

Your Global Automation Partner

TURCK

The Full Range for Fieldbus Technology



TURCK

Turck is a global leader in automation technology. Over 4,800 employees in 30 countries strive to deliver the best sensor, connectivity, and fieldbus technology products on the market. To do this more efficiently, we have strategically located production facilities across the globe, including sites in the United States, Germany, Switzerland, Mexico, and China. This allows us to adapt to specific market conditions, as well as bring product to the market faster.

Turck strives to provide our customers with not only the best products on the market, but also the best service and support. Our highly trained engineering staff is available to walk you through your system requirements and help find solutions to difficult application problems. Unlike other companies, when you call Turck, you will always be able to speak directly with an engineer in a matter of minutes! Combine this with a network of 2,000 experts across the United States, and you literally have the finest assembly of automation professionals at your doorstep.



Fieldbus Technology

Turck provides a complete line of distributed I/O products and technologies for most common industrial fieldbus protocols, including modular and block systems, with in-cabinet and on-machine I/O, decentralized control with programmable systems conforming to IEC 61131, and innovative technologies like RFID. All platforms provide the ability to reduce time and costs during a project's planning, installation, commissioning, and operation phases.

Turck's modular I/O systems, the BL20 and BL67, provide a high degree of flexibility to varying types of applications. BL20 terminal-wired, in-cabinet I/O systems offer flexible gateway options in a variety of fieldbus protocols, decentralized control/programmability via Codesys, an IEC 61131-3 programming software, and the ability to integrate motor starters. BL67 combines all of the flexibility of an in-the-cabinet module I/O system with ruggedness and connectorization. Both BL families support Turck's BL Ident® RFID system.

Turck's block I/O solutions include the BL Compact™ and rugged advanced I/O module (AIM) stations. These distributed I/O stations are capable of providing a wide variety of I/O signals, such as digital/discrete, analog, temperature, counter, RS485, RS232, SSI inputs, IO-Link, and RFID, in a wide range of network protocols.

Applications

The array of applications where Turck products are used is as extensive as the markets where they are applied.

Distributed Control

Turck products can be programmed with Codesys software to create independent or distributed control architectures using gateways with integrated subnet capabilities. Turck is once again changing the industrial communication landscape with its newest innovation, ARGEE, which allows users to enjoy PLC logic and control inside of their distributed I/O. This effectively turns simple distributed I/O devices into fieldbus logic controllers and gives customers unparalleled flexibility and control.

Industrial Ethernet

Turck provides a complete line of Industrial Ethernet products, including on-machine, in-cabinet, block, modular I/O, and our recent innovation: the Multiprotocol Industrial Ethernet concept. Turck's multiprotocol products seamlessly self-configure between EtherNet/IP™, PROFINET® and Modbus TCP™. Multiprotocol technology makes transitioning between protocols easy, and implementing a fieldbus simple from the first plug-in.

RFID – BL Ident

RFID solutions for ISO 15693 – HF 13.56 MHz and ISO 18000-6C EPC Global Gen2 UHF 900 MHz. Turck offers block and modular I/O solutions available for IP20, IP67 and IP68/69K. BL Ident is available for the most common protocols including Ethernet, PROFIBUS®, DeviceNet™ and CANopen. BL Ident offers the ability to read or write to multiple RFID channels in a single fieldbus gateway/node. BL Ident also offers the ability to combine RFID with other types of I/O (inputs and outputs) for a truly flexible solution.

Harsh Environments

Turck products have some of the highest tolerances to environmental extremes on the market. Block I/O products are rated from -40 °C to 70 °C and are protected up to IP69K. These parts are able to withstand the spraying, cleaning and humid or moist environments often found in food and beverage applications.



In-Cabinet I/O

Modular

BL20 – Economical and expandable I/O for in-cabinet applications

Gateways

- Available for Multiprotocol Ethernet, PROFIBUS®, DeviceNet™, CANopen, EtherCAT®, Modbus® RTU, and PROFINET® IRT
- Switches for device addressing

I/O Modules

- Removable under power (standard modules)
- Spring and screw terminal bases
- Digital and analog inputs/outputs
- Specialty cards available (serial, RFID, IO-Link, counter, etc.)
- Motor starter card can host direct and reversing starters
- Up to 72 I/O cards per system



Block

Compact I/O for in-cabinet applications

Multiprotocol Ethernet

- Available with up to 16 channels of I/O
- IP20 rated for DIN-rail mounting
- Built-in Ethernet switch for linear topologies
- Digital I/O and IO-Link master devices

DeviceNet™ Stations

- Available with up to 32 channels of I/O
- IP20 rated for DIN-rail mounting

PROFIBUS® Stations

- Available with up to 16 channels of I/O
- IP20 rated for DIN-rail mounting

AS-Interface® Stations

- Available with up to 8 channels of I/O
- IP20 rated for DIN-rail mounting
- Version 3.0 compatible, 62 modules with 4 inputs/4 outputs each



On-Machine I/O

Modular

BL67 – Flexible and rugged option for out of the cabinet applications



Gateways

- Available for Multiprotocol Ethernet, PROFIBUS®, DeviceNet™, and CANopen
- Quick-disconnect for simple and efficient wiring
- Rotary switches for device addressing

I/O Modules

- Up to 16 I/O channels per module
- Removable under power
- M8, M12, M23, and 7/8 16UN connector options
- Digital and analog inputs/outputs
- Specialty cards available (serial, RFID, IO-Link, counter, etc.)
- Up to 32 I/O cards per system

Block

AIM Stations – Compact I/O for harsh environments

Multiprotocol Ethernet Stations

- Available with up to 16 channels of I/O
- Per point diagnostics
- I/O Supported: Digital, Analog, RFID and IO-Link

DeviceNet™, PROFIBUS®-DP, and CANopen Stations

- Available with up to 16 channels of I/O
- Per point diagnostics



BL Compact® – Flexible, compact I/O for harsh environments

Protocols Supported

- Multiprotocol Ethernet
- EtherCAT®
- DeviceNet™, PROFIBUS®- DP, and CANopen

Configurable I/O

- Multiple signal types can be combined into a single block (BL compact)
- Full line of analog I/O (current, voltage, and temperature)
- Digital I/O
- RFID
- IO-Link



Advanced Programmable Systems

CODESYS

- IEC 61131-3 based programming software (CODESYS V3)
- Programmable in Ladder (LD), Structured Text (ST), CFC, FBD, SFC and IL languages
- Download programming software for free at www.turck.us
- Variety of platforms suitable for unique applications:



Modular I/O Systems

- Programmable gateways for BL20 and BL67
- Local or distributed control for backplane I/O
- Configurable as a PROFINET, Modbus TCP, or Ethernet/IP remote I/O; and Modbus TCP client/master

TX Series - HMI/PLC

- HMI panel with integrated PLC functionality
- 4, 7, 10, 13, 15 and 21 inch TFT displays
- Configurable as a scanner for PROFINET, Modbus TCP, or Ethernet/IP; and Modbus TCP field device
- Available onboard I/O modules



TBEN Block PLC

- IP65/IP67/IP69k protection
- Configurable as a scanner or field device for PROFINET, Modbus TCP, Ethernet/IP, and CANopen
- Onboard digital and serial I/O



RFID

BL Ident® – Maximum freedom and highest flexibility offered by an RFID system

Interfaces

- ISO 15693 – HF 13.56 MHz; ISO 18000-6C EPC Global Gen2 - UHF 900 MHz
- IP20, IP67, and IP68/69K protection ratings
- Available for most common fieldbus protocols
- Stand alone control with programmable gateways
- Multiple RFID channels available in a single solution
- Ability to integrate RFID with other I/O

Transceivers

- Robust industrial design based on field-proven housings
- Fully encapsulated design for IP67, IP68 and IP69K environments
- Several HF options available for flexible read/write ranges, mounting configurations, and environments
- Shielded serial communication to the fieldbus level allows for remote mounting up to 50 m
- Compact UHF transceivers for long-range applications

Tags

- Housing sizes as small as 7.5 mm
- Economical EEPROM tags for unlimited read applications
- FRAM tags for high-speed transmission and nearly unlimited write applications
- High temperature, –40 to +300 °C
- Direct mounting on metal
- Customer specific solutions based on open and international standards (ISO 15693 and ISO 18000 - 6C)



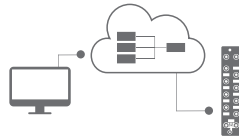
Handhelds

- HF & UHF options
- WLAN, barcode, and Bluetooth capability
- Free software for reading and writing data
- Customized software solutions on request

Field Logic Controller

ARGEE

- Web based programming environment
- Standard in Turck Multiprotocol block I/O devices
- No PLC needed to perform local logic
- Powerful enabler for distributed control architectures



Safety Solutions

- Available for PROFI-safe (PROFINET) and CIP Safety (Ethernet/IP)
- Capable of local safety control without a Safety PLC
- Flexible 'Hybrid' combination of safety and general purpose I/O with:
 - 2 redundant safety inputs
 - 2 redundant configurable safety inputs/outputs
 - 4 general purpose inputs/outputs
 - 2 IO-Link master ports
- Full safety option with:
 - 4 safety inputs
 - 4 safety inputs/outputs



Accessories

I/O-Assistant/PACTware®

- FDT/DTM based technology
- Tool for engineering, configuring, commissioning and diagnosing
- Download for free at www.turck.us
- Advanced webserver - Ethernet products include embedded webserver for diagnostics and configuration



Passive Junction Boxes

- Available for FOUNDATION™ fieldbus, PROFIBUS®-PA, DeviceNet™, and AS-Interface®
- FM and ATEX approved for hazardous locations
- IP20 and IP67 options available



Active Junction Boxes

Repeaters

- Available for DeviceNet™, PROFIBUS®-DP, and AS-Interface®
- IP20 and IP67 versions for in-cabinet or on-machine mounting



Ethernet Switches

- IP20 featuring 5 and 8 ports
- IP67 featuring 5 and 9 ports
- Managed and unmanaged versions available

Power Supplies

- 12/24 VDC outputs from 2 to 20 Amps
- 120 VAC up to 480 VAC input options
- IP20 and IP67 options available



Cables

Cables and Connectors for All Major Protocols


- Ethernet – RJ45, M8, 4 and 8-pin M12
- DeviceNet™
- FOUNDATION™ fieldbus
- PROFIBUS®-PA
- PROFIBUS®-DP
- AS-Interface®



Cables and Connectors for All I/O Devices

- Digital, analog, RFID, and specialty I/O devices

TURCK



30 subsidiaries and over
60 representations worldwide!

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