

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 시행 규칙 제58조의4제4항에 따른 안전인증 심사 결과 안전 · 보건기준에 적합하므로 안전인 증표시의 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	10 04400 0070
0140/3-737-302	Ex d e m IIC T6T4	16-GA4BO-0873

인 증 기 준

방호장치 의무안전인증 고시(고용노동부고시 제2013-54호)

인 증 조 건

뒷면 인증조건 참조

2016 년 12 월 20 일







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:

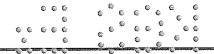
The temperature class T6, T5 or T4 will be defined during the routine test depending on the self heating of the components and the ambient temperature.

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.





(1 of 2)

71. 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.
- * 1 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	/	*
а	1	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

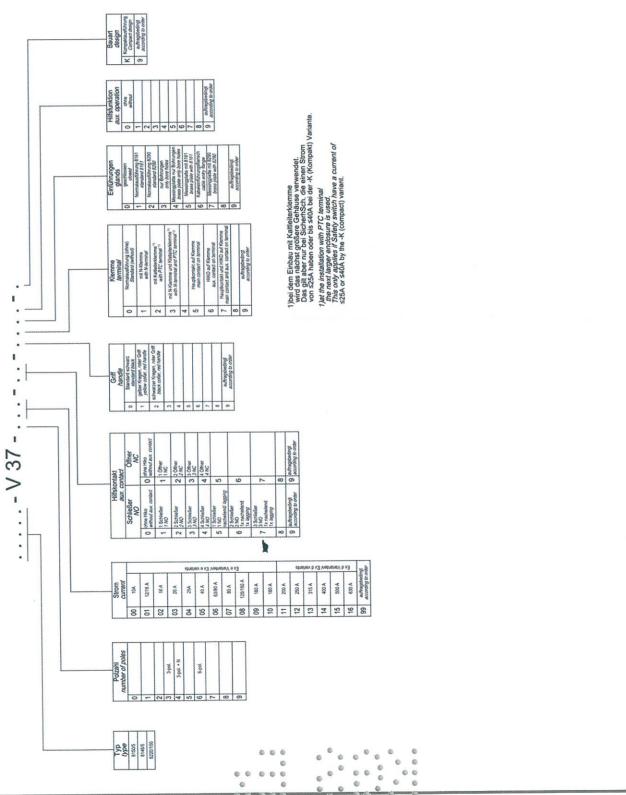
5-V37 = Safety Switch





(2 of 2)







제16-0874호

안 전 인 증 서

R. STAHL Schaltgeraete

Am bahnhof 30 74638 Waldenburg, GERMANY

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품목 Control and Distribution Panel

------ 형<mark>식 · 모델</mark> / 용량 · 등급 / 인증번호 -----

형식 모델	용량・등급	인증번호
8146/5-V37-304	Max. 690 V, Max 25 A	16-GA4BO-0874
	Ex d e m IIC T6T4	10-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







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3. 인증범위

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4. 안전한 사용을 위한 조건

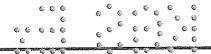
- 가. 제품 사용 시 사용설명서를 참고할 것.
- 나. Notes for manufacturing and operation:

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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.





(1 of 2)

71. 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	1	*
а	1	b

- a) Type / Series
- b) Design

5-C*** = customized series product

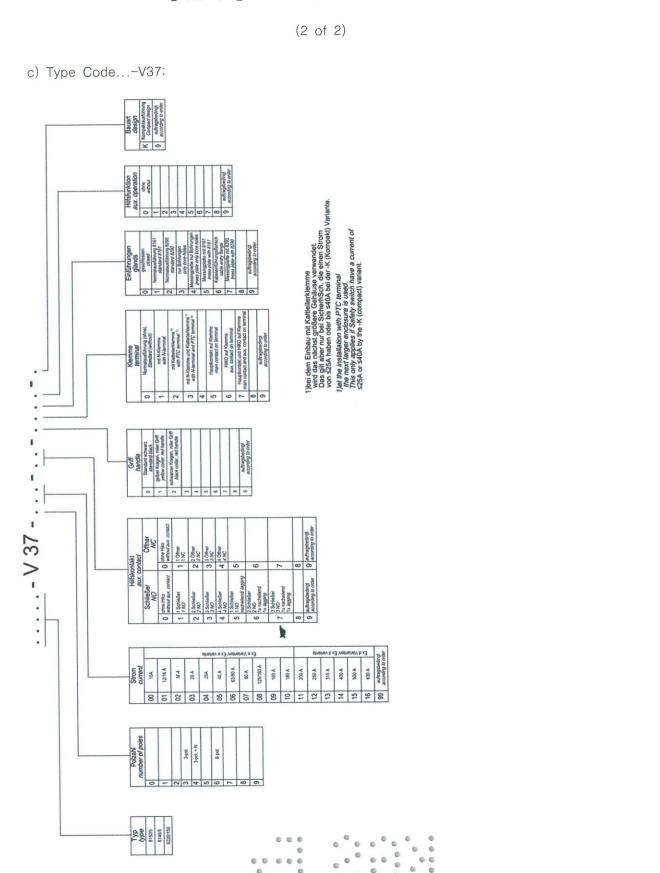
5-E*** = modular construction (enclosure combination)

5-K*** = configured control panel 5-V*** = Series product such as

5-V11 = Load and Motor Switches

5-V37 = Safety Switch







제16-0875호

안 전 인 증 서

R. STAHL Schaltgeraete

Am bahnhof 30 74638 Waldenburg, GERMANY

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형식 · 모델	용량・등급	인증번호
8146/5-V37-305	Max. 690 V, Max 40 A	16-GA4BO-0875
0140/0 40/ 300	Ex d e m IIC T6T4	10-GA4BO-0073

_____ 인 증 기 준 _____

방호장치 의무안전인증 고시(고용노동부고시 제2013-54호)

인 증 조 건

뒷면 인증조건 참조

2016 년 12 월 20 일







1. 제조공장

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

2. 제품개요

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3. 인증범위

- 첨부 참조

4. 안전한 사용을 위한 조건

- 가. 제품 사용 시 사용설명서를 참고할 것.
- 나. Notes for manufacturing and operation:

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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.





(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	1	*
а	1	b

- a) Type / Series
- b) Design

5-C*** = customized series product

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

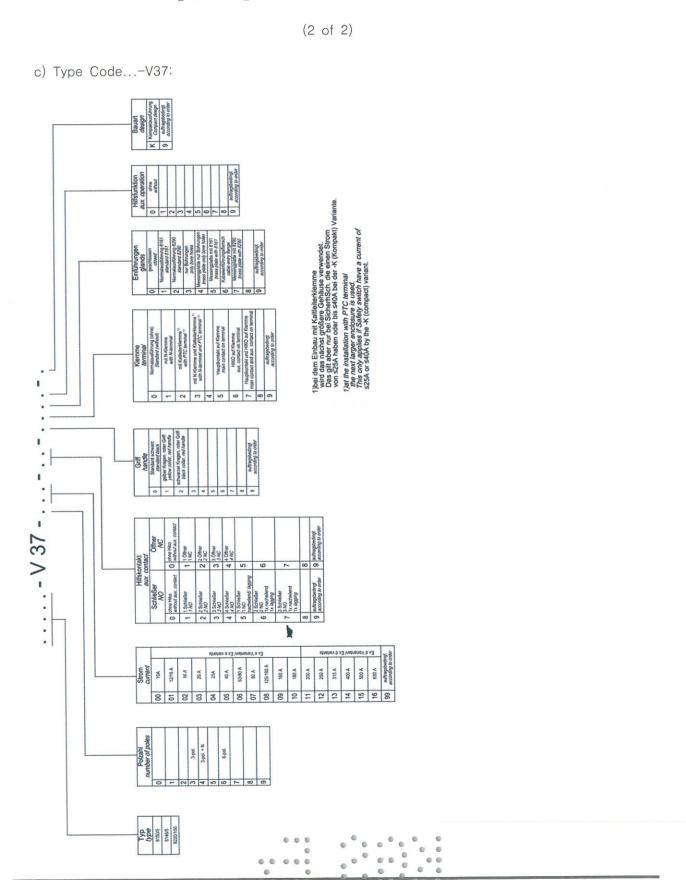
5-K*** = configured control panel 5-V*** = Series product such as

5-V11 = Load and Motor Switches

5-V37 = Safety Switch









제16-0876호

안 전 인 증 서

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Am bahnhof 30 74638 Waldenburg, GERMANY

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형식 모델	용량 등급	인증번호
8146/5-V37-307	Max. 690 V, Max 80 A	16-GA4BO-0876
0110/0 40/ 00/	Ex d e m IIC T6T4	10 GA4BO 0070

인 증 기 준

방호장치 의무안전인증 고시(고용노동부고시 제2013-54호)

인 증 조 건

뒷면 인증조건 참조

2016 년 12 월 20 일







1. 제조공장

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

2. 제품개요

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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.





(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.
- * 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.
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다. Serial type code:

8146	/	*
а	1	b

a) Type / Series

b) Design

5-C*** = customized series product

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

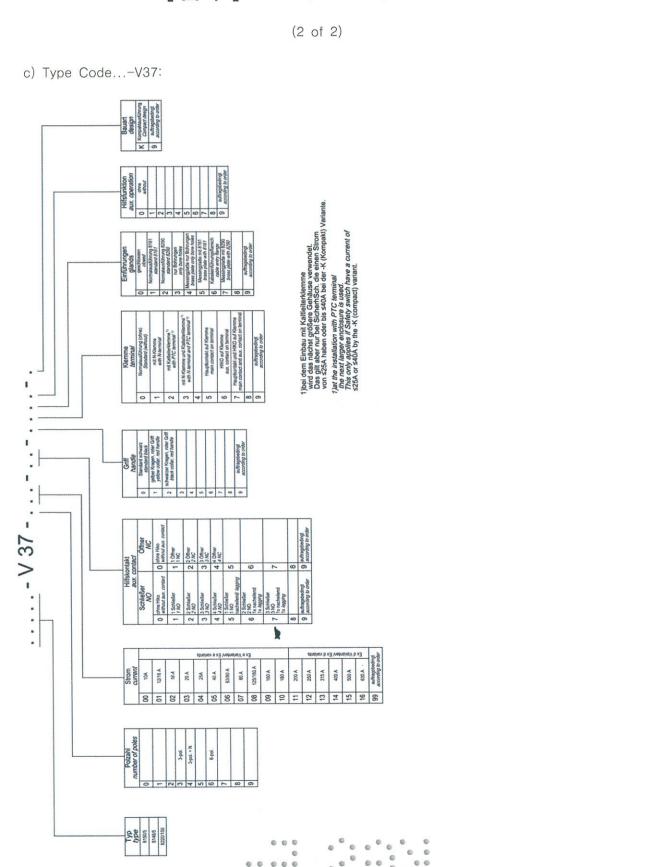
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제16-0877호

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형식 · 모델	용량 · 등급	인증번호	
8146/5-V37-308	Max. 690 V, Max 125 A		
	Ex d e m IIC T6T4	16-GA4BO-0877	

인 증 기 준 ----

방호장치 의무안전인증 고시(고용노동부고시 제2013-54호)

인 증 조 건

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2016 년 12 월 20 일







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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.





(1 of 2)

71. 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 \le Ta \le +70 °C T5: -60 °C \le Ta \le +55 °C T6: -60 °C \le Ta \le +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	/	*
а	1	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







(2 of 2)

