FULLY CHARGED

Appropriate use of Minor Works Certificates

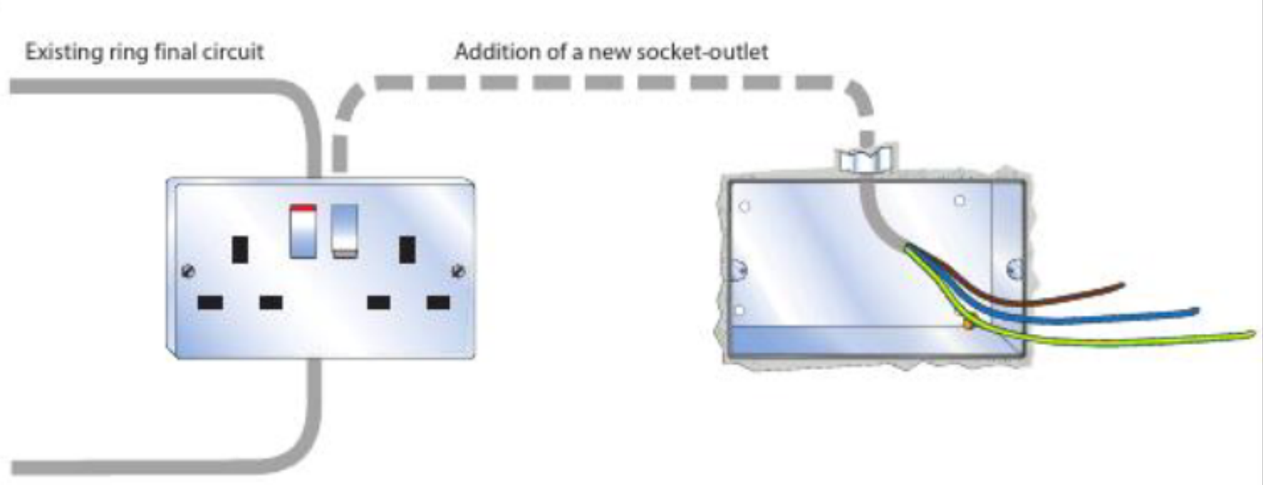
As permitted by Regulation 631.3, a Minor Electrical Installation Works Certificate (referred to in this article as a minor works certificate) may be issued as an alternative to an Electrical Installation Certificate (EIC) for the certification of minor electrical work which does not include the provision of a new circuit.

This article looks at specific items and provides examples of electrical work that may, or may not, be certified using an NICEIC or ELECSA minor works certificate.

Additions or alterations to an existing final circuit

Where an addition or alteration is made to an existing final circuit, as shown in Fig 1, it should be verified that the work complies with *BS 7671* and does not impair the safety of the existing installation (Regulation 610.4 refers). Whilst for such purposes a minor works certificate may be used as an alternative to an EIC, Regulation 631.3 requires that a separate minor works certificate is issued for each circuit worked on.

Fig 1 **The addition of a socket-outlet to an existing ring final circuit**



A minor works certificate must not be used to certify the installation of a new circuit, even if the circuit supplies only one point (one accessory).

It should be noted that before an addition or alteration is undertaken, Regulation 132.16 requires the adequacy of the existing installation to be assessed, including the earthing, bonding and maximum demand, for the altered circumstances.

Replacement of a single protective device

A minor works certificate may be issued to certify a 'like-for-like' replacement of a single protective device, or a single item of switchgear containing a single protective device.

In addition, a minor works certificate may also be issued for the replacement of a device that is not considered 'like-for-like', but only in circumstances where the skilled person undertaking the replacement can verify that the replacement device satisfies the requirements of *BS 7671*, particularly, for the safe disconnection of the circuit under overload and fault conditions.

For example, where an observation on an Electrical Installation Condition Report identifies that the measured earth fault loop impedance for an existing Type C circuit-breaker exceeds the maximum value permitted by *BS 7671*, the remedial work required may involve replacing the existing circuit-breaker with an RCBO, or replacing the Type C circuit-breaker with a Type B circuit-breaker, or if possible, de-rating the device (for example replacing a 10 A protective device with a 6 A device).

For any of the options previously described, the minor works certificate may be used as it makes provision for the skilled person undertaking the work to record the relevant inspections and tests, as shown in Fig 2, required to verify that the work complies with *BS 7671* and does not impair the safety of the existing installation.

Replacement of switchgear incorporating more than one protective device

The replacement of an item of switchgear which incorporates more than one protective device, such as a two-way (or more) consumer unit, is not minor work. Such work requires a greater degree of inspection and testing, including where relevant

Fig 2 **Part 3 of the minor works certificate – Inspection and testing of the modified circuit and related parts**

PART 3: INSPECTION AND TESTING OF THE MODIFIED CIRCUIT AND RELATED PARTS

Confirmation that necessary inspections have been undertaken		(✓)			
Confirmation of the adequacy of earthing		(✓)			
Confirmation of the adequacy of protective bonding		(✓)			
Confirmation of correct polarity		(✓)			
Circuit resistance:	$(R_1 + R_2)$	Ω	or R_2		Ω
Maximum measured earth fault loop impedance, Z_s		Ω			

Insulation resistance:
(in a polyphase circuit, record the lower or lowest value, as appropriate)

Line/Line		MΩ	Line/Earth	MΩ
Line/Neutral		MΩ	Neutral/Earth	MΩ
RCD operating time at $I_{\Delta n}$ (if RCD fitted)				ms
RCD operating time at $5I_{\Delta n}$, if applicable				ms
Test button operation satisfactory				(✓)

Agreed limitations, if any, on the inspection and testing:

Instrument Serial No(s):

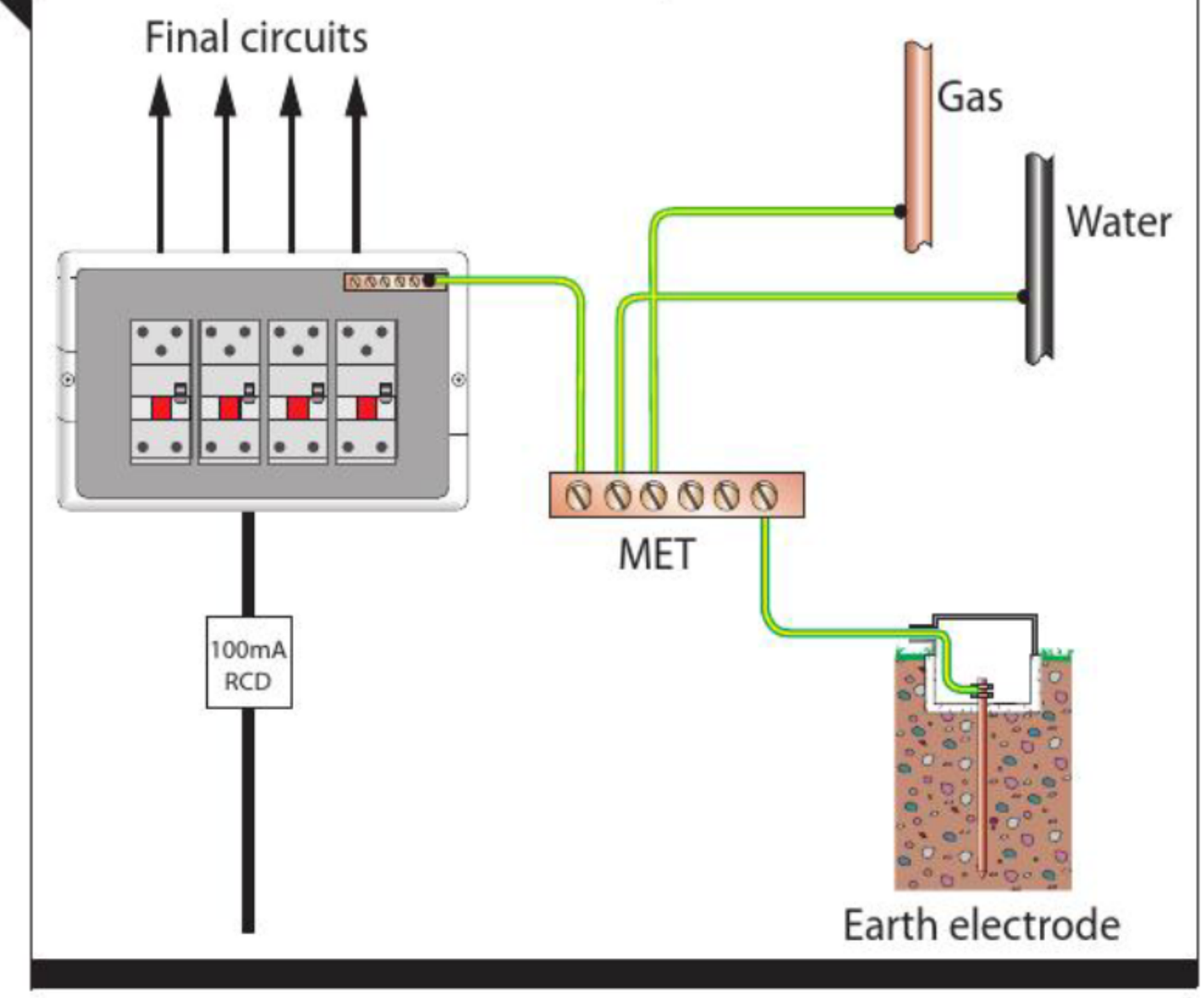
parts of the existing installation, than would be required for work carried out on an existing single circuit.

For these reasons, the Notes For Recipient, printed on the reverse of NICEIC and ELECSA minor works certificates (which are based on the notes contained in Appendix 6 of *BS 7671*) state that the certificate is not suitable for certifying the replacement of a consumer unit (or distribution board), for which an Electrical Installation Certificate or Domestic Electrical Installation Certificate, as appropriate, should be used.

Replacement of an RCD

Where an existing RCD needs to be replaced, for example, because of a failure of the test button, the replacement may be certified using a minor works certificate, but the requirements of Regulation 132.16 should be satisfied before the work is undertaken. For example, prior to the replacement of an RCD that is used for the purposes of providing fault protection for the final circuit(s) of an installation connected to a TT supply system, as shown in Fig 3, the condition and adequacy of the earth electrode, earthing conductor and protective bonding conductors should be verified as a minimum.

Fig 3 **100 mA RCD providing fault protection for existing final circuits**



Replacement of an accessory

While the minor works certificate may be used to certify the replacement of an accessory, for example a socket-outlet or a light fitting on a 'like-for-like' basis, such work generally falls under the category of maintenance work and so the client, such as a local authority, can choose to use their own documentation instead. However where this is the case, the safety declaration, installation details, and the inspection and test results recorded on the client's documentation should be no less comprehensive than that which would have been required on the minor works certificate, and a copy of the completed documentation should be retained by the contractor.

Where a minor works certificate is used to certify the replacement of accessories, a separate certificate is required for each circuit affected. Therefore, a single certificate may be used to certify the replacement of more than one accessory connected to the same circuit, but cannot be used to certify modifications carried out on different circuits.

Replacing protective bonding conductors

The installation or upgrading of main or supplementary protective bonding can be recorded on a minor works certificate, however, where protective bonding is carried out in more than one location, such as an outbuilding or garage detached from the main installation, a separate minor works certificate should be issued for each location.

Guidance on how to complete a Minor Works Certificate, and other forms of certificate or report, such as the Electrical Installation Certificate and Electrical Installation Condition Report, is given in the NICEIC and ELECSA publication: *Inspection, Testing and Certification* available from NICEIC Direct.

1 The term 'like-for-like' is used to indicate that the operating characteristics of the devices are the same.