DIN EN 14034-1:2011-04 (E)

Determination of explosion characteristics of dust clouds - Part 1: Determination of th e maximum explosion pressure p<(Index)max> of dust clouds (includes Amendment A1:2011)

Contents

Page

Foreword 3

1 Scope 5

2 Normative references 5

3 Terms and definitions 5

4 Test apparatus 6
4.1 General 6
4.2 Explosion vessel 6
4.3 Dust dispersion system (dust container, fast acting valve, connecting tube, dust disperser) 8
4.4 Ignition source 11
4.5 Control unit 11
4.6 Pressure measuring system 11

5 Dust sample 11

6 Test procedure 12

7 Calibration and verification 14
7.1 Calibration 14
7.2 Verification 15

8 Safety precautions / instructions for use 15

9 Alternative test equipment / procedures 16

10 Test report 16

Annex A (normative) Electro pneumatic valve 17

Annex B (normative) Dust disperser with 5 mm holes 19

Annex C (normative) 20 l sphere 23

C.1 General 23
C.2 Test apparatus 23
C.3 Test conditions 23
C.4 Test procedure 24
C.5 Calculation and correction of pmax 25

Annex ZA (informative) !!!Relationship between this European Standard and the Essential Requirements of EU Directive 94/9/EC""" 26

Bibliography 27

Introduction 4