

ATEX range



ATEX Maintenance & Safety Switches, ZONE 21

krausnaimer.co.uk

For free expert advice call our sales team **01635 262626** AT01



**Kraus & Naimer Limited is part of the worldwide
Kraus & Naimer Group which celebrated its 110 year anniversary in 2017.**

In 1963, Kraus & Naimer Limited was established as the UK sales and marketing company for Kraus & Naimer switchgear. By the early 70's successful growth meant a move to its current purpose-built premises in Newbury, where it supplies over 3,000 customers with world-renowned, high quality Blue Line switchgear products.

Our key to success is the outstanding level of technical product support through our dedicated team of internal and external technical sales engineers. With many years experience, training and unbeatable product knowledge the team can find a solution for your switch applications

**Kraus & Naimer's Blue Line products are accepted and
universally recognised for their quality and workmanship.**

**www.krausnaimer.co.uk
e: sales-uk@krausnaimer.com t: 01635 262626**

ATEX range

In industrial applications like dried fruit and animal foodstuff production, grain mills, woodworking, and powder coating plants for instance, inflammable coating powders will occur. These inflammable powders in combination with the aerial oxygen can cause an explosive atmosphere. Inflaming this atmosphere will evoke an explosion which can cause serious personal injury and damage of property.

To avoid sparking while operating a maintenance switch, the switch has to meet high technical requirements.

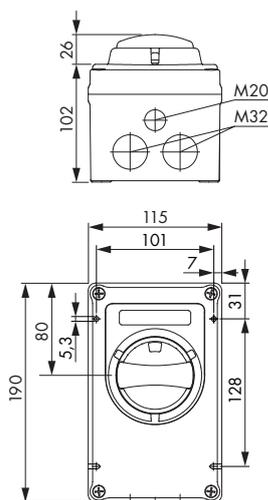
This brochure introduces our new Kraus & Naimer ATEX maintenance switches in the UK suitable for zone 21, including 3 to 4 pole switches up to 55 A and 6 pole switches up to 32 A.



MAIN & MAINTENANCE SWITCHES

ATEX Maintenance & Safety Switches Zone 21

3 pole, 3 pole + 1 NO/NC



IP RATING IP66 protection

HANDLE OPTION black and grey handle

ALSO INCLUDED 2 x M25 ATEX cable glands, 2 x M32/M25 adaptors and 1 dummy plug M20 included

SAFETY SPEC Maintenance and Safety switch acc. to EC ATEX-Directive 94/9/EG equipment group II, Category 2, Zone 21, Indication of field D Mechanical impact resistance 7J

Utilization Category AC-23B (A)	Thermal Current (Ithe)	Order number
With auxiliary contacts (1 NO, 1 NC)		
7,5 kW	25 A	KG20 T103/NL-EXBA KNBOX
11 kW	32 A	KG32 T103/NL-EXBA KNBOX
15 kW	40 A	KG41 T103/NL-EXBA KNBOX
20 kW	55 A	KG64 T103/NL-EXBA KNBOX
Without auxiliary contacts		
7,5 kW	25 A	KG20 T103/NL-EXB KNBOX
11 kW	32 A	KG32 T103/NL-EXB KNBOX
15 kW	40 A	KG41 T103/NL-EXB KNBOX
20 kW	55 A	KG64 T103/NL-EXB KNBOX
EMC-Model with auxiliary contacts (1 NO, 1 NC)		
7,5 kW	25 A	KG20 T103/NL-EXBC *KNBOX
11 kW	32 A	KG32 T103/NL-EXBC *KNBOX
15 kW	40 A	KG41 T103/NL-EXBC *KNBOX
20 kW	55 A	KG64 T103/NL-EXBC *KNBOX

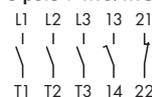
Note for EMC model:

Maintenance Switches for EMC-compliant connection of Variable Frequency Drives (VFD) use shield clips. These clips are used to continue the cable shield circuit through the enclosure.

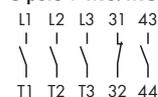
The configuration of the Maintenance Switch between VFD and motor allows the use as Disconnector up to 400 Hz and as Load Switch at frequencies from 40 Hz to 100 Hz.

Each Maintenance Switch has as standard 2 auxiliary contacts, 1 NC and 1 NO. Via the NO (20 ms leading) the VFD can be switched off before the main contacts of the switch open. For the rating of the switch please note that the motor may have approx.10 % higher charging rate due to the higher loss in VFD-operation e.g. a motor with 7,5 kW rating the motor current has to be determined with 16,7 A instead of 15,2 A.

3 pole + 1NO/1NC EMC



3 pole + 1NO/1NC



3 pole



Maximal number of locks		
Padlock device	U-bolt-Ø	Number of locks
	6	3
Cabel-Ø shield		
Shield clamp	Type	Ø min-max
	KG20-KG64	12-16

MAIN & MAINTENANCE SWITCHES



3 pole, 3 pole + 1 NO/NC

ATEX Maintenance & Safety Switches
Zone 21

IP RATING IP66 protection

HANDLE OPTION red and yellow handle

ALSO INCLUDED 2 x M25 ATEX cable glands , 2 x M32/M25 adaptors and 1 dummy plug M20 included

SAFETY SPEC Maintenance and Safety switch acc. to EC ATEX-Directive 94/9/EG equipment group II, Category 2, Zone 21, Indication of field D Mechanical impact resistance 7J



Utilization Category AC-23B (A)	Thermal Current (I _{the})	Order number
With auxiliary contacts (1 NO, 1 NC)		
7,5 kW	25 A	KG20 T203/NL-EXRA KNBOX
11 kW	32 A	KG32 T203/NL-EXRA KNBOX
15 kW	40 A	KG41 T203/NL-EXRA KNBOX
20 kW	55 A	KG64 T203/NL-EXRA KNBOX
Without auxiliary contacts		
7,5 kW	25 A	KG20 T203/NL-EXR KNBOX
11 kW	32 A	KG32 T203/NL-EXR KNBOX
15 kW	40 A	KG41 T203/NL-EXR KNBOX
20 kW	55 A	KG64 T203/NL-EXR KNBOX
EMC-Model with auxiliary contacts (1 NO, 1 NC)		
7,5 kW	25 A	KG20 T203/NL-EXRC *KNBOX
11 kW	32 A	KG32 T203/NL-EXRC *KNBOX
15 kW	40 A	KG41 T203/NL-EXRC *KNBOX
20 kW	55 A	KG64 T203/NL-EXRC *KNBOX

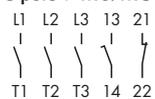
Note for EMC model:

Maintenance Switches for EMC-compliant connection of Variable Frequency Drives (VFD) use shield clips. These clips are used to continue the cable shield circuit through the enclosure.

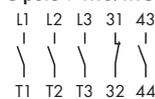
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Each Maintenance Switch has as standard 2 auxiliary contacts, 1 NC and 1 NO. Via the NO (20 ms leading) the VFD can be switched off before the main contacts of the switch open. For the rating of the switch please note that the motor may have approx.10 % higher charging rate due to the higher loss in VFD-operation e.g. a motor with 7,5 kW rating the motor current has to be determined with 16,7 A instead of 15,2 A.

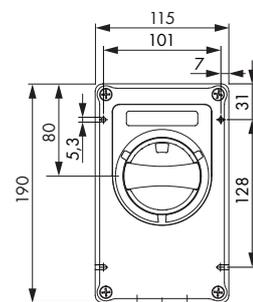
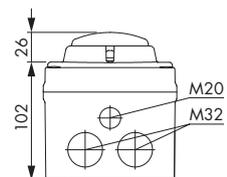
3 pole + 1NO/1NC EMC



3 pole + 1NO/1NC



3 pole



Maximal number of locks	U-bolt-Ø	Number of locks
	6	3

Cabel-Ø shield	Type	Ø min-max
	KG20-KG64	12-16

MAIN & MAINTENANCE SWITCHES

ATEX Maintenance and Safety Switches, Zone 21

4 pole, 4 pole + 1 NO/NC



IP RATING IP66 protection

HANDLE OPTION black and grey handle

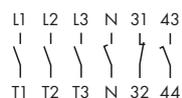
ALSO INCLUDED 2 x M25 ATEX cable glands , 2 x M32/M25 adaptors and 1 dummy plug M20 included

SAFETY SPEC Maintenance and Safety switch acc. to EC ATEX-Directive 94/9/EG equipment group II, Category 2, Zone 21, Indication of field D Mechanical impact resistance 7J

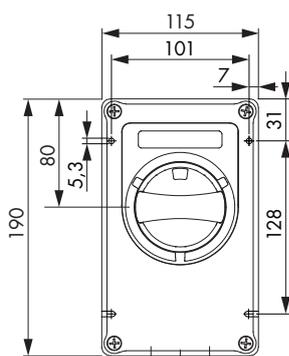
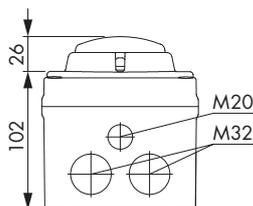
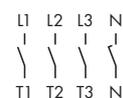


Utilization Category AC-23B (A)	Thermal Current (Ithe)	Order number
With auxiliary contacts (1 NO, 1 NC)		
7,5 kW	25 A	KG20 T104/NL-EXBA KNBOX
11 kW	32 A	KG32 T104/NL-EXBA KNBOX
15 kW	40 A	KG41 T104/NL-EXBA KNBOX
20 kW	55 A	KG64 T104/NL-EXBA KNBOX
Without auxiliary contacts		
7,5 kW	25 A	KG20 T104/NL-EXB KNBOX
11 kW	32 A	KG32 T104/NL-EXB KNBOX
15 kW	40 A	KG41 T104/NL-EXB KNBOX

4 pole + 1NO/1NC



4 pole



Maximal number of locks	U-bolt-Ø	Number of locks
Padlock device	6	3

MAIN & MAINTENANCE SWITCHES



4 pole, 4 pole + 1 NO/NC

ATEX Maintenance and Safety Switches, Zone 21

IP RATING IP66 protection

HANDLE OPTION red and yellow handle

ALSO INCLUDED 2 x M25 ATEX cable glands, 2 x M32/M25 adaptors and 1 dummy plug M20 included

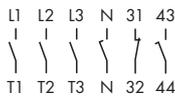
SAFETY SPEC Maintenance and Safety switch acc. to EC ATEX-Directive 94/9/EG equipment group II, Category 2, Zone 21, Indication of field D Mechanical impact resistance 7J



Utilization Category AC-23B (A)	Thermal Current (Ithe)	Order number
With auxiliary contacts (1 NO, 1 NC)		
7,5 kW	25 A	KG20 T204/NL-EXRA KNBOX
11 kW	32 A	KG32 T204/NL-EXRA KNBOX
15 kW	40 A	KG41 T204/NL-EXRA KNBOX
20 kW	55 A	KG64 T204/NL-EXRA KNBOX
Without auxiliary contacts		
7,5 kW	25 A	KG20 T204/NL-EXR KNBOX
11 kW	32 A	KG32 T204/NL-EXR KNBOX
15 kW	40 A	KG41 T204/NL-EXR KNBOX



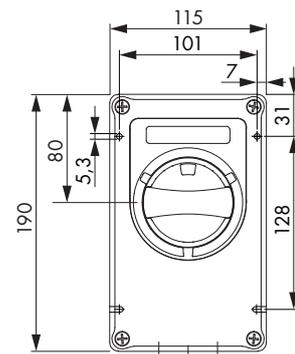
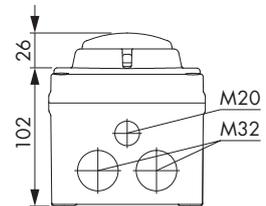
4 pole + 1NO/1NC



4 pole



Maximal number of locks		
Padlock device	U-bolt-Ø	Number of locks
	6	3



MAIN & MAINTENANCE SWITCHES

ATEX Maintenance and Safety Switches, Zone 21

6 pole + 1 NO/NC



IP RATING IP66 protection

HANDLE OPTION black and grey handle

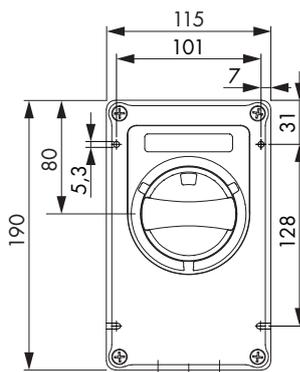
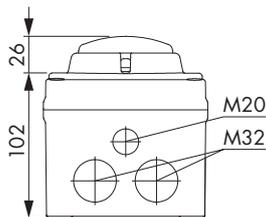
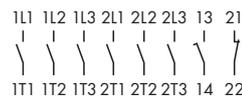
ALSO INCLUDED 2 x M25 ATEX cable glands , 2 x M32/M25 adaptors and 1 dummy plug M20 included

SAFETY SPEC Maintenance and Safety switch acc. to EC ATEX-Directive 94/9/EG equipment group II, Category 2, Zone 21, Indication of field D Mechanical impact resistance 7J



Utilization Category AC-23B (A)	Thermal Current (Ithe)	Order number
With auxiliary contacts (1 NO, 1 NC)		
7,5 kW	25 A	KG20 T106/NL-EXBA KNBOX
11 kW	32 A	KG32 T106/NL-EXBA KNBOX

6pole + 1NO/1NC



Maximal number of locks	U-bolt-Ø	Number of locks
Padlock device	6	3

MAIN & MAINTENANCE SWITCHES



6 pole + 1 NO/NC

ATEX Maintenance and Safety Switches, Zone 21

IP RATING IP66 protection

HANDLE OPTION red and yellow handle

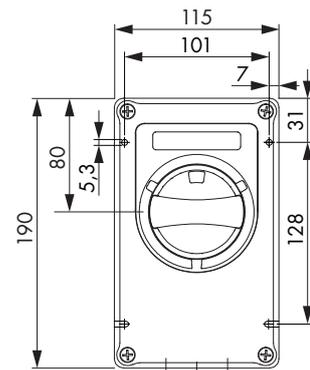
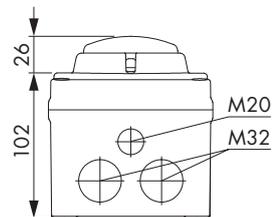
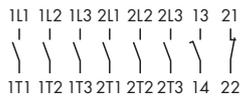
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SAFETY SPEC Maintenance and Safety switch acc. to EC ATEX-Directive 94/9/EG equipment group II, Category 2, Zone 21, Indication of field D Mechanical impact resistance 7J



Utilization Category AC-23B (A)	Thermal Current (I _{the})	Order number
With auxiliary contacts (1 NO, 1 NC)		
7,5 kW	25 A	KG20 T206/NL-EXRA KNBOX
11 kW	32 A	KG32 T206/NL-EXRA KNBOX

6pole + 1NO/1NC



Maximal number of locks	U-bolt-Ø	Number of locks
	6	3

INTERESTING FACTS & APPROVALS

ATEX groups & category of equipment

Group I comprises equipment intended for use in the underground parts of mines, and to those parts of surface installations of such mines, likely to become endangered by firedamp and/or combustible dust.

Group II comprises equipment intended for use in other places likely to become endangered by explosive atmospheres.

These Groups are sub-divided into Categories, as shown below. The way in which this categorisation has been developed highlights one of the main distinctions of Group I and II.

For Group I, the categorisation depends on (amongst other factors) whether the product is to be deenergised in the event of an explosive atmosphere occurring.

For Group II, it depends where the product is intended to be used in and whether a potentially explosive atmosphere, is always present, or is likely to occur for a long or a short period of time.

Group I: Underground and above ground installations for mining industry with hazardous choke damp and mine dust		
Category	Accepting	
Category M1	Very high level of protection	Safety in the event of two faults occurring independently of each other
Category M2	High level of protection	Device must be turned off in case of potentially explosive atmosphere

Group II: Other ex-areas					
Category	Accepting of danger	Accepting		Zone	Substance class
Category 1	Highly likely to occur and are present continuously, for long periods of time or frequently	Very high level of protection	Safety in the event of two faults occurring independently of each other	Zone 0	G (Gases)
				Zone 20	D (Dusts)
Category 2	Likely	High level of protection	Safety in the event of one fault	Zone 1	G (Gases)
				Zone 21	D (Dusts)
Category 3	Unlikely	Normal level of protection	Suitable for normal operation	Zone 2	G (Gases)
				Zone 22	D (Dusts)



CERTIFICATE

EC-TYPE EXAMINATION CERTIFICATE

Equipment or Protective System intended for use in potentially explosive atmospheres
Directive 94/9/EC

[3] EC-Type Examination Certificate number:

TÜV IT 14 ATEX 005

[4] Equipment or Protective System: Load and motor switchgear with enclosure

Type: ISOLATORS-EX
XGE and XEM Series
NL-EXB Series
NL-EXR Series

[5] Manufacturer: SCAME PARRE S.p.A

[6] Address: Via Costa Eria, 15
I-24020 Parre (BG) - ITALY

[7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] TÜV Italia, notified body no. 0948 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report no. R.14 EX.004

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0 : 2009 EN 60079-31 : 2009

[10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

[11] This EC-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

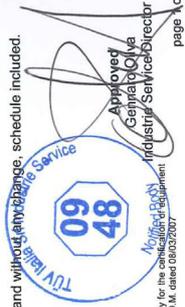
[12] The marking of the equipment or protective system shall include the following:

Type XGE and XEM series: II 2D Ex tb IIC T80°C Db IP66 (Ta -25°C +40°C)
II 2D Ex tb IIC T90°C Db IP66 (Ta -25°C +60°C)

Type NL-EXB and NL-EXR series: II 2D Ex tb IIC T80°C Db IP66 (Ta -25°C +40°C)

This certificate may only be reproduced in its entirety and without any change, schedule included.

Emission date: 20th February 2014 –
translation issued on 20th February 2014



TÜV Italia has been authorized by Italian government to operate as notified body for the certification of equipment in potentially explosive atmospheres with D.L. dated 03/03/2007.
This document without signature and official stamp shall not be valid.
This document is internally administered under no. 239221.

TÜV Italia • Gruppo TÜV SÜD • Via Carducci 125, Tel. 23 • 20089 Sesto San Giovanni (MI) • Italia • www.tuv.it

SCHEDULE

EC-TYPE EXAMINATION CERTIFICATE no. TÜV IT 14 ATEX 005

[13]

[14]

[15] Description of equipment

The Isolators EX XGE and XEM series, NL-EXB and NL-EXR series, are load and motor switchgears with plastic enclosure, with two main variations on the model with different nominal currents. Each of the variants is then divided into different configurations that differ from each other only by the number of active poles, the operating voltage, the inlet cable section and the color of the control knob and / or the presence of the auxiliary contacts.

The devices are for the usage in fixed installation in Zone 21 and Zone 22.

Rated characteristics

Isolators Ex model		Nominal current	Nominal current	Nominal current
590.XGE (General use)	20 A	32 A	32 A	40 A
590.XEM (Emergency use)	20 A	32 A	32 A	40 A

NL model	Nominal current	Nominal current	Nominal current	Nominal current
NL-EXB	16 A	20 A	25 A	32 A
NL-EXR	16 A	20 A	25 A	32 A

Warning label

None.

[16] Report no. R14 EX 004

Listed documents

document ID	rev.	pages	dated
01 Nota tecnica NT-SCAME ATEX prodotti serie ISOLATORS EX (XGE e XEM) STP0008 V1	V2.0	10	12/02/2014
02 Codici prodotti serie ISOLATORS EX (XGE e XEM) SCAME V2.0	n.a.	4	12/02/2014
03 Foglio di istruzioni prodotti serie ISOLATORS EX (XGE e XEM) SCAME ZP90828-1 V2	02	9	12/02/2014
04 Dichiarazione CE di conformità prodotti serie ISOLATORS EX (XGE e XEM) SCAME V2.0	n.a.	1	12/02/2014
05 Materiale involucro	01	2	09/03/2008
06 Scheda tecnica gomma TPV (1)	00	2	07/12/2010
07 Scheda tecnica gomma TPV (2)	00	2	30/03/2010
08 Asieme serie ISOLATORS EX (XGE e XEM) SCAME	n.a.	1	14/02/2014

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SCHEDULE

EC-TYPE EXAMINATION CERTIFICATE no. TÜV IT 14 ATEX 005

[13]

[14]

document ID	rev.	pages	dated
01 Nota tecnica NT-KRAUS & NAIMER ATEX prodotti serie NL-EXB e NL-EXR STP0009 V1.0	V1.0	12	12/02/2014
02 Codici prodotti serie NL-EXB e NLEXR (KRAUS & NAIMER) V2	V3	8	12/02/2014
03 Foglio istruzioni prodotti serie NL-EXB e NL-EXR (KRAUS & NAIMER) ZP90828-K-3 V3	03	10	12/02/2014
04 Dichiarazione CE di conformità prodotti serie NL-EXB e NL-EXR (KRAUS & NAIMER) V1.0	n.a.	1	12/02/2014
05 Materiale involucro	01	2	09/03/2008
06 Scheda tecnica gomma TPV (1)	00	2	07/12/2010
07 Scheda tecnica gomma TPV (2)	00	2	30/03/2010
08 Asieme serie NL-EXB e NL-EXR (KRAUS & NAIMER)	00	1	14/02/2014

One copy of all documents is kept in TÜV Italia files.

[17] Special conditions for safe use

None

[18] Essential Health and Safety Requirements

Guaranteed by the Standards reported in [9].

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ATEX Maintenance & Safety Switches, Zone 21

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Kraus & Naimer

BLUE LINE switchgear