[Cs

제16-0852호

124212

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.

A stand	품목	
	Control and Distribution Panel	
<u></u>	식 · 모델 / 용량 · 등급 / 인증	번호
형식 · 모델	용량 · 등급	인증번호
8146/5000	Max. 1100 V, Max 630 A	10.04400.0050
0140/0000	Ex d e m IIC T6T4	16-GA4BO-0852

인 증 기 준

방호장치 의무안전인증 고시(고용노동부고시 제2013-54호)

인 증 조 건

뒷면 인증조건 참조

2016년 12월 20일





- 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.
- Et. 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.
- 라. "8146/5000" 사용 시 첨부 (2 of 2)에 나열된 "Combination List"에 명시된 제품의 조합으로만 사용 가능함.
- 5. 인증(변경)사항
- IECEx PTB 06.0090 Issue No. 2 을 바탕으로 작성되었음.

6. 그 밖의 사항

- 안전인증품의 품질관리, 확인심사 순검, 변경상항 신고 등 일증 받은 자의 의무 준수.

6 6 6 6 6



(1 of 2)

가. Dimensions of the enclosure:

Туре	Length [mm]	Width [mm]	Depth [mm]
8146/5000	Combination	Combination	Combination

나. Technical Data:

Rated voltage1)	Norman Contest	up to 1100 V
Rated current ²⁾	and the second second	max. 630 A
Rated cross section ³⁾		max. 300 mm ²
Ambient temperature ⁴⁾		T4 : -60 °C \leq Ta \leq +70°C T5 : -60 °C \leq Ta \leq +55°C T6 : -60 °C \leq Ta \leq +40°C
Protection against contact,	foreign bodies and water	IP66 acc. to EN 60529
41 (21) (21)		

* 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 separately certified equipment. The composition of the protection symbol will be based on the types of protection of components actually used.

다. Nomenclature:

8146	1	5	*	*	*	-	*	*
а	1	b	(c (d	-	(9

a) Type / Series

b) Design

5 = Control and distribution panel Ex e...

c) Enclosure length x width [mm]: d) Enclosure, height [mm]: 00 = Combination0 = Combination $03 = 112.5 \times 112.5$ 1 = 91 $04 = 170.0 \times 112.5$ 2 = 131 $24 = 227.0 \times 112.5$ 3 = 150 $05 = 170.0 \times 170.0$ 4 = 171 $06 = 227.0 \times 170.0$ 5 = 190 $07 = 340.5 \times 170.0$ 6 = 230B7 = 340.5 x 170.0 $S7 = 340.5 \times 170.0$ $08 = 340.5 \times 340.5$ $09 = 681.5 \times 340.5$ e) Further information without reference to explosion protection



(2 of 2)

- Depth [mm] Width [mm] Length [mm] Туре Combination Combination Combination 8146/5000 91 112.5 112.5 8146/5031 91 112.5 170.0 8146/5041 91 112.5 227.0 8146/5241 91 170.0 170.0 8146/5051 91 170.0 227.0 8146/5061 91 170.0 8146/5071 340.5 150 170.0 340.5 8146/5073 170.0 190 340.5 8146/5075 91 170.0 340.5 8146/5S71 150 170.0 340.5 8146/5S73 150 170.0 340.5 8146/5B73 170.0 190 340.5 8146/5B75 91 340.5 340.5 8146/5081 150 340.5 340.5 8146/5083 171 340.5 8146/5084 340.5 190 340.5 340.5 8146/5085 230 340.5 340.5 8146/5086 91 340.5 8146/5091 681.5 150 340.5 681.5 8146/5093 190 340.5 8146/5095 681.5
- 라. Combination List:





제16-0853호

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.



인 증 기 준

방호장치 의무안전인증 고시(고용노동부고시 제2013-54호)

인 증 조 건

뒷면 인증조건 참조

2016년 12월 20일



用主体。包括条体



- 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.

C+. 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 1)

71. Dimensions of the enclosure:

Туре	Length [mm]	Width [mm]	Depth [mm]
8146/5031	112.5	112.5	91

나. Technical Data:

Rated voltage ¹⁾	1100 V
hated voltage	up to 1100 V
Rated current ²⁾	max. 630 A
Rated cross section ³⁾	max. 300 mm ²
Ambient temperature ⁴⁾	T4 : -60 °C \leq Ta \leq +70°C T5 : -60 °C \leq Ta \leq +55°C T6 : -60 °C \leq Ta \leq +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 separately certified equipment. The composition of the protection symbol will be based on the types of protection of components actually used.

다. Nomenclature:

8146	1	5	*	*	*	-	*	*	
а	1	b	(0	d	-	MAC 1	е	
a) Ty	pe /	Series	3	NA	1 100	0.0			
b) De									
5	= C	ontrol	and	distrik	oution	pane	I Ex	e	
		re len		widtl	h [mr	n]:		d)	Enclosure, height [mm]
		ombin							0 = Combination
		12.5 >							1 = 91
		70.0							2 = 131
24	= 22	$27.0 \times$	(112	.5					3 = 150
05	1 = 17	70.0 x	(170	.0					4 = 171
		27.0 >		0.00					5 = 190
07	= 34	40.5 ×	(170	.0					6 = 230
B7	7 = 34	40.5 >	x 170	.0					
S7	' = 34	40.5 >	(170	.0					
08	= 34	10.5 x	340	.5	1.				
09	= 68	31.5 x	340	.5	0 0	0	0 0	0	0
a) Eu	rther	inform	ation	with	nut re	folond	e to	Eve	losion protection

Es

제16-0854호

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	
ð	식 · 모델 / 용량 · 등급 / 인증	번호
형식 · 모델	용량 · 등급	인증번호
	Max. 1100 V, Max 630 A	
8146/5041		16-GA4BO-0854

인 증 기 준

방호장치 의무안전인증 고시(고용노동부고시 제2013-54호)

인 증 조 건

뒷면 인증조건 참조

2016년 12월 20일





- 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.
- Et. 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 1)

71. Dimensions of the enclosure:

Туре	Length [mm]	Width [mm]	Depth [mm]
8146/5041	170.0	112.5	91

나. Technical Data:

up to 1100 V
max. 630 A
max. 300 mm ²
T4 : -60 °C \leq Ta \leq +70°C T5 : -60 °C \leq Ta \leq +55°C T6 : -60 °C \leq Ta \leq +40°C
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 separately certified equipment. The composition of the protection symbol will be based on the types of protection of components actually used.

다. Nomenclature:

8146	/	5	*	*	*	-	*	*
а	1	b	(0	d	4	(э

b) Design

5 = Control and distribution panel Ex e...

c)	Enclosure length x width [mm]:	d) Enclosure, height [mm]:
	00 = Combination	0 = Combination
	03 = 112.5 x 112.5	1 = 91
	$04 = 170.0 \times 112.5$	2 = 131
	$24 = 227.0 \times 112.5$	3 = 150
	$05 = 170.0 \times 170.0$	4 = 171
	$06 = 227.0 \times 170.0$	5 = 190
	$07 = 340.5 \times 170.0$	6 = 230
	$B7 = 340.5 \times 170.0$	
	$S7 = 340.5 \times 170.0$	
	$08 = 340.5 \times 340.5$	Part of the second s
	09 = 681.5 x 340.5	0
e)	Further information without reference to early a second se	xplosion protection

Es

제16-0855호

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.

	품목	
	Control and Distribution Panel	and the second second
	<mark>식 · 모델</mark> / 용량 · 등급 / 인증	번호
형식 · 모델	용량 · 등급	인증번호
	Max. 1100 V, Max 630 A	
8146/5241		16-GA4BO-0855

인 증 기 준

방호장치 의무안전인증 고시(고용노동부고시 제2013-54호)

인 증 조 건

뒷면 인증조건 참조

2016년 12월 20일



이 공격 소영 서울시는



- 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.
- CH. 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 1)

71. Dimensions of the enclosure:

Туре	Length [mm]	Width [mm]	Depth [mm]
8146/5241	227.0	112.5	91

up to 1100 V
max. 630 A
max. 300 mm ²
T4 : -60 °C \leq Ta \leq +70°C T5 : -60 °C \leq Ta \leq +55°C T6 : -60 °C \leq Ta \leq +40°C
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. Nomenclature:

8146	1	5	*	*	*	-	*	*
а	1	b	1	С	d	-	(е

a) Type / Series

b) Design

5 = Control and distribution panel Ex e...

c) Enclosure length x width [mm]: d) Enclosure, height [mm]: 00 = Combination0 = Combination

03	=	112.5 x 112.5	
04	=	170. 0 x 112.5	
24	=	227.0 x 112.5	
05	=	170.0 x 170.0	
06	=	227.0 x 170.0	
07	=	340.5 x 170.0	
B7	=	340.5 x 170.0	
S7	=	340.5 x 170.0	
08	=	340.5 x 340.5	
09	=	681.5 x 340.5	

e) Further information without reference to explosion protection



제16-0856호

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 F	Panel
Öö	심·모델 / 용량·등급	/ 인증번호
형식 · 모델	용량 · 등급	인증번호
8146/5051	Max. 1100 V, Max 630	
6140/5051	Ex d e m IIC T6T4	10 0A4DO 0030

인 증 기 준

방호장치 의무안전인증 고시(고용노동부고시 제2013-54호)

인 증 조 건

뒷면 인증조건 참조

2016년 12월 20일



· 한국가소안전공사



- 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 창고할 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.
- □+. 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 1)

7. Dimensions of the enclosure:

Туре	Length [mm]	Width [mm]	Depth [mm]
8146/5051	170.0	170.0	91

나. Technical Data:

Rated voltage1)		up to 1100 V		
Rated current ²⁾		max. 630 A		
Rated cross section ³⁾	and the second	max. 300 mm ²		
Ambient temperature ⁴⁾		T4 : -60 °C \leq Ta \leq +70°CT5 : -60 °C \leq Ta \leq +55°CT6 : -60 °C \leq Ta \leq +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 separately certified equipment. The composition of the protection symbol will be based on the types of protection of components actually used.

다. Nomenclature:

8146	-		28-1-				-	- 225
а	1	b		С	d	-		Э
a) Tu	/pe /	Series	c			1.000		

5 = Control and distribution panel Ex e...

c) Enclosure length x width [mm]:	d) Enclosure, height [mm]:
00 = Combination	0 = Combination
$03 = 112.5 \times 112.5$	1 = 91
$04 = 170.0 \times 112.5$	2 = 131
$24 = 227.0 \times 112.5$	3 = 150
$05 = 170.0 \times 170.0$	4 = 171
$06 = 227.0 \times 170.0$	5 = 190
$07 = 340.5 \times 170.0$	6 = 230
B7 = 340.5 x 170.0	
$S7 = 340.5 \times 170.0$	
$08 = 340.5 \times 340.5$	
09 = 681.5 x 340.5	
e) Further information without reference to ex	xplosion protection

Es

제16-0857호

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 P	anel
형	식 · 모델 / 용량 · 등급 /	/ 인증번호
형식 · 모델	용량 · 등급	인증번호
	Max. 1100 V, Max 630	A
8146/5061	Ex d e m IIC T6T4	10-0A4B0-0037

인 증 기 준

방호장치 의무안전인증 고시(고용노동부고시 제2013-54호)

인 증 조 건

뒷면 인증조건 참조

2016년 12월 20일



NEW STREET



- 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 1)

71. Dimensions of the enclosure:

Туре	Length [mm]	Width [mm]	Depth [mm]
8146/5061	227.0	170.0	91

나. Technical Data:

Rated voltage ¹⁾	up to 1100 V
Rated current ²⁾	max. 630 A
Rated cross section ³⁾	max. 300 mm ²
Ambient temperature ⁴⁾	T4 : -60 °C \leq Ta \leq +70°C T5 : -60 °C \leq Ta \leq +55°C T6 : -60 °C \leq Ta \leq +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 separately certified equipment. The composition of the protection symbol will be based on the types of protection of components actually used.

다. Nomenclature:

8146	1	5	*	*	*	-	*	*
а	1	b	C		d	-	(Э

a) Type / Series

b) Design

5 = Control and distribution panel Ex e...

c)	Enclosure length x width [mm]:	d)	Enclosure, height [mm]:
	00 = Combination		0 = Combination
	03 = 112.5 x 112.5		1 = 91
	$04 = 170.0 \times 112.5$		2 = 131
	$24 = 227.0 \times 112.5$		3 = 150
	$05 = 170.0 \times 170.0$		4 = 171
	06 = 227.0 x 170.0		5 = 190
	$07 = 340.5 \times 170.0$		6 = 230
	$B7 = 340.5 \times 170.0$		
	S7 = 340.5 x 170.0		
	$08 = 340.5 \times 340.5$		
	09 = 681.5 x 340.5		•
e)	Further information without reference to e	xpl	ocion protection
	States and the state of the sta	1	00000



제16-0858호

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 Dist	ribution Panel	
형·	식 · 모델 / 용량	· 등급 / 인증t	번호
형식 · 모델	용량 ·		인증번호
8146/5071	Max. 1100 V,	Max 630 A	
0140/3071	Ex d e m II		16-GA4BO-0858

인 증 기 준

방호장치 의무안전인증 고시(고용노동부고시 제2013-54호)

인 증 조 건

뒷면 인증조건 참조

2016년 12월 20일





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 1)

71. Dimensions of the enclosure:

Туре	Length [mm]	Width [mm]	Depth [mm]
8146/5071	340.5	170.0	91

나. Technical Data:

Rated voltage ¹⁾	up to 1100 V
Rated current ²⁾	max. 630 A
Rated cross section ³⁾	max. 300 mm ²
Ambient temperature ⁴⁾	T4 : -60 °C \leq Ta \leq +70°C T5 : -60 °C \leq Ta \leq +55°C T6 : -60 °C \leq Ta \leq +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. Nomenclature:

3146	1	5	*	*	*	-	*	*
а	/	b	С		d	-	6	9

a) Type / Seriesb) Design

5 = Control and distribution panel Ex e---

c) Enclosure length x width [mm]:	d) Enclosure, height [mm]:
00 = Combination	0 = Combination
$03 = 112.5 \times 112.5$	1 = 91
$04 = 170.0 \times 112.5$	2 = 131
$24 = 227.0 \times 112.5$	3 = 150
$05 = 170.0 \times 170.0$	4 = 171
$06 = 227.0 \times 170.0$	5 = 190
$07 = 340.5 \times 170.0$	6 = 230
$B7 = 340.5 \times 170.0$	
$S7 = 340.5 \times 170.0$	
08 = 340.5 x 340.5	
09 = 681.5 x 340.5	
e) Further information without reference to	explosion protection



제16-0859호

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	lla <u>and search and s</u> earch and search and sea
	Control and	Distribution Panel	terre prove while it is
형	식 · 모델 / 용형	량·등급 / 인증	번호
형식 · 모델		· 등급	인증번호
0140/5070		V, Max 630 A	16-GA4BO-0859
8146/5073	Charles 24	Ex d e m IIC T6T4	

인 증 기 준

방호장치 의무안전인증 고시(고용노동부고시 제2013-54호)

인 증 조 건

뒷면 인증조건 참조

2016년 12월 20일



<u> 연구</u>과스의전공사



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.
- Et. 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 1)

71. Dimensions of the enclosure:

Туре	Length [mm]	Width [mm]	Depth [mm]
8146/5073	340.5	170.0	150

나. Technical Data:

a shart stored as a set		
max. 630 A		
max. 300 mm ²		
T4 : $-60 \ ^{\circ}C \le Ta \le +70 \ ^{\circ}C$ T5 : $-60 \ ^{\circ}C \le Ta \le +55 \ ^{\circ}C$ T6 : $-60 \ ^{\circ}C \le Ta \le +40 \ ^{\circ}C$		
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 separately certified equipment. The composition of the protection symbol will be based on the types of protection of components actually used.
 - 다. Nomenclature:

8146	1	5	*	*	*	-	*	*
а	1	b	C		d	-	(e

a) Type / Series

b) Design

5 = Control and distribution panel Ex e...

c) Enclosure length x width [mm]:	d) Enclosure, height [mm]:
00 = Combination	0 = Combination
$03 = 112.5 \times 112.5$	1 = 91
$04 = 170.0 \times 112.5$	2 = 131
$24 = 227.0 \times 112.5$	3 = 150
$05 = 170.0 \times 170.0$	4 = 171
$06 = 227.0 \times 170.0$	5 = 190
$07 = 340.5 \times 170.0$	6 = 230
$B7 = 340.5 \times 170.0$	
$S7 = 340.5 \times 170.0$	
08 = 340.5 x 340.5	
09 = 681.5 x 340.5	
e) Further information without reference	to explosion protection



제16-0860호

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.



인 증 기 준

방호장치 의무안전인증 고시(고용노동부고시 제2013-54호)

인 증 조 건

뒷면 인증조건 참조

2016년 12월 20일





- 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 1)

7. Dimensions of the enclosure:

Туре	Length [mm]	Width [mm]	Depth [mm]
8146/5075	340.5	170.0	190

나. Technical Data:

Rated voltage ¹⁾	up to 1100 V
Rated current ²⁾	max. 630 A
Rated cross section ³⁾	max. 300 mm ²
Ambient temperature ⁴⁾	T4 : -60 °C \leq Ta \leq +70°C T5 : -60 °C \leq Ta \leq +55°C T6 : -60 °C \leq Ta \leq +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 aquipment incorporated. Within the score of these maximum acriminsible values and with due.

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. Nomenclature:

8146	1	5	*	*	*		*	*
а	/	b	С		d	-	(Э

a) Type / Series

b) Design

5 = Control and distribution panel Ex e---

c) Enclosure length x width [mm]:	d) Enclosure, height [mm]:
00 = Combination	0 = Combination
$03 = 112.5 \times 112.5$	1 = 91
$04 = 170.0 \times 112.5$	2 = 131
$24 = 227.0 \times 112.5$	3 = 150
$05 = 170.0 \times 170.0$	4 = 171
$06 = 227.0 \times 170.0$	5 = 190
$07 = 340.5 \times 170.0$	6 = 230
B7 = 340.5 x 170.0	
$S7 = 340.5 \times 170.0$	
$08 = 340.5 \times 340.5$	and the second se
09 = 681.5 x 340.5	
e) Further information without reference to	explosion protection



제16-0861호

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.

	품목	
	Control and Distribution Panel	
<u>—</u> 형	<mark>식 · 모델</mark> / 용량 · 등급 / 인증법	번호
형식 · 모델	용량 · 등급	인증번호
	Max. 1100 V, Max 630 A	
8146/5S71		16-GA4BO-086

인 증 기 준

방호장치 의무안전인증 고시(고용노동부고시 제2013-54호)

인 증 조 건

뒷면 인증조건 참조

2016년 12월 20일





- 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.
- E}. 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 1)

가. Dimensions of the enclosure:

Туре	Length [mm]	Width [mm]	Depth [mm]
8146/5S71	340.5	170.0	91

나. Technical Data:

k. 630 A
<. 300 mm ²
-60 °C \le Ta \le +70°C -60 °C \le Ta \le +55°C -60 °C \le Ta \le +40°C
6 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 separately certified equipment. The composition of the protection symbol will be based on the types of protection of components actually used.

다. Nomenclature:

8146	1	5	*	*	*	-	*	*
а	1	b	с		d	-		Э

a) Type / Series

b) Design

5 = Control and distribution panel Ex e...

	c) Enclosure length x width [mm]:	d) Enclosure, height [mm]	:
	00 = Combination	0 = Combination	
	$03 = 112.5 \times 112.5$	1 = 91	
	04 = 170. 0 x 112.5	2 = 131	
	$24 = 227.0 \times 112.5$	3 = 150	
	$05 = 170.0 \times 170.0$	4 = 171	
	$06 = 227.0 \times 170.0$	5 = 190	
	$07 = 340.5 \times 170.0$	6 = 230	
	$B7 = 340.5 \times 170.0$		
	$S7 = 340.5 \times 170.0$		
	08 = 340.5 x 340.5		
	09 = 681.5 x 340.5	0 0	
	e) Further information without reference to	explosion protection	
-			

Es

제16-0862호

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.





- 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.
- CH. 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 1)

71. Dimensions of the enclosure:

Туре	Length [mm]	Width [mm]	Depth [mm]
8146/5S73	340.5	170.0	150

나. Technical Data:

Rated voltage ¹⁾	up to 1100 V	
Rated current ²⁾	max. 630 A	
Rated cross section ³⁾	max. 300 mm ²	
Ambient temperature ⁴⁾	T4 : -60 °C \leq Ta \leq +70°C T5 : -60 °C \leq Ta \leq +55°C T6 : -60 °C \leq Ta \leq +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 separately certified equipment. The composition of the protection symbol will be based on the types of protection of components actually used.

다. Nomenclature:

8146	1	5	*	*	*	-	*	*
а	1	b	1	С	d	-	(Э

a) Type / Series

b) Design

5 = Control and distribution panel Ex e---

c) Enclosure length x width [mm]:	d) Enclosure, height [mm]:
00 = Combination	0 = Combination
03 = 112.5 x 112.5	1 = 91
$04 = 170.0 \times 112.5$	2 = 131
$24 = 227.0 \times 112.5$	3 = 150
$05 = 170.0 \times 170.0$	4 = 171
06 = 227.0 x 170.0	5 = 190
$07 = 340.5 \times 170.0$	6 = 230
B7 = 340.5 x 170.0	
$S7 = 340.5 \times 170.0$	
08 = 340.5 x 340.5	
09 = 681.5 x 340.5	0
e) Further information without reference to	explosion protection



제16-0863호

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.

	품목		
	Control and Distribution Panel		
ð	식 · 모델 / 용량 · 등급 / 인증번	<u>1</u> 호	
형식 · 모델	용량 · 등급	인증번호	
8146/5B73	Max. 1100 V, Max 630 A	16 00400 0065	
0140/00/0	Ex d e m IIC T6T4	16-GA4BO-0863	

인 증 기 준

방호장치 의무안전인증 고시(고용노동부고시 제2013-54호)

인 증 조 건

뒷면 인증조건 참조

2016 년 12 월 20 일



也是什么没有喜欢。



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.
- CH. 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 1)

21. Dimensions of the enclosure:

Туре	Length [mm]	Width [mm]	Depth [mm] 150	
8146/5B73	340.5	170.0		

나. Technical Data:

Rated voltage ¹⁾	up to 1100 V
Rated current ²⁾	max. 630 A
Rated cross section ³⁾	max. 300 mm ²
Ambient temperature ⁴⁾	T4 : -60 °C \leq Ta \leq +70°C T5 : -60 °C \leq Ta \leq +55°C T6 : -60 °C \leq Ta \leq +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. Nomenclature:

8146	1	5	*	*	*	2-	*	*
а	1	b		c	d		(Э

a) Type / Series

c) Enclosure length x width [mm]:	d) Enclosure, height [mm]:
00 = Combination	0 = Combination
$03 = 112.5 \times 112.5$	1 = 91
04 = 170. 0 x 112.5	2 = 131
$24 = 227.0 \times 112.5$	3 = 150
$05 = 170.0 \times 170.0$	4 = 171
$06 = 227.0 \times 170.0$	5 = 190
$07 = 340.5 \times 170.0$	6 = 230
$B7 = 340.5 \times 170.0$	
$S7 = 340.5 \times 170.0$	
$08 = 340.5 \times 340.5$	· · · · · · · · · · · · · · · · · · ·
09 = 681.5 x 340.5	0 0 0
e) Further information without reference	to explosion protection



제16-0864호

안 전 인 증 서

R. STAHL Schaltgeraete Am bahnhof 30 74638 Waldenburg, GERMANY





- 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.
- L. 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.

- C+. 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 1)

71. Dimensions of the enclosure:

Туре	Length [mm]	Width [mm]	Depth [mm]
8146/5B75	340.5	170.0	190

나. Technical Data:

Rated voltage ¹⁾	up to 1100 V
Rated current ²⁾	max. 630 A
Rated cross section ³⁾	max. 300 mm ²
Ambient temperature ⁴⁾	T4 : -60 °C \leq Ta \leq +70°C T5 : -60 °C \leq Ta \leq +55°C T6 : -60 °C \leq Ta \leq +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 separately certified equipment. The composition of the protection symbol will be based on the types of protection of components actually used.

6 = 230

다. Nomenclature:

8146	1	5	*	*	*	-	*	*
а	1	b		c	d	-		9

a) Type / Series

b) Design

- 5 = Control and distribution panel Ex e...
- c) Enclosure length x width [mm]: 00 = Combination $03 = 112.5 \times 112.5$ $04 = 170.0 \times 112.5$ $24 = 227.0 \times 112.5$ $05 = 170.0 \times 170.0$ 0 = Combination 1 = 91 2 = 131 3 = 150 4 = 171 $06 = 227.0 \times 170.0$ 5 = 190
 - 07 = 340.5 x 170.0 B7 = 340.5 x 170.0
 - $S7 = 340.5 \times 170.0$
 - 08 = 340.5 x 340.5 09 = 681.5 x 340.5

0 0 0 0 0 0 0



제16-0865호

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.



[한국기소원처랐다.



- 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 1)

7. Dimensions of the enclosure:

Туре	Length [mm]	Width [mm]	Depth [mm]	
8146/5081	340.5	340.5	91	

나. Technical Data:

up to 1100 V
max. 630 A
max. 300 mm ²
T4 : -60 °C \leq Ta \leq +70°C T5 : -60 °C \leq Ta \leq +55°C T6 : -60 °C \leq Ta \leq +40°C
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 separately certified equipment. The composition of the protection symbol will be based on the types of protection of components actually used.

다. Nomenclature:

8146	1	5	*	*	*	-	*	*
а	1	b		c	d	-	(Э

a) Type / Series

b) Design

5 = Control and distribution panel Ex e...

c) Enclosure length x width [mm]: d) Enclosure, height [mm]:

	00 - Combination		0 =	Combination	
	$03 = 112.5 \times 112.5$		1 =	91	
	04 = 170. 0 x 112.5		2 =	131	
	24 = 227.0 x 112.5		3 =	150	
	05 = 170.0 x 170.0		4 =	171	
	06 = 227.0 x 170.0		5 =	190	
	07 = 340.5 x 170.0		6 =	230	
	B7 = 340.5 x 170.0				
	S7 = 340.5 x 170.0				
	08 = 340.5 x 340.5			A STATE OF THE STATE OF	
	09 = 681.5 x 340.5				
e)	Further information without re	ference to exp	losio	n protection	

~ 반국가 소의 지금사 []



제16-0866호

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.



·반국과소안전등차



- 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.
- L. 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.

- EI: 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 1)

7. Dimensions of the enclosure:

Type Length [mm]		Width [mm]	Depth [mm]	
8146/5083	340.5	340.5	150	

나. Technical Data:

Rated voltage ¹⁾	up to 1100 V
Rated current ²⁾	max. 630 A
Rated cross section ³⁾	max. 300 mm ²
Ambient temperature ⁴⁾	T4 : -60 °C \leq Ta \leq +70°C T5 : -60 °C \leq Ta \leq +55°C T6 : -60 °C \leq Ta \leq +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 separately certified equipment. The composition of the protection symbol will be based on the types of protection of components actually used.

다. Nomenclature:

8146	1	5	*	*	*	-	*	*
а	1	b		0	d	-	(Э

a) Type / Series

b) Design

5 = Control and distribution panel Ex e...

C)	Enclosure length x width	[mm]:	d,) Enclosure,	height	[mm]:
	00 - Combination			0 0 1	And Alaman	

	00 - compiliation	0 - Comp	ination
	03 = 112.5 x 112.5	1 = 91	
	04 = 170. 0 x 112.5	2 = 131	
	24 = 227.0 x 112.5	3 = 150	
	05 = 170.0 x 170.0	4 = 171	
	06 = 227.0 x 170.0	5 = 190	
	$07 = 340.5 \times 170.0$	6 = 230	
	B7 = 340.5 x 170.0		
	S7 = 340.5 x 170.0		
	08 = 340.5 x 340.5	Second and the second	
	$09 = 681.5 \times 340.5$		
e)	Further information with	nout reference to explosion prote	ection

Es

제16-0867호

안 전 인 증 서

R. STAHL Schaltgeraete Am bahnhof 30 74638 Waldenburg, GERMANY





- 1. 제조공장
- "Am bahnhof 30 74638 Waidenburg, 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 창조
- 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.
- Et. 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 1)

71. Dimensions of the enclosure:

Туре	Length [mm]	Width [mm]	Depth [mm]
8146/5084	340.5	340.5	171

나. Technical Data:

Rated voltage ¹⁾	up to 1100 V
Rated current ²⁾	max. 630 A
Rated cross section ³⁾	max. 300 mm ²
Ambient temperature ⁴⁾	T4 : -60 °C \leq Ta \leq +70°C T5 : -60 °C \leq Ta \leq +55°C T6 : -60 °C \leq Ta \leq +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 separately certified equipment. The composition of the protection symbol will be based on the types of protection of components actually used.

다. Nomenclature:

8146	1	5	*	*	*	-	*	*
a	1	b	С		d	-		э

a) Type / Series

b) Design

5 = Control and distribution panel Ex e..

5 - Control and distribution parier Ex	6
c) Enclosure length x width [mm]:	d) Enclosure, height [mm]:
00 = Combination	0 = Combination
$03 = 112.5 \times 112.5$	1 = 91
$04 = 170.0 \times 112.5$	2 = 131
$24 = 227.0 \times 112.5$	3 = 150
$05 = 170.0 \times 170.0$	4 = 171
06 = 227.0 x 170.0	5 = 190
$07 = 340.5 \times 170.0$	6 = 230
B7 = 340.5 x 170.0	
S7 = 340.5 x 170.0	
$08 = 340.5 \times 340.5$	

 $09 = 681.5 \times 340.5$

Es

제16-0868호

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.



·한국가 조안전공자



- 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.
- C+. 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 1)

7. Dimensions of the enclosure:

Туре	Length [mm]	Width [mm]	Depth [mm]
8146/5085	340.5	340.5	190

나. Technical Data:

Rated voltage ¹⁾	up to 1100 V
Rated current ²⁾	max. 630 A
Rated cross section ³⁾	max. 300 mm ²
Ambient temperature ⁴⁾	T4 : -60 °C \leq Ta \leq +70°C T5 : -60 °C \leq Ta \leq +55°C T6 : -60 °C \leq Ta \leq +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 separately certified equipment. The composition of the protection symbol will be based on the types of protection of components actually used.

다. Nomenclature:

8146	1	5	*	*	*	-	*	*
а	1	b	С		d			e

a) Type / Series

b) Design

5 = Control and distribution panel Ex e..

	o control and distribution parter Ex e		
C)	Enclosure length x width [mm]: d) Enclosure, height [mm]	1: (
	00 = Combination	0 = Combination	
	03 = 112.5 x 112.5	1 = 91	
	$04 = 170.0 \times 112.5$	2 = 131	
	24 = 227.0 x 112.5	3 = 150	
	$05 = 170.0 \times 170.0$	4 = 171	
	06 = 227.0 x 170.0	5 = 190	
	$07 = 340.5 \times 170.0$	6 = 230	
	B7 = 340.5 x 170.0		
	97 - 240 E x 170 0		

 $S7 = 340.5 \times 170.0$ $08 = 340.5 \times 340.5$

09 = 681.5 x 340.5



제16-0869호

안 전 인 증 서

R. STAHL Schaltgeraete Am bahnhof 30 74638 Waldenburg, GERMANY





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.
- CH. 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 1)

7. Dimensions of the enclosure:

Туре	Length [mm]	Width [mm]	Depth [mm]
8146/5086	340.5	340.5	230

나. Technical Data:

Rated voltage ¹⁾	up to 1100 V		
Rated current ²⁾	max. 630 A		
Rated cross section ³⁾	max. 300 mm ²		
Ambient temperature ⁴⁾	T4 : -60 °C \leq Ta \leq +70°C T5 : -60 °C \leq Ta \leq +55°C T6 : -60 °C \leq Ta \leq +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 separately certified equipment. The composition of the protection symbol will be based on the types of protection of components actually used.

다. Nomenclature:

8146	1	5	*	*	*	-	*	*
а	1	b c d -	С		-	(е	

a) Type / Series

b) Design

한국가스앙전공사

5 = Control and distribution panel Ex e...

c) Enclosure length x width [mm]:	d) Enclosure, height [mm]:
00 = Combination	0 = Combination
$03 = 112.5 \times 112.5$	1 = 91
$04 = 170.0 \times 112.5$	2 = 131
$24 = 227.0 \times 112.5$	3 = 150
$05 = 170.0 \times 170.0$	4 = 171
$06 = 227.0 \times 170.0$	5 = 190
$07 = 340.5 \times 170.0$	6 = 230
$B7 = 340.5 \times 170.0$	
$S7 = 340.5 \times 170.0$	
$08 = 340.5 \times 340.5$	Al- Control of the second
09 = 681.5 x 340.5	
e) Further information without reference to ex	plosion protection



제16-0870호

안 전 인 증 서

R. STAHL Schaltgeraete Am bahnhof 30 74638 Waldenburg, GERMANY





- 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.
- Et. 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 1)

가. Dimensions of the enclosure:

Туре	Length [mm]	Width [mm]	Depth [mm]
8146/5091	681.5	340.5	91

나. Technical Data:

up to 1100 V
max. 630 A
max. 300 mm ²
T4 : -60 °C \leq Ta \leq +70°C T5 : -60 °C \leq Ta \leq +55°C T6 : -60 °C \leq Ta \leq +40°C
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 separately certified equipment. The composition of the protection symbol will be based on the types of protection of components actually used.

다. Nomenclature:

8146	1	5	*	*	*	-	*	*
а	1	b	c		d -		е	

a) Type / Series

b) Design

신사사이지의

5 = Control and distribution panel Ex e...

c) Enclosure length x width [mm]:	d) Enclosure, height [mm]:
00 = Combination	0 = Combination
$03 = 112.5 \times 112.5$	1 = 91
$04 = 170.0 \times 112.5$	2 = 131
$24 = 227.0 \times 112.5$	3 = 150
$05 = 170.0 \times 170.0$	4 = 171
$06 = 227.0 \times 170.0$	5 = 190
$07 = 340.5 \times 170.0$	6 = 230
$B7 = 340.5 \times 170.0$	
$S7 = 340.5 \times 170.0$	
$08 = 340.5 \times 340.5$	and the second
09 = 681.5 x 340.5	0 0 0
e) Further information without reference	to explosion protection



제16-0871호

안 전 인 증 서

R. STAHL Schaltgeraete Am bahnhof 30 74638 Waldenburg, GERMANY





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.
- Cł. 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 1)

71. Dimensions of the enclosure:

Туре	Length [mm]	Width [mm]	Depth [mm]
8146/5093	681.5	340.5	150

나. Technical Data:

Rated voltage ¹⁾	up to 1100 V
	up to 1100 V
Rated current ²⁾	max. 630 A
Rated cross section ³⁾	max. 300 mm ²
Ambient temperature ⁴⁾	T4 : -60 °C \leq Ta \leq +70°C T5 : -60 °C \leq Ta \leq +55°C T6 : -60 °C \leq Ta \leq +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 separately certified equipment. The composition of the protection symbol will be based on the types of protection of components actually used.

다. Nomenclature:

8146	1	5	*	*	*	-	*	*
а	1	b		C	d	10 4 32		9

a) Type / Series

b) Design

5 = Control and distribution panel Ex e...

c) Enclosure length x width	[mm]: d)	Enclosure, height [mm]:	
00 = Combination		0 = Combination	

03	Ŧ	112.5	X	112.5	
04	=	170. 0))	(112.5	
24	=	227.0	x	112.5	
05	=	170.0	х	170.0	
06	=	227.0	х	170.0	
07	=	340.5	х	170.0	
B7	=	340.5	x	170.0	
S7	=	340.5	x	170.0	
08	=	340.5	x	340.5	

09 = 681.5 x 340.5



제16-0872호

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.





- 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.
- L. 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.
- Et. 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 1)

7. Dimensions of the enclosure:

Туре	Length [mm]	Width [mm]	Depth [mm]	
8146/5095	681.5	340.5	190	

나. Technical Data:

Rated voltage ¹⁾	up to 1100 V			
Rated current ²⁾	max. 630 A			
Rated cross section ³⁾	max. 300 mm ²			
Ambient temperature ⁴⁾	T4 : -60 °C \leq Ta \leq +70°C T5 : -60 °C \leq Ta \leq +55°C T6 : -60 °C \leq Ta \leq +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.

□ I. Nomenclature:

8146	1	-5	*	*	*	-	*	*
а	1	b	С		d	-	(9

a) Type / Series

b) Design

09 = 681.5 x 340.5

5 = Control and distribution panel Ex	e
 c) Enclosure length x width [mm]:	d) Enclosure, height [mm]:
00 = Combination	0 = Combination
$03 = 112.5 \times 112.5$	1 = 91
$04 = 170.0 \times 112.5$	2 = 131
$24 = 227.0 \times 112.5$	3 = 150
$05 = 170.0 \times 170.0$	4 = 171
06 = 227.0 x 170.0	5 = 190
$07 = 340.5 \times 170.0$	6 = 230
B7 = 340.5 x 170.0	
S7 = 340.5 x 170.0	
$08 = 340.5 \times 340.5$	ALC: CONTRACTOR OF A
	6 6 6