WAGO®
INNOVATIVE CONNECTIONS

Contents

The food and beverage sector may be the sector within the process industry that demands the most from technical equipment within production plants.

Increasingly complex tasks and requirements must be satisfied with a production process that is also flexible enough to meet surging demands and ever-changing consumer requirements.
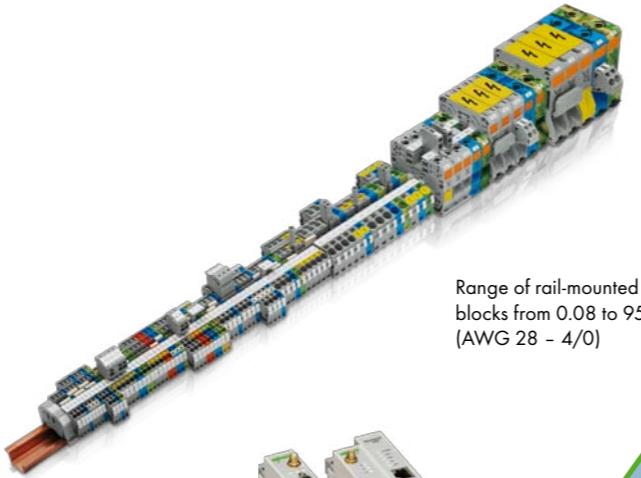
Range of rail-mounted terminal blocks from 0.08 to 95 mm^2 (AWG 28 – 4/0)

TO-PASS® Telecontrol Module and GPRS Modem

WAGO Process Automation

Excellent contact and resistance to vibrations for electrical connectivity is just as important as a finely modular, reliable system on the automation level.

A long life span and the absolute reliability of WAGO components bring both the greatest possible value and highest levels of production safety to plant operators.

WAGO is committed to bringing a comprehensive range of solutions that meet and exceed the requirements of the food processing industry.

Explosive environment – Reliability with CAGE CLAMP®

Daily, WAGO components equipped with CAGE CLAMP® Spring Pressure Connection Technology prove their value under the harshest conditions. Over the years, WAGO has developed an enviable safety record, including approvals for use in potentially explosive environments, an impressive array of robust components that readily withstand aggressive environments and safe, truly maintenance-free connections.

WAGO SPEEDWAY, IP67 Modular I/O System

WAGO-I/O-SYSTEM, IP20 Modular I/O System

JUMPFLEX® Transducers/Relay and Optocoupler Modules

WAGO-I/O-IPC

Monitors and Panels – PERSPECTO

Power Supplies

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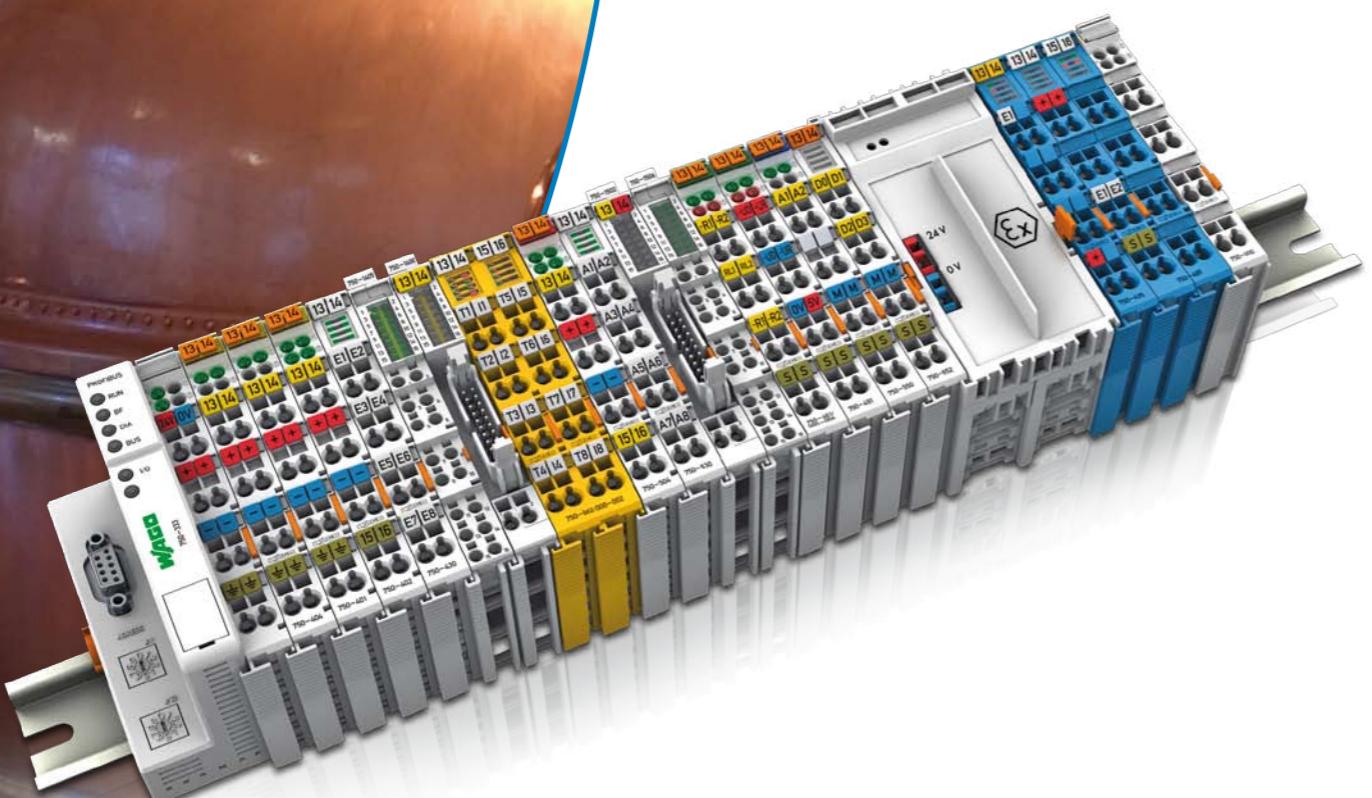
Universal, flexible and compact

Automating food and beverage production lines places great demands on sensors and actuator signal capturing. Harsh environments and hazardous areas also push component reliability to extremes.

Changing production processes must be implemented easily and inexpensively. The modular, scalable WAGO-I/O-SYSTEM meets these requirements and makes it easy for the plant operator to expand or adapt processes.

Something for every taste

Condition monitoring for agitator bearings, for example, can be easily and quickly retrofitted. Changing to condition-based maintenance is simple, ensuring production safety.

With more than 400 digital, analog and specialty modules, the WAGO-I/O-SYSTEM has the ideal solution for typical food processing needs such as weighing, power measurement and much more.
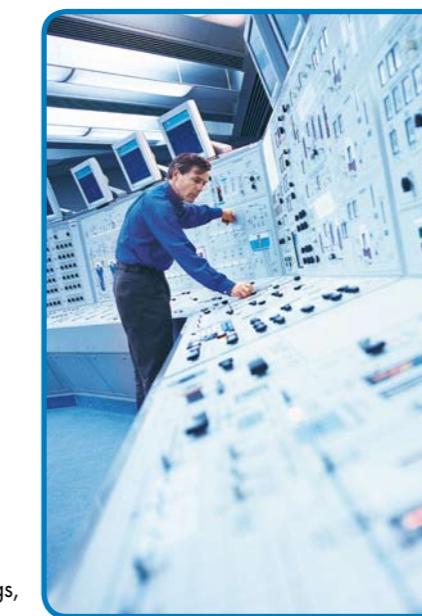
The most compact, modular and fieldbus-independent I/O system for decentralized automation.

Fine modularity and a fieldbus-independent design are hallmarks of the WAGO-I/O-SYSTEM, which boasts worldwide approvals for a diverse range of applications. During development, great care was taken to ensure the system could account for all the requirements placed on decentralized fieldbus systems.

Optimized for process-oriented communication, the WAGO-I/O-SYSTEM offers high integration density with an unbeatable price/performance ratio.

Advantages for food/beverage production and packaging:

• Modular construction: Digital, analog and specialty modules can be combined in virtually any manner within a node, including outputs with different capacities up to 230 V.

• Freely programmable: Comprehensive programming possibilities in compliance with IEC 61131-3.

• Supports all common fieldbus systems: telecontrol protocol, PROFIBUS, PROFINET, ETHERNET, etc.

• Safety approvals

• Easy integration of specialty functions, such as safety modules, Ex i, vibration analysis and motor controls.

• Leading radio technology, e.g., *TO-PASS*®, *Bluetooth*® and EnOcean
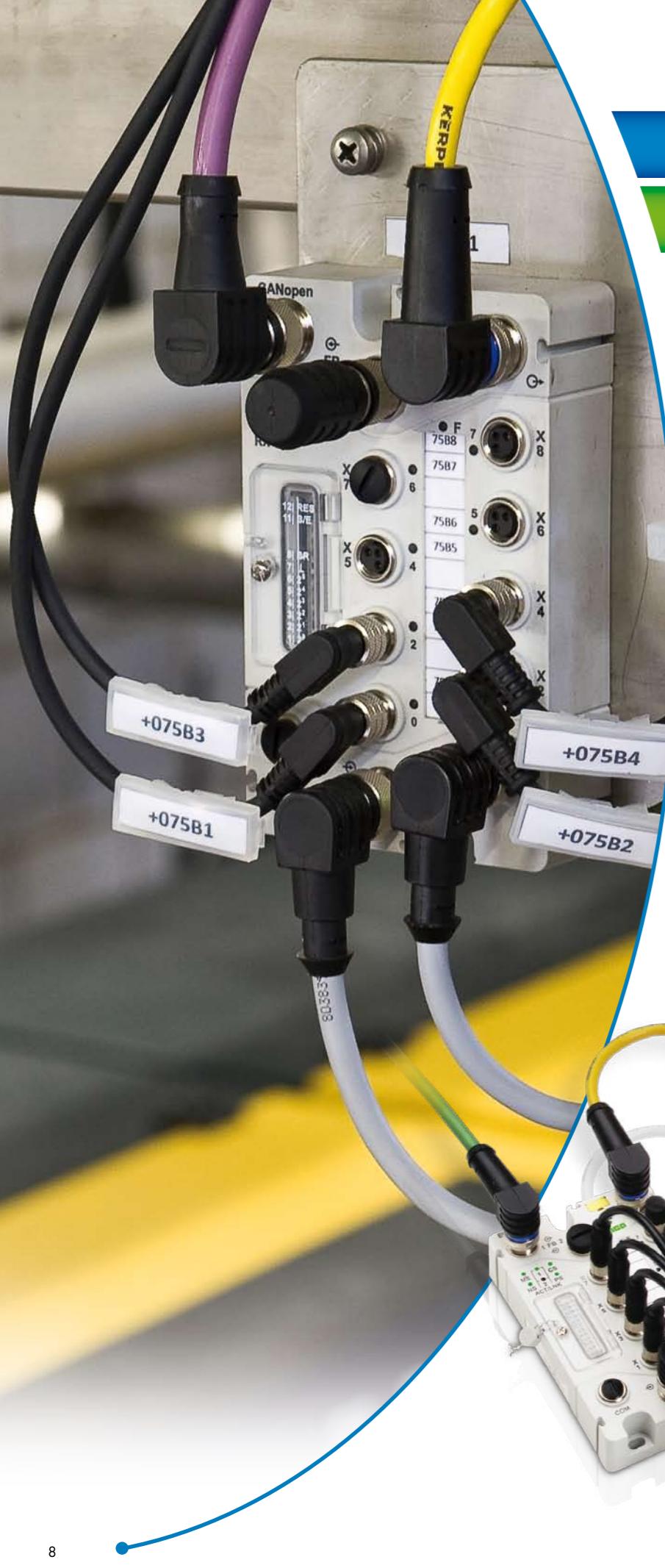
WAGO SPEEDWAY 767

Traditional food production systems are subject to highly regulated conditions. They must be easy to clean and installed components must be accommodated and protected within an appropriate cabinet or enclosure.

Not so with WAGO SPEEDWAY 767, the automation solution from WAGO with IP67-grade protection. Thanks to its fully encapsulated design and an extended temperature range, SPEEDWAY is immune to oil, grease, dust, dirt and washdowns. Similarly, secure connections for sensors and actuators, as well as signal processing within the PLC, have been streamlined to minimize installation time and materials.

The new performance standard in cabinet-free automation.

Perfection - in every detail:

- Modular design
- High-performance data transfer
- Programmable acc. to CoDeSys 3 (IEC 61131-3)
- Configuration via GSD, GSDML, EDS and/or FDT/ DTM
- Asynchronous and synchronous diagnostics
- Fieldbus-independent
- USB interface
- Excellent EMC protection
- Efficient power supply
- Temperature range from −25°C to +60°C
- IP67 degree of protection, fully encapsulated
- Screw and DIN-rail mount options
- Ergonomic design

Always Informed

TO-PASS® Telecontrol Solutions

Stay informed, stay in control

Several values must be monitored during food processing and production levels in solid or liquid containers, temperatures, pressure, flow rate, etc. When problems arise, fault messages, alarms and notifications must be transmitted quickly and securely. Complicating this is the fact that food processing often occurs in 24-hour shifts for maximum efficiency. Recognizing this, WAGO has a solution for every application – so maintenance is always informed and production is always efficient.

WAGO-TO-PASS® transmits measured values via GSM network to keep operators updated. This can ensure the success of critical applications, such as keeping a finished shipment within full cold chain compliance during transport.

With the ability to store measured values on any Web server, plant operators can have access to data from nearly anywhere in the world and actively intervene in the process remotely.
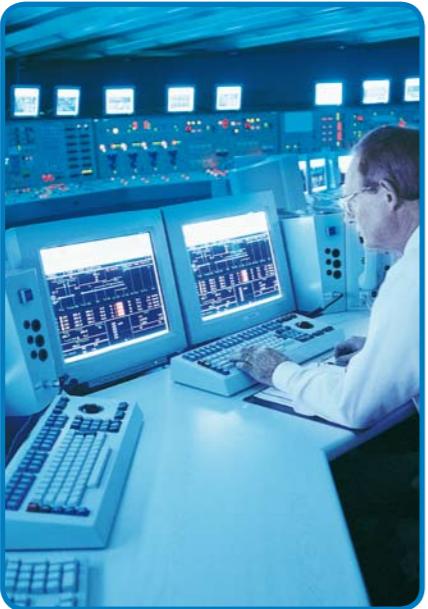
From fault detector to intelligent telecontrol PLC.

- A seamless telecontrol solution consisting of stand-alone fault detectors with GSM connection, optional IP66 protection and a telecontrol PLC that links to the WAGO-I/O-SYSTEM.
- Transmission based on international IEC 60870-5-101/104 telecontrol protocol standard.
- Use of GSM (GPRS, CSD, SMS) mobile radio network.
- Open system with user-selected Internet server
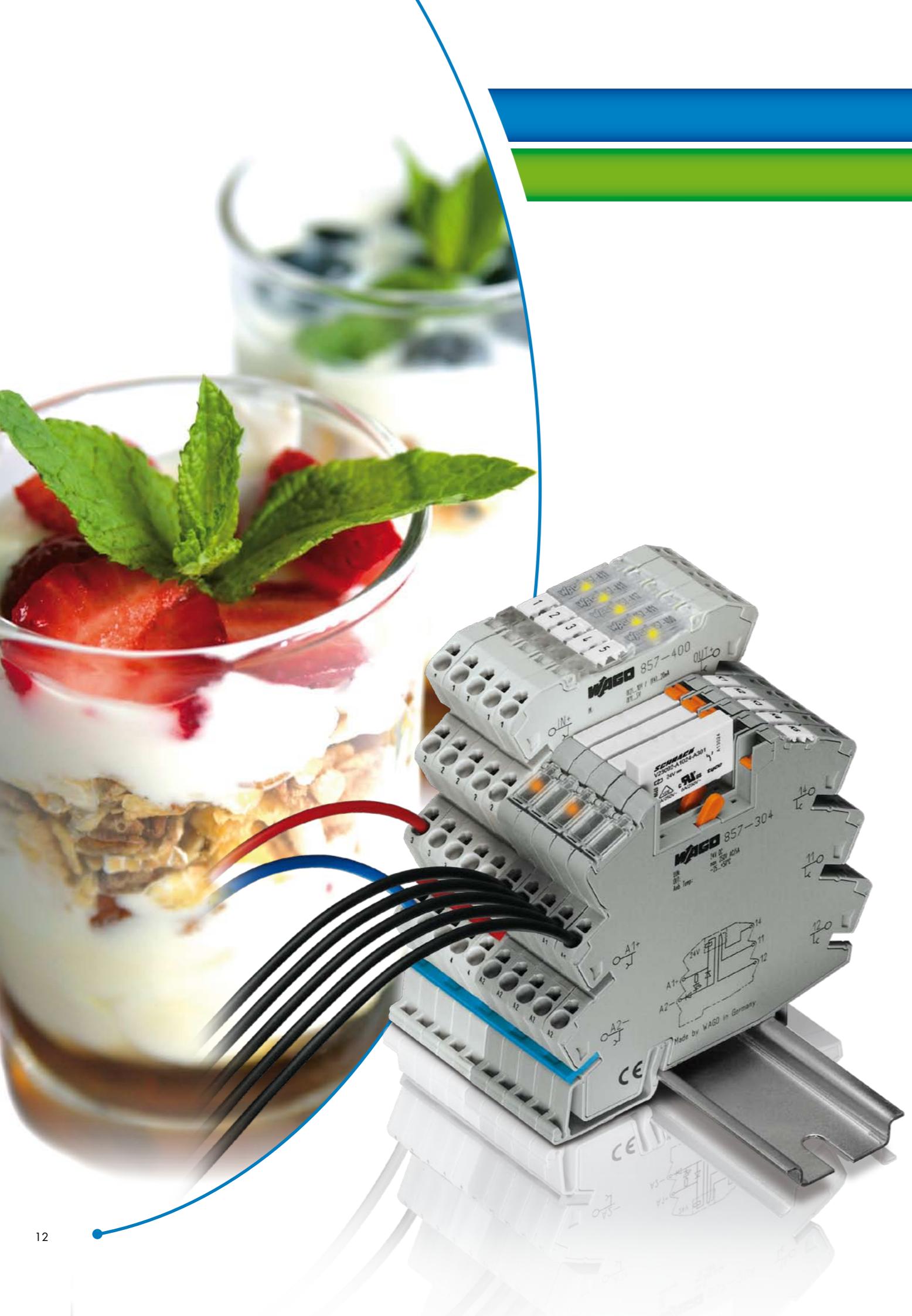
In food production, a wide variety of data must be permanently captured, adapted, transformed and transmitted. Safe and reliable signal conversion/processing is of critical to product quality, especially in the production of sensitive products such as food.

At the heart of every recipe

JUMPFLEX® easily and securely processes signals received from the field. The transducers are the perfect ingredient for food processing.

JUMPFLEX® readily handles challenges such as ambient temperatures ranging from an icy -25°C to a scorching +70°C, and thanks to a compact housing of just 6 mm/0.23 in, nothing stands in the way of decentralized installations.

For extreme temperatures

Greater application range due to extended temperature range of -25°C to +70°C.

Industry's most compact

"True" 6.0 mm/0.23 in width maximizes panel space.

Flexibility at its finest

Configuration via DIP switch. Transducers can also be configured via software (FDT/DTM).

Highest safety

All devices provide "safe isolation" with 2.5 kV test voltage to EN 61140.

Instantly correct

No recalibration is necessary after switching between measuring ranges.

Transducers:

- Millivolt transducer
- Threshold value switch
- Temperature transducers for RTDs
- Temperature transducers for thermocouples
- Isolation amplifiers, software configurable
- Passive isolator
- Repeater power supply
- Signal splitter
- Bipolar isolation amplifier

Relay and optocoupler modules:

- DC relay modules
- DC relay modules with gold contacts
- Optocouplers
- AC/DC relay modules
- AC/DC relay modules with gold contacts

TOPJOB®S Rail-Mounted Terminal Blocks

Food-production plants are often characterized by harsh environments, which are highly demanding on electrical connections. In addition to fast installation, WAGO meets these challenges with a stable, vibration-resistant contact. Products are engineered to always perform in these conditions - even when faced with extreme temperature cycling.

When unreliable would be inexcusable

Before food reaches the consumer, it must pass numerous checks.

Such is also the case for WAGO rail-mounted terminal blocks. Plant managers cannot afford production outages or intensive maintenance due to unreliable electrical connections.

Our experience, your benefit: As the pioneer and leader with the broadest array of screwless connection solutions, we have the right rail-mount terminal blocks to take food production from good to great.

The range of rail-mounted terminal blocks. Simply brilliant.

With just one range of rail-mounted terminal blocks, WAGO can fulfills virtually all industrial, Ex application and building installation needs. Thanks to CAGE CLAMP®S technology, the TOPJOB®S DIN-rail mounted terminal blocks are the industry's most compact. Their design can save up to 30% more space over other terminal blocks — ideal for space-restricted applications such as switch cabinets or junction boxes.

CAGE CLAMP®S provides tool-free terminations for all conductor types. Other benefits:

- Extremely compact design for more wiring space or smaller switch cabinets/terminal boxes
- Robust, spring-loaded jumper system for full nominal current
- Highly reliable terminations
- Cost-effective marking system
- Ex approvals are standard
- POWER CAGE CLAMP® terminal blocks also provide screwless termination of conductors up to 4/0 AWG (95 mm²)
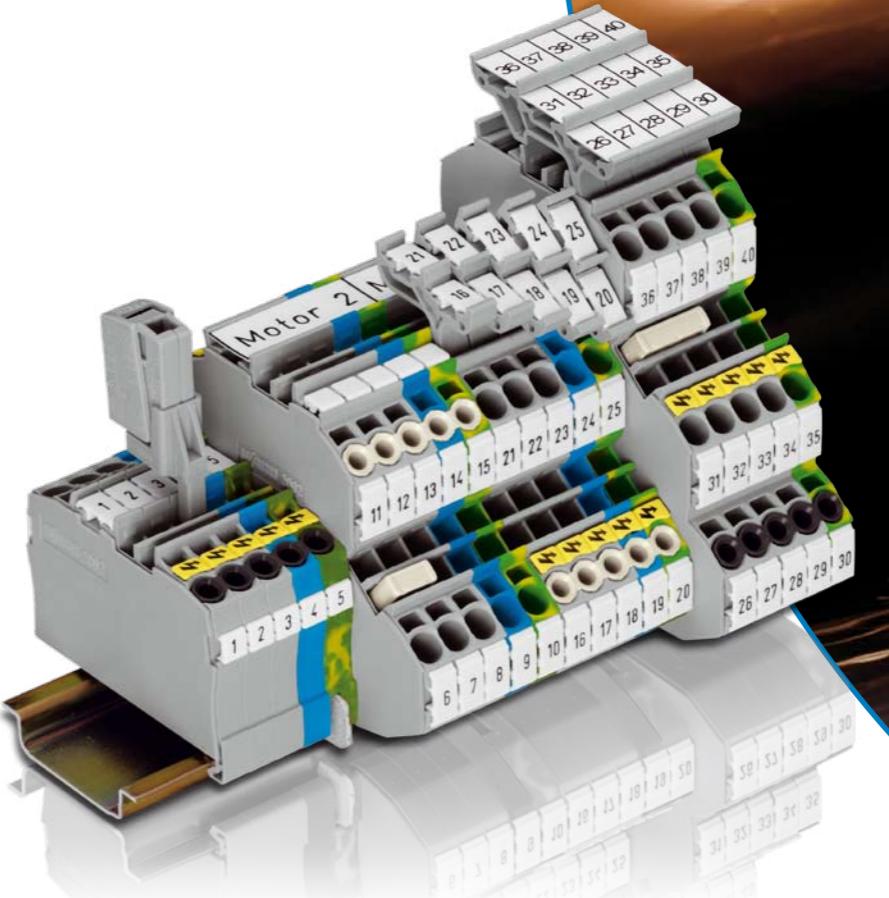
Expertise in:

- PLC programming
- Fieldbus applications
- Measurement value processing
- Telemetry
- Ex applications

Project Support

From The Very Beginning...

Advice

- Planning support
- Component selection
- Assistance in preparing your bid

We will assist you with:

- Product documentation
- Manuals
- Application notes
- Component libraries

WAGO Product Information

All WAGO products featured in this brochure are in the following WAGO Full Line Catalogs:

Volume 1
Rail-Mounted Terminal Block Systems

• Rail-Mounted Terminal Blocks
• Modular Connectors (X-COM®-SYSTEM)
• Terminal Strips
• Patchboard Systems
• Shield (Screen) Connecting System
• PUSH WIRE® Connectors for Junction Boxes

Volume 2
Connectors and PCB Terminal Blocks

• PCB Terminal Blocks
• Feedthrough Terminal Blocks
• *MULTI CONNECTION SYSTEM*
• PCB Connectors
• Connectors for Special Applications

Volume 3
I/O-SYSTEM

• IP20 Modular I/O-SYSTEM
• Radio Technology, *TO-PASS®* Telecontrol Technology
• Industrial Switches, *PERSPECTO®*, Monitors and Panels
• IP67 Modular I/O-SYSTEM, IP67 Block I/O-SYSTEM
• IP67 Sensor/Actuator Boxes, IP67 Cables and Connectors
• Power Supplies

Volume 4
Interface Modules

• Relays – Optocoulers – Special Functions
• Interface Modules
• Transducers
• Power Supplies
• Overvoltage Protection
• Radio Technology
• Empty Housings and DIN-Rail Mounting Carriers

Volume 5
WINSTA® Connection System

• *WINSTA®* MINI Connectors
• *WINSTA®* MIDI Connectors
• *WINSTA®* MAXI Connectors
• *WINSTA®* RD Cable Assemblies
• *WINSTA®* KNX Connectors
• *WINSTA®* IDC Flat Cables

www.wago.com/epa

To get a quick product overview, please use the Internet industry portal or the online catalog.
Have an acquired taste? We will gladly answer your questions at **food@wago.com.**

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