EXPLOSION PROTECTION
CERTIFICATE OF CONFORMITY

Cert NO.GYJ13.1044X

This is to certify that the product

	Variable Areas Flowmeter
manufactured by	KROHNE Messtechnik GmbH
	(Address:Ludwig - Krohne Strasse 5, Duisburg, Germany)
which model is	H250/*a*/*b*/*c*/M40/*d*/*e*/*f*/*g*-Ex-*h*
Ex marking	Ex d ⅡC T1~T6 Gb DIP A21 T_A 70℃ IP66/67
product standard	/
drawing number	APPR GD 821037-01

has been inspected and certified by NEPSI, and that it conforms to GB 3836.1-2010,GB 3836.2-2010,GB 12476.1-2000

This Approval shall remain in force until 2018.03.17

Remarks

1.Conditions for safe use are specified in the attachment to this certificate.
2.Symbol "X" placed after the certification number denotes specific conditions of use, which are specified in the attachment to this certificate.
3.Model designation is specified in the attachment to this certificate.

Director

National Supervision and Inspection Centre for Explosion Protection and Safety of Instrumentation

Issued Date 2013.03.18

This Certificate is valid for products compatible with the documents and samples approved by NEPSI.

103 Cao Bao Road
Shanghai 200233, China

http://www.nepsi.org.cn
Email: info@nepsi.org.cn

Tel: +86 21 64368180
Fax: +86 21 64844580

国家级仪器仪表防爆安全监督检验站

National Supervision and Inspection Centre for Explosion Protection and Safety of Instrumentation

(GYJ13.1044X) **(Attachment Ⅰ)**

Attachment Ⅰ to GYJ13.1044X

Variable areas flowmeter typed H250/*a*/*b*/*c*/M40/*d*/*e*/*f*/*g*-Ex-*h*, manufactured by Krohne Messtechnik GmbH has been certified National Supervision and Inspection Center for Explosion Protection and Safety of Instrumentation (NEPSI).

Variable areas flowmeter accords with following standards:

GB 3836.1-2010 Explosive atmospheres Part 1: Equipment-General requirements

GB 3836.2-2010 Explosive atmospheres Part2: Equipment protection by flameproof enclosures 'd'

GB 12476.1-2000 Electrical apparatus for use in the presence of combustible dust—Part 1-1:Electrical apparatus protected by enclosures and surface temperature limitation—Specification for apparatus

Variable areas flowmeter has the Ex-marking Ex d ⅡC T1~T6 Gb DIP A21 T_A 70℃ IP66/67.

Following products are covered by this certificate.

H250/*a*/*b*/*c*/M40/*d*/*e*/*f*/*g*-Ex-*h*

a: H, U, blank

b: RR, HC, C, Ti, F

c: B, blank

d: S, R, T, blank

e: HT, blank

f: ESK

g: K1, K2, R1, R2

h: SE, SK

1. Special condition for safe use

Symbol "X" denotes special condition for safe use: Contact Krohne Messtechnik GmbH for information on the dimensions of the flameproof joints.

2. Condition for safe use

2.1 The external earth connection facility shall be connected reliably.

2.2 The ambient temperature of variable area flowmeter for explosive gas atmosphere is (-40~+65) ℃. The relation among temperature class, ambient temperature and maximum temperature of process medium is as following.

Table 1 Using a heat resistant connecting cable (above 90℃)

			Maximum permitted product temp. (℃)						
		Temp. Class	T6	T5	T4	T3		T2, T1	
Without heating jacket	With heat jacket	Ambient temp.	≤60℃	≤65℃	≤65℃	≤60℃	≤65℃	≤60℃	≤65℃
DN15	DN15	Not HT	85	100	135	200	175	200	175
DN25 DN50	DN25	HT	85	100	135	200	200	300	300
DN80	DN50	Not HT	85	100	130	185	165	185	165
DN100	DN80	HT	85	100	135	200	200	300	300

Table 2 Using a standard connecting cable (above 70℃)

			Maximum permitted product temp. (℃)								
		Temp. C lass	T6	T5		T4		T3		T2, T1	
Without heating jacket	With heat jacket	Ambient temp.	≤60℃	≤60℃	≤65℃	≤60℃	≤65℃	≤60℃	≤65℃	≤60℃	≤65℃
DN15	DN15	Not HT	85	100	75	105	75	105	75	105	75
DN25 DN50	DN25	HT	85	100	95	135	95	175	95	175	95
DN80	DN50	Not HT	85	90	75	90	75	90	75	90	75
DN100	DN80	Not HT	85	100	90	135	90	155	90	155	90

2.3 The ambient temperature of variable area flowmeter for combustible dust atmosphere is (-40～+65) ℃. The relation between ambient temperature and maximum temperature of process medium is as following.

Table 3 Using a standard connecting cable (above 70℃)

			Maximum permitted product temp. (℃)	
Without heating jacket	With heat jacket	Ambient temp.	≤60℃	≤65℃
DN15	DN15	Not HT	105	75
DN25 DN50	DN25	HT	175	95
DN80	DN50	Not HT	90	75
DN100	DN80	Not HT	155	90

2.4 For explosive gas atmosphere installation, cable gland and blanking plug, certified to GB 3836.1-2010 and GB 3836.2-2010 with Ex marking Ex d ⅡC Gb shall be used. The engaged

threads shall be no less than 5.

2.5 For combustible dust atmosphere installation, cable gland and blanking plug, certified to GB 12476.1-2000 with marking IP66/67 shall be used.

2.6 End user is not permitted to change any components insides.

2.7 When installation, use and maintenance of Variable areas flowmeter, observe following standards.

GB3836.13-1997 Electrical apparatus for explosive gas atmospheres Part 13:Repair and overhaul for apparatus used in explosive gas atmospheres

GB3836.15-2000 Electrical apparatus for explosive gas atmospheres Part 15:Electrical installations in hazardous area (other than mines)

GB 3836.16-2006 Electrical apparatus for explosive gas atmospheres – Part 16: Inspection and maintenance of electrical installation in hazardous areas (other than mines)

GB 50257:1996 Code for construction and acceptance of electric device for explosion atmospheres and fire hazard electrical equipment installation engineering

GB 12476.2-2010 Electrical apparatus for use in the presence of combustible dust – Part 2: Selection and installation

GB 15577-2007 Safety regulations for dust explosion prevention and protection

3. Manufacturer's Responsibility

2.1 Special condition for safe use specified above should be included in the instruction manual.

2.2 Manufacturing should be done according to the documentation approved by NEPSI.

2.3 Any modification with influence on the type of protection should be submitted to NEPSI before application.

2.4 Following items should be added to the nameplate

a) NEPSI log
b) Ex marking
c) Number of certificate
d) Ambient temperature range

National Supervision and Inspection Center
for Explosion Protection and Safety of Instrumentation
March 18, 2013