



제2013-026024-02호

안전인증서

Rosemount Tank Radar AB

Gamlestadsvegen 18B, Box 13045, SE-40251 Goteborg, Sweden

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

품 목

Tank Hub

형식·모델(용량·등급) / 인증번호

2410 Hart-Active (Ex de[ia IIC] IIB, T4) / 13-KB4BO-0459

인증기준

고용노동부고시 제2010-36호

인증조건

1. 제조공장

본 인증서는 'Gamlestadsvegen 18B, Box 13045, SE-40251 Goteborg, Sweden'에서 생산하는 제품에 한함

2. 제품개요

·제품정격 : 24 ~ 48 Vdc, 48 ~ 240 Vac / 50 ~ 60 Hz

·Safety Parameters :

FISCO Power Supply $U_o = 15\text{ V}$, $I_o = 354\text{ mA}$, $P_o = 5.32\text{ W}$, $U_m = 250\text{ V}$

Hart/4-20mA Entity IS I/O Option - Active Current Loop

$U_o = 23.1\text{ V}$, $I_o = 95.3\text{ mA}$, $P_o = 550\text{ mW}$, $C_o \leq 0.14\text{ }\mu\text{F}$, $L_o \leq 3.9\text{ mH}$ (for Group IIC)

$C_o \leq 1.0\text{ }\mu\text{F}$, $L_o \leq 15\text{ mH}$ (for Group IIB), $C_o \leq 3.67\text{ }\mu\text{F}$, $L_o \leq 33\text{ mH}$ (for Group IIA)

·사용주위온도 : $-50\text{ }^\circ\text{C} \leq T_a \leq +70\text{ }^\circ\text{C}$

3. 인증범위 : 다음 페이지 참조

4. 안전한 사용을 위한 조건 : 사용설명서 참조

5. 인증(변경)사항 : 없음

6. 그 밖의 사항 : 없음

2013 년 8 월 19 일

한국산업기술시험원장





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인 증 조 건

3. 인증범위 : 본 인증서는 아래의 형식번호에 한하여 유효함

·2410-abcdefghijklmn. Tank Hub

- a = Number of Tanks : Any single character
- b = Tank Bus (Fieldbus – Power and Communication) : F
- c = Primary Communication Bus : R, 4, E
- d = Secondary Communication Bus (Hart/4–20mA Active IS Input/Output) : W, C or 8
- e = Relay Output(SIS/SIL) : 3, 2, F or 0
- f = Relay Outputs (Non-SIS/SIL) : 1, 2, F or 0
- g = Internal Display : 1 or 0
- h = Power Supply : P
- i = Firmware : Any single character
- j = Hazardous Location Certification : E7 according to IECEx certificate
- k = Custody Transfer Type Approval : Any single character
- l = Housing : A
- m = Cable/Conduit Connections : 1
- n = Mechanical Mounting : P, W or 0



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안전인증서

Certificate of Safety

Rosemount Tank Radar AB

Gamlestadsvegen 18B, Box 13045, SE-40251 Goteborg, Sweden

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 34 of OCCUPATIONAL SAFETY AND HEALTH ACT and paragraph 4 of Article 58-4 of ENFORCEMENT ORDINANCE OF the same ACT.

Electrical Equipment

Tank Hub

Model (Marking) / Certificate No.

2410 Hart-Active (Ex de[ia IIC] IIB T4) / 13-KB4BO-0459

Applied standards

Announcement No. 2010-36 of Ministry of Employment and Labor

Conditions of Certification

- 1. Manufacturing location(s)** : This certificate is only valid for the specified products produced at 'Gamlestadsvegen 18B, Box 13045, SE-40251 Goteborg, Sweden'.
- 2. Description of equipment**
 - Rating : 24 ~ 48 Vdc, 48 ~ 240 Vac / 50 ~ 60 Hz
 - Safety Parameters :
 - FISCO Power Supply $U_o = 15\text{ V}$, $I_o = 354\text{ mA}$, $P_o = 5.32\text{ W}$, $U_m = 250\text{ V}$
 - Hart/4-20mA Entity IS I/O Option - Active Current Loop
 - $U_o = 23.1\text{ V}$, $I_o = 95.3\text{ mA}$, $P_o = 550\text{ mW}$, $C_o \leq 0.14\text{ }\mu\text{F}$, $L_o \leq 3.9\text{ mH}$ (for Group IIC)
 - $C_o \leq 1.0\text{ }\mu\text{F}$, $L_o \leq 15\text{ mH}$ (for Group IIB), $C_o \leq 3.67\text{ }\mu\text{F}$, $L_o \leq 33\text{ mH}$ (for Group IIA)
 - Ambient Temperature : $-50\text{ }^\circ\text{C} \leq T_a \leq +70\text{ }^\circ\text{C}$
- 3. Scope of certification** : Refer to the next page.
- 4. Special conditions for safe use** : Refer to the instruction manual.
- 5. Details of certificate changes** : None
- 6. Details of the others** : None

Date of Issue : 2013-8-19

한국산업기술시험원
KOREA TESTING LABORATORY





No. 2013-026024-02

Conditions of Certification

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

·2410-abcdefghijklmn. Tank Hub

- a = Number of Tanks : Any single character
- b = Tank Bus (Fieldbus – Power and Communication) : F
- c = Primary Communication Bus : R, 4, E
- d = Secondary Communication Bus (Hart/4-20mA Active IS Input/Output) : W, C or 8
- e = Relay Output(SIS/SIL) : 3, 2, F or 0
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- g = Internal Display : 1 or 0
- h = Power Supply : P
- i = Firmware : Any single character
- j = Hazardous Location Certification : E7 according to IECEx certificate
- k = Custody Transfer Type Approval : Any single character
- l = Housing : A
- m = Cable/Conduit Connections : 1
- n = Mechanical Mounting : P, W or 0



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안전인증면제확인서

신청인	사업장명	Rosemount Tank Radar AB	사업장관리번호	-
	사업자등록번호	-	대표자 성명	Anette Jacobsson
	소재지	Gamlestadsvegen 18B, Box 13045, SE-40251 Goteborg, Sweden		

면제 확인번호

13-KB4BO-0459-ex

인증번호

IECEX FMG 10.0005 (Issue No. 1)

안전인증대상 기계·기구명

Tank Hub

형식(규격)

2410 Hart-Active

용량(등급)

Ex de[ia IIC] IIB T4

면제내용	면제 항목	형식별 제품심사
	면제 사유 (관련 법령 등)	산업안전보건법 시행규칙 제58조의2(안전인증의 면제)
	안전인증면제 유효기간	-

「산업안전보건법」 제34조 및 같은 법 시행규칙 제58조의2제4항에 따라 안전인증 면제확인서를 발급합니다.

2013 년 8 월 19 일

한국산업기술시험원장

