



# **WAGO Building Solutions**

**The backbone of modern buildings**



# WAGO Building Solutions

## To find out more:

**WAGO Building Solutions** is the future of building electrical installation. Off-site design and assembly together with on-site installation and commissioning of all cabling, connections, trunking, automation and lighting are rolled into a single integrated service, reducing site time by 50%, and overall wiring costs by 30%. No other UK supplier provides all of these services under one roof, allowing you to accelerate your project and maximise your savings.

Call **01788 568008**  
Email **ukprojects@wago.com**  
Visit **www.wago.com/gb**

## the process

### STEP 1 PLANNING

Send your drawings and specifications to the WAGO Building Solutions team, who will use its expertise to create detailed wiring diagrams, panel schedules, specification output and BOM, custom made for your project.

### STEP 2 ORDER AND DELIVERY

WAGO uses your specifications to pre-wire, test and assemble all cabling and trunking off-site at a dedicated facility in Rugby. It is then shipped in one pre-agreed delivery direct to site, ready for plug and play.

### STEP 3 INSTALLATION AND COMMISSIONING

Trunking arrives on-site pre-wired in modular sections. Pluggable connection speeds up installation, eliminates the possibility of wiring errors, and allows you to de-skill on-site, saving time and cost.

### STEP 4 AUTOMATE AND ACTIVATE

Cabling and trunking provides a building's backbone, while WAGO's building automation system provides the brains, helping to make your building greener, smarter and cheaper to run.



MODULAR

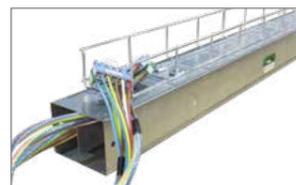
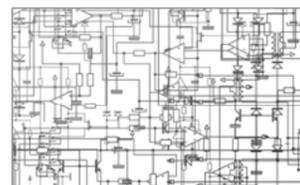
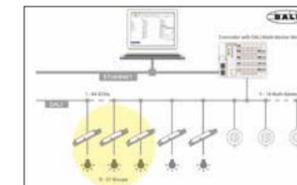
*“Everything under one roof”*

## the products



- **Wiring**
- **Trunking**
- **Automation**
- **Lighting & power**

**WAGO Building Solutions** is powered by four key WAGO product groups, and underpinned by market-leading expertise in interconnection, automation and electrical interface. Bringing each of these elements together into a single integrated package maximises the benefits, delivering advanced functionality while minimising time and cost.



STEP 1



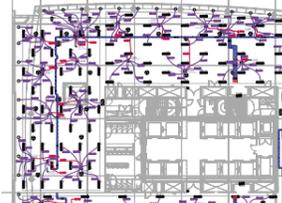
# STEP 1 PLANNING



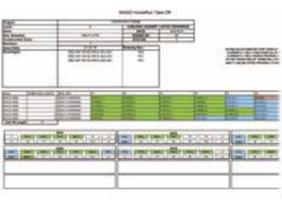
The earlier we are involved, the better we can understand your needs and help fulfil them, using decades of industry experience to optimise designs and avoid common pitfalls.



We can either work with existing drawings and diagrams at any stage of development, or help create new ones to your specifications.



Every cable length and connection is mapped out in detail using AutoCAD, leaving no room for errors or ambiguity. This ensures that only the materials necessary are despatched.



Then it's back to you. We talk you through the plans in depth, allowing you to review and make any necessary adjustments before the project is commenced.



**Your Benefits**

- Intensive work at the planning stage streamlines installation and commissioning stages later on, and encourages a clear and holistic design approach
- A detailed and accurate bill of specification means no overspend on materials, as well as less wastage and fewer deliveries to site
- WAGO's highly skilled team has decades of experience in delivering successful building projects
- Integrating advanced building automation capabilities from the outset, leads to less disruption and reworks later on
- The use of modular components means designs can be scaled up and scaled down with ease, future-proofing against subsequent design changes

## Technology spotlight: WINSTA® pluggable connection system



- Pre-wired pluggable connectors and electrical interfaces**
- Spring pressure mechanism makes connections tool-free to install, and free from maintenance for the life of the installation
  - 50% quicker to install compared to screw-type connections
  - Simplicity of installation improves on-site health and safety, e.g. less time working at height
  - Connections are immune to loosening over time due to e.g. vibration or heat cycling
  - Colour-coded and protected against mis-mating per IEC 61535 – deskills site installation while practically eliminating wiring errors, freeing up labour and saving time
  - Standard compliant: BS61535:2009/BS8488:2009+A1:2010/BS7671



# STEP 2 ORDER AND DELIVERY



Once signed off, WAGO will establish the required lead time and delivery date, and commence the off-site build stage.

Cabling and trunking is assembled in modular sections at WAGO's dedicated Rugby facility, ready to be plugged together upon delivery to site.

No component leaves the facility without being fully tested for quality and circuit integrity per ISO 9001.

Modules are individually labelled for ease of identification, and shipped on trolleys for easy offload and manoeuvring once on-site. Typically all modules are despatched via a single lorry delivery.



### Your Benefits

- WAGO's dedicated facility has all components in-house, meaning fast turnaround and no waiting for parts
- Shifting wiring pre-assembly off-site frees up resource and eases project flow on-site
- On-site wiring can be carried out within a shorter window with fewer trades and materials to manage
- The removal of site-based unknowns leads to greater time and cost certainty
- Fewer deliveries to site are required
  - One lorry delivering all components to site is equivalent to 38 white van deliveries, resulting in an 80% reduction of carbon footprint
- Only what is needed is delivered to site, resulting in up to 90% reduction of waste

## Technology spotlight:

### Bespoke steel trunking

#### Arterial modular wiring containment

- Typical size 150x75mm (6"x3"). Prewired in 300mm increments to fit most building applications. However, it can be manufactured to almost any size.
- Furnished with a proprietary wire basket sized to suit trunking profile for use by associated trades i.e. FA/BMS/SEC/IT
- Trunking is inverted and predominantly suspended by way of fire rated gripple, though it can be incorporated on modules or by means of trapeze brackets.
- Reduces the need to fix cables to the building fabric for greater flexibility, and safe, easy maintenance
- The system is designed in accordance with the following documents: BSEN 60439-1, BS8488 & BS7671
- Shipped in modular sections with wiring and connections contained, ready to install on-site
- If future modification is required, sections can be unplugged and replaced with minimum disruption.



STEP 3



# STEP 3 INSTALLATION AND COMMISSIONING

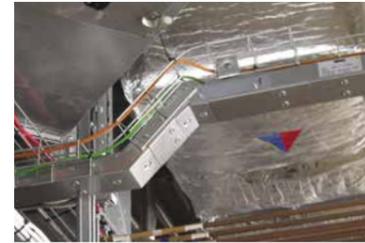


At this point the pre-wired trunking has been assembled in modular sections and tested. Once it arrives on-site it is immediately ready to be raised or lowered into place and fixed together. Connections can then be plugged together by site labourers. Connectors are typically protected against mis-mating, and cannot therefore be accidentally plugged into the wrong place. Labelling and colour-coding further streamline the installation process while reducing the possibility of errors.



Management of on-site activities can be streamlined with fewer trades and materials to manage

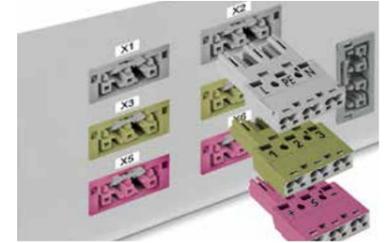
Electricians are still required on-site for standard compliance and final testing, but in far fewer numbers compared to a traditional installation, slashing site labour costs.



Installation can be largely carried out by site labourers, with electricians required only for BS 7671 compliance



97% of all WAGO Building Solutions projects are delivered on-time and on-budget



Modules and wiring are labelled and connectors are keyed to avoid mis-mating and virtually eliminate the possibility of errors



Site time is reduced by up to 50%, reducing costs while allowing greater concurrence of activities for faster project completion



Quality of workmanship is improved with a reduction in post-handover defects and reworks

## Technology spotlight: CAGE CLAMP® spring pressure connection

### Connection mechanism for all electrical wiring

- Spring pressure connection was first invented by WAGO in 1951, and later refined with the introduction of CAGE CLAMP
- Clamping mechanism applies optimum level of pressure to conductors, holding them in place without damaging them
- Industry standard around the world
- Incorporated into wide range of WAGO products
- Quicker, safer, and far superior technical performance compared to screws
- Immune to temperature cycling - common cause of screw connection faults
- Shock and vibration-proof – suitable for the most challenging conditions
- Free from maintenance



## STEP 4

# AUTOMATE AND ACTIVATE

### Integration

Planning with the involvement of system integrators at the design stage makes including automated building services a much more streamlined process. All wiring for electrical interface, power supply, distribution, data processing and control is already installed. This depth of integration enables an unrivalled level of communication across multiple protocols and systems.

### Maintenance and future-proofing

WAGO's I/O system supports remote monitoring and control, allowing integrators to offer comprehensive maintenance contracts without necessarily having to travel to site for each call-out. Sensor and equipment performance data can be analysed and optimised locally or via the cloud.

All I/O products incorporate WAGO's spring clamp technology making them free from maintenance.

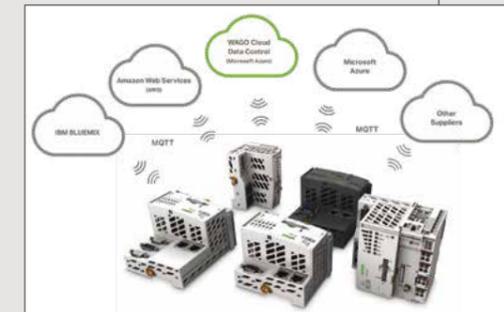
The modularity of the I/O, wiring and trunking means that further expansions and additional functionality can be easily accommodated, protecting the asset and long term investment of the client.

### Your Benefits

- **Activate your building, and bring it to life by using WAGO to harness the very latest building control technologies to make your project greener, smarter and future-proof**
- **Almost any aspect of the building can feasibly be controlled, e.g. HVAC, blinds, lighting, power supply, water heating, elevators and alarm systems, helping to reduce energy costs by up to 30%**
- **Incorporate advanced functionality from the design stage for seamless on-site integration**
- **Control panels can be built and programmed at WAGO's Rugby facility, or configured on-site by a system integrator**
- **WAGO's automation systems and data cabling support all commonly used fieldbus protocols for maximum compatibility with proprietary systems**

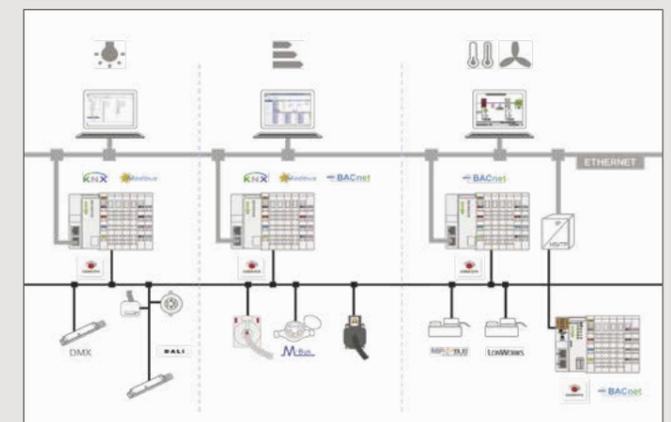
## Technology spotlight:

### WAGO-I/O-SYSTEM 750



### Fully modular I/O system

- Automate HVAC, lighting, power monitoring, blind control and more
- 400+ I/O modules to choose from for limitless scalability and versatility
- Major Ethernet Backbone protocols supported:- MODBUS/TCP/IP, BACnet and KNX.
- Modules can be quickly and easily installed and programmed
- Small footprint frees up enclosure space while also leaving room for expansion
- Communications modules for DALI, SMI, Modbus, MP-Bus, KNX and more
- Single controller solutions for integrated building controls
- Cloud connectivity enables complex data management
- Off-the-shelf packages are available for simplified automation of individual rooms and floors up to entire complexes



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