



제21-0204호

안 전 인 증 서

R.STAHL Schaltgerate GmbH

Am Bahnhof 30 D-74638 waldenburg Germany

위 사업장에서 제조하는 아래의 품목이 「산업안전보건법」 제84조 및 같은 법 시행규칙 제110조제1항에 따른 안전인증 심사 결과 안전·보건기준에 적합하므로 안전인증표시의 사용을 인증합니다.

품 목

Safety Switch

형식 · 모델 / 용량 · 등급 / 인증번호

형식 · 모델	용량 · 등급	인증번호
8146/5-V37-300	Max. 690 V AC/DC, Max. 10A, Max. 4 mm ² Ex db eb IIC T6...T5 Gb	21-GA4BO-0204X

인 증 기 준

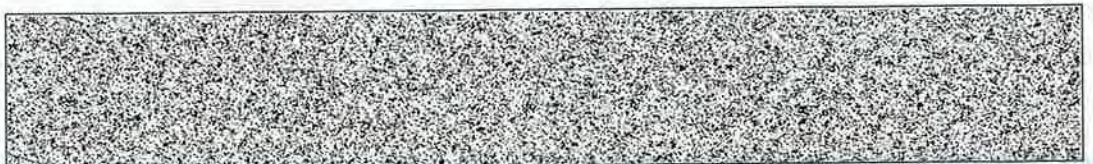
방호장치 안전인증 고시(고용노동부고시 제2021-22호)

인 증 조 건

Tamb : -20 °C ~ +51 °C, 뒷면참조

2021년 05월 06일

한국가스안전공사 사장





인 증 조 건

1. 제조공장:

Am bahnhof 30 74638 Waldenburg, Germany에 위치한 R. STAHL Schaltgeraete 에서 제조하는 아래 인증범위의 제품에 한함.

2. 제품개요

The control and distribution panel, type 8146/5***-** consist of an glass fiber reinforced enclosure made of polyester of type of protection Increased Safety "e" which can be equipped with flanges if necessary. Several boxes can be combined with one another. It is used for the installation of control, regulating and measuring devices as well as terminals for intrinsically safe and non-intrinsically safe circuits and can be equipped with actuators, indicating lamps, and inspection windows, if required. The panel area intended for intrinsically safe circuits will be marked e.g. by a specific color (light-blue) or a warning label. Connection will be by means of explosion-proof cable entries. All built-in and add-on components have been tested and certified under a separate test certificate.

* 자세한 사항은 [첨부] 참조

3. 인증범위: 본 인증서는 아래의 제품에 한하여 유효함.

품목 명 : Safety Switch, 모델 명 : 8146/5-V37-300에 한하여 인증함.

4. 안전한 사용을 위한 조건

가. 온도등급은 부품의 가열 및 주변온도에 따라 확인시험으로 정해짐.

나. 설치 및 사용 전 사용자 매뉴얼을 참조할 것

5. 인증(변경)사항

IECEX PTB 06.0090X Issue No. 2에 의해 작성되었음

6. 그 밖의 사항

가. 안전인증품의 품질관리, 확인심사 수검, 변경사항 신고 등 인증 받은 자의 의무 준수

나. 확인시험 실시대상 :

- IEC 60079-0 27절에 따라 부품의 가열 및 주변온도를 고려하여 온도시험 실시 후 출고할 것

- IEC 60079-7에 따라 용기에 절연내력시험 실시 후 출고할 것.

다. 본 안전인증서는 반드시 관련 IECEX 인증서(IECEX PTB 06.0090X Issue No. 2)와 함께 사용할 것



제16-0873호

안 전 인 증 서

R. STAHL Schaltgeraete

Am bahnhof 30 74638 Waldenburg, GERMANY

위 사업장에서 신청하는 아래의 품목이 「산업안전보건법」 제34조 및 같은 법 시행규칙 제58조의4제4항에 따른 안전인증 심사 결과 안전·보건기준에 적합하므로 안전인증표시의 사용을 인증합니다.

품 목

Control and Distribution Panel

형식 · 모델 / 용량 · 등급 / 인증번호

형식 · 모델	용량 · 등급	인증번호
8146/5-V37-302	Max. 690 V, Max 16 A	16-GA4BO-0873
	Ex d e m IIC T6...T4	

인 증 기 준

방호장치 의무안전인증 고시(고용노동부고시 제2013-54호)

인 증 조 건

뒷면 인증조건 참조

2016 년 12 월 20 일

한국가스안전공사 사장





[첨부] 21-GA4BO-0204X

가. Type of the enclosure: 8146/5-V37-302

나. Technical Data:

Rated voltage ¹⁾	up to 690 V
Rated current ²⁾	max. 10 A
Rated cross section ³⁾	max. 4 mm ²
Ambient temperature ⁴⁾	T6 : -20 °C ≤ Ta ≤ +51°C T6 : -20 °C ≤ Ta ≤ +54°C ⁵⁾ T5 : -20 °C ≤ Ta ≤ +60°C ⁵⁾
Protection against contact, foreign bodies and water	IP66 acc. to EN 60529

※ 1), 2), 3) : Depending on the type of terminal and Ex-components used.

※ 4) : The maximum ambient temperature range depends on the maximum ambient temperatures and the power dissipations of the built-in components and of the temperature class rating.

※ 5) : only with heat-resistant cable >70°C on cable entries or/and >85°C on clamping points

※ The rated values are maximum values; the actual electrical values depend on the electrical equipment incorporated. Within the scope of these maximum permissible values and with due regard to the standards, the manufacturer specifies the final rated values dependent on the system conditions, mode of operation, utilization category, etc. The characteristic values of the intrinsically safe circuits are to be given by the manufacturer on his own responsibility. The maximum permissible ambient temperature range of the terminal housing can be limited by the maximum permissible ambient temperature ranges of the separately certified equipment. The composition of the protection symbol will be based on the types of protection of components actually used.

다. Serial type code:

8146	/	*
a	/	b

a) Type / Series

b) Design

5-C*** = customized series product

5-E*** = modular construction (enclosure combination)

5-K*** = configured control panel

5-V*** = Series product such as

5-V11 = Load and Motor Switches

5-V37 = Safety Switch

5-V* = other





[첨부] 21-GA4BO-0204X

라. 8146/5-V37-302에 설치된 개별 기기 제품 현황

제품 및 모델명	제조사명	주위온도	방폭등급	비고
Adaptor / 737, 797, MA/TF	CMP Products Limited	-20°C ~ +60°C	Ex db IIC Gb, Ex eb IIC Gb,	737: 14-GA4BO-0249X, 797: 14-GA4BO-0250X
Stopping Plug/ 747, 757, 767	CMP Products Limited	-20°C ~ +60°C	Ex db IIC Gb, Ex eb IIC Gb,	747: 14-GA4BO-0247X, 757: 14-GA4BO-0255X, 767: 14-GA4BO-0248X
Cable Gland/ E..., E1FW..., E1FX..., E1FU..., E1FVAR..., E2FW..., E2FX..., E2FU..., E2FVAR..	CMP Products Limited	-60°C ~ +130°C (standard seal) -60°C ~ +200°C (high temperature seal)	Ex db IIC Gb, Ex eb IIC Gb, Ex nR IIC Gc,	14-GA4BO-0257X
Terminal Block/ UK 10N, UK 16N, UK 35, UKH 50, UKH 95	Phoenix Contact	-60°C ~ +110°C for UK 10-EX ALTER FUSS : -60°C ~ +105°C for Ta range see Schedule of Limitations	Ex eb IIC Gb	14-KB4BO-0342U_0344U
Load and motor switch / 8006/4	R. STAHL Schaltgeräte GmbH	-60°C ~ +80°C	Ex db eb IIC Gb	IECEX PTB 06.0018U
Control Switch Switch Disconnect / 8008/2-0, 8008/2-1, 8008/2-6	R. STAHL Schaltgeräte GmbH	-60°C ~ +80°C	Ex d e IIC Gb,	IECEX PTB 06.0010U
Contact Block / 8080/1	R. STAHL Schaltgeräte GmbH	-60°C ~ +70°C	Ex db eb IIC Gb	IECEX PTB 05.0025U
Empty Enclosure / 8146/-	R. STAHL Schaltgeräte GmbH	-60°C ~ +100°C (for gasket D0075) -20°C ~ +60°C (for gasket D0121)	Ex eb IIC Gb,	IECEX PTB 06.0044U
Cable Gland / 8161/7, 8161/8	R. STAHL Schaltgeräte GmbH	-60°C ~ +70°C	Ex eb IIC Gb,	15-GA4BO-0496X
Breather Gland/ 8162/1	R. STAHL Schaltgeräte GmbH	-40°C ~ +70°C	Ex eb IIC Gb	IECEX PTB 06.0028
Bushing / 8195	R. STAHL Schaltgeräte GmbH	-60°C ~ +800°C (for gasket D0097) -40°C ~ +80°C (for gasket D0098)	Ex eb IIC Gb	IECEX PTB 06.0087
Stopping Plug/ 8290/3	R. STAHL Schaltgeräte GmbH	-60°C ~ +80°C	Ex eb IIC Gb	15-GA4BO-0476U
Load and motor switch/ 8544/1.-..	R. STAHL Schaltgeräte GmbH	-50°C to +80°C	Ex db eb IIC Gb	IECEX PTB 09.0011U
Load and motor switch/ 8549	R. STAHL Schaltgeräte GmbH	-50°C to +80°C	Ex db eb IIC Gb	IECEX PTB 10.0053U
Actuator/ 8604/1	R. STAHL Schaltgeräte GmbH	-60°C to +80°C	Ex eb IIC Gb	IECEX PTB 06.0050U
Terminal Block / WDU 6, WDU 10, WDU 16, WDU 35, WDU 70N	R. STAHL Schaltgeräte GmbH	T6 (-60°C to +40°C) T5 (-60°C to +55°C) T4 (-°C to +75°C)	Ex eb IIC Gb	WDU6: 11-KB4BO-0226U, WDU10: 11-KB4BO-0234U, WDU16: 11-KB4BO-0235U, WDU35: 11-KB4BO-0236U, WDU70N:11-KB4BO-0237U



인 증 조 건

1. 제조공장

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2. 제품개요

- The control and distribution panel, type 8146/5***-*** consist of an glass fiber reinforced enclosure made of polyester of type of protection Increased Safety "e" or Protection by Enclosure "tb" which can be equipped with flanges if necessary. Several boxes can be combined with one another. It is used for the installation of control, regulating and measuring devices as well as terminals for intrinsically safe and non-intrinsically safe circuits and can be equipped with actuators, indicating lamps, and inspection windows, if required. The panel area intended for intrinsically safe circuits will be marked e.g. by a specific color (light-blue) or a warning label. Connection will be by means of explosion-proof cable entries. All built-in and add-on components have been tested and certified under a separate test certificate.

3. 인증범위

- 첨부 참조

4. 안전한 사용을 위한 조건

가. 제품 사용 시 사용설명서를 참고할 것.

나. Notes for manufacturing and operation:

The Control and Distribution Panel with a coating of polyester powder must not be used in areas affected by charge-producing processes, mechanical friction and separation processes, electron emission (e.g. in the vicinity of electrostatic coating equipment), and pneumatically conveyed dust. The type of protection can only be provided by following the information and instructions provided by the manufacturer and also the components are properly installed in the enclosure, the enclosures cover or rather the electrical equipment. When installing the components in the electrical equipment, measures shall be taken to ensure that the temperatures at the place of installation remain within the permitted operation temperature range of the components.

다. Determination of the temperature class:

The temperature class T6, T5 or T4 will be defined during the routine test depending on the self heating of the components and the ambient temperature.

5. 인증(변경)사항

- IECEx PTB 06.0090 Issue No. 2 을 바탕으로 작성되었음.

6. 그 밖의 사항

- 안전인증품의 품질관리, 확인심사 수검, 변경사항 신고 등 인증 받은 자의 의무 준수.





[첨부] 16-GA4BO-0873

(1 of 2)

가. Type of the enclosure: 8146/5-V37-302

나. Technical Data:

Rated voltage ¹⁾	up to 690 V
Rated current ²⁾	max. 16 A
Rated cross section ³⁾	max. 6 mm ²
Ambient temperature ⁴⁾	T4 : -60 °C ≤ Ta ≤ +70°C T5 : -60 °C ≤ Ta ≤ +55°C T6 : -60 °C ≤ Ta ≤ +40°C
Protection against contact, foreign bodies and water	IP66 acc. to EN 60529

※ 1), 2), 3) : Depending on the type of terminal and Ex-components used.

※ 4) : The maximum ambient temperature range depends on the maximum ambient temperatures and the power dissipations of the built-in components and of the temperature class rating.

※ The rated values are maximum values; the actual electrical values depend on the electrical equipment incorporated. Within the scope of these maximum permissible values and with due regard to the standards, the manufacturer specifies the final rated values dependent on the system conditions, mode of operation, utilization category, etc. The characteristic values of the intrinsically safe circuits are to be given by the manufacturer on his own responsibility. The maximum permissible ambient temperature range of the terminal housing can be limited by the maximum permissible ambient temperature ranges of the separately certified equipment. The composition of the protection symbol will be based on the types of protection of components actually used.

다. Serial type code:

8146	/	*
a	/	b

a) Type / Series

b) Design

5-C*** = customized series product

5-E*** = modular construction (enclosure combination)

5-K*** = configured control panel

5-V*** = Series product such as

5-V11 = Load and Motor Switches

5-V37 = Safety Switch

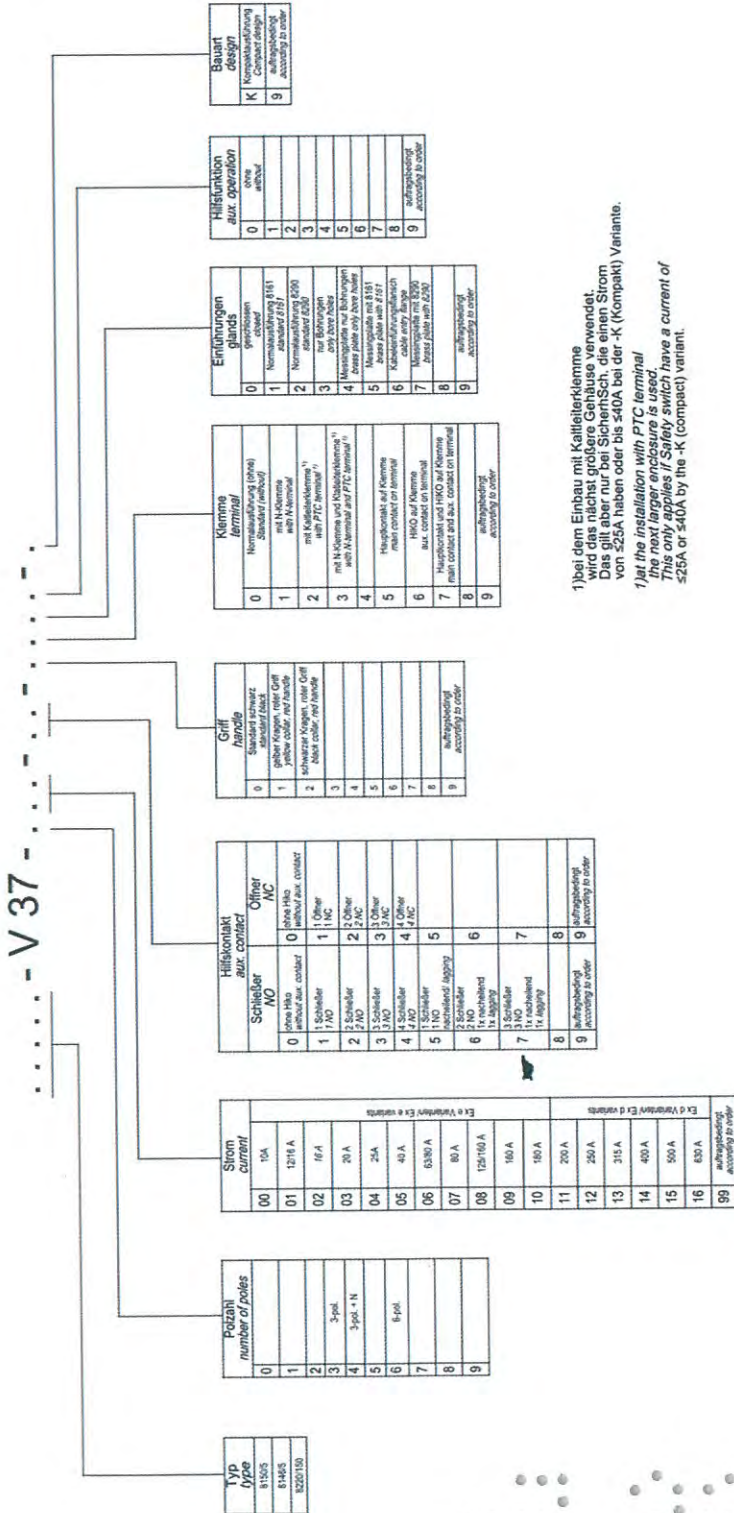
5-V* = other



[첨부] 16-GA4BO-0873

(2 of 2)

c) Type Code...-V37:



1) bei dem Einbau mit Kaltleiterklemme
für die Kaltleiterklemme verwenden.
Dies gilt aber nur bei SichernSch, die einen Strom
von 425A haben oder bis 540A bei der -K (Kompakt) Variante.
1) at the installation with PTC terminal
for the PTC terminal use.
This only applies if Safety switch have a current of
425A or 540A by the -K (compact) variant.



제16-0874호

안 전 인 증 서

R. STAHL Schaltgeraete

Am bahnhof 30 74638 Waldenburg, GERMANY

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품 목

Control and Distribution Panel

형식 · 모델 / 용량 · 등급 / 인증번호

형식 · 모델	용량 · 등급	인증번호
8146/5-V37-304	Max. 690 V, Max 25 A Ex d e m IIC T6...T4	16-GA4BO-0874

인 증 기 준

방호장치 의무안전인증 고시(고용노동부고시 제2013-54호)

인 증 조 건

뒷면 인증조건 참조

2016 년 12 월 20 일

한국가스안전공사 사장





인 증 조 건

1. 제조공장

- "Am bahnhof 30 74638 Waldenburg, Germany" 에 위치한 R. STAHL Schaltgeraete 에서 제조하는 아래 인증범위의 제품에 한함.

2. 제품개요

- The control and distribution panel, type 8146/5***-** consist of an glass fiber reinforced enclosure made of polyester of type of protection Increased Safety "e" or Protection by Enclosure "tb" which can be equipped with flanges if necessary. Several boxes can be combined with one another. It is used for the installation of control, regulating and measuring devices as well as terminals for intrinsically safe and non-intrinsically safe circuits and can be equipped with actuators, indicating lamps, and inspection windows, if required. The panel area intended for intrinsically safe circuits will be marked e.g. by a specific color (light-blue) or a warning label. Connection will be by means of explosion-proof cable entries. All built-in and add-on components have been tested and certified under a separate test certificate.

3. 인증범위

- 첨부 참조

4. 안전한 사용을 위한 조건

가. 제품 사용 시 사용설명서를 참고할 것.

나. Notes for manufacturing and operation:

The Control and Distribution Panel with a coating of polyester powder must not be used in areas affected by charge-producing processes, mechanical friction and separation processes, electron emission (e.g. in the vicinity of electrostatic coating equipment), and pneumatically conveyed dust. The type of protection can only be provided by following the information and instructions provided by the manufacturer and also the components are properly installed in the enclosure, the enclosures cover or rather the electrical equipment. When installing the components in the electrical equipment, measures shall be taken to ensure that the temperatures at the place of installation remain within the permitted operation temperature range of the components.

다. Determination of the temperature class:

The temperature class T6, T5 or T4 will be defined during the routine test depending on the self heating of the components and the ambient temperature.

5. 인증(변경)사항

- IECEx PTB 06.0090 Issue No. 2 을 바탕으로 작성되었음.

6. 그 밖의 사항

- 안전인증품의 품질관리, 확인심사 수검, 변경사항 신고 등 인증 받은 자의 의무 준수.





[첨부] 16-GA4BO-0874

(1 of 2)

가. Type of the enclosure: 8146/5-V37-304

나. Technical Data:

Rated voltage ¹⁾	up to 690 V
Rated current ²⁾	max. 25 A
Rated cross section ³⁾	max. 6 mm ²
Ambient temperature ⁴⁾	T4 : -60 °C ≤ Ta ≤ +70°C T5 : -60 °C ≤ Ta ≤ +55°C T6 : -60 °C ≤ Ta ≤ +40°C
Protection against contact, foreign bodies and water	IP66 acc. to EN 60529

※ 1), 2), 3) : Depending on the type of terminal and Ex-components used.

※ 4) : The maximum ambient temperature range depends on the maximum ambient temperatures and the power dissipations of the built-in components and of the temperature class rating.

※ The rated values are maximum values; the actual electrical values depend on the electrical equipment incorporated. Within the scope of these maximum permissible values and with due regard to the standards, the manufacturer specifies the final rated values dependent on the system conditions, mode of operation, utilization category, etc. The characteristic values of the intrinsically safe circuits are to be given by the manufacturer on his own responsibility. The maximum permissible ambient temperature range of the terminal housing can be limited by the maximum permissible ambient temperature ranges of the separately certified equipment. The composition of the protection symbol will be based on the types of protection of components actually used.

다. Serial type code:

8146	/	*
a	/	b

a) Type / Series

b) Design

5-C*** = customized series product

5-E*** = modular construction (enclosure combination)

5-K*** = configured control panel

5-V*** = Series product such as

5-V11 = Load and Motor Switches

5-V37 = Safety Switch

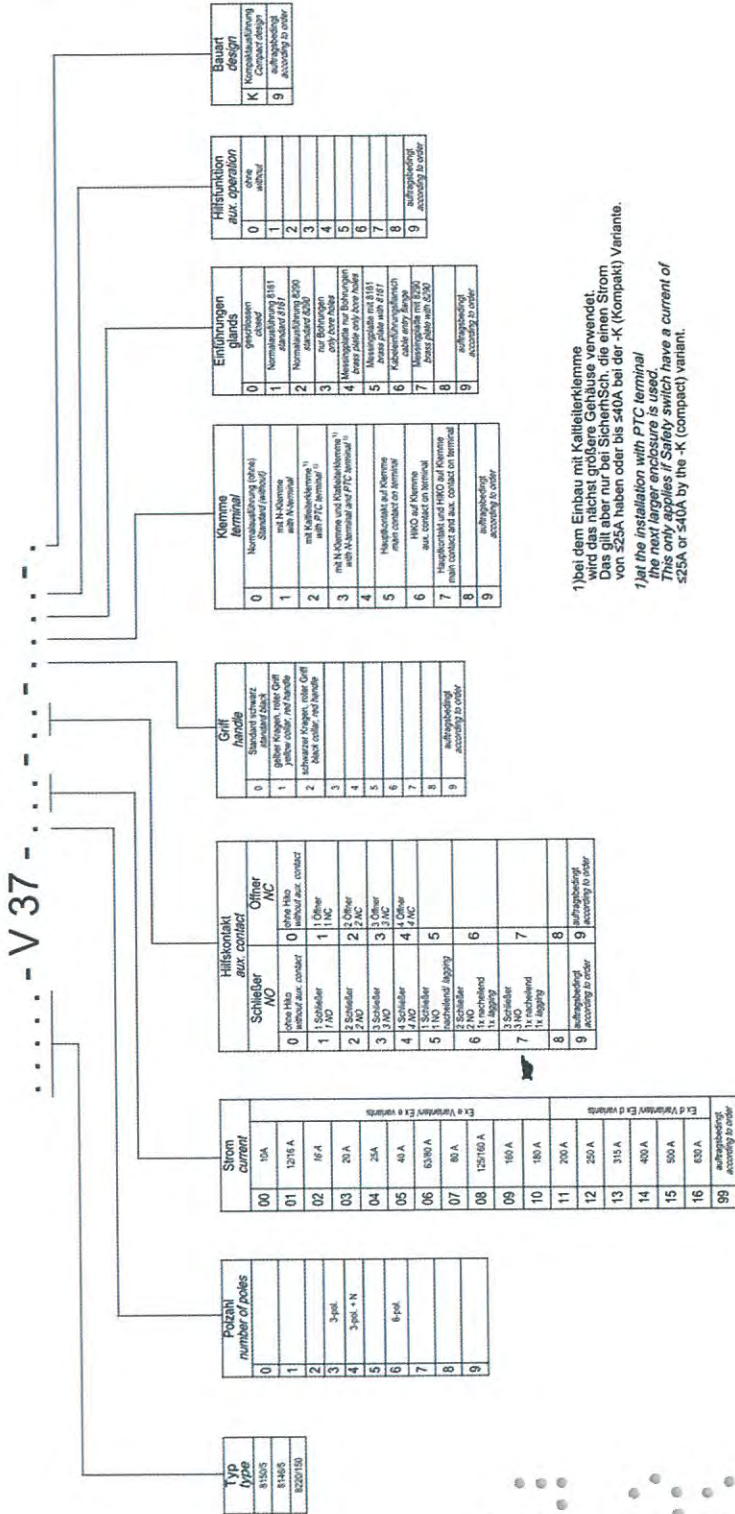
5-V* = other



[첨부] 16-GA4BO-0874

(2 of 2)

c) Type Code...-V37:



1) bei dem Einbau mit Kaltleiterklemme wird das nächst größere Sicherungsstrom von 250A haben oder bis 540A bei der -K (Kompakt) Variante.
 1) In the installation with PTC terminal the next larger safety switch shall have a current of 250A or 540A by the -K (compact) variant.



제16-0875호

안 전 인 증 서

R. STAHL Schaltgeraete

Am bahnhof 30 74638 Waldenburg, GERMANY

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품 목

Control and Distribution Panel

형식 · 모델 / 용량 · 등급 / 인증번호

형식 · 모델	용량 · 등급	인증번호
8146/5-V37-305	Max. 690 V, Max 40 A	16-GA4BO-0875
	Ex d e m IIC T6...T4	

인 증 기 준

방호장치 의무안전인증 고시(고용노동부고시 제2013-54호)

인 증 조 건

뒷면 인증조건 참조

2016 년 12 월 20 일

한국가스안전공사 사장





인 증 조 건

1. 제조공장

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- IECEx PTB 06.0090 Issue No. 2 을 바탕으로 작성되었음.

6. 그 밖의 사항

- 안전인증품의 품질관리, 확인심사 수검, 변경사항 신고 등 인증 받은 자의 의무 준수.





[첨부] 16-GA4BO-0875

(1 of 2)

가. Type of the enclosure: 8146/5-V37-305

나. Technical Data:

Rated voltage ¹⁾	up to 690 V
Rated current ²⁾	max. 40 A
Rated cross section ³⁾	max. 35 mm ²
Ambient temperature ⁴⁾	T4 : -60 °C ≤ Ta ≤ +70°C T5 : -60 °C ≤ Ta ≤ +55°C T6 : -60 °C ≤ Ta ≤ +40°C
Protection against contact, foreign bodies and water	IP66 acc. to EN 60529

※ 1), 2), 3) : Depending on the type of terminal and Ex-components used.

※ 4) : The maximum ambient temperature range depends on the maximum ambient temperatures and the power dissipations of the built-in components and of the temperature class rating.

※ The rated values are maximum values; the actual electrical values depend on the electrical equipment incorporated. Within the scope of these maximum permissible values and with due regard to the standards, the manufacturer specifies the final rated values dependent on the system conditions, mode of operation, utilization category, etc. The characteristic values of the intrinsically safe circuits are to be given by the manufacturer on his own responsibility. The maximum permissible ambient temperature range of the terminal housing can be limited by the maximum permissible ambient temperature ranges of the separately certified equipment. The composition of the protection symbol will be based on the types of protection of components actually used.

다. Serial type code:

8146	/	*
a	/	b

a) Type / Series

b) Design

5-C*** = customized series product

5-E*** = modular construction (enclosure combination)

5-K*** = configured control panel

5-V*** = Series product such as

5-V11 = Load and Motor Switches

5-V37 = Safety Switch

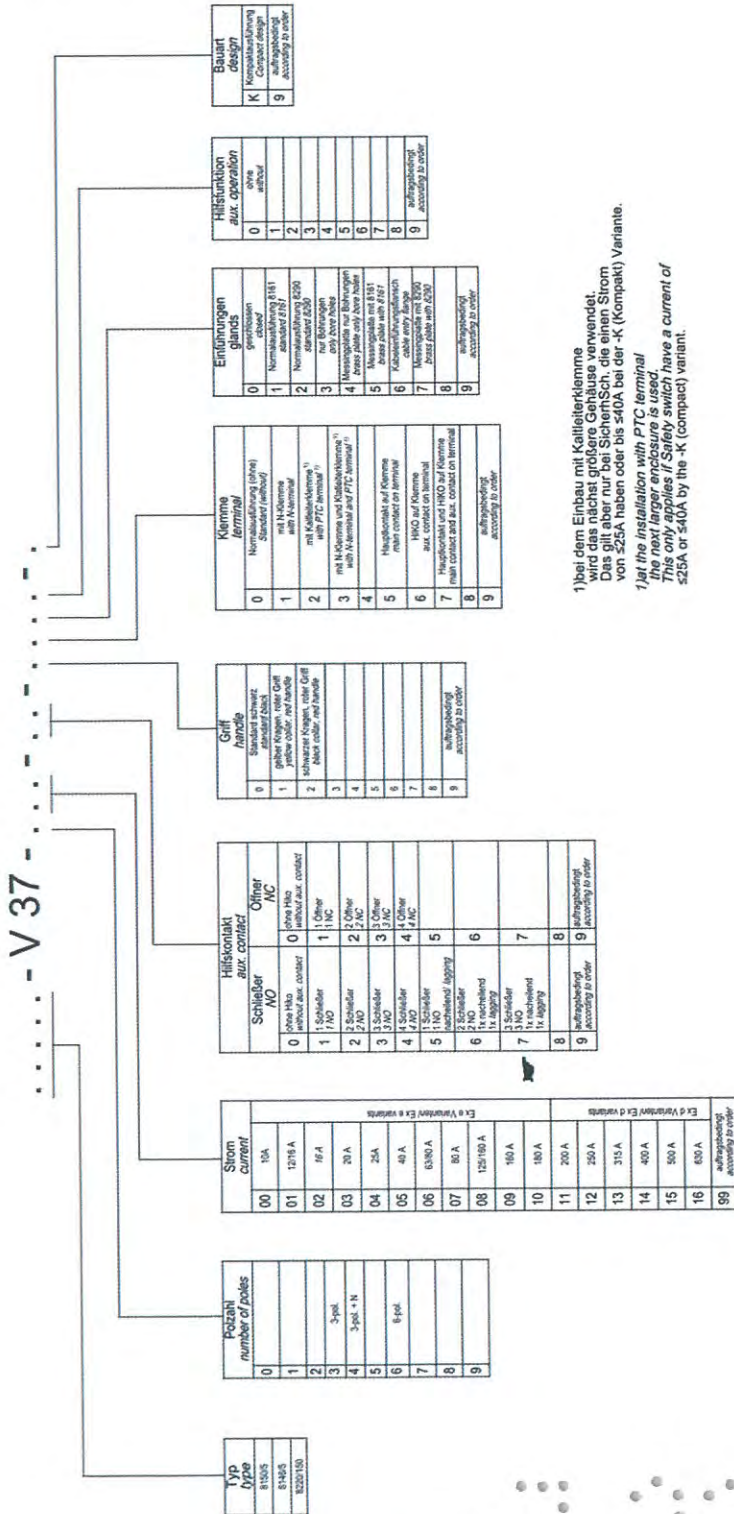
5-V* = other



[첨부] 16-GA4BO-0875

(2 of 2)

c) Type Code...-V37:



1) bei dem Einbau mit Kaltleiterklemme wird die Isolation für die Sicherheit von 250 A bis 540 A durch die einen Strom von 250 A bis 540 A bei der -K (Kompakt) Variante.
 1) at the installation with PTC terminal the insulation for safety is less than 250 A. This only applies if Safety switch have a current of 250 A or 540 A by the -K (compact) variant.



제16-0876호

안 전 인 증 서

R. STAHL Schaltgeraete

Am bahnhof 30 74638 Waldenburg, GERMANY

위 사업장에서 신청하는 아래의 품목이 「산업안전보건법」 제34조 및 같은 법 시행규칙 제58조의4제4항에 따른 안전인증 심사 결과 안전·보건기준에 적합하므로 안전인증표시의 사용을 인증합니다.

품 목

Control and Distribution Panel

형식 · 모델 / 용량 · 등급 / 인증번호

형식 · 모델	용량 · 등급	인증번호
8146/5-V37-307	Max. 690 V, Max 80 A	16-GA4BO-0876
	Ex d e m IIC T6...T4	

인 증 기 준

방호장치 의무안전인증 고시(고용노동부고시 제2013-54호)

인 증 조 건

뒷면 인증조건 참조

2016 년 12 월 20 일

한국가스안전공사 사장





인 증 조 건

1. 제조공장

- "Am bahnhof 30 74638 Waldenburg, Germany" 에 위치한 R. STAHL Schaltgeraete 에서 제조하는 아래 인증범위의 제품에 한함.

2. 제품개요

- The control and distribution panel, type 8146/5***-** consist of an glass fiber reinforced enclosure made of polyester of type of protection Increased Safety "e" or Protection by Enclosure "tb" which can be equipped with flanges if necessary. Several boxes can be combined with one another. It is used for the installation of control, regulating and measuring devices as well as terminals for intrinsically safe and non-intrinsically safe circuits and can be equipped with actuators, indicating lamps, and inspection windows, if required. The panel area intended for intrinsically safe circuits will be marked e.g. by a specific color (light-blue) or a warning label. Connection will be by means of explosion-proof cable entries. All built-in and add-on components have been tested and certified under a separate test certificate.

3. 인증범위

- 첨부 참조

4. 안전한 사용을 위한 조건

가. 제품 사용 시 사용설명서를 참고할 것.

나. Notes for manufacturing and operation:

The Control and Distribution Panel with a coating of polyester powder must not be used in areas affected by charge-producing processes, mechanical friction and separation processes, electron emission (e.g. in the vicinity of electrostatic coating equipment), and pneumatically conveyed dust. The type of protection can only be provided by following the information and instructions provided by the manufacturer and also the components are properly installed in the enclosure, the enclosures cover or rather the electrical equipment. When installing the components in the electrical equipment, measures shall be taken to ensure that the temperatures at the place of installation remain within the permitted operation temperature range of the components.

다. Determination of the temperature class:

The temperature class T6, T5 or T4 will be defined during the routine test depending on the self heating of the components and the ambient temperature.

5. 인증(변경)사항

- IECEx PTB 06.0090 Issue No. 2 을 바탕으로 작성되었음.

6. 그 밖의 사항

- 안전인증품의 품질관리, 확인심사 수검, 변경사항 신고 등 인증 받은 자의 의무 준수.





[첨부] 16-GA4BO-0876

(1 of 2)

가. Type of the enclosure: 8146/5-V37-307

나. Technical Data:

Rated voltage ¹⁾	up to 690 V
Rated current ²⁾	max. 80 A
Rated cross section ³⁾	max. 50 mm ²
Ambient temperature ⁴⁾	T4 : -60 °C ≤ Ta ≤ +70°C T5 : -60 °C ≤ Ta ≤ +55°C T6 : -60 °C ≤ Ta ≤ +40°C
Protection against contact, foreign bodies and water	IP66 acc. to EN 60529

※ 1), 2), 3) : Depending on the type of terminal and Ex-components used.

※ 4) : The maximum ambient temperature range depends on the maximum ambient temperatures and the power dissipations of the built-in components and of the temperature class rating.

※ The rated values are maximum values; the actual electrical values depend on the electrical equipment incorporated. Within the scope of these maximum permissible values and with due regard to the standards, the manufacturer specifies the final rated values dependent on the system conditions, mode of operation, utilization category, etc. The characteristic values of the intrinsically safe circuits are to be given by the manufacturer on his own responsibility. The maximum permissible ambient temperature range of the terminal housing can be limited by the maximum permissible ambient temperature ranges of the separately certified equipment. The composition of the protection symbol will be based on the types of protection of components actually used.

다. Serial type code:

8146	/	*
a	/	b

a) Type / Series

b) Design

5-C*** = customized series product

5-E*** = modular construction (enclosure combination)

5-K*** = configured control panel

5-V*** = Series product such as

5-V11 = Load and Motor Switches

5-V37 = Safety Switch

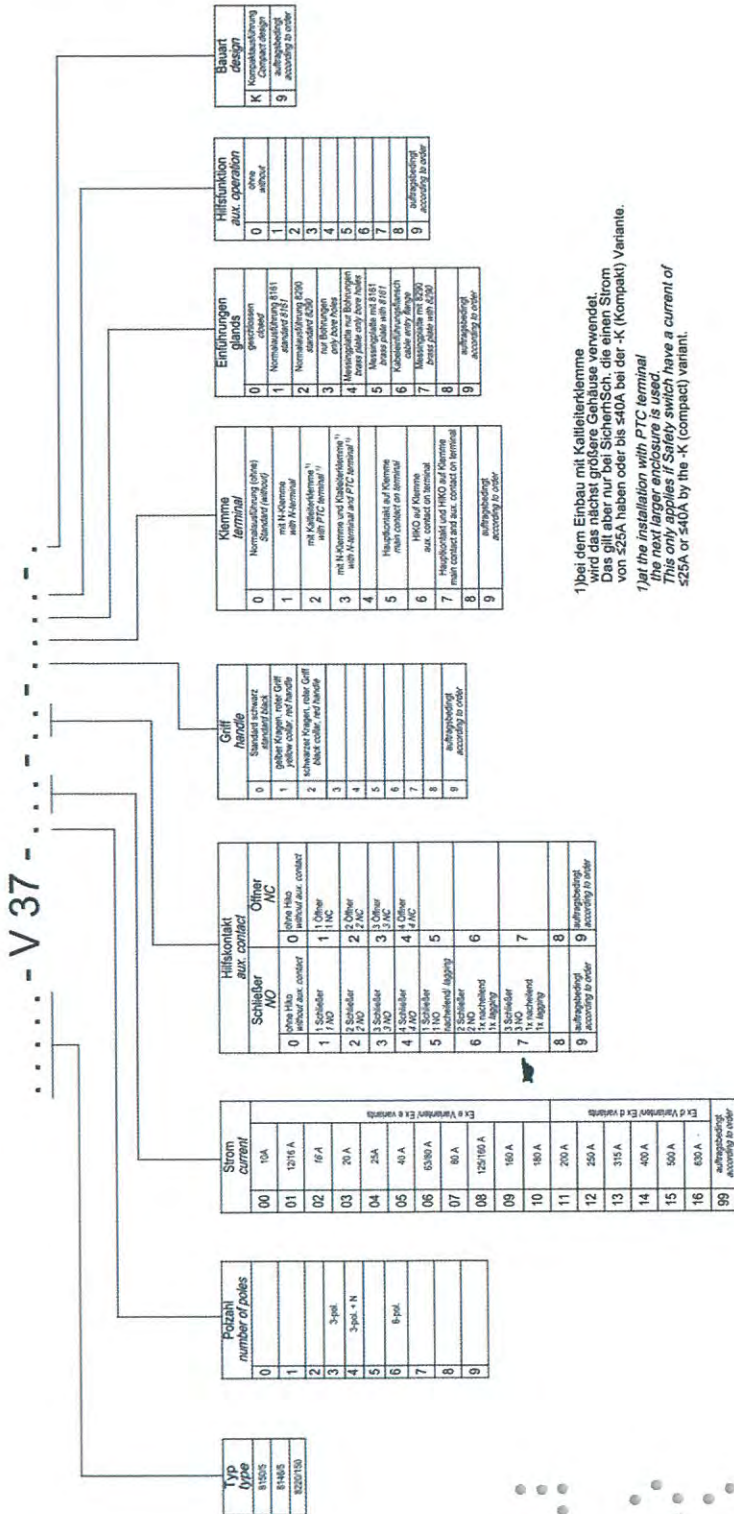
5-V* = other



[첨부] 16-GA4BO-0876

(2 of 2)

c) Type Code...-V37:



1) bei dem Einbau mit Kaltleiterklemme wird das nächst größere Gehäuse verwendet. Dies ist für die Strombelastbarkeit von -25A bis 540A bei der -K (Kompakt) Variante.
1) for the installation with PTC terminal the next larger terminal housing is used. This is only valid for the -K (compact) variant.



제16-0877호

안 전 인 증 서

R. STAHL Schaltgeraete

Am bahnhof 30 74638 Waldenburg, GERMANY

위 사업장에서 신청하는 아래의 품목이 「산업안전보건법」 제34조 및 같은 법 시행규칙 제58조의4제4항에 따른 안전인증 심사 결과 안전·보건기준에 적합하므로 안전인증표시의 사용을 인증합니다.

품 목

Control and Distribution Panel

형식 · 모델 / 용량 · 등급 / 인증번호

형식 · 모델	용량 · 등급	인증번호
8146/5-V37-308	Max. 690 V, Max 125 A Ex d e m IIC T6...T4	16-GA4BO-0877

인 증 기 준

방호장치 의무안전인증 고시(고용노동부고시 제2013-54호)

인 증 조 건

뒷면 인증조건 참조

2016 년 12 월 20 일

한국가스안전공사 사장





인 증 조 건

1. 제조공장

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2. 제품개요

- The control and distribution panel, type 8146/5***-*** consist of an glass fiber reinforced enclosure made of polyester of type of protection Increased Safety "e" or Protection by Enclosure "tb" which can be equipped with flanges if necessary. Several boxes can be combined with one another. It is used for the installation of control, regulating and measuring devices as well as terminals for intrinsically safe and non-intrinsically safe circuits and can be equipped with actuators, indicating lamps, and inspection windows, if required. The panel area intended for intrinsically safe circuits will be marked e.g. by a specific color (light-blue) or a warning label. Connection will be by means of explosion-proof cable entries. All built-in and add-on components have been tested and certified under a separate test certificate.

3. 인증범위

- 첨부 참조

4. 안전한 사용을 위한 조건

가. 제품 사용 시 사용설명서를 참고할 것.

나. Notes for manufacturing and operation:

The Control and Distribution Panel with a coating of polyester powder must not be used in areas affected by charge-producing processes, mechanical friction and separation processes, electron emission (e.g. in the vicinity of electrostatic coating equipment), and pneumatically conveyed dust. The type of protection can only be provided by following the information and instructions provided by the manufacturer and also the components are properly installed in the enclosure, the enclosures cover or rather the electrical equipment. When installing the components in the electrical equipment, measures shall be taken to ensure that the temperatures at the place of installation remain within the permitted operation temperature range of the components.

다. Determination of the temperature class:

The temperature class T6, T5 or T4 will be defined during the routine test depending on the self heating of the components and the ambient temperature.

5. 인증(변경)사항

- IECEx PTB 06.0090 Issue No. 2 을 바탕으로 작성되었음.

6. 그 밖의 사항

- 안전인증품의 품질관리, 확인심사 수검, 변경사항 신고 등 인증 받은 자의 의무 준수.





[첨부] 16-GA4BO-0877

(1 of 2)

가. Type of the enclosure: 8146/5-V37-308

나. Technical Data:

Rated voltage ¹⁾	up to 690 V
Rated current ²⁾	max. 125 A
Rated cross section ³⁾	max. 150 mm ²
Ambient temperature ⁴⁾	T4 : -60 °C ≤ Ta ≤ +70°C T5 : -60 °C ≤ Ta ≤ +55°C T6 : -60 °C ≤ Ta ≤ +40°C
Protection against contact, foreign bodies and water	IP66 acc. to EN 60529

※ 1), 2), 3) : Depending on the type of terminal and Ex-components used.

※ 4) : The maximum ambient temperature range depends on the maximum ambient temperatures and the power dissipations of the built-in components and of the temperature class rating.

※ The rated values are maximum values; the actual electrical values depend on the electrical equipment incorporated. Within the scope of these maximum permissible values and with due regard to the standards, the manufacturer specifies the final rated values dependent on the system conditions, mode of operation, utilization category, etc. The characteristic values of the intrinsically safe circuits are to be given by the manufacturer on his own responsibility. The maximum permissible ambient temperature range of the terminal housing can be limited by the maximum permissible ambient temperature ranges of the separately certified equipment. The composition of the protection symbol will be based on the types of protection of components actually used.

다. Serial type code:

8146	/	*
a	/	b

a) Type / Series

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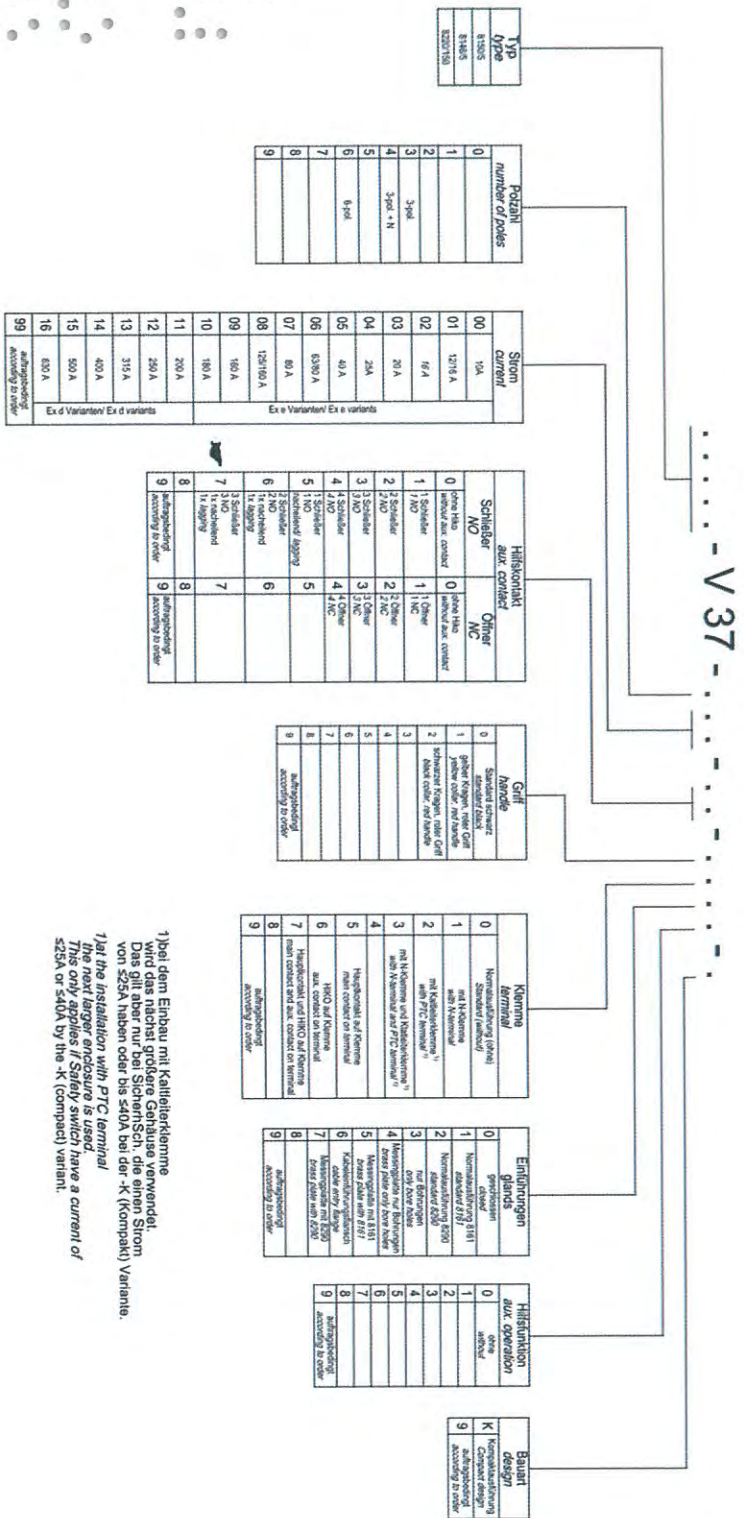
5-V* = other



[첨부] 16-GA4BO-0877

(2 of 2)

c) Type Code...-V37:



1)bei dem Einbau mit Kaltleiterkerntermine wird das nicht gelbe Schutzgehäuse empfohlen. Die Schutzgehäuse der Strom von 2525A haben oder bis 540A bei der -K (Kompakt) Variante.

1)at the installation with PTC terminal the red design of the switch have a current of 2525A or 540A by the -K (compact) variant.