



Explosion Prevention Services  
Reg No: 1999/027771/07 - VAT No: 438 018 7403  
**Government Approved Test laboratory**  
7 Spanner rd. PO Box 467  
Olifantsfontein  
1665

(Pty) Ltd



T0104

Tel: +27 (11) 316 4601  
Fax: +27 (11) 316 5670  
E-mail: [admin-mgr@explolabs.co.za](mailto:admin-mgr@explolabs.co.za)

## ASSESSMENT REPORT No.: XPL/18852/17.1185

**Your Reference:** EXP095  
**Enquiries:** H de Meyer  
**Date:** 22 August 2017  
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This batch assessment report must be read in conjunction with IA certificate no:  
**MS-XPL/16.0950X**

### INTRINSICALLY SAFE DIGITAL MULTIMETER MODEL FLUKE 177

#### 1. STANDARDS

This report provides the basis for the certification of the Digital Multimeter model Fluke 177 as Intrinsically Safe Electrical Apparatus as defined in the listed standards to Category Ib with respect to Groups I/IIA and Temperature Class T4.

<b>SANS 96: 2006 Ed 1</b>	Batch sampling and acceptance criteria for explosion-protected apparatus (EPA)
<b>Referring to:</b>	
<b>SANS 60079-0: 2000 Ed 2.1</b> <b>IEC 60079-0: 2000 Ed 3.1</b>	"Electrical apparatus for explosive gas atmospheres, Part 0: General requirements"
<b>SANS 60079-11: 1999 Ed 2</b> <b>IEC 60079-11: 1999 Ed 4</b>	"Electrical apparatus for explosive gas atmospheres, Part 11: Intrinsic safety 'i'"

#### 2. PRODUCT DESCRIPTION

Manufacturer : Fluke Corporation

Type of Product : Digital Multimeter

Model : Fluke 177

Serial Number(s) :

36290172	36290173	36290174	36290175	36290176
39050408	39050409	39050410	39050406	39050412
39080395	39080394,	39080396	39080398	39080397
37770588	37770590	37770591,	37770593	37770592
39080437	39080443	39080445	39080447,	39080446
38210432	38210431	38210435	38210436	38210433
37630170	37630171	37630172	37630174	37630173
37770586	37770587	37770589	37770583	37770577

The Fluke 177, a true RMS multimeter, consists of a multilayer PCB and LCD housed in a robust plastic enclosure. It is capable of measuring current (AC and DC), voltage (AC and DC) frequency up to 100kHz (voltage) and 30kHz for current, capacitance, resistance and continuity. The DMM is supplied with one Energizer Type 6LR61-6AM6-9V dry cell housed inside a compartment at the back of the meter. The DMM is supplied with two standard Fluke probe cables with moulded plugs. The meter inputs are colour coded and the measuring functions marked.



T0104

The South African National Accreditation System (SANAS) is a member of the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA). This Arrangement allows for the mutual recognition of technical test and calibration data by the member accreditation bodies worldwide. For more information on the Arrangement please consult [www.ilac.org](http://www.ilac.org)

**3. ASSESSMENT REQUIRED**

Batch/Type Approval : Batch Approval  
Batch Size : 40  
Sample Size : 6  
Sample Serial Numbers : 39080397; 36290172; 37770589; 39050409; 37630173; 38210436

**4. CONCLUSION**

The sample(s) as described in Paragraph 2 above have COMPLIED with the requirements as set out in Paragraph 1.

The approved explosion protection rating of the equipment is: **Ex ib I Mb and Ex ib IIA T4 Gb**  
Inspection Authority Certificate Number: **MS-XPL/16.0950X**

**5. ASSESSMENT RESULTS****5.1. GENERAL**

The samples were inspected and compared to the original type approval documentation kept on record by Explolabs (Pty) Ltd. The samples were found to have been constructed in accordance with the original type approval. The markings were complete and correct.

**5.2. DOCUMENTATION**

No documents were submitted

**5.3. SAFETY PARAMETERS**

None.

**5.4. SPECIAL CONDITIONS OF USE (X)**

- The FLUKE 177 digital multimeter may only be powered by an Energizer type 6LR61-6AM6-9V dry cell.
- Only the measuring probes provided with the FLUKE 177 digital multimeter may be used in voltage and temperature measurements.
- The digital multimeter must only be used to measure voltages less than 10V in intrinsically safe circuits with matching safety parameters, and care must be taken to avoid bypassing any protection components such as barriers or isolators during measurements.
- The current and resistance measuring inputs on the FLUKE 177 digital multimeter are not safe for use in hazardous locations.
- Care must be taken to avoid touching the temperature probe to any live electrical parts.
- The FLUKE 177 digital multimeter may only be used in an area with humidity not more than 35% RH.

**6. MARKING**

Digital Multimeter model Fluke 177  
Manufactured by: Fluke Corporation  
Ex ib I Mb and Ex ib IIA T4 Gb  
IA No.: MS-XPL/16.0950X  
Serial no.: As specified in paragraph 2

7. **VALIDITY**

This report covers only the unit(s) as described in Paragraph 2. Other identical units will only be covered by:

- a. additional approvals covering all serial numbers, or
- b. approval of certified equipment under a product certification scheme accepted by the Department of Mineral Resources and/or the Department of Labour as relevant.

**Responsible Testing Officer:**

**Reviewed by:**



**H de Meyer**  
**Testing Officer**



**D Maree**  
**Senior Testing Officer**

**EXPLOLABS EXPLOSION PREVENTION SERVICES**

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