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제2021-053696-01-1호

## 안 전 인 증 서

### Emerson Process Management Flow Technologies Co., Ltd.

111, Xing Min South Road, Jiangning District, Nanjing, Jiangsu Province, 211100, China

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

> 품 목 Magnet Flow Tube

형식 · 모델(용량 · 등급) / 인증번호

8705\*\*\*\*(M0,M1)K9\*\*\*\*\*\*(Ex eb ib IIC T5...T3 Gb, Ex tb IIIC T80 ℃...T200 ℃ Db)

/ 16-KA4BO-0265X

인 증 기 준

고용노동부고시 제2021-22호

#### 인 증 조 건

#### 1. 제조공장

·본 인증서는 '111, Xing Min South Road, Jiangning District, Nanjing, Jiangsu Province, 211100, China'에서 생산하는 제품에 한함.

#### 2. 제품개요

- ·자기 유량 트랜스미터와 별도 혹은 통합으로 설치되는 자기 유량 튜브임.
- ·본질안전을 위한 전기적 파라미터: 관련 IECEx 인증서(IECEx DEK 14.0031X issue No.8) Annex 10쪽 Electrical data 참조
- ·사용주위온도: -50 °C  $\leq$   $T_a$   $\leq$  +60 °C (Stainless Steel wrapper), -29 °C  $\leq$   $T_a$   $\leq$  +60 °C (Carbon Steel wrapper)
- ·IEC 60079-0에 따른 보호등급 IP66 을 만족함.
- 3. 인증범위: 본 인증서는 위의 형식번호에 한하여 유효함.

#### 4. 안전한 사용을 위한 조건

- ·IP66 등급을 유지할 수 있는 케이블 인입장치를 설치할 것.
- ·관련 IECEx 인증서(IECEx DEK 14.0031X issue No.8) 4쪽 specific condition of use 참조

#### 5. 인증(변경)사항

- ·1차 변경(2017.11.08.): 기존 제2016-002808-01호에서 관련 IECEx 인증서 갱신 및 모델명 변경(기존 K7. 변경 후 K9)
- <mark>·2차 변경(2021.10.15.</mark>): 기존 제2017-055833-01호에서 관련 IECEx 인증서 갱신 및 기재사항 변경.

#### 6. 그 밖의 사항

· 안전인증품의 품질관리, 확인심사 수검, 변경사항 신고 등 인증 받은 자의 의무 준수 ·본 안전인증서는 반드시 관련 IECEx 인증서(IECEx DEK 14.0031X issue No.8)와 함께 사용

2016 년 4월 18일

# 





No. 2021-053696-01-1

### Certificate of Safety

#### Emerson Process Management Flow Technologies Co., Ltd.

111, Xing Min South Road, Jiangning District, Nanjing, Jiangsu Province, 211100, China

The following product manufactured by the above company has been authorized for the use of safety certification mark as the product has satisfied the safety and health requirements under Article 84 of OCCUPATIONAL SAFETY AND HEALTH ACT and paragraph 1 of Article 110 of ENFORCEMENT ORDINANCE OF the same ACT.

#### **Electrical Equipment**

Magnet Flow Tube

#### Model (Marking) / Certificate No.

8705\*\*\*\*(M0,M1)K9\*\*\*\*\*\*\*(Ex eb ib IIC T5...T3 Gb, Ex tb IIIC T80 °C...T200 °C Db)

/ 16-KA4BO-0265X

#### Applied standards

Announcement No. 2021-22 of Ministry of Employment and Labor

#### **Conditions of Certification**

1. Manufacturing location(s): This certificate is valid only for the specified products produced at '111, Xing Min South Road, Jiangning, Nanjing, Jiangsu Province 211100, China'.

#### 2. Description of equipment

- The Magnet Flow Tube may be remote mounted from the Magnetic Flow Transmitter or integral mounted to the Magnetic Flow Transmitter.
- Electrical parameters for Intrinsic Safety: See Electrical data on Annex page 10 in the related IECEx Certificate (IECEx DEK 14.0031X issue No.8)
- Ambient Temperature:  $-50~^{\circ}\text{C} \leq \textit{T}_a \leq +60~^{\circ}\text{C}$  (Stainless Steel wrapper),  $-29~^{\circ}\text{C} \leq \textit{T}_a \leq +60~^{\circ}\text{C}$  (Carbon Steel wrapper)

·IP66 degree of protection according to IEC 60079-0.

3. Scope of certification: This certificate is valid only for the models as above.

#### 4. Special conditions for safe use

·Conduit entries must be installed to maintain the enclosure ingress rating of IP66.

See Specific Conditions of Use in the related IECEx certificate (IECEx DEK 14.0031X Issue No.8) for the details.

#### 5. Details of certificate changes

1st Revision(2017.11.08.): This certificate is re-issued to include IECEx certification revision update and modify the model designation(from K7 to K9) from No. 2016–002808–01.

2nd revision(2021.10.15.): This certificate is re-issued to include IECEx certification revision update, the change of description, and the addition of the electrical rating from No. 2017-055833-01.

#### 6. Details of the others

Manufacturer shall take the responsibility including maintaining quality requirements for the certified products, receiving factory surveillance and informing any changes to the certified products.

·This certificate shall be used with the related IECEx certificate (IECEx DEK 14.0031X Issue No.8).



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제2021-053697-01-1호

## 안 전 인 증 서

#### Emerson Process Management Flow Technologies Co., Ltd.

111, Xing Min South Road, Jiangning District, Nanjing, Jiangsu Province, 211100, China

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> 품 목 Magnet Flow Tube

형식 · 모델(용량 · 등급) / 인증번호

8705\*\*\*\*(M2,M3,M4)K9\*\*\*\*\*\*(Ex eb ia IIC T5...T3 Ga/Gb, Ex tb IIIC T80 ℃...T200 ℃ Db)

16-KA4BO-0266X

인 증 기 준

고용노동부고시 제2021-22호

#### 인 중 조 건

#### 1. 제조공장

·본 인증서는 '111, Xing Min South Road, Jiangning District, Nanjing, Jiangsu Province, 211100, China'에서 생산하는 제품에 한함.

#### 2. 제품개요

- ·자기 유량 트랜스미터와 별도 혹은 통합으로 설치되는 자기 유량 튜브임.
- ·본질안전을 위한 전기적 파라미터: 관련 IECEx 인증서(IECEx DEK 14.0031X issue No.8) Annex 10쪽 Electrical data 참조
- ·사용주위온도: -50 °C  $\leq$   $T_a$   $\leq$  +60 °C (Stainless Steel wrapper), -29 °C  $\leq$   $T_a$   $\leq$  +60 °C (Carbon Steel wrapper)
- ·IEC 60079-0에 따른 보호등급 IP66 을 만족함.
- 3. 인증범위: 본 인증서는 위의 형식번호에 한하여 유효함.

#### 4. 안전한 사용을 위한 조건

- ·IP66 등급을 유지할 수 있는 케이블 인입장치를 설치할 것.
- ·관련 IECEx 인증서(IECEx DEK 14.0031X issue No.8) 4쪽 specific condition of use 참조

#### 5. 인증(변경)사항

- ·1차 변경(2017.11.08.): 기존 제2016-002809-01호에서 관련 IECEx 인증서 갱신 및 모델명 변경(기존 K7, 변경 후 K9)
- ·2차 변경(2021.10.15.): 기존 제2017-055834-01호에서 관련 IECEx 인증서 갱신 및 기재사항 변경.

#### 6. 그 밖의 사항

·안전인증품의 품질관리, 확인심사 수검, 변경사항 신고 등 인증 받은 자의 의무 준수 ·본 안전인증서는 반드시 관련 IECEx 인증서(IECEx DEK 14.0031X issue No.8)와 함께 사용

2016 년 4월 18일

# 한국산업기술시험원





No. 2021-053697-01-1

# 안 전 인 증 서

## Certificate of Safety

#### Emerson Process Management Flow Technologies Co., Ltd.

111, Xing Min South Road, Jiangning District, Nanjing, Jiangsu Province, 211100, China

The following product manufactured by the above company has been authorized for the use of safety certification mark as the product has satisfied the safety and health requirements under Article 84 of OCCUPATIONAL SAFETY AND HEALTH ACT and paragraph 1 of Article 110 of ENFORCEMENT ORDINANCE OF the same ACT.

#### **Electrical Equipment**

Magnet Flow Tube

#### Model (Marking) / Certificate No.

8705\*\*\*\*(M2,M3,M4)K9\*\*\*\*\*\*\*(Ex eb ia IIC T5...T3 Ga/Gb, Ex tb IIIC T80 °C...T200 °C Db)

/ 16-KA4BO-0266X

#### **Applied standards**

Announcement No. 2021-22 of Ministry of Employment and Labor

#### Conditions of Certification

**1. Manufacturing location(s)**: This certificate is valid only for the specified products produced at '111, Xing Min South Road, Jiangning, Nanjing, Jiangsu Province 211100, China'.

2. Description of equipment

·The Magnet Flow Tube may be remote mounted from the Magnetic Flow Transmitter or integral mounted to the Magnetic Flow Transmitter.

Electrical parameters for Intrinsic Safety: See Electrical data on Annex page 10 in the related IECEx Certificate (IECEx DEK 14.0031X issue No.8)

Ambient Temperature:  $-50~^{\circ}\text{C} \le T_a \le +60~^{\circ}\text{C}$  (Stainless Steel wrapper),  $-29~^{\circ}\text{C} \le T_a \le +60~^{\circ}\text{C}$  (Carbon Steel wrapper)

·IP66 degree of protection according to IEC 60079-0.

3. Scope of certification: This certificate is valid only for the models as above.

4. Special conditions for safe use

·Conduit entries must be installed to maintain the enclosure ingress rating of IP66.

·See Specific Conditions of Use in the related IECEx certificate (IECEx DEK 14.0031X Issue No.8) for the details.

5. Details of certificate changes

·1st Revision(2017.11.08.): This certificate is re-issued to include IECEx certification revision update and modify the model designation(from K7 to K9) from No. 2016-002809-01.

2nd revision(2021.10.15.): This certificate is re-issued to include IECEx certification revision update, the change of description, and the addition of the electrical rating from No. 2017-055834-01.

#### 6. Details of the others

Manufacturer shall take the responsibility including maintaining quality requirements for the certified products, receiving factory surveillance and informing any changes to the certified products.

This certificate shall be used with the related IECEx certificate (IECEx DEK 14.0031X Issue No.8).







제2021-053698-01-1호

# 안 전 인 증 서

### F-R Technologias De Flujo, S.A De C.V

Ave. Miguel de cervantes 111, 31136 Chihuahua, Mexico

위 사업장에서 제조하는 아래의 품목이	<sup>「</sup> 산업안전보건밭	」 제84조 및 같은
법 시행규칙 제110조제1항에 따른 안전	선인증 심사 결과	· 안전 • 보건기준에
적합하므로 안전인증표시의 사용을 인증합	니다.	

품 목
Magnet Flow Tube
형식·모델(용량·등급) / 인증번호

8705\*\*\*\*(M0,M1)K9\*\*\*\*\*\*(Ex eb ib IIC T5...T3 Gb, Ex tb IIIC T80 ℃...T200 ℃ Db)
/ 16-KA4BO-0267X

**인 증 기 준** 고용노동부고시 제2021-22호

인 증 조 건

#### 1. 제조공장

·본 인증서는 'Ave. Miguel de cervantes 111, 31136 Chihuahua, Mexico'에서 생산하는 제품에 한함.

#### 2. 제품개요

- ·자기 유량 트랜스미터와 별도 혹은 통합으로 설치되는 자기 유량 튜브임.
- ·본질안전을 위한 전기적 파라미터: 관련 IECEx 인증서(IECEx DEK 14.0031X issue No.8) Annex 10쪽 Electrical data 참조
- ·사용주위온도: -50 °C  $\leq$   $T_a$   $\leq$  +60 °C (Stainless Steel wrapper), -29 °C  $\leq$   $T_a$   $\leq$  +60 °C (Carbon Steel wrapper)
- ·IEC 60079-0에 따른 보호등급 IP66 을 만족함.
- 3. 인증범위: 본 인증서는 위의 형식번호에 한하여 유효함.

#### 4. 안전한 사용을 위한 조건

- ·IP66 등급을 유지할 수 있는 케이블 인입장치를 설치할 것.
- ·관련 IECEx 인증서(IECEx DEK 14.0031X issue No.8) 4쪽 specific condition of use 참조

#### 5. 인증(변경)사항

- ·1차 변경(2017.11.08.): 기존 제2016-002810-01호에서 관련 IECEx 인증서 갱신 및 모델명 변경(기존 K7, 변경 후 K9)
- ·<mark>2차 변경(2021.10.15.)</mark>: 기존 제2017-055835-01호에서 관련 IECEx 인증서 갱신 및 기재사항 변경.

#### 6. 그 밖의 사항

- ·안전인증품의 품질관리, 확인심사 수검, 변경사항 신고 등 인증 받은 자의 의무 준수
- ·본 안전인증서는 반드시 관련 IECEx 인증서(IECEx DEK 14.0031X issue No.8)와 함께 사용

2016 년 4월 18일

# 한국산업기술시험원







No. 2021-053698-01-1

# 안 전 인 증 서

### Certificate of Safety

#### F-R Technologias De Flujo, S.A De C.V

Ave. Miguel de cervantes 111, 31136 Chihuahua, Mexico

The following product manufactured by the above company has been authorized for the use of safety certification mark as the product has satisfied the safety and health requirements under Article 84 of OCCUPATIONAL SAFETY AND HEALTH ACT and paragraph 1 of Article 110 of ENFORCEMENT ORDINANCE OF the same ACT.

#### Electrical Equipment

Magnet Flow Tube

#### Model (Marking) / Certificate No.

8705\*\*\*\*(M0,M1)K9\*\*\*\*\*\*\*(Ex eb ib IIC T5...T3 Gb, Ex tb IIIC T80 °C...T200 °C Db)

/ 16-KA4BO-0267X

#### Applied standards

Announcement No. 2021-22 of Ministry of Employment and Labor

#### **Conditions of Certification**

**1. Manufacturing location(s)**: This certificate is valid only for the specified products produced at 'Ave. Miguel de cervantes 111, 31136 Chihuahua, Mexico'.

2. Description of equipment

The Magnet Flow Tube may be remote mounted from the Magnetic Flow Transmitter or integral mounted to the Magnetic Flow Transmitter.

·Electrical parameters for Intrinsic Safety: See Electrical data on Annex page 10 in the related IECEx Certificate (IECEx DEK 14.0031X issue No.8)

Ambient Temperature: -50 °C  $\leq T_a \leq +60$  °C (Stainless Steel wrapper), -29 °C  $\leq T_a \leq +60$  °C (Carbon Steel wrapper)

-IP66 degree of protection according to IEC 60079-0.

**3. Scope of certification**: This certificate is valid only for the models as above.

4. Special conditions for safe use

·Conduit entries must be installed to maintain the enclosure ingress rating of IP66.

See Specific Conditions of Use in the related IECEx certificate (IECEx DEK 14.0031X Issue No.8) for the details.

5. Details of certificate changes

1st Revision(2017.11.08.): This certificate is re-issued to include IECEx certification revision update and modify the model designation(from K7 to K9) from No. 2016–002810–01.

2nd revision(2021.10.15.): This certificate is re-issued to include IECEx certification revision update, the change of description, and the addition of the electrical rating from No. 2017-055835-01.

6. Details of the others

·Manufacturer shall take the responsibility including maintaining quality requirements for the certified products, receiving factory surveillance and informing any changes to the certified products.

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제2021-053699-01-1호

# 안 전 인 증 서

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Ave. Miguel de cervantes 111, 31136 Chihuahua, Mexico

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법 시행규칙 제110조제1항에 따른	른 안전인증	심사 결과	안전 • 보건기	준에
적합하므로 안전인증표시의 사용을	이증합니다.			

고용노동부고시 제2021-22호

#### 인 증 조 건

#### 1. 제조공장

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- ·자기 유량 트랜스미터와 별도 혹은 통합으로 설치되는 자기 유량 튜브임.
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- ·관련 IECEx 인증서(IECEx DEK 14.0031X issue No.8) 4쪽 specific condition of use 참조

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·1차 변경(2017.11.08.): 기존 제2016-002811-01호에서 관련 IECEx 인증서 갱신 및 모델명 변경(기존 K7, 변경 후 K9)

·<mark>2차 변경(2021.10.15.)</mark>: 기존 제2017-055836-01호에서 관련 IECEx 인증서 갱신 및 기재사항 변경.

#### 6. 그 밖의 사항

- ·안전인증품의 품질관리, 확인심사 수검, 변경사항 신고 등 인증 받은 자의 의무 준수
- ·본 안전인증서는 반드시 관련 IECEx 인증서(IECEx DEK 14.0031X issue No.8)와 함께 사용

2016 년 4월 18일

# 한국산업기술시험원





No. 2021-053699-01-1

## Certificate of Safety

#### F-R Technologias De Flujo, S,A De C,V

Ave. Miguel de cervantes 111, 31136 Chihuahua, Mexico

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#### **Electrical Equipment**

Magnet Flow Tube

#### Model (Marking) / Certificate No.

8705\*\*\*\*(M2,M3,M4)K9\*\*\*\*\*\*\*(Ex eb ja IIC T5...T3 Ga/Gb, Ex tb IIIC T80 °C...T200 °C Db)

/ 16-KA4BO-0268X

#### Applied standards

Announcement No. 2021-22 of Ministry of Employment and Labor

#### Conditions of Certification

1. Manufacturing location(s): This certificate is valid only for the specified products produced at 'Ave. Miguel de cervantes 111, 31136 Chihuahua, Mexico'.

#### 2. Description of equipment

- The Magnet Flow Tube may be remote mounted from the Magnetic Flow Transmitter or integral mounted to the Magnetic Flow Transmitter.
- ·Electrical parameters for Intrinsic Safety: See Electrical data on Annex page 10 in the related IECEx Certificate (IECEx DEK 14.0031X issue No.8)
- Ambient Temperature:  $-50~^{\circ}\text{C} \le 7_{\text{a}} \le +60~^{\circ}\text{C}$  (Stainless Steel wrapper),  $-29~^{\circ}\text{C} \le 7_{\text{a}} \le +60~^{\circ}\text{C}$  (Carbon Steel wrapper)
- ·IP66 degree of protection according to IEC 60079-0.
- 3. Scope of certification: This certificate is valid only for the models as above.

#### 4. Special conditions for safe use

- Conduit entries must be installed to maintain the enclosure ingress rating of IP66.
- See Specific Conditions of Use in the related IECEx certificate (IECEx DEK 14.0031X Issue No.8) for the details.

#### 5. Details of certificate changes

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- ·2nd revision(2021.10.15.): This certificate is re-issued to include IECEx certification revision update, the change of description, and the addition of the electrical rating from No. 2017-055836-01.

#### 6. Details of the others

- Manufacturer shall take the responsibility including maintaining quality requirements for the certified products, receiving factory surveillance and informing any changes to the certified products.
- This certificate shall be used with the related IECEx certificate (IECEx DEK 14.0031X Issue No.8).

