



Examination Standard for Dust-Ignitionproof Electrical Equipment – General Requirements

Class Number 3616

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Foreword

This standard is intended to verify that the products and services described will meet stated conditions of performance, safety and quality useful to the ends of property conservation. The purpose of this standard is to present the criteria for examination of various types of products and services.

Examination in accordance with this standard shall demonstrate compliance and verify that quality control in manufacturing shall ensure a consistent and reliable product.

TABLE OF CONTENTS

1 INTRODUCTION	1
1.1 Purpose.....	1
1.2 Scope.....	1
1.3 Basis for Requirements	1
1.4 Basis for Certification	1
1.5 Basis for Continued Certification	2
1.6 Effective Date.....	2
1.7 System of Units	2
1.8 Normative References	2
1.9 Terms and Definitions.....	3
2 GENERAL INFORMATION	4
2.1 Certification Application Requirements	4
2.2 Requirements for Samples for Examination.....	4
3 GENERAL REQUIREMENTS.....	5
3.1 Markings	5
3.2 Manufacturer's Installation and Operation Instructions	5
3.3 Calibration	5
4 CONSTRUCTION REQUIREMENTS	6
4.1 General	6
4.2 Enclosure Joint Construction.....	6
4.3 Gaskets, Seals and O-rings	6
4.4 Cemented Joints	7
4.5 Field Wiring Entries (Supply Connections).....	7
5 PERFORMANCE REQUIREMENTS	8
5.1 General	8
5.2 Resistance to Impact and Thermal Shock Tests.....	8
5.3 Drop Test.....	8
5.4 Conduit Opening Torque Test	8
5.5 Thermal Endurance Conditioning.....	8
5.6 Pressure Test.....	9
5.7 Dust Exclusion Test.....	9
5.8 Thermal (Temperature) Test.....	9
5.9 Additional Tests.....	9
6 OPERATIONS REQUIREMENTS.....	10
7 BIBLIOGRAPHY	10

1 INTRODUCTION

1.1 Purpose

- 1.1.1 This standard states testing and certification requirements for dust-ignitionproof electrical equipment for Class II, Division 1, Groups E, F and G; and Class III, Division 1 hazardous (classified) locations.
- 1.1.2 Testing and certification criteria may include, but are not limited to, performance requirements, marking requirements, examination of manufacturing facility(ies), audit of quality assurance procedures, and a surveillance program.

1.2 Scope

- 1.2.1 This standard contains the basic requirements for the construction and testing of dust-ignitionproof electrical equipment.
- 1.2.2 This standard is intended to be used in conjunction with FM Approvals Examination Standard 3600 which includes the general requirements that apply to all types of hazardous (classified) location protection methods.
- 1.2.3 This standard does not apply to equipment rated for use in atmospheres containing pyrophoric substances, or other dusts that do not require oxygen for combustion.
- 1.2.4 This standard does not take into account the risk of ignition of a dust due to electrostatic causes nor from sparking due to friction or parts striking the equipment enclosure.

1.3 Basis for Requirements

- 1.3.1 The requirements of this standard are based on experience, research and testing, and/or the standards of other organizations. The advice of manufacturers, users, and loss control specialists was also considered.
- 1.3.2 The requirements of this standard reflect tests and practices used to examine characteristics of dust-ignitionproof electrical equipment for the purpose of obtaining certification. Dust-ignitionproof electrical equipment having characteristics not anticipated by this standard may be certified if performance equal, or superior, to that required by this standard is demonstrated.

1.4 Basis for Certification

Certification is based upon satisfactory evaluation of the product and the manufacturer in the following major areas:

- 1.4.1 Examination and tests on production samples shall be performed to evaluate
 - the suitability of the product;
 - the performance of the product as specified by the manufacturer and required for certification and as far as practical,
 - the durability and reliability of the product.
- 1.4.2 An examination of the manufacturing facilities and audit of quality control procedures may be made to evaluate the manufacturer's ability to consistently produce the product which is examined and tested, and the marking procedures used to identify the product. Subsequent surveillance may be required by the certification agency in accordance with the certification scheme to ensure ongoing compliance.