



PRODUCT SAFETY ADVISORY

Notice of Potential Unsafe Condition

Rockwell Automation issues a Product Safety Advisory when it identifies a product(s) anomaly that may potentially cause harm to personnel, capital equipment loss or environmental damage. Immediate action is required as identified below.

Potential I/O Anomaly with 1732ES ArmorBlock Guard I/O Modules

Reference: 2017-10-003

Date: October 2017

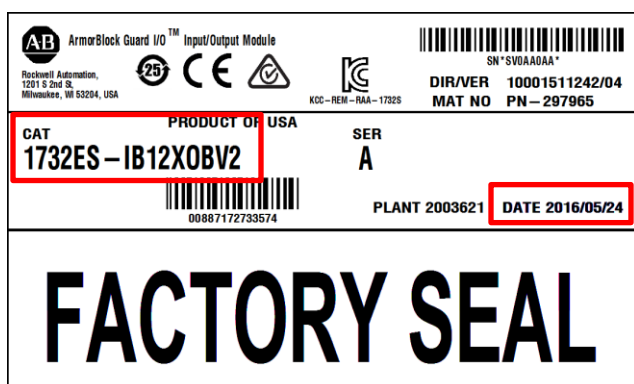
This is a Preliminary Release of Product Safety Advisory 2017-10-003. Rockwell Automation is currently investigating the described anomaly and will provide additional details at a later date. The Knowledgebase Article ID 1066074 will be updated when this additional information is available.

This Product Safety Advisory informs you of a potential anomaly that exists with the 1732ES ArmorBlock® Guard I/O™ Modules. On some modules, connections internal to the product may short together. Depending on the application, this may result in the product not performing its intended safety function.



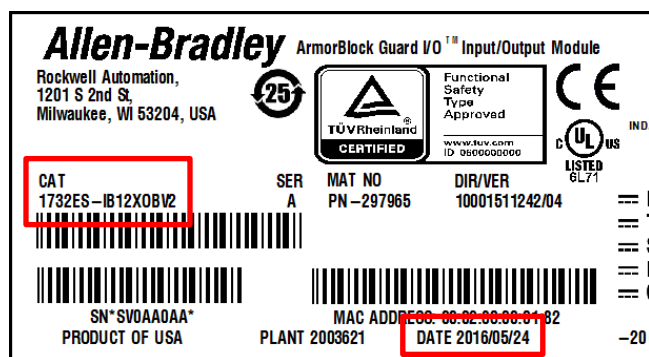
– Product Identification –

The potentially affected products are Bulletin 1732ES ArmorBlock Guard I/O modules, catalog numbers 1732ES-IB12XOB4, 1732ES-IB12XOBV2, 1732ES-IB12XOBV2-F, 1732ES-IB16, 1732ES-IB8XOB8, 1732ES-IB8XOBV4, and 1732ES-IB8XOBV4-F. Potentially affected modules will have a manufacturing date prior to October 1, 2017 (date code 2017/10/01).



New and unused product in the original factory packaging will show the product identification information on the carton label. The catalog number is in the CAT field and the manufacturing date is in the DATE field in the format of YYYY/MM/DD, where YYYY is the year, MM is the date code, and DD is the day of the month.

In the example shown to the left, the catalog number is 1732ES-IB12XOBV2 and the manufacturing date is 2016/05/24, or May 24, 2016. This product matches the catalog number and manufacturing date range and would be subject to this notification.



Installed product will show the product identification information on the product nameplate. The catalog number is in the CAT field and the manufacturing date is in the DATE field in the format of YYYY/MM/DD, where YYYY is the year, MM is the date code, and DD is the day of the month.

In the example shown to the left, the catalog number is 1732ES-IB12XOBV2 and the manufacturing date is 2016/05/24, or May 24, 2016. This product matches the catalog number and manufacturing date range and would be subject to this notification.

– Description –

A potential anomaly exists with the 1732ES ArmorBlock® Guard I/O™ Modules. On some modules, connections internal to the product may short together. Depending on the application, this may result in the product not performing its intended safety function.

Internal to the module, a product anomaly may result in various shorts between module signals. Specific to the safety function of the product, inputs and outputs can short to other signals. The effect of the anomaly depends on the module's configuration and may affect the system's safety performance level.

Important – Most shorts within the module will be detected when pulse testing is enabled on inputs and outputs. However, some specific shorts may go undetected as described below even with pulse testing enabled. The following table lists test output / input pairings that may result in undetected faults. The effect on your safety function depends on the channel configuration.

Input	Test Output
0	0
0	1
1	0
6	7
6	5
9	11
11	8
12	13
12	12
15	15

- In a single channel configuration, the listed test output / input pairings may result in undetected faults. If your configuration does not use one of these pairings the safety function of your module is maintained.
- In a dual channel configuration, if an individual dual channel pairing uses only one of the listed test output / input pairings, the anomaly will be detected when a demand is placed on your safety function, and the safety function of your system will be maintained. If an individual dual channel pairing uses two of the listed combinations the anomaly may go undetected affecting the safety function of your system.

– Temporary Workarounds –

Important – Only individuals qualified, authorized, and responsible to secure safety in the design, installation, operation, and maintenance of the machine should perform the actions listed in this document. Consult Rockwell Automation Technical Support or your Rockwell Automation representative if you have any questions or concerns. Additional information on safety performance levels and categories may be found in ISO standard ISO-13849.

Important – Be sure to review the Description section of this document to determine whether this anomaly could adversely impact the safety performance level of your machinery, as determined by the required safety performance level for each of your safety functions. Customers who determine their safety systems are not adversely impacted by the anomaly associated with these modules may continue to operate their machinery. Customers must also review the conditions listed in the Description section of this document when system changes are made that affect the configuration of this product to ensure the product continues to perform its intended safety function.

Correction of this anomaly requires replacement of the affected module. Until a replacement module can be obtained and installed, customers whose safety performance level may be impacted by this anomaly are advised to discontinue use of this product or implement the following temporary workarounds.

- Enable pulse testing on all safety outputs and safety inputs.

- In a single channel configuration, re-configure your system to eliminate the use of test output / input combinations listed in the table above.
- In a dual channel configuration, re-configure your system to eliminate any individual dual channel pairings where both channels use test output / input combinations listed in the table above.
- Implement additional external safety systems to provide the required level of safety.
- Perform periodic manual tests of each impacted safety function.

If you're unable to implement these workarounds, you may replace the 1732ES type module with a corresponding 1791ES, 1732DS or 1734 module. Implementation of one of these modules may require hardware and/or programming configuration changes.

– Correction –

Correction requires replacement of potentially affected modules. To request replacement product, contact your local Rockwell Automation Distributor or Sales Office, or other place of purchase, and reference this Product Safety Advisory PSA 2017-10-003. As of the release of this notification Rockwell Automation is replenishing inventory and expects to have product available by the end of November 2017 with limited availability until further notice. The Knowledgebase Article ID 1066074 for this notification will be updated when replacement product is released. Until replacement product is available customers are advised to take appropriate temporary actions as listed in the Temporary Workarounds section of this document.

– Requested Customer Action –

Rockwell Automation requests you take the following actions:

- Check if you have a product affected by this Product Safety Advisory. Refer to the Product Identification and Description sections of this document for product identification assistance.
- Review your system safety level requirements to determine if this anomaly will have an adverse effect.
- If applicable, contact your local Rockwell Automation Distributor or Sales Office, or other place of purchase, for replacement. Make sure to reference this Product Safety Advisory when requesting replacement product.
- All returns should be over packed to prevent shipping damage during transit.
- Continue to check incoming shipments for potentially affected product. Product in transit or in non-Rockwell Automation inventory may continue to contain potentially affected product for a period of time after the publication of this document.
- If you need additional assistance, please contact Rockwell Automation Technical Support. See Appendix A for local telephone numbers. Customers without TechConnect contracts should reference this Product Safety Advisory when calling.
- Customers with TechConnect contracts may be able to [chat online](#) with support representatives. Reference this Product Safety Advisory when connected to a support engineer.

The most current version of this Product Safety Advisory is posted on the Rockwell Automation Support Center, <http://www.rockwellautomation.com/knowledgebase>, as ID number **1066074**. Additional languages may also be available at the end of this article attached as downloadable PDF documents.

Customers using the Rockwell Automation Support Center in a non-English language should search for the document by the article ID number listed above. The resulting article ID for non-English postings may be different than the listed article ID number.

If this Product Safety Advisory does not affect you because you do not have the products any longer, or if you are a Distributor, Rockwell Automation asks that you forward a copy of this notice, with any identifying documentation, immediately to the person or company that now has the product. We also ask that you contact Rockwell Automation Technical Support and provide the location of the affected units.

We appreciate your immediate cooperation. If you have any questions, please contact us.

Sincerely,

ROCKWELL AUTOMATION

You can register for Automatic Product Safety Advisories and Product Notices from Rockwell Automation by email. Go to the Support web page at <http://www.rockwellautomation.com/support> and click the *Visit the Technical Support Center* link. Sign in with your Tech Connect Account or free Rockwell Automation Member Account and you can subscribe to important product updates, including Product Safety Advisories and Product Notices.

Appendix A Regional Technical Support Information

The following list can help you to contact the correct technical support center for your location. If your country is not listed, you can find a customer support number for your location on <http://www.rockwellautomation.com/support/> by clicking *Get Support Now*, selecting your country, and clicking the *Phone/OnSite Support* tab.

Region / Country	Phone Number () International Code
Asia/Pacific	
Australia	1 800 762 593
China	400 620 6620
Hong Kong	+852 2887 4666
India	1 800 2000 121
Japan	03 3206 2785
Korea	(82) 2 2188 4400
Malaysia	1 800 80 4851
New Zealand	0800 27 27 25
Taiwan	080 902 0908
Thailand	(66) 2936 1500
Caribbean	
All Countries (English)	(1) 440 646 3223
All Countries (Español)	(1) 440 646 3650
Central America	
Argentina	800.666.0320
Belize	(1) 440 646 3650
Bolivia	(54) 800 10 0632
Brazil	(55) 11 5189 9500
Chile	800.53.0012
Colombia	01.800.700.2107
Costa Rica	0800.013.1215
Ecuador	58.212.949.0611
El Salvador	(52) 55 5246 2010
Guatemala	1.800.288.0108
Honduras	(52) 55 5246 2010
Mexico	001.888.365.8677
Nicaragua	(52) 55 5246 2010
Panama	001.800.203.3475
Paraguay	(54) 11 5554 4000
Peru	0800.535.36
Suriname	(1) 440 646 3650
Uruguay	(54) 11 5554 4000
Venezuela	800.1.00.3062

Region / Country	Phone Number () International Code
Europe	
Austria	(49) 211 41553 664
Belgium	(32) 2 716 8411
Czech Republic	(420) 28401 5911
Denmark	(45) 43 466 006
Finland	(358) 958 447 419
France	(33) 825303132
Germany	(49) 211 41553 664
Hungary	(420) 28401 5911
Ireland	(44) 01908 635245
Italy (Brescia, Milano e Padova)	(39) 199 11 99 00
Italy (Bologna, Firenze, Napoli, Roma e Torino)	(39) 199 11 99 22
Morocco	(33) 825303132
Netherlands	(31) 10 266 55 80
Poland	(48) 22 32 60 707
Portugal	(1) 440 646 3223
Slovakia	(420) 284015911
Spain	(34) 902 30 93 30
Sweden	(46) 46 19 93 91
Switzerland (German)	(41) 0844 84 84 11
Switzerland (French)	(41) 0844 84 84 12
Switzerland (Italian)	(41) 0844 84 84 13
United Kingdom	(44) 01908 635245
North America	
Canada	(1) 440-646-3223
United States	(1) 440-646-3223

If you have a TechConnect Contract, please use the telephone number supplied to you with the contract.