APPROVAL REPORT

Yamatake Corporation

Shonan Factory

ADVANCED TEMPERATURE TRANSMITTER
MODELS ATT70 AND ATT71
SENSOR MODELS ATT81 AND ATT82
FOR HAZARDOUS (CLASSIFIED) LOCATIONS

Prepared For:

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Japan

J.I. 3003925
(3615)
July 19, 1999

FACTORY MUTUAL | Factory Mutual System

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I INTRODUCTION

1.1 Yamatake Corporation (manufacturer) requested Factory Mutual Research Corporation (FMRC) Approval of their Models ATT70 and ATT71 Advanced Temperature Transmitter (ATT) and Models ATT81 and ATT82 Sensors as explosionproof for Class I, Division 1, Groups A, B, C and D; flameproof for Class I, Zone 1 AEx d IIC T6; dust-ignitionproof for Class II/III, Division 1, Groups E, F and G hazardous (classified) locations; indoor/outdoor (NEMA Type 4X).

1.2 The specific models described by this report will be listed in the FMRC Approval Guide as follows:

ATT7a-b4c-def-g. Advanced Temperature Transmitter.
XP/I/1/ABCD/T6 Ta<80°C; I/1/AEx d IIC/T6 Ta<80°C; DIP/II,III/1/EFG/T6 Ta<80°C; Type 4X
a = Type 0 or 1.
b = Output/Communication Protocol A, D, H or F.
c = Conduit connection 2 or 6.
d = Indicator X, F, G, H, J, M, N, P or Q.
e = Paint S, A, B, D or F.
f = Burnout feature X, U or D.
g = Option X, A, B, C, D, E, F, G, H, J, L, R, S, T, U, V or W.

ATT81-ab-cdeX-f. Sensor for Model ATT71 Advanced Temperature Transmitter.
XP/I/1/ABCD/T6 Ta<80°C; I/1/AEx d IIC/T6 Ta<80°C; DIP/II,III/1/EFG/T6 Ta<80°C; Type 4X
a = Sensor type B, E, J, K, N, R, S, T, P or Q.
b = Sensor length in mm (100-900).
c = Thermal well stem style A or B.
d = Thermal well material 1, 2 or 3.
e = Thermal well mounting thread size A, B, C, G, H, J, N, P or Q.
f = Option X, A, B, C, D, E, F, G, H, J, K, L, M, or P.

ATT82-ab-cdef-g. Sensor for Model ATT71 Advanced Temperature Transmitter.
XP/I/1/ABCD/T6 Ta<80°C; I/1/AEx d IIC/T6 Ta<80°C; DIP/II,III/1/EFG/T6 Ta<80°C; Type 4X
a = Sensor type B, E, J, K, N, R, S, T, P or Q.
b = Sensor length in mm (100-900).
c = Thermal well stem style A or B.
d = Thermal well material 1, 2 or 3.
e = Thermal well mounting flange pressure A, B, C, D, E, G, H, J, K, L, M, N, P, Q, R, S or T.
f = Thermal well mounting flange size 1, 2, 3, 4, 5, 6, 7, 8 or 9.
g = Option X, A, B, C, D, E, F, G, H, J, K, L, M or P.

1.3 Approval of the subject equipment is based on the applicable requirements of the following standards.

TITLE	AUTHOR-NUMBER	DATE
Electrical Equipment For Use In Hazardous (Classified) Locations General Requirements	FMRC-3600	1998
Explosionproof Electrical Equipment	FMRC-3615	1989
Electrical Apparatus for Use in Class I, Zones 0 & 1 Hazardous Classified Locations General Requirements	ANSI/ISA-S12.0.01	1998
Electrical Apparatus for Use in Class I, Zone 1 Hazardous (Classified) Locations Type of Protection - Flameproof "d"	ANSI/ISA-S12.22.01	1998
Electrical and Electronic Test, Measuring and Process Control Equipment	FMRC-3810 (Including Supplement 1)	1989 (1995)
Enclosures For Electrical Equipment	ANSI/NEMA-250	1991

1.4 As described in this report, the construction of these units provides the degree of protection against Electrical shock, fire, and injury required for hazardous (classified) locations.

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