

APPENDIX 1: LIST ENTRY

Name: Senate House and Institute of Education (University of London) and Attached Railings

Heritage Category: Listed Building

Grade: II*

Date First Listed: 28-Mar-1969

List Entry Number: 1113107

Location: Senate house and Institute of Education (University of London), Malet Street

County: Greater London Authority

District: Camden (London Borough)

Details:

TQ2981NE

798-1/99/1101

CAMDEN MALET STREET (East side) Senate House and Institute of Education (University of London) and attached railings 28/03/69 GV II* Senate House and Institute of Education. 1932-1938. By Charles Holden, built with funding from the Rockefeller Foundation. Brick load-bearing construction with Portland stone facing.

Symmetrical design, not completed, comprising central tower flanked by two courtyard ranges to either side. The southern, completed half, houses the ceremonial and administrative functions of the University of London. The northern half houses the Institute of Historical Research and School of Slavonic Studies in more functional surrounding: north-east wing not completed. The initial concept of a single, spinal building extending the length of Torrington Square was abandoned as building began, but survives in model form displayed on the first floor balcony of Senate House.

EXTERIOR: central, higher fourth floor is the University library, with above it offices and bookstack housed in the formal 18-storey tower built in recessed stages with broad central buttresses on the east and west sides. Six windows at first floor level. Four and five storey wings with ten-window forward return and 14 windows width each. Under enriched, flat canopies, two square-headed entrances each side of the central buttress, all with two-leaf glass doors with vertically patterned metal grills. Above the canopies small rectangular windows with patterned grills and keystones. Square-headed, recessed windows with metal frames, those at first floor level on the tower being elongated with enriched spandrel panels and flanked by medium sized windows at the angles, with balconies, culminating in lunettes at sixth floor level. From the second floor to the 18th, small vertically set windows, in groups of three until the penultimate stage when they are continuous. Flanking wings with metal balconies to windows at angles. Flat roofs with plain bands at parapet levels. East facade similar. Inner courtyards similarly treated, with hopper heads dated 1936.

INTERIOR: imposing Egyptianate entrance hall at base of tower with travertine floor and walls with broad fluted pilasters a semi-open space giving through access, with doors to south leading to Senate House and to north to Institute of Historical Research and School of Slavonic Studies.

Senate House. Principal spaces all with travertine cladding to walls and floors, ceilings of moulded plaster with flat panel patterns and embellishments based on a London plane tree motif. Staircases floored in travertine, with bronzed balustrades treated as stylised Ionic columns. Principal entrance hall on two levels with first floor balcony having elaborate bronzed balustrade: Holden's original model exhibited here.

On ground floor there is to east the MacMillan Hall, named after Lord MacMillan first Chairman of the University Court, with square panelled ceiling, travertine walls decorated as fluted pilasters at end and to sides set with acoustic panels to Holden's design and coloured glass, teak floor, and original light fittings. Memorials to HRH Queen Mother, Chancellor 1955-80, and to Princess Royal, Chancellor 1981- . William Beveridge Hall, named after the University's Vice Chancellor 1926-8, retains dado panelling set with brass filets in Greek key pattern under acoustic quilting, with semi-permanent seating and stage.

On first floor processional stair leads to Chancellor's Hall, with square panelled timber to window recesses, travertine cladding, and square panelled plaster ceilings. Inlay pattern floors, original doors and fittings. To east a suite of rooms set round courtyard includes Court Room and Senate Room. Senate Room and ante rooms fully panelled in English walnut, the former of double height with trabeated ceilings, original fixed seating in stepped rows arranged like a council chamber with dias. Bronze uplighters. Ante rooms with heraldic glass by E Bossanyi dated 1937. On north side committee room and processional suite of corridors with dado panelling and moulded cornices, original furnishings and fittings. On south side the Vice Chancellor's offices not inspected.

Second floor staff common rooms and third floor common rooms and refectories originally with painted mural ceilings. Those in refectory not seen under later acoustic tiles; war memorial tablet in corridor. Fourth floor libraries of double height. Two general reading rooms, the Middlesex Libraries, finished in oak with original bookshelves and fittings of English walnut. Goldsmith's Library to south with glazed bookcases, and ceiling of cypress wood and stained glass by E Bossanyi. Above these the bookstacks supported by steel frame on concrete raft. The offices retain original doors, lettering and fittings. The whole is a remarkably unaltered ensemble of 1930s design, with a high proportion of highly decorated ceremonial spaces over functional offices.

The Institute of Historical Research and School of Slavonic Studies with ground-floor entrance hall of single-storey height, travertine floors and finishings similar in style but simpler than those found in Senate House.

SUBSIDIARY FEATURES: attached cast-iron railings on stone sleeper wall and gates of radial pattern with central bosses containing coats of arms. Pillars with pilasters and geometric enrichment, those at the gates surmounted by rectangular down-lighter lamps with small defused panes and topped by stepped features.

HISTORICAL NOTE: built as a landmark, in 1937 this was the tallest building in London apart from St Paul's Cathedral.

Listing NGR: TQ2992381896

APPENDIX 2: PLANNING HISTORY

The planning history of the Senate House. The following table shows the granted planning and listed building consent applications of the Senate House and SOAS.

Ref	Date	Development	Status
2022/1565/L	10-05-2022	Proposed cleaning of the facade of Senate House facing Russell Square with DOFF low pressure super-heated steam.	Granted
2019/3985/A	11-09-2019	6 No. A1 (594mm wide x 841mm high) signage boards secured to the perimeter railings on Malet Street. The proposed A1 signs will be in pairs, situated at three locations along the railings. The proposed signs will be used to advertise events for the University of London, School of Advanced Studies and Senate House Library.	Granted
2019/3993/L	06-08-2019	Installation of x6 A1 (594mm wide x 841mm high) event advertising boards to the railings on Malet Street.	Granted
2019/3464/L	16-07-2019	Reinstatement of 2 No windows and masonry where previously removed	Granted
2018/5095/L	30-10-2018	Installation of PV cell array to flat roof of Southern section of the university building.	Granted
2018/2806/L	27-06-2018	The refurbishment of the perimeter railings and balconies to Senate House on Malet Street and Montague Place.	Granted
2017/4146/L	03-08-2017	Internal Works to replace and upgrade the pipework serving the heating system through the flooring of the North Block Building.	Granted
2017/1573/L	03-04-2017	Detailed design of the two roofs to the south western external lightwells and associated works.	Granted
2017/1394/L	17-03-2017	Removal of non-original partition wall at lower ground floor and installation of glazed partition and moveable wall hung partition wall.	Granted
2017/0099/L	12-01-2017	Minor internal alterations to the ground and third floor student receptions in Senate House.	Granted
2016/6474/L	02-12-2016	Submission of signage strategy details, as required by condition 11 of listed building consent ref 2013/4478/L dated 02/07/2014	Granted
2016/6003/L	02-11-2016	Addition of a timber mezzanine level within a large storage room (93sqm) on the first floor level of Senate House.	Granted
2016/5902/P	02-11-2016	Detailed plans of the roofs required by condition 4 of planning permission granted on 23/08/2016 (ref: 2016/1124/P for the partial infill of the south western external lightwell and associated works).	Granted
2016/2788/L	29-06-2016	Detailed of windows and doors (drawings) as required by condition 5f & 5g of listed building consent granted on 02/07/2014 ref: 2013/4478/L for the external alterations to inner courtyard.	Granted
2016/1765/L	20-04-2016	Submission of Design Report & Drawings as required by conditions 5c and 5d of Listed Building Consent ref 2013/4478/L (dated 02/07/2014)	Granted
2016/1636/L	06-04-2016	The refurbishment of the lower ground floor and ground floor of Senate House, the infill of an internal courtyard, the partial infill of the south western external lightwell and other associated works	Granted

2016/1124/P	06-04-2016	The partial infill of the south western external lightwell and associated works.	Granted with conditions
2016/0904/L	23-03-2016	Details of signage strategy required by condition 11 of listed building consent granted on 02/07/2014 (reference: 2013/4478/L)	Granted
2016/0127/L	28-01-2016	Approval of Condition 5e (drawings of the glazed entrance doors within ground floor lobby) granted under reference 2013/4478/L dated 02/07/14	Granted
2016/0111/L	27-01-2016	Installation of pipework from basement boiler room through existing light well wall and window at basement level to plant room.	Granted
2016/0109/L	27-01-2016	Installation of dry riser system and pipework into light well through an existing window at basement level.	Granted
2015/6625/P	27-01-2016	Installation of pipework from basement boiler room through existing light well wall and window at basement level to plant room.	Granted
2015/6624/P	27-01-2016	Installation of dry riser system and pipework into light well through an existing window at basement level.	Granted
2015/5705/L	05-11-2015	Detailed drawings of any new suspended ceilings required by condition 5(h) of Listing Building consent granted on 02/07/2014 (ref: 2013/4478/L)	Granted
2015/5023/L	05-11-2015	Details of works to the glazed tiling to the basement courtyard required by condition 5(j) of Listed Building consent granted on 02/07/2014 (ref: 2013/4478/L)	Granted
2015/5020/L	05-11-2015	Details of the new reception desk within the entrance lobby required by condition 6 of Listed Building consent granted on 02/07/2014 (ref: 2013/4478/L)	Granted
2015/4718/L	05-11-2015	Details of secondary glazing required by condition 5(f) of Listed Building consent granted on 02/07/2014 (ref: 2013/4478/L)	Granted
2015/4254/L	24-07-2015	Discharge of condition 4 (materials specifications) granted under reference 2013/4478/L dated 02/07/14.	Granted
2015/3666/L	08-07-2015	Submission of details relating to condition 5a (glazed roof and balconies) and 5b (glazed roof and masonry) of listed building consent 2013/4478/L.	Granted
2015/3659/L	08-07-2015	Creation of new door opening at 2nd floor level	Granted
2015/3025/L	23-06-2015	Details of condition 10 (lighting) in relation to listed building consent 2013/4478/L.	Granted
2015/3121/L	19-06-2015	Internal alterations to partitions at ground floor level.	Granted
2015/3031/L	16-06-2015	Details of modifications to travertine panels and timber cills as required by condition 5i of listed building consent 2013/4478/L granted on 7 July 2014.	Granted
2015/2915/L	16-06-2015	Discharge of condition 5h (suspended ceilings) relating to listed building consent 2013/4478/L.	Granted
2015/1283/L	04-03-2015	Details of doors in relation to condition 5g of Listed Building Consent 2013/4478/L, 02/07/2014.	Granted
2015/0901/L	04-03-2015	Details of windows in relation to condition 5F of Listed Building Consent 2013/4478/L, 02/07/2014.	Granted
2015/0381/L	06-02-2015	Discharge of condition 9 (scribed partitions) granted under reference 2013/4478/L dated 02/07/2014.	Granted
2015/0382/L	04-02-2015	Discharge of condition 5h (suspended ceilings) pursuant to Listed Building Consent ref 2013/4478/L (dated 2 July 2014).	Granted

2014/7197/P	27-11-2014	Variation of condition 3 (approved plans) of planning permission 2013/4415/P dated 30/06/2014 (for erection of infill extension) namely to allow a rainwater harvesting tank to be installed under the infill extension.	Granted subject to a Section 106 Legal Agreement
2014/7057/L	26-11-2014	Details pursuant to condition 4 (method statement) of listed building consent granted 20/2/2014 (2013/4411/L).	Granted
2014/6169/L	16-10-2014	Details pursuant to condition 8 (terrazzo details) following planning permission granted 2/7/2014 (2013/4478/L).	Granted
2014/6065/L	08-10-2014	Alterations to remove stud partition on 3rd floor.	Granted
2014/5497/P	08-09-2014	Discharge of condition 5 (acoustic report) as granted under reference 2012/1797/P dated 12/06/12.	Granted
2014/5453/L	05-09-2014	Detailed schedule of decorative features as required by condition 7 of listed building consent (2013/4478/L) dated 02/07/2014 for external and internal alterations.	Granted
2014/3885/L	01-07-2014	Removal of two timber framed plasterboard studwork partitions on the third floor to allow the expansion of the adjacent library reading room, and installation of mobile shelving.	Granted
2013/4478/L	01-08-2013	External alterations to inner courtyard including erection of infill extension/atrium at basement & ground floor levels, new ramps and alterations to Torrington Square entrance, creation of external fire escape in west lightwell, alterations to east and west elevations, installation of plant on main roof. Internal works in connection with refurbishment of the building and other associated works including to provide new services and connections.	Granted Subject to a Section 106 Legal Agreement
2013/4415/P	01-08-2013	External alterations to inner courtyard including erection of infill extension/atrium at basement & ground floor levels, new ramps and alterations to Torrington Square entrance, creation of external fire escape in west lightwell, alterations to east and west elevations, and installation of plant on main roof.	Granted Subject to a Section 106 Legal Agreement
2013/4411/L	01-08-2013	Removal of existing inner courtyard walls and spoil at lower ground level; removal of non-original external elements within courtyard area, including ventilation shafts, covered walkway (including the roof slab and doors), redundant pipework and associated connections. Internal alterations to remove a number of internal partition walls, non-original windows and blockwork to facilitate removal of spoil from courtyard.	Granted with conditions
2013/3819/L	25-06-2013	Installation of an internal partition wall and door at fourth floor level of University building (Class D2).	Granted
2013/3645/L	25-06-2013	Installation of lighting track to ceiling of Listed building (Class D2).	Granted
2013/0706/L	11-02-2013	Internal refurbishment works to stairwells and creation of new library area within existing building (Class D1)	Granted
2012/6810/L	10-01-2013	The addition of a timber mezzanine level within a large storage room (93sqm) on the first floor, and the addition of a second escape door from the space to educational establishment (Class D1).	Granted
2012/6483/L	14-12-2012	Installation of an internal wheelchair platform lift at the Montague Place entrance.	Granted

2012/1992/L	18-04-2012	Installation of air handling unit enclosed by louvred screening and 2 x air condenser units within acoustic canopy within existing lightwell at basement level, installation of louvres to windows at basement and ground floor level within lightwell, condenser unit within acoustic screen at 6th floor level and internal alterations including modification of partitioning and door openings, new lighting, services and lift to staircase 7 all in connection with the refurbishment of the North Wing of the North Block of Senate House.	Granted
2012/1797/P	18-04-2012	Installation of air handling unit enclosed by louvred screening and 2 x air condenser units within acoustic canopy within existing lightwell at basement level, installation of louvres to windows at basement and ground floor level within lightwell and condenser unit within acoustic screen at 6th floor level all in connection with the refurbishment of the North Wing of the North Block of Senate House.	Granted with conditions
2011/6136/L	11-01-2012	Refurbishment of bathroom and toilets at ground floor level (half-landing level adjacent to staircase 2) and formation of new cloak room at basement level of existing education building.	Granted
2011/6192/L	12-12-2011	Refurbishment of toilets at basement and ground floor levels.	Granted
2011/4886/L	30-09-2011	Installation of 4 x fresh air ducts and 4 x extract ducts to ground floor level window within lightwell, the extract ducts connect to a single extract duct running to roof level, installation of 4 air condensing units on tank room at lower ground floor level within lightwell and internal alterations at ground floor level including the addition of wall lining all in connection with the refurbishment of kitchens serving the University (Class D1).	Granted
2011/4885/P	30-09-2011	Installation of 4 x fresh air ducts and 4 x extract ducts to ground floor level window within lightwell, the extract ducts connect to a single extract duct running to roof level, installation of 4 air condensing units on tank room at lower ground floor level within lightwell all in connection with the refurbishment of kitchens serving the University (Class D1).	Granted
2011/3141/P	02-09-2011	Installation of 4 air condenser units behind the parapet wall on the flat roof at fourth floor level in connection with existing University building (Class D1). (Retrospective).	Granted
2011/4269/L	31-08-2011	Installation of commemorative plaque at ground floor level to North elevation of South block of University building (Class D1).	Granted
2011/3137/L	19-07-2011	Installation of 4 air condenser units behind the parapet wall on the flat roof at fourth floor level in connection with existing University building (Class D1). (Retrospective)	Granted
2011/2825/L	20-06-2011	Internal alterations including creation of new door opening between rooms G04 and G05 at ground floor level in south block.	Granted
2010/3951/L	29-07-2010	Refurbishment of existing toilets at basement / ground floor level of university building (Class D1).	Granted
2008/2910/P	01-07-2008	Installation of diesel engine generator set in an acoustic enclosure to provide standby power to computer centre in Stewart House, located in existing service yard adjacent to refuse compactor and goods loading bay.	Granted
2008/2318/L	12-06-2008	New way finding signage within south block of building	Granted

2007/1355/L	27-04-2007	Installation of cast iron rainwater pipe below the first-floor balcony at east end of Montague Place elevation, (adjacent to Stewart House) including hopper and shoe.	Granted
2007/0153/L	23-01-2007	Internal alterations and works of refurbishment.	Granted
2007/0015/L	10-01-2007	Internal works comprising the insertion of risers with associated cupboard enclosures and the creation of basement trenches.	Granted
2006/5145/L	22-11-2006	Installation of turnstiles, reception counter and alterations to entrance to Institute of Historical Research on the ground floor, north block.	Granted
2006/1041/L	02-03-2006	Submission of details of new location of redundant Switch Gear (part of 'switchgear C') pursuant to condition 4(b) of listed building consent dated 5th September 2005 (ref. 2005/2851/L).	Granted
2005/5561/L	03-01-2006	Adjustments to existing ventilation system and new cooling system plus new doorset to transformer room located at basement level.	Granted
2005/4514/L	16-11-2005	Details of new lighting scheme for switch room pursuant to condition 4a of listed building consent dated 5th September 2005 (2005/2851/L) for internal alterations to existing electrical switchgear at basement level.	Granted
2005/4272/L	18-10-2005	Submission of details pursuant to additional condition 3a; details of proposed new doors, frames and linings, and condition 4; wall tiles and trim of granted listed building consent Ref:2005/2212/L dated 18th August 2005.	Granted
2005/2851/L	20-07-2005	Internal alterations to existing electrical switchgear at basement level.	Granted
2005/2212/L	13-06-2005	Refurbishment of toilets at 2nd, 3rd and 4th floors, involving the removal of internal partitions.	Granted
2004/3698/L	09-09-2004	Refurbishment of three existing passenger lifts (numbered 7, 12 and 14).	Granted
2004/3654/L	02-09-2004	Submission of details pursuant to condition 3a; new ceiling light fittings, 3b copperlite glazing and 3c, tiles for floors, walls and skirting areas, of listed building consent (2004/2504/L) granted on 2nd August 2004.	Granted
2004/2504/L	17-06-2007	Internal works at basement level associated with toilet refurbishment.	Granted
2004/1227/L	31-03-2004	Alterations to existing internal electrical switchgear at basement level.	Granted
LSX0304190	13-03-2003	Internal works comprising lift refurbishment, as shown by drawing numbers: 154 L1, L3, L10, (17)S1, (17)S2, (17)P1A, (17)P2B, Sheet of photographs.	Granted
LSX0204898	17-07-2002	Submission of details of secondary glazing, pursuant to additional Condition 5 of Listed Building Consent dated 16/ 4/02 (Ref No. LSX0105348) for refurbishment works.	Grant approval of details
LSX0204857	15-07-2002	Submission of details of enclosure of refrigerant pipework pursuant to additional condition 4 (A) of Listed Building Consent LSX0104961/R2 dated 07/05/02.	Grant approval of details
LSX0204461	18-04-2002	Refurbishment of existing lecture theatre seating and modifications to floor levels and writing tables, Room 135, North Block Senate House, as shown on drawing numbers; SEN-1; UOL01/01P; 02P; 04P; 05P; 07P; Site Location Plan; and Statement of scope of refurbishment works.	Grant LB consent with conditions

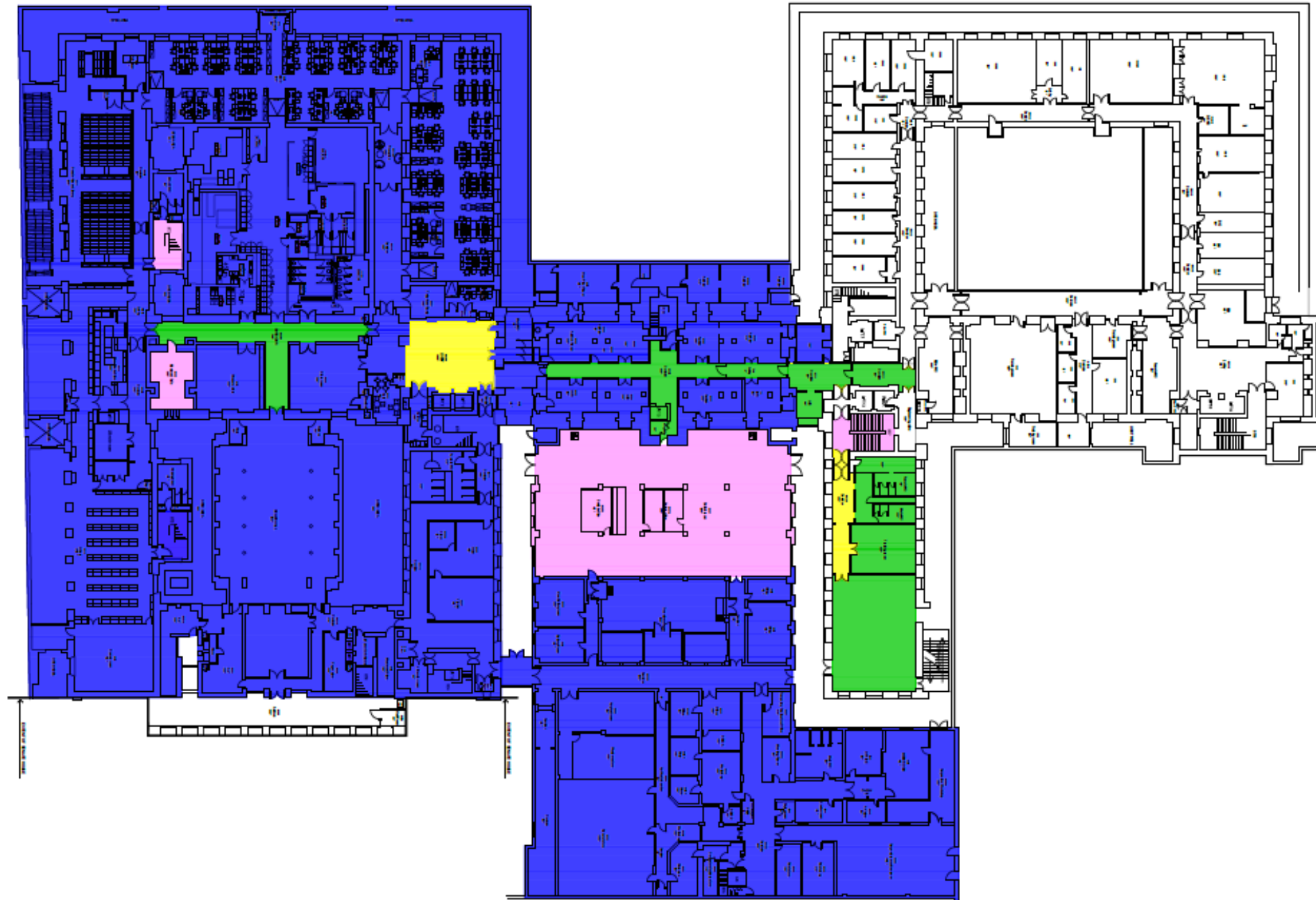
PSX0104952	28-03-2002	Provision of one external heat rejection unit in lightwell at basement level with associated refrigerant pipework and internal alterations, as shown on drawing numbers; 01267/T/006; 01267/P/02; 01267/ P/03; 01267/P/05; 01267/P/11 Rev 1; 01267/P/12 Rev 1; 01267/ P/008/2; photographs and KX-2 acoustic information.	Grant Full Planning Permission (conds)
LSX0104961	28-03-2002	Provision of one external heat rejection unit in lightwell at basement level with associated refrigerant pipework and internal alterations, as shown on drawing numbers; 01267/T/006; 01267/P/02; 01267/ P/03; 01267/P/05; 01267/P/11 Rev 1; 01267/P/12 Rev 1; 01267/ P/008/2; photographs and KX-2 acoustic information.	Grant L B Consent with Conditions
LSX0105348	12-02-2002	Demolition of some interior walls and floors, construction of new partitions and strengthening of floors below new mobile stacks, construction of temporary contractors site office, as shown on drawing numbers: 136 / L1B, 136 / S2B , S3.1C, S4.1C, S5.1B, S10A, S20C, S21A, P2B, P3.1H, P3.2H, P4.1J, P4.2C, P5.1G, P5.2C, P10A, P20C, P21A, P22C, P23B, P24A, P25B-P30B inclusive, 49286/001, 002, 003, 136/V1, V2.	Grant L B Consent with Conditions
LSX0105405	15-01-2002	Internal alterations to existing office at second floor level, to provide partitions and floor mounted air conditioning units, as shown on drawing numbers; Manufacturers Specification: Toshiba R407C; SH/2/050; SH/2/045; LU3793; LU4041 & LU5193.	Grant L B Consent with Conditions
PSX0104826	20-07-2001	Installation of 1 No. CCTV camera unit, as shown on: Figure 1 (Site Plan), Figure 2 (Photomontage showing position of camera on building), and Figure 3 (Camera information and technical data).	Grant Full Planning Permission
LSX0104841	20-07-2001	Installation of 1 No. CCTV camera unit, as shown on: Figure 1 (Site Plan), Figure 2 (Photomontage showing position of camera on building), and Figure 3 (Camera information and technical data).	Grant L B Consent with Conditions
PSX0004855	25-06-2001	Installation of a CCTV camera onto a bespoke lamppost within the university precinct in the curtilage of Senate House, as shown on letter dated 20.6.01, unnumbered A3 location plan, Figure 1, Figure 2, Figure 3 and A4 sheet product information 2050 dome camera.	Grant Full Planning Permission
LSX0104451	18-05-2001	Installation of 2 tier Library Research Centre within existing book store incorporating mezzanine deck structure, housing for, special books collection; new shelf space and work space. Formation of new seminar room and new glazed screens fitted to Sterling Library offices, as shown on drawing numbers; 433-01F, 02F, 03A, 04A, 05G, 06G, 07A, 08C, 09B, 10B, 11B, 12C, 13D, 14A, 16D, 18, 19A, 20A, 21, and 22.	Grant L B Consent with Conditions
PSX0005191	15-02-2001	Conversion and adaptation of part of the basement area within Senate House from a general stationery store into an archive store for the University Library. Works include the removal of a load bearing walls and two windows, together with the removal of redundant M & E plant, installation of air handling unit, dry lining and new floors, mobile and static storage areas. As shown on drawing number 3082/03 (location plan), 3082/01, 02, M02 rev C, letter from Dudley Smith Partnership dated 13th February 2001, 26th February 2001, product information from "Waterloo" and SK/M01.	Grant Full Planning Permission
LSX0005192			Grant L B Consent with Conditions
LSX0005138	08-01-2001	Reception refurbishment. As shown on drawing numbers; 7547/002G, 008 rev A, 009 rev B, 010, 011, 012, 013, (partially superseded by 7547/020) 014, 015, 017, 019, 020, (cornice junction with glass screen and support), 20 (services beneath the floor slab), sample of bronze finish to be used throughout, letters from Purcell Miller Tritton to LB Camden dated 28.11.00, 5.01.01 10.01.01 and 26.01.01.	Grant L B Consent with Conditions
LSX0004487	06-09-2000	Internal alterations to form new toilet facilities at half landing of staircase two at first floor level, as shown by drawing numbers 1101/1 & 1101/2 Rev A.	Grant L B Consent with Conditions

LSX0004516	05-07-2000	Internal alterations at ground floor level on the south block to create an information centre as shown on drawing numbers 117-01, 125-01-05, 07-09, 011, 013, 014, 016, letter ERA dated 3/7/2000 to LB Camden, sanitary schedule, finishes schedule, scope of works.	Grant L B Consent with Conditions
PS9905189	27-04-2000	The installation of two air cooled chiller units, enclosed by an acoustic screen, on the main roof above third floor level, on the Montague Place side of the building, as shown by drawing numbers 86217/SK1(as amended by letter dated 7th December 1999), DWG1, DGW2, Mckenzie-Martin Louvred Ancillaries A4 specification sheet for walls, doors and mitred corners, Delrac specification for the air cooled chillers dated 8th October 1999 & letter stating light grey colour (BS000A05-Goosewing) for screens dated 26th April 2000.	Grant Full Planning Permission (conds)
LS9905190			Grant L B Consent with Conditions
LSX0004262	06-03-2000	Refurbishment of the Beveridge Halls including the retention of speakers and light fittings, as shown on drawing numbers 117/01, 02, 03A, 04B-07B, 08C, 09D, 10D, 11C, 12A, 24A, 25A, 26C, 28 7 29B.	Grant L B Consent with Conditions
LSX0004032	10-01-2000	Erection of commemorative plaque (non-illuminated) on North elevation of South block at ground floor level, as shown on on drawing numbers: EST-SH-025, description of plaque dated 6 January 2000, and letter from University of London to LB of Camden dated 31 January 2000.	Grant L B Consent with Conditions
LS9904605	18-06-1999	Refurbishment of principal public rooms including Beveridge Hall, Chancellors Hall, Court Room and Senate Rooms, as shown by drawing numbers 117-001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011 & 012 and schedule of finishes (June 1999), design report (May 1999) and schedule of works (May 1999).	Grant L B Consent with Conditions
LS9904380	22-04-1999	Partial demolition of internal walls and floor, and revised room layouts on basement to third floors, plus new staircase and library shelving, as shown on drawing numbers 120/S1A, S2A, S3A, S4.1A, P4.2, S5A, S10, P1D, P2C, P3C, P4.1B & P5B.	Grant L B Consent with Conditions
LS9904180R1	18-03-1999	Approval of details of new screens/walls and junction with existing building and new island counter pursuant to additional condition 4(a) & (b) of listed building consent (Reg No.LS9705332R1) dated 10th July 1998, as shown by drawing numbers 9902-01, 31338/03b, 31338/04a, 31338/06b and details of proposed finishes.	Grant Approval of Details (Listed Bldg)
LS9705332R1	11-02-1998	Internal alterations to walls, screens and doors; introduction of new counters, screens and doors. (as shown on drawing nos. 109/S/10B, 11B, 13A, 14A, 15B; 109/P/10D, 11B, 13B, 14B, 15C)	Grant L B Consent with Conditions
LS9604258	02-12-1996	Internal alterations including removal/replacement of partitions, formation of new openings and external reinstatement of one blocked window, as shown on drawing SH3/LB-01/6 and Outline of Alterations & Photographs booklet dated November 1996.	Grant L B Consent with Conditions
L9602659R1	10-09-1996	Internal alterations at basement level, as shown on drawing number UL/SH/1.	Grant L B Consent with Conditions
9370020	08-02-1993	Installation of fire doors at various locations on ground to fourth floors installation of external escape stairs between basement and fourth floors on the north elevation and installation of escape stair between basement and ground floors in the basement area on the west elevation as shown on drawing numbers BSD/SH1257A BSD/SH/1261 1262A 1263 1264 1265 1268 & 1269 and LU3782 revised by letter dated 11 March 1993.	Grant List.Build. or Cons.Area Consent

9300146	08-02-1993	Installation of external escape stairs between basement and fourth floors on the north elevation and installation of external escape stair between basement and ground floors in the basement area on the west elevation as shown on drawing numbers BSD/SH1257A BSD/SH/1261 1262A 1263 1264 & 1265 revised by letter dated 11 March 1993.	Grant Full or Outline Perm. with Condit.
9100325	22-03-1991	Change of use of store room at 18th floor level to unmanned telecommunication equipment room for mercury PCN Ltd and installation of 6 radio antennae masts and 2 microwave satellite antennae on the roof as shown on drawing No. 374.03A	Grant Full or Outline Planning Permissn.
9070133	26-07-1990	Provision of entrance lobby enclosed by fully-glazed screen for Institute of Historical Research north block as shown on drawing numbers 926/P1.1D P1.2B and P1.3B and as revised by letters dated 17th October and 14th December 1990.	Grant List.Build. or Cons.Area Consent
9070107	12-06-1990	The replacement of doors to common room Institute of Historical Research ground floor north block as shown on drawing number 12A.	Grant List.Build. or Cons.Area Consent
8870067	28-03-1988	Installation of a trunking and cabling network on the second and third floors as shown on drawing SH/1010.	Grant List.Build. or Cons.Area Consent
HB3196	16-05-1983	Internal alterations, including the provision of new doors and erection of internal partitions, all at first floor level.	Listed conditional
HB2723/R1	07-08-1981	Alterations including the fitting of a glass screen to the reception desk in the main entrance of Senate House.	Listed conditional

**APPENDIX 3: DRAWINGS SHOWING THE SIGNIFICANCE APPRAISAL FOR
EACH INDIVIDUAL ROOMS.**

Please note the northern block has not been assessed as this is currently under a different demise (SOAS) and therefore, falls out of the scope of this application.



Senate House : Room Categorization

The rooms have been categorised based on their significance (Historic and Architectural special interest). This partly overlaps with the difficulty of installing routes/wiring- as rooms with the highest significance are often finished with high quality materials, finishes and details.

**Category 1
 (High Significance)**

These spaces are of highest significance, and retain substantial historic fabric, details, joinery and finishes. The wall and floor finishes are generally clad in travertine, marble or similar, joinery, fittings and details are bespoke and their design is integrated into the overall design of the space. This group reflects the prominent function of the spaces and includes the most prominent areas-including ceremonial spaces within Senate House. These spaces are of the highest architectural and historic interest.

**Category 2
 (Medium - High Significance)**

These spaces are of relatively lesser significance compared to Category 1 rooms; nevertheless they incorporate high quality materials, details and craftsmanship. In some cases, these rooms have been altered in the past, and this has resulted in some loss of historic fabric. These spaces have considerable architectural and historic interest.

**Category 3
 (Medium Significance)**

These rooms/spaces have some architectural interest, with some surviving historic fabric. These spaces include repetitive/standardised architectural details and mouldings, but are well proportioned and suitable to the scale and function of these spaces. These spaces contain some architectural and historic interest, but these are of a more general nature.

**Category 4
 (Low - Medium Significance)**

These spaces are generally ancillary rooms, associated with Category 3 spaces, or rooms where past alterations have eroded historic fabric. They retain minimal architectural and/or historic interest.

**Category 5
 (Low Significance)**

This category includes generally back of use, utilitarian spaces; where the original finishes and details were of a simple and utilitarian character. Materials, finishes, joinery and details are generally basic and standardised. These rooms generally of no architectural or historic interest.

JOB TITLE
 Senate House

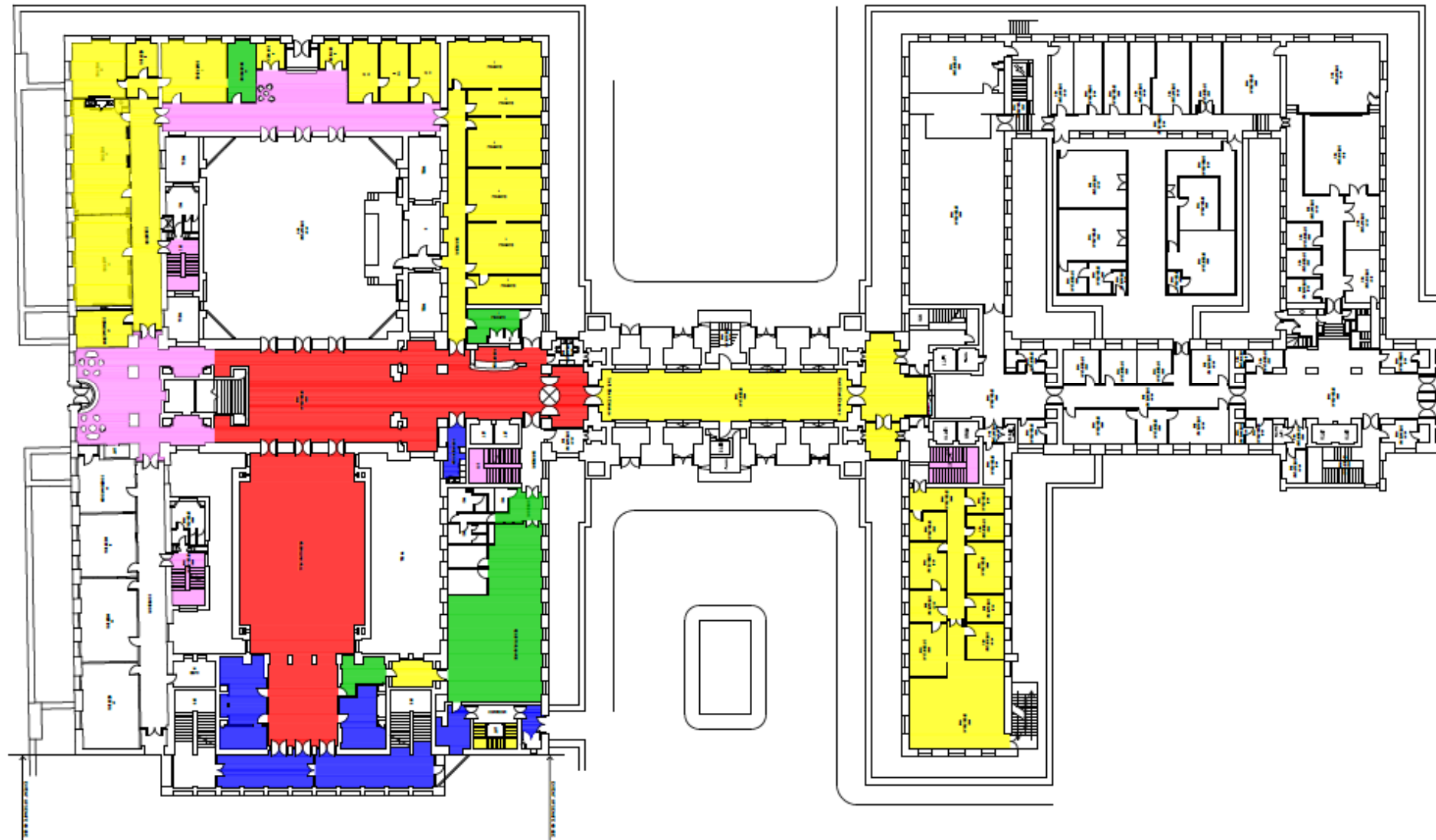
DRAWING TITLE
 Basement Floor Plan
 Significance Mark-up

JOB No	DWG No	REV	
N2865	B00	-	
DRAWN BY	CHECKED BY	SCALE (@A3)	DATE
MP	XX	1:500 @ A3	10/22

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Senate House : Room Categorisation

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**Category 3
(Medium Significance)**

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**Category 3
(Low - Medium Significance)**

These spaces are generally ancillary rooms, associated with Category 3 spaces, or rooms where past alterations have eroded historic fabric. They retain minimal architectural and/or historic interest.

**Category 5
(Low Significance)**

This category includes generally back of use, utilitarian spaces; where the original finishes and details were of a simple and utilitarian character. Materials, finishes, joinery and details are generally basic and standardised. These rooms generally of no architectural or historic interest.

JOB TITLE

Senate House

DRAWING TITLE

Ground Floor Plan

Significance Mark-up

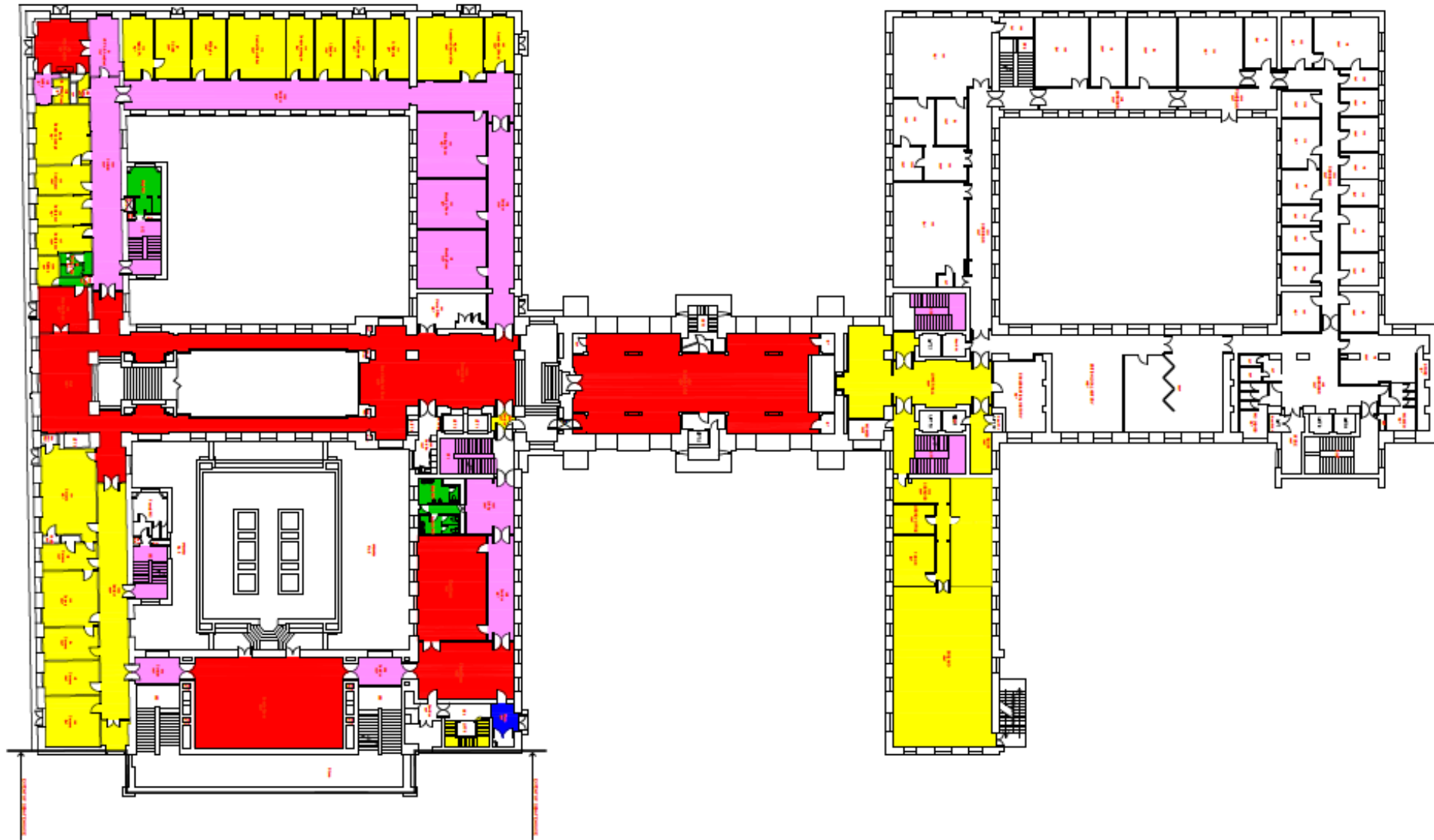
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N2865	02	-

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MP	XX	1:500 @ A3	10/22

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Senate House : Room Categorisation
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Category 2 (Medium - High Significance)
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Category 3 (Medium Significance)
 These rooms/ spaces have some architectural interest, with some surviving historic fabric. These spaces include repetitive/ standardised architectural details and mouldings, but are well proportioned and suitable to the scale and function of these spaces. These spaces contain some architectural and historic interest, but these are of a more general nature.

Category 3 (Low - Medium Significance)
 These spaces are generally ancillary rooms, associated with Category 3 spaces, or rooms where past alterations have eroded historic fabric. They retain minimal architectural and/or historic interest.

Category 5 (Low Significance)
 This category includes generally back of use, utilitarian spaces; where the original finishes and details were of a simple and utilitarian character. Materials, finishes, joinery and details are generally basic and standardised. These rooms generally of no architectural or historic interest.

JOB TITLE
 Senate House

DRAWING TITLE
 First Floor Plan
 Significance Mark-up

JOB No	DWG No	REV
N2865	03	-

DRAWN BY	CHECKED BY	SCALE (@A3)	DATE
MP	XX	1:500 @ A3	10/22

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Senate House : Room Categorisation
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**Category 2
 (Medium - High Significance)**

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**Category 3
 (Medium Significance)**

These rooms/ spaces have some architectural interest, with some surviving historic fabric. These spaces include repetitive/ standardized architectural details and mouldings, but are well proportioned and suitable to the scale and function of these spaces. These spaces contain some architectural and historic interest, but these are of a more general nature.

**Category 3
 (Low - Medium Significance)**

These spaces are generally ancillary rooms, associated with Category 3 spaces, or rooms where past alterations have eroded historic fabric. They retain minimal architectural and/or historic interest.

**Category 5
 (Low Significance)**

This category includes generally back of use, utilitarian spaces; where the original finishes and details were of a simple and utilitarian character. Materials, finishes, joinery and details are generally basic and standardised. These rooms generally of no architectural or historic interest.

JOB TITLE
 Senate House

DRAWING TITLE
 Second Floor Plan

Significance Mark-up

JOB No	DWG No	REV	
N2865	04	-	
DRAWN BY	CHECKED BY	SCALE (@A3)	DATE
MP	XX	1:500 @ A3	10/22

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Senate House : Room Categorisation
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 (Medium - High Significance)**

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 (Medium Significance)**

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**Category 3
 (Low - Medium Significance)**

These spaces are generally ancillary rooms, associated with Category 3 spaces, or rooms where past alterations have eroded historic fabric. They retain minimal architectural and/or historic interest.

**Category 5
 (Low Significance)**

This category includes generally back of use, utilitarian spaces; where the original finishes and details were of a simple and utilitarian character. Materials, finishes, joinery and details are generally basic and standardised. These rooms generally of no architectural or historic interest.

JOB TITLE
 Senate House

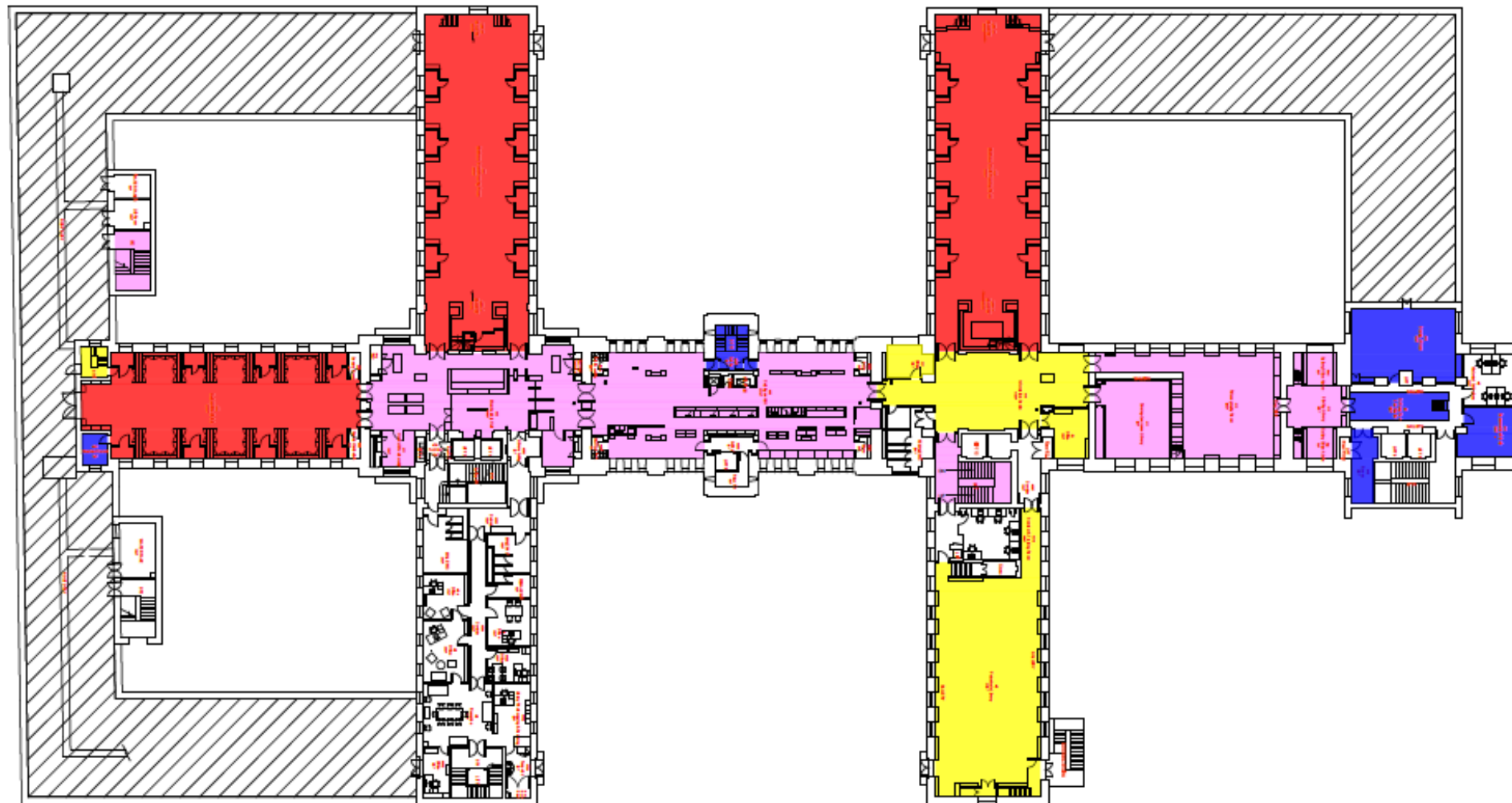
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N2865	05	-	
DRAWN BY	CHECKED BY	SCALE (@A3)	DATE
MP	XX	1:500 @ A3	10/22

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Senate House : Room Categorisation
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Category 2 (Medium - High Significance)
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Category 3 (Medium Significance)
 These rooms/ spaces have some architectural interest, with some surviving historic fabric. These spaces include repetitive/ standardized architectural details and mouldings, but are well proportioned and suitable to the scale and function of these spaces. These spaces contain some architectural and historic interest, but these are of a more general nature.

Category 3 (LOW - Medium Significance)
 These spaces are generally ancillary rooms, associated with Category 3 spaces, or rooms where past alterations have eroded historic fabric. They retain minimal architectural and/or historic interest.

Category 5 (LOW Significance)
 This category includes generally back of use, utilitarian spaces; where the original finishes and details were of a simple and utilitarian character. Materials, finishes, joinery and details are generally basic and standardised. These rooms generally of no architectural or historic interest.

JOB TITLE
 Senate House

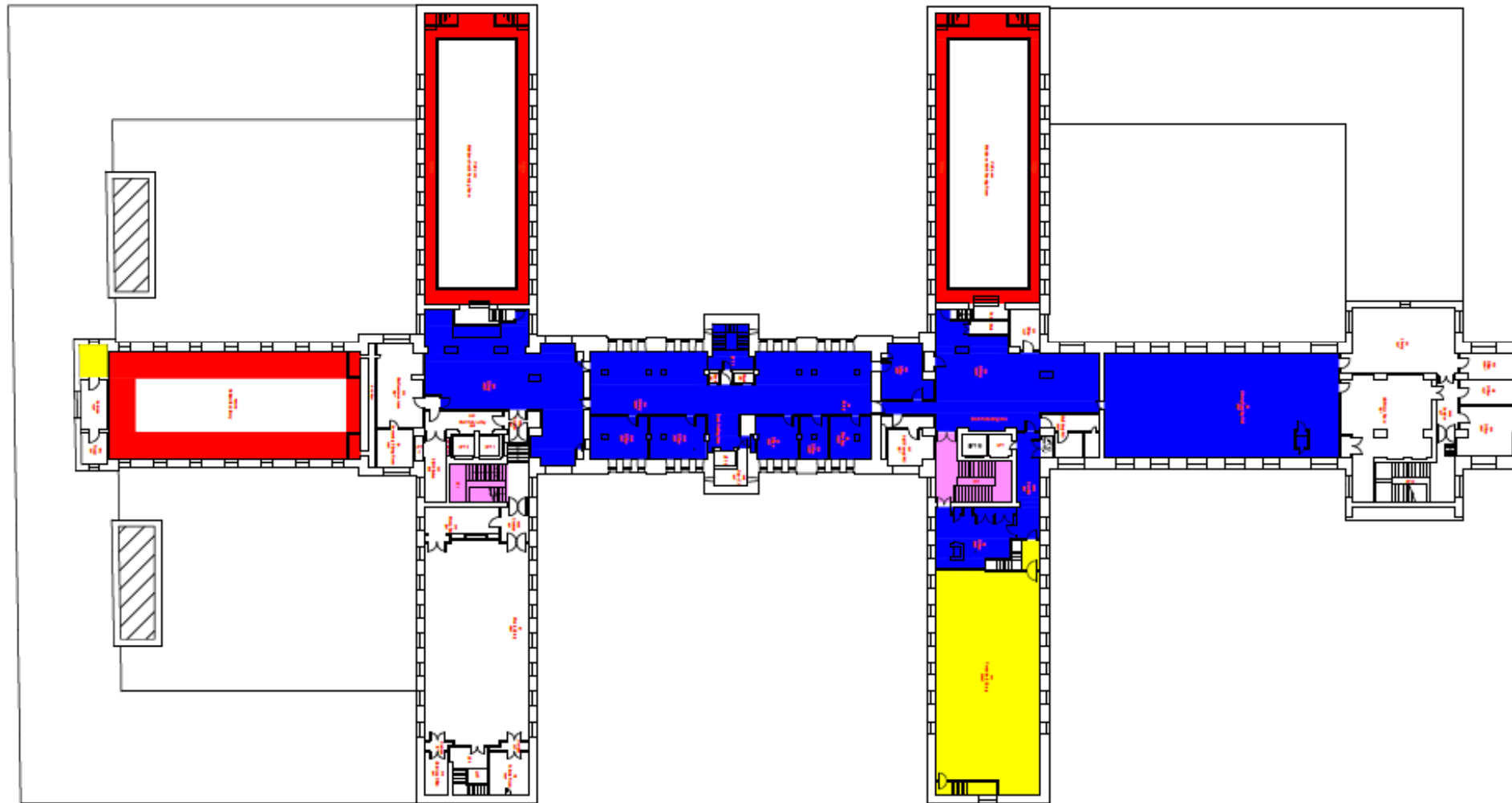
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MP	XX	1:500 @ A3	10/22

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Senate House : Room Categorisation
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Category 3 (Medium Significance)
 These rooms/ spaces have some architectural interest, with some surviving historic fabric. These spaces include repetitive/ standardised architectural details and mouldings, but are well proportioned and suitable to the scale and function of these spaces. These spaces contain some architectural and historic interest, but these are of a more general nature.

Category 3 (Low - Medium Significance)
 These spaces are generally ancillary rooms, associated with Category 3 spaces, or rooms where past alterations have eroded historic fabric. They retain minimal architectural and/or historic interest.

Category 5 (Low Significance)
 This category includes generally back of use, utilitarian spaces; where the original finishes and details were of a simple and utilitarian character. Materials, finishes, joinery and details are generally basic and standardised. These rooms generally of no architectural or historic interest.

JOB TITLE
 Senate House

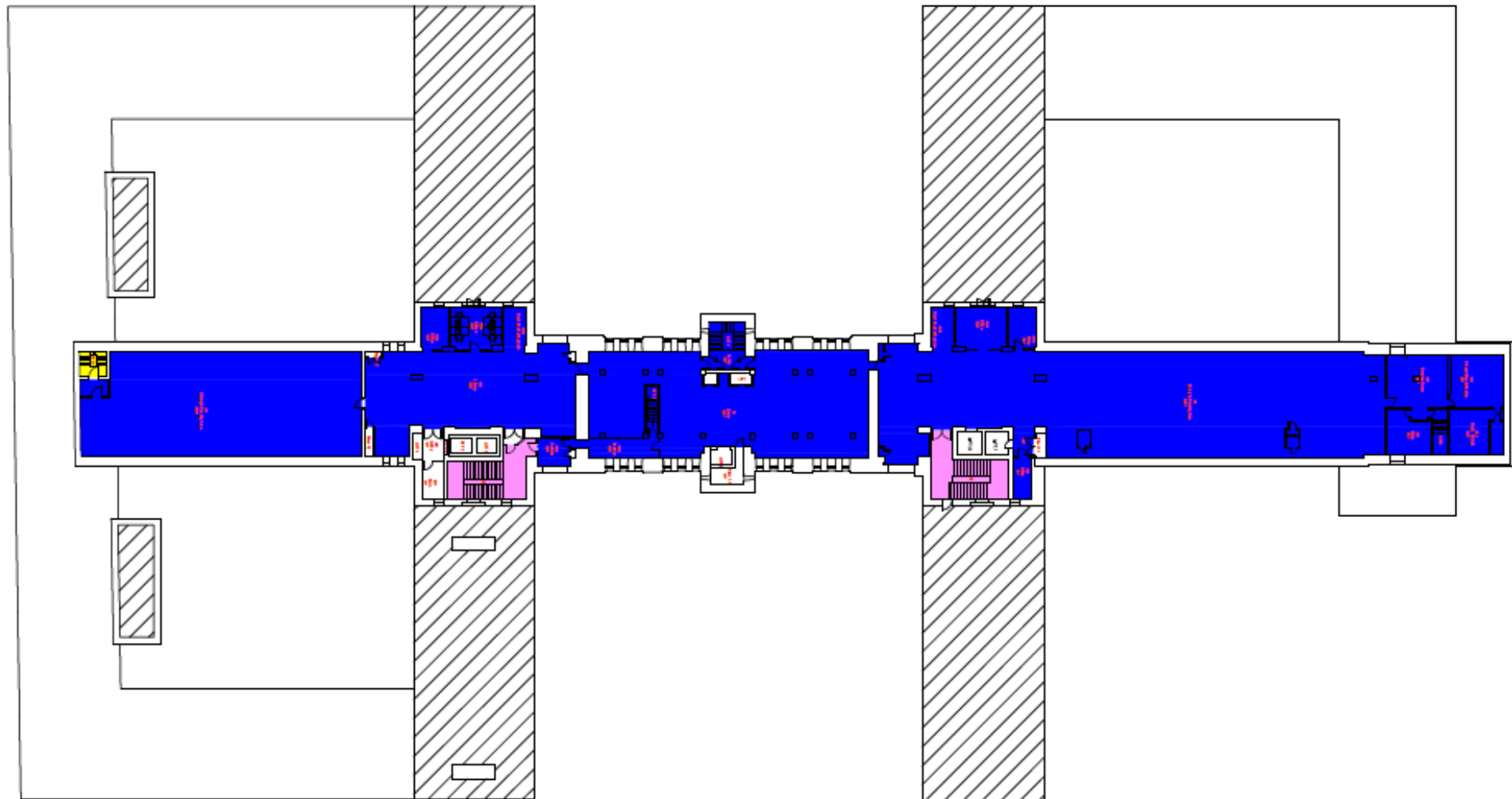
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 Significance Mark-up

JOB No	DWG No	REV
N2865	07	-

DRAWN BY	CHECKED BY	SCALE (@A3)	DATE
MP	XX	1:500 @ A3	10/22

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Senate House : Room Categorisation
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- Category 1**
 (High Significance)
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- Category 2**
 (Medium - High Significance)
 These spaces are of relatively lesser significance compared to Category 1 rooms; nevertheless they incorporate high quality materials, details and craftsmanship. In some cases, these rooms have been altered in the past, and this has resulted in some loss of historic fabric. These spaces have considerable architectural and historic interest.
- Category 3**
 (Medium Significance)
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- Category 3**
 (Low - Medium Significance)
 These spaces are generally ancillary rooms, associated with Category 3 spaces, or rooms where past alterations have eroded historic fabric. They retain minimal architectural and/or historic interest.
- Category 5**
 (Low Significance)
 This category includes generally back of use, utilitarian spaces; where the original finishes and details were of a simple and utilitarian character. Materials, finishes, joinery and details are generally basic and standardised. These rooms generally of no architectural or historic interest.

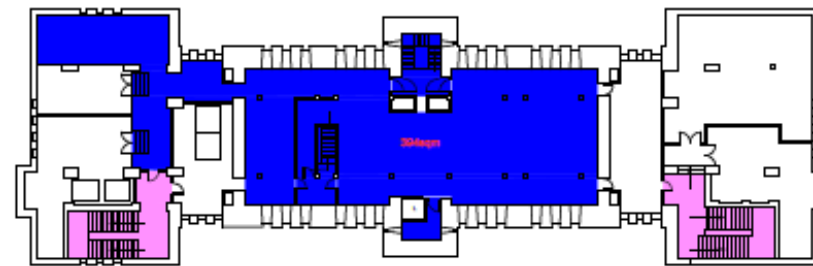
JOB TITLE
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DRAWING TITLE
 Sixth Floor Plan
 Significance Mark-up

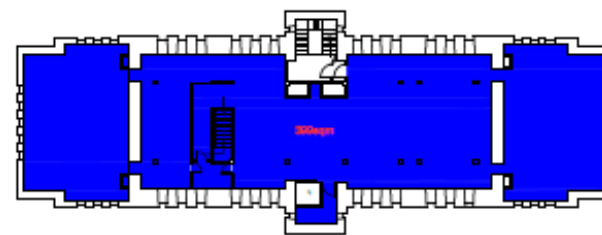
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SEVENTH FLOOR PLAN



EIGHTH FLOOR PLAN

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Category 3
 (Low - Medium Significance)

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Category 5
 (Low Significance)

This category includes generally back of use, utilitarian spaces; where the original finishes and details were of a simple and utilitarian character. Materials, finishes, joinery and details are generally basic and standardised. These rooms generally of no architectural or historic interest.

JOB TITLE
 Senate House

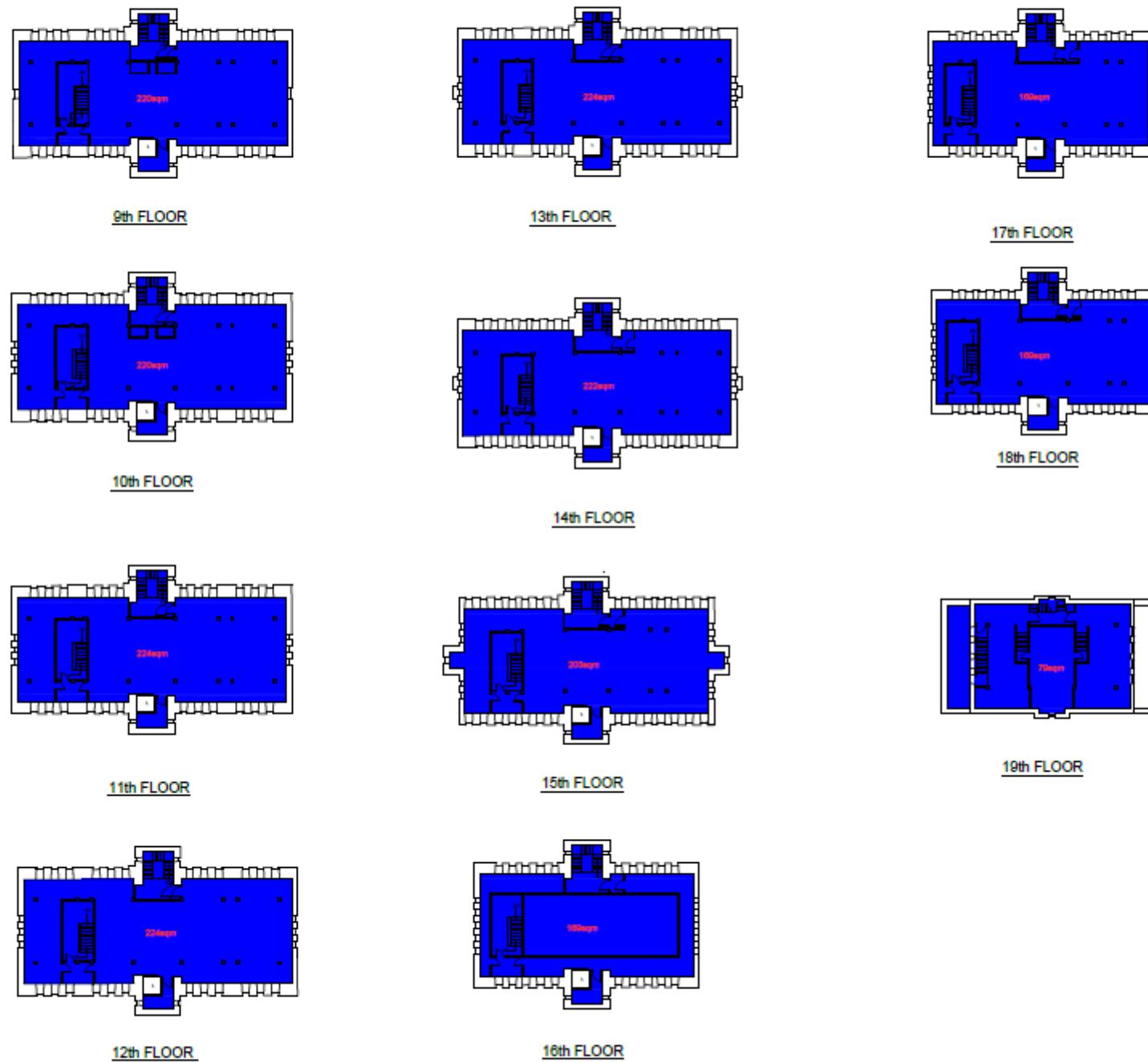
DRAWING TITLE
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 Significance Mark-up

JOB No	DWG No	REV	
N2865	09	-	
DRAWN BY	CHECKED BY	SCALE (@A3)	DATE
MP	XX	1:500 @ A3	10/22

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Category 3
 (Low - Medium Significance)

These spaces are generally ancillary rooms, associated with Category 3 spaces, or rooms where past alterations have eroded historic fabric. They retain minimal architectural and/or historic interest.

Category 5
 (Low Significance)

This category includes generally back of use, utilitarian spaces; where the original finishes and details were of a simple and utilitarian character. Materials, finishes, joinery and details are generally basic and standardised. These rooms generally of no architectural or historic interest.

JOB TITLE
 Senate House

DRAWING TITLE
 Ninth to Sixteenth Floor Plan

Significance Mark-up

JOB No	DWG No	REV	
N2865	10	-	
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APPENDIX 4: FIRE ALARMS PRODUCT SPECIFICATION





This section outlines the specifications of the proposed products, detailing their sizes, functions, and appearances. It should be reviewed alongside the submitted proposed drawings (nos. 300-320 & 401-419). It is important to note the final specifications may have minor variations subject to the specialist contractor.

Proposed devices include:







Ceiling-mounted Wireless Devices:

-  - Smoke Detector
-  - Combined Smoke Detector & Sounder
-  - Combined Smoke Detector, Sounder & Flashing Beacon
-  - Ceiling mounted High Intensity LED Beacon
-  - Heat Detector











Wall-mounted Wireless Devices:

-  - Manual call point
-  - Sounder & Flashing Beacon
-  - Sounder
-  - Fire Alarm Interface:
 - AC - Access Control
 - LCP - Lighting Control Panel
 - AV - Audio Visual
 - FS - Fire Shutter

Ceiling-mounted Hardwired Devices:

-  - Smoke Detector
-  - Combined Smoke Detector & Sounder
-  - Combined Smoke Detector, Sounder & Flashing Beacon
-  - Ceiling mounted high intensity LED Beacon
-  - Heat Detector
-  - Combined Heat Detector & Sounder

Wall-mounted Hardwired Devices:

-  - Fire Alarm Panel
-  - Fire Alarm Repeater Panel
-  - Manual call point
-  - Sounder & Flashing Beacon
-  - Wall mounted sounder
-  - Fire Alarm Interface
 - AC - Access Control
 - FS - Fire Shutter
 - BMS - Building Management System
 - SS - Sprinkler System
 - MFD - Motorised Fire Dumper
 - LCP - Lighting Control Panel
 - AV - Audio Visual
 - RT - Retail Units
 - V - Void
-  - 13A Unswitched fused connection unit with neon indicator
-  - Fire Alarm Panel (Secure mains voltage safety isolator with safety key switch)
-  - Loop Isolator
-  - Loop-Powered Wireless Gateway (for wireless devices)



OmniCare EVC

Compliant to BS5839-9:2021

The OmniCare system was the first of its kind when introduced in 2007 as a combined EVC system. Since then it has been installed worldwide and has become the system of choice for many. The system now includes a three-part toilet alarm kit which, like all of the remote units, is powered from the line.

OmniCare

SYSTEM FEATURES:

- Full system monitoring.
- Battery backed for use in the event of mains power failure (24 hours in standby plus three hours use, as standard. These times can be increased if required).
- One master and multiple slave panels can be linked on one system.
- Control panel options from 4-way through to 127-way.
- Remote units are connected to the control panel in a loop configuration.
- Fully compliant to BS5839-9:2021.
- Assists companies with compliance to BS9999:2017.
- Addressable system via the remote units.
- Link to the fire detection system prevents hoax disabled refuge calls (toilet alarms, fire and steward telephones remain active). Can be completely or partly overridden.
- Speech steered (disabled refuge remotes) and full duplex speech (fire telephones and steward telephones).
- Touchscreen control option.
- Any combination of the following outstations (up to 127 units) can be installed on a single system:
 - Disabled refuge remotes (Type B).
 - Firefighter telephones (Type A).
 - Emergency (steward) telephones (Type A).
 - Combined disabled refuge & fire telephone (Type C).
 - Disabled toilet alarms.

BENEFITS OF OMNICARE:

- Loop wiring.
- One loop for multiple styles of remote unit.
- Combined outstation available featuring a disabled refuge and fire telephone in one housing.
- Full networking and multi-panel facilities.
- All outstations powered from the line, including toilet alarms.
- Advance disabled refuge remote option.
- Robust, reliable and well established system.



The OmniCare standard system, has a capacity for up to 127 outstations in total (either connected to a single control panel or on a networked system with multiple control panels). Outstations can be in any combination (standard disabled refuge, advanced disabled refuge, fire telephone, disabled toilet alarm, etc).

For systems that require more field devices please refer to our [OmniCarePLUS](#) solution.

If the OmniCare EVC System is not what you are looking for, our [Care2](#) radial wired system may suit your requirements.

OmniCare System Control

CONTROL PANEL:

- One master and multiple slave panels can be linked on one system (panels are configured on installation).
- Output for unanswered call indicator; with adjustable delay.
- Volt free contact - operated when in fault, set during installation.
- Lockable glazed door.
- Indicators for: in use/occupied, call, fault, power, charger and speech volume.
- Handset volume control.
- 'Listening' facility.
- Fire panel interface.
- Available in 4-way up to 127-way options.
- Grey or stainless steel finish available.
- Surface mount or flush mount using a bezel which is available separately.
- Option (factory fitted) for additional loop/repeater PCB on some panels (please speak to our Sales Team for advice).



TOUCHSCREEN CONTROL OPTION:

- Touchscreen control option - ideal for use in public/reception and lobby areas.
- Each system is bespoke, with 'button' or 'graphic layout' display options.
- Can be installed remotely from the master panel.
- Suitable for single panel or networked systems (a different control panel is required for networked systems).
- Simple to navigate touchscreen control, provides the operator with complete control of the OmniCare system.
- 'Administrator' and 'guest' password protected accounts.
- History and fault log with real time date stamp. Enables administrators to view activity and response times on the system.



REMOTE LAMP BUZZER:

- Provides a visible and audible signal of a call on the OmniCare system.
- Ideal solution for systems where the control panel is mounted in an unmanned area.
- Uses the output on the master panel with adjustable delay.
- Stainless steel finish.



BATTERY BACKUP:

- OmniCare is fully monitored and battery backed.
- The batteries provide 24 hours standby plus three hours use in the event of a mains failure. (These times can be increased if required.)
- Systems of 48-way and above are supplied with a separate enclosure to house the batteries.

DO YOU NEED A LARGER EVC SYSTEM?

OmniCarePLUS is capable of up to 8,000 outstations. Please see our separate leaflet for details or speak to our sales team.

EMERGENCY VOICE COMMUNICATION
OMNICARE


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OmniCare Outstations

DISABLED REFUGE REMOTE UNIT:

- Provides two-way communication between building management and person(s) occupying a 'Refuge Area' during an emergency evacuation - typically a fire.
- User simply presses the button to initiate call (occupy area). Further communication is hands free at the refuge point or by the user at the control panel.
- Type B outstation (BS5839-9:2021).
- Calls are reset either at the control panel or via the remote, when the refuge area occupant has been evacuated to safety.
- Volt free contact, active when occupied, to silence loudspeakers, operate over-door lamps, etc.
- Also available in stainless steel.



IP65 RATED ENCLOSURE:

- Green, surface mount enclosure.
- Enables mounting of refuge remote in external areas, such as car parks, balconies, etc complete with termination card and fixings.
- Takes one BVOCECPG remote unit.



PLASTERBOARD BACK BOX:

- Enables 'first fix' in plasterboard for the disabled refuge remote.
- Complete with termination card and fixings.
- Green or stainless steel options (bezel colour).



ADVANCE DISABLED REFUGE REMOTE:

- The Advance Type B remote is available in green or stainless steel and has some additional benefits:
 - Integral induction loop.
 - The text is tactile, luminescent and in Braille.
 - A large button with integral high intensity LED ring.
- Calls are reset either at the control panel or via the remote.
- Volt free contact, active when occupied, to silence loudspeakers, operate over-door lamps, etc.



STEWARD TELEPHONE:

- Designed for sports venues and stadia, the steward telephone has the same facilities as the fire telephone.
- Type A outstation (BS5839-9:2021).



FIRE TELEPHONE:

- Telephone handset in a metal enclosure. Used by fire officers/building control during an emergency, such as a fire.
- Assists with the efficient evacuation of a building.
- Robust red handset with hearing aid compatible earpiece (T-coil).
- Type A outstation (BS5839-9:2021).
- Robust handset in heavy duty enclosure.
- Provides clear, full duplex, two-way communication with the control panel.
- Conference facility via control panel.
- Speaker for local broadcast from the control panel.
- Calls are initiated by simply opening the door.



COMBINED REMOTE UNIT:

- Provides the facility of both a disabled refuge and fire telephone at one call point.
- The combined unit has the same features as the standard disabled refuge and the fire telephone remotes.
- Type C outstation (BS5839-9:2021).
- Designed to enable correct mounting heights for each component.
- Shows as one point of presence on the control panel.
- Ideal solution where both A and B remote types are required in a location.



LEADING THE WAY TO SAFETY

Disabled Toilet Alarm for EVC

DISABLED TOILET ALARM:

- The 3-part toilet alarm is fitted to the OmniCare system via a repeater (BVOCRIF) unit.
- Powered from the line (does not require local power).
- Fully compliant to BS3800-2:2018.
- Up to two toilet alarm hits can be connected to one repeater (will show as one point on the panel).
- Each DTAKIT comprises:
 - Ceiling mounted pull switch (with two 'G' pulls).
 - Reset button with LED and (optional) sounder.
 - Over-door triangular lens with integral sounder.
 - WC self-adhesive sign.
- Caller reassurance facility (the sounder pulses faster when the call is accepted at the panel).



IP65 RATED TOILET ALARM:

- Compatible with the DTAKIT items.
- Surface mounting, moisture resistant units.
- Suitable for installation in wet rooms, shower rooms, etc.
- Products available include:
 - Pull cord.
 - Call button.
 - Reset button.
 - Call & reset button.



NEW
Ideal for installation in showers & wet rooms.

ASSISTANCE CALL & TOILET ALARM ADDITIONS*:

- Other products available which are compatible with the DTAKIT are:
 - Wall mounting call button.
 - Call button & reset point.
 - Wall mounting pull cord.
 - Call button with 6.35 mm jack socket.
- All the above are available with a white or stainless steel finish.
- Enables the addition of any number of unmonitored call and/or reset points to a single over-door light. (NB only one over-door light can be included per call zone. A working system must comprise of 1 x over-door light + 1 x call point + 1 x reset point as a minimum.)



REPEATER UNIT:

- This unit has two key functions.
 - Connects the 3-part toilet alarm DTAKIT to the OmniCare system.
 - Used to allow cable lengths in excess of 200m between remote units.

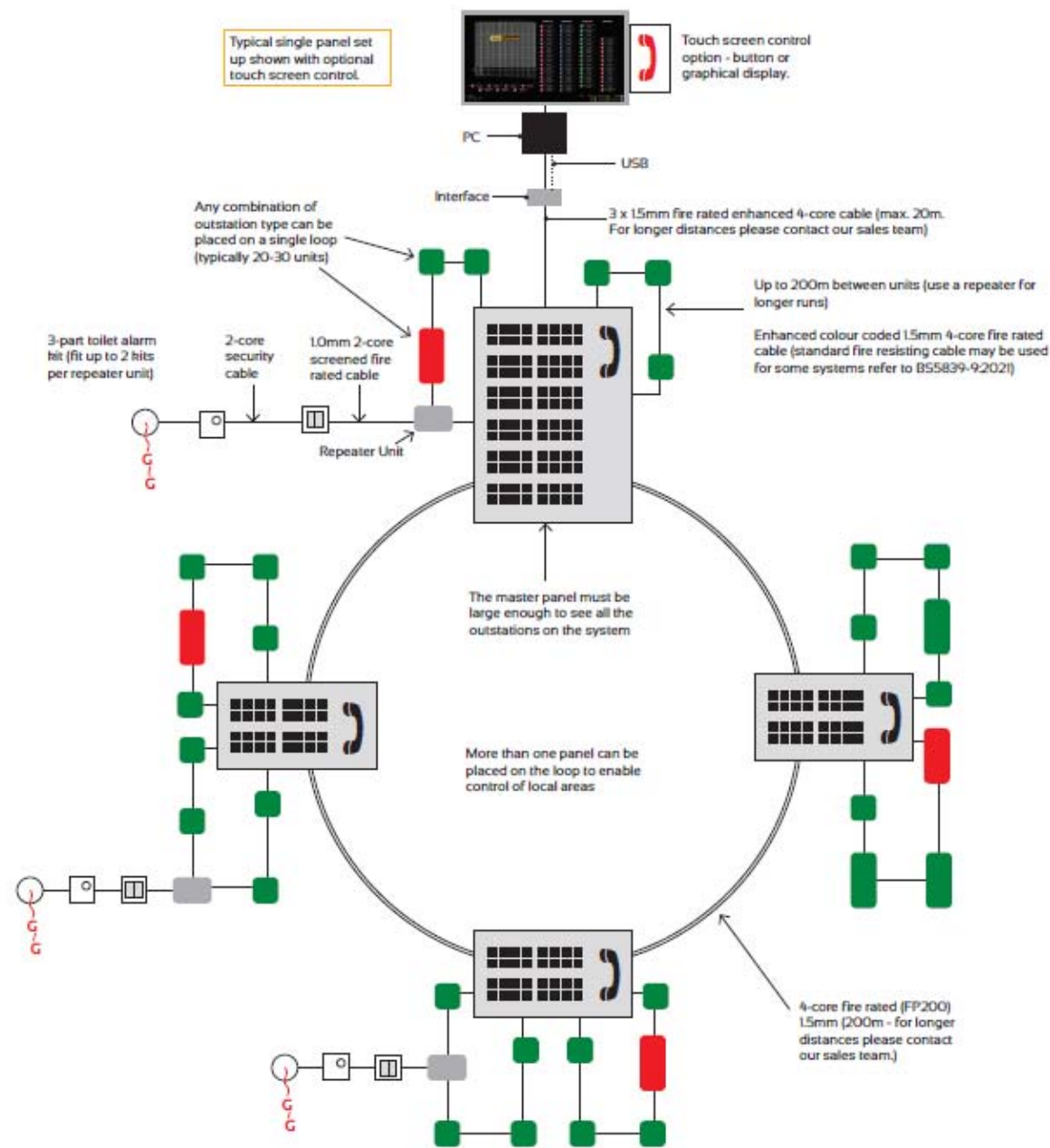


DISABLED REFUGE OVERRIDE SWITCH:

- Disabled refuge outstations on an OmniCare system are typically in 'standby' mode until activated by the fire alarm panel. (If preferred, they can be set to be permanently 'live'.)
- A system in standby mode will need to be activated occasionally, such as for routine testing. An override switch (BVCRBG) can be used for this purpose.

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System Cabling & Networking



LEADING THE WAY TO SAFETY

OmniCare System Information

SYSTEM INFORMATION & CABLING:

GENERAL INFORMATION:

- There are two main components - the master control panel(s) and the remote units.
- Remote units are wired in a ring circuit configuration and are 'self-learning', with an auto-commissioning feature.
- The ring circuit technology enables continued operation in the event of a cable break.
- Any combination of remote units can be linked to the control panel on a single wiring loop.
- The master control panel is typically wall mounted in a central control room.
- Remote units are wall mounted in locations such as refuge areas, stairwells, fallback positions, corridors and other 'gathering' points, at a height easily reached by users.
- More than one master panel can be placed on the ring circuit, thus allowing control of local areas.

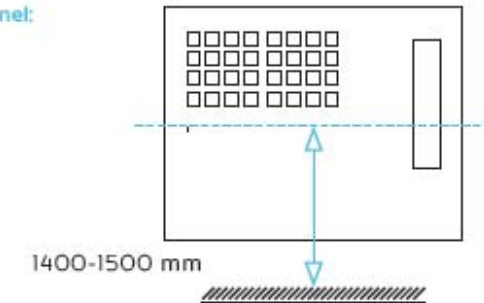
SYSTEM REQUIREMENTS:

- Fire rated enhanced four core, colour coded, cable with a screen must be used for fire fighting systems.
- Standard fire resisting cables could be considered suitable for some systems - refer to B55839-9:2021 for details.
- A repeater unit (BVOCRIF) must be used if the distance between remotes exceeds 200m.
- Disabled refuge, advance disabled refuge, fire telephone, emergency/steward telephone, combined DRS/fire telephone and toilet alarm units can be placed on the same loop.
- Typically 20-30 remotes per loop.
- Repeater units (BVOCRIF) are used to connect the toilet alarms (DTAKIT) to the system. Up to two (3-part) DTAKITs can be connected to a BVOCRIF. (Alternatively one DTAKIT with an additional pull cord can be installed. Useful for rooms with two points of call, e.g. a toilet cubicle or shower area.)
- No local power required for any outstation, including disabled toilet alarms.
- The capacitance of MICC cable varies between manufacturers, if the specification is for MICC cable and if the runs are greater than 100 metres, you may wish to contact our technical team to ensure it is within tolerance:
 - MICC lightweight 4-core with screen: 100m
 - MICC heavyweight 4-core with screen: 200m
 - Enhanced colour coded 4-core with screen: 200m (recommended by Baldwin Boxall).

MOUNTING POSITIONS:

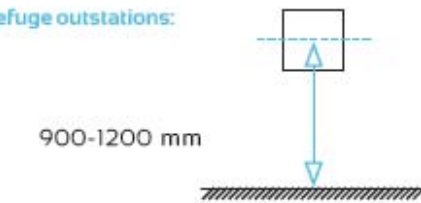
(Refer to B55839-9:2021)

Control panel:



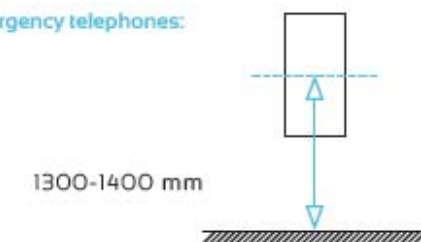
Disabled refuge outstations:

Type B



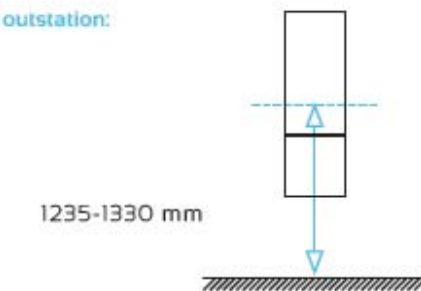
Fire & emergency telephones:

Type A

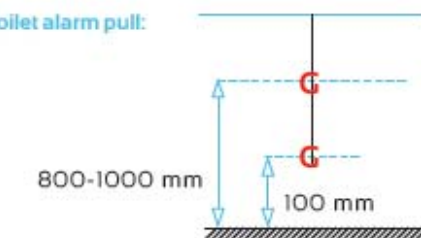


Combined outstation:

Type C



Disabled toilet alarm pull:



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OmniCare Product Codes

SYSTEM CONTROL		
	Grey	Stainless Steel
4-way control panel	BVOC4M	BVOC4MS
8-way control panel	BVOC8M	BVOC8MS
16-way control panel	BVOC16M	BVOC16MS
32-way control panel	BVOC32M	BVOC32MS
4-32-way flush mount bezel	BVCRFB2	BVCRFB2S
4-32-way rack mount hit	BVCRM3 (7U)	
48-way control panel	BVOC48	BVOC48S
64-way control panel	BVOC64	BVOC64S
48-64-way flush mount bezel	BVCRFB1	BVCRFB1S
48-64-way rack mount hit	BVCRM1 (11U)	
80-way control panel	BVOC80	BVOC80S
96-way control panel	BVOC96	BVOC96S
112-way control panel	BVOC112	BVOC112S
127-way control panel	BVOC128S	BVOC128S
80-127-way flush mount bezel	BVCRFB3	BVCRFB3S
80-127-way rack mount hit	BVCRM2 (20U)	
DISABLED REFUGE - TYPE B OUTSTATION		
	Green	Stainless Steel
Refuge remote standard	BVOCECPG	BVOCECPS
Flush mount bezel standard	BVCRMGRN	BVCRM5S
Refuge remote advance	BVOCA2G	BVOCA2S
Flush mount bezel advance	BVOCA2GBZ	BVOCA2SBZ
Plasterboard back box	BVCRFBG	BVCRFB5S
IP65 rated enclosure	BVCRFBG	
Spare key for remote	KEYBVR	
FIRE TELEPHONE - TYPE A OUTSTATION		
	Red	Stainless Steel
Push door	BVOCF	BVOCF5S
Lock door	BVOCL	BVOCL5S
Push door + beacon	BVOCFB	
Lock door + beacon	BVOCLB	
Flush mount bezel	BVFHBEZ	BVFHBEZ5S
STEWARD TELEPHONE - TYPE A OUTSTATION		
	Green	
Push door	BVOCET	
Lock door	BVOCETL	
Push door + beacon	BVOCETB	
Lock door + beacon	BVOCETLB	
Flush mount bezel	BVOCETBZ	
COMBINED UNIT - TYPE C OUTSTATION		
	Red	Stainless Steel
Push door	BVOCC	BVOCC5P
Lock door	BVOCCL	BVOCC5L
Push door + beacon	BVOCCB	
Lock door + beacon	BVOCCLB	
Flush mount bezel	BVOCCBR	BVOCC5S
Red fire tel/green DRS unit	BVOCCGCP	

DISABLED TOILET ALARM		
	White	Stainless Steel
3 part hit	DTAKIT	DTASKIT
Ceiling pull	DTACP	DTASKIT
Over-door light	DTAODL	DTASOOL
Reset point	DTARP	DTASRP
ASSISTANCE CALL		
Call button	DTACB	DTASCB
Call button + reset button	DTACBRP	DTASCBRP
Wall mount pull cord	DTACPW	DTASCPW
Call button + 6.35mm jack	DTACBJ	DTASCBJ
IP65 RATED TOILET ALARM		
	Grey	
Pull cord	DTACPM	
Call button	DTACBM	
Reset button	DTARPM	
Call button + reset button	DTACBRPM	
MISCELLANEOUS		
Repeater unit	BVOCRIF	
Remote lamp/buzzer	BVOCCA	

Specifications:

	Control Panel	Disabled Refuge	Fire Telephone	Emergency/Steward Telephone	Combined DRS & Fire Telephone
Product codes: BVOC...	Mini: 4M, 8M, 16M, 32M Std: 48, 64 Lg: 80, 96, 128	Std: ECPC, ECPS Adv: A2G, A2S	F, FB, FL, FLB, FS, FSL	ET, ETB, ETL, ETLB	C, CB, CL, CLB, CSP, CSL, CGCP
Power supply	230V AC	12-40V DC powered from ring circuit			
Power consumption (VA)	10VA + IVA per remote fitted	30mA @35V typical			35mA @35V typical
Humidity range	95% non-condensing				
Temperature range	-10°C to +30°C		-10°C to +40°C		
Indicators	In use, call, fault, power, charger & speech volume	System healthy, status + (Advance) system active	System healthy		System healthy, call status
Dimensions mm W x H x D	Mini: 410 x 290 x 200 Standard: 410 x 455 x 200 Large: 410 x 777 x 200	Standard: 134 x 134 x 56 Advance: 178 x 440 x 64	130 x 350 x 100		130 x 480 x 100
Bezel dimensions mm W x H	Mini: 461 x 340 (25) Standard: 461 x 506 (25) Large: 461 x 827 (25)	Standard: 154 x 154 (10) Advance: 230 x 490	170 x 390 (20)		170 x 520
Bezel cut out mm W x H	Mini: 420 x 300 Standard: 420 x 465 Large: 420 x 787	Standard: 136 x 136 Advance: 190 x 450	138 x 358		138 x 488
Knockouts/cable entry points	20 mm top & rear		20 mm & 25 mm		20 mm & 25 mm*
Finish	Grey RAL7038 / stainless steel grade 304	Std: Green RAL6024 / stainless steel grade 304 Adv: Green RAL6024 / green membrane / stainless steel grade 304 plus Braille & tactile luminescent text	Red RAL2002 / stainless steel grade 304	Green RAL6024	Red RAL2002 / stainless steel grade 304 / red telephone RAL2002 with green refuge point RAL2002

* 2 x 20 mm top (site wiring), and 2 x 20 mm bottom (relay contacts from disabled refuge section)

DISABLED TOILET ALARM:

	Three part hit	Overdoor light/sounder	Reset point	Ceiling pull
Product codes: DTA...	KIT, SKIT	ODL, SODL	RP, SRP	CP, SCP
Alarm type	90dB @ 30 cm			
Dimensions mm W x H x D		White: 85 x 85 x 58 Stainless steel: 85 x 85 x 60	White: 85 x 85 x 13 Stainless steel: 85 x 85 x 14	White: 30 x 80 (diameter) Stainless steel: 85 x 85 x 14
Cable requirements	2-core security cable			
Back box requirements (not supplied)	25 mm deep single gang flush back box or 'round cornered' plastic surface box			White: supplied in a surface mount enclosure Stainless steel: 25 mm deep single gang flush back box or 'round cornered' surface box
Finish	White plastic / stainless steel grade 304			




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LEADING THE WAY TO SAFETY

Disabled Refuge Green Remote

Compliant to BS5839-9:2021



The OmniCare system offers a choice of outstation units which can be wired on the same loop from the control panel.

The BVOCECPG standard green disabled refuge remote unit is one of the options available on this versatile system

OmniCare

BENEFITS & FEATURES:

- Provides two-way, hands free, speech steered communication.
- Self-powered from ring circuit, no local power source is required. Automatic battery backup is provided by the control panel in the event of a mains power failure.
- Green finish (also available in stainless steel BVOCECPG).
- Addressable unit.
- Volt free contact, active when occupied. To operate over-door lamps, silence speaker/sounder, etc.
- Stainless steel 'press to call' button.
- Option to be permanently 'active' if required.
- Reset from either remote unit using the key switch or via the master control panel.
- All outstations are in a loop circuit from control panel(s).
- A link to the fire detection system prevents hoax disabled refuge calls. This feature can be completely, or partly, overridden.
- Surface mounting unit (can be flush mounted using a bezel).

Product Codes:

- BVOCECPG - green refuge remote (standard).
- BVCRMGRN - flush mounting bezel.
- BVCRIPBG - IP65 rated enclosure.
- BVCRFBG - plasterboard backbox



BVCRMGRN



BVCRFBG



BVCRIPBG



EMERGENCY VOICE COMMUNICATION
 DISABLED REFUGE

Specifications:

Disabled refuge (DRS)	
Product code	BVOCECPG
Power supply	12-40V DC self powered from ring circuit
Power consumption	30mA @ 35V typical
Weight	1kg
Humidity range	95% non-condensing
Temperature range	-10°C to +40°C
Indicators	System healthy, status
Finish	RAL 6024
Dimensions mm WxHxD	134x134x56
Bezel dimensions mm WxH (radius)	154x154x(10)
Bezel cut out mm WxH	136x136
Knockouts/cable entry points	7 (20mm & 26mm)
Mounting position	Refuge remotes should be placed at a height of 900mm to 1.2m
Weight	1.06 kg
IP65 rated enclosure (available separately)	
Dimensions mm WxHxD	200 x 200 x 80
Plasterboard back box (available separately)	
Dimensions mm WxHxD	131 x 142 x 65
Cutout dimensions mm WxHxD	132 x 143

SYSTEM REQUIREMENTS:

- Fire rated enhanced four core, colour coded, cable with a screen must be used for fire fighting systems. (Refer to BS5839-9:2021 for possible exceptions.)
- Up to 200m cable run between remote units and master control panel as standard.
- A repeater unit (BVOCRIF) must be used if distance between remotes exceeds 200m.
- Disabled refuge, advance disabled refuge, fire telephone, emergency/steward telephone, combined DRS/fire telephone and toilet alarm units can be placed on the same loop.
- A ring circuit configuration must be used to wire the remote units. Typically 20-30 remotes per loop.
- Repeater units (BVOCRIF) are used to connect the toilet alarms to the system.



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BVOCCA
 25/10/2012
 Issue 1
 ECR N/A

BVOCCA

Connection Details



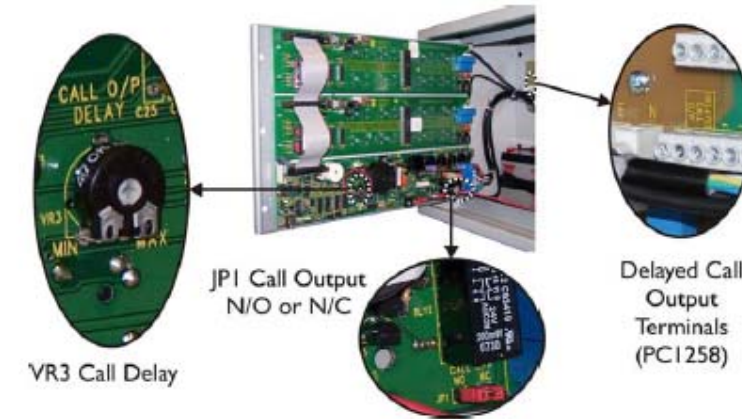
BVOCCA Call Alert Module

The OmniCare BVOCCA Call Alert Module is an optional unit that alerts personnel if a call is received but not answered within a preset time.

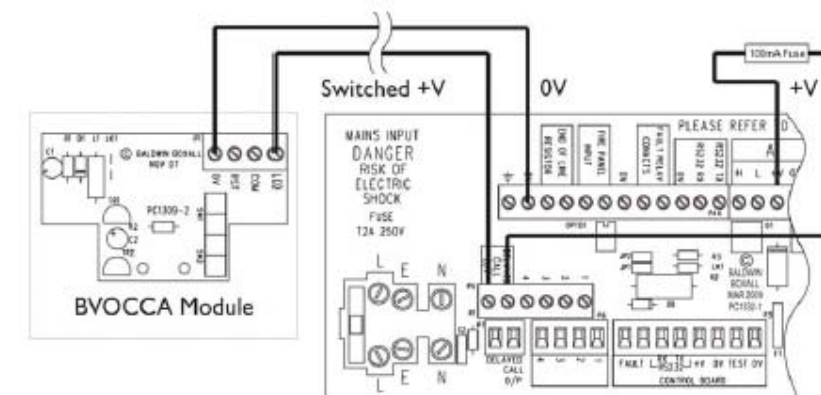
The module is connected via the "Delayed Call" output connections on PC1258.

The Delayed Call Output is an option that causes a pair of volt free contacts to operate if a call comes in but the handset is not picked up within a preset time.

The Delayed Call Output controls are shown in the following illustration.



BVOCCA Call Alert Connection Details



Note: It is strongly recommended to fit a 100mA fuse (not supplied) in line with the BVOCCA unit.

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ID3000 2-8 loop intelligent fire alarm control panel Data Sheet



The NOTIFIER ID3000 family of fire alarm control panels delivers the power and flexibility to meet the even the most demanding of requirements. From 2 to 8 loops in a single ID3000 panel to over 500 loops on a network, an ID3000 system offers unrivalled stability, versatility and capacity.

When it comes to giving you the earliest possible warning of a potential fire threat the ID3000 supports Notifier's comprehensive range of detectors, advanced fire detection sensors and loop devices delivering you the most complete and versatile fire alarm system in the market place.

Features

- 2-8 Analogue Addressable Loops; each of up to 198 devices
- 255 Fire zones per panel
- Fully approved peer to peer network of up to 63 panels; maintains 3 second call point response time over the network
- Flexible timer functions; system sensitivity and functionality can be tailored for the time of day, or day of week
- Sophisticated cause and effect programming including support for non-fire signals and over-ride capability for smoke control systems.
- Convenience features for commissioning and maintenance engineers such as auto-learn of loops, walk test and double address detection.
- CPD approved by LPCB (BRE) & VdS

The ID3000 can be programmed to adapt to the different uses of the areas where smoke detectors are installed. A total of 9 different sensitivity levels can be assigned to individual smoke sensors thereby allowing the system designer to closely match the sensor's response to the environment in which the device is located. This even allows smoke detection to be turned off, leaving heat detection active.

The ID3000 also supports the NOTIFIER ID²net; one of the fastest, most consistent and robust networking systems available, transmitting an alarm across the network in less than half a second. Such performance makes the ID3000 system ideally suited to even the largest of office complexes, shopping centres, university campus' and sports stadia.

A modular approach to the design of the ID3000 allows for a wide range of applications, facilitating installation and servicing whilst making the ID3000 very easy to tailor to the requirements of the application. Internal and external printer options, a variety of mounting options and a wide range of loop and communication expansion modules all provide a high degree of flexibility during initial design with a ready-made expansion path for the future.

This document is not intended to be used for installation purposes. Every care has been taken in the preparation of this document but no liability can be accepted for the use of the information therein. Design features may be changed or amended without prior notice.
For more information, contact:
NOTIFIER, Charles Avenue, Burgess Hill, West Sussex, RH15 5UF, United Kingdom
Phone: +44 (0) 1444 230 300 Fax: +44 (0) 1444 230 888



ID3002 - 2 Loop Addressable Fire Alarm Control Panel

The ID3002 is a 2 loop intelligent fire alarm panel which is supplied fully assembled. Each loop can support up to 198 devices (99 detectors + 99 modules/modules/sounders) with a total of up to 255 zones per panel.

A full range of intelligent sensors, advanced detection products, input and output devices, repeaters, mimic drivers, printers and other peripherals complement the ID3000 to bring you the most complete and versatile fire alarm system in the market place.

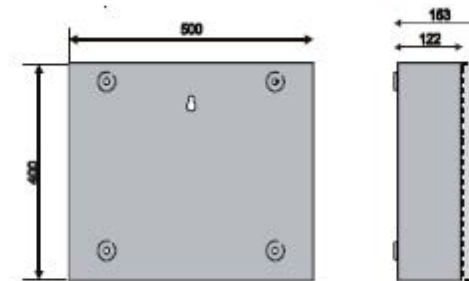


Specifications

ID3002 2 Loop Addressable Fire Alarm Control Panel

Mechanical Specification

- Dimensions:
 - Height: 400 mm
 - Width: 500 mm
 - Depth: 153 mm
- Weight: 14 kg (without batteries)



Environmental Specifications

- Climatic classification: 3K5, (IEC 721-2-3)
- Operating temperature: -5°C to +45°C
- Relative humidity: 5% to 95%, non-condensing
- Ingress Protection (IP) Rating: IP30 (EN 60529)
- Vibration (EN 54-2/4 compliant): EN 60068-2-6, 10-150Hz at 0.981ms⁻²
- EMC Emissions: EN 61000-6-3
- EMC Immunity: EN 50130-4
- Safety: EN 60950

Electrical Specification

- Supply rating: Mains supply to the panel is to be provided via an external double-pole mains isolation unit. 230V~(ac) ± 15%, 5A, 50Hz ± 4%.
- PSU3A Output Ratings:
 - Output voltage: 26.0Vdc - 28.3Vdc (stabilised)
 - Ripple voltage: ± 300mV
 - EN54 PSU Loadings: I_{max}(a): 600mA; I_{max}(b): 3A; I_(min): 0A

Outputs

- Two dedicated Sounder Output Circuits
- Two Sounder or Volt-free Contact (VFC) - selectable outputs
- Two VFC outputs dedicated to Common Fire and Common Fault
- Two standard
- Two 24Vdc auxiliary outputs

Loop Outputs

- Output voltage: 22.5 to 26.4V
- Maximum load: 0.5A*
- Loop driver source impedance: 3.8 ohms at 22.5V

Total system load is limited by the available PSU output. Notifier Loop and Battery Calculator Support Tool, should be used to ensure that the system is NOT overloaded.

RS232 Serial Port (Optional)

- Isolation: Functional at 30V.
- Baud rate: Software-selectable up to 9600
- Baud. Connector: Terminal block on RS232 PCB.
- Max cable length: 15m

RS485 Serial Port (Optional)

- Isolation: Functional at 30V.
- Baud rate: 1200 Baud.
- Connector: Terminal block on RS485 PCB.
- Maximum cable length: 3000m (minimum of 1mm² screened cable recommended)



IDP - LB1 Loop Booster Data Sheet



The Loop Booster provides additional power to an analogue addressable loop in order that a greater number of loop powered warning devices may be connected. As an addressable device a number of loop boosters can be added to a loop within the normal addressable range (01 to 99). Typically no more than 2 loop boosters are required to be added to any particular loop.

The Loop Booster has been designed to be connected to mains power (230VAC) with two 12V, 12 Ah sealed lead-acid batteries providing up to 72 hours standby.

If the loop booster battery charging voltage falls below 21V, the batteries are disconnected automatically to prevent damage.

Features

- Expands the capacity of 'alarm' devices on a loop
- Addressed as a module, in the range 01 to 99
- Self-contained standby batteries
- Two section enclosure allowing first fixing separate from electronics and front cover
- The Loop Booster has LEDs to indicate:
 - Main power on
 - Loop Address polling active
 - Loop Isolator open on loop in either direction
 - Loop voltage below 16V
 - Fault Condition

The provision of Loop Boosters allows extensions to existing systems where the loop loading would normally be exceeded.

Installation

The IDP-LB1 is housed in a mild steel enclosure with a centre top and two bottom corner fixings allowing the unit to be mounted level. 'Knock-outs' are provided on the top to allow for cable entry. Space is provided for two 12V, 12Ah batteries and the unit is finished with a detachable door.

This document is not intended to be used for installation purposes. Every care has been taken in the preparation of this document but no liability can be accepted for the use of the information therein. Design features may be changed or amended without prior notice.
For more information, contact:
NOTIFIER, Charles Avenue, Burgess Hill, West Sussex, RH15 9UF, United Kingdom
Phone: +44 (0) 1444 230 300 Fax: +44 (0) 1444 230 888



IDP - LB1 Loop Booster

The Loop Booster provides additional power to an analogue addressable loop in order that a greater number of loop powered warning devices may be connected. As an addressable device a number of loop boosters can be added to a loop within the normal addressable range (01 to 99). Typically no more than 2 loop boosters are required to be added to any particular loop.

The provision of Loop Boosters allows extensions to existing systems where the loop loading would normally be exceeded. The Loop Booster has been designed to be connected to mains power (230VAC) with two 12V, 12 Ah sealed lead-acid batteries providing up to 72 hours standby. If the loop booster battery charging voltage falls below 21V, the batteries are disconnected automatically to prevent damage.

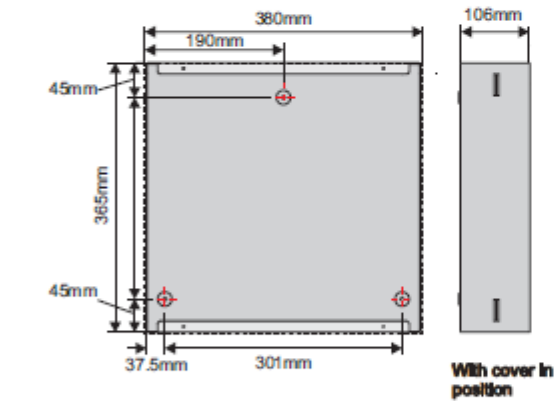


Specifications

IDP - LB1 Loop Booster

Mechanical Specification

- Dimensions:
 - Height: 365 mm
 - Width: 380 mm
 - Depth: 106 mm (with cover in place)



Electrical Conditions (PSU3A)

- Input Voltage: 230Vac, ±15%, 48-63Hz
- Maximum current consumption: 1.6A.

Battery Charger Output Ratings (PSU3A)

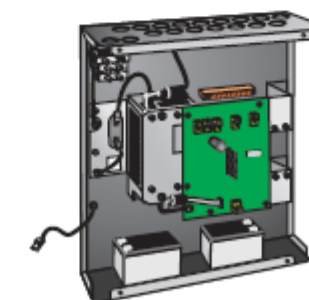
- Battery voltage when charged: 27.3V at 20°C
- Charger current: 2.2A

Loop Current

- Quiescent (no faults): 1.0mA.
- Quiescent (maximum): 6.7mA*

Environmental Specifications

- Operating temperature: -5 °C to +45 °C
- Humidity: 5% to 95% R.H.
- Vibration: EN60068-2-8, 10-150 Hz at 0.981m/s²
- EMC
 - Emissions: EN50081-1
 - Immunity: EN50130-4
- Safety: EN60950



* In alarm the loop booster supplies current to the loop (peak 1.5A)



M700 Addressable Call Points Data Sheet



The M700 series with integral isolator, are call points designed to provide a manual alarm interface to NOTIFIER's fire alarm control panel.

Installation efficiency, flexibility and compliance with the latest standards are at the heart of the call point range.

Features

- Unique 'Plug & Play' installation concept
- Integral loop isolation
- Model available protected to IP67
- Re-settable operating element option
- Analogue addressable communications
- Semi-Flush or surface mounting
- Fully compliant with EN54, Part 11
- Backward compatibility
- Integral LED

The unique 'plug and play' concept is designed specifically to reduce installation time by using a terminal block which can be wired during the initial installation cabling with a link (P102) to provide continuity for testing. During the commissioning phase, the links are removed and the terminal block is simply inserted into the connector at the back of the unit. No re-termination is required.

Both break glass, supplied, and re-settable operating elements (PS230) can be used in the standard unit. Operation of the re-settable element, as well as being indicated by the units LED, is also indicated by a yellow strip on the element which becomes visible when activated. With the addition of a hinged transparent cover (PS200) the element may be protected against accidental operation and may be further protected by using a cover seal (PS056) which requires breaking in order to operate the unit.

The call points use one of 99 possible addresses which is simply 'dialed in' using the two rotary decade switches on the rear of the unit.

A specialist test key may be inserted into the bottom of the unit to lower the glass and release the micro-switch and thus a full functional test is achieved.

Installation

The call points are suitable for semi-flush mounting as standard, for indoor use. This uses a single-gang electrical knock-out box in conjunction with a terminal tray (ETT-P) for isolated screen continuity connection. However if surface mounting is required, then a matching single terminal back box is also available (SR1T).

Mounting hardware and installation instructions are provided with each module.

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Addressable Manual Call Point M700KACI-FG

The M700KACI-FG with integral isolator, is a call point designed to provide a manual alarm interface to NOTIFIER's fire alarm control panel.

Installation efficiency, flexibility and compliance with the latest standards are at the heart of the call point range. The unique 'plug and play' concept is designed specifically to reduce installation time by using a terminal block which can be wired during the initial installation cabling with a link (P102) to provide continuity for testing. During the commissioning phase, the links are removed and the terminal block is simply inserted into the connector at the back of the unit. No re-termination is required.



Specifications

Addressable Manual Call Point
M700KACI-FG (Glass) & M700KACI-FF (flexible Element)

Mechanical Specification

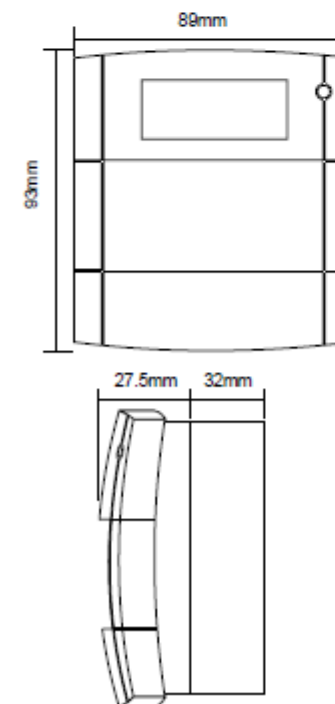
- Dimensions:
 - Semi-flush mounting:
 - Height: 93 mm
 - Width: 89 mm
 - Depth: 27.5 mm
 - Surface mounting:
 - Height: 93 mm
 - Width: 89 mm
 - Depth: 59.5 mm
- Weight:
 - Flush: 110 g
 - Surface: 130 g

Electrical Specification

- Current Consumption
 - Quiescent: 360µA
 - Alarm Current: 6mA
- Operating Voltage: 15 V to 30VDC maximum

Environmental Specifications

- Operating temperature: -30°C to +70°C
- Relative humidity: 0% to 95%, non-condensing
- Ingress Protection (IP) Rating: IP24D





Addressable Waterproof Call Point M700WCP

This IP67 rated call point is available with integral isolator and designed to provide a manual alarm interface to Notifier fire alarm control panels where additional protection against the environment is necessary.

Installation efficiency, flexibility and compliance with the latest standards are at the heart of the call point range.

The unique 'plug and play' concept is designed specifically to reduce installation time by using a terminal block which can be wired during the initial installation cabling with a link (P102) to provide loop continuity for testing. During the commissioning phase, the links are removed and the terminal block is simply inserted into the connector at the back of the unit. No re-termination is required.

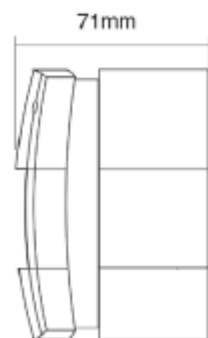
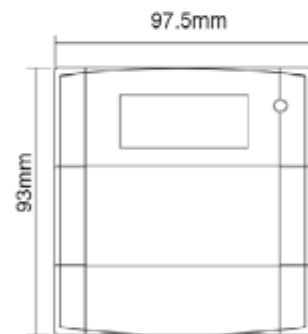


Specifications

Addressable Waterproof Call Point M700WCP-R/I/SG

Mechanical Specification

- Dimensions:
 - Height: 93 mm
 - Width: 97.5 mm
 - Depth: 71 mm
- Weight: 400 g (incl packaging)
- Mounting hole centres: 60mm











Electrical Specification

- Quiescent (with isolator): 360µA
- Alarm Current: 6mA
- Operating Voltage: 15 V to 30VDC maximum

Environmental Specifications

- Operating temperature: -30°C to +70°C
- Storage temperature: -30°C to +70°C
- Relative humidity: 0% to 95%, non-condensing
- Ingress Protection (IP) Rating: IP67

Product Range at a Glance

	Part Number
	M700KACI-FG
	M700KACI-FF
	M700WCP-R/I/SG
	ETT-P
	SR1T
	PS200
Call point cover seal (anti-tamper). Pack of 5.	PS056
	KG1/N10/GL1293
	PS230
Pack of 10 continuity links.	P102



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OPAL™ Detector range Data Sheet



The revolutionary OPAL range delivers a totally new detector platform incorporating an advanced digital protocol. The advanced protocol delivers more devices on the loop and gives greater control, configurability and device management whilst enabling the overall system to be optimised to the location and use of the building with far greater flexibility than ever before.

Features

- Built in short circuit isolation
- New advanced Opal protocol allows mapping of the loop for precise fault location using isolators
- Tri colour LED offering red, green and amber colours
- Rotary decade address switches
- Pure white colour to complement modern buildings
- 100% mechanical and electrical backwards compatibility
- Base designed to ease installation and wiring

Technology Leadership

Opal incorporates major hardware and software technology driven developments. A completely new optical chamber design is proven in extensive testing to be more efficient, less liable to false alarm due to dust and insects and less susceptible to fault in high air velocities or back pressure. Extensive hydrodynamic modelling has confirmed the greater efficiency of the new chamber and housing shape combination. Large-

scale integration of the all-new electronics, through the fully automated surface mount PCB assembly, coupled with in-line testing through the manufacturing process, laser PCB cutting along with a completely new compound of plastic offers improved quality and reliability.

All OPAL detectors are environmentally friendly and meet the WEEE and RoHS legislative requirements, minimising end of life disposal costs, and are mechanically and electrically backwards compatible with existing devices.

Product Range

The family consists of six detection devices: three heat detectors (58° and 78° fixed temperature, and rate of rise), an optical smoke, a photo-thermal multi-sensor and our award winning SMART³. All six devices come with electrical short circuit isolation and the new Advanced Protocol. In addition to the new family of devices, a new installation base that makes the installation process far easier and quicker, replaces the previous versions.

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For more information, contact:
NOTIFIER, Charles Avenue, Burgess Hill, West Sussex, RH15 9UF, United Kingdom
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Opal™ Photoelectric Smoke Detectors - NFXI-OPT

The Opal photoelectric smoke detector has a completely new detection chamber design, the result of many years of research and development. This delivers improved responsiveness, reduced sensitivity changes caused by settling dust and reduced false alarms resulting from ingress of insect and other debris. The plug-in unit uses sophisticated processing circuitry that incorporates smoothing filters to help eliminate transient environmental noise conditions that can be the cause of unwanted alarms. The devices are managed by embedded software running complex algorithms that further improve resilience to false alarms and improve detection speed.

The Opal NFXI-OPT has built in short circuit isolation and two integral tri-colour LEDs that provide 360° local visual indication of the device status. The LEDs are programmable with static or blinking red, amber and green status indications available.



Specifications

Opal NFXI-OPT

Mechanical Specification

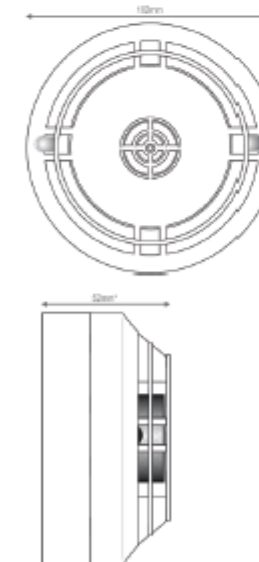
- Height: 52mm installed in B501AP base
- Diameter: 102mm installed in B501AP base
- Weight: 97g (inc base)
- Max Wire Gauge for Terminals: 2.5mm²
- Colour: White
- Material: PC/ABS

Electrical Specification

- Operating Voltage Range: 15 to 28.5Vdc
- Max. Standby Current: 200µA @ 24Vdc (no communications) / 300µA @ 24Vdc (LED blink enabled, once every 5 seconds)
- Maximum Continuous Current: 1A (switch closed)
- Isolation Current: 15mA @ 24Vdc
- LED Current: Red: 3.5mA @ 24Vdc, Green: 7.0mA @ 24Vdc, Yellow: 10.5mA @ 24Vdc
- Remote Output Voltage: 22.5Vdc
- Remote Output Current: 10.8mA @ 24Vdc
- Additional loop resistance: typ 80mohm @ 24V (max 170mohm @ 15V)

Environmental Specifications

- Temperature Range: -30°C to +70°C*
- Humidity: 10 to 93% relative humidity (non-condensing)
- IP Rating: IP40 when installed in B501AP base, IP43 when installed in WB-1AP base



* When installed in a B501AP base
† Do not install detectors in locations where normal ambient temperature exceeds 50°C



Opal™ SMART² Photoelectric / Thermal Multi-Criteria Detectors - NFXI-SMT2

The Opal multi-criteria, multi-sensor, photo, thermal detector uses thermal assistance to the core photoelectric smoke detector to give enhanced false alarm immunity and faster response to a wide range of incipient fires. The plug-in unit combines two separate sensing elements that are managed by embedded software to act as a single unit. The Opal NFXI-SMT2 conforms to EN54-7, a 58°C fixed temperature and rate of rise thermal assistance conforming to EN54-5. The thermal detection function combines thermistor technology with a software corrected linear temperature response. In areas where the normal daytime activities may potentially create unwanted alarms, the detector can be programmed to operate in a 'heat only' mode, automatically reverting to full photo-thermal operation during unoccupied periods.

The sensing elements of the Opal NFXI-SMT2 are panel controllable so the sensitivity thresholds of each element can be changed by the panel offering the ability to customise the device for the changing use of the area it is protecting. The detector has built in short circuit isolation and two integral tri-colour LEDs that provide 360° local visual indication of the device status. The LEDs are programmable with static or blinking red, amber and green status indications available.



Specifications

Opal NFXI-SMT2

Mechanical Specification

- Height: 61mm installed in B501AP base
- Diameter: 102mm installed in B501AP base
- Weight: 99g (inc base)
- Max Wire Gauge for Terminals: 2.5mm²
- Colour: White
- Material: PC/ABS



Electrical Specification

- Operating Voltage Range: 15 to 28.5Vdc
- Max. Standby Current: 200µA @ 24Vdc (no communications) / 300µA @ 24Vdc (LED blink enabled, once every 5s)
- Max. Continuous Current: 1A (switch closed)
- Isolation Current: 15mA @ 24Vdc
- LED Current: Red: 3.5mA @ 24Vdc, Green: 7.0mA @ 24Vdc, Yellow: 10.5mA @ 24Vdc
- Remote Output Voltage: 22.5Vdc
- Remote Output Current: 10.8mA @ 24Vdc
- Additional loop resistance: typ 80mohm @ 24V (max 170mohm @ 15V)

Environmental Specifications

- Temperature Range: -30°C to +70°C*
- Humidity: 10 to 93% relative humidity (non-condensing)
- IP Rating: IP20 when installed in B501AP base, IP23 when installed in WB-1AP base

Sensitivity Settings

- Alarm level 1: 1%/ft smoke
- Alarm level 2: 2%/ft smoke
- Alarm level 3: 3%/ft smoke
- Alarm level 4: 3%/ft smoke
- Alarm level 5: 3%/ft smoke
- Alarm level 6: Class A1R

* When installed in a B501AP base
† Do not install detectors in locations where normal ambient temperature exceeds 50°C
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OPAL™ SMART³ Photo, Thermal, & Infra Red Multi-Criteria Detectors - NFXI-SMT3

The Opal multi-criteria, multi-sensor, photo, thermal and infra red (SMART³) detector is the environmentally friendly alternative to the ionisation detector, a technology that is now over sixty years old. The SMART³ offers comparable speed of response to the ionisation technology for a fast flaming fire and is less susceptible to false alarms. It can be deployed with confidence in locations where the main risk is from fast-developing flaming fires. SMART³ moves the goal posts in the fight against false alarms by delivering enhanced false alarm immunity. In addition to being an effective alternative to ionisation units, SMART³ offers better performance over the alternative technologies of dual angle or dual wavelength optical detectors and photo-thermal detectors.

The integration of continual monitoring for all three major elements of a fire enables the SMART³ to respond far more quickly to an actual fire and has the highest immunity to nuisances. Based upon the sensor signals, the program dynamically changes sensor thresholds, sensor gain, time delays, combination, sampling rates, averaging rates and, if any sensor fails, changing sensitivity of the remaining sensors as well as indicating a fault condition.

The sensing elements of the SMART³ are panel controllable so the sensitivity thresholds of each element can be changed by the panel offering the ability to customise the device for the changing use of the area it is protecting. The detector has built in short circuit isolation and two integral tri-colour LEDs that provide 360° local visual indication of the device status. The LEDs are programmable with static or blinking red, amber and green status indications available.



Specifications

Opal NFXI-SMT3

Mechanical Specification

- Height: 63mm installed in B501AP base
- Diameter: 102mm installed in B501AP base
- Weight: 102g (inc base)
- Max Wire Gauge for Terminals: 2.5mm²
- Colour: White
- Material: PC/ABS



Electrical Specification

- Operating Voltage Range: 15 to 28.5Vdc
- Max. Standby Current: 200µA @ 24Vdc (no communications) / 300µA @ 24Vdc (LED blink enabled, once every 5s)
- Max. Continuous Current: 1A (switch closed)
- Isolation Current: 15mA @ 24Vdc
- LED Current: Red: 3.5mA @ 24Vdc, Green: 7.0mA @ 24Vdc, Yellow: 10.5mA @ 24Vdc
- Remote Output Voltage: 22.5Vdc
- Remote Output Current: 10.8mA @ 24Vdc
- Additional loop resistance: typ 80mohm @ 24V (max 170mohm @ 15V)

Environmental Specifications

- Temperature Range: -30°C to +70°C*
- Humidity: 10 to 93% relative humidity (non-condensing)
- IP Rating: IP20 when installed in B501AP base, IP23 when installed in WB-1AP base

Sensitivity Settings

- Alarm level 1: Low false alarm resistance, high photoelectric only sensitivity. 1%/ft smoke
- Alarm level 2: Medium false alarm resistance, medium photoelectric only sensitivity. 2%/ft smoke
- Alarm level 3: Standard false alarm resistance, low photoelectric only sensitivity. 3%/ft smoke
- Alarm level 4: High false alarm resistance, low photoelectric only sensitivity. 3%/ft smoke
- Alarm level 5: Very high false alarm resistance, low photoelectric only sensitivity. 3%/ft smoke
- Alarm level 6: Class A1R

* When installed in a B501AP base
† Do not install detectors in locations where normal ambient temperature exceeds 50°C
Note: The panel threshold should be chosen according to the specific environment. The following would be Notifier's recommendations: Ultra-clean applications use Level 1 for pre alarm or alarm. Clean Applications use Level 1 for pre alarm and Levels 2 & 3 for alarm. Moderate environments use Level 1, 2 or 3 for pre alarm and Level 4 for alarm. Harsh environments use Level 2 or 3 for pre alarm and Levels 5-6 for alarm.



OPAL™ Thermal Sensors - NFXI-TDIFF, NFXI-TFIX58, NFXI-TFIX78

The Opal NFXI-TFIX58 & NFXI-TFIX78 are fixed temperature analogue addressable sensors employing low mass thermistors and microprocessor technology for fast response and linear temperature sensing. Their linear response allows these sensors to be used to signal temperatures over the range of 58°C (Class A1S) to 78°C (Class BS).

The Opal NFXI-TDIFF uses the same thermistor and microprocessor technology to provide an alarm when the rate of rise in temperature exceeds 10°C/minute (typical) or if the temperature exceeds a threshold of 58°C (Response Class A1R). Notifier's Opal protocol allows it to be software configured to be either a fixed 58°C, a fixed 78°C unit or a 58°C with rate of rise device. For backwards compatibility and approval continuity, three separate versions continue to be available as separate part numbers.

The sensing elements of all three heat sensors are panel controllable through the Opal Protocol so the sensitivity thresholds of each element can be changed by the panel offering the ability to customise the device for the changing use of the area it is protecting. The detectors have built in short circuit isolation and two integral tri-colour LEDs that provide 360° local visual indication of the device status. The LEDs are programmable with static or blinking red, amber and green status indications available.

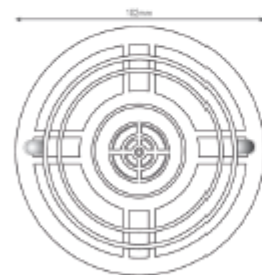


Specifications

Opal NFXI-TDIFF, NFXI-TFIX58, NFXI-TFIX78

Mechanical Specification

- Height: 61mm installed in B501AP base
- Diameter: 102mm installed in B501AP base
- Weight: 88g (excluding base)
- Max Wire Gauge for Terminals: 2.5mm²
- Colour: White
- Material: PC/ABS



Electrical Specification

- Operating Voltage Range: 15 to 28.5Vdc
- Max. Standby Current: 200µA @ 24Vdc (no communications) / 300µA @ 24Vdc (LED blink enabled, once every 5s)
- Max. Continuous Current: 1A (switch closed)
- Isolation Current: 15mA @ 24Vdc
- LED Current: Red: 3.5mA @ 24Vdc, Green: 7.0mA @ 24Vdc, Yellow: 10.5mA @ 24Vdc
- Remote Output Voltage: 22.5Vdc
- Remote Output Current: 10.8mA @ 24Vdc
- Additional loop resistance: typ 80mohm @ 24V (max 170mohm @ 15V)

Environmental Specifications

- Temperature Range: -30°C to +70°C*
- Humidity: 10 to 93% relative humidity (non-condensing)
- IP Rating: IP20 when installed in B501AP base, IP23 when installed in WB-1AP base

Heat Detection Performance

NFX/NFXI-TDIFF	Class A1R: 58°C fixed temperature and rate of rise
NFX/NFXI-TFIX58	Class A1S: 58°C fixed temperature
NFX/NFXI-TFIX78	Class BS: 78°C fixed temperature

* When installed in a B501AP base
† Do not install detectors in locations where normal ambient temperature exceeds 50°C
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Product Range at a Glance

	Isolator	Colour	Part Number
OPAL Optical smoke detector	✓	White	NFXI-OPT
OPAL Heat detector, fixed 58°C	✓	White	NFXI-TFIX58
OPAL Heat detector (A1R), rate of rise + fixed 58°C	✓	White	NFXI-TDIFF
OPAL Heat detector, fixed 78°C	✓	White	NFXI-TFIX78
OPAL SMART³ Optical smoke & heat detector	✓	White	NFXI-SMT2
OPAL SMART³ Optical smoke & heat detector with infra-red flame sensing	✓	White	NFXI-SMT3
Analogue sensor base with SEMS screw connections and address identification label	n/a	White	B501AP
Wet Base shroud for use with standard bases to allow condensation run off and rear seal. Conduit entry only.	n/a	White	WB-1AP

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Remote Indicator Unit

Data Sheet



Description

The RI/W/3V remote indicator unit is designed for fire detection systems requiring local indication of an individual or group of fire detectors in alarm. The unit is fitted with LED providing a wide area of illumination and high on/off contrast for easy viewing.

Using a single gang purpose designed moulding, the unit operates with all Notifier analogue addressable fire detectors.

Features

- Industrial construction
- Terminal block wiring
- Ultra-bright LED
- Suitable for analogue addressable systems.

Specifications

RI/W/3V remote indicator unit

Mechanical Specification

	RI/W/3V
Height:	100mm
Width:	89mm
Body colour:	white with red lettering
Wire gauge for terminals:	1.5mm ²
Mounting	Designed to fit to a standard UK BS1363 single gang back-box

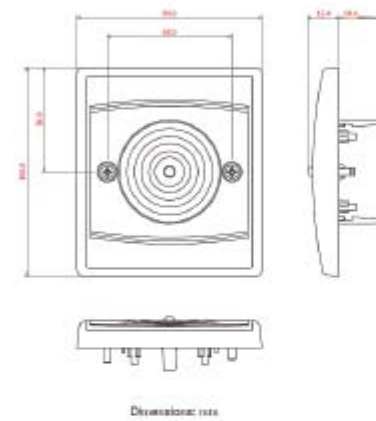
Electrical Configuration

	RI/W/3V
Operating voltage:	5 - 28 V dc

System	Resistance	Terminals	Current
Addressable	0Ω	2,3	28 mA Max

Installation Recommendations

For analogue addressable systems connect across LED (terminals 2 & 3)



Product Range at a Glance

	Part Number
 Remote Indicator Unit	RI/W/3V

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Opal™ AV Devices Data Sheet



Notifier's Opal AV (Audio Visual) range is designed to alert building occupants of an emergency. The Opal AV range of analogue addressable, loop powered, audible and visual alarm devices, provides a comprehensive selection of products designed to meet the majority of fire alarm installation requirements. The range utilizes Notifier's advanced digital Opal protocol to minimize the current required, enable longer loops and provide distinct signals for different alarm types.

The Opal AV range is easily mounted on the standard Notifier B501AP base for improved installation flexibility making all devices - detectors, sounders and beacons alike - fully interchangeable without the need for any wiring disturbance.

Benefits

- Faster installation** - The large cable access, rear or surface cable entry options and innovative loop continuity spring all make for faster more cost effective installation.
- Reduced install errors and easy fault finding** - devices are mounted using a positive push and turn engagement system and are supplied with an address tag for clear identification. Isolation is built-in to each device and addressing is made simple by familiar rotary wheel address controls. In addition each device incorporates an anti-tamper feature giving added security.
- Excellent system performance** - Light output** and a selection of 32 sounder tones can be synchronised via the Notifier control panel to provide fast clear warning of a fire related incident.

- Flexible installation** - The low current draw of the devices enables more devices on each loop. This combined with the wide range of devices and mounting options including deep bases and IP65 ratings, white or red colour options and sounder volume controllable from the panel or the sounder itself all make for greater flexibility for the system designer.
- Reduced lifetime costs** - each device in the Opal AV range is constructed from high quality UV stable materials, designed for impact resistance and years of trouble free operation. If changes to a system are required the universal system base means a sounder/beacon can be added without re-wiring.
- Reduced inventory count** - Notifier's Opal AV range now utilizes the B501AP system base, - common to detectors. The Opal AV range is designed to maximise the features of Notifier's advanced digital Opal protocol but remains backward compatible with previous Notifier communication protocols so can be used for retrofit and replacement for older systems.

Opal AV devices provide both standard wall mounted units and integrated base units allowing the direct fitting of Notifier detectors. Wall mounted units are available as a sounder, a VAD (Visual Alarm Device) only and sounder & VAD combination. Integrated base sounder units are also available as either a sounder, VID (Visual Indicating Device) or combined sounder/VAD.

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Addressable Loop Powered Base Sounder, VID (Visual Indicating Device) and Sounder/VAD (Visual Alarm Device)

Notifier's range of base sounders, VIDs and sounders with VADs are high quality loop powered devices designed to alert building occupants of an emergency. Featuring fast and simple installation and control they form the perfect base for Notifier Opal detectors. Powered by the fire panel via the loop wiring, control of the devices is enabled using on-board switches or via the Opal digital protocol using the control panel. The range is installed simply by a twist fit onto the B501AP base which is used for detectors.

The Opal base sounder with VAD integrates a high quality 32 tone sounder and high quality VAD into one unit. When triggered by the fire panel its powerful sounder gives an audible warning whilst the VID provides additional indication.

The Opal base sounder is a high quality 32 tone sounder. A choice of output levels and tones make the device suitable for a wide variety of applications.



Specifications

- Opal Addressable Base Sounder - NFXI-BS-W
- Opal Addressable Base Sounder/VAD - NFXI-DSF-WC
- Opal Addressable Base VID - NFXI-BF-WC

Mechanical Specification

	NFXI-BS-W	NFXI-DSF-WC	NFXI-BF-WC
Height:	55mm	55mm	55mm
Diameter:	121mm	121mm	121mm
Weight:	200g	198g	200g
Body colour:	white		
Lens colour:	N/A	Clear	Clear
Light colour:	N/A	Red	Red
Beacon flash rate:	N/A	1Hz	1Hz
Number of tones:	32	32	N/A
Volume settings:	High, Medium & Low	N/A	
Wire gauge for terminals:	1.5 - 2.5mm ² max		

Electrical Specification

	NFXI-BS-W	NFXI-DSF-WC	NFXI-BF-WC
Supply voltage:	15 to 29VDC		
Standby current:	450µA (CLIP) 320µA (Opal)		
Max current consumption:	<10.5mA ¹	<10mA ²	<3.5mA
Max sound output:	95dB(A) +/-3dB @ 1 metre ²	N/A	

¹ High Volume Tone 21 @24V
² High Volume, Tone 13 @24V

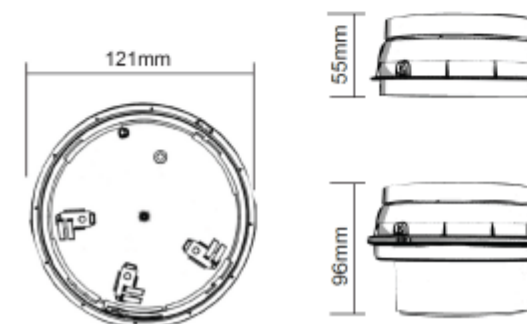
Environmental Specifications

- Temperature Range:** -25°C to +70°C
- Humidity:** Max. 93% relative humidity (non-condensing)
- IP Rating:**

	NFXI-BS-W	NFXI-DSF-WC	NFXI-BF-WC
B501 AP base:	IP24	IP21C	IP24
Surface mount base:	IP44	IP44	IP44
Waterproof base:	IP65	IP65	IP65

Approvals

- NFXI-BS-W EN54-3, EN54-17
- NFXI-DSF-WC EN54-23 Open Category, EN54-3, EN54-17
- NFXI-BF-WC EN54-17 Please Note: This product is not approved to EN54-23 (Visual Alarm Device) and must not be used as a visual alarm device to provide a primary warning notification of fire.





Addressable Loop Powered Wall Mount Sounder, VID & VAD

Notifier's range of wall mount sounders and beacons are high quality loop powered devices designed to alert building occupants of an emergency. Featuring fast and simple installation and control they are powered by the fire panel via the loop wiring. Control of the devices is enabled using on-board switches or via the control panel. The range is installed simply by a twist fit onto the B501AP base.

The Opal wall mount sounder/VAD integrates a high quality 32 tone sounder and high quality beacon into one unit. When triggered by the fire panel its powerful sounder and intense beacon give a visible and audible warning.

The Opal wall mount sounder is a high quality 32 tone sounder. A choice of output levels and tones make the device suitable for a wide variety of applications.

The Opal wall mount VAD is a high quality loop powered device which when triggered by the fire panel emits an intense light to give a visible warning to building occupants.



Specifications

Opal Addressable Wall VAD - NFXI-WF-WC
Opal Addressable Wall Sounder - NFXI-WS-R
Opal Addressable Wall Sounder/VAD - NFXI-WSF-WC

Mechanical Specification

	NFXI-WF-WC	NFXI-WS-R	NFXI-WSF-WC
Height:	51mm	64mm	64mm
Diameter:	121mm	121mm	121mm
Weight:	238g	168g	238g
Body colour*:	N/A	Red	N/A
Lens colour*:	Clear	N/A	Clear
Light colour:	Red	N/A	Red
Beacon flash rate:	1Hz	N/A	1Hz
Number of tones:	N/A	32	32
Volume settings:	N/A	High, Medium & Low	
Wire gauge for terminals:	1.5 - 2.5mm ² max		

Electrical Specification

	NFXI-WF-WC	NFXI-WS-R	NFXI-WSF-WC
Supply voltage:	15 to 28VDC		
Standby current:	450µA (CLIP) 320µA (Opal)		
Max current consumption:	3.5mA	11.4mA ¹	14.7mA ¹
Max sound output:	N/A	97dB(A) +/- 3dB @ 1metre ²	

¹ High Volume Tone 21 @24V
² High Volume, Tone 8 @24V (Tone Dependent - Figure stated is based on high volume 970Hz continuous @24VDC)

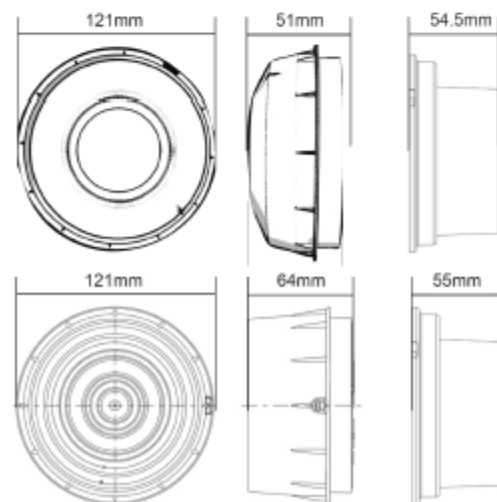
Environmental Specifications

- Temperature Range: -25°C to +70°C
- Humidity: Max. 95% relative humidity (non-condensing)
- IP Rating: IP24 with low profile (B501AP) base
IP44 with deep bases (BRR, BPW, BDD)
IP65 for NFXI-BS with sealed deep base (WRR)

Approvals

- Approved to: EN54-3, EN54-17 and CPD
- NFXI-WF-WC Approved to EN54-23 O class
- NFXI-WSF-WC Approved to EN54-23 O class
- NFXI-WSF-RR Approved to EN54-3. Not approved to EN54-23 (Visual Alarm Device) and must not be used as a visual alarm device to provide a primary warning notification of fire.

*Sounders are also available with white body NFXI-WS-W - electrical and mechanical specifications are otherwise the same.



Addressable Loop Powered Wall / Ceiling Mount VAD

Notifier's Wall or Ceiling mount Visual Alarm Device (VAD) is a high quality loop powered beacon intended to alert building occupants of an emergency. Designed and approved to meet EN54-23, the European standard for VADs, the device generates 380° light coverage making it suitable for both wall and ceiling mount applications.

Featuring fast and simple installation and control they are powered by the fire panel via the loop wiring. Control of the devices is enabled using on-board switches or via the control panel. The range is installed simply by a twist fit onto the B501AP base.

The Opal wall/ceiling mount VAD is a high quality loop powered device which when triggered by the fire panel emits an intense light to give a visible warning to building occupants.



Specifications

Opal Addressable Wall/Ceiling VAD - NFXI-WCF-WC

Mechanical Specification

Height:	51mm
Diameter:	121mm
Weight:	210g
Body colour*:	Pure White
Lens colour*:	Clear
Light colour:	White
Flash rate:	0.5Hz**
Wire gauge for terminals:	1.5 - 2.5mm ² max

Electrical Specification

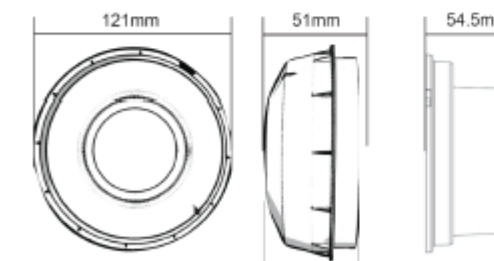
Supply voltage:	15-28 VDC
Standby current:	450µA
Typical current consumption:	31mA @ 24VDC
Max current consumption:	40mA @ 20VDC
VAD Flash rate:	0.5Hz**

Environmental Specifications

- Temperature Range: -25°C to +70°C
- Relative Humidity: Max. 95% +/- 3% (non-condensing)
- IP Rating: IP21C (with low profile base + IP21 seal)
IP65 (deep base + seal kit)

Approvals

- Approved to: EN54-23, EN54-17



	Ceiling Mount (C - Category)	Wall Mount (W - Category)
EN54-23 Approval	C-3-5.1 / C-6-5.1 / C-9-5.1	W-2.4-2.7
Installation Height	3m / 6m / 9m	2.4m
EN54-23 Coverage	Cylinder ø = 5.1m	Cube = 2.7m
EN54-23 Coverage Volume	61m ³ / 122m ³ / 183m ³	18m ³

** Please Note: NFXI-WCF-WC has been developed to flash once every 2 seconds (0.5Hz). Other devices in the range flash once every second (1Hz). As the flash rate is not synchronised we recommend that the two types of device are not mixed on the same installation.



FAAST™ LT 200 Loop Based Aspirating System Fire Alarm Aspiration Sensing Technology Data Sheet



The FAAST LT-200 Aspirating Smoke Detector is designed with the installer and end user in mind. It serves the wide variety of Class C applications where maintenance is difficult, other smoke detection methods are inappropriate or prone to fail due to harsh environments or areas where aesthetics matters.

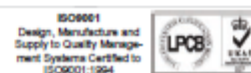
FAAST LT-200 combines proven aspiration detection technologies to deliver reliable smoke detection and efficient installation and maintenance. The device comprises innovative and intelligent internal design features designed to protect vulnerable components. These include a high sensitivity LED detection chamber (featuring a high power output IR LED and high gain IR receiver amplifier), along with ultrasonic flow sensors. The device is fast to install and easy to commission thanks to PIPE IQ LT pipe design and configuration software which is included as standard.

FAAST LT-200 loop based devices are available as single channel and dual channel devices, offering flexibility for different detection strategies. A range of customisable settings are geared towards maximising device performance and meeting different application needs. Loop capability allows standard device integration, maintenance and support consistent with other Notifier Opal devices.

Features

- High sensitivity LED Detection Chamber specially designed to cover Class C. Includes a high power output IR LED and high gain IR receiver amplifier
- Single & Dual channel versions with independent channels including fan, sensor and flow monitoring
- Supports CLIP and Opal protocol
- Provides pre-alarm functionality for graduated alarm thresholds
- Ultrasonic airflow sensing with expanded monitoring range
- A single device covers up to 2000m²
- Pipe-IQ™ software provides intuitive system layout and configuration all in one package
- Multiple event logging up to 2244 events
- User friendly air flow pendulum graph for verification of pipe network functionality
- Easily replaceable and reusable filter without affecting the rest of the device
- Protected electronics from air flow and accidental damage during installation or maintenance
- Designed for efficient wiring and installation: cable gland holes, easy access to the wiring area and no special tools required
- Easy access to parts requiring routine maintenance: filter(s) and sensor(s).
- IP65 enclosure

This document is not intended to be used for installation purposes. Every care has been taken in the preparation of this document but no liability can be accepted for the use of the information therein. Design features may be changed or amended without prior notice.
For more information, contact:
NOTIFIER, 140 Waterside Road, Hamilton Industrial Park, Leicester, LE5 1TN UK
Phone: +44 (0) 203 409 1779



FAAST™ LT-200

FAAST LT-200 delivers a flexible solution for applications where standard detection methods are prone to failure or false alarm. Designed with the installer and end user in mind, the device serves a wide variety of EN54-20 Class C applications where maintenance is difficult, other smoke detection methods are inappropriate, due to harsh environments, or areas where aesthetics matters.

Loop based FAAST LT-200 detectors offer ultimate flexibility in terms of connectivity with the overall fire system. The device is fast to install, easy to configure and includes installation and commissioning software PipeIQ LT.



Specifications

FAAST™ LT-200 NFXI-ASD11-HS-EB, NFXI-ASD12-HS-EB, NFXI-ASD22-HS-EB

Mechanical Specification

- Height: 403 mm (including inlets & outlets)
- Width: 356 mm
- Depth: 135 mm
- Cable Access: 3 x M20 gland holes pre-drilled on top and bottom
- Wire Gauge: 0.5mm² to 2mm²
- Maximum Single Pipe Length: 90 m
- Maximum Total Branched Pipe Length: 180 m (per channel)
- Maximum Air Inlet Holes: 18 holes (per channel)
- Outside Pipe Diameter: 25 mm or 27 mm
- Internal Pipe Diameter: 15-21 mm
- Sensitivity Range (obscuration): 0.07 - 0.86 % obs/m (Alarm Level 1-5)
- Relays: 2 (1 Alarm, 1 Fault) x per channel
- Sounder Outputs: 1 per channel
- Event Log: 2244 events
- Interfaces: Terminal blocks: power supply, relays, sounder outputs, external input; Loop Connection, USB port; Buttons (Test, Reset, Disable)
- Power supply & relays connections: 2mm² max
- USB: Standard USB cable for Type B USB Connection
- Shipping Weight: 6.5kg (dual channel) includes packaging
- Flow monitoring and reporting: High & low according to EN54-20
- Filtration: Replaceable filter
- Fan control: 10 programmable speeds

Electrical Specification

- Smoke Sensor(s): High sensitivity LED Detection
- External Supply Voltage: 18.5 - 31.5 VDC
- Remote Reset Time: 2 seconds
- Power Reset: 0.5 seconds
- Operating Current (excluding sounders):
1 Channel Device: 170mA @ 24 VDC
2 Channel Device: 270mA @ 24 VDC
- Max. Alarm Current (excluding sounders):
1 Channel Device: 380mA @ 24 VDC
2 Channel Device: 570mA @ 24 VDC
- Relay Contact Ratings: 2.0A @ 30 VDC, 0.5A @ 30 VAC
- Communication:
Loop Supply Voltage: 15-29 VDC (Loop current ≤ 900mA)
Loop Standby Current @ 24V: 900 µA max. (poll once every 5s)

Environmental Specifications

- Operating Temperature: -10°C to 55°C
- Humidity Range: 10 to 93% (non-condensing)
- IP Rating: IP65

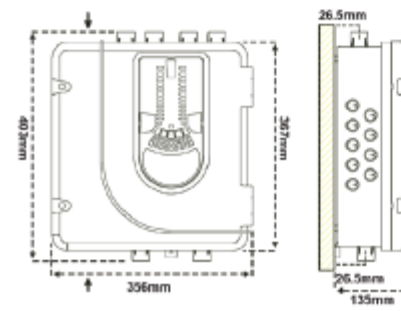
Listings and Approvals

- LPCB
- EN54-20 (holes per channel): Class C - 18 holes

User Interface Display

The front panel will be different depending on which of the 3 models is being installed. The following display information is possible:

- Alarm level; Alarm, Pre-Alarm
- Particulate Levels; 1-5
- Fault Status
- Flow Level
- Test, Reset and Disable Buttons





Electromagnetic Door Holders Data Sheet



Notifier by Honeywell's range of door retainers provides attractive aesthetics and high performance for fire alarm systems requiring electromagnetic door retainers.

Each door retainer is fitted with a spring loaded release pin mounted centrally within the electromagnet. On power off, the release pin then pushes the door away from the electromagnet. This overcomes any residual magnetism ensuring correct operation.

The D.C. unit is fitted with a suppression diode and protection against reverse polarity such that it may be operated from a reverse polarity monitored circuit.

The low profile, flame retardant ABS housing results in an attractive and robust design and contains a push button for quick, easy release of the door.

Key Features

- Low profile design
- 200N holding force
- Easy cable entry & exit
- A.C. or D.C. options
- Push button release/test
- Floor mounting bracket available
- Anti-residual magnetism feature
- D.C. version polarised and suppressed
- EN1155 :1997 (CPD Approved)

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DR/W Door Holders

To close fire doors in an emergency and prevent the spread of fire and smoke. Both door holders are fitted with an integral manual release button, allowing the door to be closed without operating the fire alarm. Both versions are supplied with a door mounting keeper plate.

EN1155 :1997 (CPD Approved)



Specifications

Floor Mounted 24V dc door holder - 04390-41

Mechanical Specification

- Approx Weight 700g
- Finish White painted housing, zinc plated magnet
- Holding Force 200N

Environmental Specifications

- Ambient Temperature 0°C to +35°C

Electrical Specification

- Voltage 24V dc
- Current Consumption 45mA

Approvals

- NA

Wall Mounted 24V dc door holder - 04390-31

Mechanical Specification

- Approx Weight 380g
- Finish White Fire Resistant ABS
- Holding Force 200N

Environmental Specifications

- Ambient Temperature 0°C to +40°C

Electrical Specification

- Voltage 24V dc
- Current Consumption 50mA

Approvals

- EN1155 :1997 (CPD Approved)

Wall Mounted 230V ac door holder - 04390-55

Mechanical Specification

- Approx Weight 380g
- Finish White Fire Resistant ABS
- Holding Force 200N

Environmental Specifications

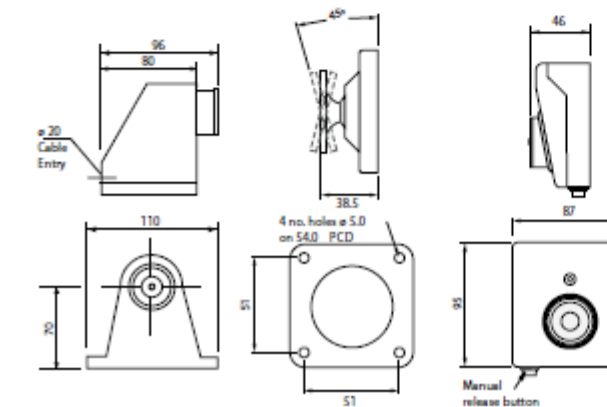
- Ambient Temperature 0°C to +40°C

Electrical Specification

- Voltage 230V ac
- Current Consumption 12mA

Approvals

- EN1155 :1997 (CPD Approved)





BS7273-4 Door Release System Data Sheet



Additional failsafe mechanism to meet the code of practice requirements of BS7273-4 section 5.

BS7273 part 4 2007 is the code of practice governing door holders and door release mechanisms. The Notifier door release system offers a compliant solution to meet the requirements of section 5 of BS7273-4 Category A installations.

The DRM-1 module has been designed for use in conjunction with the existing output module and wider fire system to meet the requirements of section 5 of BS7273-4 Category A installations.

The product is designed to fit the extensive Notifier range of mounting options and enclosures providing you with flexibility and speed of installation. Supplied with the required cable loom to integrate this addition measure into the system the module can be mounted on a din rail with the M200E-DIN or as recommended in our custom made SMB6-V0 enclosure capable of holding 6 modules.

The Notifier door release system is compatible with 12-24VDC door hold systems and includes a volt free contact. The system can also be used to drive a third party relay to switch mains giving the added benefit of separating the fire system from direct mains connection which could cause significant damage to the loop and loop devices.

The installation code of practice allows for a delay of the activation of up to 120 seconds which can add to the commissioning time on site, the system provides two time settings, one within 3 seconds and the other at 100 seconds to reduce the overall commissioning process.

Key Features

- Additional failsafe mechanism to meet the code of practice requirements of BS7273-4 section 5.
- Visual indication of loop power status, loop communication and activation status
- Standalone module available for retrofit (DRM-1)
- Door release system package (NFX-DRS-1) available for new installations
- Dual time delay settings in line with BS-7273-4
- Additional volt free relay
- Din rail mountable
- Compatible with Notifier module enclosure range
- Consistent design with other Notifier modules

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For more information, contact:
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ISO9001
Design, Manufacture and
Supply to Quality Management
Systems Certified to
ISO9001:2004



BS7273-4 Door Release System (NFX-DRS-1)

BS7273 part 4 2007 is the code of practice governing door holders and door release mechanisms. The NFX-DRS-1 system offers a compliant solution to meet the requirements of section 5 of BS7273-4 Category A installations by ensuring the fail safe operation of actuation of release mechanisms in conjunction with the existing output module and wider fire system. The module is compatible with 12-24VDC door hold systems.



Specifications

BS7273-4 Door Release System (NFX-DRS-1)

Mechanical Specification

- Dimensions: H: 170mm
W: 245mm
D: 100mm
- Weight (Module only): 700g
- Maximum Wire Gauge: 2.5mm²

The Notifier Door Release System (NFX-DRS-1) comprises DRM-1 door release module, M701 single output model and SMB6-V0 surface mount box prewired for simple installation.

Electrical Specification DRM-1 Module

- Power Supply: The module draws power from the door input supply
- Max. current draw from door supply:
 - 35mA @ 12V (Auxiliary relay enabled)
 - 25mA @ 12V (Auxiliary relay disabled)
 - 25mA @ 24V (Auxiliary relay enabled)
 - 20mA @ 24V (Auxiliary relay disabled)
- Max. door output continuous current: Current limited at 1 Amp
- Auxiliary relay: Maximum rated continuous current 1 Amp
Maximum voltage 30V AC or DC
- Loop Specification: Loop input voltage range 15 to 30VDC
Maximum loop current 11µA@24V / 25°C

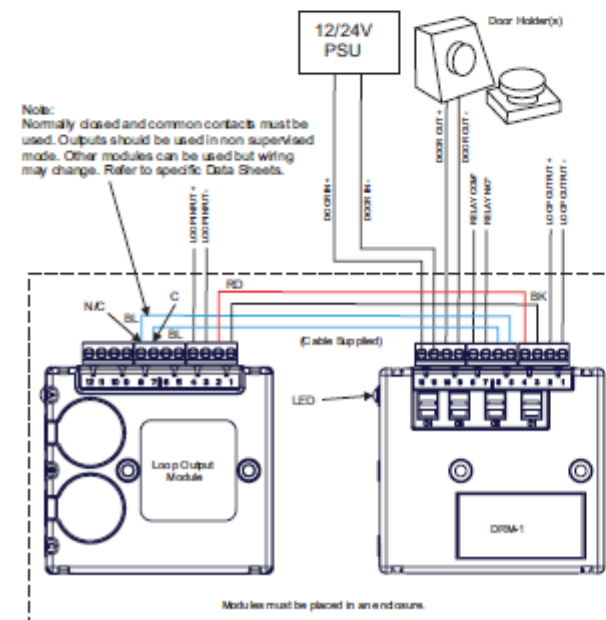
Electrical Specification M701 single output module

- Current Consumption (Without communication) 310 µA @ 24 VDC
- Current Consumption (Communication every 5 sec. with LED blink enabled) 510 µA @ 24 VDC
- Maximum Alarm Current: 5 mA @ 24 VDC (per LED with LED enabled)
- Operating Voltage: 15 to 30 VDC peak

Environmental Specifications

- Operating Temperature: -5°C to +45°C
- Humidity: 5% to 95% Relative Humidity

Wiring Diagram





BS7273-4 Door Release Module (DRM-1)

BS7273 part 4 2007 is the code of practice governing door holders and door release mechanisms. The DRM-1 stand-alone module is available for retrofit to existing systems and offers a compliant solution to meet the requirements of section 5 of BS7273-4 Category A installations by ensuring the fail safe operation of actuation of release mechanisms in conjunction with the existing output module and wider fire system. The module is compatible with 12-24VDC door hold systems.



Specifications

BS7273-4 Door Release Module DRM-1

Mechanical Specification

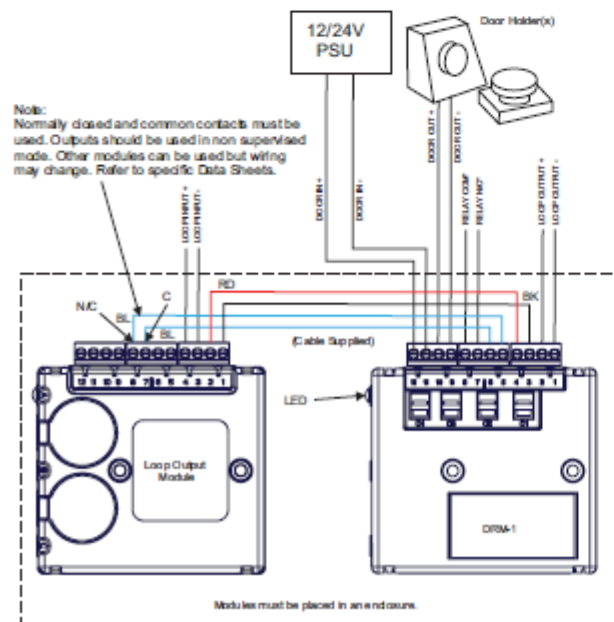
- Dimensions: H: 83mm
W: 94mm
D: 23mm
- Weight (Module only): 93g
- Maximum Wire Gauge: 2.5mm²

Electrical Specification

- Power Supply: The module draws power from the door input supply
- Max. current draw from door supply:
 - 35mA @12V (Auxiliary relay enabled)
 - 25mA @12V (Auxiliary relay disabled)
 - 25mA @24V (Auxiliary relay enabled)
 - 20mA @24V (Auxiliary relay disabled)
- Max. door output continuous current:
 - Current limited at 1Amp
- Auxiliary relay:
 - Maximum rated continuous current 1 Amp
 - Maximum voltage 30V AC or DC
- Loop Specification:
 - Loop input voltage range 15 to 30VDC
 - Maximum loop current 11µA@24V / 25°C

Environmental Specifications

- Operating Temperature: -5°C to +45°C
- Humidity: 5% to 95% Relative Humidity



Product Range at a Glance

	Part Number
BS7273 Door Release Module	DRM-1
Notifier door release system. Comprising DRM-1 door release module and M701 single output model prewired and mounted in SMB6-V0 surface mount box.	NFX-DRS-1
Surface mount box for up to 6 M7xx modules.	SMB6-V0
DIN rail mounting clip for M7xx series modules.	M200E-DIN
Panel mount clip for M7xx series modules	M200E-PMB
Analogue addressable SINGLE OUTPUT control module	M701
Magnet Door Holder 24V DC 22mA	04390-31
Magnet Door Holder floor mounted 24V DC 45mA	04390-41
Magnet Door Holder 240V AC 17.5mA	04390-55
Door Holder Floor Plate; fixing door holder at right angle to floor	04390-92
Door Plate Assembly (Spare), Door Keeper Plate in two pieces	04390-99
Door Hold Transformer-Rectifier 24V 2A	HLS-PSU-TR20
Door Hold Transformer-Rectifier 24V 4A	HLS-PSU-TR40
24VDC 2.5amp EN54-4 Power Supply (space for up to 2 x 17Ah batteries)	HLSPS25
24VDC 5amp EN54-4 Power Supply (space for up to 2 x 17Ah batteries)	HLSPS50



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EN54-23 Intelligent Detector Base Strobe EN54-23 C Category

EN54-23



Detector purchased separately

NOTIFIER by Honeywell's Detector Base Strobe is a modular, high-output loop powered device intended to alert all building occupants of a potential fire.

Approved to EN54-23 & EN54-17, it enables a complete, fully compliant and cost-effective fire alarm system by reducing installation and commissioning costs through fewer wiring points.

The NOTIFIER by Honeywell solution enables easy system extensions in legacy and new projects, thereby providing the highest level of protection for all building occupants – from a trusted brand.

Important Note: To achieve an IP21C rating, the provided seal must be fitted to the product.

Certifications



VdS (pending)

Features

- › Efficient light output and power consumption enables more devices on a loop
- › Red flash - industry preferred colour for evacuation
- › Advanced Protocol enables device function control & group polling
- › Single point of installation means fewer wiring points & simplified system maintenance, saves time, cost & inventory
- › Modular design allows individual components to be replaced separately
- › Backwards compatibility with red flash and previous flash rate, B501 base
- › Large cable access, rear or surface cable entry
- › Simple twist fit onto universal B501AP base
- › Rotary wheels & address tags for clear address indication
- › Loop continuity spring supports first fix installation
- › Independently approved to all required standards:
 - Manufacturing: Construction Products Regulation (CPR)
 - Product performance: Approved to EN54-23, EN54-17
- › Environmental: RoHS, WEEE, REACH

Applications



Office buildings



Public buildings



Bathrooms



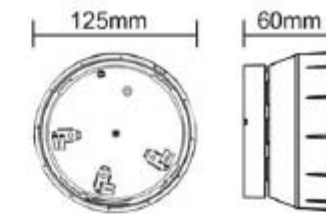
Hotels



Noisy environments

Technical Overview

NOTIFIER by Honeywell's EN54-23 approved Detector Base Strobe is a loop powered, high quality device designed for fast and simple installation and control. It is powered by the fire panel via the loop wiring. Operation and control of the device is via Notifier OPAL Protocol or CLIP Protocol. The device is installed simply by a twist fit onto the universal B501AP base.



ELECTRICAL SPECIFICATION

Supply Voltage: 15 to 29 VDC (Isolation)
Standby Current: 150 uA maximum
Current consumption, typical strobe in alarm: 15 mA @ 24V
Strobe Flash Rate: 0.5 Hz (1 Hz setting for backwards compatibility)

ENVIRONMENTAL SPECIFICATION

Operating Temp: -10°C to 55°C
Relative Humidity: 93% ± 3%, non-condensing
Ingress protection: IP21C (with low profile B501AP base and IP Seal)

MECHANICAL SPECIFICATION

Colour: Pure white
Lens Colour: Clear
Flash colour: Red
Weight net/ gross: 271g / 291g
Cable Terminal Size: 1.5 - 2.5mm² max
Mounting Options: Low profile

APPROVALS

EN54-23 Light
 EN54-17 Short circuit Isolator
 For RoHS, WEEE & REACH information please visit notifierfiresystems.co.uk

BASES

B501AP - Low profile base

EN54-23 VAD PERFORMANCE	
DETECTOR BASE STROBE	NFX-BF-WCS
EN 54-23 Coverage volume code	C-3-B.5
Installation height (X)	3m
EN 54-23 Coverage (Y)	Cylinder Ø = 8.5m
EN54-23 Coverage Volume	170 m ³
Flash rate	0.5 Hz
Operating voltage range	15 to 29V
Mounting	Ceiling Mount: C-Category
ORDERING INFORMATION	
Product Code	NFX-BFWCS

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AGILE™ Wireless Fire Detection

The Agile™ Wireless Fire Detection and Alarm System is a platform of wireless fire devices suitable for all applications where wired fire devices cannot be installed for economic or aesthetic reasons. The look and feel of our wired fire devices combined with cutting edge wireless mesh network technology delivers superior performance when compared to traditional wireless star network technologies.



Mesh

The Agile™ wireless platform is powered by robust mesh network technology providing up to two communication paths to each wireless device. This makes the network highly reliable, protecting against broken communication links. Mesh network technology enables flexible and economic installations in a wide variety of building footprints.

Integration

The Agile™ Wireless Fire Detection System is an extension of the product range. It features the same class leading device design, detection performance, false alarm immunity and system functionality. Wireless devices can be seamlessly integrated into existing systems, giving the fire system the flexibility to be easily extended.

Software

All operations for the design, configuration and diagnostics of the Agile™ Wireless Fire Detection System be facilitated by the AgileIQ™ PC based software tool. It enables the PC to exchange information with the wireless devices without any hardwired connection by means of a wireless USB dongle. The management software will run under Windows operating systems ranging from Windows XP to Windows 10.

Features

- › Mesh multiple communication paths for increased reliability
- › 18RF channels at 868MHz - provides greater tolerance to interference
- › 2 integrated antennas on each wireless fire device - easier positioning of devices
- › Up to 400 m free air communication range - providing good coverage levels
- › Average 5 year battery service life - reducing maintenance requirements
- › Addresses set using rotary switches - reduced commissioning time
- › Tamper-resist locking mechanism to prevent unauthorised removal of sensor head
- › Wired fire devices look and feel - easier installation and visual integration
- › Patented battery service life prediction feature - more proactive maintenance
- › Peace of mind - battery redundancy, delivering 'always on' performance
- › Loop powered Gateway - reduced installation cost and time
- › Up to 8 Gateways per loop
- › Up to 32 Wireless devices per Gateway
- › Agile IQ 3-in-1 software for easy design, configuration and diagnostics
- › Highly adaptive and flexible features that effectively meet the needs of diverse applications; from mainstream to more challenging sites.

Specifications



	DETECTOR	MANUAL CALL POINT	SOUNDER*	SOUNDER STROBE*	REPEATER	RF MODULE	GATEWAY	REMOTE INDICATOR	USB DONGLE
PRODUCT VARIANT	NRX-SMT3 NRX-OPT NRX-TFX58 NRX-TDIFF	NRX-WCP	NRX-WS-RR NRX-WS-WW	NRX-WSFRR NRX-WSFWR	NRX-REP	NRX-M711	NRX-GATE	NRX-IRK	NRX-USB
RADIO FREQUENCY	965-970 MHz	965-970 MHz	965-970 MHz	965-970 MHz	965-970 MHz	965-970 MHz	965-970 MHz	965-970 MHz	965-970 MHz
TRANSMITTING POWER	<25mW e.r.p.	<25mW e.r.p.	<25mW e.r.p.	<25mW e.r.p.	<25mW e.r.p.	<25mW e.r.p.	<25mW e.r.p.	<25mW e.r.p.	<25mW e.r.p.
SUPPLY	4 CR123A 3V Batteries	4 CR123A 3V Batteries	4 CR123A 3V Batteries	4 CR123A 3V Batteries	4 CR123A 3V Batteries	4 CR123A 3V Batteries	Communication Line Supply Range: 24V Standby Current: 230µA	2 CR123A 3V Batteries	USB connector type A Average Current: 33mA
HEIGHT	NRX-SMT3 - 72mm NRX-OPT - 62mm NRX-TFX58 - 70mm (with B501RF base) NRX-TDIFF - 70mm (with B501RF base)	94mm	75mm (with B501RF base)	97mm (with B501RF base)	52mm (with B501RF base)	125mm	42mm (with B501RF base)	51mm	13mm
LENGTH / DIAMETER	104mm	99 mm	121mm	121mm	102mm	125mm	102mm	95mm	96.2mm
DEPTH	N/A	71 mm	N/A	N/A	N/A	58mm	N/A	37mm	31.2mm
WEIGHT - WITH BATTERIES	NRX-SMT3 - 250g NRX-OPT - 248g NRX-TFX58 - 238g (with B501RF base) NRX-TDIFF - 238g (with B501RF base)	318g	373g	430g	181g	317g	90g	100g	18.5g
HUMIDITY - NO CONDENSATION	10: 93 %RH	10: 93 %RH	10: 93 %RH	10: 93 %RH	10: 93 %RH	5: 95 %RH	10: 93 %RH	10: 93 %RH	N/A
OPERATING TEMPERATURE	-30 : 60 °C	-30 : 60 °C	-30 : 60 °C	-30 : 65 °C	-30 : 60 °C	-20 : 60 °C	-30 : 60 °C	-10 : 60 °C	0 : 50 °C
FIRE STANDARD	EN54-25 (RF) EN54-5 (Thermal) EN54-7 (Photo)	EN54-25 (RF) EN54-11	EN54-25 (RF) EN54-3	EN54-25 (RF) EN54-23 (W-3.5-10)	EN54-25 (RF) EN54-19	EN54-25 (RF) EN54-18	EN54-25 (RF) EN54-18; EN54-17	N/A	N/A
PACKAGE WEIGHT	NRX-SMT3 - 269g NRX-OPT - 258g NRX-TFX58 - 251g NRX-TDIFF - 251g	445g	385g	445g	243g	391g	132g	260g (2pcs/box)	63g
PACKAGE SIZE MM - L - W - H	134 x 109 x 72	134 x 109 x 72	148 x 125 x 87	148 x 125 x 87	148 x 148 x 60	168 x 148 x 60	115 x 112 x 39	134 x 109 x 72	115 x 112 x 39

*Please note that sounders synchronization in CLIP protocol is guaranteed only between sounders connected to the same gateway.



M700E Series Input/Output Modules



The newly designed platform of M700 family of Input/ Output modules, completes the NFXI line of wired spot detectors with unaltered family feeling and undisputed continuity.

The new M700 look and feel combine maximum reliability with top-end functionality, all enriched by a cutting-edge modern design.

Single and multi-way models are available within the renewed mechanical package, reducing both the cost of installation and the mounting space required.

Their unique mechanical design allows each module to be mounted in either a common wall box, on a DIN rail or its dedicated enclosure. The DIN rail mounting option is possible thanks to smart DIN brackets directly built-in the enclosure. Irrespective of the mounting methods chosen, the address switch is always visible and accessible for selection.

Each module has built-in short circuit protection for the communications loop; however, to increase application flexibility, the isolators can be selected/deselected on an individual module basis.

To help technicians in the maintenance and fault-finding process, light pipes have been enlarged to increase visibility even in the most challenging space constrained application. Both the status LED and the rotary switch selection can be viewed on the two sides without having to remove the cover of the surface mounting box.

The multi-colour status LED, provide diagnostic information regarding the status of each individual input/output. For ease of installation, testing and maintenance, modules have been equipped with quick connectors.

The renovated aesthetics offers data finely engraved on the enclosure's surface by laser for lifetime durability and resistance to degradation.

Features

- › M701E Single Output Module
- › M710E Single Input Module
- › M720E Dual Input Module
- › M721E Dual Input – Single Output Module
- › Common mechanical platform for modules' enclosure
- › Integrated DIN rail brackets
- › Built-in short circuit isolators
- › CLIP and Advanced Protocol
- › Addressability through rotary switches
- › Improved Light Guides visibility on two sides
- › Tri-colour Light Pipes
- › Lasered engraved label data
- › Intertek Approved

Architect/Engineer Specifications

M701E Single Output Module

The M701E optionally supervises the wiring to the load devices and, upon command from the control panel, switches an external power supply to operate these devices. It also has built-in short circuit isolation capability. In normal supervised mode, the device switches out the load supervision and switches in the external power supply through a double pole relay.

The external power supply is monitored and raises an unlatched fault condition if the voltage falls below the fixed threshold. In the unsupervised mode, the device provides neither load nor power supply supervision and can be used to switch a single form C set of changeover contacts.

ELECTRICAL SPECIFICATIONS	
Operating Voltage Range	15 to 32VDC
Maximum Standby Current	160µA at 24VDC no communications
Relay Specifications	Normal and unsupervised form C ratings 2A at 30VDC, resistive load

ELECTRICAL SPECIFICATIONS	
Height	22 mm
Length	82 mm
Width	93 mm including terminal block
Weight	118 g
Maximum Wire Gauge for Terminals	2.5 mm ²

ENVIRONMENTAL SPECIFICATIONS	
Operating Temperature Range	-20°C to +60°C
Humidity	5 to 95% Relative Humidity (non-condensing)
IP Rating	IP30 (IP44 in M200E-SMB)

M710E Single Input Module M720E Dual Input Module and M721E Dual Input – Single Output Module

The M710E and M720E provide supervision of one or two input circuits respectively from external devices; the M721E also provides an unmonitored single pole volt-free changeover contact for external devices.

All modules feature a built-in short circuit isolator. Input channels are capable of both latched and analogue supervision: there are three separate latched states, normal, open circuit and combined alarm/short. The analogue supervision continuously monitors the supervised circuit, returning a signal proportional to the circuit resistance.

ELECTRICAL SPECIFICATIONS	
Operating Voltage Range	15 to 32VDC
M710E Maximum Standby Current	140µA at 24VDC, no communications
M720E Maximum Standby Current	140µA at 24VDC, no communications
M721E Maximum Standby Current	140µA at 24VDC, no communications
M721E Output Rating	2A at 30VDC, resistive load

ELECTRICAL SPECIFICATIONS	
Height	22 mm
Length	82 mm
Width	93 mm including terminal block
Weight	118 g
Other Devices in Range	M720E and M721E
Maximum Wire Gauge for Terminals	2.5 mm ²

ENVIRONMENTAL SPECIFICATIONS	
Operating Temperature Range	-20°C to +60°C
Humidity	5 to 95% Relative Humidity (non-condensing)
IP Rating	IP30 (IP44 in M200E-SMB)

OTHER MODULES IN THE RANGE (SEE SEPARATE DATASHEETS)	
M701E-240	Mains and DIN rail mount 240V Switching Output Module
M710E-CZ	Conventional Zone Monitor (w/capacitor)
M710E-CZR	Conventional Zone Monitor (w/resistor)
SC-6	Supervised Control Output 6-way
CZ-6	Conventional Zone 6-way
CR-6EA	Relay Output 6-way (Advanced Protocol)
IM-10EA	Ten Input monitor Modules (Advanced Protocol)

LIST OF ACCESSORIES	
M200E-SMB	Surface Mounting Box
M200E-SMB-KO	Surface Mount Box with 20 mm knockouts
SMB6-V0	Surface Mount box for up to six modules



EN54-4 Approved Power Supply Units

Power Supply Units (PSUs)

Honeywell's range of PSUs includes all of the necessary monitoring and standby capability demanded by EN54-4. Each unit comes within the same size steel enclosure for ease of use, offering 2.5A or 5A alarm capability.



Each model has an input that may be used to disable the battery charging in a fire condition so that the full output is provided to the driven equipment. This maximises the output current capability whilst allowing full monitoring and protection of the outputs. This flexibility means that the power supply to offer appropriate standby (e.g. 24 or 72 hours) for the system may be selected.

Key Features

- Site selectable single or twin 24 V dc output
- Top or rear cable entry
- 24 hour or 72 hour standby capability
- Fully monitored to EN54-4
- Local LEDs for fast fault-finding
- Selectable earth fault monitoring
- 115/230V ac input
- Protected against short circuit and overload
- Removable terminals for up to 2.5mm cable
- Fire alarm charger disable facility
- Volt-free fault relay output
- Space for up to 2 x 17Ah batteries

Installation

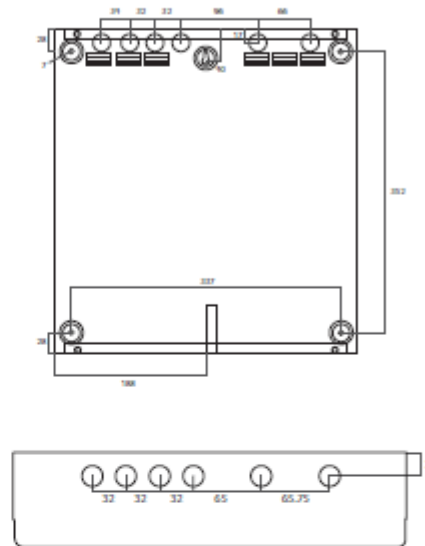
Both units are in easy to use surface mounting steel enclosures with knock-outs for top or rear cable entry.

Power Supply Units

TECHNICAL SPECIFICATION

DIMENSIONS	
377(w) x 408(h) x 92(d) mm	
Mounting hole centres	337mm (horizontal), 352mm (vertical) (see diagram)
Enclosure protection	IP 30
ELECTRICAL CHARACTERISTICS	
Input voltage	115-230V ac 50/60 Hz
Number of outputs	2
Output voltage	28V dc +/- 2%
Output current	PS25 2.5A, PS50 5A (with battery charging disabled)
Charger current	300mA (7.2Ah Batteries) or 600mA (17Ah)
Approval	EN54-4 / A2
Fault relay	1A 24Vdc
Cable capacity	2.5mm CSA

Rear of enclosure showing mounting holes



Product range

DESCRIPTION	ORDER CODES
24VDC 2.5amp EN54-4 Power Supply	HLSPS25
24VDC 5amp EN54-4 Power Supply	HLSPS50

Germany
 Tel: +49 2102 700 690
 Fax: +49 2102 700 69 44
 Vertrieb@notifier.de

France
 Tel: +33 810 10 66 10
 Fax: +33 474 94 79 82
 hls-france@honeywell.com

Benelux
 Tel: +32 424 70300
 Fax: +32 424 70220
 info@notifier.be

UK
 Tel: +44 (0) 116 246 2000
 Fax: +44 (0) 116 246 2300
 hlsusalessupport@honeywell.com

Netherlands
 Tel: +31 7362 73273
 Fax: +31 7362 73295
 info@notifier.nl

Italy
 Tel: +39 02 518971
 Fax: +39 02 5189730
 notifier.milano@notifier.it

Spain
 Tel: +34 902 03 05 45
 Fax: +34 93 465 86 35
 infohlsiberia@honeywell.com

Middle East
 Tel: +971 4 4505801
 Fax: +971 4 4505900
 www.hls-mea.com



APPENDIX 5: HISTORIC BUILDING FABRIC SPECIFICATION

1. DESCRIPTION OF WORKS IN RELATION TO THIS SPECIFICATION

- 1.1 Senate House is listed as a building of special architectural and historic interest.
- 1.2 The new hybrid fire alarm installation and associated electrical systems to this building must be carried out within the requirements of Camden Council Planning (Town and Country Planning Act 1990; Planning (Listed Buildings and Conservation Areas) Act 1990).
- 1.3 Unauthorised works to a Listed Building which affect its historic character is an offence punishable by unlimited fine, imprisonment or both. In addition, the perpetrators can be compelled to rectify the damage at their own expense. Any works which are deemed not to comply with the Act will not be in accordance with the terms of the contract and must be removed/ rectified at the Contractor's expense.
- 1.4 This specification does not allow for any fixing to marble or timber panelling unless using existing fixings. If any new fixings to marble are required, an additional specification should be requested from Conservation Specialist before any works commence. This may also be in breach of any consent granted and should be confirmed by the Conservation Specialist

2. METHOD STATEMENT

- 2.1 The Contractor must submit and obtain the Conservation Specialist approval to a risk assessment and method statement demonstrating that the installation complies with the following requirements: -
 - i. All wires, cables, trunking, cable trays, and other materials together with the new fire alarm accessories must be routed, positioned and fixed, in such a way as to be of minimal visual impact, without damage to building fabric or finishes.
 - ii. All ancillary equipment including: junction boxes, terminal boxes, distribution boards are to be selected, located and fixed regarding the aesthetic and historic nature of the property. Obtain specific approval of the Conservation Specialist wherever necessary.
 - iii. Making good after installation of new equipment and/or removal of existing system must be to the highest standards to match surface colours, textures and materials of existing finishes and materials.

3. PROTECTION

- 3.1 Greatest care to be taken to eliminate every possibility of damage to the fabric. Prepare relevant schedules, seek and obtain the Conservation Specialist approval of areas, objects or finishes to be protected, and the method of protection, wherever necessary.
- 3.2 The contractor shall take particular care regarding the following historic structural elements: -
 - i. Windows: avoid accidental damage to glass and glazing bars.
 - ii. Statuary and ornamental features, including mouldings, doorcases, carvings, doors, joinery, etc: protect items individually as necessary. Obtain the Conservation Specialist approval for any removal for temporary safety.
 - iii. Staircases, balustrades and landings: use sheet materials to prevent damage and/or staining.
 - iv. Light fittings: protect or dismantle and remove to temporary safety as necessary.
 - v. Floor, wall and decorative finishes, including marble and timber panelling: protect with suitable rigid or flexible sheet materials, sealed and taped where necessary.

4. TEMPORARY WORKS

- 4.1. Take all necessary steps to avoid accidental damage from movement or erection of ladders, scaffold, plant, etc
- 4.2. Protect all elements of mobile plant during transit.
- 4.3. Ensure sufficient operatives to guide movements and avoid dragging objects or equipment on floors, or impact with features or surfaces.
- 4.4. Ensure ladder feet, supports, wheels etc are of semi-hard rubber or similar material, when used on finished floors.
- 4.5. Equip ladders or any other object touching or leaning against finished surfaces with protective pads.

5. HIGH LEVEL WORKING

- 5.1. Scaffolds, towers, "zip-ups" and similar, are to be securely and continually maintained while in use, and carefully erected and dismantled so as to avoid any damage to the building fabric and decorations.
- 5.2. Tubes, anchors, putlogs, and similar, must not penetrate or be fixed to finished surfaces or historic structure without specific written authority of the Conservation Specialist. Select any proposed tie-back or anchorage points with care so as to avoid any damage to the building fabric and decorations.
- 5.3. Cantilevering of any kind for access must have approval of the Conservation Specialist before erection.
- 5.4. Ties through windows are not permitted.
- 5.5. Any damage must be rectified at the contractor's expense, to the satisfaction and approval of the Conservation Specialist.

6. WORKMANSHIP / APPROVAL

- 6.1. Arrange the setting-out, juxtaposition, fitting, and jointing of all elements to ensure satisfactory fit and true alignment throughout the installation.
- 6.2. Visible elements must be selected and installed with regard to neutralising impact on architectural features, historic fittings, finishes and decoration.
- 6.3. Consult and obtain Conservation Specialist approval of any work that affects the appearance or historic interest, as early as possible.
- 6.4. Allow adequate time for approvals to be given on request and in programmes. Do not proceed without written approval.

7. INSTALLATION DRAWINGS AND SETTING-OUT/ WORKING DRAWINGS

- 7.1. Produce fully dimensioned installation drawings, prior to commencement of work.
- 7.2. Drawings will include sufficient information to define precise wiring routes, positions, type and method of fixings, holes, etc for all equipment to the satisfaction and approval of the Conservation Specialist.
- 7.3. Photography: The use of dimensioned rectified or scale photography will be permitted for approvals, provided the necessary clearance for use of camera has been obtained.

8. REMOVAL OF EXISTING INSTALLATION

- 8.1. Care to be taken at all times when removing the existing equipment.

- 8.2. Removal of existing cabling should be minimised and left insitu where possible and safe, to avoid the disruption to the building fabric.
- 8.3. Carefully removal of existing cable and equipment to minimise consequential repair.
- 8.4. Any pattern staining which remains after removal of equipment, wiring, etc., must be cleaned with suitable non-toxic conservation standard materials and methods. Where appropriate, a method statement for making good is to be submitted to and approved by the Conservation Specialist prior to any remedial works.
- 8.5. Avoid forcing, pulling, or bursting any fixing from its substrate. Remove any plugs or grounds by appropriate techniques. Where concealed, or where removal would result in undue damage or alteration to features, they should be left in place.
- 8.6. Fixing grounds, battens, blocks, etc., are to be removed generally throughout, unless in doing so greater damage will be caused to the fabric.

9. FIXINGS

- 9.1. Supply samples of all proposed fixings to be approved by the Conservation Specialist before ordering.
- 9.2. Fixings should be the most unobtrusive, close-fitting products available.
- 9.3. Take account of substrates. Unnecessary or excessive application of recommended centres or other practices may be unacceptable.
- 9.4. Any proposed chasings to be approved by the Conservation Specialist.
- 9.5. Cartridge operated fixing tools will only be permitted where specific benefits to historic importance can be proven and under specific Conservation Specialist approval.
- 9.6. Agree methods and routes through plaster with the Conservation Specialist prior to work. Avoid oversized or unnecessary holes.
- 9.7. Avoid percussion drills where it will result in damage to finishes.

10. TEMPORARY REMOVALS AND REINSTATEMENTS

- 10.1. Fixtures, fittings, decorative ironwork etc, may require removal to facilitate efficient and aesthetically acceptable installation.
- 10.2. Indicate on Installation/Setting Out drawings which objects/items require removal.
- 10.3. Submit method statement for temporary removal, including cataloguing, transit and storage, where required and obtain approval by the Conservation Specialist before proceeding.
- 10.4. Where directed, properly catalogue, protect and store removed items until required for re-fixing. Protect during transit to store.
- 10.5. All items required to be removed must be dealt with by suitably qualified craftsmen or operatives. Proposed contractors/operatives to be submitted and approved by the Conservation Specialist prior to works.
- 10.6. All items set aside or removed are to be re-installed in their original positions and previous condition at the earliest opportunity once works have been completed unless otherwise directed.
- 10.7. Cleaning: the whole of the works and all items are to be left clean to the satisfaction of the Conservation Specialist after reinstatement and upon completion. Methods of cleaning must be approved by the Conservation Specialist beforehand.

11. CABLE ROUTES AND FIXINGS

- 11.1. The contractor is expected to show care, consideration and respect for the importance of the building fabric in all cable installations.
- 11.2. Position and route wiring to avoid undue visual impact.
- 11.3. Cables are to be routed through areas of least historic importance wherever possible. These may include basement areas, and in vertical ducts or risers, horizontal voids, ceiling voids and roof spaces. It must not be assumed that new services in areas that have been agreed to be of lesser importance, e.g. basements and plant rooms, cables may be surface fixed.
- 11.4. In all other areas cables are to be concealed by chasing-in or run in voids within the built fabric of the buildings, or semi-concealed where approved and agreed with the Conservation Specialist.
- 11.5. Chasing will not be permitted in sensitive areas or where the substrate is of special interest, including stonework, fine plaster etc.
- 11.6. Utilise masonry joints wherever possible for fixings and chasing.
- 11.7. Fix cables adjacent to edges of continuously running features, where visible. Do not fix in the centre of cornices or skirting.
- 11.8. Ensure run-through access or continuation holes are placed to minimise surface exposure of cable.
- 11.9. Utilise cable and duct lengths to ensure that no joints or junction boxes are visible.
- 11.10. Final connection or junctions to terminal equipment shall be so designed and fixed as to keep exposed or surface-run visible cable or duct work to the absolute minimum.
- 11.11. Cables run above eye level or higher are to be fixed above upward facing surfaces wherever possible to reduce risk of being visible from below.
- 11.12. Locations of surface-fixed and plainly visible cables or ducts to be submitted and approved by the Conservation Specialist prior to works. These locations are unlikely to be accepted unless the contractor can justify such fixing on the grounds of no practical alternatives.
- 11.13. Cost variation will not be accepted as justification for fixing routes which do not accord with the above requirements.
- 11.14. Cables and ducts are to be painted or coloured to match surfaces to which they are affixed in all cases.
- 11.15. Cables, wiring, ducts etc which do not conform to the above requirements will, on direction of the Conservation Specialist, be removed and replaced correctly, including all necessary making good at the contractor's expense.

12. TERMINAL EQUIPMENT

- 12.1. Terminal Equipment includes: detector heads, warning lights, sounders, break-glass units, grilles, controls, and the like.
- 12.2. The selection of equipment is to be made with due regard to position, location and use and quality of the areas of installation.
- 12.3. Samples of all terminal equipment to be submitted and approved by the Conservation Specialist before ordering.
- 12.4. Equipment and fittings must not be intrusive in any decoration scheme or cause visual disharmony or imbalance of architectural or design features.

Design, Access, & Heritage Statement

- 12.5. The contractor will obtain various sizes and types of equipment to overcome any difficulties of intrusiveness or inappropriateness within any location.
- 12.6. Equipment will be fixed to achieve the minimum visual impact in all cases.
- 12.7. Equipment to be fixed without damage or alteration to any feature, moulding, ornament or important decorative surface.
- 12.8. The use of shims, scribed packings and the like may be acceptable if they facilitate the avoidance of damage.
- 12.9. Equipment to be selected to ensure that no object protrudes from a surface to any greater extent than the minimum known to be possible for similar equipment, whether manufactured or supplied by the contractor.
- 12.10. Position equipment with care, consideration, and respect for the importance of the building fabric and decoration.
- 12.11. Due regard will be taken for any adjacent or adjoining feature, items or equipment and ensure that proportion, balance, and alignment are sympathetic and correct, consistent with other clauses.
- 12.12. Position all equipment with due regard for future maintenance and cleaning.
- 12.13. No wireless devices to be fixed to marble or timber panelling. Drop down brackets for fixing have been specified where wireless wall mounted devices would result in new fixings to marble or timber panelling. Refer to drawing 418 and 419 for locations where drop down brackets for fixing. Allow for up to 60no. of brackets. Brackets to be fixed to plaster only. Brackets to be painted to match plaster.
- 12.14. Installed equipment which does not conform to the above requirements will, on direction of the Conservation Specialist will be removed and replaced correctly including all necessary making good, at the contractor's expense.
- 12.15. All fixing holes, including redundant and new, are to be filled and made good with appropriate materials.

13. FITTINGS

- 13.1. Fittings, including all devices and electrical accessories, etc, must be as specified by the Electrical Consultant and approved by the Conservation Specialist.
- 13.2. The contractor is to allow in the program for extended delivery dates and is advised to ascertain such delivery dates at time of tender.
- 13.3. Samples of all fire alarms, devices and electrical accessories are to be provided for approval of the Conservation Specialist, even where a pre-manufactured or stock item is used and where choice has been left to the contractor.
- 13.4. The contractor may suggest and submit alternatives for consideration and for approval of the Conservation Specialist.

APPENDIX 6: REPAIR SPECIFICATION

Within the proposal is also allowed for *making good* where removing existing fire alarms and offsetting the new replacement fire alarms:

1. MAKING GOOD ON TIMBER – INTERIOR

- 1.1. On completion of removal of existing fire alarms and devices, allow for joiner to attend and to carry out close quarters survey of timber alongside architect and to agree extent of repair.
- 1.2. Repair may comprise of: carefully cut out and replace damaged timber sections, finish and redecorate. All on a like for like basis.
- 1.3. Carefully cut out damaged or otherwise deteriorated timber back to sound material. Carry out timber splice repair to damaged sections. Timber species to be advised on completion of access and detailed survey. Allow to finish timber piece to match all surrounding joinery in respect of mouldings, profiles and decorative features. The contractor shall provide samples of timber repair for agreement.
- 1.4. Allow to fully rub down surface and prepare to a smooth finish before applying clear finish to be agreed on completion of access and survey. Make good all holes, open joints, indents and fissures etc with suitable filler (Wood Filler - Ronseal or similar) or epoxy resin and rub down. The contractor shall provide samples of filler/epoxy for agreement.
- 1.5. Redecoration to match existing. The contractor shall provide samples for approval of the Conservation Specialist of redecoration for each different element (to match existing: paint, varnish or shellac – Dulux, Ronseal Wood Stain or Mylands Shellac) to cover bare wood, filler or epoxy resin repairs. Colour and paint to be the specified RAL. Apply finish in accordance with manufacturer's instructions. Provide light key and smooth along the grain between coats. Carefully feather into existing decorated areas where redecoration has not been required. Decoration, finish and colour to be of the approved sample.

2. MAKING GOOD ON RENDER/PLASTER – INTERIOR

- 2.1. On completion of removal of existing fire alarms and devices, allow for survey and hammer test of panels by specialist decorative plasterer alongside architect, to establish extent of damage, degree of detachment from substrate and appropriate repair scope.
- 2.2. Repair may comprise full like for like replacement of panels; or re-adhesion of panels; or repair, dependent upon the outcome of the survey.
- 2.3. For each different type of render and plaster disaggregation analysis must be undertaken to inform the render mix for the repairs. Refer to mortar analysis report and match composition.
- 2.4. Carefully cut out and remove any areas of loose or damaged plaster. Reinstall on a like for like basis and redecorate with one undercoat and two topcoats to match existing.
- 2.5. First fixing will be a sample and is to be provided for approval of the Conservation Specialist. Colour and paint to be the specified RAL. Apply finish in accordance with manufacturer's instructions. Provide light key and smooth along the grain between coats. Carefully feather into existing decorated areas where redecoration has not been required. Decoration, finish and colour to be of the approved sample.