

FM Approvals
1151 Boston Providence Turnpike
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CERTIFICATE OF COMPLIANCE

HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

DK 32 K1/K2 VG464abcdefghijklmnopqr. Variable Area Flowmeter.

IS /I, II, III/ 1/ ABCDEFG/T5 Ta = 60°C; – 8.80186.01; Entity; Type 4X;
NI/ I / 2 / ABCD/T5 Ta = 60°C, Type 4X; S/ II, III/ 2/ FG/T5 Ta = 60°C, Type 4X;
ANI/I, II, III/ 2/ ABCDFG/T5 Ta = 60°C; – 8.80186.01; Entity; Type 4X;
Entity Parameters:

Terminals	Groups	Vmax (V)	I _{max} (mA)	Ci (nF)	Li (μH)
K1+ and K1-	A/B	16	20	150	150
K2+ and K2-	A/B	16	20	150	150

a = Housing: 1, 4, 5, 6, 7 or B.
b = Connection: 1, 2, 4, 5, 6, 7, 8, A, B, D, E, F, G, H, P, S, U, V, or W.
c = Sealing surface: Not Safety Relevant
d = Metering cone: 1 through 8, A, C, D, F, G, K or M.
e = Medium / Sealing: 1, 2, 4, 5, 7 or 8.
f = Switch: 0, 1, 2, 3, 4, 5, 6, F, G, H, K, L, M, N, P, R, S, T or U.
g = Options-indicator: 0 or 3.
h = Options-measuring part: 0, 1, or 2.
i = Approval: A.
j = Marking: 0, 1, or 2.
k = External relay: 0 through 6.
l = Consolidation certificate: Not Safety Relevant.
m = Calibration: Not Safety Relevant
n = Pressure test: Not Safety Relevant
o = Material test: Not Safety Relevant
p = PMI: Not Safety Relevant
q = Cleaning: Not Safety Relevant
r = Private Label: 0

DK 34 K1/K2 VG474abcdefghijklmnpqr. Variable Area Flowmeter.

IS /I, II, III/ 1/ ABCDEFG/T5 Ta = 60°C; – 8.80186.01; Entity; Type 4X;

NI/ I / 2 / ABCD/T5 Ta = 60°C, Type 4X; S/ II, III/ 2/ FG/T5 Ta = 60°C, Type 4X;

ANI/I, II, III/ 2/ ABCDFG/T5 Ta = 60°C; – 8.80186.01; Entity; Type 4X

Entity Parameters:

Terminals	Groups	Vmax (V)	I _{max} (mA)	C _i (nF)	L _i (μH)
K1+ and K1-	A/B	16	20	150	150
K2+ and K2-	A/B	16	20	150	150

a = Housing: 1.

b = Connection: 1, 2, 4, 5, 6, 7, 8, A, B, D, E, F, G, H, S, U, V, or W.

c = Sealing surface: Not Safety Relevant

d = Metering cone: 1 through 8, A, C, D, F, G, K or M.

e = Medium: 1 or 2.

f = Switch: 0, 1, 2, 3, 4, 5, 6, F, G, H, K, L, M, N, P, R, S, T or U.

g = Options-indicator: 0 or 3.

h = Options-measuring part: 0.

i = Approval: A.

j = Marking: 0, 1, or 2.

k = External relay: 0 through 6.

l = Consolidation certificate: Not Safety Relevant

m = Calibration: Not Safety Relevant

n = Pressure test: Not Safety Relevant.

o = Material test: Not Safety Relevant.

p = PMI: Not Safety Relevant

q = Cleaning: Not Safety Relevant

r = Design: 0

Equipment Ratings:

Intrinsically Safe Class I, II, III, Div. 1, Groups A through G; also for Nonincendive Class I, Division 2, Groups A, B, C, & D; Suitable for Class II, III, Division 2, Group F & G; with Type 4X, indoor / outdoor protection and temperature rating of T5 Ta = 60°C.

FM Approved for:

KROHNE MESSTECHNIK GMBH
DUISBURG, GERMANY



This certifies that the equipment described has been found to comply with the following Approval Standards and other documents:

Class 3600	2011
Class 3610	2010
Class 3810	1989
Including Supp. #1	1995
Class 3611	2004
NEMA 250	1991

Original Project ID: 3011430

Approval Granted: November 13, 2001

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
3013153	February 19, 2002		
080819	October 29, 2008		
100614	May 26, 2011		
120327	April 6, 2012		
130228	March 25, 2013		

FM Approvals LLC


J. E. Marquedant
Group Manager, Electrical

25 March 2013
Date