

# **CALIBRATION REPORT**

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### **Details of the Under Calibration:**

Calibration Certificate No: SBS/CL/20-21/00434

| <b>Customer Name</b> | DIA CARE DIAGNOSTICS  | Customer      | #2/751,         |
|----------------------|-----------------------|---------------|-----------------|
|                      |                       | Address:      | VEPPANAPALLI,   |
|                      |                       |               | KRISHNAGIRI DT, |
|                      |                       |               | TAMILNADU       |
| <b>Location:</b>     | BIO CHEMISTRY         | Serial No:    | 61004297        |
| <b>Description:</b>  | BIO CHEMISTRYANALYZER | Tag/Asset No: | NA              |
| Make:                | EMP                   | Date of       | 25.01.2021      |
|                      |                       | Calibration:  |                 |
| Model:               | EMP-168               | Date of Due:  | 24.01.2022      |

### **Traceability Details:**

| S.No | Standard Used              | Make  | Model  | Serial No | Validity   |
|------|----------------------------|-------|--------|-----------|------------|
| 1    | Electrical Safety Analyzer | Fluke | ESA615 | 2244202   | 24.01.2022 |

### **Environmental Conditions and Standard Operating Procedure Details:**

| Temperature          | 24° C | Calibration Done at         | ONSITE           |
|----------------------|-------|-----------------------------|------------------|
| Humidity (40-70% RH) | 59%   | Calibration<br>Procedure No | CP-BM001-2019/ES |

#### **REMARKS:**

The above mentioned instruments has been calibrated using standard manufacturer recommended protocols, using equipments having traceability to National/ International Standards. Partial reproduction of the certificates is not permitted.

Electrical Safety Test Passed :

| / | *7  | , |    |
|---|-----|---|----|
|   | Yes |   | No |

| Electrical safety test        |                  |                         |  |  |
|-------------------------------|------------------|-------------------------|--|--|
| Parameters Used               | Measured in Test | Limits                  |  |  |
|                               | Gadget           |                         |  |  |
| Voltage N-E                   | 2.6 V            | < 3 V                   |  |  |
| Voltage P-E                   | 228V             | < 230 V                 |  |  |
| Voltage P-E                   | 227 V            | < 230 V                 |  |  |
| Maximum Current Taken by the  | 0.2              | As per Manufacture      |  |  |
| DUT                           |                  | specification           |  |  |
| Earth Leakage Current NC      | 121 μΑ           | < 500 µA for B, BF, CF  |  |  |
| Earth Leakage Current SFC     | 237 μΑ           | < 1000 μA for B, BF, CF |  |  |
| Enclosure Leakage Current NC  | 5.1 μΑ           | < 100 µA for B, BF, CF  |  |  |
| Enclosure Leakage Current SFC | 5.4 μΑ           | < 500 µA for B, BF, CF  |  |  |
| Insulation Resistance M-P.E   | Good             | More than 100 Mohm      |  |  |
| Insulation Resistance M-A.P   | Good             | More than 100 Mohm      |  |  |
| Insulation Resistance A.P-P.E | Good             | More than 100 Mohm      |  |  |

| CALIBRATION RESULT        | <u>T:</u>                       |
|---------------------------|---------------------------------|
|                           | Corrective maintenance required |
|                           | Removed from use                |
|                           | Acceptable for use              |
| Calibration Engineer Sign | 96-20-j                         |



## **CALIBRATION REPORT**

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This is to certify that, 168-EMP Semi Automated Analyzer bearing Serial No. #61004297

Installed at DIACARE DIAGNOSTICS, VEPPANAPALLI is performing satisfactorily.

168- EMP is calibrated last on 25th January 2021 by our Service Engineer, Mr. M. BALAJI.

| <b>Optical System Check</b> | Dark Current | Dark Current Range | Remarks             |
|-----------------------------|--------------|--------------------|---------------------|
| 340 nm                      | 72           |                    |                     |
| 405 nm                      | 78           |                    |                     |
| 450 nm                      | 82           |                    |                     |
| 510 nm                      | 81           | -200               | D 1 ( 1             |
| 546 nm                      | 83           | <200               | Dark current values |
| 578 nm                      | 81           |                    | are within range    |
| 630 nm                      | 85           |                    |                     |
| 670 nm                      | 89           |                    |                     |

| Optical System Check | Background | Back ground Range | Remarks      |
|----------------------|------------|-------------------|--------------|
| 340 nm               | 52000      |                   |              |
| 405 nm               | 53500      |                   |              |
| 450 nm               | 54200      |                   |              |
| 510 nm               | 56500      |                   | D 1 1        |
| 546 nm               | 55300      | 48000 to 62000    | Back ground  |
| 578 nm               | 54100      |                   | values are   |
| 630 nm               | 51200      |                   | within range |
| 670 nm               | 54100      |                   |              |



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| Software Communication                  | Status | Remarks |
|---|--------|---------|
| Operation Software Initialization Check | Normal | Nil     |
| Communication between PCand Analyzer    | Normal | Nil     |
| Shutdown Check                          | Normal | Nil     |

| Reagent Unit Check           | Status  | Remarks |
|------------------------------|---------|---------|
| Sample/Reagent Syringe Check | Normal  | Nil     |
| Reagent Unit                 | Normal  | Nil     |
| Reaction Unit                | Normal  | Nil     |
| Dust Filters                 | Cleaned | Nil     |
| Distilled Water filter       | OK      | Nil     |

Next Calibration Due on 24<sup>th</sup> January 2022

Calibrated by:

(Calibration Engineer)

**Authorized Signatory:** 

(Technical Manager)