BENTEL
SECURITY
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FIRECLASS
FIRE DETECTION SYSTEMS
CATALOGUE 2011/2012

Contents

FireClass 500 Addressable Control Panels

The new FireClass 500 is a completely programmable series of addressable, modular control panels which meet the EN54 standard and which are suitable for medium to large fire alarm installations.

Each loop supports up to 250 FireClass Digital Loop addresses – detectors and devices can be mixed and matched in any combination. In addition, each control panel offers one conventional zone for maximum flexibility for device compatibility. Network up to one master and seven slave control panels via the onboard RS485 bus for maximum expandability needed in larger installations capable of controlling up to 4000 addressable devices.

Each output can be associated up to 4 zones and/or to 3 inputs on the loop for selected intervention during alarm (location signalling, closing of fire barrier doors).

NAC supervised programmable and silenceable outputs can be used for the activation of signalling devices. A non-programmable NAC, an auxiliary non-controlled alarm output and a non-controlled fault signal output (relay) are also available.

Configuration programming and management of the FireClass 500 is made simple with the multilanguage alphanumeric keypad and the large backlit LCD. The control panel is protected by codes which allow command access only to authorized personnel.

Possibility to connect up to eight FC500REP repeaters to the control panel through the RS485 bus, having the same display, advanced control function and visualization of the control panel.

Features

- EN54 APPROVED
- 250 devices on each loop
- Automatic device-drift compensation
- 1 conventional input-line for the connection of up to 32 conventional devices
- Completely programmable software zones:
  FC520 = 128
  FC510 = 64
- 16 programmable open-collector outputs, 8 of which are monitored
- NAC supervised programmable and silenceable outputs
  FC520 = 3
  FC510 = 1
- 1 non-programmable NAC
- 1 auxiliary non-controlled alarm output (relay)
- 1 non-controlled fault-signal output (relay)
- RS485 Interface for the connection of up to 8 FC500REP repeaters and up to 7 FireClass 500 Slave control panels
- 4000 event log
- Power supply 230 Vac
- 27.6 Vdc 5 A switching supply / battery-charger

Product Code

- 2 Loop Control Panel   FC520
- 1 Loop Control Panel   FC510
- Repeater   FC500REP

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FireClass 500 Software Console

FireClass 500 Software Console

FC500 Software Console, the highly flexible and powerful programming tool that has been used successfully with FireClass systems since day one. Iit is constantly being extended and refined to meet every changing demand. Available for free download from the www.bentelsecurity.com

Features

- New graphical user interface
- View system diagnostics
- Fast and simple system configuration, also offline
- Transferable user database
- Device graphic displayed
- Configuration summary report
- Real time visualization of the loop current load
- Battery/wiring calculation
- Customizable cables database
- Visualization of all the devices assigned to a single zone
- Easy to create user interface with control buttons
  (Reset, silence, evacuate)
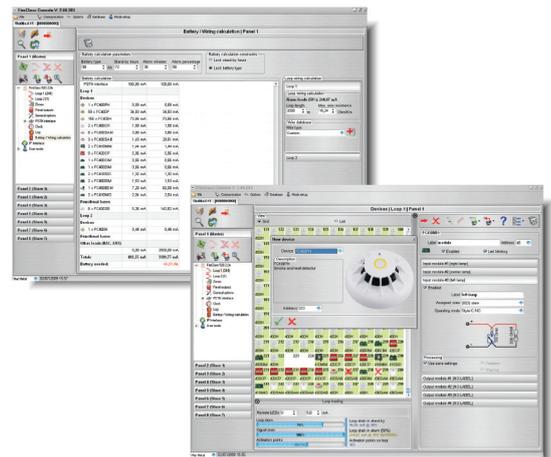
FireClass 500 Graphic Maps

FireClass 500 Graphic Maps is a new client/server emergency management system and fire detection graphical user interface.

FireClass Graphic Maps is a Microsoft Windows® based graphical interface with a high resolution colour display and provides annunciation, status display incorporating the latest FireClass Technology fire detection systems.

Utilising a combination of symbols, floor plans, pictures, text, FireClass Graphic Maps displays the precise location.

- Real time visualization of control panel loop & zone status, etc.
- Multilevel map based on a tree structure
- Access device data from any pages of the map

FireClass 500 Accessories

IP Module   FC500IP

The FC500IP is an IP Module which is used to connect control units in the FireClass 500 range to a LAN.

The same procedures may be performed using the FireClass Graphic Maps console application, either through the serial port or the network.

With a public IP address, it is also possible to manage and monitor the control unit form anywhere in the world, as long as you have access to the Internet.

Features

- Connect control units in the FireClass 500 control panels range to a LAN
- Teleservice for programming maintenance remotely via IP
- DHCP or manual configuration
- 128 bit AES encryption
- Installed inside the FC500 control panel cabinet

Telecom Module   FC500PSTN

FC500PSTN is a Telecom Module which allows implementing the functions of Channel Telephone Dialler and Telemonitoring (functions E and J of standard EN54-1:1996), on the FireClass 500 control panels.

Features

- Possibility of associating up to 3 voice messages for each event
- Built-in multiprotocol digital communicator: Contact ID and SIA
- 32 programmable telephone numbers
- Programming by PC via FireClass 500 Console
- Check for telephone line cutting
- Excluded line tone check
- Overvoltage protection
- Digital message recording/playback
- Built-in speaker for message playback
- Installed inside the FireClass 500 control panel cabinet

Battery Cabinet   FC500BX

Extended Battery Cabinet house up to two 12 V, 38 Ah batteries providing extended battery backup time for the system.

Features

- Dimensions (LxHxP): 452x350x209 mm
- Batterie housing: two 12 V, 38 Ah

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FC400 Series Detectors

The FC400 Series are addressable multi-sensor fire, smoke and heat detectors, which can be implemented as several detectors by the Fire Class 500 control panel. The FC400 Series are designed and approved to EN54.

The FC400 Series detectors provide the latest fire detection technology in an attractive cost effective package.

The FC400 Series detectors are supplied in an extremely robust and reliable fully sealed construction, which has undergone stringent environmental testing. Electrical contacts are moulded into the plastic to eliminate any movement.

The detectors are constructed from hardwearing Fire Resistant FR110 plastic.

The multi-sensor detectors are environmentally friendly. They use no radioactive parts and can be returned to the factory for recycling at the end of their life.

All FC400 Series detectors are supplied with integral dust covers as part of the packaging. Dust covers are retained throughout installation and removed at commissioning time.

Installation Features

The FC400 Series detectors include a host of installation and service features which are provided to reduce installation and service costs and reduce repair times.

- Standard bases with multiple mounting options speed and simplify installation
- Unique 'park' position for commissioning and service procedures.
- Detector Addressing programmed from the SERVICE Tool or FireClass 500 control panel
- Address flag – fixed to the base to prevent mix ups during service
- Full range of remote installation and service tools
- Dirty Detector Read-out can be viewed on the SERVICE Tool or panel.

Detection Modes

All FC400 Series devices communicate to the FireClass 500 control panel using the fast reliable FireClass digital loop protocol. This allows each detector to operate in one or two of several detection modes, thus allowing it to be easily optimised to the risk. For example, to meet detection applications with multiple risks the FC400PH detector allows two detection modes to operate simultaneously.

Features

- Multiple Fire Detection modes
- FC detection algorithms
- CO fire detection technology
- Up to 250 detectors per loop
- Optional bi-directional line isolation
- Remote detector verification & temperature read-out
- Highly featured SERVICE tool
- Programmable Alarm LED with 360° viewing angle
- Optional detector locking pin
- Variety of sounder and relay detector bases
- Address flag stays with the base
- Internationally approved

FC400 Series Detectors

Photo Optical Smoke Detector   FC400P

The FC400P is a sophisticated photo optical smoke detector which provides economical fire detection coverage without the use of multi-sensor.

The FC400P provides detector condition monitoring and pre-alarm options but without the ability to drive functional bases.

The 5B standard base or the FC450IB isolator base can be used with the FC400P.

The FC400P cannot be used with the FC430SB sounder base.

Features

- Dimensions (ØxH): 109 x 43 mm
- Operating Temperature: -20 to +70 °C
- Storage Temperature: -40 to +80 °C
- Relative Humidity: 95% (non condensing)
- Standards: EN54-7

Multi-Sensor Smoke and Heat Detector   FC400PH

The FC400PH is a state-of-the-art smoke and heat detector which allows a full set of detection modes to be implemented in the FireClass 500 control panel to suit most smoke and heat detection applications.

The FC400PH incorporates a unique "mousehole" design optical chamber with an unrivalled signal to noise ratio providing high resilience to dust and dirt which means reduced service costs. The unique design provides immunity to small insects and thrips without the need for a separate thrip filter.

The FC400PH provides all the features of FireClass Digital Loop detectors.

The 5B standard base or the FC450IB isolator base can be used with the FC400PH.

The FC400PH can be used with the FC430SB sounder base.net

Features

- Dimensions (ØxH): 109 x 43 mm
- Operating Temperature: -25 to +70 °C
- Storage Temperature: -40 to +80 °C
- Relative Humidity: 95% (non condensing)
- Standards: EN54-5, EN54-7

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Heat Detector
FC400H

The FC400H is a flexible cost-effective addressable heat detector with all the features of FireClass detectors. The FC400H returns the temperature to the FireClass 500 control panel which allows various detection modes to be implemented.

The FC400H uses a high quality thermistor with very low thermal mass. This allows the detectors to provide fast accurate temperature detection as well as heat detection.

The 5B standard base or the FC450IB isolator base can be used with the FC400H.

The FC400H can be used with the FC430SB sounder base.

Features

- Standards EN54-5
- Dimensions (ØxH) 109 x 43 mm
- Operating Temperature: -20 to +70 °C, +90° for low time
- Storage Temperature: -40 to +80 °C
- Relative Humidity: 95% (non condensing)

Multi Sensor CO and Heat Detector
FC400CH

The FC400CH is designed to transmit, to a FireClass 500 control panel, digital signals which represent status of the carbon monoxide and heat elements of the detector.

The 5B standard base or the FC450IB isolator base can be used with the FC400CH.

The FC400CH can be used with the FC430SB sounder base.

Features

- Dimensions (ØxH): 109 x 43 mm
- Operating Temperature: 0 to +55 °C
- Relative Humidity: 95% (non condensing)
- Standards: EN54-5, EN54-7

FC400 Series Visual/Acoustic Signalling

Sounder Addressable Beacon   FC430SAB

The FC430SAB is a FireClass Addressable Beacon that fits into the 5B Standard Base. Alternatively the FC430SAB may be fitted to the FC430SB, Sounder Base to enable the FireClass 500 Control Panel to communicate with and control this sounder bases and also provide a Flashing Beacon effectively turning the FC430SB into a combined addressable loop powered sounder and beacon.

Features

- Dimensions (ØxH): 108x21.2 mm
- Operating Temperature: -10 to +55 °C
- Storage Temperature: -25 to +70 °C
- Relative Humidity: 95% (non condensing)

Sounder Addressable Module   FC430SAM

The FC430SAM Sounder Addressable Module is a FireClass addressable device which may be fitted to the FC430SB Sounder Bases to enable the FireClass 500 Control Panel to communicate with and control thIs sounder base, without the need for a detector, effectively turning the combination into an addressable loop powered sounder.

Features

- Dimensions (ØxH): 108x21.2 mm
- Operating Temperature: -10 to +55 °C
- Storage Temperature: -25 to +70 °C
- Relative Humidity: 95% (non condensing)

Loop Power Sounder Base   FC430SB

The FC430SB Loop Power Sounder Base provides an additional sounder function on the FireClass 500 control panel.

The FC430SB Loop Powered Sounder Base requires an associated FC400 series detectors, FC430SAB or FC430SAM module in order to operate, as it uses the address of the detector or the module that is fitted to it. The configuration FC430SB with detectors allows only to activate the sounder by his associated detector and could not be activated by zones. For this case you have to use the FC430SAM and FC430SAB.

The FC430SB does not support the detector FC400P.

Features

- Current Draw: 200 µA on standby (typical); 6.8   mA at full volume (90 dBA); 1.2 mA at low volume (68 dBA)
- Dimensions (ØxH): 110x37.5 mm (including mounting flange)
- Operating Temperature: -25 to +70 °C
- Storage Temperature: -40 to +80 °C
- Relative Humidity: 95% (non condensing)

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FC400 Series Detector Bases & Accessories

Universal Base 5"   5B

The 5B is the most common base designed to fix directly to the ceiling or various common backboxes. This base allows a detector to be plugged in directly.

Features

• Variety of fixing options
• Remote LED connections
• Park position and address flag holder
• Integral breakout locking key

Isolator Base 5"   FC450IB

With all the features of the 5B Universal Base the FC450IB Isolator Base allows any FC400 Series Detectors to be upgraded to incorporate bi-directional short circuit isolation.

Implemented on every detector, the FC450IB can ensure that no detector is lost on a system in the event of an open or short circuit.

Alternatively, the FC450IB can be implemented between detectors to provide short circuit isolation according to EN54.

The FC450IB can be used as a stand alone line isolator fitted between call points and other ancillaries.

Features

• All the features of the 5B
• Integral yellow LED to indicate when the built-in isolator
  has been Tripped

Ceiling Tile Adapter Kit   517.050.060

The Time Saver Ceiling Tile Adaptor is used with the 4B 4" detector base snap fit base and consists of three parts, a bezel and clamp that are fitted to the ceiling tile and a back-box that carries the detector and base assembly.

Requires a 127mm diameter hole. The CTA adaptor plate allows to be used with other devices such as the FC430SB.

Product Code

• Ceiling Tile Adaptor Kit   517.050.060
  (consists of 1 x 517.050.056 / 1 x 517.050.057)
• CTA-BB CTA Back Box   517.050.056
• CTA-BC CTA Bezel and Clamp   517.050.057
• CTA-AP CTA Adaptor Plate   517.050.058

The CTA adaptor plate allows the Ceiling Tile Adaptor to be used with other devices such as the 802SB

FC400 Series Detector Bases & Accessories

4B 4" Detector Base   4B

The new 4B 4" detector base is designed to snap-fit to the Ceiling Tile Adaptor. Adaptor or it can be screw fixed to a ceiling in the traditional manner.

Features

• Variety of fixing options
• Remote LED connections
• Park position and address flag holder
• Integral breakout locking key

Euro-Mounting Base   FC450EMB

The euro-mounting base provides a matching back box, which allows the 5" bases to be ceiling mounted with conduit entries for standard 18 and 21mm conduit.

Features

• 2 x 18mm conduit entries
• 2 x 21mm conduit entries
• Fits all 5" Bases

Deck Head Mounting   DHM-5B

Where the detectors are mounted in humid and environmentally challenging situations such as marine or offshore installations, the DHM-5B deck head mount provides a sealed waterproof mounting which protects the 5" bases electrical connections.
Can be screwed, bolted or welded to the deckhead.
Supplied with 1 terminal.

Features

• 4 x 20mm gland entries
• Fits ALL 5" bases
• IP55 with supplied gasket

Protective Detector Cage   517.050.011

White powder coated steel protective cage for Series FC400 Detectors fitted with a sounder base.

Features

Dimensions: 120mm dia x 80mm deep

Protective Detector Sounder Base Cage   517.050.614

Robust steel protective cage for Series FC400 detector ranges using the 5" bases. Ideal for schools and sporthalls or whenever detectors need protection. Strong coated steel construction with 4 point fitting.

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Duct Probe Unit DPK4

The DPK4 duct probe unit have been developed to detect smoke in ventilation ducts. They offer significant benefits in terms of performance and installation.

The system comprises a single duct probe tube andhousing specially designed for optimum airflow through the smoke detector and suitable for use in incoming, outgoing and circulation air ducts of ventilation and conditioning systems.

The duct probes can operate across a wide range of airflow speeds and are especially recommended for installations in ducts with air flow velocities between 1 m/s and 20 m/s. Unlike more traditional duct probe units that employ an inlet and exhaust tube with sampling holes, the DPK4 and DPK4I units uses a highly efficient single sampling tube that is slotted along its length. This allows the sampling tubes to be cut to the desired length whilst maintaining maximum efficiency.

The transparent cover gives clear visibility of the detector, its LED indication and airflow indicator. A red plastic flag is fixed inside the housing providing a simple but effective confirmation that there is no leakage and that the air flow from the air duct is in fact passing through the housing. In order to reduce the time required to test the duct probe detector during routine maintenance, an aperture is provided that allows aerosol test gas to be directed at the detector without having to dismantle the unit.

Features

- Built-in 5B Universal Base 5"
- Suitable for addressable and conventional systems
- Suitable for air velocities from 1 m/s to 20 m/s
- Can be used in combination with a wide range of detectors
- One-pipe air sampling system simplifies installation
- Range of aluminium probe tube available for air ducts up to 1500 mm
- Transparent lid allows detector to be seen
- Test hole on cover
- Sensitive flow indicator
- IP rating: IP 54
- Dimensions (WxHxD): 180x235x183 mm
- Operating Temperature: -20 to +70 °C
- Relative Humidity: 95% (non condensing)

Accessories

- Duct Probe Tube 600 mm   DPK600
- Duct Probe Tube 1500 mm   DPKM1500
- Duct Probe Bracket   DPKBR

FC400 Series Input & Output Modules

Beam Detector Module   FC410BDM

The FC410BDM is designed to interface FIRERAY 50/100 to the FireClass Digital Addressable Loop. The FC410BDM provides power from the loop, monitors the Fire and Fault outputs of the detector and also monitors inter-connections for open and short circuit faults.

Features

• Overall Dimensions with plate (WxHxD): 148x87x14 mm
• Operating Temperature: -10 to +55 °C
• Storage Temperature: -40 to +80 °C
• Relative Humidity: 95% (non condensing)

Beam Termination Module   FC410BTM

Simplifies the wiring between beam detector and FC410BDM. It allows FC410BDM to be sited up to 40 m from the beam detector.

Features

• Overall Dimensions with plate (WxHxD): 148x87x14 mm
• Operating Temperature: -10 to +55 °C
• Storage Temperature: -40 to +80 °C
• Relative Humidity: 95% (non condensing)

Contact Input Module   FC410CIM

The FC410CIM Addressable Contact Input Module is designed to monitor external equipments. The FC410CIM provides two inputs and can be configured to monitor normally open or normally closed inputs.

Features

• Dimensions (WxHxD): 85x60x15 mm
• Operating Temperature: -25 to +70 °C
• Storage Temperature: -40 to +80 °C
• Relative Humidity: 95% (non condensing)

Mini Input Module   FC410MIM

The FC410MIM Mini Addressable Contact Input Module is designed to monitor external equipments. The FC410MIM provides one input and can be configured to monitor normally open or normally closed inputs.

Features

• Dimensions (WxHxD): 48x57x13 mm
• Operating Temperature: -25 to +70 °C
• Storage Temperature: -40 to +80 °C
• Relative Humidity: 95% (non condensing)

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## Detector Input Module   FC410DIM

The Addressable FC410DIM provides the ability to connect and interface up to two zones of 24V d.c. 2-wire conventional detectors to the FireClass 500 Control Panel.

The conventional detection circuit is powered from an external 24V d.c. supply and is reset by the FireClass 500 control panel.

The FC410DIM monitors the status and wiring to the detectors and the external 24V d.c.

Features

- Dimensions (WxHxD): 85x60x15 mm
- Operating Temperature: -25 to +70 °C
- Storage Temperature: -40 to +80 °C
- Relative Humidity: 95% (non condensing)
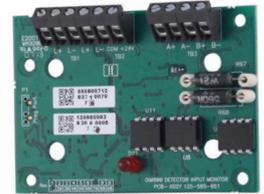
Line Isolator Module   FC410LI

The FC410LI Line Isolator Module is designed to be used on the FireClass addressable loop control panel. It monitors the line condition and when detecting a short circuit will isolate the affected section whilst allowing the rest of the addressing circuit to function normally.

The purpose of the FC410LI Line Isolator Module is to ensure that, on a looped addressable system, no short circuit fault can disable more detection devices than would be lost on a conventional non-addressable fire circuit.

Features

- Dimensions (WxHxD): 85x60x15 mm
- Operating Temperature: -25 to +70 °C
- Storage Temperature: -40 to +80 °C
- Relative Humidity: 95% (non condensing)
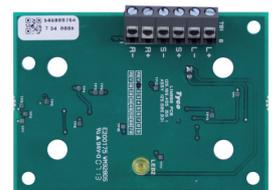
Relay Interface Module   FC410RIM

The FC410RIM Relay Interface Module provides one volt-free relay changeover contact.

Features

- Relay Contact Rating: 2 A @ 24 Vdc
- Dimensions (WxHxD): 85x60x15 mm
- Operating Temperature: -25 to +70 °C
- Storage Temperature: -40 to +80 °C
- Relative Humidity: 95% (non condensing)

FC400 Series Input & Output Modules

Single Input / Output Module   FC410SIO

The FC410SIO Single Input Output Module provides one volt-free relay changeover contact and one input to monitor external equipment. The input can be configured to monitor normally open or normally closed inputs.

Features

- Relay Contact Rating: 2 A @ 24 Vdc
- Dimensions (WxHxD): 85x60x15 mm
- Operating Temperature: -25 to +70 °C
- Storage Temperature: -40 to +80 °C
- Relative Humidity: 95% (non condensing)

Multi Input / Output Module   FC410MIO

The FC410MIO Multi I/O Module has three inputs and four low power outputs. The inputs can monitor external equipments and can be configured to monitor normally open or normally closed inputs. All four low power outputs can drive a self-powered high voltage relay HVR800. By disabling the low voltage outputs three and four, the outputs one and two can be used as volt-free relay changeover contacts (2 A @ 24 Vdc).

Features

- Dimensions (WxHxD): 110x72x18 mm
- Operating Temperature: -25 to +70 °C
- Storage Temperature: -40 to +80 °C
- Relative Humidity: 95% (non condensing)

High Voltage Relay   HVR800

The HVR800 module is a non-addressable device which allows a low current mains rated relay to switch up to 10 A.

Features

- Relay Contact Rating:
  - 5 A @ 240 Vac
- Dimensions (WxHxD): 42x26.5x74 mm
- Operating Temperature: -25 to +70 °C
- Storage Temperature: -45 to +80 °C
- Relative Humidity: 95% (non condensing)

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FC400 Series – Module Accessories

Ancillary Cover for FC Modules   FC470CV

Ancillary cover for use with 400 series modules. Will fit onto
a backbox.

White Plastic Surface Mount Back Box   FC470DGB

White plastic surface mount backbox for use with 400
Series addressable modules using FC470CV cover.

Dry Lining Flush Mount Back Box   FC470DLB

Dry lining flush mount (for plasterboard etc) backbox for use with 400
Series addressable modules using FC470CV cover.

Steel Flush Mount Back Box   FC470FMB

Steel flush mount backbox for use with 400 Series addressable
modules using FC470CV cover.

Metal Flush Mount Back Box   FC470MDGB

Metal surface mount backbox for use with 400 Series addressable
modules using FC470CV cover.

FC400 Series Callpoints

Addressable Callpoint (Indoor)   FC420CP

FC420CP Addressable Break Glass Callpoint is designed
to monitor and signal the condition of a switch contact that
is operated by activating the break glass element.

The glass element may be replaced with the deformable plastic element
515.001.127 which allows the FC420CP device to be reset, using the key
supplied, after alarm activation.

Features

• Dimensions (WxHxD): 89x93x59.5 mm
  (27.5 mm if flush mounted)
• Operating Temperature: -10 to +55 °C
• Storage Temperature: -30 to +70 °C
• Relative Humidity: 95% (non condensing)

Accessories

• Standard break glass callpoint housing   FC420CPB
• Deformable Activation Element   515.001.127
• Cover   515.001.128
• Test key for all MCP and CP style callpoints 515.001.045

Addressable Callpoint (Outdoor)   FC421CP

FC421CP Addressable Break Glass Callpoint is designed to monitor
and signal the condition of a switch contact that is operated by activating
the break glass element. The FC421CP is fitted into a standard
weatherproof break glass callpoint housing.

The glass element may be replaced with the deformable plastic element
515.001.127 which allows the FC420CP device to be reset, using the
key supplied, after alarm activation.

Features

• Dimensions (WxHxD): 97.5x93x73 mm
• Operating Temperature: -25 to +70 °C
• Storage Temperature: -30 to +70 °C
• Relative Humidity: 95% (non condensing)
• IP Rating:IP67

Accessories

• Deformable Activation Element   515.001.127
• Cover   515.001.128
• Test key for all MCP and CP style callpoints 515.001.045

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FC400 Series Accessories

Loop Service Tool — FC490ST

The FC490ST is a powerful and flexible tool for assistance in the installation, commissioning, diagnostics and service of FireClass fire detection systems. The tool allows all the addressable devices to be interrogated, tested and programmed. Suitable for desktop or single handed operation the FC490ST tool is battery operated using standard rechargeable batteries.

Features

- Read/write the detector / ancillary address
- Display temperature / CO levels / smoke obscuration
- Programming of the LED
- Testing the detector remote LED and control outputs
- Perform the detector self verification test function
- Displaying detector dirtiness level
- Controlling ancillary outputs
- Reading ancillary status
- Power management options

FC Loop Service Tool Case — FC490STK

A carry case which contains the following items:
Car Lighter Adapter, Shoulder Strap.

This provides space for the following items:
FC490 Service Tool.
Ancillary Programming Lead.
Mains Charger.

Remote LED Indicator — 801RIL

The 801RIL Remote Indicator is used where a detector LED is not visible i.e., when the detector is mounted in a roof void, lift shaft etc.

Features

- Dimensions (WxHxD): 86x86x16 mm
- Operating Temperature: -20 to +70 °C
- Storage Temperature: -45 to +80 °C
- Relative Humidity: 95% (non condensing)
- Current consumption Standby: 0 Alarm: 5.43 mA

Remote LED Indicator — 801HL

The 801HL Remote Indicator is used where a detector LED is not visible i.e., when the detector is mounted in a roof void, lift shaft etc.

Features

- Dimensions (WxHxD): 85x85x38 mm
- Operating Temperature: -25 to +70 °C
- Storage Temperature: -45 to +80 °C
- Relative Humidity: 95% (non condensing)
- Current consumption Standby: 0 Alarm: 5 mA

Beam Smoke Detectors

Optical Beam Smoke Detectors   Fireray50 / 100

The Fireray50 and Fireray100 are comprised of two base elements i.e. a combined infra-red transmitter and receiver in a common housing and a reflective prism. The electronics of the combined transmitter and receiver unit analyse the reflected beam from the prism for smoke and generates an alarm condition if a pre- determined level is reached.

Features

- Range:
  Fireray100 = Fireray50 to 100 meters
  Fireray50 = 5 to 50 meters
- Area of coverage: Fireray100 up to 1500 sq; Fireray50 up to 750 sq
- Selectable sensitivity
- Self-check and automatic compensation
- Manual or Automatic Reset
- Low current consumption
- Dimensions (WxHxD): 130x210x120 mm
- Operating Temperature: -30 to +55 °C
- Relative Humidity: 90% (non condensing)

FR5000 Auto Aligning Optical Beam Smoke Detectors   516.015.020

The FIRERAY 5000 motorised, auto aligning infrared optical beam smoke detector can now be installed with up to four detector heads per system, thus saving on installation time and costs. This innovative system has been designed from the ground up to include pioneering technology that fully addresses the needs of the installer and user, both now and in the future.

Once the detector heads are connected, using the Easifit First Fix system, an integral LASER, which is aligned along the optical path of the beam, can be activated. This allows the reflective prism to be sighted quickly and with confidence. Once the LASER has been used to coarsely align the beam, the AutOptimise beam alignment system takes over and automatically steers the beam into the optimum position.

Each detector head is independently configurable from 8m through to 100m and has its own individual fire threshold. The System Controller retains one set of Fire and Fault relays that is common to all detectors that are installed.

The FR5000 MultiHead is supplied with one detector head and reflector for single beam operation from 8 to 50 meters. Up to 3 additional detector heads can be added to the controller to enable larger or more complex areas to be protected (Subject to local codes and standards).

Features

- Motorised Auto-Aligning
- Up to 4 Detectors per System Controller
- Each Detector configurable from 8m to 100m
- Integral LASER
- Auto-Align Fast Automatic Beam Alignment
- Auto-Optimise Building Movement and Contamination Compensation
- Worldwide Approvals including EN54:12 and UL268
- Controller Dimensions (WxHxD): 202 x 230 x 81 mm
- Detector Dimensions (WxHxD): 134 x 135 x 134 mm

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Optical Beam Smoke Detector Mounting Accessories

FR 5000 Detector Head   516.015.021

Each detector head is independently configurable from 8m through to 100m and has its own individual fire threshold.
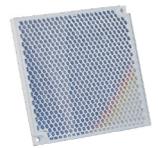
The System Controller retains one set of Fire and Fault relays that is common to all detectors that are installed.

Reflector   516.015.007

Reflector 100 X 100mm 4 reflectors are required for distances from 50 to 100m.

Universal Mounting Bracket   5000-005

The Universal Mounting bracket can be used with the Fireray 5000 detector head and the 1 or 4 way prism plates to enable the detector head or prism plates to be easily mounted and adjusted when fixing to angled walls or cladding.

Flat Mounting Plate for 1 to 4 Prisms   5000-006

The Flat Mounting plate is a metal plate which will support a single prism or 4 prisms, the side mounting holes are compatible with Unistrut® racking systems.

Prism Mounting Plate for 4 Prisms   5000-007

The large prism plate will securely mount 4 prisms and is designed to be used in conjunction with the Universal Mounting Bracket (not included).

Prism Mounting Plate for 1 Prism   5000-008

The small prism plate will securely mount a single prism and is designed to be used in conjunction with the Universal Mounting Bracket (not included).

Air Sampling Smoke Detection

The ICAM IAS800 Air Sampling Smoke Detection System provides a flexible solution to meet the unique needs of numerous applications including industrial spaces such as cable tunnels, tamper proof and unobtrusive requirements for special accommodation, or can simply be used to
replace spot (point) detectors in office environments.

The IAS800 system actively draws air from the protected area through sampling holes in a pipe network. Sampled air is then filtered before being analyzed by upto two FC400 Series detectors.

The IAS800 system is available in three configurations:

IAS800 twin inlet pipe configuration which can be fitted with two detectors for monitoring one or two pipe runs.

IAS801 single inlet pipe configuration which can be fitted with one detector.

IAS802 twin inlet pipe configuration which can be fitted with two detectors for monitoring one or two separate pipe runs with independant fault outputs.

The system utilises a high performance aspirator and software configurable flow monitoring circuitry. The air flow level is displayed on a ten element bar graph that can be adjusted for high and low flow thresholds, and flow failure is reported as a device fault.

Features

- Powerful fan
- Upto two x 50m pipe runs
- Pipes can be individually monitored for air flow with LED bar graph
- FireClass Digital Loop and 24 VDC connections
- Fault monitored via the FireClas digital Loop
- IP65 enclosure
- Field serviceable air filters
- Uses standard 25mm Vesda pipe & fittings

Technical Specification

- Supply Voltage 18 to 30Vdc
- Current Consumption 300mA
- Dimensions 259w x 184h x 166d mm
- Weight 2.77 Kg
- Operating Temp -10 to +55°C (with detectors)
- Humidity 10 to 90% RH NonCondensing
- Sampling Pipes 25 mm dia, 50m per inlet

Product Code

• Aspirated Smoke Dual Detector common fault monitor	ICAM IAS800
• Aspirated Smoke Single Detector common fault monitor	ICAM IAS801
• Aspirated Smoke Dual Detector dual fault monitor	ICAM IAS802
• ICAM Course Filter (PK10)	516.016.303

Air Sampling Accessories

Pipe 25mm Diameter — 571.270
VESDA aspirating pipe, printed along its length on opposite side at 450mm intervals. 3 m length pipe Order in multiples of 10.

Socket 25mm — 571.121
Straight socket for 25mm pipe.Order in multiples of 10.

Socket Union 25mm — 571.122
Socket union to facilitate servicing of pipework. Order in multiples of 1.

Bend 25mm — 571.123
90 degree Long Radius bend Order in multiples of 5.

Elbow 25mm — 571.128
45 deg elbow Order in multiples of 5.

End Cap 25mm — 571.125
End cap 25mm Order in multiples of 5.

Equal Tee 25mm — 571.124
Equal Tee 25mm Order in multiples of 5.

Pipe Clip 25mm — 571.127
Pipe Clip 25mmm Order in multiples of 10.

Solvent Cement (0.25 Litre Tin) — 570.888
Solvent cement.

Capillary Tube Conical Sample Point Assembly — 571.144
Capillary Tube Conical Sample Point Assembly. 25mm socket adaptor + 2m capillary tube (tube colour - red).

Capillary Tube Flush Sample Point Assembly — 571.145
Capillary Tube Flush Sample Point Assembly. 25mm socket adaptor + 2m capillary tube (tube colour - red).

Capillary Tube 10 mm — 571.148
Capillary Tube 10 mm 10mm o/d x 30m length (tube colour - red).

Sampling Point Label (1 Reel) — 571.152
Sampling point label. Order in multiples of 100.

Pipe Label (1 Reel) — 517.017.006
Pipe Label. Order in multiples of 100.

FireClass J400 Conventional Control Panels

Designed and made according to EN54 and EN12094-1 standards (with J400-EXT extinguishment module), the J424-8 is a microprocessor based control panel for medium and large applications.

It has 8 zones main board and supports two J400-EXP8 expander modules, for a total of 24 zones and 512 devices (maximum 32 in each zone). Each detection zone is equipped with an alarm repeat output for selective alarm management in the event of fire.

The control panel has supervised and silenceable alarm outputs for the control of the self-powered sirens, piezoelectric sirens, fire bells, flashers, telephone diallers, etc.

This easy-to-use control panel is protected by a lockable frontplate which allows operational access to authorized personnel only.

The J424 control panel is also available with a backlit display, which shows all the information regarding the control panel status. The optional Console Software in Windows™ environment, allows full systems management of events memory, files, reset and all the programmable functions provided by the control panel.

Main Features

- EN54 and EN12094-1 approved (with J400-EXT extinguishment module)
- 8 controlled, balanced, bypassable input zones expandable to 24 by means of two 8 zone expanders
- Up to 32 devices can be connected to each zone (but no more than 512 in total): conventional fire detectors, alarm buttons, gas detectors
- Gas zone compatible with 4 – 20 mA gas detectors
- Manual call point recognition
- Programmable thresholds
- Missing detectors
- Day/Night mode
- Alarm verification time
- Programmable restoral and reset times
- One alarm-repeat output (open collector) for each input zone
- 2 supervised, silenceable, bypassable 24 V alarm output for the activation of piezoelectric sirens, fire bells and flashers
- Silenceable, bypassable alarm output, for the activation of 24 V self-powered sirens
- Silenceable fault-warning output for the activation of signalling and auxiliary devices
- Supervised fire output for telephone dialler activation
- Programmable open-collector output
- Alarm/fault memory up to next reset
- Command for silencing signalling devices (sirens)
- Command security using key and code
- Programmable from PC or keypad
- 50 events log viewed via PC
- Optional backlit display
- RS485 bus for connecting up to 4 repeater panels

Technical Features

- Power supply: 230 Vac ±10%
- 27.6 Vdc 2.5 A switching supply/battery-charger
- Compartment for two 12 Vdc 17 Ah batteries
- Dimensions (wxhxd): 422x502x116 mm
- Weight (without batteries): max. 8.5 Kg

FireClass J400 Conventional Control Panels

Designed and made according to EN54 and EN12094-1 standards (with J400-EXT extinguishment module), the J408 is a microprocessor based control panel for small to medium applications.

It has up to 8 zones, each supports up to 32 devices, for a maximum of 256 devices.

Each detection zone has an alarm-repeat output for selective management in the event of fire.

The control panel has supervised, silenceable alarm-outputs for self-powered sirens, piezoelectric sirens, fire bells, flashers, telephone diallers, etc.

Main Features

• EN54 and EN12094-1 approved (with J400-EXT extinguishment module)
• 8 (J408-8), 4 (J408-4) or 2 (J408-2) controlled, balanced, bypassable input zones
• Up to 32 devices can be connected to each zone: conventional fire detectors,
   alarm buttons, gas detectors
• Gas zone compatible with 4 – 20 mA gas detectors
• Manual call point recognition
• Programmable thresholds
• Missing detectors
• Day/Night mode
• Alarm verification time
• Programmable restoral and reset times
• One alarm-repeat output (open collector) for each input zone
• 2 supervised, silenceable, bypassable 24 V alarm output for the activation of
   piezoelectric sirens, fire bells and flashers
• Silenceable, bypassable alarm output, for the activation of 24 V
   self-powered sirens
• Silenceable fault-warning output for the activation of signalling and
   auxiliary devices
• Supervised fire output for telephone dialler activation
• Programmable open-collector output
• Alarm/fault memory up to next reset
• Command for silencing sirens
• Keypad commands require key or code
• Programmable from PC or keypad
• 50 events log viewed via PC
• RS485 bus for connecting up to 4 repeater panels

Technical Features

• Power supply: 230 Vac ±10%
• 27.6 Vdc 1.5 A switching supply/battery-charger
• Compartment for two 12 V 7 Ah batteries
• Dimensions (wxhxd): 354x280x100 mm
• Weight (without batteries): max. 4 Kg

Product Code

• Two Zone Control Panel　　　　　　　　J408-2
• Four Zone Control Panel　　　　　　　　J408-4
• Eight Zone Control Panel　　　　　　　J408-8

FireClass J400 Panel Accessories

Repeater Panel   J400-REP

Repeater panel.

Technical Features

• 4 wire connection to the panel (power supply included)
• The repeater panel may be installed up to 1,000 m from the control panel
• Displays all audible and visual signalling
• Control panel management
• Dimensions (wxhxd): 280x320x40 mm
• Weight: 2.260 Kg

LCD Display   J400-LCD

Backlit LCD display module, two lines with 16 characters for line. Main text regarding the system's status and it is equipped with 6 scroll keys.

Extinguishment Module   J400-EXT

Extinguishment module with microprocessor control.

Technical Features

• Output for electro-valves controlled by logic (AND/OR) between the status of the control panel zones
• Programmable extinguishment delay
• Output signals: extinguishment delay, extinguishment and released
• Input for the forced activation of the extinguishment devices; input for the pressure switch
• Fault signalling on pressure-switch supply line
• Fault signalling on input lines
• Bypass of extinguishment devices in the event of false alarm
• Inputs for manual activation, extinguishment inhibition and pressure supervision

Expander Module   J400EXP8

8 zones expander module for J424 panel.

BRIDGE - Serial Interface   PCJ400

Enables PC communication with J400 series fire control panels via RS485 bus.
It receives data from zones and pheriperals and transmits commands to the system.

CONVENTIONAL CONTROL PANEL ACCESSORIES						
	J400-LCD	J400-REP	PCJ400BRIDGE	J400-EXT	J400-EXP8	FIRE SUITE
J424	●	●	●	●	●	●
J408		Only 8 zones	Only 8 zones	●		●

600 Series Conventional Detectors

The new 600 Series conventional detectors is the result of the evolution of conventional detectors design but with extra unique style features enabling improved operation, installation and easy servicing. Included within the 600 Series range is the new conventional enhanced carbon monoxide detector (601CH). The incorporation of a reliable electrochemical CO detection cell and high specification low thermal mass thermistor for accurate temperature detection has enabled the introduction of an enhanced CO detector suitable for fast, reliable fire detection on both slow and fast developing fires.

The traditional detectors or two-status detectors in the 600 Series have two output statuses: standby or alarm.

When used in conjunction with suitable monitoring and signalling equipment, they create an automatic detection system.

Application

As each type of detector responds to a particular "fire characteristic", the relative speed of response of the detector is therefore dependent upon the type of fire being detected.

The range of FC600 Series conventional detectors have been designed to provide the earliest possible warning of a fire condition, with a minimum possibility of false/unwanted alarms.

Features

• EN54 Approved from LPCB
• Low operational voltage: 10.5 Vdc to 33 Vdc
• Aesthetically discreet
• Superior performance and reliability
• Designed for rapid installation
• Integrated alarm LED
• Remote LED connection
• Wiring polarity independent
• Compatible with standard mounting base and with relay base

600 Series Conventional Detectors

Photo Optical Smoke Detector — 601P

601P detector is capable of detecting the visible smoke produced by materials which smoulder or burn slowly, i.e. soft furnishings, plastic foam etc;. or 'smoke' produced by overheated but unburnt PVC. These detectors are particularly suitable for general applications and areas where cable overheating may occur e.g. electrical services areas.

Multi-Sensor Smoke and Heat Detector — 601PH

601PH detector react to the whole range of fire products from slow smouldering fires, producing visible particles to open flaming fires producing large numbers of very hot smaller sized aerosols. It combines optical and heat detector technology to detect clear burning fire products which hitherto could only be easily detected by ion-chamber detectors.

For normal ambient conditions, the high performance optical detector behaves as a normal optical detector.

Only when a rapid rise in temperature is detected does the sensitivity of the detector increase and the presence of smoke will confirm a fire condition.

The HPO will not operate on a rate of rise of temperature alone.

Heat Detector — 601H-R / 601H-F

601H-R (rate of rise) and 601H-F (fixed temperature) detectors detect abnormally high rates of rise of temperature and abnormally high (static) temperatures respectively.

Multi Sensor CO and Heat Detector — 601CH

601CH detector is a unique general purpose fire detector which provides very early warning of slow smouldering fires. Ideal for sleeping risks the CO fire detector is also well suited to many applications where heat detection is insufficient but smoke detection causes false alarms.

As CO travels more freely than smoke the position of CO fire detectors is more flexible.

This feature is particularly useful in large complex structures such as atria and warehouses, where position of smoke detectors is difficult.

Detector Bases & Accessories

5" Universal Base   5B

The 5B is the most common base designed to fix directly to the ceiling or various common backboxes. This base allows a detector to be plugged in directly.

Features

• Variety of fixing options
• Remote LED connections
• Park position and address flag holder
• Integral breakout locking key

Ceiling Tile Adapter Kit   517.050.060

The Time Saver Ceiling Tile Adaptor is used with the 4B 4" detector base snap fit base and consists of three parts, a bezel and clamp that are fitted to the ceiling tile and a back-box that carries the detector and base assembly.

Product Code

• Ceiling Tile Adaptor Kit   517.050.060
  (consists of 1 x 517.050.056 / 1 x 517.050.057)
• CTA-BB CTA Back Box   517.050.056
• CTA-BC CTA Bezel and Clamp   517.050.057
• CTA-AP CTA Adaptor Plate   517.050.058

The CTA adaptor plate allows the Ceiling Tile Adaptor to be used with other devices such as the 802SB

4B 4" Detector Base   4B

The new 4B 4" Detector Base is designed to snap-fit to the Ceiling Tile Adaptor or it can be screw fixed to a ceiling in the traditional manner.

Features

• Variety of fixing options
• Remote LED connections
• Park position and address flag holder
• Integral breakout locking key

Euro Mounting   FC450EMB

The Euro-Mounting base provides a matching back box, which allows the 5" bases to be ceiling mounted with conduit entries for standard 18 and 21mm conduit.

Features

• 2 x 18mm conduit entries
• 2 x 21mm conduit entries
• Fits all 5" Bases

Deck Head Mounting   DHM-5B

Where the detectors are mounted in humid and environmentally challenging situations such as marine or offshore installations, the DHM-5B deck head mount provides a sealed waterproof mounting which protects the 5" bases electrical connections.
Can be screwed, bolted or welded to the deckhead. Supplied with 1 terminal.

Features

• 4 x 20mm gland entries
• Fits ALL 5" bases
• IP55 with supplied gasket

Protective cage   517.050.011

White powder coated steel protective cage for Series FC400 Detectors fitted with a sounder base.

Features

Dimensions: 120mm dia x 80mm deep

Protective Detector Sounder Base Cage   517.050.614

Robust steel protective cage for Series FC400 detector ranges using the 5" bases. Ideal for schools and sporthalls or whenever detectors need protection. Strong coated steel construction with 4 point fitting.

Conventional Detectors

ZT100 Series Conventional Detectors

Photo Optical Smoke Detector	ZT100PL2

Conventional photoelectric smoke detector without base.

Durable sensor head, no need for replacement; 2-WIRE/24Vdc; Standby current: 90 µA; Alarm current: 50 mA (max).

Heat Detector	ZT100HL2

Conventional rate of rise with fixed temperature heat detectors without base. 2-wire/24Vdc; Standby current: 55 µA; Alarm current: 50 mA (max).

High Profile Base	ZT100BH4

High base for installations needing more clearance from the mounting surface.

Low Profile Base	ZT100BL4

Low profile base.

Conventional Accessories

Conventional Callpoint   MCP200CS

The MCP200CS is a resettable manual call point for conventional
fire control panels. Easy to use and install, it complies with the EN
54-11standard. The MCP200CS has a large activation surface that gives
a visual indication after use.

Standby status is restored with a simple action using the provided key,
while the transparent plastic cover provides an effective barrier to
prevent accidental activation. An alarm status alert is completed by
the illumination of the red LED indicator. Other features include, easy
installation using push-fit terminals and the option of selecting the alarm
current in order to isolate call point vs detector alarm alerts where
possible on the same zone (only where the control panel design support
this feature).

Sounder   H200

The H200 is a sounder indicating device for fire indication systems
compliant with standard EN 54-3.
It emits an acoustic signal selectable from the 32 options, and have a
trimmer for adjusting the volume.

Features

• Power Supply: 18 ÷ 28 Vdc
• Current Consumption at 24 Vdc: from 12.5 to 37.4 mA
• IP Rating: IP21
• Operating temperature: -10 ÷ +55 °C
• Dimensions (Øxh): 92x94mm
• Weight: 254g

Sounder and Beacon   HS200

The HS200 is a sounder-beacon indicating device for fire indication
systems compliant with standard EN 54-3.
It emits an acoustic signal selectable from the 32 options, and have a
trimmer for adjusting the volume.
The luminous signalling is performed by means of high-efficiency red LEDs.

Features

• Power Supply: 18 ÷ 28 Vdc
• Current Consumption sounder @ 24 Vdc: from 12.5 to 37.4 mA
• Current Consumption beacon @ 24 Vdc: 16 mA
• IP Rating: IP21
• Operating temperature: -10 ÷ +55 °C
• Dimensions (Øxh): 92x110 mm
• Weight: 278 g

Power Supplies

The BXM24/25-U and 50-U are approved by IMQ to EN 54-4:1997 + A1:2002 and EN60950-1:2001. The steel housing contains a 2,5 amp or 5 amp switch mode power supply and monitoring board and has space to accommodate 2 x 12V 17Ah sealed lead acid batteries. The 10 front panel LED's comprehensively indicate the status of the unit.

Features

• Robust metal housing
• Twin fused outputs
• Temperature compensated charging
• Deep discharge protection of batteries
• Fault relay output
• Size 383mm wide x 408mm high x 97mm deep
• Weight 4.3 Kg (excluding batteries)
• Operating temperature -5°C to +40°C
• Supply voltage 230VAC 50/60Hz
• Comprehensive LED status indication

Product Code

BXM24/25-U = 2.5 A
BXM24/50-U = 5.5 A

The BXM24/25-B and 50-B are approved by IMQ to EN 54-4:1997 + A1:2002 and EN60950-1:2001. The steel housing contains a 2,5 amp or 5 amp switch mode power supply and monitoring board and has space to accommodate 2 x 12V 17Ah sealed lead acid batteries. The 10 front panel LED's comprehensively indicate the status of the unit.

Features

• RS485 Bus Interface, Up to 8 BXM24, -B version, can be connected
• Robust metal housing
• Twin fused outputs
• Temperature compensated charging
• Deep discharge protection of batteries
• Fault relay output
• Size 383mm wide x 408mm high x 97mm deep
• Weight 4.3 Kg (excluding batteries)
• Operating temperature -5°C to +40°C
• Supply voltage 230VAC 50/60Hz
• Comprehensive LED status indication

Product Code

BXM24/25-B = 2.5 A
BXM24/50-B = 5.5 A

The BAQ is a power supply unit and battery charger for use with appliances that require a regulated voltage of 27.6 V and a maximum current of 5,5 A. Its power output is protected against overload, short-circuit and accidental inversion of the battery polarity.

Features

• Input Voltage: 240 Vac, -15% /+10%, 50/60Hz
• Output Voltage: 27.6Vdc, -1% / +1%
• Max. battery size (charge):
    BAQ35T24 = 2 x 12V - 7Ah max.
    BAQ60T24 = 2 x 12V - 15Ah max.
    BAQ140T24 = 2 x 12V - 15Ah max.
• Operating Temperature: -5° - +40°C
• Dimensions: 38H x 205W x 98D mm
• Weight: 0.7Kg

Product Code

BAQ35T24 = 1.5 A
BAQ60T24 = 2.5 A
BAQ140T24 = 5.5 A

Detector Test Equipment

Dispenser for Solo Smoke and CO Canister	SOLO330

- Lightweight and simple to use
- Universal design suits wide range of detectors
- Spring loaded solution for suspended ceilings
- For use with Solo Smoke and CO Canisters
- Designed for use with Solo Dispenser

Smoke Detector Tester	517.001.256

- Non flammable
- Fast activation

CO Detector Tester	517.001.262

- Designed for use with Solo Dispenser
- Genuine, non-flammable CO stimulus

Cordless Heat Detector Test Kit	SOLO461

- Battery powered
- No cables, trailing leads or hanging wires
- Suits fixed temperature, rate of rise detectors
- Lightweight and simple to use
- Universal design suits wide range of detectors
  Includes: 1 x Solo Heat Detector Tester; 1 x Solo
  Battery Charger

Telescopic Access Pole	SOLO100

- Solo Telescopic Pole extends from 1.26 to 4.5 metres
- Optimum strength to weight ratio
- Certified non-conductivity

Extension Pole	SOLO101

A 1.13 metre Solo Extension Pole which can be used on its own or fitted to the Solo.

Adaptor Tube B	SOLO704

Adaptor for Solo Accesss Poles to allow fitting FC400RT Detector Removal Tool.

800RT Detector Removal Tool	800RT

- Compatible with FC400 Series detectors

Storage Bag	517.001.264

A protective carry and storage bag for the Solo or Testifire product ranges.

FIRECLASS

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