



Health &
Safety
Executive

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BASEEFA

British Approvals Service for Electrical Equipment in Flammable Atmospheres

1. **CERTIFICATE OF CONFORMITY**

2. BAS No Ex 822403

3. This certificate is issued for the electrical apparatus:

AN MTL 2215 IS-OUTPUT SWITCH OPERATED RELAY

4. manufactured and submitted for certification by:

MEASUREMENT TECHNOLOGY LIMITED
of Luton, Beds LU1 3JJ

5. This electrical apparatus and any acceptable variation thereto is specified in the Schedule to this Certificate and the documents therein referred to.

6. BASEEFA being an Approved Certification Body in accordance with Article 14 of the Council Directive of the European Communities of 18 December 1975 (76/117/EEC) confirms that the apparatus has been found to comply with harmonised European Standards

BS 5501:Part 1:1977 EN50 014
BS 5501:Part 7:1977 EN50 020

and has successfully met the examination and test requirements which are recorded in confidential Test Report

No 82(i)252 dated 21 January 1983

7. The apparatus marking shall include the code

[EEx ia] IIC T ambient = 60°C

File No : SFA/16/2/040



B HILL
DIRECTOR Sheet 1/3
21 January 1983

8. The supplier, of the electrical apparatus referred to in this certificate, has the responsibility to ensure that the apparatus conforms to the specification laid down in the Schedule to this certificate and has satisfied routine verifications and tests specified therein.

9. This apparatus may be marked with the Distinctive Community Mark specified in Annex II to the Council Directive of 6 February 1979 (Doc 79/196/EEC). A facsimile of this mark is printed on sheet 1 of this certificate.

CERTIFICATE OF CONFORMITY



SCHEDULE

NUMBER Ex 822403

DATED 21 January 1983

APPARATUS

AN MTL 2215 IS-OUTPUT SWITCH OPERATED RELAY is designed to switch loads in the hazardous area when controlled from the non hazardous area by a volt free contact or logic signal. The apparatus comprises three printed circuit boards, a relay, a transformer and two terminal strips mounted in a plastic enclosure. The two sets of relay change over contacts (considered as not being segregated from each other) are connected to the hazardous area terminals. The apparatus is considered to be coded [EEx ia] IIC when the hazardous area terminals are supplied from a power source (certified by any EEC Approved Body to [EEx ia] IIC or EEx ia IIC) which does not exceed 5A and 75V.

The electrical parameters of the circuitry connected to the hazardous area terminals meets the requirements of clause 1.3 of BS 5501 : Part 1 : 1977 EN50 014.

For non hazardous area terminals 9, 10, 13, 14, 15 and 16 $U_{\text{max:in}} = 250\text{V}$

DRAWINGS

<u>Number</u>	<u>Issue</u>	<u>Date</u>	<u>Description</u>
CI2215-01 Sheet 1	1	9.82	Contents sheet
CI2215-01 Sheet 2	1	9.82	Parts list
CI2215-01 Sheet 3	1	9.82	Circuit diagram
CI2215-01 Sheet 4	1	9.82	Top p.c.b.
CI2215-01 Sheet 5	1	9.82	Secondary p.c.b.
CI2215-01 Sheet 6	1	9.82	General assembly
CI2215-01 Sheet 7	1	9.82	Label
CI2215-02 Sheet 1	1	11.82	2903 Transformer
CI2215-02 Sheet 2	1	11.82	2903 Transformer
CI2215-03 Sheet 1	1	11.82	2902 Transformer
CI2215-03 Sheet 2	1	11.82	2902 Transformer



British Approvals Service for Electrical
Equipment in Flammable Atmospheres

Certificate of Conformity Variation

THIS IS TO CERTIFY THAT CERTIFICATE BAS NO Ex 822403

Held by MEASUREMENT TECHNOLOGY LTD
of Luton, Beds, LU1 3JJ

for the MTL 2215 IS - OUTPUT SWITCH OPERATED RELAY

is hereby extended to apply to apparatus designed and constructed in accordance
with the specification set out in the Schedule of the said Certificate but having
the variations specified in the attached Schedule.

File No: EECS 0703/02/141
(formerly SFA 16/2/040)



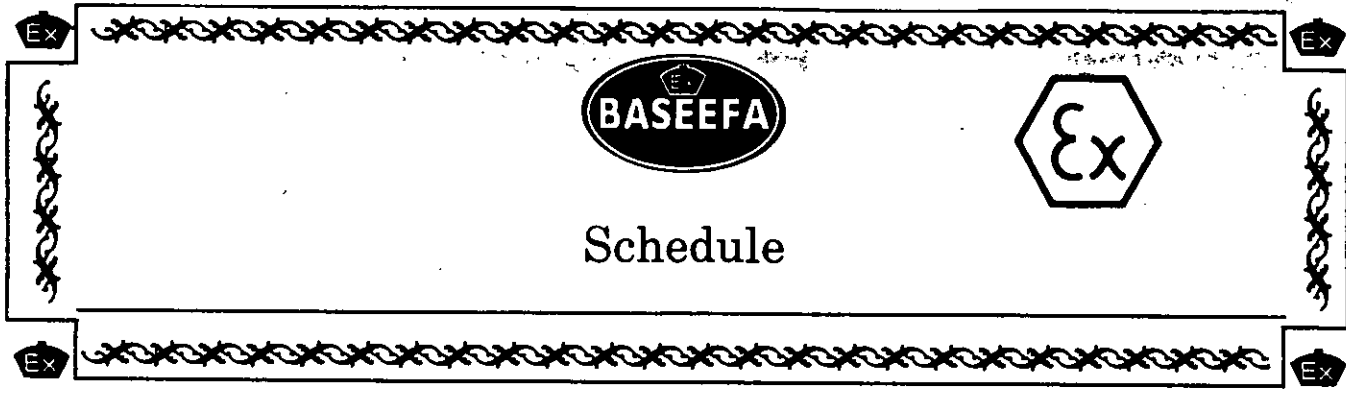
CERTIFICATE BAS NO Ex 822403/1
Sheet 1/2
TG

I M. CLEARE
DIRECTOR EECS
1 March 1993



Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire, SK17 9JN, United Kingdom
Tel: 0298 26211 Fax: 0298 79514 Telex: 668113 RLSD G





Certificate of Conformity BAS No Ex 822403/1 dated 1 March 1993

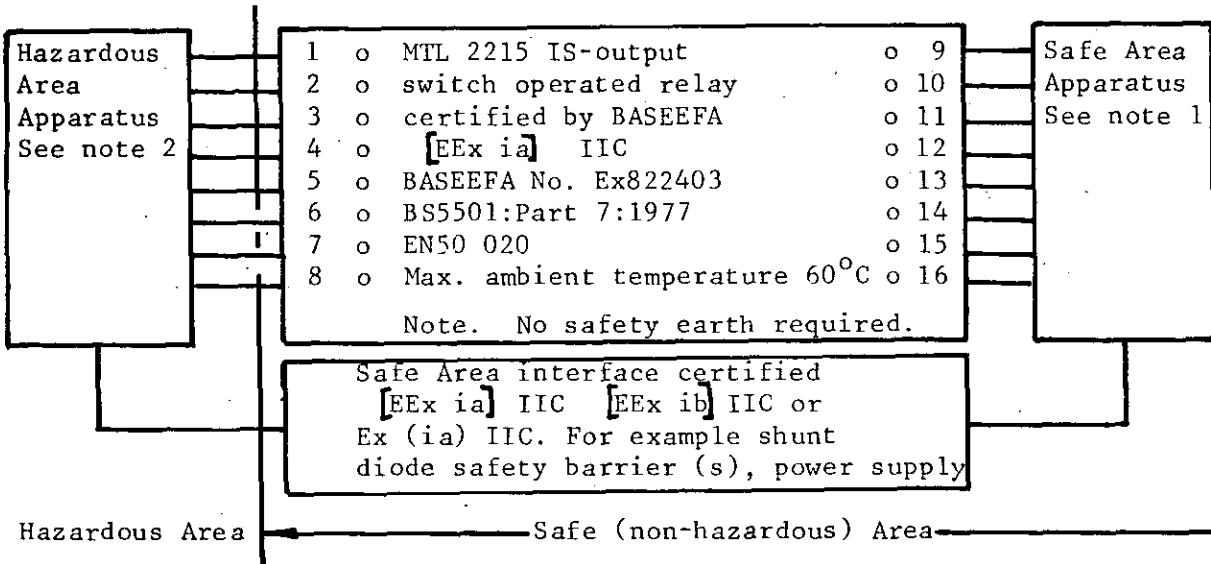
VARIATION ONE

To permit minor modifications to the printed circuit boards and drawing information changes which do not affect intrinsic safety.

DRAWINGS

Number	Issue	Date	Description
CI 2215-01 Sheet 1 of 7	3	11.92	Contents sheet
CI 2215-01 Sheet 4 of 7	2	11.92	Top p.c.b.
CI 2215-01 Sheet 5 of 7	3	11.92	Secondary p.c.b.

This drawing enables a safe system to be designed but is not covered by a specific system certificate.



Note 1 Safe area apparatus - unspecified except that it must not be supplied from nor contain under normal or abnormal conditions a source of potential with respect to earth in excess of 250V r.m.s. or 250V d.c.

Note 2 The hazardous area terminals (terminals 1 to 8) have been certified as complying with paragraph 1.3 in BS5501:Part 1:1977 - EN50 014 i.e. they do not generate, store or exceed the following values:- 1.2V 0.1A, 20 μ J or 25mW. Systems covered by BS5501:Part 9:1982 - EN50 039 allow devices meeting these requirements to be connected into the system see paragraphs 2.1 and 2.3. Where systems are covered by SFA 3012:1972 and reference to BS5345:Part 4:1977 is made, then the MTL 2215 can be connected into the system without the need for further certification (see paragraph 6.3.3 in BS5345:Part 4:1977)

Note 3 The switch contacts of the MTL 2215 can be connected into any EExiaIIC, EExibIIC, or ExiaIIC system provided the maximum voltage of the system is less than 75 volts.

Note 4 The maximum permitted cable parameters are determined by those of the system into which the MTL 2215 is connected. The MTL 2215 can be connected into any I.S. system without affecting the Group classification or any insulation or cable requirements e.g. multicore cable restrictions.

EN50 039 paragraph 2.1 "intrinsically safe electrical system". An assembly of interconnected items of electrical apparatus, described in a descriptive system document, in which the circuits or parts of circuits, intended to be used in a potentially explosive atmosphere are intrinsically safe circuits.

EN50 039 paragraph 2.3 "uncertified intrinsically safe electrical system. An electrical system conforming to 2.1 for which the knowledge of the electrical parameters of the items of certified intrinsically safe electrical apparatus, certified associated electrical apparatus, non-certified devices conforming to 1.3 of European Standard EN50 014 'General requirements' and the knowledge of the electrical and physical parameters of the interconnecting wiring permit the unambiguous deduction that intrinsic safety is preserved".

BS5345:Part 4:1977 paragraph 6.3.3 "Simple electrical apparatus and components Simple electrical apparatus and components (e.g. thermocouples, photo cells, junction boxes) may be used in intrinsically safe systems without certification provided they do not generate or store more than 1.2V, 0.1A, 20 μ J and 25mW in the intrinsically safe system in the normal or fault conditions of the system prescribed in the standards referred to in clause 5 & also if no components located in the hazardous area can dissipate more than 1.3W in such conditions.

Title Installation diagram for the MTL2215 IS-output switch operated relay

Drg. No. SCI-69
Sheet 1 of 1

MEASUREMENT TECHNOLOGY LTD.
Luton, England
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Modification

Iss. Date / Drawn
1/12/82 / DRG

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