



EDWARDS LIMITED
Innovation Drive,
Burgess Hill,
West Sussex,
RH15 9TW,
UK

PROMPT ACTION REQUIRED

Company Name
Company address
Company address
Company address
Company address

Attention: Contact Name
Title

Date: YYYY-MM-DD

Dear Name,

IMPORTANT PRODUCT SAFETY NOTIFICATION: PI 19-023

PRODUCT AFFECTED - iXH, iXM, iXL900, GXS, CXS

Customer safety is always Edwards' top priority and for this reason we have issued this Product Safety Notification.

This important notice relates to products you have purchased and requires prompt action on your part. Please forward this notice to your Health and Safety leader or a senior manager to ensure prompt action is taken in respect of the contents of this important communication.

Kindly read the following information carefully and take the actions advised. If you are uncertain about how to proceed please contact your local Edwards representative or contact us using the information provided below.

Problem statement

Standard Edwards test procedures have identified a very small number of failures of electronic components (opto-isolators) within some of our dry pump products; all observed issues have been from a single identifiable batch of components. The non-compliant activity of the components can lead to unexpectedly high voltages occurring in parts of the product not designed to carry such high voltages and therefore constitute a risk of severe electrical shock to an individual operating or in contact with the equipment whilst it is connected to the mains supply.

Information from our component supplier suggests that this is a batch related problem and we are working intensively with them and others as necessary to get a fuller understanding of the root cause.

To date, we have not received any reports of issues in the field, but as a precautionary measure, we are initiating a field recall of all products potentially fitted with components from the affected batch of components.

Affected products

All affected products use particular motor-controllers and are limited to certain models within the iXH, iXM, iXL900, CXS and GXS product families. Further identification based on manufacturing information has been determined and a full list of potentially affected serial numbers is given in the appendix to this letter.

edwardsvacuum.com

EDWARDS LIMITED
Innovation Drive,
Burgess Hill,
West Sussex,
RH15 9TW,
UK

What you must do

- Immediately cease any installation, commissioning and/or use of any affected product and isolate the equipment from the electrical supply before handling any part of the equipment.
- Secure and quarantine the affected equipment and ensure it is clearly marked so as to prevent any further use.
- Contact Edwards to arrange repair, or return and replacement.

Technical information

The opto-isolators identified here provide a high integrity, safety approved, reinforced isolation barrier between the high voltages of the motor-controller, and the protective extra low voltage (PELV) customer interface on our pump-systems. The observed failure mode leads to a loss in isolation integrity between the high and low voltage sections which may permit currents to flow which are above the accepted test limits. The opto-isolator is UL listed and sourced from a recognised industry leading supplier.

If you need help

We apologise for any inconvenience caused by this notification and are here to help deal with any issues raised. If you have any questions whatsoever, please contact:

- *List relevant Edwards contacts who can provide information which customers may be expected to ask for... Include e-mail addresses, business phone numbers*

Yours sincerely,



Sara Fry, Head of Safety, Health, Environment, Edwards



Ian Stones, Vice President Technology, Edwards

APPENDIX – GLOBAL LIST OF ALL AFFECTED PRODUCTS

Serial number	Material	Material Description
190120625	GS2150400000	GXS160F HV MD+ SE SK
190062085	GSP152350000	GXS750/4200F HV MD RE CA
190063641	GSP152350000	GXS750/4200F HV MD RE CA
190063642	GSP152350000	GXS750/4200F HV MD RE CA
190065145	GSP152350000	GXS750/4200F HV MD RE CA
190090908	GSP152350000	GXS750/4200F HV MD RE CA
190090913	GSP152350000	GXS750/4200F HV MD RE CA
190099489	ASE300122300	iXL250Q 2600 380-460V
190099491	ASE300122300	iXL250Q 2600 380-460V
190099492	ASE300122300	iXL250Q 2600 380-460V
190102043	GSP152350000	GXS750/4200F HV MD RE CA
190102044	GSP152350000	GXS750/4200F HV MD RE CA
190108349	GSP152350000	GXS750/4200F HV MD RE CA
190108350	GSP152350000	GXS750/4200F HV MD RE CA
190108351	GSP152350000	GXS750/4200F HV MD RE CA
190108352	GSP152350000	GXS750/4200F HV MD RE CA
190108353	GSP152350000	GXS750/4200F HV MD RE CA
190109635	GSP152350000	GXS750/4200F HV MD RE CA
190113699	GSP152350000	GXS750/4200F HV MD RE CA
190115240	GSP152350000	GXS750/4200F HV MD RE CA
190115241	GSP152350000	GXS750/4200F HV MD RE CA
190116887	GSP152350000	GXS750/4200F HV MD RE CA
190116888	GSP152350000	GXS750/4200F HV MD RE CA
190120228	GSP152350000	GXS750/4200F HV MD RE CA
190120233	GSP152350000	GXS750/4200F HV MD RE CA
190120486	GSP152350000	GXS750/4200F HV MD RE CA
190124049	GSP152350000	GXS750/4200F HV MD RE CA
190124052	GSP152350000	GXS750/4200F HV MD RE CA
190098978	GSG152400000	GXS450/4200F HV MD+ SE SK
190098984	GSG152400000	GXS450/4200F HV MD+ SE SK
190110787	GS7150300000	GXS250F HV MD SE SK
190086585	GSN152050000	GXS750/2600F HV LD RE CA
190115242	GSN152050000	GXS750/2600F HV LD RE CA
190123379	GSN152050000	GXS750/2600F HV LD RE CA
190123380	GSN152050000	GXS750/2600F HV LD RE CA
190085914	NRF833959	IXL900R 380-460V 50/60Hz EES
190085915	NRF833959	IXL900R 380-460V 50/60Hz EES
190086320	NRF833959	IXL900R 380-460V 50/60Hz EES
190089476	NRF833959	IXL900R 380-460V 50/60Hz EES
190105455	ASF700224500	IXL900R 380-460V 50/60Hz

190109703	ASF700224500	IXL900R 380-460V 50/60Hz
190110200	ASF700224500	IXL900R 380-460V 50/60Hz
190115068	ASF700224500	IXL900R 380-460V 50/60Hz
190121891	ASF700224500	IXL900R 380-460V 50/60Hz
190124646	ASF700224500	IXL900R 380-460V 50/60Hz
190124847	ASF700224500	IXL900R 380-460V 50/60Hz
190084877	A58240958	iXM1200 MK1 COMBI LV ST TMS
190087439	A58240958	iXM1200 MK1 COMBI LV ST TMS
190087440	A58240958	iXM1200 MK1 COMBI LV ST TMS
190087442	A58240958	iXM1200 MK1 COMBI LV ST TMS
190099930	A58240958	iXM1200 MK1 COMBI LV ST TMS
190101520	A58240958	iXM1200 MK1 COMBI LV ST TMS
190108872	A58240958	iXM1200 MK1 COMBI LV ST TMS
190108875	A58240958	iXM1200 MK1 COMBI LV ST TMS
190108882	A58240958	iXM1200 MK1 COMBI LV ST TMS
190109810	A58240958	iXM1200 MK1 COMBI LV ST TMS
190110056	A58240958	iXM1200 MK1 COMBI LV ST TMS
190110057	A58240958	iXM1200 MK1 COMBI LV ST TMS
190121264	A58240958	iXM1200 MK1 COMBI LV ST TMS
190121268	A58240958	iXM1200 MK1 COMBI LV ST TMS
190121269	A58240958	iXM1200 MK1 COMBI LV ST TMS
190125746	A58240958	iXM1200 MK1 COMBI LV ST TMS
190125748	A58240958	iXM1200 MK1 COMBI LV ST TMS
190071884	A58240958	iXM1200 MK1 COMBI LV ST TMS
190071885	A58240958	iXM1200 MK1 COMBI LV ST TMS
190071886	A58240958	iXM1200 MK1 COMBI LV ST TMS
190072005	A58240958	iXM1200 MK1 COMBI LV ST TMS
190072006	A58240958	iXM1200 MK1 COMBI LV ST TMS
190072007	A58240958	iXM1200 MK1 COMBI LV ST TMS
190072008	A58240958	iXM1200 MK1 COMBI LV ST TMS
190072010	A58240958	iXM1200 MK1 COMBI LV ST TMS
190072012	A58240958	iXM1200 MK1 COMBI LV ST TMS
190084871	A58240958	iXM1200 MK1 COMBI LV ST TMS
190084872	A58240958	iXM1200 MK1 COMBI LV ST TMS
190084873	A58240958	iXM1200 MK1 COMBI LV ST TMS
190084874	A58240958	iXM1200 MK1 COMBI LV ST TMS
190084875	A58240958	iXM1200 MK1 COMBI LV ST TMS
190084876	A58240958	iXM1200 MK1 COMBI LV ST TMS
190085767	A58240958	iXM1200 MK1 COMBI LV ST TMS
190087443	A58240958	iXM1200 MK1 COMBI LV ST TMS
190092497	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190096836	A58240958	iXM1200 MK1 COMBI LV ST TMS

190096837	A58240958	iXM1200 MK1 COMBI LV ST TMS
190096839	A58240958	iXM1200 MK1 COMBI LV ST TMS
190098007	A58240958	iXM1200 MK1 COMBI LV ST TMS
190098010	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190098560	A58240958	iXM1200 MK1 COMBI LV ST TMS
190101521	A58240958	iXM1200 MK1 COMBI LV ST TMS
190101522	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190101523	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190101525	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190101526	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190105001	A58240958	iXM1200 MK1 COMBI LV ST TMS
190105003	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190105004	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190105005	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190105006	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190105007	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190106916	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190106917	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190106918	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190106919	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190106920	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190108874	A58240958	iXM1200 MK1 COMBI LV ST TMS
190108889	A58240958	iXM1200 MK1 COMBI LV ST TMS
190108891	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190109806	A58240958	iXM1200 MK1 COMBI LV ST TMS
190109807	A58240958	iXM1200 MK1 COMBI LV ST TMS
190109808	A58240958	iXM1200 MK1 COMBI LV ST TMS
190109809	A58240958	iXM1200 MK1 COMBI LV ST TMS
190109811	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190109812	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190109813	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190110053	A58240958	iXM1200 MK1 COMBI LV ST TMS
190110054	A58240958	iXM1200 MK1 COMBI LV ST TMS
190110055	A58240958	iXM1200 MK1 COMBI LV ST TMS
190110058	A58240958	iXM1200 MK1 COMBI LV ST TMS
190110059	A58240958	iXM1200 MK1 COMBI LV ST TMS
190110060	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190111952	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190111953	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190111964	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190111965	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190111966	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz

190113333	A58240958	iXM1200 MK1 COMBI LV ST TMS
190113334	A58240958	iXM1200 MK1 COMBI LV ST TMS
190113335	A58240958	iXM1200 MK1 COMBI LV ST TMS
190113336	A58240958	iXM1200 MK1 COMBI LV ST TMS
190115359	A58240958	iXM1200 MK1 COMBI LV ST TMS
190115360	A58240958	iXM1200 MK1 COMBI LV ST TMS
190124571	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190124572	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190124573	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190124574	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190124575	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190124576	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190124577	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190124578	A58250958	iXM1200 MK1 XD 200-230V 50/60Hz
190071887	A58260958	iXM1800 200-208 V 50/60 Hz (SM44)
190087441	A58240958	iXM1200 MK1 COMBI LV ST TMS
190089235	A58260958	iXM1800 200-208 V 50/60 Hz (SM44)
190089247	A58260958	iXM1800 200-208 V 50/60 Hz (SM44)
190089249	A58260958	iXM1800 200-208 V 50/60 Hz (SM44)
190089251	A58240958	iXM1200 MK1 COMBI LV ST TMS
190089253	A58240958	iXM1200 MK1 COMBI LV ST TMS
190089255	NRF556958	iXM1800 200-230V 50/60Hz (SM44) HYNIX
190089257	NRF556958	iXM1800 200-230V 50/60Hz (SM44) HYNIX
190092498	A58260958	iXM1800 200-208 V 50/60 Hz (SM44)
190092499	A58260958	iXM1800 200-208 V 50/60 Hz (SM44)
190092500	A58240958	iXM1200 MK1 COMBI LV ST TMS
190092501	NRF556958	iXM1800 200-230V 50/60Hz (SM44) HYNIX
190092502	NRF556958	iXM1800 200-230V 50/60Hz (SM44) HYNIX
190092504	NRF556958	iXM1800 200-230V 50/60Hz (SM44) HYNIX
190096835	A58240958	iXM1200 MK1 COMBI LV ST TMS
190096838	A58240958	iXM1200 MK1 COMBI LV ST TMS
190098002	A58240958	iXM1200 MK1 COMBI LV ST TMS
190098003	A58240958	iXM1200 MK1 COMBI LV ST TMS
190098005	A58240958	iXM1200 MK1 COMBI LV ST TMS
190098006	A58240958	iXM1200 MK1 COMBI LV ST TMS
190098013	NRF556958	iXM1800 200-230V 50/60Hz (SM44) HYNIX
190098559	A58240958	iXM1200 MK1 COMBI LV ST TMS
190098561	NRF556958	iXM1800 200-230V 50/60Hz (SM44) HYNIX
190098565	NRF556958	iXM1800 200-230V 50/60Hz (SM44) HYNIX
190099975	A58240958	iXM1200 MK1 COMBI LV ST TMS
190099981	NRF556958	iXM1800 200-230V 50/60Hz (SM44) HYNIX
190105002	A58240958	iXM1200 MK1 COMBI LV ST TMS

190106913	A58240958	iXM1200 MK1 COMBI LV ST TMS
190106914	A58240958	iXM1200 MK1 COMBI LV ST TMS
190106915	A58240958	iXM1200 MK1 COMBI LV ST TMS
190108873	A58240958	iXM1200 MK1 COMBI LV ST TMS
180322183	AC6E18123300	iXH4550HT 200-230V 50/60Hz (SM+133)
139338355	ACF30B122300	iXH3030 380-460V 50/60Hz (MM96)
106622352	AC3B27122200XS	Std Exch iXH1220HTX 200-230 V (96 S
119368543	AS4501123300	iXL500Q 200-230 50/60Hz
159302327	ASE501123300	iXL500Q 380-460V 50/60Hz
149355918	ACGE18123300	iXH4550HT 380-460V 50/60Hz (SM+133)
96162787	ACGE18123300	iXH4550HT 380-460V 50/60Hz (SM+133)
14960326	ASE501323300	iXL500Q 380-460V LL4 Mk2
169313848	ASE501323300XS	Std Exch iXL500Q 380-460V LL4 Mk2
159319793	ACGE18123300	iXH4550HT 380-460V 50/60Hz (SM+133)
96141270	ACH000120300	pXH6000 Booster 380-460V, 50/60Hz
96195055	ACH000120300	pXH6000 Booster 380-460V, 50/60Hz
119355266	ACGE18123300	iXH4550HT 380-460V 50/60Hz (SM+133)
180683117	NRF556958	iXM1800 200-230V 50/60Hz (SM44) HYN
129321543	ACH000120300	pXH6000 380-460V 50/60Hz
159317070	NRE533000	iXH 3045H 380-460V (MM 44) EUV
159315210	NRE533000	iXH 3045H 380-460V (MM 44) EUV
129452962	GSF152350000XS	Std Exch GXS450/2600F MK2 HV MD RE CA
119346087	ACF313122300	iXH 3030T 380-460V, 50/60Hz
129452962	GSF152350000XS	Std Exch GXS450/2600F MK2 HV MD RE CA
86322094	ACDB1D122200	iXH1220HT 380-460V 50/60Hz (MM204)
169318988	ACHE1C123300	iXH6050HT 380-460V 50/60Hz (MM133)
119362326	ACGE18123300	iXH 4550 HT 380-460 50/60 Hz (133SM
159328576	AC4213122200	iXH1820T 200-230V 50/60Hz (SM96)
159327538	ASE501323300	iXL500Q 380-460V LL4 Mk2
159328859	ASE501323300	iXL500Q 380-460V LL4 Mk2
159329497	ASE501323300	iXL500Q 380-460V LL4 Mk2
119350456	ACGE18123300	iXH 4550 HT 380-460 50/60 Hz (133SM
139340572	ASE501123300XS	Std Exch iXL500Q 380-460V 50/60Hz
129452962	GSF152350000XS	Std Exch GXS450/2600F MK2 HV MD RE CA
119355266	ACGE18123300	iXH 4550 HT 380-460 50/60 Hz (133SM
119362326	ACGE18123300	iXH 4550 HT 380-460 50/60 Hz (133SM
169318556	ACHE1C123300	iXH6050HT 380-460V 50/60Hz (MM133)
119350456	ACGE18123300	iXH 4550 HT 380-460 50/60 Hz (133SM