

# Wired for Change

What you need to know about the new I.S.10101 regulations.

**:hager**



# Wired for Change

## Are you ready?

### Electrical installations NSAI Wiring Regulations I.S.10101

The new standard for the national rules regarding electrical installations came into force in February 2021. They replace the old Wiring Rules.

With the changes impacting on common areas such as RCD use, distribution boards and protection against transient overvoltages, electrical contractors should take the time to understand what is required to remain compliant now that I.S.10101 standards are mandatory.

Our **Wired for Change** bulletin highlights the key changes electricians need to know about.

### What you need to know

From 1<sup>st</sup> February 2021, all installations designed after this date must comply with the revised set of regulations set out as I.S.10101.

The new regulations follow a period of industry consultation. They are designed to further enhance safety and clarify issues concerned with the design, erection, and verification of all electrical installations, as well as additions and alterations to existing installations.

Existing applications installed in accordance with previous editions of the Wiring Rules may no longer comply with I.S.10101, but this does not necessarily mean that they are unsafe for continued use or require upgrading.



### Want to know more?

Download our regs guides from  
[hager.ie/regs](https://www.hager.ie/regs)

## What's changed?

The new I.S.10101 standard sees changes to five areas many contractors will typically encounter.

# 1

Distribution boards in domestic premises

# 2

Protection against transient overvoltages of atmospheric origin or due to switching

# 3

Residual current devices on lighting circuits in domestic premises

# 1

## Distribution boards in domestic premises

The new requirements state:

- Distribution boards shall comply with I.S. EN 61439-1 and to I.S. EN 61439-3 within domestic premises.
- Wall-mounted distribution boards now need to be mounted at a height **no greater** than 2.15m measured from the floor to the top surface of the highest protective device.
- In a household or similar installation, the main isolator must interrupt both live and neutral conductors of a single-phase supply.
- Where the enclosure for the main overcurrent device in the ESB Networks meter cabinet is fitted with Earth and Neutral terminals, the requirement for double pole isolation now also applies.



[The Hager promise: All Hager products will enable the installation to comply to the new I.S.10101 regulations.](#)



# 4

Selection of types of residual current devices (RCDs)

# 5

Protection against fire caused by electrical equipment



# 2

## Protection against transient overvoltages of atmospheric origin or due to switching

The new requirements state:

- Protection against transient overvoltage is now required where the consequence caused by overvoltage affects:



a) human life, e.g. safety services, medical care facilities;

b) public services and cultural heritage, e.g. loss of public services, IT centres, museums; commercial or industrial activity, e.g. hotels, banks, industries, commercial markets, farms. A large number of individuals, e.g. large buildings, offices, schools.

- In all other cases, a risk assessment is required to be performed.

- If a risk assessment is not undertaken, then protection against transient overvoltage is required.

- In the case of a single dwelling unit, assessment needs to be made whether the total value of the installation and equipment justifies the inclusion of such protection.

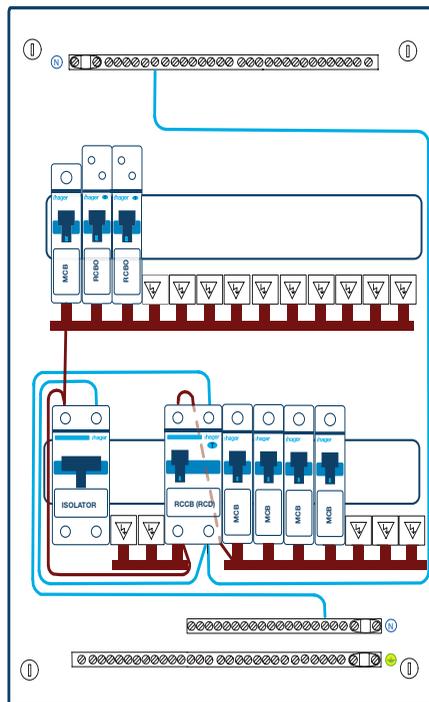
# 3

## Residual current devices on lighting circuits in domestic premises

The new requirements state:



- Additional protection with an RCD with a rated residual operating current not exceeding 30 mA should be provided for A.C. final circuits supplying luminaires in domestic premises.
- An overcurrent protective device rating of 6A for 1.5mm copper cable and 10A for 2.5mm cable should be used in lighting circuits.
- To meet this instruction, it is recommended to use a consumer unit with a 'dual RCBO' arrangement for lighting circuits.
- It is recommended that lighting and socket circuits should **not** be mixed on the same RCD.



# 4

## Selection of types of RCD

The new requirements state that the designer or installer is required to select the appropriate RCD device for a specific application from the following list:



- Type AC – detect AC residual currents – not recommended for new installations.
- Type A – general purpose use, including equipment incorporating electronic components.
- Type F – equipment with frequency-controlled speed drives.
- Type B – electric vehicle chargers, PV supplies.

# 5 Protection against fire caused by electrical equipment

I.S.10101 introduces a new kind of protection device – an Arc Fault Detection Device (AFDD).



It is designed to detect and disconnect dangerous electrical arcs in both fixed wiring and connected equipment which could be the source of a fire.

The fitting of an AFDD conforming to IEC 62606 is recommended to provide additional protection against fire caused by arc faults in AC final circuits.

The AFDD shall be placed at the origin of the circuit being protected, such as in sleeping premises, locations where stored materials are a fire risk, locations with combustible construction materials, and locations housing irreplaceable goods.



## Hager - Part of Your Team

Whether it is further guidance around the changes that came into force in February 2021, suggestions about how to complete installations compliantly, or bespoke product solutions such as customised Hager consumer units with specified modular devices, Hager is ready and waiting to help electrical contractors.

Convert to I.S.10101 with Hager as part of your team.

[Visit \*\*hager.ie/regs\*\*](https://www.hager.ie/regs)



**Hager Ltd.**

Unit M2  
Furry Park Industrial Estate  
Swords Road  
Santry  
Dublin D09 NY19  
Ireland

Tel: 0818 551502  
Fax: 0818 551503  
Technical Support: +353 1 5180844

**hager.ie**

**customer.service@hager.ie**

**technical.service@hager.ie**

 @HagerIreland

 @hagerireland