ES03 Power & Wiring Accessories

UNIVERSITY OF LEICESTER

Document Control

Rev	Date	By	Comments
A	Jun'16	L. Davies	Technical update review
B	Oct'17	L. Davies	Technical update review
C	Dec 17	UoL	Sign off for release
D	Apr '19	L. Davies	Technical update review
E	Mar'20	J. Thrupp	March 2020 Issue
F	August 23	A Singleton	Laboratory RCDs to be trunking mounted

Design Guidance

1. Circuit labelling shall be via clear brother P-touch labels with black text to denote Board ref/phase/way as well as additional labelling to denote designation of equipment served for all fused connection units/ isolators.
2. Lighting/Emergency test key switches shall match the local wiring accessories and be of the grid type. The switches shall be 20A inductive rated and engraved 'EM key test'. Key switches shall be positioned local to the areas served for ease of maintenance and not 'banked' in riser cupboards. In residential developments consideration shall be made to ensuring key switches are inaccessible to general student use.
3. Approved Document Pt. M shall be achieved using a coloured accessory faceplate providing a contrast to the background wall colour. Where possible white accessory plates shall be used primarily, located on colour contrasting walls. Where contrast is required to white walls graphite grey faceplates or finger plate surrounds shall be used.
4. Cleaners socket outlets shall be standard 13A single outlet faceplates and shall be labelled accordingly.
5. Fused connection units shall match the local wiring accessories and shall be complete with neon indicators unless the specific area denotes that blackout may be required.
6. Essential services served via a secondary backup power supply such as a UPS or generator shall be fitted with red faceplates throughout.
7. All small power and general circuit wiring **must** be routed and contained within the floor area served by the respective circuit.
8. USB socket outlets shall be capable of delivering 2A at 5V from both ports simultaneously and shall not share the output current between ports. Where a shared output current is provided, this shall be a minimum of 3A between the two ports. Where USB ports are provided, these shall be capable of dynamic or intelligent power delivery to ensure safety of supply to the connected devices.

Design Components

	Manufacturer	Comments

University of Leicester, University Road, Leicester, LE1 7RH
T. 0116 252 2522 **W**. http://www.le.ac.uk

Design Components

	Manufacturer	Comments
Circulation	MK (Logic Plus)	All sockets outlets shall be flush mounted. Minimum depth for accessory boxes shall be 35mm. Cleaners' 32A ring circuits shall be wired on independent ring final circuits taking care to ensure phasing matches that of the surrounding areas.
Offices/ Teaching	MK (Logic Plus)	As above but c/w dual earth facility. Ringed CPC's forming part of each circuit shall be wired back to separate earth terminals within the distribution board. Alternative circuit CPC terminal connections with neighbouring circuits will not be permitted.
Laboratories	MK (Logic Plus)	All sockets outlets shall be flush mounted. Laboratory socket outlets shall be wired via local 32A RCD protective devices in lieu of combined RCBO's within the distribution board (This is such that lab technicians can reset trips without having to access distribution boards). Only conventional MCB's shall be used to serve the bench mounted local RCD's. These shall be preferably be mounted within the Dado or lab bench trunking if provided or alternatively (AND NOT FAVOURED) in a proprietary housing adjacent to the lab bench/ dado trunking for all laboratory use socket outlets. A test label must be affixed to the cover of all local RCD units or immediately adjacent. Laboratory fridge supplies shall be installed at low level using unswitched socket outlets fed via bench level unswitched fused connection unit c/w neon indicator. Refrigerator and Freezer circuits shall not be RCD protected in research laboratories and shall be labelled for the use of 'fridges only'. This shall apply to tall fridges also where power is mounted at high level above the refrigerator. The contractor will undertake the appropriate risk assessment and provide written confirmation and obtain agreement from the University prior to any installation being undertaken.
Decorative	MK (Aspect/ Edge) Legrand (Arteor) Wandsworth	All sockets outlets shall be flush mounted with no exceptions for decorative finishes. Decorative faceplate finishes to be specified/agreed with the users prior to specification.
Plantroom/ Switchrooms	MK (Metalclad)	Surface metal clad socket outlets served via surface galvanised conduit.

University of Leicester, University Road, Leicester, LE1 7RH
T. 0116 252 2522 **W**. http://www.le.ac.uk

Design Components

	Manufacturer	Comments
External	MK (Masterseal)	IP65/67 as appropriate served via surface galvanised conduit.
Rotary Isolators	Eaton Moeller	IP65 minimum protection, pad-lockable
Industrial	MK Commando	IP44/67 as appropriate.
Hand dryers	Staff/ Visitor Areas Student Areas	The university preference is to utilise paper towels only however where hand dryers are requested on a project by project basis then the following shall apply: Dyson Airblade AB12 polycarbonate ABS chassis to be used for all areas. As a minimum H/L fixed power supplies serving mid-level outlets shall be provided in all WC areas whether hand dryers are installed or not. Only the use of Double Pole fused switches shall be permitted.

University of Leicester, University Road, Leicester, LE1 7RH
T. 0116 252 2522 **W**. http://www.le.ac.uk