

SAFETY OF EQUIPMENT

DIRECTIVE 94/9/EC 23 March '94 Implementation date 1 July '03

SCOPE - THE ARTICLES

- Placing on the market and putting into service
- Equipment and protective systems for use in potentially explosive atmospheres
- Conformity assessment procedures

EQUIPMENT GROUPS & CATEGORIES - ANNEX 1

ESSENTIAL HEALTH & SAFETY REQUIREMENTS - (EHSR's) - ANNEX II

- Principle of integrated safety
- Consideration of environment
- Marking
- Choice of materials
- All potential ignition sources
- Risk caused by software
- Risk from gas, vapours, mist and dust

UK IMPLEMENTATION

Statutory Instrument SI 1996. No 192, SI 2001. No 3677
Department of Trade and Industry (www.dti.gov.uk/strd/atex.htm)

Your country implementation.....

CE MARK CONFIRMS COMPLIANCE WITH ALL RELEVANT DIRECTIVES SUCH AS:

Low Voltage Directive 73/23 EEC
modified by 93/68/EEC

Electro Magnetic Compatibility
Directive 89/336/EEC
modified by 92/31/EEC & 93/68/EEC

Machinery Directive 89/392/EEC
amended 98/37/EC
ATEX or parallel Flammable
Atmospheres Directive

EXAMPLES OF BODIES NOTIFIED UNDER DIRECTIVE 94/9/EC

Organisation	Identification No
Baseefa (2001) Ltd	1180
DMT GmbH	0158
KEMA Quality BV	0344
LCIE	0081
PTB	0102
TÜV Product Service GmbH	0123

Full list can be found on:
<http://europa.eu.int/comm/enterprise/atex/nb/nblist.htm>

ATEX GUIDELINES FIRST EDITION

Guidelines on the application of European Parliament and Council Directive 94/9/EC of 23 March 1994 on the approximation of the laws of the Member States concerning equipment and protective systems intended for use in potentially explosive atmospheres.

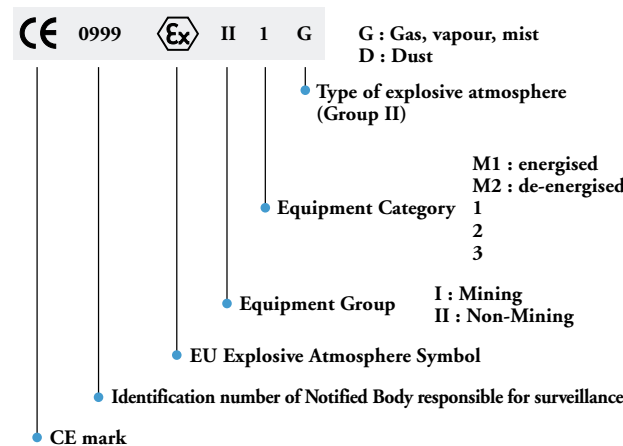
Visit: <http://europa.eu.int/comm/enterprise/atex/index.htm>

COMPLIANCE

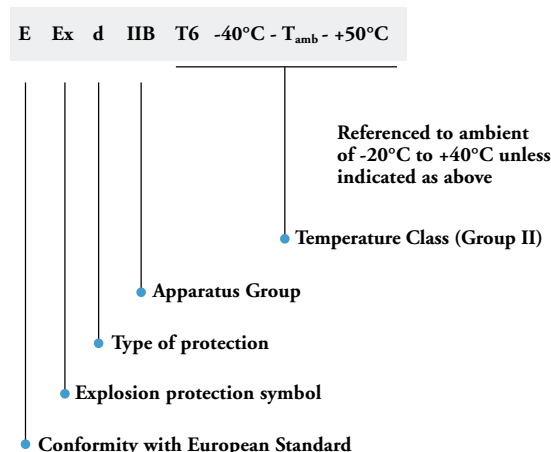
Compliance with the ATEX Directive 94/9/EC can be demonstrated by using the Harmonised European Standards. Reference to these standards relating to the various methods of electrical protection can be found on the MTL Flammable Facts poster or the EU ATEX website listed below.

EQUIPMENT MARKING

ATEX



CENELEC/IEC



For further explanation of gas, temperature, area classification and the various types of electrical protection please refer to [MTL Flammable Facts Poster](#)

SURFACE INDUSTRY (II) EQUIPMENT CATEGORY & INTENDED USE

Equipment category	Level of protection	Area classification
II 1G D	Two independent faults (ia) or Two types of protection	Zone 0 (gas) Zone 20 (dust)
II 2G D	One fault (ib) or One type of protection	Zone 1 (gas) Zone 21 (dust)
II 3G D	Safe in normal operation (n)	Zone 2 (gas) Zone 22 (dust)

Mining industries (I) has categories M1 and M2

CERTIFICATION REQUIREMENTS

Equipment category	1	2 Electrical	2 Non-electrical	3	Annex of 100a Directive
CERTIFICATION PHASE					
Certification by notified body	3	3	3	3	III
Certification by manufacturer					VIII
Unit verification by notified body					IX
SURVEILLANCE					
QA of production by notified body	3	3			IV
QA of product by notified body					VII
QA by manufacturer			✓	✓	VIII

NOTE. Internal combustion engines are electrical equipment
Unit verification is normally used for special small quantity apparatus

'SIMPLE APPARATUS' & THE ATEX DIRECTIVES

Simple apparatus has been in use as a valuable part of intrinsically safe systems for many years. It was necessary to reassess the use of this apparatus with the introduction of the two ATEX directives. The following has been agreed at EU level; "Simple apparatus is considered not to require certification by a notified body. The responsibility for compliance with the relevant parts of the standard rests with the persons claiming compliance. Certification to the ATEX Directive is not required because of the low levels of energy, which are added to the intrinsically safe circuit by this apparatus. Simple apparatus is required to be clearly identified when it is installed."

Fieldbus intrinsically safe concept FISCO is detailed in [MTL Application Note AN9026](#). Within this document Appendix I and II details 'Simple Apparatus'.

Fieldbus systems for use in Zone 2/Division 2 are described in [MTL Application Note AN9027](#)
Fieldbus Non-Incendive Concept (FNICO).



Measurement Technology
products are manufactured under
a quality system in accordance
with BS EN ISO 9001:2000

THE NEW APPROACH

To gain a better understanding of directives based on the New Approach to technical harmonisation and Global Approach to conformity assessment e.g. ATEX, Pressure Equipment, Machinery directives, refer to the European Commissions Guide available to order or download from:

http://europa.eu.int/comm/enterprise/new_approach/legislation/guide/legislation.htm

FUNCTIONAL SAFETY IEC 61508

Instrumented safety systems are widely used in industrial process plants where there is threat to life or environment should something go wrong. The IEC 61508 standard 'Functional safety of electrical/electronic/programmable electronic safety-related systems' is now gaining broad acceptance by manufacturers and users designing products and systems for safety related applications.

The [MTL Application Note AN9025](#) provides an introduction to the subject.

Baseefa (2001) Ltd
QUALITY ASSURANCE NOTIFICATION
Measurement Technology Ltd Baseefa ATEX 0703

All MTL products are manufactured under a quality control system satisfying the ATEX Directive