IL EX ZONE 2

Inline terminals for use in zone 2 potentially explosive areas

Application note
7217_en_17

1 Description

This document provides information about Inline terminals that are approved for use in zone 2 potentially explosive areas.

Items without ATEX-relevant identification do not meet the requirements of Directive 2014/34/EU. Use in potentially explosive areas of category 3 is not permitted.

Applicable to items with ATEX-relevant printings:

WARNING: Explosion hazard
When using Inline terminals in potentially explosive areas, observe the notes on Page 4.

WARNING: Explosion hazard
In potentially explosive areas, only use specifically approved inline terminals!

- Before using an Inline terminal in a zone 2 potentially explosive area, first check whether the terminal has been approved for installation in this area.
  - See “Approved Inline terminals” on page 2.
  - See “Approvals on the internet” on page 5.
- Check the printing on the Inline terminal and on the packaging.
  - See “Printing on Inline terminals for use in potentially explosive areas” on page 5.

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Make sure you always use the latest documentation.
It can be downloaded at phoenixcontact.net/products.

2 Approved Inline terminals

Date in the column "Production without ATEX-relevant identification as of":
Items manufactured **up to the date indicated in the table** comply with Directive 2014/34/EU (ATEX).
You may use these items in potentially explosive areas of category 3.

Items manufactured **afterwards** do not meet the requirements of Directive 2014/34/EU.
Use in potentially explosive areas of category 3 is **not permitted**.

- Do not include these items in plans for new installations.
- If you wish to replace an item, check that the new item has the appropriate approval.
- If you use an item with ATEX-relevant printing in a potentially explosive area, please observe the associated documentation.

If the item used by you does not feature ATEX-relevant identification, use in potentially explosive areas is not permitted.

Item no.	Type	As of hardware version	Production without ATEX-relevant identification as of
Inline controllers			
2700973	ILC 131 ETH	00	2023
2701034	ILC 131 ETH/XC	00	2023
2700974	ILC 151 ETH	00	2023
2700977	ILC 151 GSM/GPRS	03	2023
2700975	ILC 171 ETH 2TX	01	2023
2700976	ILC 191 ETH 2TX	03	2023
2700074	ILC 191 ME/AN	04	2023
Bus couplers			
2861580	IBS IL 24 BK-T/U-PAC	05	2023
2862000	IBS IL 24 BK-T/U-2MBD-PAC	01	2017
2861218	IBS IL 24 BK-LK-PAC	05	2017
2692322	IL PB BK DI8 DO4/EF-PAC	01	2023
2862327	FL IL 24 BK-B-PAC	11	2017
2878696	IL MOD BK DI8 DO4-PAC	01	2023
2703981	IL ETH BK DI8 DO4 2TX-PAC	02	2023
2703994	IL PN BK DI8 DO4 2TX-PAC	02	2023
2878379	IL PN BK DI8 DO4 2SCRJ-PAC	03	2017
2861205	IB IL 24 MUX MA-PAC	15	2017
2718413	IB IL 24 MUX MA	15	2017
Feed-in terminal blocks			
2861331	IB IL 24 PWR IN-PAC	09	2023
2726311	IB IL 24 PWR IN	09	2017
2862152	IB IL 24 PWR IN/2-F-D-PAC	01	2023

Item no.	Type	As of hardware version	Production without ATEX-relevant identification as of
Boost terminals			
2861674	IB IL 24 PWR IN/R-PAC	01	2023
2693020	IB IL 24 PWR IN/R/L-0.8A-PAC	00	2023
Digital I/O terminals			
2861234	IB IL 24 DI 4-PAC	04	2023
2861250	IB IL 24 DI 16-PAC	07	2023
2862835	IB IL 24 DI 32/HD-PAC	00	2023
2878243	IB IL 24 DI 32/HD-NPN-PAC	00	2017
2861263	IB IL 24 DO 2-2A-PAC	05	2023
2861700	IB IL 24 DO 2-2A-2MBD-PAC	02	2017
2819053	IB IL 24 DO 2-2A-2MBD	02	2017
2861276	IB IL 24 DO 4-PAC	06	2023
2861292	IB IL 24 DO 16-PAC	06	2023
2862961	IB IL 24 DO 16-PAC/SN	06	2017
2862822	IB IL 24 DO 32/HD-PAC	00	2023
2878340	IB IL 24 DO 32/HD-NPN-PAC	00	2017
Analog I/O terminals			
2861302	IB IL AI 2/SF-PAC	06	2023
2862149	IB IL AI 2-HART-PAC	00	2023
2861412	IB IL AI 8/SF-PAC	02	2023
2862042	IB IL AI 8/SF-2MBD-PAC	00	2017
2861315	IB IL AO 1/SF-PAC	10	2023
2861328	IB IL TEMP 2 RTD-PAC	05	2023
2861386	IB IL TEMP 2 UTH-PAC	09	2017
2897402	IB IL TEMP 4/8 RTD/EF-PAC	02	2023
2897606	IB IL TEMP 4/8 RTD/EF 2MBD-PAC	01	2017
2897509	IB IL TEMP 4/8 RTD/EF 2MBD	01	2017
2884907	IB IL SGI 2/P-PAC	01	2017
2700064	IB IL SGI 1/CAL	00	2017
Communication terminals			
2700893	IB IL RS UNI-PAC	04	2023

3 Notes on using the Inline terminals in potentially explosive areas

WARNING: Explosion hazard
Please make sure that the following notes and instructions are observed!

Installation notes

1. The Inline terminals listed in section 2 are category 3 devices designed for installation in zone 2 potentially explosive areas.
   These devices meet the requirements of the EN 60079-0 and EN 60079-15 standards.
   For the version of the standard according to which the device has been approved please refer to the CE declaration of conformity. It can be downloaded at phoenixcontact.net/products.
2. The Inline terminal must only be installed, operated, and maintained by qualified personnel.
3. Please follow the installation instructions given in the IL SYS INST UM user manual and the packing slip.
4. When installing and operating the device, the applicable safety directives (including national safety directives), accident prevention regulations, and general technical regulations must be observed.
5. Please refer to the corresponding documentation (user manual, data sheet, packing slip) and the certificates (declaration of conformity and other approvals, if applicable) for safety-related data.
6. Access to the circuits inside the Inline terminal is not permitted. Do not repair the Inline terminal yourself but replace it with a terminal of the same type.
   Repairs may be carried out by the manufacturer only. The manufacturer is not liable for damage resulting from noncompliance.
7. The IP20 (EN 60529) degree of protection for the device is designed for a clean and dry environment.
8. Do not subject the Inline terminal to mechanical strain and/or thermal loads, which exceed the limits specified in the product documentation.
9. The Inline terminal has not been designed for use in atmospheres at risk of dust-ignition explosions.

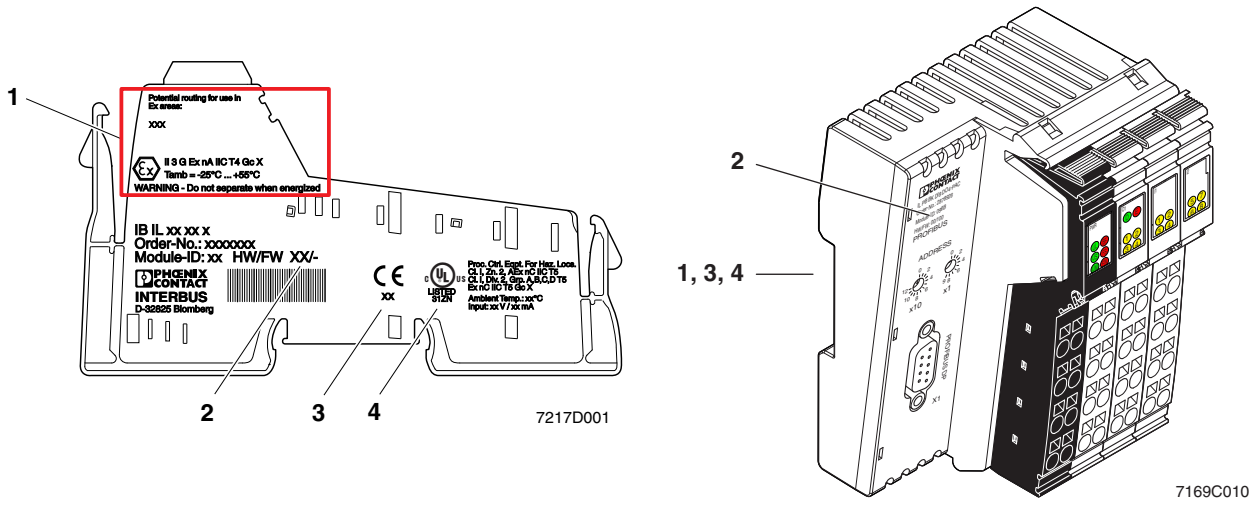
Installation in zone 2

1. Observe the specified conditions for use in potentially explosive areas!
2. Install the device in a suitable approved housing that meets the requirements of EN 60079-15 and has IP54 protection at the minimum. Observe also the requirements of IEC 60079-14/EN 60079-14.
3. The following work is permitted only when the power is disconnected:
   – Snapping the device onto the DIN rail
   – Removing the device from the DIN rail
   – Connection and disconnection of cables
4. Only devices that are designed for operation in Ex zone 2 and for the conditions at the specific installation location may be connected to the circuits in zone 2.
5. With bus couplers, controllers, and power terminals: Connect the DIN rail to protective ground.
6. For bus couplers with a D-SUB connection:
   For safe operation, the D-SUB connector must be screwed into the corresponding D-SUB socket. Repair any damaged male connectors immediately.
7. Applies to controllers with plug-in configuration memory (SD card):
   For safe operation with inserted plug-in configuration memory (SD card), it must be completely plugged in and snapped into place.

Restrictions/limit values

1. Please observe the restrictions/limit values on the data sheet of the terminal used.
2. The maximum permissible current for each spring-cage contact is 2 A.
3. Please make sure that the **maximum permissible current of 4 A or 8 A** (for the actual value refer to the data sheet of the terminals in use) flowing through potential bridges U_M and U_S (total current) is not exceeded when using the Inline terminals in potentially explosive areas!
4. Also ensure that the **maximum permissible current of 2 A or 0.8 A** (value according to terminal data sheet) flowing through potential bridge U_L is not exceeded!

4 Printing on Inline terminals for use in potentially explosive areas



Snap-on Inline terminals — Bus coupler (here IL PB BK DI8 DO4-PAC)

Figure 1 Typical printing on Inline terminals that are approved for use in zone 2 potentially explosive areas

Key:

1 ATEX-relevant printing including any restrictions *

2 Hardware version

3 Year of manufacture *

4 Approvals for UL/CUL *

***** may also be printed on the bottom of the module (e.g. for the IL PB BK DI8 DO4-PAC bus coupler)

Make sure you always use the latest documentation.
It can be downloaded at phoenixcontact.net/products.

5 Approvals on the internet

You can also display the products approved according to ATEX and/or IECEx on the internet at phoenixcontact.net/products. To do so, proceed as follows:

- First, enter IL (for example) into the search window.
- Open the “Approval” filter.
- Select the desired approval, e.g., ATEX and/or IECEx. Confirm your selection with “Apply”.

⇒ This results in a list of all modules that have the chosen approval.