AXL F BK PN TPS

Axioline F, bus coupler, PROFINET



Data sheet
107621_en_11

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1 Description

The bus coupler is intended for use within a PROFINET network.
The bus coupler creates the link to the Axioline F I/O system and the industrial I/O signals connected to it.
Up to 63 Axioline F devices can be connected to the bus coupler.
Device descriptions for Phoenix Contact controllers are integral parts of the engineering tools PC Worx and PLCnext Engineer.
Corresponding GSDML files are available for integrating the Axioline F station into other programming systems.
These files can be downloaded at:
www.phoenixcontact.com/product/2403869

Valid for firmware revision 1.xx

Features

- 2 Ethernet ports (with integrated switch)
- Conformance with PROFINET specification V2.3
- Supports PROFIsafe
- Supports PROFIenergy
- Supports PROFINET S2 system redundancy (firmware version 1.30 or later)
- PROFINET RT and IRT
- Minimum cycle time of PROFINET for RT and IRT is 250 µs
- Firmware can be updated
- Runtime in bus coupler is negligible (almost 0 µs)
- Typical cycle time of the Axioline F local bus is around 10 µs
- Web-based management
- Supports the operation of Axioline Smart Elements
- Supports passive Smart Elements (firmware version 1.30 or later)
- Supports IOL-CONF (firmware version 1.30 and later)
- Supports Diag+
- Safe analog value processing with SAFE AI and other components

This data sheet is only valid in association with the UM EN AXL F SYS INST user manual.
For information on PROFINET basics, please refer to the UM EN PROFINET SYS user manual.

Make sure you always use the latest documentation.
It can be downloaded at: phoenixcontact.com/product/2403869

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3 Ordering data

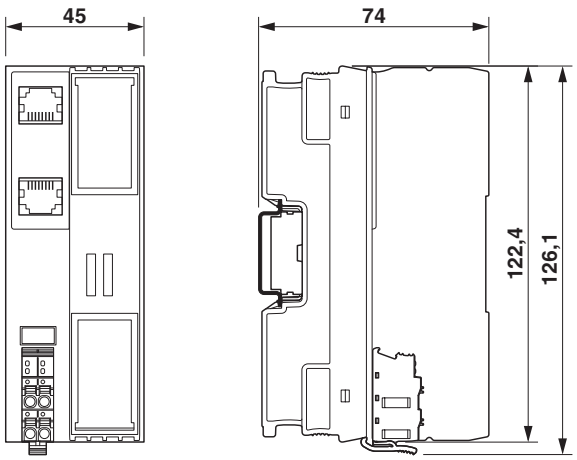
Description	Type	Item no.	Pcs./Pkt.
Axioline F, Bus coupler, PROFINET, RJ45 jack, transmission speed in the local bus: 100 Mbps, degree of protection: IP20, including bus base module and Axioline F connector	AXL F BK PN TPS	2403869	1

Documentation	Type	Item no.	Pcs./Pkt.
User manual, English, Axioline F: System and installation	UM EN AXL F SYS INST	-	-
User manual, English, Axioline F: Diagnostic registers, and error messages	UM EN AXL F SYS DIAG	-	-
User manual, English, PROFINET basics	UM EN PROFINET SYS	-	-
Quick start guide, English, Handling an Axioline F station under Startup+	UM QS EN STARTUP+	-	-
Application note, English, Protection of the FTP access on bus couplers	AH EN AXL F BK - SECURITY ADVISORY	-	-
Application note, English, Measures to protect network-capable devices with Ethernet connection against unauthorized access	AH EN INDUSTRIAL SECURITY	-	-
User manual, English, Installation and operation of the PC Worx Firmware Updater software	UM EN PC WORX FIRMWARE UPDATER	-	-
Quick start guide, English, Startup of IO-Link masters and IO-Link devices with the IOL-CONF software	UM QS EN AXL F IOL CONF	-	-
Application note, English, Description of the SAFE AI system	AH EN SAFE AI	-	-

Additional ordering data	
For additional ordering data (accessories), go to:	www.phoenixcontact.com/product/2403869

4 Technical data

Dimensions (nominal sizes in mm)	



Width	45 mm
Height	126.1 mm
Depth	74 mm
Note on dimensions	The depth applies when a TH 35-7.5 DIN rail is used (in accordance with EN 60715).

General data	
Color	Housing: traffic grey A (RAL 7042)
Weight	177 g (with connector and bus base module)
Ambient temperature (operation)	-25 °C … 60 °C (Mounting position: wall mounting on horizontal DIN rail) -25 °C … 55 °C (Mounting position: any)
Ambient temperature (storage/transport)	-40 °C … 85 °C
Permissible humidity (operation)	5 % … 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % … 95 % (non-condensing)
Air pressure (operation)	70 kPa … 106 kPa (up to 3000 m above sea level)
Air pressure (storage/transport)	70 kPa … 106 kPa (up to 3000 m above sea level)
Degree of protection	IP20
Protection class	III (IEC 61140, EN 61140, VDE 0140-1)
Overvoltage category	II (IEC 60664-1, EN 60664-1)
Degree of pollution	2 (IEC 60664-1, EN 60664-1)
Mounting type	DIN rail mounting
Mounting position	any (observe temperature derating)

Connection data: Axioline F connector	
Connection method	Push-in connection
Conductor cross section, rigid	0.2 mm² … 1.5 mm²
Conductor cross section, flexible	0.2 mm² … 1.5 mm²
Conductor cross section [AWG]	24 … 16
Stripping length	8 mm

Please observe the information provided on conductor cross sections in the “Axioline F: system and installation” user manual.

Interface: PROFINET	
Number of interfaces	2
Connection method	RJ45 jack (Auto negotiation and autocrossing)
Transmission speed	100 Mbps (full duplex)
Transmission physics	Ethernet in RJ45 twisted pair
Transmission length	max. 100 m

Interface: Axioline F local bus	
Number of interfaces	1
Connection method	Bus base module
Transmission speed	100 Mbps

Interface: Service	
Number of interfaces	1
Connection method	USB type C

System limits of the bus coupler	
Amount of process data	max. 1012 Byte (Input) max. 1012 Byte (Output)

Use the Project+ configuration software to calculate the individual process or parameter data and the corresponding number of devices that can be connected.

For the Project+ configuration software, go to: www.phoenixcontact.com/product/2403869

Number of local bus devices that can be connected	max. 63
Number of IO-Link masters	max. 8

NOTE: Electronics may be damaged when overloaded

Observe the logic current consumption of each device when configuring an Axioline F station. It is specified in every module-specific data sheet. The current consumption can differ depending on the individual module. The permissible number of devices that can be connected therefore depends on the specific station structure.

PROFINET	
Device function	PROFINET device
Specification	Version 2.3
Conformance Class	Conformance-Class C
Vendor ID	$00B0_{hex}$
Device ID	1000_{hex}

Supported protocols	
Supported protocols	PROFINET, TFTP, PTCP, LLDP, SNMP, MRP, DCP, DDI, BootP (BootP only to perform firmware updates)

Communications power U_L feed-in (the supply of the Axioline F local bus U_{Bus} is generated from U_L)	
Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current consumption	typ. 97 mA (without I/O modules, U_L = 24 V) max. 600 mA (2.0 A at U_{Bus}, U_L = 24 V)
Surge protection	electronic
Reverse polarity protection	no

NOTE: Electronics may be damaged when overloaded

Provide external fuses for the 24 V U_L area. If you are using an external fuse, the power supply unit must be able to supply four times the nominal current of the fuse. This ensures that it trips in the event of an error.

Axioline F local bus supply (U_{Bus})	
Supply voltage	5 V DC (via bus base module)
Power supply unit	max. 2 A

Power dissipation	
Maximum power dissipation for nominal condition	4.4 W

Electrical isolation/isolation of the voltage areas	
Test section	**Test voltage**
PROFINET interface 1 / PROFINET interface 2	1500 V AC, 50 Hz, 1 min.
PROFINET interface 1 / 24 V communications voltage (U_L) feed-in	1500 V AC, 50 Hz, 1 min.
PROFINET interface 2 / 24 V communications voltage (U_L) feed-in	1500 V AC, 50 Hz, 1 min.
PROFINET interface 1 / functional ground	1500 V AC, 50 Hz, 1 min.
PROFINET interface 2 / functional ground	1500 V AC, 50 Hz, 1 min.
24 V communications voltage (U_L) feed-in / functional ground	500 V AC, 50 Hz, 1 min.

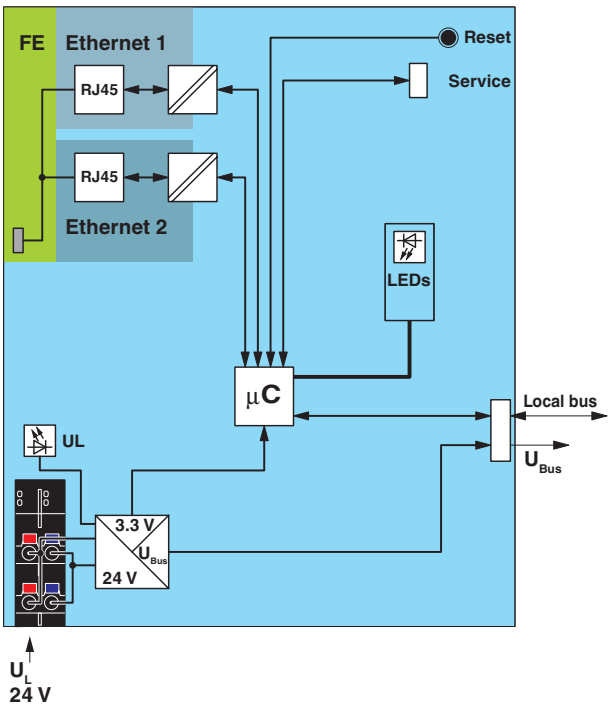
Mechanical tests	
Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6	5g
Shock in accordance with EN 60068-2-27/IEC 60068-2-27	30g
Continuous shock in accordance with EN 60068-2-27/IEC 60068-2-27	10g

Conformance with EMC Directive 2014/30/EU	
Immunity test in accordance with EN IEC 61000-6-2	
Electrostatic discharge (ESD) IEC 61000-4-2	Criterion B, ±6 kV contact discharge, ±8 kV air discharge
Electromagnetic fields IEC 61000-4-3	Criterion A, Field intensity: 10 V/m
Fast transients (burst) IEC 61000-4-4	Criterion B, ±2 kV
Transient overvoltage (surge) IEC 61000-4-5	Criterion B; DC supply lines: ±0.5 kV/±1.0 kV (symmetrical/ asymmetrical), fieldbus cable shielding: ±1.0 kV
Conducted interference IEC 61000-4-6	Criterion A, Test voltage 10 V
Noise emission test in accordance with EN IEC 61000-6-3	Class B

Approvals and manufacturer's declarations	
The latest documents can be found at:	www.phoenixcontact.com/product/2403869

5 Internal circuit diagram

Figure 1 Internal wiring of the terminal points



Key:

FE	Functional ground
Ethernet 1/2	PROFINET 1/2
Reset	Reset button
Service	Service interface
Local bus	Axioline F local bus (hereinafter referred to as local bus)
RJ45	RJ45 interface
	Electrical isolation for data or power supply
	Power supply unit
µC	Microcontroller
	LED
	Electrically isolated areas

6 Security in the network

NOTE: Network security jeopardized by unauthorized access

Connecting devices to a network entails the danger of unauthorized access to the network.

Observe the following safety notes:

- If possible, deactivate unused communication channels.
- Use secure passwords reflecting the complexity and service life recommended in the latest guidelines.
- Only allow authorized persons to access the device. Limit the number of authorized persons to the necessary minimum.
- Always install the latest firmware version. The firmware can be downloaded via the item (www.phoenixcontact.com/products).
- Observe the IT security requirements and the standards applicable to your application. Take the necessary protective measures. These may include, for example, virtual networks for remote maintenance access or a firewall.
- In security-critical applications, always use the device with an additional security appliance.
  Phoenix Contact offers security appliances in the mGuard product range. The mGuard routers connect various networks for the remote maintenance and protection of the local network and protect these networks against cyberattacks.
- You must take defense-in-depth strategies into consideration when planning networks.

Additional measures for protection against unauthorized network access can be found in the “INDUSTRIAL SECURITY” application note. The application note can be downloaded via the item (www.phoenixcontact.com/products).
German: AH DE INDUSTRIAL SECURITY, 107913
English: AH EN INDUSTRIAL SECURITY, 107913

If a security vulnerability exists for products, solutions, or services from Phoenix Contact, it will be published on the PSIRT (Product Security Incident Response Team) website:
www.phoenixcontact.com/psirt

7 For your safety

7.1 Intended use

Use the Axioline F modules exclusively in accordance with the specifications in the accompanying data sheet and the “Axioline F: System and Installation” user manual.

If the equipment is used in a manner not specified, the protection provided by the equipment may be impaired.

7.2 Qualification of users

The use of products described in this data sheet is oriented exclusively to electrically skilled persons or persons instructed by them. The users must be familiar with the relevant safety concepts of automation technology as well as applicable standards and other regulations.

7.3 Electrical safety

WARNING: loss of electrical safety

If used incorrectly, device safety may be impaired.

The instructions given in this data sheet as well as the UM EN AXL F SYS INST user manual must be observed during installation, startup, and operation.

7.4 Installation

Only install the Axioline F modules in a control cabinet or junction box.

CAUTION - Fire hazard

– The device must be installed in the final protective housing, which provides sufficient resistance to mechanical strain and protection against the spreading of fire in accordance with the standards UL/IEC/EN 61010-1 and UL/IEC/EN 61010-2-201.

– The supply and external circuits intended to be connected to this device shall be galvanically separated from the mains supply or hazardous live voltage by reinforced or double insulation and meet the requirements of SELV/PELV (Class III) circuits of UL/CSA/IEC/EN 61010-1, UL/CSA/IEC/EN 61010-2-201.

NOTE: damage to the contacts

Physical overloads can result in damage to the terminal points.

- Relieve strain in the connected cables.

7.5 Applications with UL approval

Information:

To install the device in accordance with UL/CSA/IEC standard, the following notes must be observed.

– Use copper conductors only.

– Minimum temperature rating of the cables to be connected to the field wiring terminals:

70 °C, AWG 24 ... 16

8 Connecting PROFINET and supply

8.1 Connecting PROFINET

Connect PROFINET to the bus coupler via an 8-pos. RJ45 connector.

Only one twisted pair cable with an impedance of 100 Ω may be connected to each Ethernet interface in RJ45 format. The data transmission speed is 100 Mbps. The 100Base-TX port of the bus coupler is able to detect a pair of incorrectly connected receive cables (RD+/RD-) and to correct them using the auto polarity correction function.

Auto crossover
Both Ethernet interfaces are provided with the auto crossover function.

Shielding
The shield of the connected twisted pair cables is electrically connected to the RJ45 socket. When connecting network segments, avoid ground loops, potential transfers, and equipotential bonding currents via the braided shield.

Observe bending radii
The housing dimensions specified under "Dimensions" refer to the bus coupler with I/O connectors without Ethernet connection. When installing the bus coupler in a control box, observe the bending radii of the Ethernet cables and the connectors used (e.g., FL CAT5 FLEX: 30 mm for fixed installation and FL CAT5 HEAVY: 30 mm without outer sheath and 45 mm with outer sheath). If required, use angled RJ45 connectors to maintain these bending radii.

8.2 Connecting the supply voltage

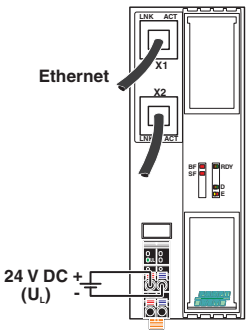
Figure 2 Terminal point assignment



Terminal point	Color	Assignment	
Supply voltage input			
a1, a2	Red	24 V DC (U_L)	Communications power feed-in (bridged internally)
b1, b2	Blue	GND	Reference potential of the supply voltage (bridged internally)

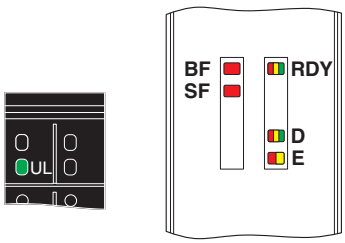
9 Connection example

Figure 3 Connection of the cables



10 Local diagnostic and status indicators

Figure 4 Local diagnostic and status indicators



Designation	Color	Meaning	State	Description
UL	Green	U_{Logic}	On	Communications power supply present.
			Off	Communications power supply not present.
BF	Red	Communication error (Bus Fault)	On	No link status available on any port
			Flashing	SF LED not flashing: Link status available, no communication connection to the PROFINET controller
			Flashing	SF flashing: Hardware watchdog triggered
			Off	A PROFINET controller has established an active communication connection to the PROFINET device.
SF	Red	System failure (PROFINET)	On	PROFINET diagnostics available
			Off	PROFINET diagnostics not available
			Flashing	Only flashes together with the BF LED. Watchdog has been triggered.
RDY	Green/ yellow/ red	Ready	Green on	Device is ready for operation.
			Flashing green/yellow	Communications power undervoltage or surge voltage
				Overtemperature
			Flashing green, LED D yellow on	Device is in standby mode.
			Yellow on	Firmware/bus coupler is booting
			Flashing yellow	Firmware update is being performed.
			Flashing yellow/red	Firmware update has failed. Check the firmware file and the settings.
			Red flashing	Faulty firmware
			Off	Device is not ready for operation.

Designation	Color	Meaning	State	Description
D	Red/ yellow/ green	Diagnostics of local bus communication		
		Run	Green on	The station is ready to operate; communication within the station is OK. All data is valid. An error has not occurred.
		Active	Flashing green	The station is ready to operate. Communication within the station is ok. The data are **not** valid. The controller or higher-level network is not providing valid data. The module is not malfunctioning.
			Flashing green/red	A rest system will be operated; at least one device of the configuration is not available.
		Ready	Yellow on	The station is ready to operate. No data are being exchanged.
			Flashing yellow	Access from Startup+ in I/O check mode
			Flashing yellow/red	Local bus error during active I/O check (with connected Startup+)
			Red flashing	Local bus error on startup
				Possible causes:
				The configuration cannot be generated. Information from one device is missing.
				Chip version of a device is <V1.1
				The desired and actual configuration are different
				No local bus device connected
				The maximum number of local bus devices is exceeded.
			Red on	The station is ready for operation but has lost connection to at least one device.
				Possible causes:
				Communication error
				Local bus device has been removed or configured device is missing.
				Reset at a local bus device
				Serious device error at a local bus device (local bus device can no longer be reached)
		Power down	Off	Device is in (power) reset or in energy-saving mode.
E	Yellow/ red	Error	Yellow on	I/O warning at a local bus device
			Red on	I/O error at a local bus device
			Off	No I/O messages present.

11 Diagnostic indicators for PROFINET

States during operation

LED	Meaning
SF OFF/BF OFF	PROFINET controller was able to establish communication without errors.

States in the event of an error

LED	Meaning	Measure/remedy in the event of an error
SF OFF/BF flashing	PROFINET device is waiting for communication with the PROFINET controller.	No error
	The logic communication connection has been interrupted. The PROFINET controller can no longer be accessed.	Check the connection between the PROFINET controller and the PROFINET device. Make sure that the PROFINET device name of the PROFINET device is identical with the configuration.
	The PROFINET device is not assigned a PROFINET device name.	Assign the PROFINET device name using the relevant tool.
SF OFF/BF ON	The physical communication path has been interrupted. The PROFINET controller can no longer be accessed.	Restore the physical connection between the PROFINET controller and the PROFINET device.
SF ON/BF OFF	Diagnostic data is available.	Read the diagnostic message using the relevant tool.
SF flashing/ BF flashing	Hardware watchdog has been triggered.	Execute a reset. Replace the device when the error occurs again.

States during firmware update

LED	Meaning
RDY flashing	BootP requests are sent and the firmware container is loaded via tftp.
RDY ON	Firmware is saved.

The firmware update can take several minutes.

The bus coupler is restarted automatically after a successful update.

12 Diagnostic status register

Information on the operating and error states of the Axioline F local bus is stored in the diagnostic status register of the bus coupler. A state of the Axioline F local bus is assigned to each bit in the diagnostic status register.

The states in the error bits (F_PW_BIT, F_PF_BIT, F_BUS_BIT, F_CTRL_BIT) are described in greater detail using the two diagnostic parameter registers. For information on this, please refer to the AXL F SYS DIAG user manual.

Structure of the diagnostic status register

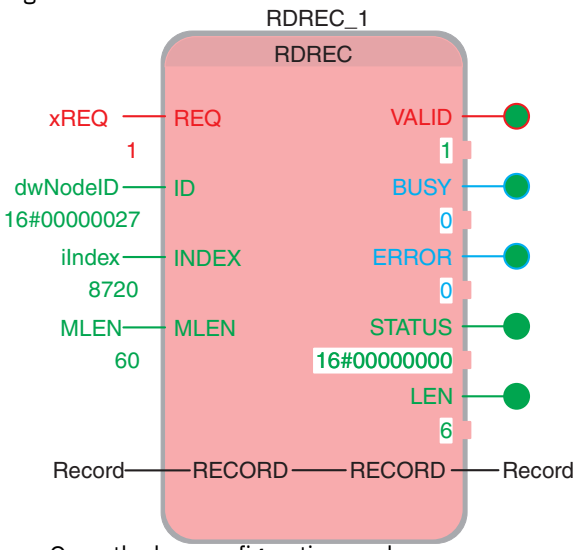
Bit	Designation	Meaning	
00	F_PW_BIT	I/O warning	At least one device indicates an I/O warning.
01	F_PF_BIT	I/O error	At least one device indicates a peripheral fault.
02	F_BUS_BIT	Bus error	A bus error has occurred.
03	-	Reserved	
04	-	Reserved	
05	F_RUN_BIT	Run	Data cycles are being exchanged, the output data is enabled.
06	F_ACTIVE_BIT	Active	Configuration is active, PDI to the devices is possible, data exchange with invalid/non-enabled process data.
07	F_READY_BIT	Ready	The local bus master is ready for operation, no data exchange over the bus.
08	F_BD_BIT	Bus different	A device which does not belong to the current configuration has been detected at the last interface.
09	F_BASP_BIT	SYS_FAIL	The controller is in the STOP state or no application program has been loaded. The output data is blocked (substitute value behavior is active).
10	F_FORCE_BIT	Force Mode	Force mode (startup tool/I/O check is active).
11	F_SYNC_BIT	Synchronization	Synchronization between higher-level system and local bus master has failed.
12	F_PARA_REQ	Module parameter	At least one device is requesting parameters.
13 ... 15	-	Reserved	

You can read the diagnostic status register using asynchronous services (index $2210_{hex} = 8720_{dec}$).

Example in PC Worx: sending a read service

The RDREC function block is available for sending read services.

Figure 5 RDREC function block



- Open the bus configuration workspace.
- In the “Bus Structure” window, select the bus coupler.
- In the “Device Details” window, select the “Module Settings” tab.
- Read off the bus coupler node ID (**decimal**).
- Enter the node ID **in hexadecimal form** on the input ID of the function block.

Please note:

PC Worx generates the node ID automatically. It may therefore vary in different projects.

The read service is sent with a rising edge at the REQ input of the function block. If the VALID output is TRUE, the response to the service is stored in the I/O variable RECORD.

The diagnostic status register is located in byte 0 and byte 1.

In the example, the following response is stored in variable RECORD:

Record	
[1]	16#00
[2]	16#E0
[3]	16#00
[4]	16#00
[5]	16#00
[6]	16#00
[7]	16#00
[8]	16#00
[9 ... 15]	16#00

In this example, the diagnostic status register has the value $00E0_{hex}$ ($0000\ 0000\ 1110\ 0000_{bin}$). Bits 5, 6, and 7 are TRUE. This means that data cycles are being exchanged, the configuration is active, and the local bus master is ready.

13 Diagnostic alarms

PROFINET enables the PROFINET device to store diagnostic information together with the error location and error type.

The alarms are enabled in the delivery state. However, you can disable the alarms on startup via parameters.

An incoming alarm informs the PROFINET controller that diagnostic information has been stored.

When the diagnostic information has been removed, an outgoing alarm is transmitted to the controller.

If at least one piece of diagnostic information is stored, the SF LED is on. If no diagnostic information is present, the SF LED is off.

14 Startup

Default upon delivery/default settings

The bus coupler is supplied with the following default settings:

PROFINET name:	No name assigned
IP parameters:	0.0.0.0
Module designation:	AXL F BK PN TPS
Vendor ID:	$00B0_{hex}$
Device ID:	1000_{hex}

Firmware started

Once you have supplied the bus coupler with power or pressed the reset button, the firmware is started. After completion of the firmware boot process the BF LED is either on or flashing.

Documentation

How to assign the PROFINET names and the IP address as well as how to startup a device within a PROFINET system is described in the following documents:

– "PC WORX" quick start guide
– "Configuring INTERBUS devices in a PROFINET network using the example of STEP 7" quick start guide

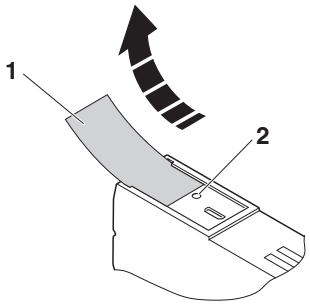
For the order designations, please refer to the ordering data.

The documentation can be found on the Internet at www.phoenixcontact.com/products.

15 Reset button

The reset button is located beneath the top marking label on the bus coupler.

Figure 6 Reset button



1 Marking field

2 Reset button

You can restart the bus coupler using the reset button.

Restart bus coupler

Restart the bus coupler by pressing the reset button during ongoing operation.

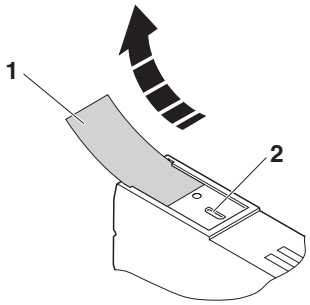
The outputs of the station are set to the parameterized substitute values.

The process image of the inputs is not re-read.

16 Service interface

The service interface is located beneath the top marking field on the bus coupler.

Figure 7 Service interface



1 Marking field

2 Service interface

Using the service interface via USB, you can connect the bus coupler to a PC on which Startup+, the startup and diagnostic tool, is running.

NOTE: Damage to the USB interface

In PCs, the USB ports are usually not electrically isolated from the rest of the hardware. This does not cause any problems for USB devices that do not have their own reference ground. However, if you connect grounded devices (e.g., the bus coupler), ground loops with undesired compensating currents may occur. These compensating currents can impair data transmission and, in extreme cases, destroy the interfaces.

Recommendation:

Connect the USB interface of the bus coupler to your PC in such a way that it is electrically isolated.
To do this, use a USB isolator.

Startup+

Startup+ offers the following functions:

– Parameterization of the station I/O modules
– I/O check
– Diagnostics

For detailed information on Startup+, please refer to the UM QS EN STARTUP+ user manual.

17 Parameterization

PC Worx

Parameterization of the PROFINET device in PC Worx requires at least PC Worx Version 6.30. This is part of the AUTOMATIONWORX Software Suite 1.80 and 1.81.

An online data sheet of the device with important technical data and a configuration file are integrated into PC Worx. If several versions of the configuration file are available, make sure that you are working with the file version that corresponds to the firmware/hardware version used.

Other tools

The PROFINET device is parameterized using the configuration tool of the PROFINET controller. Please integrate the corresponding GSDML file of the bus coupler into the relevant software tool (STEP 7/HW Config, ...).

Make sure you always use the latest version of the FDCML/GSDML file and the latest documentation for the bus coupler. The latest files and documentation can be found on the Internet at www.phoenixcontact.com/products.

18 Device replacement

You can replace devices in the PROFINET network, without having to reconfigure them. The station name and the station address are assigned by the controller to the newly added PROFINET bus coupler with the help of the neighborhood detection function.

19 PRL: Phoenix Redundancy Layer

The Phoenix Redundancy Layer (PRL) makes it possible to design a redundant system with two PROFINET controllers. One controller is configured as the primary I/O controller and the other as the backup I/O controller. Depending on which PROFINET controller provides valid values, the bus coupler operated at field level adopts these values or uses failsafe values.

If the PROFINET update time is ≥ 8 ms and the PROFINET watchdog time is > 200 ms, you can use PRL (or shared device) and MRP simultaneously.

20 Substitute value behavior

If Ethernet communication fails or an error occurs in the local bus, all outputs of the station are set to the substitute values previously parameterized on the module.

For the possible substitute values of a module, please refer to the relevant module-specific data sheet.

21 SNMP: Simple Network Management Protocol

The bus coupler supports SNMP v1 and v2c.

Management Information Base (MIB)

The corresponding latest MIBs are available on the Internet at www.phoenixcontact.com/products.

For the object descriptions, please refer to the ASN1 descriptions for this product.

The password for read access is “public”. This password cannot be changed.
By default, the password for write and read access is “private” in the delivery state. This password can be changed at any time.

22 WBM: Web-based management

The device has a web server, which generates the required pages for web-based management and, depending on the requirements of the user, sends them to a standard web browser.

You can use web-based management to access static or dynamic information. Examples of static information include technical data or the MAC address. Examples of dynamic information include IP addresses, status information, local bus structure and diagnostics.

Accessing web-based management

You can address the device's web server using the IP address if it is configured accordingly. The device's homepage (web page) is accessed by entering the URL http://<IP address>.
Example: http://172.16.113.38

The default password is "private".

If you cannot access the WBM pages, check the connection settings in your browser. Deactivate the proxy if set.

23 Firmware update

To update the bus coupler firmware, provide the bus coupler with a firmware container via a TFTP server or load it onto the bus coupler via FTP. You can use any FTP client or TFTP server for this, such as the PC Worx Firmware Updater.

For more detailed information regarding the firmware update, refer to the "Installation and operation of the PC Worx Firmware Updater software" user manual.