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1. General

This instruction manual is for the ProFi fire alarm system.

All rules and regulations in EN54 are to bee followed. The instructions in this manual are to bee followed only when no conflicts to EN54 occurs. If there are some questions regarding installation that isn't explained here, don't hesitate to contact HedPro Oy.

In this manual **all sensors, modules, bases etc. which are connected to the loop are called points**.

The mains power or the battery power must not be connected before the conditions in the chapter xxx are satisfied.

2. Conformity with the CE-Requirements

The ProDex fire alarm system is tested according to rules and regulations of the EN54. The equipment in conformity with EMC-directive 89/336/EEC if they are installed following the instructions issued by Oy HedPro Ab. In addition to that they are in conformity with low voltage directives 73/23/ EEC and 93/68/ EEC.

The equipment is CE-labelled.

The following general standards and product range standards have been followed.

Emission: **EN50081-1**

Immunity **EN50130-4**

2.1. Cables

All cables to the points must be of type KLMA, MMSA or MMPMA with metal shielding.

All other signal cables E.g. to the bells, to the user panels, RS232/485 must be off type MHS with metal shielding.

All cable shields have to be connected to the shield connection of the control panel housing and to the user panel housing.

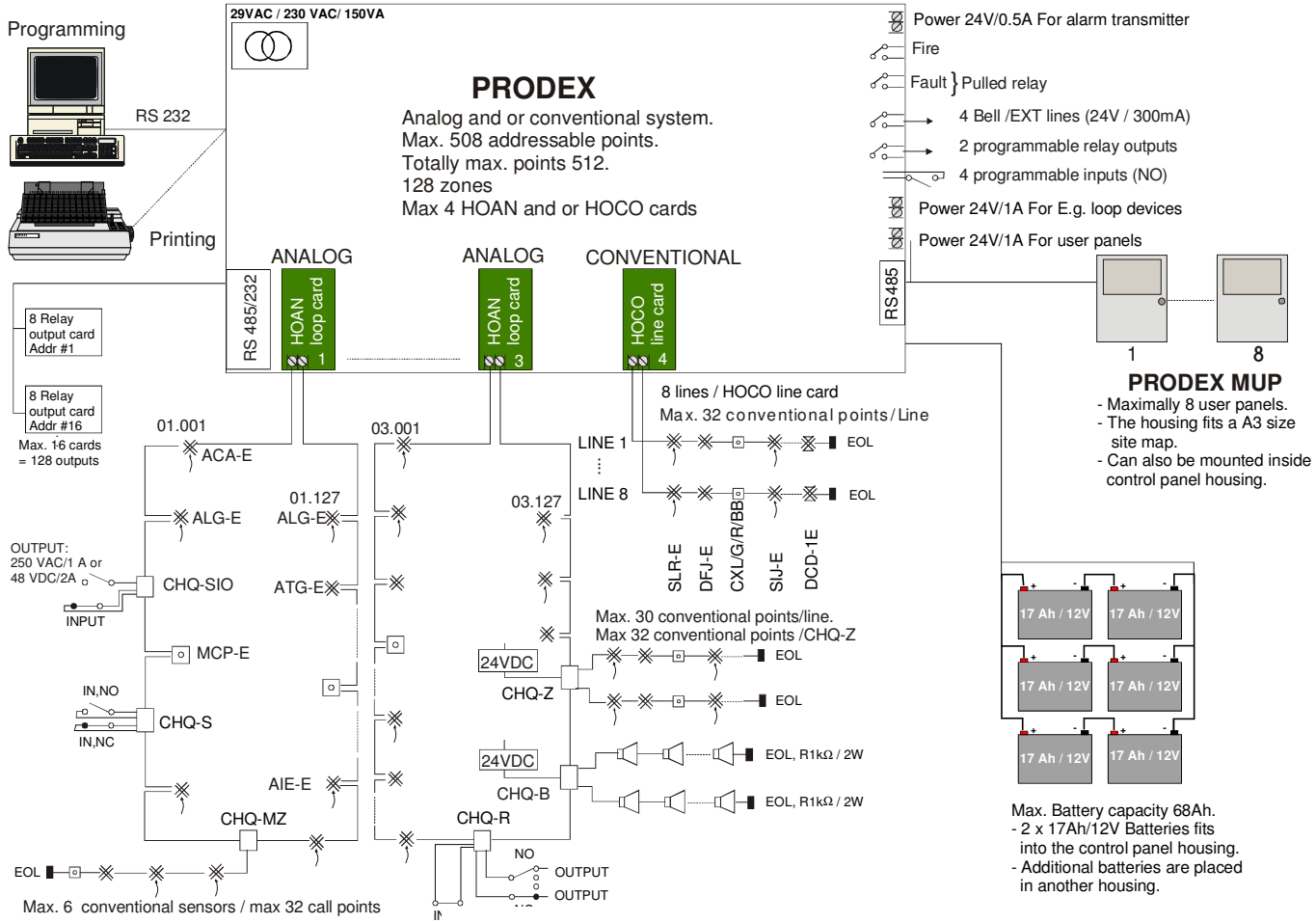
If the point has a terminal for the shield the cable shielded must be connected to it.

The mains cable to the power transformer must be of type MMJ (or. similar).

2.2. Ferrites

The user panel cable must have a ferrite at the user panel end.

3. Wiring diagram of the system



Picture 3-1

3.1. Cabling: types, dimensions, pairs

This table shows cable types, lengths and other parameters for the different connections to the system.

Connection	Cable type	Conductor pairs	Max. Length	Max. Voltage loss	Max. Resistance for the conductor pairs	Max. Capacitance	Shield	Notes
Mains	MMJ 3x1.5S	3 conductors	-			-		
Transformer - MABO	MMO 2x0.75	2 conductors	-			-		Inside the housing
Ground	MK 6	1 conductors	-			-		Connected to the control panel housing
MABO-MUP	MHS	min. 3	500m	5.5V	25Ω	? µF	Yes, connected to the housing	Resistance for the voltage pairs. 1 pairs data 1 pair voltage A 1 pair voltage B
HOAN loop	KLMA	min. 1	Calculated from resistance / capacitance		74Ω	0.7µF	Yes, connected to the housing	Resistance measured from the more unfavourable side of the loop to any point
HOCO line	KLMA	1	Calculated from resistance / capacitance		74Ω	0.7µF	Yes, connected to the housing	Resistance to the last point on the line
Power for CHQ-Z	MHS / KLMA	min. 1	depending on used pairs	0.5V	7.1Ω		Yes, connected to the housing	Eg. Using 8 conductors the maximum distance is 4x36=144m [pairs x 36 = distance]
Power for CHQ-B	MHS / KLMA	min. 1	depending on used pairs	1.3V			Yes, connected to the housing	The lenght is dependent on used bell type. Eg. 2 conductors for one MSB-6B/24 Bell Imax= 28 mA
BELL / EXT lines	MHS / KLMA	min. 1	1000m			0.7µF	Yes, connected to the housing	The lenght is dependent on used bell type. Eg. 2 conductors for one MSB-6B/24 Bell Imax= 28 mA
Relay outputs	MHS / KLMA	min. 1	1000m			0.7µF	Yes, connected to the housing	Resistance and voltage loss is dependent on the power consumption of the device connected to the relay
Inputs	MHS / KLMA	min. 1	1000m			0.7µF	Yes, connected to the housing	

Picture 3-2

4. Analog loop points (devices)

4.1. Sensors and Bases

4.1.1. General

The following sensors are supported:

- ACA-E, Multi sensor
- AIE-E, Ionistaion smoke sensor
- ALG-E, Photoelectric smoke sensor
- ATG-E, Heat sensor

The following bases are supported:

- YBN-R/3, normal mounting base.
- YB0-R/SCI, Short circuit isolator base.
- CHQ-BS, Sounder Base.

4.1.2. Multi-sensor ACA-E



Picture 4-1

ACA-E is a multi sensor, which has an optical, and a thermal element.

Features:

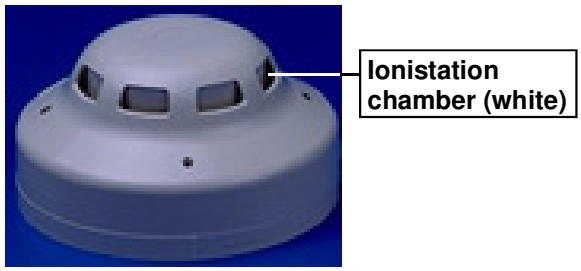
- Incorporates an Optical & Heat element
- Flat response Chamber
- Twin fire LED's allow 360° viewing
- Removable chamber
- Polling LED's controlled from Panel
- Variable sensitivity
- Approved to EN54 Part 5 & 7

The ACA-E has three modes, which are controlled from the Control Panel, allowing either the optical element or thermal element or both elements to be active in making the fire decision; also the sensor polling LED's can be controlled via the Control Panel.

The ACA-E smoke chamber can easily be removed or replaced for cleaning and the sensor can be locked onto its base by removing a small lug on the underside of the sensor.

4.1.3. Ionisation smoke sensor AIE-E

AIE-E is an Ionisation Sensor.



Picture 4-2

Features:

- Low standby current
- Twin fire LED's allow 360° viewing
- Shielded from external noise
- Electronics free mounting base
- Variable sensitivity
- Electronically Addressed
- Approved to EN54 Part 7

A single radioactive source within the AIE-E ionises two chambers, which allows a small DC current to flow between the electrodes in each chamber. Smoke can freely enter the outer chamber whilst the inner chamber is virtually sealed. Smoke entering the outer chamber causes a reduction in the DC current, the imbalance between the two currents is proportional to smoke density, which is filtered and transmitted as the analogue value.

The threshold on the AIE-E can be adjusted to compensate for contamination. The adjustment can be made from the user panel or the PC software.

4.1.4. Photoelectric smoke sensor ALG-E

ALG-E is a Photoelectric Sensor.



Picture 4-3

Features:

- Flat response Chamber
- Twin fire LED's allow 360° viewing
- Removable chamber
- Electronics free mounting base
- Variable sensitivity
- Approved to EN54 Part 7

The ALG-E incorporates Hochiki's unique 'Flat Response Technology' removing the need to use Ionisation Sensors in the majority of applications and this also allows the sensor threshold level to be increased, thereby improving the signal to noise ratio and reducing susceptibility to false alarms.

4.1.5. Heat sensor ATG-E

ATG-E is a Heat Sensor.



Picture 4-4

Features:

- Low standby current
- Twin fire LED's allow 360° viewing
- Highly linear thermistor circuit
- Electronics free mounting base
- Variable sensitivity
- Approved to EN54 Part 5

The ATG-E Heat Sensor provides accurate temperature measurement data to the fire alarm control panel, which calculates the necessary fixed temperature functions as required by the appropriate standards.

The ATG-E is particularly suited to environments where high ambient temperatures exist such as boiler and drying rooms and where smoke sensors are unsuitable because of the presence of steam or cooking fumes such as in a kitchen.

4.1.6. Common base YBN-R/3

YBN-R/3 is the common mounting base for the analog sensors.

Features:

- Electronics free
- Quick Connection via square cable clamps
- Stainless steel contacts
- Takes 2.5mm² cables
- Slim profile only 8 mm.
- Facility for remote indicator



Picture 4-5

4.1.7. Short circuit isolator, base YBO-R/SCI

YBO-R/SCI is a Loop Isolator base. It detects short circuits and cuts the loop power off from the sensors, which are affected of the short circuit.

Features:

- Incorporates Analogue Base
- Detects short circuits on loop
- Status LED
- Connection of up to 127 per loop
- Bayonet slot, low insertion force for detectors



YBO-R/SCI short circuit isolator base with cover

Picture 4-6

The YBO-R/SCI Base is compatible with any of the ASX Sensors, and can be used instead of the standard YBN-R/3 Base; this reduces the cost of the Short Circuit Isolators and improves the functionality. The Base incorporates an amber LED to show when it is isolating a section of the loop, and when used under each analogue Sensor if a single short circuit was to occur on the loop then no Sensors would be lost.

The YBO-R/SCI does not use an address, and has the same wiring configuration as the YBN-R/3 Sensor Base making it very simple to install. The YBO-R/SCI can also be used without a Sensor; in this case a cover should be fitted to conceal the wiring connections.

The YBO-R/SCI base doesn't reserve an own address in the loop.

4.1.8. Loop powered base sounder CHQ-BS

Model CHQ-BS is a Loop Powered Sounder Base.

Features:

- Incorporates Analogue Base
- Loop Powered
- Selection of Tones
- Single Loop Address
- Variable sound output 72-95 dB (A)

The CHQ-BS comprises of a low profile design sounder and base for the ASX range sensors.



CHQ-BS Base sounder with cover

Picture 4-7

The unit doesn't reserve an own address if the unit is used as a base for a sensor. If the unit is simply wall mounted (with a clip cover) the unit reserves 1 address.

The unit can also be mounted as a Wall Mounted version by the simple addition of a clip on cover.

4.1.9. Technical data

Specifications:	ACA-E	AIE-E	ALG-E	ATG-E	YBN-R/3	YBO-R/SCI	CHQ-BS
Operating voltage (high) [V]	24 – 40	24 – 40	24 – 40	24 – 40	24 – 40	24 – 40	24 – 40
Quiescent current [µA]	500	400	400	400	-	50	250
Operating temperature range [°C]	-10 - +50	-10 - +50	-10 - +50	-10 - +50	-10 - +50	-10 - +50	-10 - +50
Maximum humidity (non condensing at 40°C)	95% RH	95% RH	95% RH	95% RH	95% RH	95% RH	95% RH
Dimensions [mm]	100 x 56 [1)]	100 x 54 [1)]	100 x 46 [1)]	100 x 40 [1)]	100 x 8 [1)]	100 x 13 [1)]	115 x 27 [1)]
Compatible Bases	YBN-R/3, CHQ-BS, YBO-R/SCI	YBN-R/3, CHQ-BS, YBO-R/SCI	YBN-R/3, CHQ-BS, YBO-R/SCI	YBN-R/3, CHQ-BS, YBO-R/SCI			
Base Fixing Centres [mm]	48 through to 74	48 through to 74	48 through to 74	48 through to 74	48 through to 74	48 through to 74	48 through to 74
Weight (including base) [g]	100 (145)	115 (160)	95 (140)	90 (135)	45	85	200

(1) diameter x height [**d** x **h**]
(2) length x width x height [**l** x **w** x **h**]

4.2. Other devices

4.2.1. General

The following other products are supported:

- CHQ-MZ, Mini zone module for connecting conventional points to an analog loop.
- CHQ-Z, Zone module for connecting 2 conventional zones to an analog loop.
- CHQ-B, Bell module for connecting 2 bell lines.
- CHQ-R, module with 2-relay outputs and 1 input.
- CHQ-S, module with 2 inputs.
- CHQ-SIO, module with 8 inputs and 8 outputs.
- CHQ-FIO, module with 1 input and 1 output.

4.2.2. Mini zone module, CHQ-MZ

Model CHQ-MZ is a Mini Zone Monitor designed to allow the CD and CDX range of detectors to be interfaced to the analogue addressable system. The unit will allow connection of up to 6 conventional detectors (of type SLK, SLR, SIJ, DCD, DFJ), which are fully monitored for open or short circuit. You can also connect conventional call points to a maximum point count of 32 (including sensors and points).



Picture 4-8

The CHQ-MZ has a simple DIL switch for addressing.

The unit is delivered with a separate mounting box, CHQ-BOX-S which ingress protection is IP67.

The conventional zone on the CHQ-MZ does not support any line continuity options, therefore if Call Points are being interfaced they should be wired at the beginning of the zone.

Features:

- Loop Powered.
- Up to 6 Conventional Detectors.
- The maximum count of attached points is 32. (6 detectors and 26 call points)
- Single Loop Address.
- Remote LED Output
- Fully Monitored for Short and Open Circuit Faults
- Approved to EFSG for line units
- An open collector output is provided. The Control Panel controls this output.

Technical data:

Operating voltage (high) [V]	24 – 40
Quiescent current [µA]	310
Capacitance on Conventional slave line	0.3 µF Max
Resistance on Conventional slave line	50Ω Max
E.O.L Device	Zener 24V / 0.4W
Open Collector Output Rating	24 VDC, 5 mA
Operating temperature range [°C]	-10 - +50
Maximum humidity (non condensing at 40°C)	95% RH
Dimensions (OEM-unit) [mm] L x W x H	(147 x 90 x 23) 160 x 110 x 92
Weight (OEM-unit) [g]	(75), 120

4.2.3. Zone module, CHQ-Z

Model CHQ-Z is a Dual Zone Monitor designed to allow the CD and CDX range detectors to be interfaced to the analogue addressable system. You can connect a maximum of 32 conventional points to the slave lines.



Picture 4-9

The CHQ-Z has a simple DIL switch for addressing.

The unit is delivered with a separate mounting box, CHQ-BOX-L which ingress protection is IP67.

The conventional zone on the CHQ-Z does not support any line continuity options, therefore if Call Points are being interfaced they should be wired at the beginning of the zone.

By installing a short circuit isolator base on both sides of the zone module you ensure that not more then 32 points are lost if a short circuit occurs.

The module needs external power supply 24 VDC.

Features:

- Single loop address
- Requires an auxiliary 24 VDC Supply
- Supports 2 independent zones of conventional detectors
- Both slave lines are fully monitored for short/open circuit
- Approved to EFSG for line units
- Fully monitored for open and short circuit.
- An open collector output is provided. The Control Panel controls this output.

Technical data:

Operating voltage (high) [V]	24 – 40
Quiescent current [µA]	350
External power supply [V]	20 – 28.8
From External power supply: Quiescent current [µA]	800
From External power supply: Both slave lines in Alarm state, current [mA]	70
Capacitance on Conventional slave line	0.3 µF Max
Resistance on Conventional slave line	50Ω Max
E.O.L Device	Zener 24V / 0.4W
Open Collector Output Rating	30 VDC, 30 mA
Detectors / slave line	Conventional call points – 32, SLK, SLR, SIJ, DCD, DFJ max 30. (Total max. 32)
Maximum point count (including both slave lines)	32
Operating temperature range [°C]	-10 - +50
Maximum humidity (non condensing at 40°C)	95% RH
Dimensions (OEM-unit) [mm] L x W x H	(185 x 97 x 30) 235 x 160 x 92
Weight (OEM-unit) [g]	(120), 550

4.2.4. Bell Module, CHQ-B

Model CHQ-B is a Dual Sounder Controller. The Dual Circuit Sounder Controller has two, sounder outputs with full fault monitoring. The monitored input can be used for local power supply fault monitoring or as a general-purpose input.

The CHQ-B has a simple DIL switch for addressing.

The unit is delivered with a separate mounting box, CHQ-BOX-L which ingress protection is IP67.



Picture 4-10

- The unit has a red led / bell line to indicate that it's active.
- The sounder output fault is indicated with a yellow flashing led.
- Polling is indicated with a green led.

The module needs external power supply 24 VDC for the Bells.

Features:

- Single loop address.
- Each alarm circuit fused at 1A.
- Two independent sounder circuits.
- Each circuit fully monitored for open and short circuit faults.
- Auxiliary monitored input.
- Outputs can be driven continuously or synchronized pulsed sounder drive.

Technical data:

Operating voltage (high) [V]	24 – 40
Quiescent current [µA]	340
External power supply for sounders [V]	19.2 - 30
Current consumption from External power supply: quiescent current [mA / active bell line]	8
Maximal output current / line [A]	1A
Maximal Capacitance / Bell line [µF]	0.3µF
Bell line E.O.L Device [kΩ]	1 kΩ (2W resistor).
Input line E.O.L device [Ω]	10kΩ (0.25W resistor)

Input ON threshold level [Ω]	470Ω ± 20%
Input, short circuit threshold level [Ω]	< 50Ω
Input, open circuit threshold level [kΩ]	> 100kΩ
Operating temperature range [°C]	-10 - +50
Maximum humidity (non condensing at 40°C)	95% RH
Dimensions (OEM-unit) [mm] L x W x H	(185 x 97x 30) 235 x 160 x 92
Weight (OEM-unit) [g]	(120), 550

4.2.5. Output module, CHQ-R

Model CHQ-R is a Dual Relay Controller.

It has two general-purpose relay outputs; each output can be driven separately for control of such devices as dampers or for control of plant and equipment shutdown etc. A general-purpose auxiliary input is provided which is fully monitored for short and open circuit; the monitoring can be disabled with bit 8 on the DIL switch.



Picture 4-11

The CHQ-R has a simple DIL switch for addressing.

- Polling is indicated with a red led.

The unit is delivered with a separate mounting box, CHQ-BOX-S which ingress protection is IP67.

Features:

- Loop powered.
- Single loop address.
- 2 Independently controlled changeover relays (NC / NO).
- Relays contact rated at 30 VDC at 1A.
- Auxiliary monitored input.

Technical data:

Operating voltage (high) [V]	24 – 40
Quiescent current [µA]	350
Maximum contact rating for the relays	30V, 1A
Input E.O.L Device [kΩ]	10 kΩ (0.25W resistor).
Input ON threshold level [Ω]	470Ω ± 20%
Input, short circuit threshold level [Ω]	< 50Ω
Input, open circuit threshold level [kΩ]	> 100kΩ
Operating temperature range [°C]	-10 - +50
Maximum humidity (non condensing at 40°C)	95% RH
Dimensions (OEM-unit) [mm] L x W x H	(147 x 90 x 23) 160 x 110 x 92

Weight (OEM-unit) [g]	(50), 120

4.2.6. Switch module, CHQ-S

Model CHQ-S is a Dual Switch Monitor.



Picture 4-12

The unit monitors two independent voltage free contacts, which can be selected as either normally open or normally closed. The selection is made with a DIL switch.

The Dual Switch Monitor can be used to interface a variety of inputs such as door contacts, sprinkler flow/ door switches and plant equipment.

The CHQ-S has a simple DIL switch for addressing.

- Polling is indicated with a red led.

The unit is delivered with a separate mounting box, CHQ-BOX-S which ingress protection is IP67.

Features:

- Single loop address.
- Loop powered.
- 2 independent inputs for monitoring of voltage free contacts.
- Each input can be configured to monitor either normally open or normally close contacts.

Technical data:

Operating voltage (high) [V]	24 – 40
Quiescent current [µA]	330 [1)]
Maximum current consumption, both inputs active [mA]	4.3
Input ON threshold level [Ω]	< 50Ω
Input, OFF threshold level [kΩ]	> 100kΩ
Operating temperature range [°C]	-10 - +50
Maximum humidity (non condensing at 40°C)	95% RH
Dimensions (OEM-unit) [mm] L x W x H	(147 x 90 x 23) 160 x 110 x 92
Weight (OEM-unit) [g]	(75), 120

1) Add 85µA / input for NC monitoring.

4.2.7. Single Input / Output module, CHQ-SIO

Model CHQ-SIO is a Single Input / Output Module.



Picture 4-13

The module has one single mains rated relay output, for the control of such devices as dampers, extractors or plant and equipment shutdown.

A general-purpose auxiliary input is provided which is fully monitored for short and open circuit; the monitoring can be disabled with bit 8 on the DIL switch.

The CHQ-SIO has a simple DIL switch for addressing.

- Polling is indicated with a red led.

The unit is delivered with a separate mounting box, CHQ-BOX-S which ingress protection is IP67.

Features:

- Single loop address.
- Loop powered.
- Single mains rated relay contact, at 250 VAC 1A (Resistive) / 48 VDC 2A (Resistive).
- Auxiliary monitored input.
- Screw terminals & flying leads for easy cable termination.

Technical data:

Operating voltage (high) [V]	24 – 40
Quiescent current [µA]	350
Relay contact rating	250 VAC / 1A (resistive), 48 VDC / 2 A (resistive)
Input E.O.L Device [kΩ]	10 kΩ (0.25W resistor).
Input ON threshold level [Ω]	470Ω ± 20%
Input, short circuit threshold level [Ω]	< 50Ω
Input, open circuit threshold level [kΩ]	> 100kΩ
Operating temperature range [°C]	-10 - +50
Maximum humidity (non condensing at 40°C)	95% RH

Dimensions (OEM-unit) [mm] L x W x H	147 x 90 x 23 160 x 110 x 92
Weight (OEM-unit) [g]	(85), 120

4.2.8. Manual call point, MCP-E

Model MCP-E is a Manual Break Glass Call Point.

The device can be tested without breaking the glass by insertion of a test key in the under side of the unit.

Two non-polarised flying leads are provided for easy connection to the loop wiring via the back box terminals.

The MCP-E has a simple DIL switch for addressing.

The back box, which fits with the MCP-E, is SR3T.



Picture 4-14

- Polling is indicated with a flashing red led.
- When the unit has been operated the red led is continuously lit.

Features:

- Fast response.
- Status led.
- Surface or flush mounting.

Technical data:

Operating voltage (high) [V]	24 – 40
Quiescent current [µA]	280
Alarm state current [mA]	4.1
Operating temperature range [°C]	-10 - +50
Maximum humidity (non condensing at 40°C)	95% RH
Dimensions [mm] L x W x H	Flush unit: 88 x 88 x 20 Surface box: 88 x 88 x 32
Weight [g]	Flush unit: 100 Surface box: 80

5. Conventional points (devices)

5.1. Sensors and Bases

5.1.1. General

The following sensors are supported:

- SLR-E, Photoelectric smoke sensor.
- SLK-EN, Photoelectric smoke sensor.
- SIJ-E, Ionisation smoke sensor.
- DCD-1E, Combined Rate of rise heat detector (60°).
- DCD-R1E, Combined Rate of rise heat detector (90°).
- DFJ-60E, Fixed temperature heat detector (60°).
- DFJ-90E, Fixed temperature heat detector (90°).
- DFG-60E, Waterproof fixed temperature heat detector (60°).

The following bases are supported

- YBN-R/4, Common base.
- YBO-R/5, Common base with a remote fire led output.
- YBF-RL/4H5, Base for the SLK-EN sensor.

5.1.2. Photoelectric smoke sensor, SLR-E

The SLR-E is a Photoelectric Detector.

Features:

- Flat response chamber
- Low profile design with one piece outer cover
- Twin fire LED's allow 360° viewing
- Removable chamber
- Electronics free mounting base
- Approved to EN54 Part 7



Picture 5-1

The SLR-E incorporates Hochiki's unique 'Flat Response Technology' removing the need to use Ionisation Detectors in the majority of applications and this also allows the Detector threshold level to be increased, thereby improving the signal to noise ratio and reducing susceptibility to false alarms.

The SLR-E smoke chamber is easily removed or replaced for cleaning and utilises a unique baffle design which allows smoke to enter the chamber while keeping out ambient light.

5.1.3. Photoelectric smoke sensor, SLK-EN

The SLK-EN is a Photoelectric Detector.



Picture 5-2

Features:

- Fire alarm can be achieved for testing purposes by holding a magnet against a test point on the sensor.
- Flat response chamber
- Low profile design with one piece outer cover
- Twin fire LED's allow 360° viewing
- Removable chamber
- Electronics free mounting base
- Approved to EN54 Part 7

The SLK-EN incorporates Hochiki's unique 'Flat Response Technology' removing the need to use Ionisation Detectors in the majority of applications and this also allows the Detector threshold level to be increased, thereby improving the signal to noise ratio and reducing susceptibility to false alarms.

The SLK-EN smoke chamber is easily removed or replaced for cleaning and utilises a unique baffle design which allows smoke to enter the chamber while keeping out ambient light.

5.1.4. Ionisation smoke sensor, SIJ-E

Model SIJ-E is an Ionisation Detector.



Picture 5-3

Features:

- Low quiescent current
- Low profile design with one piece outer cover
- Shielded from external noise
- Twin fire LED's allow 360° viewing
- Full Range of Mounting Bases
- Approved to EN54 Part 7.

Each detector incorporates a single radioactive source, which ionises two chambers, which allows a small DC current to flow between the electrodes in each chamber. Smoke can freely enter the outer chamber whilst the inner chamber is virtually sealed. Smoke entering the outer chamber causes a reduction in the DC current, the imbalance between the two currents is proportional to the smoke density, which is converted, filtered and then used to trigger the internal latching circuit.

5.1.5. Combined Rate of rise heat detector, DCD-1E (60°)

Model DCD-1E is a rate of rise heat detector.



Picture 5-4

Features:

- Electronic linear heat detection.
- Twin fire LED's allow 360° viewing.
- Grade 1 Rate of Rise detector.
- Full range of mounting bases.
- Approved to EN54 Part 5.

The sensor has a 60°fixed temperature element, the DCD-1E uses a thermistor and linearising circuit to provide an accurate linear response Heat Detector.

The DCD-1E is ideal for use where medium ambient temperatures exist, such as drying rooms or where Smoke Detectors are unsuitable because of the presence of steam or cooking fumes such as in a kitchen.

5.1.6. Combined Rate of rise heat detector, DCD-R1E (90°)

Model DCD-R1E is a rate of rise heat detector.



Picture 5-5

Features:

- Electronic linear heat detection.
- Twin fire LED's allow 360° viewing.
- Range 1 Rate of Rise detector.
- Electronics free mounting base.
- Approved to EN54 Part 8.

The detector has a 90°fixed temperature element, the DCD-R1E uses a thermistor and linearising circuit to provide an accurate linear response Heat Detector.

The DCD-R1E is ideal for use where high ambient temperatures exist, such as boiler and drying rooms and where Smoke Detectors are unsuitable because of the presence of steam or cooking fumes such as in a kitchen.

5.1.7. Fixed temperature heat detector, DFJ-60E (60°)

Model DFJ-60E is a 60°C fixed temperature heat detector.



Picture 5-6

Features:

- Electronic linear heat detection.
- Twin fire LED's allow 360° viewing.
- Fixed Temperature Detector.
- Full range of mounting bases.
- Approved to EN54 Part 5.

The DFJ-60E uses a thermistor and linearising circuit to provide an accurate linear response

Heat Detector.

The DFJ-60E is ideal for use where medium ambient temperatures exist, such as drying rooms or where Smoke Detectors are unsuitable because of the presence of steam or cooking fumes such as in a kitchen.

5.1.8. Fixed temperature heat detector, DFJ-90E (90°)

Model DFJ-90E is a 90°C fixed temperature heat detector.



Picture 5-7

Features:

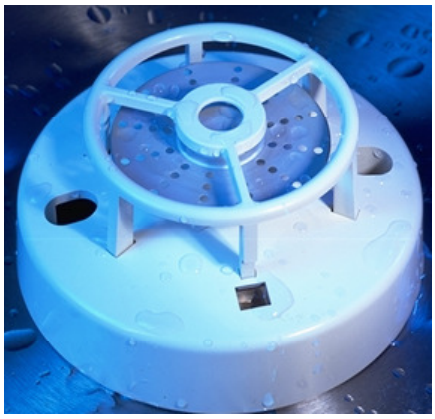
- Electronic linear heat detection.
- Twin fire LED's allow 360° viewing.
- Fixed Temperature Detector.
- Full range of mounting bases.
- Approved to EN54 Part 8.

The DFJ-90E uses a thermistor and linearising circuit to provide an accurate linear response Heat Detector.

The DFJ-90E is ideal for use where high ambient temperatures exist, such as boiler and drying rooms and where Smoke Detectors are unsuitable because of the presence of steam or cooking fumes such as in a kitchen.

5.1.9. Waterproof fixed temperature heat detector, DFG-60E (60°)

Model DFG-60E is a 60°C waterproof IP67 fixed temperature heat detector.



Picture 5-8

Features:

- Waterproof, IP67 ingress protection.
- Operating temperature range –30° - 60°C.
- Bi-metallic heat strip to sense temperature change.
- Zero standby current.
- Fixed Temperature Detector.

The DFG-60E is ideal for use in environments which are exposed to high levels of condensation.

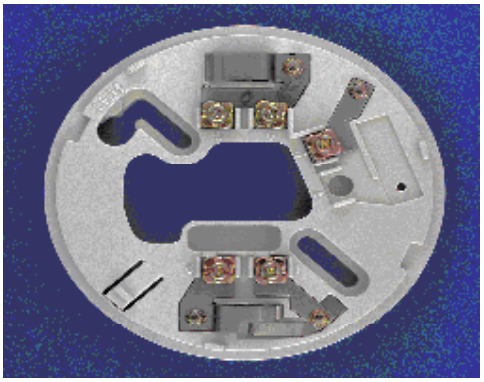
The detector doesn't require any base. It has flying leads for connection to a conventional zone.

5.1.10. Common base YBN-R/4

YBN-R/4 is the common mounting base for the conventional sensors.

Features:

- Slim profile, only 8 mm.
- Rugged design.
- Electronics free.
- Quick connections via square cable clamps.
- Takes 2.5^2 mm cables



Picture 5-9

The base does not provide line continuity during detector removal, therefore if Call Points are being used then these should be wired onto the zone first.

5.1.11. Common base with a remote fire led output YBO-R/5

YBN-R/5 is a common mounting base for the conventional sensors including a output for a remote fire led.

Features:

- Slim profile, only 8 mm.
- Rugged design.
- Takes 2.5^2 mm cables

The base does not provide line continuity during detector removal, therefore if Call Points are being used then these should be wired onto the zone first.



Picture 5-10

5.1.12. Common base for the SLK-EN sensor, YBF-RL/4H5

YBF-RL/4H5 is a common mounting base for the SLK-EN sensor.

Features:

- Slim profile, only 8 mm.
- Rugged design.
- Electronics free.
- Takes 2.5^2 mm cables

The base does not provide line continuity during detector removal; therefore if Call Points are being used then these should be wired onto the zone first.