



Member of the FM Global Group

FM Approvals
1151 Boston Providence Turnpike
P.O. Box 9102 Norwood, MA 02062 USA
T: 781 762 4300 F: 781-762-9375 www.fmapprovals.com

CERTIFICATE OF COMPLIANCE

HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

ALTOSONIC V12 / OPTISONIC V6 Ultrasonic Gas Flowmeter consisting of the following Meter Body with Transducer and Electronics Unit in accordance with manufacturer's Control Drawing No. 8.30758.04:

I/1/AEx d e ma IIB/T5* Ta = -40C to +60°C; Type 4X/IP66

NI/I/2/CD/T5* Ta = -40C to +60°C; Type 4X/IP66

DIP/II,III/1/EFG/T5* Ta = -40C to +60°C; Type 4X/IP66

VN73-4-abc2Tdefghijklmnopqrstuv0. Meter Body with Transducers.

a = Nominal Diameter : B, D, E, F, G, H, K, L, M, N

b = Nominal Pressure : A, B, D, E, X, Y

c = Approval : 6

d = Schedule : 4, 5, 6, 7, 8, A, B

e = Materials : 4, B, D

f = Materials Certificate : 1, 2, 3, 4

g = Design Code : 0, 1, 2

h = Inspection Code : 1, 9

i = Standards : 0, 1, 9

j = Custody Transfer Certificate : 0, 1, 3

k = Pressure Point Connection : 0, 1

l = Finish outside/inside: 1

m = Flow Direction : 0, 1

n = Hydrostatic Witness Testing : 1, 2, 3, 4

o = Leakage Test : 0, 1

p = Leakage Test Witnessing : 0, 1, 2, 3, 4

q = Factory Acceptance Test (FAT) witnessing : 1, 2, 3, 4

r = High Pressure Flow calibration: 0, 1, 2

s = Calibration witnessing: 0, 1, 2, 3, 4

t = High Pressure Flow Calibration Facility: 0, 4, 5, 6, 9

u = No. of testpoints: 0, 1, 2, 3, 4, 5, 6, 7, 8, A, B, 9

v = Process Temperature: 0, 1

VN74-4-41abcdef0100ghi. Electronics Unit

a = Approval: 5, 6

b = Cable connection: F, H

c = Instruction manual / language: 1, 2, 3, 4, 5, 6, 7

d = Custody Transfer Certification: 0, 1, 3

e = Process diagnostics : 0, 8

f = Converter housing: 2, 4

g = Number of documents on CD: 0, 1, 2, 3, 4, 5, 6, 7, 9

h = Tagplate : 0, 1

i = Number of documents hard copy: 0, 2, 3, 4, 5, 6, 7, 8, 9

Special Conditions for Safe Use:

1. * T4 when Process Diagnostics is selected (e=8).

Equipment Ratings:

Flameproof with increased safety and encapsulation for Class I, Zone 1, AEx d e ma IIB, Temperature Class T5 Ta = -40°C to +60°C; Non-incendive for Class I, Division 2, Groups C and D, Temperature Class T5 Ta = -40°C to +60°C; and Dust-Ignitionproof for Class II/III, Division 1, Groups E, F and G, Temperature Class T5 Ta = -40°C to 60°C; indoors and outdoors (Type 4X/IP66). *Temperature Class T4 when Process Diagnostics option '8' is selected

FM Approved for:

Krohne Altometer

Kerkeplaat 12, 3313, LC Dordrecht, The Netherlands

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

Class 3600	2011
Class 3611	2004
Class 3810	2005
ANSI/ISA 60079-0	2009
ANSI/ISA 60079-1	2009
ANSI/ISA 60079-7	2008
ANSI/ISA 60079-18	2009
ANSI/NEMA 250	1991
ANSI/IEC 60529	2004

Original Project ID: 3040520

Approval Granted: September 7, 2011

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
3046927	January 9, 2013		

FM Approvals LLC



J. E. Marquedant
Group Manager, Electrical

9 January 2013

Date