



Member of the FM Global Group

FM Approvals
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CERTIFICATE OF COMPLIANCE

HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

Pulsar dB a Series of Ultrasonic Transducers.

IS / I, II, III / 1/ A, B, C, D, E, F, G / T4 Tamb = -40°C to +75°C; D-804-0532-D- Entity; Type 4X
Entity parameters
Ui = 30 V, li = 600 mA, Pi = 1.5 W, Ci = 0, Li = 0.
a = 6, 10, 15, 25, 40[nominal measuring distance in metres].

Pulsar dB 3 Series Ultrasonic Transducers.

IS / I, II, III / A, B, C, D, E, F, G / T4 Tamb = -40°C to +75°C; Entity D-804-0532-D; Type 4X
Entity parameters
Ui = 30V li = 600 mA Pi = 1.5W Ci = 0 Li = 0

Pulsar dB a Series of Ultrasonic Transducers.

S / I, II, III / 1/ A, B, C, D, E, F, G / T4 Tamb = -40°C to +75°C; D-804-0532-D, Type 4X
a = 6, 10, 15, 25, 40 [nominal measuring distance in metres].

Special Conditions of Use

1. *The dB series Transducers are not suitable for use in the presence of Aliphatic Hydrocarbons Esters or Ketones.*
2. *The dB Series transducers shall be connected to a source that provides protection against a prospective short circuit current of at least 1500A.*

Pulsar dB 3 Series Ultrasonic Transducers.

S / I, II, III / A, B, C, D, E, F, G / T4 Tamb = -40°C to +75°C; D-804-0532-D, Type 4X
Special Conditions of Use

1. *The dB series Transducers are not suitable for use in the presence Aliphatic Hydrocarbons Esters or Ketones.*
2. *The dB Series transducers shall be connected to a source that provides protection against a prospective short circuit current of at least 1500A*

Equipment Ratings:

Intrinsically Safe (Entity) for use in Class I, II and III, Divisions 1 and 2 Groups A, B, C, D, E, F and G indoor and outdoor Hazardous (Classified) Locations when connected in accordance with Control Drawing D-804-0532-D. Temperature Class T4 at an ambient of 75°C. Type 4X.

Suitable for use in Class I, II and III, Division 1 and 2 Groups A, B, C, D, E, F and G indoor and outdoor Hazardous (Classified) Locations. Temperature Class T4 at an ambient of 75°C. Type 4X.

FM Approved for:

Pulsar Process Measurement Limited
Worcester, United Kingdom

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 3810	2005
ISA 12.00.01	1998
ISA 12.23.01	1998
Nema 250	2003

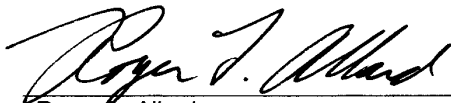
Original Project ID: 3015726

Approval Granted: June 2, 2003

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
3025205	SEPTEMBER 12, 2006		

FM Approvals LLC



Roger L. Allard
Assistant Vice President

SEPTEMBER 12, 2006
Date