



TURCK
works.

DISTRIBUTED I/O MODULES



IN-CABINET I/O

ON-MACHINE I/O

RFID

SAFETY I/O

SOFTWARE

JUNCTION BOXES

CORDSETS

POWER SUPPLIES

....Sense It!....Connect It!....Bus It!....Solve It!

www.turck.us

TURCK

TURCK is a global leader in industrial automation technology. Over 2,500 employees in 25 countries strive to deliver the best sensor, connectivity, network and interface products on the market. To do this more efficiently, TURCK production facilities are strategically located across the globe, including sites in the United States, Germany, Switzerland, Mexico and China. This also helps TURCK adapt to specific market conditions, as well as bringing 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 industrial automation professionals at your doorstep.



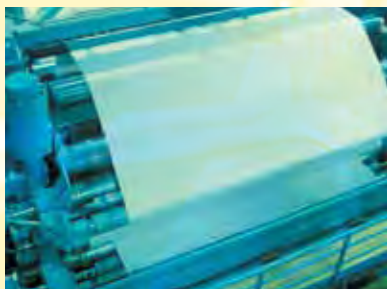
DISTRIBUTED I/O

TURCK provides a complete line of distributed I/O products for every fieldbus protocol including modular and block I/O systems, in-cabinet and on-machine I/O, decentralized intelligence with programmable systems conforming to IEC 61131, or innovative technologies, like RFID.

TURCK's distributed I/O products provide a variety of configurations to suit individual application needs. 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, such as the **BL20** and **BL67**, provide a high degree of flexibility to varying types of applications. **BL20** terminal-wired, in-cabinet I/O systems include 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 I/O system with modularity, 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, and SSI inputs, as well as RFID capabilities, 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 distributed control architectures using gateways with integrated subnet capabilities.

Ethernet

TURCK's products offer Ethernet solutions where I/O connects directly or indirectly to Ethernet. Indirect Ethernet gives you the ability to expand the amount of I/O per station with subnet capabilities. TURCK's subnet is self-configuring and offers a seamless transition to the Ethernet layer because the I/O process data is presented as standard Ethernet I/O.

RFID – *BL ident*

RFID solutions for ISO 15693 – HF 13.56 Mhz and EPC Global Gen2 900 Mhz. We have block and modular I/O solutions available for IP20, IP67 and IP68/69K. ***BL ident*** is available for all of the popular networks including Ethernet, PROFIBUS®, DeviceNet™ and CANopen. We offer stand alone control with programmable gateways and the ability to read or write multiple RFID channels available in a single solution. We also offer the ability to integrate RFID with other types of inputs and outputs.

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.



THE FU

IN-CABINET I/O

MODULAR

BL20 – economical and expandable I/O for in the panel applications with the potential of up to 74 I/O cards per node

Gateways:

- Provides the communication between the network (fieldbus) and the I/O modules
- Available in non-programmable versions for all of the popular networks including Ethernet, PROFIBUS®, DeviceNet™ and CANopen
- Gateways available in Economy and Standard versions
- Addressing can be done via rotary or dip switches in addition to software options

Programmable Gateways:

- Gateway with programmable features for local or distributed control
- Programmed with CoDeSys IEC 61131-3 software
- Available with subnet capabilities

I/O modules:

- Available in 1 to 32 channel options
- Removable under power
- Diagnostics available
- Spring and screw terminal bases
- Digital and Analog inputs/outputs available
- Specialty cards available (Serial, RFID, Counter, etc...)
- Motor starter card can host direct and reversing starters



BLOCK

Compact I/O for in-cabinet applications

DeviceNet™ stations:

- Available with up to 32 channels of I/O
- IP20 rated for DIN-rail mounting
- Universal I/O option – each channel can be an input or output

PROFIBUS® stations:

- Available with up to 16 channels of I/O
- IP20 rated for DIN-rail mounting
- Universal I/O option – each channel can be an input or output

AS-interface® stations:

- Available with up to 8 channels of I/O
- IP20 rated for DIN-rail mounting
- V3.0 compatible, 62 modules with 4 in/4 out each



ALL RANGE FOR

ON-MACHINE I/O

MODULAR

BL67® – flexible and rugged option for out of the cabinet applications with the potential of up to 32 I/O cards per node.

Gateways:

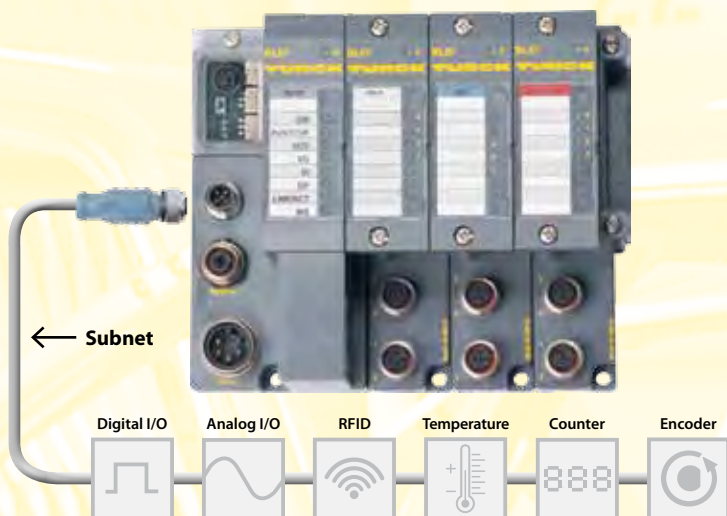
- Provides the communication between the network (fieldbus) and the I/O modules
- Available in non-programmable versions for all of the popular networks including Ethernet, Profibus®, DeviceNet™ and CANopen
- Provides connectorization for fast and efficient wiring
- Addressing done via rotary switches in addition to software options

Programmable Gateways:

- Gateway with programmable features for local or distributed control
- Programmed with CoDeSys IEC 61131-3 software
- Available with subnet capabilities

I/O modules:

- Available in 1 to 16 channel options
- Removable under power
- Diagnostics available
- M8, M12, M23 and 7/8 16UN connector options available
- Digital and analog inputs/outputs available
- Specialty cards available (Serial, RFID, Counter, etc...)



BLOCK

AIM stations – compact I/O for harsh environments

Ethernet stations:

- Available with up to 16 channels of I/O
- Universal I/O option – each channel can be an input or output
- Per point diagnostics available
- Available with subnet capabilities

DeviceNet™ stations:

- Available with up to 16 channels of I/O
- Universal I/O option – each channel can be an input or output
- Per point diagnostics available

PROFIBUS®-DP stations:

- Available with up to 32 channels of I/O
- Universal I/O option – each channel can be an input or output
- Per port diagnostics available



BL compact® – flexible, compact I/O for harsh environments

Protocols Supported:

- EtherNet/IP™ and ModbusTCP
- DeviceNet™, PROFIBUS®-DP and CANopen

Configurable I/O

- Digital I/O
- Full line of analog I/O (current, voltage and temperature)
- RFID
- Signal types can be easily combined for custom modules



R DISTRIBUTED

RFID

BL ident® – maximum freedom and highest flexibility offered by a RFID system

Controllers:

- ISO 15693 – HF 13.56 Mhz;
EPC Global Gen2 900 Mhz
- IP20, IP67 and IP68/69K protection ratings
- Available for all of the popular networks including Ethernet, PROFIBUS®, DeviceNet™ and CANopen
- Stand alone control with programmable gateways
- Multiple RFID channels available in a single solution
- Ability to integrate RFID with other types of inputs and outputs

Transceivers:

- Robust industrial design available in a variety of sizes and package styles
- Ability to read tags on the fly up to 10 meters per second
- Read/write distances up to 5 meters

Tags:

- Available in FRAM and EPROM options
- Data size up to 8K
- Direct mounting on metal
- Custom tag designs available

Handhelds:

- PD-IDENT – Windows CE industrial handheld with WLAN 802.11 and Bluetooth capability
- PDA-IDENT – Windows Mobile version for light industrial applications



SAFETY I/O

AS-interface® Safety at Work

Integrated Gateway and Safety Monitors:

- AS-i Gateway and Safety Monitor in one module
- Supports EtherNet/IP™, Modbus TCP, EtherCAT, PROFINET, and PROFIBUS®
- Up to 16 independent release circuits
- Easy to use software to replace labor intensive wiring
- EDM inputs and safety outputs included



Safety Monitors:

- Can be added to existing AS-i systems
- Standalone safety controller
- Up to 16 independent release circuits
- Easy to use software to replace labor intensive wiring
- EDM inputs and safety outputs included



Safety Inputs:

- IP20 and IP67 modules
- Powered from AS-i network
- IP67 modules use round or flat cables
- IP67 modules handle optoelectronic and floating contact devices



Safety Outputs:

- Safe Outputs done remotely
- Multiple safe outputs can use same address with AB addressing for individual diagnostics
- Powered from AS-i network



ACCESSORIES

SOFTWARE

IOAssistant/PACTWARE:

- FDT/DTM based technology
- For engineering, configuring, commissioning and diagnosing
- Download for free at www.turck.us



CoDeSys:

- IEC 61131-3 based programming software
- Allows programming in Ladder, Structured List, Flow Chart, Sequential Function and Statement List
- Download for free at www.turck.us



PASSIVE JUNCTION BOXES

JRBS – multiport tees for in-cabinet mounting:

- Available for FOUNDATION™ fieldbus, PROFIBUS®-PA, DeviceNet™ and AS-interface®
- FM and ATEX approved for hazardous locations
- IP20 rated for DIN-rail mounting



JBBS – multiport tees for outdoor mounting:

- Available for FOUNDATION™ fieldbus, PROFIBUS®-PA, DeviceNet™ and AS-interface®
- FM and ATEX approved for hazardous locations
- IP67 rated for outdoor environments



ACTIVE JUNCTION BOXES

Repeaters:

- Available for DeviceNet™, PROFIBUS®-DP and AS-interface®
- IP20 and IP67 version 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 & CABLES

On-machine:

- IP67 protection rating
- 2, 4 and 8 Amp outputs



In-cabinet:

- IP20 protection rating for DIN-rail mounting
- Up to 5 Amp outputs, universal (AC/DC) voltage input

Power supply cables:

- For networks that support auxiliary power
- Multiple connector and cable options



FIELD BUS CABLES

Cables and connectors for all major protocols:

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



SENSOR CABLES

Cables and connectors for all types of I/O:

- Digital
- Analog
- Special options available





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