperature heat element is able to activate an alarm, after reaching a specific heat threshold (FT). The CS EN heat classification indicates that in this mode the sensor's fixed temperature alarm threshold is set at 88 ° and will not respond to temperatures below 84 °C. The CO element is also monitoring for COHb toxicity threat, i.e. CO concentration over time.

### Application

Heat detectors with the COHb toxicity threat detection mode are used for property protection in environments where smoke detectors are not suitable. Each Class (A1, A1R, etc.) provides different alarm thresholds and performance than the others. Applications may include [elevator hoist-ways](#), [mechanical rooms](#), [boiler rooms](#). With six modes to choose from, choose the one that best suits the environment and use.



S= Smoke | FT = Fixed Temperature | RoR = Rate of Rise

COHb = CO Toxicity Threat | RFA = Reduced False Alarm

“+” denotes the primary detection element(s) making the fire decision.

”/” denotes the detection element is working in unison with the primary element(s).

# 99

## +S/H/CO +S +FT +RoR +CO/COHb

In this mode, the sensor operates as a true multi-sensor, in that all three of the sensing elements are working in combination as well as separately in contributing to the fire decision. The heat and CO elements are also working in combination and independently to activate an alarm condition. The CO element is also monitoring for COHb toxicity threat, i.e. CO concentration over time.

### Application

With all detection options and combinations active in making the fire decision in conjunction with the Reduced False Alarm (RFA) feature, this mode will provide you with an outstanding opportunity to detect any fire event while ignoring transient smoke, dust, or steam that would otherwise result in an unwanted alarm. Applications include **apartments/dormitories, sleeping rooms, day care centres, hospital rooms and common areas, classrooms**, and many more.



S= Smoke | FT = Fixed Temperature | RoR = Rate of Rise  
COHb = CO Toxicity Threat | RFA = Reduced False Alarm

“+” denotes the primary detection element(s) making the fire decision.

”/” denotes the detection element is working in unison with the primary element(s).

# 9C

## +COHb

This mode provides the COHb toxicity threat detection only, intended for the specific detection of a CO poisoning condition, i.e. life-threatening CO concentration over time.

### Application

This mode is intended for use in **sleeping areas, hotel rooms, day care centres, hospital patient rooms**, etc. where the early warning of the toxicity threat from high and long exposure to CO gas is required to protect life.



S= Smoke | FT = Fixed Temperature | RoR = Rate of Rise

COHb = CO Toxicity Threat | RFA = Reduced False Alarm

“+” denotes the primary detection element(s) making the fire decision.

”/” denotes the detection element is working in unison with the primary element(s).

# 9D

## +CO

This mode provides detection of CO, either released during the early stages of a smouldering fire, or from other methods. It utilises just the CO sensing element to make the fire decision based on an increase of CO level.

### Application

This mode is used for special applications where CO must be measured and an alarm indicated when a certain ppm concentration is reached. Applications include **car parks, boiler rooms, generator rooms**, and any other location where CO may be generated present.



S= Smoke | FT = Fixed Temperature | RoR = Rate of Rise

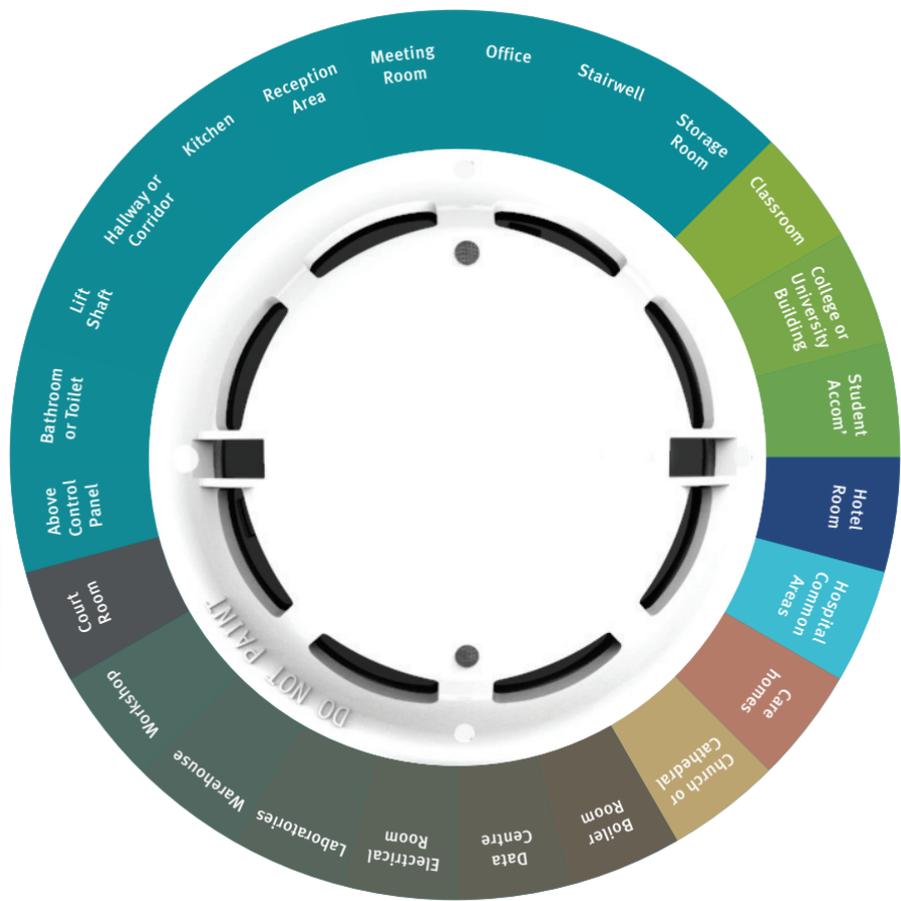
COHb = CO Toxicity Threat | RFA = Reduced False Alarm

“+” denotes the primary detection element(s) making the fire decision.

”/” denotes the detection element is working in unison with the primary element(s).



For more information please visit:  
[www.hochikieurope.com/acd](http://www.hochikieurope.com/acd)



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V1 | NOV19



**Your Safety, Our Technology**