



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:

AH7abdLefHT49hijklm. Humidity/Temperature Transmitter and Sensor.

IS / I / 1 / ABCD / T4 Ta = 80°C - INST1046SP; Entity
I / 0 / AEx ia / IIC / T4 Ta = 80°C - INST1046SP; Entity
NI / I / 2 / ABCD / T4 Ta = 80°C - INST1046SP

Entity Parameters:

$V_{Max} = 28 \text{ V}$; $I_{Max} = 100 \text{ mA}$; $C_i = 0.037 \text{ }\mu\text{F}$; $L_i = 0 \text{ }\mu\text{H}$.

a = Connection Head: 0, 4 or 5.

b = Probe Diameter: 1, 2, or 3.

d = Threads: P0, P1, P2, P3, P4, P5, P6, C0-C9.

e = Insertion Depth: 3-999.

f = Filter Type: T1 or T2.

h = Channel 1 Output: 0-9.

i = Display: A-Z.

j = Signal Output: 0-9.

k = Transmitter Calibration: A-Z.

l = Calibration Accuracy: 00-99.

m = Channel 2, Temperature Range Code: A-Z or AA-ZZ.

AH7abdLefHT49hijklm. Humidity/Temperature Transmitter and Sensor.

IS / I,II,III / 1 / ABCDEFG / T4 Ta = 80°C - INST1046SP; Entity (Type 4, 4X)
I / 0 / AEx ia / IIC / T4 Ta = 80°C - INST1046SP; Entity (Type 4, 4X)
NI / I / 2 / ABCD / T4 Ta = 80°C; S / II, III / FG / T4 Ta = 80°C - INST1046SP (Type 4, 4X)

Entity Parameters:

$V_{Max} = 28 \text{ V}$; $I_{Max} = 100 \text{ mA}$; $C_i = 0.037 \text{ }\mu\text{F}$; $L_i = 0 \text{ }\mu\text{H}$.

a = Connection Head: 1, 2, or 3.

b = Probe Diameter: 1, 2, or 3.

d = Threads: P1, P2, P3, P4, P5 or P6.

e = Insertion Depth: 3-999.

f = Filter Type: T1 or T2.

h = Channel 1 Output: 0-9.

i = Display: A-Z.

j = Signal Output: 0-9.

k = Transmitter Calibration: A-Z.

l = Calibration Accuracy: 00-99.

m = Channel 2, Temperature Range Code: A-Z or AA-ZZ.

HT88nopqrs Humidity/Temperature Transmitter and Sensor

IS / I,II,III / 1 / ABCDEFG / T4 Ta = 80°C - INST1046SP; Entity (Type 4, 4X)

I / 0 / AEx ia / IIC / T4 Ta = 80°C - INST1046SP; Entity (Type 4, 4X)

NI / I / 2 / ABCD / T4 Ta = 80°C; S / II, III / FG / T4 Ta = 80°C - INST1046SP (Type 4, 4X)

Entity Parameters:

$V_{Max} = 28 \text{ V}$; $I_{Max} = 100 \text{ mA}$; $C_i = 0.037 \text{ }\mu\text{F}$; $L_i = 0 \text{ }\mu\text{H}$.

n = Connection Head: 0, 5D, or 5N.

o = Transmitter Calibration: A-Z.

p = Calibration Accuracy: 0-99.

q = Temperature Range: A-Z or AA-ZZ.

r = Insertion Depth: 3-999.

s = Agency Approval: FI.

Equipment Ratings:

For AH7 models with Connection Head: 0, 4 or 5 option selected: Intrinsically safe apparatus for use in Class I, Division 1, Groups A, B, C, D, and Class I, Zone 0 Group IIC hazardous (classified) locations (TYPE 4, 4X), in accordance with Entity requirements and Control Drawing INST1046SP and as Nonincendive for use in Class I, Division 2, Groups A, B, C, D hazardous (classified) locations (TYPE 4, 4X).

For HT88 models or AH7 models with Connection Head: 1, 2, or 3 option selected : Intrinsically safe apparatus for use in Class I, II, III Division 1, Groups A, B, C, D, E, F and G and Class I, Zone 0 Group IIC hazardous (classified) locations (TYPE 4, 4X), in accordance with Entity requirements and Control Drawing INST1046SP and as Nonincendive for use in Class I,II, III Division 2, Groups A, B, C, D, F & G hazardous (classified) locations (TYPE 4, 4X).

FM Approved for:

Minco Products, Inc.
Minneapolis, MN, USA



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

Class 3600	1998
Class 3610	1999
Class 3611	2004
Class 3810	2005
ANSI/NEMA 250	1991

Original Project ID: 3024466

Approval Granted: February 17, 2006

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
090624	July 7, 2009		
101216	May 2, 2011		

FM Approvals LLC



J. E. Marquedant

Group Manager, Electrical



Date