PROFI NET®

INTERBUS

EtherNet/IP™

PROFI BUS®

DeviceNet™

sercos
the automation bus

Modbus

CANopen
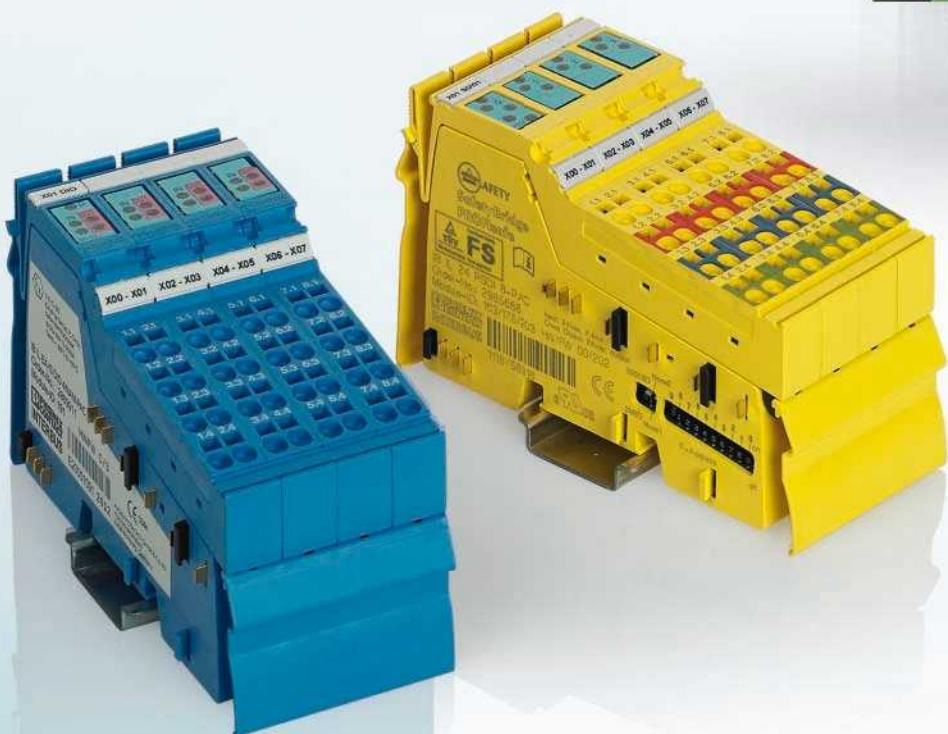
Inline

The flexible I/O system
for the control cabinet

PHŒNIX CONTACT

INSPIRING INNOVATIONS

Inline – the flexible I/O system for the control cabinet

The Inline I/O system from Phoenix Contact is characterized by its large number of I/O and function terminals as well as openness for all popular fieldbus systems and Ethernet networks. Numerous practical features round off the system.

With Inline you have a proven I/O system which excels thanks to its reliability, easy handling, and above all its unrivalled flexibility.

Find out more about the possible applications of the Inline system.

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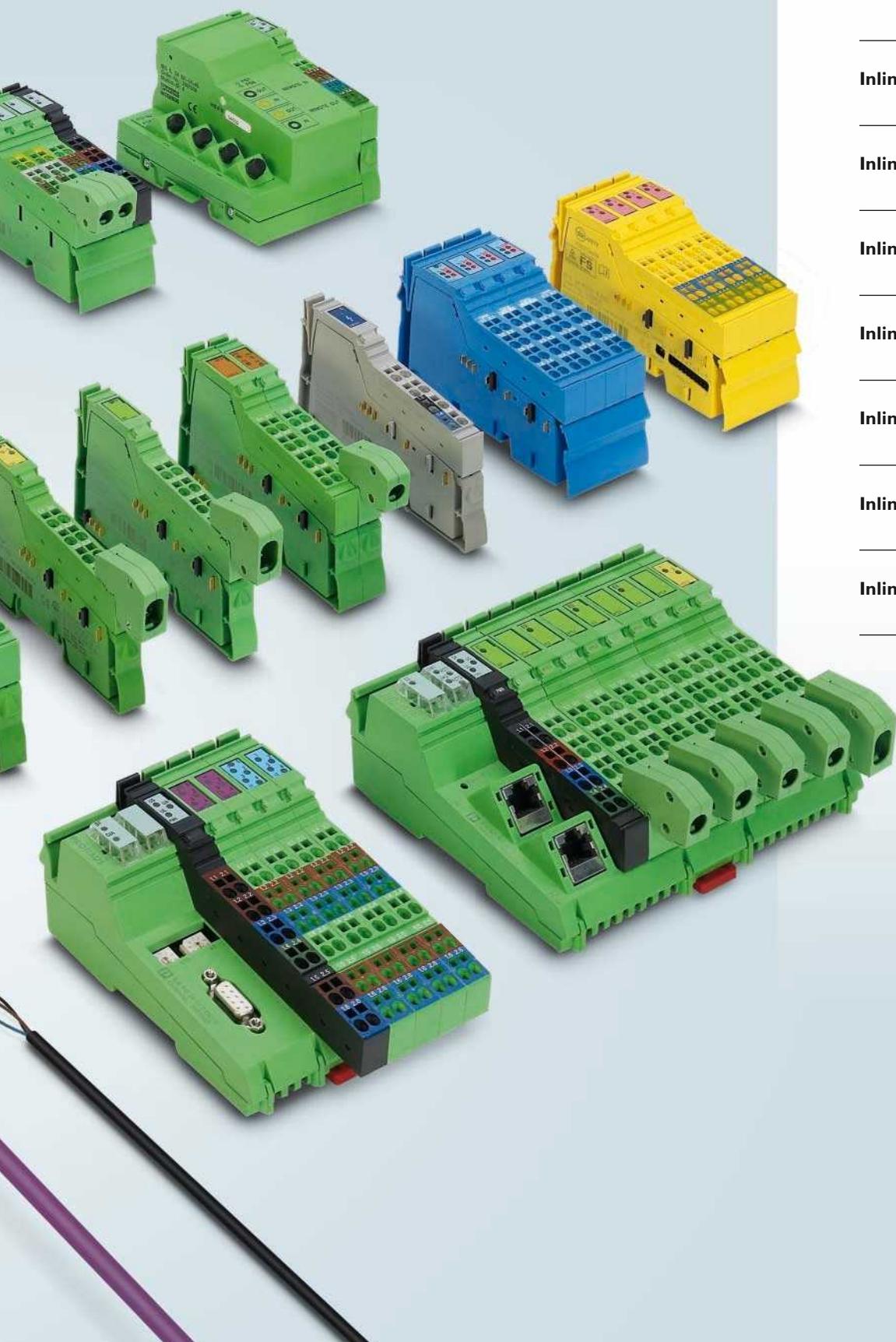
Inline functions –
# respond flexibly to every requirement

Inline is the versatile I/O system for the control cabinet. A wide range of I/O modules and function terminals are available for all popular fieldbus systems and Ethernet networks. You have the option to extend your system with virtually any function. This makes the Inline system from Phoenix Contact a flexible all-rounder, which you can use to combine your automation functions easily and individually.

Discover the flexibility of the Inline system.

Flexible thanks to the modular design

The Inline system has a modular design: it can be extended with a range of input and output, communication, and function terminals.

This makes it particularly flexible – always tailored to your requirements.
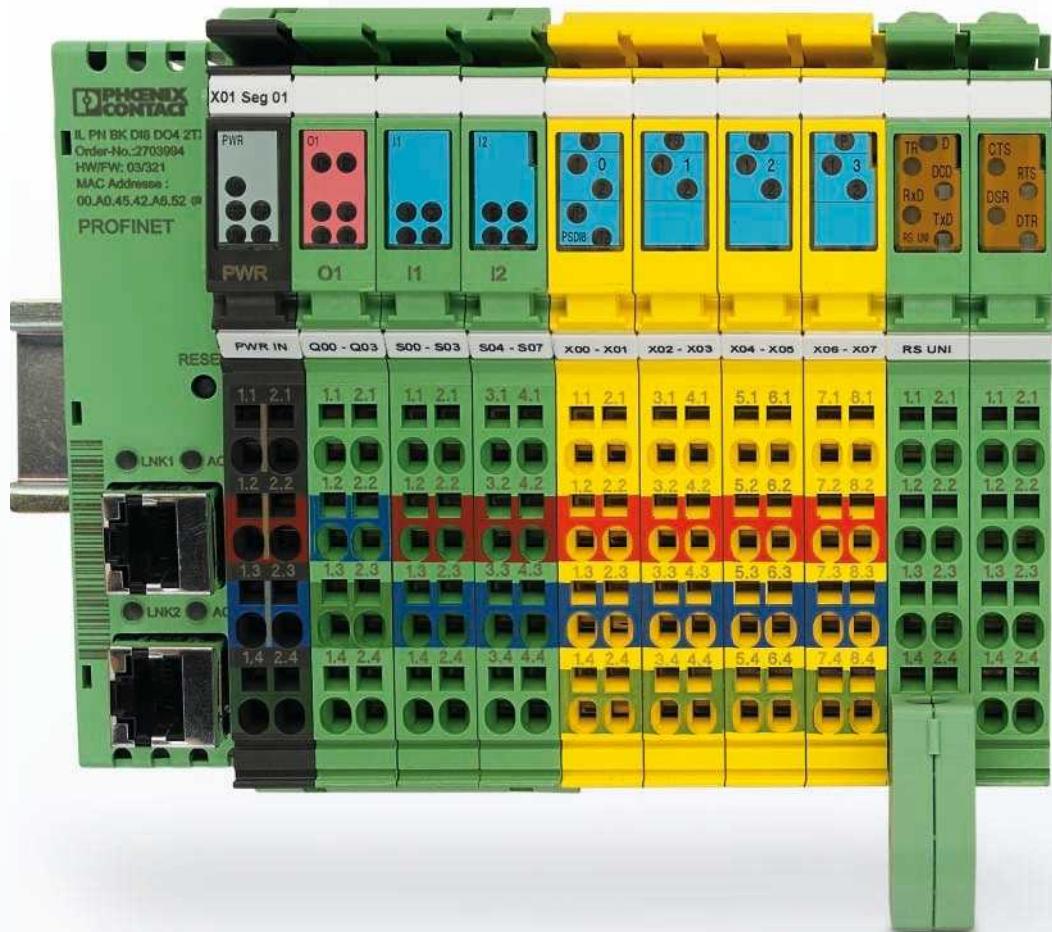
Saves space in the control cabinet

The highly modular 12.5 mm modules enable you to extend your station using a minimal amount of space. Safety applications or I/Os for potentially explosive areas can also be connected and integrated easily.

Wide range of function terminals

Inline enables the flexible and application-specific combination of digital and analog I/O channels including the most popular standard functions:

- Digital inputs
- Digital outputs
- Analog inputs
- Analog outputs
- Temperature recording
- Counters
- Pulse encoders
- Position detection
- Energy data acquisition
- Communication

Inline features –
discover advantages in every detail

Discover the practical advantages of Inline: the bus and power supply do not have to be wired, they are connected automatically when the extension modules are plugged in.

COMBICON spring-cage technology ensures fast I/O wiring. Thanks to the wiring level which is separated from the electronics, module replacement can be carried out quickly and easily.

Discover these and other advantages with Inline from Phoenix Contact.

Diagnostic LEDs for network and local bus

Clearly numbered terminal points

Bus coupler with integrated inputs and outputs

Color coding to easily distinguish between I/O functions

Network or bus connection
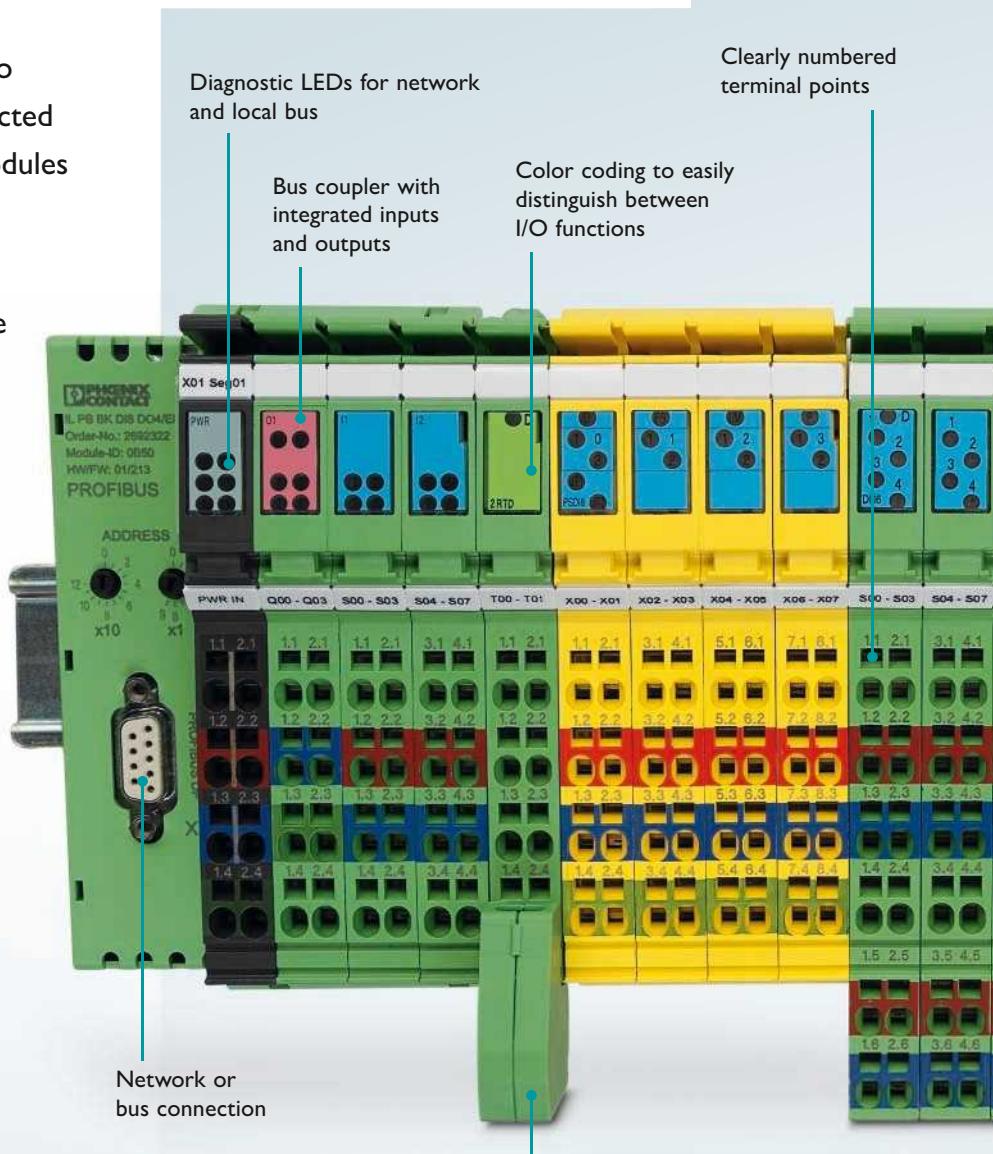
Integrated shield connection

directly on the terminal saves space in the control cabinet

Inline Block IO
The space-saving extension of the modular Inline I/O system: the compact and flat Inline Block IO integrates a fixed number of I/Os in your network. Significant benefits can be achieved in terms of handling and costs for low numbers of I/Os in particular, as I/O modules and bus couplers are combined in a single device.

Status and diagnostic LEDs

on every local bus terminal optimally indicate the operating state of the Inline station

Wiring level separated from the electronics

I/O modules can be connected with a high degree of modularity

Color coding of the terminal points simplifies wiring

Plug coding (optional) prevents the incorrect connection of plugs
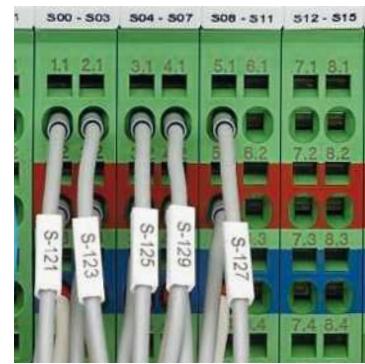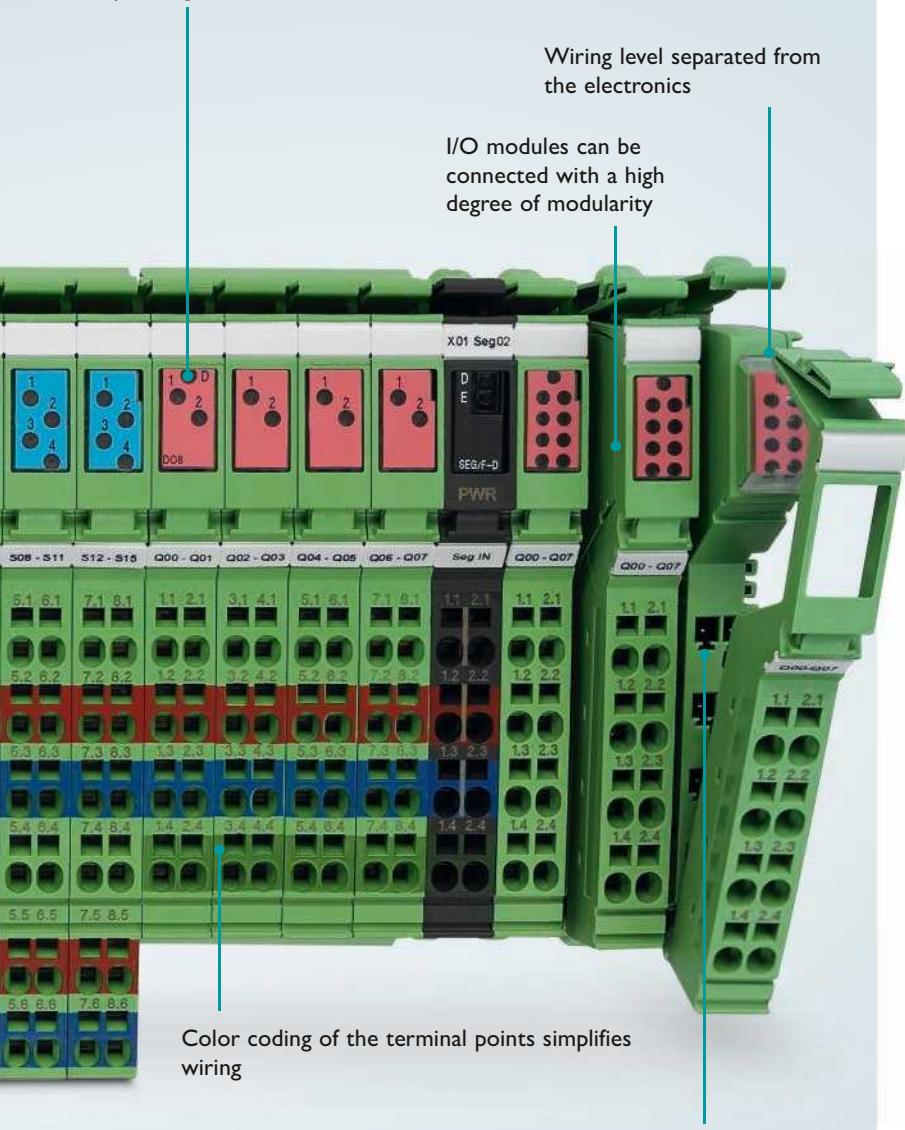
Individual marking

Terminals, conductors, cables, and devices can be marked quickly and easily using the MARKING system.
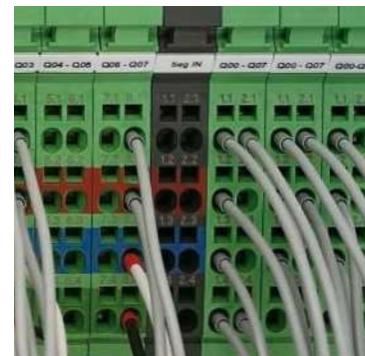
Flexible connection

Whether single, two, three or four-wire technology, and whatever your preferred connection technology for connecting your sensors or actuators: the Inline system always offers the ideal solution.

Selective segmentation

Increased system safety thanks to independently protected and separately switched station segments.

Inline bus openness –
system-independent integration

Thanks to its freely selectable bus coupler, the Inline system can be connected to all popular fieldbus systems and Ethernet networks. The communication terminals enable you to integrate an additional communication system in your Inline station as a subsystem.

For central or distributed control tasks, you can simply replace the bus coupler with a compact Inline controller.
All controllers are parameterized and programmed using the IEC 61131-based PC WORX software.
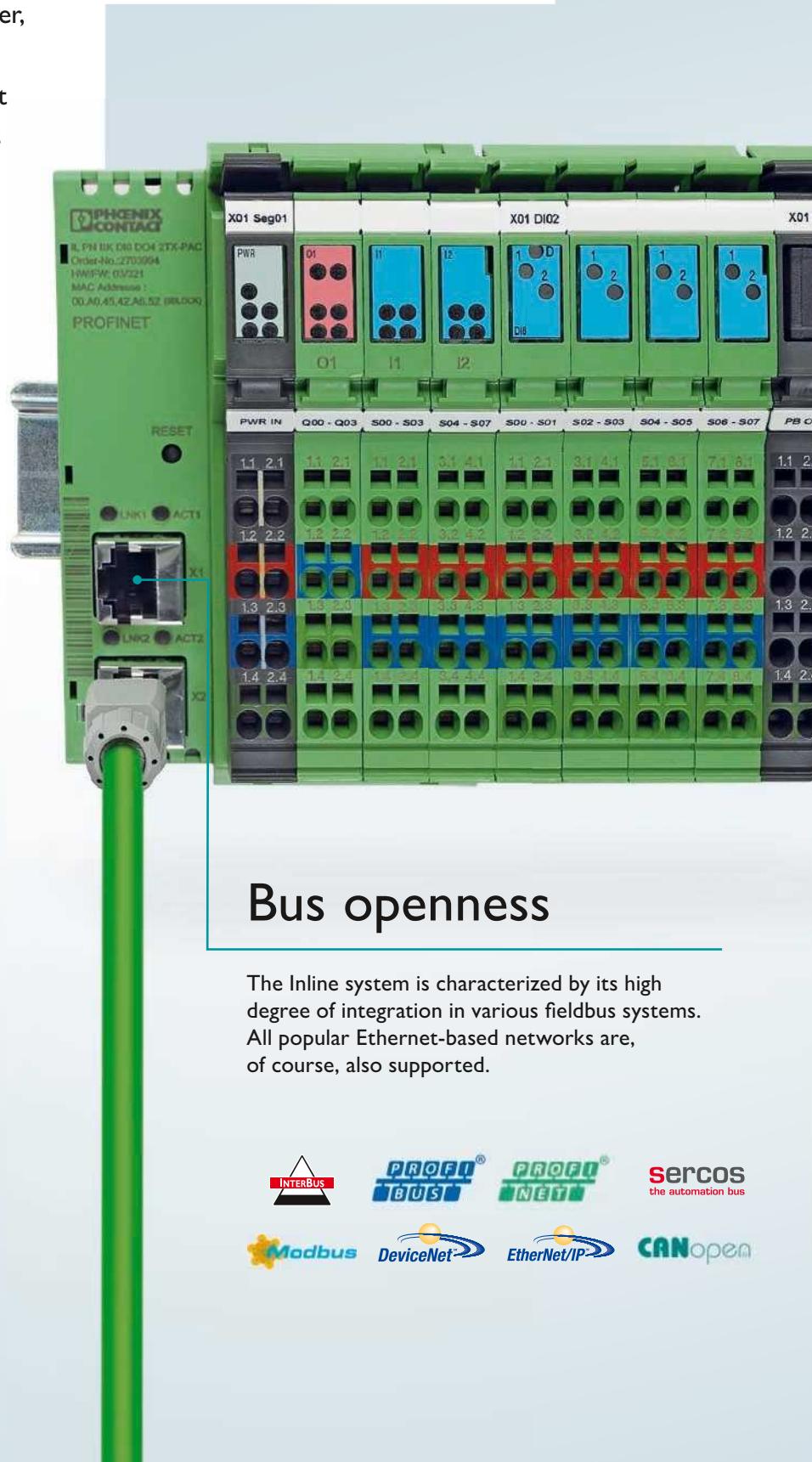
Bus openness

The Inline system is characterized by its high degree of integration in various fieldbus systems. All popular Ethernet-based networks are, of course, also supported.

Scalable controllers

Compact controllers for simple applications

Programmable class 100 compact controllers can be optimally extended with the Inline function terminals. They offer high function density at a low price: ideal for simple applications, even in distributed automation.

High-performance controllers for sophisticated applications

PROFINET-compatible class 300 high-performance controllers are used to control average to sophisticated automation tasks. Two Ethernet ports with an integrated switch enable flexible connection to a higher-level control room, a local operating station or I/O modules.
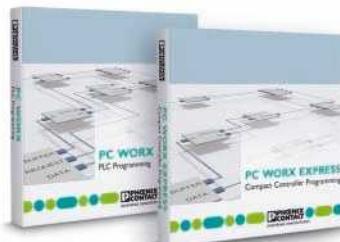
Easy engineering

PC WORX – the consistent IEC-compliant engineering software for all Phoenix Contact controllers

PC WORX EXPRESS – the little brother to PC WORX is free and ideal for the easy programming of compact controllers

Integrate subsystems

Communication master terminals can be used to integrate various subsystems under an Inline station, without having to use another bus coupler.

Inline field extension – flexible local bus extensions

The local bus in your Inline station is very flexible and is tailored to your requirements. When it comes to large distances, limited space in the control cabinet or different degrees of protection, you can always find the right solution among various local bus extensions.

Local bus extension to the field

Fieldline Modular devices with IP65/IP67 protection can be combined easily and flexibly with an Inline station via the Inline branch terminal – without any additional bus couplers. This saves time as less effort is required thanks to direct connection to the existing station.

![MUX]
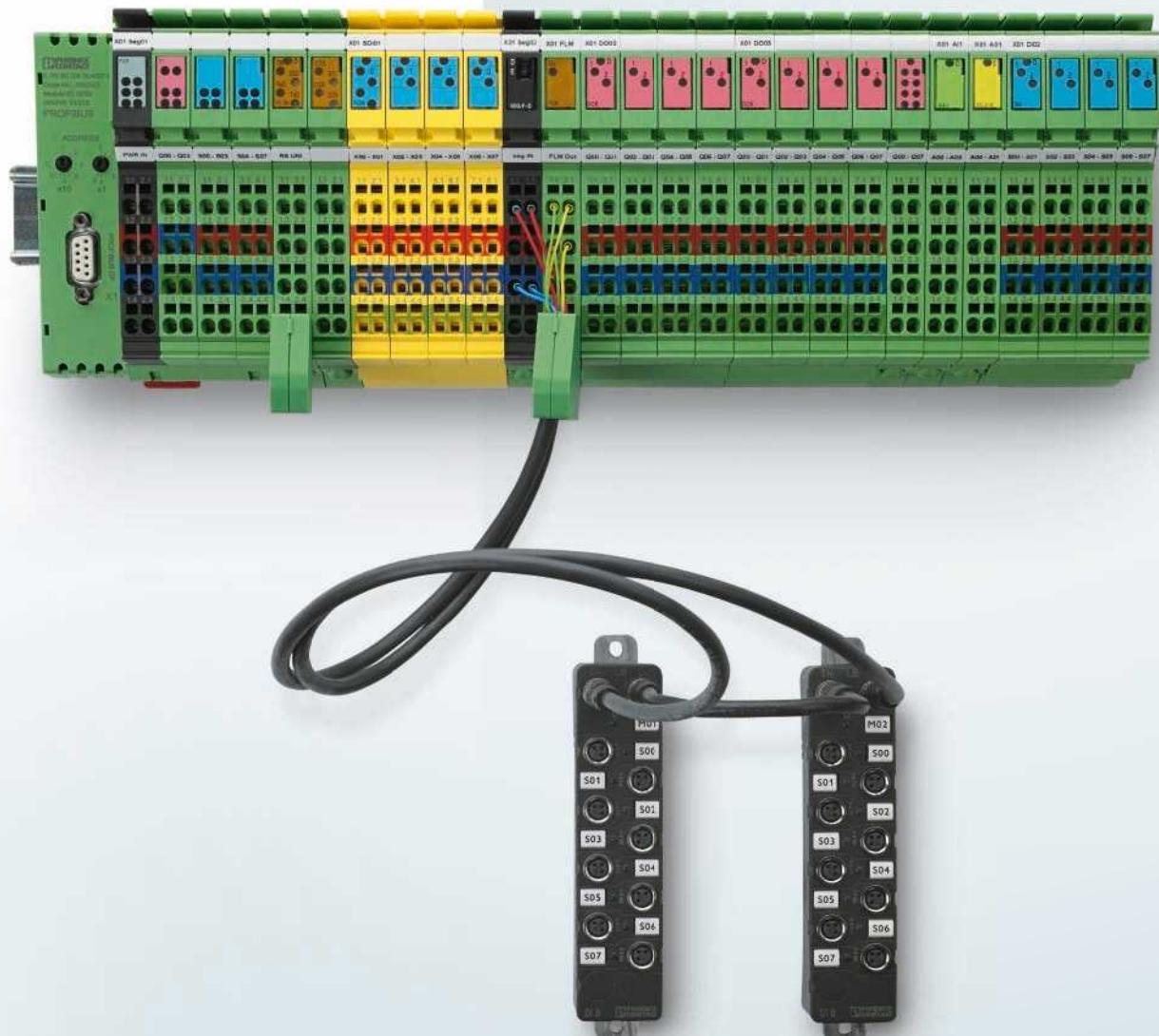
Easy point-to-point communication

Inline field multiplexers transmit industrial signals in pairs, point-to-point – whether via a two-wire copper cable, fiber optic cable, modem or wirelessly. A number of digital and analog Inline I/O terminals can be freely combined – without using any software.

Communication via Bluetooth

Benefit from the advantages of industrial Bluetooth technology for your I/O communication with Inline Block IO devices. Easy to install and providing reliable transmission, Bluetooth is the ideal solution for data transmission at input and output level.
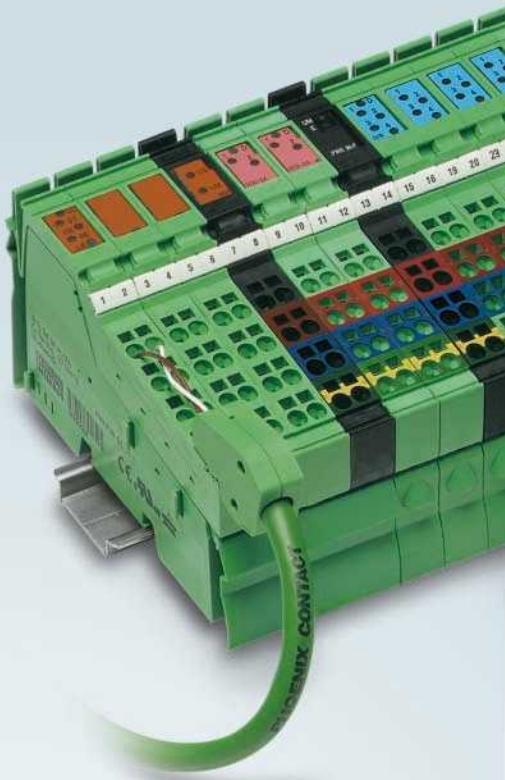
Easy data transmission over large distances

Multiplex mode

The Inline field multiplexer transmits data in the easiest way, even over large distances.

Data transmission via:

- 2-wire copper cable up to 12 km
- Permanent phone line up to 20 km (with converter)
- Fiber optics up to 45 km (with converter)

Up to 45 km

Extension options of the Inline local bus

Local bus extension

Using a local bus extension terminal, you can extend your Inline station in the control cabinet by one or more rows.

Up to 20 m
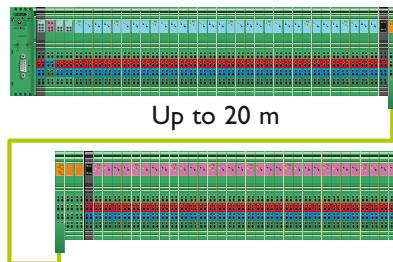
Local bus extension to the field

Using the branch terminal, you can connect Fieldline devices with IP65/IP67 protection to the Inline local bus.

Max. 40 m

Max. 16 devices
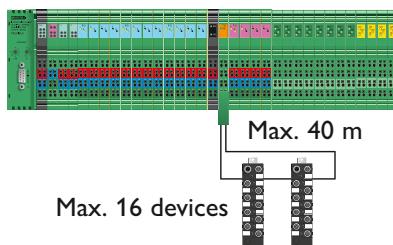
Inline safety –
safe I/Os with SafetyBridge technology

Use our SafetyBridge I/Os to integrate functional safety in your Inline I/O level independently of the network. SafetyBridge technology performs all the safety-related functions in your machine or system. Regardless of which Inline bus coupler you use, the SafetyBridge I/O modules do not require an additional safety controller to operate and are approved for all popular Ethernet networks.

Benefit from the flexibility and cost-saving advantages of SafetyBridge technology.

CANopen   DeviceNet   EtherNet/IP   INTERBUS

Modbus   PROFIBUS   PROFINET   sercos
the automation bus

What are the advantages of independence from the network?

SafetyBridge technology can be integrated extremely easily into all popular fieldbus and Ethernet-based networks.
Continue to benefit from the advantages of your preferred network solution. No additional safety networks are required, which saves you time and money during the design of your machines and systems.

Various I/O modules
- Maximum of 16 safe inputs
- Maximum of 8 safe outputs
- One relay module

SafetyBridge Technology

Designed by PHOENIX CONTACT
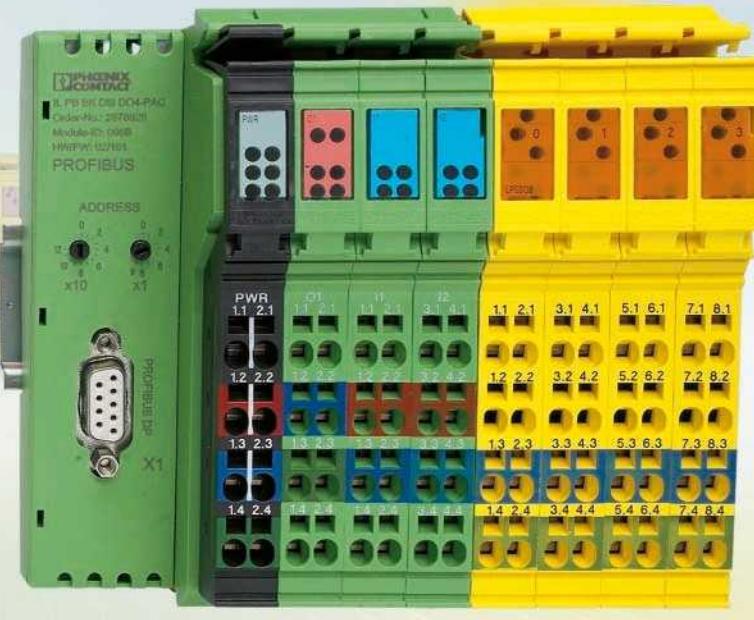
Intelligent logic module
- 8 safe outputs
- Can be linked to up to 16 additional safe I/O modules
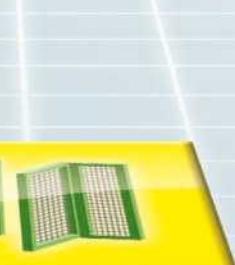
SafetyBridge technology: extremely easy

1 Central or distributed installation

You decide how you want to use the flexible I/O modules.
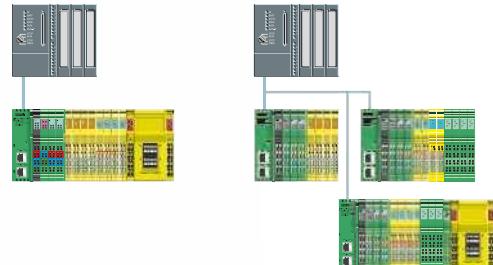
2 No safety controller required

The I/Os with integrated SafetyBridge technology handle the complete processing of safety functions. Your standard control system only handles data exchange between the I/O modules.

3 Easy configuration using SAFECONF

After completing the safety configuration, the generated safety logic is transferred to the safe logic module via the standard control system.

SAFECONF software

As you can see, functional safety is very easy to integrate in your machine or system.

Inline Ex-i –
intrinsically safe I/Os for the Ex area

The intrinsically safe I/Os connect input and output signals to your network or bus system.

A selection of standard I/O terminals is available for use in potentially explosive and non-potentially explosive areas up to zone 2. Additional input and output signals from potentially explosive areas of zones 1 and 0 can be connected to the blue I/O modules. To do this, simply mount the modules on the Inline station. Parameterize the terminals with FDT technology and use channel-specific diagnostics for troubleshooting.

Ex-i analog input/output

Thanks to two current ranges (0/4 to 20 mA) for input and output, as well as an input voltage range of 0 to 10 V, this 4-channel module can be used universally.

Ex-i power supply

The power supply indicates the current status via several control displays. The supply terminal can distinguish between the different states: voltage present, high load range, and overload.

The terminal is electronically protected against overload and is very energy efficient.

Ex-i temperature input

The 4-channel temperature input module supports standard thermocouple sensors and commercially available resistive temperature measuring devices. The shield connection integrated on the terminal enables easy wiring and provides protection against electromagnetic interference.

Operation and installation of I/Os in Ex zones

Non-potentially explosive area

ZONE 2
0.0 - 0.1% per year or max. 10 hours

ZONE 1 and 21
0.1 - 10% per year or max. 10 - 1000 hours

ZONE 0 and 20
> 10% per year or 1000 hours

Ex-i digital input/output

The 4-channel digital I/O module supports inputs for NAMUR initiators and mechanical contacts, outputs for intrinsically safe solenoid valves, acoustic alarm indicators, and signal lamps.
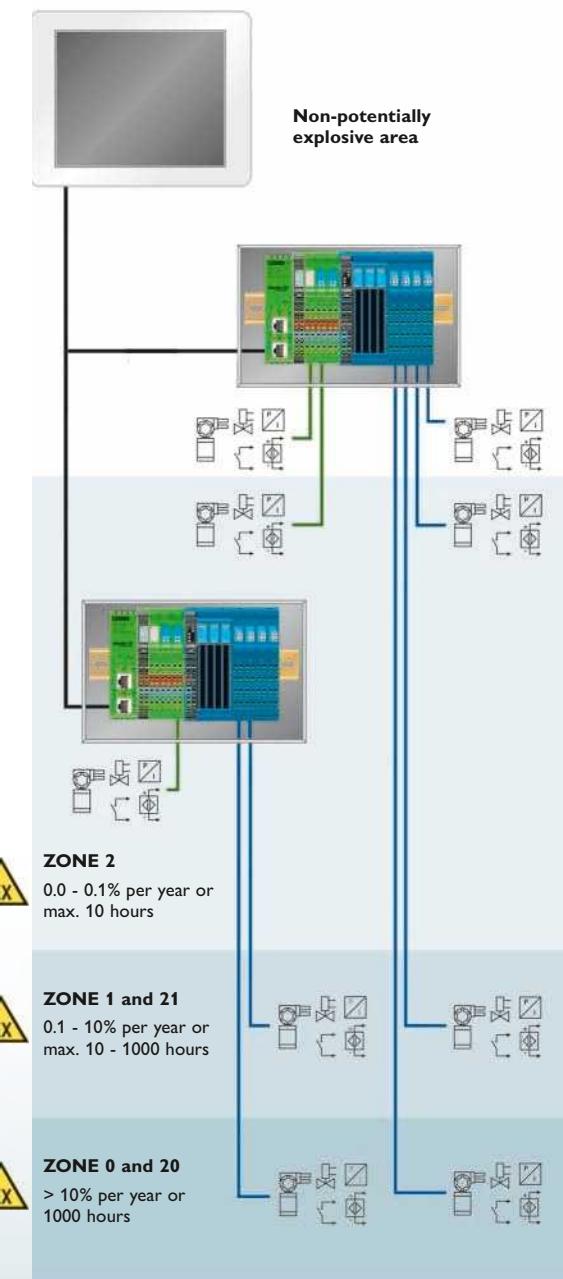
Inline configuration – software-supported planning and configuration

Plan and configure your I/O station quickly and easily using Project+ and CLIP PROJECT. The created station is based on your requirements. Technical data and specifications are compared and taken into consideration. The end result is an efficient, error-free station structure.

We offer a complete package: support for planning, configuration, startup parameterization, and integration in the application programming, e.g., STEP 7 (TIA portal) from Siemens.

Use these tools to engineer your entire control cabinet!

Efficient configuration

Transfer your Inline station planned using Project+ to CLIP PROJECT and conveniently complete the configuration of your entire DIN rail. Optimum interaction with CAE systems results in a consistent and efficient process chain.

Create the marking for your Inline station quickly and easily with CLIP PROJECT Marking.
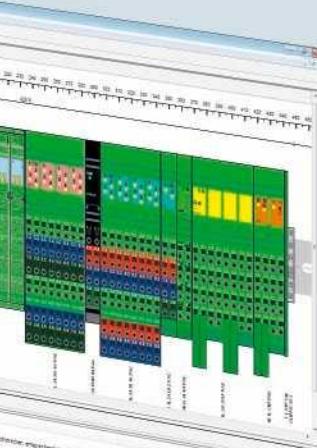
Conveniently integrate the signals of the Inline station in your controller. Corresponding device descriptions are available to download for all relevant communication systems.

In addition to standard I/O modules, the Inline system also offers flexible special function modules. These modules can be parameterized in various ways.

Use specially tailored function block libraries for fast startup and error-free parameterization of your I/O components. FDT technology allows Inline modules to be parameterized independently of the controller. Special device DTMs offer tailor-made parameterization windows.

PROJECT+
I/O Project Planning

Easy
station planning

Carry out configuration quickly and easily with Project+. With no training required in the use of configuration rules, create the right I/O stations for your application effectively. By comparing all specifications, the software ensures that the modules are optimally coordinated. Errors such as choosing the wrong module are eliminated. Project+ can be downloaded free of charge from our website.

Inline examples of use – ideal for a wide range of industry solutions

Are you at home in the automotive industry, do you specialize in machine building, planning water and wastewater treatment plants or automating logistics centers?

Whatever the industry for your automation solution, the Inline system provides the right terminals for your specific area of application. It is flexible and future-oriented, meaning investment costs are also secured even if subsequent adaptations are required.

Intelligent communication

You can perform automation tasks efficiently in warehouse logistics and conveying technology using the various communication terminals, such as the universal, serial communication terminal or the IO-Link master for the Inline system.

Optimum acquisition

Specific measured values can be optimally acquired in water and wastewater treatment applications using the power measurement terminal from the Inline system.

Safe networking

A high level of system safety is one of the most important requirements in the automotive industry. With the safe input and output terminals from the Inline system, safety requirements up to PL e (EN ISO 13849-1), SIL 3 (IEC 61508), and SIL CL 3 (EN IEC 62061) are met.
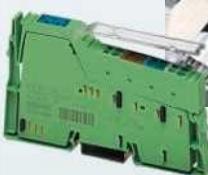
Cost-effective automation

The Inline ME versions are particularly suitable for space-saving and inexpensive use in applications in the series production of machines.

Reliability is of paramount importance to us

The Inline system has many industry-specific and country-specific approvals. With these approvals, you can be sure that the requirements of your specific industry are met.

New approvals are constantly being added to our Inline product range.

Ethernet

Order No. 2703994

IL PN BK DI8 DO4 2TX-PAC

- PROFINET I/O device functionality (stack 2.2)
- 8 inputs, 24 V DC
- 4 outputs, 500 mA
- 0.8 A at U_L
- RJ45 connection
- 80 mm design width

Order No. 2878379

IL PN BK DI8 DO4 2SCRJ-PAC

- PROFINET I/O device functionality (stack 3.1)
- 8 inputs, 24 V DC
- 4 outputs, 500 mA
- 0.8 A at U_L
- SCRJ45 connection
- 80 mm design width

Order No. 2878146

ILB PN 24 DI16 DIO16-2TX

- 16 inputs, 24 V DC
- 16 inputs/outputs, 24 V DC, 500 mA (can be freely selected)
- 2 and 3-wire connection
- Integrated 3-port switch
- RJ45 connection
- 156 mm design width

Order No. 2897758

IL EIP BK DI8 DO4 2TX-PAC

- EtherNet/IP™, Version 1.2
- HTTP, BootP
- 8 inputs, 24 V DC
- 4 outputs, 500 mA
- 0.8 A at U_L
- RJ45 connection
- 80 mm design width

Modbus TCP (UDP)

Order No. 2703981

IL ETH BK DI8 DO4 2TX-PAC

- Modbus TCP (UDP)
- HTTP, TFTP, BootP, SNMP
- 8 inputs, 24 V DC
- 4 outputs, 500 mA
- 0.8 A at U_L
- RJ45 connection
- 80 mm design width

Modbus TCP

Order No. 2832962

ILB ETH 24 DI16 DIO16-2TX

- 16 inputs, 24 V DC
- 16 inputs/outputs, 24 V DC, 500 mA (can be freely selected)
- 2 and 3-wire connection
- Integrated 3-port switch
- RJ45 connection
- 156 mm design width

Order No. 2692380

IL S3 BK DI8 DO4 2TX-PAC

- sercos specification V1.1.2
- 8 inputs, 24 V DC
- 4 outputs, 500 mA
- 0.8 A at U_L
- RJ45 connection
- 80 mm design width

Order No. 2897570

ILB S3 24 DI16 DIO 16-2TX

- 16 inputs, 24 V DC
- 16 inputs/outputs, 24 V DC, 500 mA (can be freely selected)
- 2 and 3-wire connection
- Integrated 3-port switch
- RJ45 connection
- 156 mm design width

Order No. 2700174

ILB S3 24 DI8 DO4 AO2 INC-IN2

- Positioning controller for 2 axes
- 2 analog outputs, ±10 V
- 2 inputs for incremental encoder
- 8 digital inputs, 24 V DC
- 4 digital outputs, 24 V DC, 500 mA
- 2 and 3-wire connection
- RJ45 connection
- 156 mm design width

Order No. 2692076

ILB S3 AI4 AO2-2TX

- 4 inputs, 0 - 5 V, ±5 V, 0 - 10 V, ±10 V, 0 - 20 mA, ±20 mA, 4 - 20 mA, Pt100, Pt500, Pt1000, etc.
- 2 outputs, 0 - 5 V, ±5 V, 0 - 10 V, ±10 V, 0 - 20 mA, ±20 mA, 4 - 20 mA
- 16 bits
- 156 mm design width

Fieldbuses

Order No. 2861580

IBS IL 24 BK-T/U-PAC

- INTERBUS
- Incl. branch bus terminal support
- 2 A at U_L
- Bus connection via Inline plug
- 48.8 mm design width

Order No. 2862165

IBS IL 24 BK-LK/45-PAC

- INTERBUS
- 2 A at U_L
- Fiber optic connection, 45° outlet
- 85 mm design width
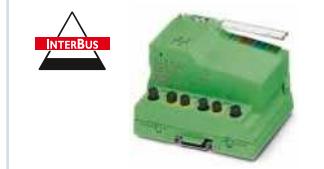
Order No. 2861506

IBS IL 24 BK RB-LK-PAC

- INTERBUS
- With INTERBUS remote bus branch
- 2 A at U_L
- Fiber optic connection
- 85 mm design width

Order No. 2862330

ILB IB 24 DI16

- 16 inputs, 24 V DC
- 2 and 3-wire connection
- Bus connection via Inline plug
- 95 mm design width
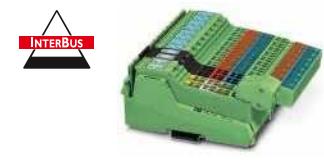
Order No. 2862343

ILB IB 24 DI32

- 32 inputs, 24 V DC
- 2 and 3-wire connection
- Bus connection via Inline plug
- 156 mm design width
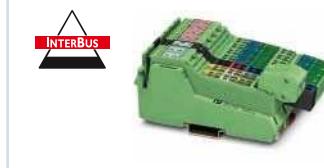
Order No. 2862356

ILB IB 24 DO16

- 16 outputs, 24 V DC, 500 mA
- 2 and 3-wire connection
- Bus connection via Inline plug
- 95 mm design width

Order No. 2862369

ILB IB 24 DO32

- 32 outputs, 24 V DC, 500 mA
- 2 and 3-wire connection
- Bus connection via Inline plug
- 156 mm design width

Order No. 2862372

ILB IB 24 DI8 DO8

- 8 inputs, 24 V DC
- 8 outputs, 24 V DC, 500 mA
- 2 and 3-wire connection
- Bus connection via Inline plug
- 95 mm design width

Order No. 2862385

ILB IB 24 DI16 DO16

- 16 inputs, 24 V DC
- 16 outputs, 24 V DC, 500 mA
- 2 and 3-wire connection
- Bus connection via Inline plug
- 156 mm design width
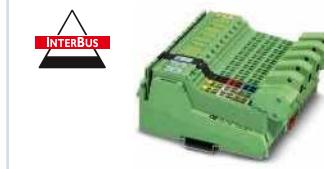
Order No. 2878777

ILB IB AI4 AO2

- 4 inputs, 0 - 5 V, ±5 V, 0 - 10 V, ±10 V, 0 - 20 mA, ±20 mA, 4 - 20 mA, Pt100, Pt500, Pt1000, etc.
- 2 outputs, 0 - 5 V, ±5 V, 0 - 10 V, ±10 V, 0 - 20 mA, ±20 mA, 4 - 20 mA
- 16 bits
- 156 mm design width

Fieldbuses

Order No. 2692322

IL PB BK DI8 DO4/EF-PAC

- PROFIBUS DP and DP/V1
- PROFIsafe-compatible
- IO-Link calls
- 8 inputs, 24 V DC
- 4 outputs, 500 mA
- 0.8 A at U_L
- D-SUB connection
- 80 mm design width

Order No. 2862246

IL PB BK DP/V1-PAC

- PROFIBUS DP and DP/V1
- 2 A at U_L
- D-SUB connection
- 85 mm design width

Order No. 2862398

ILB PB 24 DI32

- 32 inputs, 24 V DC
- 2 and 3-wire connection
- D-SUB connection
- 156 mm design width

Order No. 2862408

ILB PB 24 DO32

- 32 inputs, 24 V DC, 500 mA
- 2 and 3-wire connection
- D-SUB connection
- 156 mm design width

Order No. 2862411

ILB PB 24 DI16 DO16

- 16 inputs, 24 V DC
- 16 outputs, 24 V DC, 500 mA
- 2 and 3-wire connection
- D-SUB connection
- 156 mm design width

Order No. 2863562

ILB PB 24 DI8 DIO8

- 8 inputs, 24 V DC
- 8 inputs/outputs, 24 V DC, 500 mA (can be freely selected)
- 2 and 3-wire connection
- D-SUB connection
- 95 mm design width

Order No. 2878874

ILB PB AI4 AO2

- 4 inputs, 0 - 5 V, ±5 V, 0 - 10 V, ±10 V, 0 - 20 mA, ±20 mA, 4 - 20 mA, Pt100, Pt500, Pt1000, etc.
- 2 outputs, 0 - 5 V, ±5 V, 0 - 10 V, ±10 V, 0 - 20 mA, ±20 mA, 4 - 20 mA
- 16 bits
- 156 mm design width

Order No. 2897211

IL DN BK DI8 DO4-PAC

- DeviceNet™
- 8 inputs, 24 V DC
- 4 outputs, 500 mA
- 0.8 A at U_L
- TWIN-COMBICON connection
- Incl. CLIPFIX 35 end bracket
- 80 mm design width

Order No. 2862602

ILB DN 24 DI16 DO16

- 16 inputs, 24 V DC
- 16 outputs, 24 V DC, 500 mA
- 2 and 3-wire connection
- Bus connection via TWIN-COMBICON plug
- 156 mm design width

Order No. 2878696

IL MOD BK DI8 DO4-PAC

- Modbus RTU (ASCII)
- 8 inputs, 24 V DC
- 4 outputs, 500 mA
- 0.8 A at U_L
- D-SUB connection
- 80 mm design width

Fieldbuses

Order No. 2718701

IL CAN BK-TC-PAC

- CANopen®
- 2 A at U_L
- TWIN-COMBICON connection
- Incl. CLIPFIX 35 end bracket
- 85 mm design width

Order No. 2862592

ILB CO 24 DI16 DO16

- 16 inputs, 24 V DC
- 16 outputs, 24 V DC, 500 mA
- 2 and 3-wire connection
- D-SUB connection
- 156 mm design width

Order No. 2861205

IB IL 24 MUX MA-PAC

- Point-to-point transmission of max. 512 I/O data via 2-wire cables up to max. 12 km
- Max. 512 digital or 32 analog I/Os (or a mixture) can be connected
- Max. transmission length of 12 km via 2-wire copper cable
- 48.8 mm design width

Wireless IO

Order No. 2884208

ILB BT ADIO MUX-OMNI

- Wireless point-to-point transmission
- OMNI omnidirectional antenna
- Bluetooth 1.2 (16 dBm transmission power)
- 16 digital inputs
- 16 digital outputs
- 2 analog inputs
- 2 analog outputs
- 95 mm design width

Order No. 2884509

ILB BT ADIO MUX-PANEL

- Wireless point-to-point transmission
- PANEL directional wireless antenna
- Bluetooth 1.2 (12 dBm transmission power)
- 16 digital inputs
- 16 digital outputs
- 2 analog inputs
- 2 analog outputs
- 95 mm design width

Order No. 2884282

ILB BT ADIO 2/2/16/16

- Wireless IO device
- Bluetooth 1.2 (16 dBm transmission power, adjustable)
- Wireless access via FL BT MOD IO AP (Order No. 2884758) or FLM BT BS 3 (Order No. 2736770)
- 16 digital inputs
- 16 digital outputs
- 2 analog inputs
- 2 analog outputs
- 95 mm design width

Inline controllers – class 100 high-performance controllers

Order No. 2700973
ILC 131 ETH

- Typical processing speed of 1.7 ms for 1 K instructions
- 192 kB program memory
- 192 kB data memory
- 8 kB retentive data memory
- 1 Ethernet interface
- 8 digital inputs
- 4 digital outputs
- 80 mm design width

Order No. 2700974
ILC 151 ETH

- Typical processing speed of 1.5 ms for 1 K instructions
- 256 kB program memory
- 256 kB data memory
- 8 kB retentive data memory
- 1 Ethernet interface
- 8 digital inputs
- 4 digital outputs
- 80 mm design width

Order No. 2700975
ILC 171 ETH

- Typical processing speed of 1.5 ms for 1 K instructions
- 512 kB program memory
- 512 kB data memory
- 48 kB retentive data memory
- 2 Ethernet interfaces
- 8 digital inputs
- 4 digital outputs
- 80 mm design width

Order No. 2700976
ILC 191 ETH

- Typical processing speed of 1.3 ms for 1 K instructions
- 1 MB program memory
- 1 MB data memory
- 48 kB retentive data memory
- 2 Ethernet interfaces
- 8 digital inputs
- 4 digital outputs
- 80 mm design width

Order No. 2700977
ILC 151 GSM/GPRS

- Typical processing speed of 1.5 ms for 1 K instructions
- 512 kB program memory
- 512 kB data memory
- 48 kB retentive data memory
- Integrated GSM/GPRS modem
- 1 Ethernet interface
- 16 digital inputs
- 4 digital outputs
- 80 mm design width

Inline controllers – class 300 high-performance controllers

Order No. 2988191
ILC 330 PN

- Typical processing speed of 0.7 ms for 1 K instructions
- 750 kB program memory
- 1.5 MB data memory
- 64 kB retentive data memory
- 1 PROFINET interface (10/100)
- 12 digital inputs
- 4 digital outputs
- 182 mm design width

Order No. 2876928
ILC 350 PN

- Typical processing speed of 0.5 ms for 1 K instructions
- 1 MB program memory
- 2 MB data memory
- 64 kB retentive data memory
- 1 PROFINET interface (10/100)
- 12 digital inputs
- 4 digital outputs
- 182 mm design width

Order No. 2876915
ILC 370 PN 2TX-IB

- Typical processing speed of 0.3 ms for 1 K instructions
- 2 MB program memory
- 4 MB data memory
- 96 kB retentive data memory
- 2 PROFINET interfaces (10/100)
- 1 INTERBUS interface (slave)
- 12 digital inputs
- 4 digital outputs
- 182 mm design width

Order No. 2985576
ILC 370 PN 2TX-IB/M

- Maritime approval
- Typical processing speed of 0.3 ms for 1 K instructions
- 2 MB program memory
- 4 MB data memory
- 96 kB retentive data memory
- 2 PROFINET interfaces (10/100)
- 1 INTERBUS interface (slave)
- 12 digital inputs
- 4 digital outputs
- 182 mm design width

Order No. 2985314
ILC 390 PN 2TX-IB

- Typical processing speed of 0.2 ms for 1 K instructions
- 2 MB program memory
- 4 MB data memory
- 96 kB retentive data memory
- 2 PROFINET interfaces (10/100)
- 1 INTERBUS interface (slave)
- 12 digital inputs
- 4 digital outputs
- 182 mm design width

Power and segment terminals

Order No. 2861331

IB IL 24 PWR IN-PAC

Power terminal
- 24 V DC (U_M, U_S)
- 8 A power supply
  (at U_M, U_S)
- 12.2 mm design width

Order No. 2862136

IB IL 24 PWR IN/2-F-PAC

Power terminal
- 24 V DC (U_M, U_S)
- With fuse
- 6 A power supply
  (at U_M, U_S)
- 12.2 mm design width

Order No. 2862152

IB IL 24 PWR IN/2-F-D-PAC

Power terminal
- 24 V DC (U_M, U_S)
- With fuse and diagnostics
  (U_M, fuse)
- 4 A power supply
  (at U_M, U_S)
- 12.2 mm design width

Order No. 2863779

IB IL 24 PWR IN/2-F-DF-PAC

Power terminal
- 24 V DC (U_M, U_S)
- With fuse and diagnostics
  (fuse)
- 4 A power supply
  (at U_M, U_S)
- 12.2 mm design width

Order No. 2861454

IB IL 120 PWR IN-PAC

Power terminal
- 120 V AC
- Incl. distance terminal
- 8 A power supply
  (at U_M)
- 36.6 mm design width
  (24.4 mm + 12.2 mm)

Order No. 2861535

IB IL 230 PWR IN-PAC

Power terminal
- 230 V AC
- Incl. distance terminal
- 8 A power supply
  (at U_M)
- 36.6 mm design width
  (24.4 mm + 12.2 mm)

Order No. 2878971

IB IL 230 PWR IN/F-D-PAC

Power terminal
- 230 V AC
- With fuse and diagnostics
- Incl. distance terminal
- 8 A power supply
  (at U_M)
- 36.6 mm design width
  (24.4 mm + 12.2 mm)

Order No. 2862987

IB IL PD 24V-PAC

Potential distributor terminal
- 24 V DC (from U_S)
- 8 contacts
- 12.2 mm design width

Order No. 2862990

IB IL 24 PD GND-PAC

Potential distributor terminal
- GND
- 8 contacts
- 12.2 mm design width

Order No. 2861674

IB IL 24 PWR IN/R-PAC

Boost terminal for communications power and I/O voltage
(logic up to 2 A)
- U_L, U_{ANA}, U_M, U_S
- 8 A power supply
  (at U_M, U_S)
- 48.8 mm design width

Order No. 2693020

IB IL 24 PWR IN/R/L-0,8 A-PAC

Boost terminal for communications power
- U_L
- 0.8 A power supply
  (at U_L)
- 12.2 mm design width

Order No. 2861344

IB IL 24 SEG-PAC

Segment terminal
- 24 V DC
- 8 A power supply
  (at U_S)
- 12.2 mm design width

Order No. 2861373

IB IL 24 SEG/F-PAC

Segment terminal
- 24 V DC
- With fuse
- 6 A power supply
  (at U_S)
- 12.2 mm design width

Order No. 2861904

IB IL 24 SEG/F-D-PAC

Segment terminal
- 24 V DC
- With fuse and diagnostics
- 6 A power supply
  (at U_S)
- 12.2 mm design width

Order No. 2861409

IB IL 24 SEG-ELF-PAC

Segment terminal
- 24 V DC
- With electronic fuse
  and diagnostics
- 2.5 A power supply
  (at U_S)
- 12.2 mm design width

Digital input terminal

Order No. 2861917

IB IL 120 DI 1-PAC

• 1 input
• 120 V AC
• 3-wire connection
• 12.2 mm design width

Order No. 2861548

IB IL 230 DI 1-PAC

• 1 input
• 230 V AC
• 3-wire connection
• 12.2 mm design width

Order No. 2861483

IB IL 24 DI 2-NPN-PAC

• 2 inputs
• 24 V DC
• 4-wire connection
• NPN-wired
• 12.2 mm design width

Order No. 2861234

IB IL 24 DI 4-PAC

• 4 inputs
• 24 V DC
• 3-wire connection
• 12.2 mm design width

Order No. 2700173

IB IL 24 DI8/HD-PAC

• 8 inputs
• 24 V DC
• Single-wire connection
• 12.2 mm design width

Order No. 2861247

IB IL 24 DI 8-PAC

• 8 inputs
• 24 V DC
• 4-wire connection
• 48.8 mm design width

Order No. 2862204

IB IL 24 DI 8/T2-PAC

• 8 inputs
• 24 V DC
• 4-wire connection
• Input according to EN 61131-2/
  type 2
• 48.8 mm design width

Order No. 2861250

IB IL 24 DI 16-PAC

• 16 inputs
• 24 V DC
• 3-wire connection
• 48.8 mm design width

Order No. 2863520

IB IL 24 DI 16-NPN-PAC

• 16 inputs
• 24 V DC
• 3-wire connection
• NPN-wired
• 48.8 mm design width

Order No. 2862835

IB IL 24 DI 32/HD-PAC

• 32 inputs
• 24 V DC
• Single-wire connection
• 48.8 mm design width

Order No. 2878243

IB IL 24 DI 32/HD-NPN-PAC

• 32 inputs
• 24 V DC
• Single-wire connection
• NPN-wired
• 48.8 mm design width

Digital output terminal

Order No. 2861920
IB IL DO 1 AC-PAC

- 1 output
- 12 - 253 V AC, 500 mA
- 3-wire connection
- 12.2 mm design width

Order No. 2861263
IB IL 24 DO 2-2A-PAC

- 2 outputs
- 24 V DC, 2 A
- 4-wire connection
- 12.2 mm design width

Order No. 2861496
IB IL 24 DO 2-NPN-PAC

- 2 outputs
- 24 V DC, 500 mA
- 4-wire connection
- NPN-wired
- 12.2 mm design width

Order No. 2861616
IB IL 24 EDO 2-PAC

- 2 outputs
- 24 V DC, 500 mA
- Parameterizable output behavior
- 12.2 mm design width

Order No. 2861276
IB IL 24 DO 4-PAC

- 4 outputs
- 24 V DC, 500 mA
- 3-wire connection
- 12.2 mm design width

Order No. 2861658
IB IL 24 DO 4 AC-1A-PAC

- 4 outputs
- 12 - 253 V AC, 1 A
- 3-wire connection
- 48.8 mm design width

Order No. 2700172
IB IL 24 DO8/HD-PAC

- 8 outputs
- 24 V DC, 500 mA
- Single-wire connection
- 12.2 mm design width

Order No. 2861289
IB IL 24 DO 8-PAC

- 8 outputs
- 24 V DC, 500 mA
- 4-wire connection
- 48.8 mm design width

Order No. 2861603
IB IL 24 DO 8-2 A-PAC

- 8 outputs
- 24 V DC, 2 A
- 4-wire connection
- 48.8 mm design width

Order No. 2863546
IB IL 24 DO 8-NPN-PAC

- 8 outputs
- 24 V DC, 1 A
- 4-wire connection
- NPN-wired
- 48.8 mm design width

Order No. 2861292
IB IL 24 DO 16-PAC

- 16 outputs
- 24 V DC, 500 mA
- 3-wire connection
- 48.8 mm design width

Order No. 2862822
IB IL 24 DO 32/HD-PAC

- 32 outputs
- 24 V DC, 500 mA
- Single-wire connection
- 48.8 mm design width

Order No. 2878340
IB IL 24 DO 32/HD-NPN-PAC

- 32 outputs
- 24 V DC, 500 mA
- Single-wire connection
- NPN-wired
- 48.8 mm design width

Relay terminals

Order No. 2861881

IB IL 24/230 DOR1/W-PAC

• 1 SPDT relay contact
• For switching lamp loads
• 5 - 253 V AC, 3 A
• 12.2 mm design width

Order No. 2862178

IB IL 24/230 DOR1/W-PC-PAC

• 1 SPDT relay contact
• For switching inductive
  and capacitive loads
• 5 - 253 V AC, 2.6 A
• 12.2 mm design width

Order No. 2863119

IB IL 24/48 DOR2/W-PAC

• 2 SPDT relay contacts
• 5 - 50 V AC
• 5 - 120 V DC, 2 A
• 12.2 mm design width

Order No. 2861878

IB IL 24/230 DOR4/W-PAC

• 4 SPDT relay contacts
• For switching lamp loads
• 5 - 253 V AC, 3 A
• 48.8 mm design width

Order No. 2862181

IB IL 24/230 DOR4/W-PC-PAC

• 4 SPDT relay contacts
• For switching inductive
  and capacitive loads
• 5 - 253 V AC, 2.6 A
• 48.8 mm design width

Order No. 2897716

IB IL 24/230 DOR4/HC-PAC

• 4 relay contacts
• 5 - 253 V AC
• Max. 10 A
• High switch-on current
• 48.8 mm design width

Order No. 2861645

IB IL DOR LV-SET-PAC

Distance terminals for use with the
relay output terminals
• 12.2 mm design width

Analog input terminals

Order No. 2861302	Order No. 2862149	Order No. 2700459	Order No. 2700458	Order No. 2878447
IB IL AI 2/SF-PAC	**IB IL AI 2-HART-PAC**	**IB IL AI 4/U-PAC**	**IB IL AI 4/I-PAC**	**IB IL AI 4/EF-PAC**
• 2 inputs • 0 - 10 V, ±10 V, 0 - 20 mA, ±20 mA, 4 - 20 mA • 16 bits • 12.2 mm design width	• 2 electrically isolated inputs for HART-compatible sensors • With power supply • 16 bits • 48.8 mm design width	• 4 differential inputs (voltage) • 0 - 10 V, ±10 V • 12 bits • 12.2 mm design width	• 4 differential inputs (current) • 0 - 20 mA, 4 - 20 mA • 13 bits • 12.2 mm design width	• 4 differential inputs with initiator supply • 0 - 5 V, ±5 V, 0 - 10 V, ±10 V, 0 - 20 mA, ±20 mA, 4 - 20 mA • Overload protection (mA) • Bus synchronous (≥ 1 ms) • 16 bits • 48.8 mm design width

Order No. 2861412	Order No. 2861661
IB IL AI 8/SF-PAC	**IB IL AI 8/IS-PAC**
• 8 inputs • 0 - 5 V, ±5 V, 0 - 10 V, ±10 V, 0 - 25 V, ±25 V, 0 - 50 V 0 - 20 mA, ±20 mA, 4 - 20 mA, 0 - 40 mA, ±40 mA • Multiplex mode • 16 bits • 48.8 mm design width	• 8 inputs with initiator supply • 0 - 20 mA, ±20 mA, 4 - 20 mA, 0 - 40 mA, ±40 mA • Multiplex mode • 16 bits • 48.8 mm design width

Analog output terminals

Order No. 2861315	Order No. 2863083	Order No. 2861467	Order No. 2700775	Order No. 2878036
IB IL AO 1/SF-PAC	**IB IL AO 2/SF-PAC**	**IB IL AO 2/U/BP-PAC**	**IB IL AO 2/UI-PAC**	**IB IL AO 4/8/U/BP-PAC**
• 1 output • 0 - 10 V, 0 - 20 mA, 4 - 20 mA • 500 Ω load • Short-circuit-proof • 16 bits • 24.4 mm design width	• 2 outputs • 0 - 10 V, 0 - 20 mA, 4 - 20 mA • 500 Ω load • Short-circuit-proof • 16 bits • 48.8 mm design width	• 2 outputs • 0 - 10 V, ±10 V • 16 bits • 12.2 mm design width	• 2 outputs • 0 - 10 V, ±10 V, 0 - 20 mA, ±20 mA, 4 - 20 mA • Short-circuit-proof • 12 bits • 12.2 mm design width	• 4 or 8 outputs • 0 - 5 V, ±5 V, 0 - 10 V, ±10 V • Short-circuit-proof • Defined (fast) shutdown behavior • 16 bits • 48.8 mm design width

Temperature measurement terminals

Order No. 2861360

IB IL 24 TC-PAC

Thermistor terminal for evaluating motor PTC thermistors
• 1 input
• 1 output
• 12.2 mm design width

Order No. 2861328

IB IL TEMP 2 RTD-PAC

• 2 inputs for resistance temperature detectors
• 16 bits
• 12.2 mm design width

Order No. 2861386

IB IL TEMP 2 UTH-PAC

• 2 inputs for thermocouples
• 16 bits
• 12.2 mm design width

Order No. 2863915

IB IL TEMP 4/8 RTD-PAC

• 4 or 8 inputs for resistance temperature detectors with 2/3-wire connection
• 16 bits
• 48.8 mm design width

Order No. 2897402

IB IL TEMP 4/8 RTD/EF-PAC

• 4 or 8 inputs for resistance temperature detectors with 4-wire connection
• 16 bits
• High precision
• 48.8 mm design width

Measurement terminals for strain gauges

Order No. 2875638

IB IL SGI 2/F-PAC

• 2 inputs for strain gauge
• Very fast (≥ 1 ms)
• Bus-synchronous
• 16 bits
• 48.8 mm design width

Order No. 2884907

IB IL SGI 2/P-PAC

• 2 inputs for strain gauge
• Very precise
• RS-485 interface for external display
• 48.8 mm design width

Order No. 2700064

IB IL SGI 1/CAL

• 1 input for strain gauge
• Can be calibrated by EC type approval
• Up to 3000 pitch values
• RS-485 interface for external display
• 48.8 mm design width

Order No. 2700165

IB IL SGI EU CALSET

• Calibration set, approval-related
• Accessories for IB IL SGI 1/CAL

Communication terminals

Order No. 2700893
IB IL RS UNI-PAC

Serial interface
• 1 configurable serial input and output channel in RS-232 or RS-485/RS-422 format
• Only process data communication
• Max. transmission speed of 250 kbaud
• 24.4 mm design width

Order No. 2861357
IB IL RS 232-PAC

Serial interface
• 1 serial input and output channel in RS-232 format
• Max. transmission speed of 38.4 kbaud
• 24.4 mm design width

Order No. 2878722
IB IL RS 232-PRO-PAC

Serial interface
• 1 serial input and output channel in RS-232 format
• Only process data communication
• Max. transmission speed of 38.4 kbaud
• 24.4 mm design width

Order No. 2861933
IB IL RS 485/422-PAC

Serial interface
• 1 serial input and output channel in RS-485/RS-422 format
• Max. transmission speed of 38.4 kbaud
• 24.4 mm design width

Order No. 2863627
IB IL RS 485/422-PROPAC

Serial interface
• 1 serial input and output channel in RS-485/RS-422 format
• Only process data communication
• Max. transmission speed of 38.4 kbaud
• 24.4 mm design width

Order No. 2861441
IBS IL 24 RB-T-PAC

Branch terminal
• INTERBUS remote bus branch
• 12.2 mm design width

Order No. 2878117
IB IL 24 RB-LK

Branch terminal
• INTERBUS remote bus branch
• Fiber optic connection
• 24.4 mm design width

Order No. 2736903
IB IL 24 FLM-PAC

Branch terminal for connecting a Fieldline Modular M8 or M12 local bus at the end of an Inline station
• 12.2 mm design width

Order No: 2737009
IB IL 24 FLM MULTI-PAC

Branch terminal for connecting a Fieldline Modular M8 local bus at any point in an Inline station
• 12.2 mm design width

Order No. 2897457
IB IL 24 LSKIP-PAC

Inline local bus extension terminal
• Can be used with IB IL 24 FLM-PAC
• 48.8 mm design width

Order No. 2897813
IB IL DALI/PWR-PAC

DALI terminals
• Single-channel DALI master
• Integrated DALI power supply unit
• Safe electrical isolation
• 61 mm design width

Order No. 2897910
IB IL DALI/PAC

DALI terminals
• Single-channel DALI master
• Extension for IB IL DALI/PWR-PAC
• 12.2 mm design width

Order No. 2897237
SRC-RS485 EVC

EnOcean wireless receiver for connecting to IB IL RS 485/422-PRO-PAC

Order No. 2701927
IB IL MBUS-PAC

M-bus terminal
• Single-channel M-bus master
• Process data communication only
• Up to 30 M-bus devices can be connected
• Transmission speed of 19.2 kbaud
• 24.4 mm design width

Communication master

Order No. 2700630

IB IL PB-MA-PAC

PROFIBUS master
- PROFIBUS DP V0 master/slave
- Max. transmission speed of 12 Mbps
- Serial interface (S port) incl. memory stick
- 48.8 mm design width

Order No. 2700196

IB IL CAN-MA-PAC

CAN master
- CAN 2.0A and CAN 2.0B
- Transmission speed of 10 kbps to 1 Mbps
- Serial interface (S port) incl. memory stick
- 12.2 mm design width

Order No. 2862717

IB IL IOL 4 DI 12-PAC

IO-Link
- 4 IO-Link channels
- 12 digital inputs, 24 V DC
- 48.8 mm design width

Order No. 2736628

ASI MA IL UNI

AS-i master
- Inline/AS-i master, universal for all bus couplers
- AS-i specification 2.1
- 73.2 mm design width

Order No. 2692720

IB IL IFS-MA-PAC

IF system bus master
- Integration of up to 8 EMM and EEM modules
- Serial interface (S port) incl. memory stick
- Up to 31 measured values and 16 manipulated variables
- 24.4 mm design width

Terminals for open and closed-loop control

Order No. 2861865

IB IL SSI-PAC

Positioning terminal
- Single-axis point-to-point control for absolute encoders with SSI interface
- Rapid motion/creeping motion principle
- 3 digital inputs
- 4 digital outputs
- 48.8 mm design width

Order No. 2861852

IB IL CNT-PAC

Counter
- 1 counter input
- 1 control input
- 1 output
- Max. counting frequency of 100 kHz
- 24-bit binary counter
- Pulse generator
- 24.4 mm design width

Order No. 2897020

IB IL DI 8/S0-PAC

Counter
- 8 inputs for S0 pulse encoder
- 32-bit counter range
- 48.8 mm design width

Order No. 2861632

IB IL PWM/2-PAC

PWM terminal
- Pulse width modulation
- 2 channels
- Pulse/direction interface for controlling step motor power sections
- Max. 50 kHz (5 V)
- Max. 500 Hz (24 V)
- 24.4 mm design width

Order No. 2819574
IB IL SSI-IN-PAC

Position detection terminal
- Reads positions of absolute encoders with SSI interface
- Input resolution max. 25 bits
- 12.2 mm design width

Order No. 2861755
IB IL INC-IN-PAC

Position detection terminal
- Reads positions of incremental encoders
- 25-bit position actual value
- 24.4 mm design width

Order No. 2861768
IB IL IMPULSE-IN-PAC

Position detection terminal
- Reads positions from magnetostrictive length measuring systems with start/stop interface
- Position resolution of 5 μm
- 12.2 mm design width

Energy/power measurement terminal

Order No. 2700965

IB IL PM 3P/N/EF-PAC

Energy/power measurement terminal
- 3 phases plus neutral conductor connection
- Direct current acquisition (1 A or 5 A)
- Max. outer conductor voltage of 690 V AC (L-L)
- 48.8 mm design width

Power-level terminals

Order No. 2727365

IB IL 400 MLR 1-8A

Direct starter
- Electromechanical load relay
- Single-channel direct starter
- Up to 3.7 KW/400 V AC
- 63 mm design width

Order No. 2727352

IB IL 400 ELR 1-3A

Direct starter
- Electronic load relay
- Single-channel direct starter
- Up to 1.5 KW/400 V AC
- 63 mm design width

Order No. 2727378

IB IL 400 ELR R-3A

Reversing starter
- Electronic load relay
- Single-channel reversing starter
- Up to 1.5 KW/400 V AC
- 63 mm design width

Corresponding accessories can be found in our online catalog www.phoenixcontact.net/products

Intrinsically safe Inline terminals (Ex-i)

Order No. 2869910

IB IL EX-IS PWR IN-PAC

- 24 V DC (U_{Ex})
- 1000 mA (max.) at U_{Ex}
- Diagnostic LEDs
- Electronic overload protection
- 48.8 mm design width

Order No. 2869911

IB IL EX-IS DIO 4/NAM-PAC

- 4 configurable I/O channels
- 2-wire connection
- NAMUR sensors supported (EN 60947-5-6)
- Single-channel diagnostics
- 8.2 V sensor supply
- 48.8 mm design width

Order No. 2869912

IB IL EX-IS AIO 4/EF-PAC

- 4 configurable I/O channels
- 2/3-wire connection
- Input: 0 - 10 V, 0 - 20 mA, 4 - 20 mA
- Output: 0 - 20 mA, 4 - 20 mA
- Optional passive output
- Module-based electrical isolation
- Single-channel diagnostics
- 48.8 mm design width

Order No. 2869913

IB IL EX-IS TEMP 4 RTD/ TC-PAC

- 4 configurable I/O channels
- 2/3-wire connection
- RTD inputs: Pt, Ni (DIN 100, 200, 500, 1000)
- TC inputs: J, K, E, R, S, T
- Module-based electrical isolation
- Single-channel diagnostics
- 48.8 mm design width

Safety terminals

Order No. 2700606

IB IL 24 LPSDO 8 V2-PAC

Safe logic modules for SafetyBridge technology
• Connection to 5 safe I/O modules
• 4 safety-related two-channel outputs each or
  8 safety-related single-channel outputs each
• 24 kB logic memory
• 24 V DC, 2 A (per channel)
• Max. PL e acc. to EN ISO 13849-1 and
  SIL 3 acc. to IEC 61508 (EN IEC 62061)
• 48.8 mm design width

Order No. 2701625

IB IL 24 LPSDO 8 V3-PAC

Safe logic modules for SafetyBridge technology
• Connection to 16 safe I/O modules
• 4 safety-related two-channel outputs each or
  8 safety-related single-channel outputs each
• 60 kB logic memory
• 24 V DC, 2 A (per channel)
• Max. PL e acc. to EN ISO 13849-1 and
  SIL 3 acc. to IEC 61508 (EN IEC 62061)
• 48.8 mm design width

Order No. 2985688

IB IL 24 PSDI 8-PAC

Safe input I/O modules for SafetyBridge technology,
INTERBUS-Safety, and PROFIsafe
• 4 safety-related two-channel inputs each or
  8 safety-related single-channel inputs each
• 2 clock outputs for supplying inputs UT1 and UT2
• Max. PL e acc. to EN ISO 13849-1 and SIL 3
  acc. to IEC 61508 (EN IEC 62061)
• 48.8 mm design width

Order No. 2700994

IB IL 24 PSDI 16-PAC

Safe input I/O modules for PROFIsafe and SafetyBridge
technology
• Can be used with IB IL 24 LPSDO 8 V3-PAC
• 4 safety-related two-channel inputs each or
  8 safety-related single-channel inputs
• 2 clock outputs for supplying inputs UT1 and UT2
• Max. PL e acc. to EN ISO 13849-1 and SIL 3
  acc. to IEC 61508 (EN IEC 62061)
• 48.8 mm design width

Order No. 2985631

IB IL 24 PSDO 8-PAC

Safe output I/O modules for SafetyBridge
technology,
INTERBUS-Safety, and PROFIsafe
• 4 safety-related two-channel outputs each or
  8 safety-related single-channel outputs each
• 24 V DC, 2 A (per channel)
• Max. PL e acc. to EN ISO 13849-1 and SIL 3
  acc. to IEC 61508 (EN IEC 62061)
• 48.8 mm design width

Order No. 2985864

IB IL 24 PSDOR 4-PAC

Safe output I/O modules for SafetyBridge technology,
INTERBUS-Safety, and PROFIsafe
• 2 safety-related two-channel relays or 4 safety-related
  single-channel relays (2 floating contacts each)
• 2 readback inputs for recording external circuit breakers
• 2 clock outputs for supplying the readback inputs
• Max. PL e acc. to EN ISO 13849-1 and SIL 3
  acc. to IEC 61508 (EN IEC 62061)
• 73.2 mm design width

Order No. 2916493

IB IL 24 PSDO 4/4-PAC

Safe output I/O modules for SafetyBridge
technology, INTERBUS-Safety, and
PROFIsafe
• 4 safe positive switching and 4 safe
  negative switching digital outputs
• 24 V DC, 2 A (per channel)
• Max. PL e acc. to EN ISO 13849-1 and
  SIL 3 acc. to IEC 61508 (EN IEC 62061)
• 48.8 mm design width

Inline controllers – class 100 compact controllers

Order No. 2700075

ILC 191 ME/INC

• Typical processing speed of 1.3 ms for 1 K instructions
• 1 MB program memory
• 1 MB data memory
• 48 kB retentive data memory
• 2 Ethernet interfaces
• 1 RS-485/RS-422 interface
• 1 two-channel pulse/direction interface and PWM (before digital)
• 8 digital inputs (event task compatible)
• 4 digital outputs
• 2 inputs for incremental encoder
• 2 fast counter inputs (max. 200 kHz)
• 164 mm design width

Order No. 2700074

ILC 191 ME/AN

• Typical processing speed of 1.3 ms for 1 K instructions
• 1 MB program memory
• 1 MB data memory
• 48 kB retentive data memory
• 2 Ethernet interfaces
• 1 RS-485/RS-422 interface
• 1 two-channel pulse/direction interface and PWM (before digital)
• 8 digital inputs (event task compatible)
• 4 digital outputs
• 2 analog inputs
• 2 analog outputs
• 164 mm design width

DI

Order No. 2863928

IB IL 24 DI 4-ME

• 4 inputs
• 24 V DC
• 3-wire connection
• Short plug
• 12.2 mm design width
• Pack of 4

Order No. 2897156

IB IL 24 DI 16-ME

• 16 inputs
• 24 V DC
• 3-wire connection
• Short consecutively numbered plugs
• 48.8 mm design width
• Pack of 4

DO

Order No. 2863931

IB IL 24 DO 4-ME

• 4 outputs
• 24 V DC, 500 mA
• 3-wire connection
• Short plugs
• 12.2 mm design width
• Pack of 4

Order No. 2897253

IB IL 24 DO 16-ME

• 16 outputs
• 24 V DC, 500 mA
• 3-wire connection
• Short consecutively numbered plugs
• 48.8 mm design width
• Pack of 4

AI

Order No. 2863944

IB IL AI 2/SF-ME

• 2 inputs
• 3-wire connection
• 0 - 10 V, ±10 V, 0 - 20 mA, ±20 mA, 4 - 20 mA
• 12 bits
• Without shield connection
• 12.2 mm design width

AO

Order No. 2863957

IB IL A0 2/U/BP-ME

• 2 outputs
• 2-wire connection
• 0 - 10 V, ±10 V
• 12 bits
• Without shield connection
• 12.2 mm design width

Inline controllers – class 100 high-performance controllers

Order No. 2701034

ILC 131 ETH/XC

• Typical processing speed of 1.7 ms for
  1 K instructions
• 192 kB program memory
• 192 kB data memory
• 8 kB retentive data memory
• 1 Ethernet interface
• 8 digital inputs
• 4 digital outputs
• Extended temperature range of -40°C to +60°C
• 80 mm design width

Order No. 2701141

ILC 151 ETH/XC

• Typical processing speed of 1.5 ms for
  1 K instructions
• 256 kB program memory
• 256 kB data memory
• 8 kB retentive data memory
• 1 Ethernet interface
• 8 digital inputs
• 4 digital outputs
• Extended temperature range of -40°C to +60°C
• 80 mm design width

Ethernet	Fieldbuses

Modbus TCP (UDP)

Order No. 2701388

IL ETH BK DI8 DO4-2TX-XC-PAC

• Modbus TCP (UDP)
• HTTP, TFTP, BootP, SNMP
• 8 inputs, 24 V DC
• 4 outputs, 500 mA
• 0.8 A at U_L
• RJ45 connection
• Extended temperature range of -40°C to +60°C
• 80 mm design width

Order No. 2701150

IBS IL 24 BK-T/U-XC-PAC

• INTERBUS
• Incl. branch bus terminal support
• 2 A at U_L
• Bus connection via Inline plug
• Extended temperature range of -40°C to +60°C
• 48.8 mm design width

Order No. 2701151

IBS IL 24 RB-T-XC-PAC

Branch terminal
• INTERBUS remote bus branch
• Extended temperature range of -40°C to +60°C
• 12.2 mm design width

Communication master

Order No. 2701160

IB IL CAN-MA-XC-PAC

CAN master
• CAN 2.0A and CAN 2.0B
• Transmission speed of 10 kbps to 1 Mbps
• Serial interface (S port) incl. memory stick
• Extended temperature range of -40°C to +60°C
• 12.2 mm design width

Power and segment terminals

Order No. 2701162

IB IL 24 PWR IN/2-F-XC-PAC

Power terminal
• 24 V DC (U_M, U_S)
• With fuse
• 6 A power supply (at U_M, U_S)
• Extended temperature range
  of -40°C to +60°C
• 12.2 mm design width

Order No. 2701298

IB IL 24 PWR IN/R-XC-PAC

Boost terminal for communications
power and I/O voltage (logic up to
2 A)
• U_L, U_{ANA}, U_M, U_S
• 8 A power supply (at U_M, U_S)
• Extended temperature range
  of -40°C to +60°C
• 48.8 mm design width

Order No. 2701161

IB IL 24 PWR IN-XC-PAC

Power terminal
• 24 V DC (U_M, U_S)
• 8 A power supply (at U_M, U_S)
• Extended temperature range
  of -40°C to +60°C
• 12.2 mm design width

Order No. 2701163

IB IL 24 SEG/F-XC-PAC

Segment terminal
• 24 V DC
• With fuse
• 6 A power supply (at U_S)
• Extended temperature range
  of -40°C to +60°C
• 12.2 mm design width

Digital input terminals

Order No. 2701152

IB IL 24 DI 4-XC-PAC

• 4 inputs
• 24 V DC
• 3-wire connection
• Extended temperature range
  of -40°C to +60°C
• 12.2 mm design width

Order No. 2701212

IB IL DI 8/HD-XC-PAC

• 8 inputs
• 24 V DC
• Single-wire connection
• Extended temperature range
  of -40°C to +60°C
• 12.2 mm design width

Order No. 2701154

IB IL DI 16/XC-PAC

• 16 inputs
• 24 V DC
• 3-wire connection
• Extended temperature range
  of -40°C to +60°C
• 48.8 mm design width

Digital output terminals   ## Relay terminal

Order No. 2701155

IB IL DO 4-XC-PAC

• 4 outputs
• 24 V DC, 500 mA
• 3-wire connection
• Extended temperature range
  of -40°C to +60°C
• 12.2 mm design width

Order No. 2701213

IB IL DO 8/HD-XC-PAC

• 8 outputs
• 24 V DC, 500 mA
• Single-wire connection
• Extended temperature range
  of -40°C to +60°C
• 12.2 mm design width

Order No. 2701156

IB IL DO 16/XC-PAC

• 16 outputs
• 24 V DC, 500 mA
• 3-wire connection
• Extended temperature range
  of -40°C to +60°C
• 48.8 mm design width

Order No. 2701214

IB IL 24/48 DOR 2/W-XC-PAC

• 2 SPDT relay contacts
• 5 - 50 V AC
• 5 - 120 V DC, 2 A
• Extended temperature range
  of -40°C to +60°C
• 12.2 mm design width

Analog input terminals

Order No. 2701157

IB IL AI 2/SF-XC-PAC

- 2 inputs
- 0 - 10 V, ±10 V, 0 - 20 mA, ±20 mA, 4 - 20 mA
- 16 bits
- Extended temperature range of -40°C to +60°C
- 12.2 mm design width

Order No. 2701215

IB IL AI 4/EF-XC-PAC

- 4 differential inputs with initiator supply
- 0 - 5 V, ±5 V, 0 - 10 V, ±10 V, 0 - 20 mA, ±20 mA, 4 - 20 mA
- Overload protection (mA)
- Bus synchronous (≥ 1 ms)
- 16 bits
- Extended temperature range of -40°C to +60°C
- 48.8 mm design width

Order No. 2701159

IB IL AI 8/SF-XC-PAC

- 8 inputs
- 0 - 5 V, ±5 V, 0 - 10 V, ±10 V, 0 - 25 V, ±25 V, 0 - 50 V 0 - 20 mA, ±20 mA, 4 - 20 mA, 0 - 40 mA, ±40 mA
- Multiplex mode
- 16 bits
- Extended temperature range of -40°C to +60°C
- 48.8 mm design width

Analog output terminals

Order No. 2701219

IB IL AO 1/SF-XC-PAC

- 1 output
- 0 - 10 V, 0 - 20 mA, 4 - 20 mA
- 500 Ω load
- Short-circuit-proof
- 16 bits
- Extended temperature range of -40°C to +60°C
- 24.4 mm design width

Order No. 2701389

IB IL AO 2/UI-XC-PAC

- 2 outputs
- 0 - 10 V, ±10 V, 0 - 20 mA, ±20 mA 4 - 20 mA
- Short-circuit-proof
- 12 bits
- Extended temperature range of -40°C to +60°C
- 12.2 mm design width

Order No. 2701164

IB IL AO 4/8/U/BP-XC-PAC

- 4 or 8 outputs
- 0 - 5 V, ±5 V, 0 - 10 V, ±10 V
- Short-circuit-proof
- Defined (fast) shutdown behavior
- 16 bits
- Extended temperature range of -40°C to +60°C
- 48.8 mm design width

Temperature measurement terminals

Order No. 2701217

IB IL TEMP 2 RTD-XC-PAC

- 2 inputs for resistance temperature detectors
- 16 bits
- Extended temperature range of -40°C to +60°C
- 12.2 mm design width

Order No. 2701216

IB IL TEMP 2 UTH-XC-PAC

- 2 inputs for thermocouples
- 16 bits
- Extended temperature range of -40°C to +60°C
- 12.2 mm design width

Order No. 2701218

IB IL TEMP 4/8 RTD-EF-XC-PAC

- 4 or 8 inputs for resistance temperature detectors with 4-wire connection
- 16 bits
- High precision
- Extended temperature range of -40°C to +60°C
- 48.8 mm design width

Order No. 2900889
FLKM 14-PA-INLINE/DIO 8

VARIOFACE front adapter for 8-channel Inline HD modules

Order No. 2304128
FLKM 14-PA-INLINE/IN 8

Order No. 2304131
FLKM 14-PA-INLINE/OUT 8

VARIOFACE front adapter for 8-channel Inline modules

Order No. 2302751
FLKM 14-PA-INLINE/IN 16

Order No. 2302764
FLKM 14-PA-INLINE/OUT 16

VARIOFACE front adapter for 16-channel Inline modules

Order No. 2302777
FLKM 14-PA-INLINE 32

VARIOFACE front adapter for 32-channel Inline modules

Order No. 2799720
PSM-SET-FSMA/4-KT

Order No. 2799487
PSM-SET-FSMA/4-HCS

FSMA plugs for INTERBUS fiber optics

Order No. 2758473
IBS DSUB 9/L

Order No. 2758486
IBS DSUB 9/C

D-SUB 9 connectors

Order No. 2761499
SUBCON 9/F-SH

Order No. 2761509
SUBCON 9/M-SH

SUBCON D-SUB plugs for INTERBUS

see INTERFACE catalog
SUBCON-PLUS-PROFIB/...

see INTERFACE catalog
SUBCON-PLUS-CAN/...

SUBCON plugs for PROFIBUS and CAN

Order No. 3022276
CLIPFIX 35-5

Standard end bracket

Order No. 3022218
CLIPFIX 35

End bracket for CANopen® and DeviceNet™ bus couplers

Order No. 1201662
E/AL-NS 35

End bracket for use in the event of vibrations

Order No. 2740850
I-L ATP GN

End cover plate

Order No. 2727501
IB IL FIELD 2

Order No. 2727515
IB IL FIELD 8

Inline marking fields

Order No. 809492
ESL 62X10

Order No. 809502
ESL 62X46

Marking sheets for laser printer

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ZBFM 6-...

Zack marker strip marking

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IL CP

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