CERTIFICATE OF ACCREDITATION

In terms of section 22(2) (b) of the Accreditation for Conformity Assessment, Calibration and Good Laboratory Practice Act, 2006 (Act 19 of 2006), read with sections 23(1), (2) and (3) of the said Act, I hereby certify that:-

TESTO SOUTH AFRICA (PTY) LTD Co. Reg. No.: 2015/403399/07 GAS CALIBRATION LABORATORY KEMPTON PARK

Accreditation Number: 1576

is a South African National Accreditation System accredited Calibration laboratory provided that all SANAS conditions and requirements are complied with

This certificate is valid as per the scope as stated in the accompanying scope of accreditation Annexure "A", bearing the above accreditation number for

GAS METROLOGY

The facility is accredited in accordance with the recognised International Standard

ISO/IEC 17025:2017

The accreditation demonstrates technical competency for a defined scope and the operation of a laboratory quality management system

While this certificate remains valid, the Accredited Facility named above is authorised to use the relevant SANAS accreditation symbol to issue facility reports and/or certificates

Mr M Phaloane Acting Chief Executive Officer

Effective Date: 24 August 2020 Certificate Expires: 23 August 2025

ANNEXURE A

SCOPE OF ACCREDITATION

GAS METROLOGY

Accreditation Number: 1576

| Testo South Africa (Pty) Ltd Mr M Talane Gas Calibration Laboratory Mr M Talane Cas Calibration Laboratory Mr M Talane Unit 1 Gleneagle Office Park Mr M Talane Corn Braambos and Monument Road Glen Marais Kempton Park Mr J Kirkland 1619 Mr J Kirkland Postal Address: Mr J Kirkland Suite 42, Private Bag 7 Aston Manor Kempton Park Issue No.: 03 Tel: (011) 380-8060 Issue No.: 03 Fax: 086-514-9030 Date of Issue: 30 November 2021 Email: įkirkland@itesto.co.za Date of Issue: 30 November 2021 Email: įkirkland@itesto.co.za Mange of MEASURED CALIBRATION AND MEASURED CLAIBRATION AND MEASUREMENT METHOD / PROCEDURE Item OR YPE OF GAUGE OR INSTRUMENT RANGE OF MEASURED QUANTITY CALIBRATION AND MEASURED CLAIBRATION (2003 % mol/mol) METHOD / PROCEDURE 1 Orgen 0 to 3 % mol/mol 0.10 % mol/mol 2.0 % CALIBRATION AND MEASURED CLAIBRATION (2003 % mol/mol) CALIBRATION (200 % mol/mol) METHOD | Permanent Address of Laboratory: | | Technical Signatories: M | | Mr JRD Taylor | |
|--|--|--|---|---|---|--|
| Unit 1 Gleneagle Office Park Cnr Braambos and Monument Road Glen Marais Kempton Park Nominated Representative: Mr J Kirkland Postal ddress: 1619 Nominated Representative: Mr J Kirkland Postal ddress: Suite 42, Private Bag 7 Aston Manor Kempton Park Issue No.: 03 Tel: (011) 380-8060 Fax: 036-514-9030 Date of Issue: 30 November 2021 E-mail: ikirkland@testo.co.za Expiry Date: 23 August 2025 ITEM MEASURED QUANTITY OR TYPE OF GAUGE OF INSTRUMENT RANGE OF MEASURED QUANTITY CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED As AN UNCERTAINTY (±) METHOD / PROCEDURE 1.1 Öxygen (O2 in N2) 0 to 3 % mol/mol 3 to 18 % mol/mol (O2 in N2) 0.00 3 % mol/mol 1.0 % mol/mol 1.0 % mol/mol 1.0 % Calibration by the application of Class 1 or 1 actionation gas mixtures through the measurement range of the Analyzer. 1.2 Carbon Monoxide (NO2 in N2) 0 to 100 µmol/mol 10 to 1000 µmol/mol 10 to 1000 µmol/mol 1.0 % 2.0 % 100 to 1000 µmol/mol 1.0 % Calibration by the application of Class 1 or 11 calibration gas mixtures through the measurement range of the Analyzer. 1.4 Nitrogen Dioxide (NO2 in N2) 0 to 100 µmol/mol 10 to 1000 µmol/mol 10 to 1000 µmol/mol 10 0 % 0.1 % mol/mol 0.1 % mol/mol 1.6 Carbon Dioxide (O2 in N2) 0 to 100 µmol/mol 10 0 5 % mol/mol <td colspan="2"></td> <td></td> <td>Mr M</td> <td>Talane</td> | | | | Mr M | Talane | |
| Cnr Braambos and Monument Road Glen Marais Kempton Park 1619 Nominated Representative: Mr J Kirkland Postal Address: Suite 42, Private Bag 7 Aston Manor Kempton Park Nominated Representative: Mr J Kirkland Tel: (011) 380-8060 Fax: 086-514-9030 Issue No.: 03 Fax: 086-514-9030 Date of Issue: 30 November 2021 Email: ikirkland@lesto.co.za RANGE OF MEASURED 0Date of Issue: 30 November 2021 TreM MEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENT RANGE OF MEASURED 0 to 3 % mol/mol CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±) METHOD / PROCEDURE 1 Oxygen (Oz in Nz) 0 to 3 % mol/mol 100 to 1000 µmol/mol 100 to 1000 µmol/mol 1,0 % 0,03 % mol/mol 0,10 % mol/mol 1,0 % Amethod / PROCEDURE 1.1 Oxygen (Oz in Nz) 0 to 100 µmol/mol 100 to 1000 µmol/mol 1,0 % 0,03 % mol/mol 0,10 % mol/mol 1,0 % Calibration by the application of Class I or II calibration gas mixtures through the measurement range of the Analyzer. 1.2 Carbon Dioxide 0 to 100 µmol/mol 100 to 1000 µmol/mol 1,0 % 2,0 % mixtures through the measurement range of the Analyzer. 1.4 Nitrogen Dioxide 0 to 10 µmol/mol 100 to 1000 µmol/mol 100 to 1000 µmol/mol 10,0 % 0,1 % mol/mol 10,0 % 0,1 % mol/mol 10,0 % | - | | | | | |
| Glen Marais Kempton Park 1619 Nominated Representative: Mr J Kirkland Postal ∠d/ress: Suite 42, Private Bag 7 Aston Manor Kempton Park Nominated Representative: Mr J Kirkland Tel: (011) 380-8060 Fax: Issue No.: 03 Date of Issue: 30 November 2021 Expiry Date: Fax: 086-514-9030 Exmit: Kirkland@lesto.co.za Date of Issue: 30 November 2021 Expiry Date: Tel: (011) 380-8060 Fax: RANGE OF MEASURED (NSTRUMENT) RANGE OF MEASURED (NSTRUMENT) CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED (S AN UNCERTAINTY (±)) METHOD / PROCEDURE Itemal: Kirkland@lesto.co.za Not 0 3 % mol/mol 0.03 % mol/mol 0.10 % mol/mol METHOD / PROCEDURE Gless | 0 | | | | | |
| Kempton Park 1619 Nominated Representative: Mr J Kirkland Postal ∠ddress: Suite 42, Private Bag 7 Aston Manor Kempton Park Nominated Representative: Mr J Kirkland Tel: (011) 380-8060 Issue No.: 03 Date of Issue: 03 Date of Issue: 30 November 2021 E-mail: jkirkland@testo.co.za Expiry Date: 23 August 2025 Tel: MEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENT RANGE OF MEASURED QUANTITY CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED S AN UNCERTAINTY (±) METHOD / PROCEDURE 4 GASES | Cnr Braambos and Monument Road | | | | | |
| 1619 Postal Address: Suite 42, Private Bag 7 Aston Manor Kempton Park Tel: (011) 380-8060 Fax: 086-514-9030 Issue No.: 03 Date of Issue: 30 November 2021 Expiry Date: 23 August 2025 Temail: jkirkland@testo.co.za Issue No.: 03 Date of Issue: 30 November 2021 Expiry Date: 23 August 2025 TEM MEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENT METHOD / PROCEDURE 4 Calibration of Gas Analyser 1.1 Oxygen (O2 in N2) 0 to 3 % mol/mol 0,10 % mol/mol Calibration of Gas Analyser 1.1 Oxygen (O2 in N2) 0 to 3 % mol/mol 0,10 % mol/mol Calibration of Gas Analyser 1.1 Oxygen (O2 in N2) 0 to 3 % mol/mol 0,10 % mol/mol Calibration by the application of Class I or II calibration gas mixtures through the measurement range of the Analyzer. 1.2 Carbon Monoxide (NO in N2) 10 to 100 µmol/mol 1,0 % Calibration of Gas Analyser 1.4 Nitrogen Monoxide (NO in N2) Colspan="2">Calibration of Class I or II calibration gas mixtures through the measurement range of the Analyzer. 1.1 <th colspa<="" td=""><td colspan="2">Glen Marais</td><td></td><td></td><td></td></th> | <td colspan="2">Glen Marais</td> <td></td> <td></td> <td></td> | Glen Marais | | | | |
| Mominated Representative: Mr J Kirkland Suite 42, Private Bag 7 Aston Manor Nominated Representative: Mr J Kirkland Kempton Park Suite 42, Private Bag 7 Aston Manor Issue No.: 03 Tel: (011) 380-8060 Issue No.: 03 Fax: 086-514-9030 Date of Issue: 30 November 2021 E-mail: jkirkland@testo.co.za Date of Issue: 23 August 2025 Item MEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENT RANGE OF MEASURED QUANTITY CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±) METHOD / PROCEDURE 4 GASES | Kempton Park | | | | | |
| Suite 42, Private Bag 7 Aston Manor Kempton Park Issue No.:: 03 Tel: (011) 380-8060 Fax: 086-514-9030 Date of Issue: 30 November 2021 E-mail: jkirkland@testo.co.za Date of Issue: 30 November 2021 E-mail: jkirkland@testo.co.za Date of Issue: 30 November 2021 ITEM MEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENT RANGE OF MEASURED QUANTITY CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±) METHOD / PROCEDURE 4 GASES | | | | | | |
| Suite 42, Private Bag 7 Aston Manor Kempton Park Issue No.:: 03 Tel: (011) 380-8060 Fax: 086-514-9030 Date of Issue: 30 November 2021 E-mail: jkirkland@testo.co.za Date of Issue: 30 November 2021 E-mail: jkirkland@testo.co.za Date of Issue: 30 November 2021 ITEM MEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENT RANGE OF MEASURED QUANTITY CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±) METHOD / PROCEDURE 4 GASES | | | | | | |
| Aston Manor Kempton Park Issue No.:: 03 Tel: (011) 380-8060 Issue No.:: 03 Fax: 086-514-9030 Date of Issue: 30 November 2021 E-mail: ikirkland@testo.co.za Date of Issue: 30 November 2021 ITEM MEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENT RANGE OF MEASURED QUANTITY CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±) METHOD / PROCEDURE 4 GASES | Postal Address: | | Nominated Representative: Mr J K | | Kirkland | |
| Kempton Park Issue No.: 03 Tel: (011) 380-8060 Date of Issue: 30 November 2021 Fax: 086-514-9030 Expiry Date: 23 August 2025 Itemail: ikirkland@testo.co.za Kirkland@testo.co.za MEASURED QUANTITY CAPABILITY EXPRESSED AS AN UNCERTAINTY (±) METHOD / PROCEDURE Itemail: MEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENT RANGE OF MEASURED QUANTITY CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±) METHOD / PROCEDURE 4 GASES Calibration of Gas Analy= | Suite 42 | 2, Private Bag 7 | | | | |
| Tel:(011) 380-8060 086-514-9030Issue No.:03 Date of Issue:30 November 2021 30 November 2021E-mail:jkirkland@testo.co.zaDate of Issue:30 November 2021 23 August 2025ITEMMEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENTRANGE OF MEASURED QUANTITYCALIBRATION AND MEASUREMENT CAPABILITY EXPRESSEDMETHOD / PROCEDURE4GASES4.4Calibration of Gas Analysers1.1Oxygen (O2 in N2)0 to 3 % mol/mol 3 to 18 % mol/mol0,03 % mol/mol 0,10 % mol/molCalibration by the application of Class I or II calibration gas mixtures through the measurement range of the Analyzer.Calibration by the application of Class I or II calibration gas mixtures through the measurement range of the Analyzer.1.4Nitrogen Dioxide (NO in N2)0 to 100 µmol/mol 100 to 1000 µmol/mol 100 to 1000 µmol/mol 1,0 %2,0 % 1,0 %Calibration by the application of Class I or II calibration gas mixtures through the measurement range of the Analyzer.1.5Sulphur Dioxide (SO2 in N2)0 to 5 % mol/mol 100 to 1000 µmol/mol 100 to 1000 µmol/mol2,0 % 1,0 %1.6Carbon Dioxide (CO in N2)0 to 5 % mol/mol 0,1 % mol/mol0,1 % mol/mol 0,2 % mol/molAnalyzer. | Aston N | lanor | | | | |
| Fax: 086-514-9030 [kirkland@testo.co.za] Date of Issue: 30 November 2021 23 August 2025 ITEM MEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENT RANGE OF MEASURED QUANTITY CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±) METHOD / PROCEDURE 4 GASES Calibration of Gas Analysers METHOD / OR 100 to 100 µmol/mol On 3 % mol/mol 0,03 % mol/mol On 3 % mol/mol 0,10 % mol/mol Analyzer 1.1 Oxygen (C2 in N2) 0 to 3 % mol/mol 3 to 18 % mol/mol 0,03 % mol/mol 0,10 % mol/mol Analyzer 1.2 Carbon Monoxide (CO in N2) 0 to 100 µmol/mol 100 to 1 000 µmol/mol 2,0 % 100 to 1 000 µmol/mol Calibration by the application of Class I or II calibration gas mixtures through the measurement range of the Analyzer. 1.4 Nitrogen Dioxide (NO zin N2) 0 to 100 µmol/mol 100 to 1 000 µmol/mol 2,0 % 1,0 % Calibration by the application of Class I or II calibration gas mixtures through the measurement range of the Analyzer. 1.5 Sulphur Dioxide (NO zin N2) 0 to 100 µmol/mol 100 to 1 000 µmol/mol 0,1 % mol/mol 0,2 % mol/mol 1.6 Carbon Dioxide (CO ni N2) 0 to 5 % mol/mol 0 to 5 % mol/mol 0,2 % mol/mol 0,2 % mol/mol <td>Kempto</td> <td>n Park</td> <td></td> <td></td> <td></td> <td></td> | Kempto | n Park | | | | |
| Fax: 086-514-9030 [kirkland@testo.co.za] Date of Issue: 30 November 2021 23 August 2025 ITEM MEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENT RANGE OF MEASURED QUANTITY CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±) METHOD / PROCEDURE 4 GASES Calibration of Gas Analysers METHOD / OR 100 to 100 µmol/mol On 3 % mol/mol 0,03 % mol/mol On 3 % mol/mol 0,10 % mol/mol Analyzer 1.1 Oxygen (C2 in N2) 0 to 3 % mol/mol 3 to 18 % mol/mol 0,03 % mol/mol 0,10 % mol/mol Analyzer 1.2 Carbon Monoxide (CO in N2) 0 to 100 µmol/mol 100 to 1 000 µmol/mol 2,0 % 100 to 1 000 µmol/mol Calibration by the application of Class I or II calibration gas mixtures through the measurement range of the Analyzer. 1.4 Nitrogen Dioxide (NO zin N2) 0 to 100 µmol/mol 100 to 1 000 µmol/mol 2,0 % 1,0 % Calibration by the application of Class I or II calibration gas mixtures through the measurement range of the Analyzer. 1.5 Sulphur Dioxide (NO zin N2) 0 to 100 µmol/mol 100 to 1 000 µmol/mol 0,1 % mol/mol 0,2 % mol/mol 1.6 Carbon Dioxide (CO ni N2) 0 to 5 % mol/mol 0 to 5 % mol/mol 0,2 % mol/mol 0,2 % mol/mol <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> | | | | | | |
| E-mail:[kirkland@testo.co.zaExpiry Date:23 August 2025ITEMMEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENTRANGE OF MEASURED QUANTITYCALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±)METHOD / PROCEDURE4GASES4.4Calibration of Gas Analysers1.1Oxygen (Co in N2)0 to 3 % mol/mol 3 to 18 % mol/mol0,03 % mol/mol 0,03 % mol/mol1.2Carbon Monoxide (CO in N2)0 to 100 µmol/mol 100 to 1000 µmol/mol2,0 % 100 to 1000 µmol/mol1.3Nitrogen Monoxide (NO in N2)0 to 10 µmol/mol 100 to 1000 µmol/mol2,0 % 100 to 1000 µmol/mol1.4Nitrogen Dioxide (NO in N2)0 to 10 µmol/mol 100 to 1000 µmol/mol1.4Sulphur Dioxide (NO in N2)0 to 100 µmol/mol 100 to 1000 µmol/mol1.5Sulphur Dioxide (NO in N2)0 to 100 µmol/mol 100 to 1000 µmol/mol1.6Carbon Dioxide (CO ni N2)0 to 5 % mol/mol 0,1 % mol/mol1.6Carbon Dioxide (CO ni N2)0 to 5 % mol/mol 0,1 % mol/mol1.6Carbon Dioxide (CO ni N2)0 to 5 % mol/mol 0,1 % mol/mol1.6Carbon Dioxide (CO ni N2)0 to 5 % mol/mol 0,1 % mol/mol | Tel: | (011) 380-8060 | | Issue No.: | 03 | |
| ITEMMEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENTRANGE OF MEASURED QUANTITYCALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±)METHOD / PROCEDURE4GASES4.4Calibration of Gas Analysers1.1Oxygen (O2 in N2)0 to 3 % mol/mol 3 to 18 % mol/mol 100 to 1 000 µmol/mol0,03 % mol/mol 0,10 % mol/mol1.2Carbon Monoxide (CO in N2)0 to 100 µmol/mol 100 to 1 000 µmol/mol2,0 % 1,0 %1.3Nitrogen Monoxide (NO2 in N2)0 to 100 µmol/mol 100 to 1 000 µmol/mol2,0 % 1,0 %1.4Nitrogen Dioxide (SO2 in N2)0 to 100 µmol/mol 100 to 1 000 µmol/mol2,0 % 1,0 %Calibration by the application of Class I or II calibration gas mixtures through the measurement range of the Analyzer.1.5Sulphur Dioxide (SO2 in N2)0 to 5 % mol/mol 100 to 1 000 µmol/mol 1,0 %0,1 % mol/mol 1,0 %Analyzer. | Fax: | 086-514-9030 | | Date of Issue: | 30 No | ovember 2021 |
| ITEMMEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENTRANGE OF MEASURED QUANTITYMEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±)METHOD / PROCEDURE4GASES4.4Calibration of Gas Analysers1.1Oxygen (O2 in N2)0 to 3 % mol/mol 3 to 18 % mol/mol0,03 % mol/mol 0,10 % mol/mol1.2Carbon Monoxide (CO in N2)0 to 100 µmol/mol 100 to 1 000 µmol/mol2,0 % 100 to 1 000 µmol/mol1.3Nitrogen Monoxide (NO in N2)0 to 100 µmol/mol 100 to 1 000 µmol/mol2,0 % 100 to 1 000 µmol/mol1.4Nitrogen Dioxide (NO2 in N2)0 to 100 µmol/mol 100 to 1 000 µmol/mol2,0 % 1,0 %Calibration by the application of Class I or II calibration gas mixtures through the measurement range of the Analyzer.1.5Sulphur Dioxide (SO2 in N2)0 to 5 % mol/mol 100 to 1 000 µmol/mol2,0 % 1,0 %1.6Carbon Dioxide (CO ni N4)0 to 5 % mol/mol 0,1 % mol/mol0,1 % mol/mol 0,2 % mol/mol | E-mail: jkirkland@testo.co.za | | Expiry Date: | 23 Au | 23 August 2025 | |
| ITEMMEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENTRANGE OF MEASURED QUANTITYMEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±)METHOD / PROCEDURE4GASES4.4Calibration of Gas Analysers1.1Oxygen (O ₂ in N ₂)0 to 3 % mol/mol 3 to 18 % mol/mol0,03 % mol/mol 0,10 % mol/mol1.2Carbon Monoxide (CO in N ₂)0 to 100 µmol/mol 100 to 1 000 µmol/mol2,0 % 1,0 %1.3Nitrogen Monoxide (NO in N ₂)0 to 100 µmol/mol 100 to 1 000 µmol/mol2,0 % 1,0 %Calibration by the application of Class I or II calibration gas mixtures through the measurement range of the Analyzer.1.4Sulphur Dioxide (SO ₂ in N ₂)0 to 100 µmol/mol 100 to 1 000 µmol/mol2,0 % 1,0 %Calibration by the application of Class I or II calibration gas mixtures through the measurement range of the Analyzer.1.6Carbon Dioxide (CO in N ₂)0 to 5 % mol/mol 100 to 1 000 µmol/mol0,1 % mol/mol 1,0 % | | | 1 | | | - |
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| 1.2 (CO in N2)100 to 1 000 μ mol/mol1,0 %Calibration by the application of Class I or II calibration gas mixtures through the measurement range of the Analyzer. 1.3 Nitrogen Monoxide (NO in N2)0 to 100 μ mol/mol2,0 %Calibration by the application of Class I or II calibration gas mixtures through the measurement range of the Analyzer. 1.4 Nitrogen Dioxide (NO2 in N2)0 to 100 μ mol/mol2,0 %Mitto 2,0 % 1.5 Sulphur Dioxide (SO2 in N2)0 to 100 μ mol/mol2,0 %Analyzer. 1.6 Carbon Dioxide (CO-r in Na)0 to 5 % mol/mol 5 to 15 % mol/mol0,1 % mol/mol 0,2 % mol/molAnalyzer. | 4 | OR TYPE OF GAUGE OR INSTRUMENT GASES Calibration of Gas Analyse Oxygen | QU/ ers 0 to 3 | % mol/mol | MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±) 0,03 % mol/mol | PROCEDURE |
| 1.3Nitrogen Monoxide (NO in N2)0 to 100 μmol/mol 100 to 1 000 μmol/mol2,0 % 1,0 %Calibration by the application of Class I or II calibration gas mixtures through the measurement range of the Analyzer.1.4Nitrogen Dioxide (NO2 in N2)0 to 100 μmol/mol 10 to 100 μmol/mol2,0 % 1,0 %Calibration by the application of Class I or II calibration gas mixtures through the measurement range of the Analyzer.1.5Sulphur Dioxide (SO2 in N2)0 to 100 μmol/mol 100 to 1 000 μmol/mol2,0 % 1,0 %Analyzer.1.6Carbon Dioxide (CO- in Ne)0 to 5 % mol/mol 5 to 15 % mol/mol0,1 % mol/mol 0,2 % mol/mol0,1 % mol/mol 0,2 % mol/mol | 4 | OR TYPE OF GAUGE OR INSTRUMENT GASES Calibration of Gas Analyse Oxygen (O ₂ in N ₂) | QU/ ers 0 to 3 3 to 18 | ANTITY % mol/mol 3 % mol/mol | MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±) 0,03 % mol/mol 0,10 % mol/mol | PROCEDURE |
| 1.3 (NO in N ₂) 100 to 1 000 μmol/mol 1,0 % of Class I or II calibration gas mixtures through the measurement range of the Analyzer. 1.4 Nitrogen Dioxide (NO ₂ in N ₂) 0 to 100 μmol/mol 2,0 % mixtures through the measurement range of the Analyzer. 1.5 Sulphur Dioxide (SO ₂ in N ₂) 0 to 100 μmol/mol 2,0 % Analyzer. 1.6 Carbon Dioxide (CO ₂ in N ₂) 0 to 5 % mol/mol 0,1 % mol/mol Analyzer. | 4 4.4 1.1 | OR TYPE OF GAUGE OR INSTRUMENT GASES Calibration of Gas Analys Oxygen (O ₂ in N ₂) Carbon Monoxide | QU/ ers 0 to 3 3 to 18 0 to 10 | ANTITY % mol/mol 3 % mol/mol 00 μmol/mol | MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±) 0,03 % mol/mol 0,10 % mol/mol 2,0 % | PROCEDURE |
| 1.4 Nitrogen Dioxide (NO ₂ in N ₂) 0 to 10 μmol/mol 10 to 100 μmol/mol 2,0 % 1,0 % mixtures through the measurement range of the Analyzer. 1.5 Sulphur Dioxide (SO ₂ in N ₂) 0 to 100 μmol/mol 100 to 1 000 μmol/mol 2,0 % 1,0 % Analyzer. 1.6 Carbon Dioxide (COre in N ₂) 0 to 5 % mol/mol 5 to 15 % mol/mol 0,1 % mol/mol 0,2 % mol/mol 0,1 % mol/mol | 4 4.4 1.1 | OR TYPE OF GAUGE OR INSTRUMENT GASES Calibration of Gas Analyse Oxygen (O ₂ in N ₂) Carbon Monoxide (CO in N ₂) | QU/ ers 0 to 3 3 to 18 0 to 10 100 to 1 | ANTITY % mol/mol 3 % mol/mol 00 μmol/mol 000 μmol/mol | MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±) 0,03 % mol/mol 0,10 % mol/mol 2,0 % 1,0 % | PROCEDURE |
| 1.4 (NO ₂ in N ₂) 10 to 100 μmol/mol 1,0 % measurement range of the Analyzer. 1.5 Sulphur Dioxide (SO ₂ in N ₂) 0 to 100 μmol/mol 2,0 % Analyzer. 1.6 Carbon Dioxide (CO ₂ in N ₂) 0 to 5 % mol/mol 0,1 % mol/mol Analyzer. | 4 4.4 1.1 1.2 | OR TYPE OF GAUGE OR INSTRUMENT GASES Calibration of Gas Analyse Oxygen (O ₂ in N ₂) Carbon Monoxide (CO in N ₂) Nitrogen Monoxide | QU/ ers 0 to 3 3 to 18 0 to 10 100 to 1 0 to 10 | ANTITY % mol/mol 3 % mol/mol 00 μmol/mol 000 μmol/mol 000 μmol/mol | MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±) 0,03 % mol/mol 0,10 % mol/mol 2,0 % 1,0 % 2,0 % | Calibration by the application |
| 1.5 Sulphur Dioxide (SO ₂ in N ₂) 0 to 100 μmol/mol 100 to 1 000 μmol/mol 2,0 % 1.6 (SO ₂ in N ₂) 100 to 1 000 μmol/mol 1,0 % 1.6 Carbon Dioxide (CO ₂ in N ₂) 0 to 5 % mol/mol 0,1 % mol/mol 1.6 Carbon Dioxide (CO ₂ in N ₂) 5 to 15 % mol/mol 0,2 % mol/mol | 4 4.4 1.1 1.2 1.3 | OR TYPE OF GAUGE OR INSTRUMENT GASES Calibration of Gas Analyse Oxygen (O ₂ in N ₂) Carbon Monoxide (CO in N ₂) Nitrogen Monoxide (NO in N ₂) | QU/ ers 0 to 3 3 to 18 0 to 10 100 to 1 0 to 10 100 to 1 | ANTITY % mol/mol 3 % mol/mol 00 μmol/mol 000 μmol/mol 00 μmol/mol 000 μmol/mol | MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±) 0,03 % mol/mol 0,10 % mol/mol 2,0 % 1,0 % 2,0 % 1,0 % | Calibration by the application of Class I or II calibration gas |
| (SO ₂ in N ₂) 100 to 1 000 μmol/mol 1,0 % 1.6 Carbon Dioxide 0 to 5 % mol/mol 0,1 % mol/mol 1.6 Corbon Dioxide 5 to 15 % mol/mol 0,2 % mol/mol | 4 4.4 1.1 1.2 1.3 | OR TYPE OF GAUGE OR INSTRUMENT GASES Calibration of Gas Analyse Oxygen (O ₂ in N ₂) Carbon Monoxide (CO in N ₂) Nitrogen Monoxide (NO in N ₂) Nitrogen Dioxide | QU/ ers 0 to 3 3 to 18 0 to 10 100 to 1 0 to 10 100 to 1 0 to 10 | % mol/mol 3 % mol/mol 00 μmol/mol 000 μmol/mol 00 μmol/mol | MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±) 0,03 % mol/mol 0,10 % mol/mol 2,0 % 1,0 % 2,0 % 1,0 % 2,0 % | Calibration by the application of Class I or II calibration gas mixtures through the measurement range of the |
| 1.6 Consider 5 to 15 % mol/mol 0,2 % mol/mol | 4 4.4 1.1 1.2 1.3 1.4 | OR TYPE OF GAUGE OR INSTRUMENT GASES Calibration of Gas Analys Oxygen (O ₂ in N ₂) Carbon Monoxide (CO in N ₂) Nitrogen Monoxide (NO in N ₂) Nitrogen Dioxide (NO ₂ in N ₂) Sulphur Dioxide | QU/ ers 0 to 3 3 to 18 0 to 10 100 to 1 0 to 10 100 to 1 0 to 1 0 to 1 0 to 1 0 to 10 | % mol/mol 3 % mol/mol 3 % mol/mol 00 µmol/mol | MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±) 0,03 % mol/mol 0,10 % mol/mol 2,0 % 1,0 % 2,0 % 1,0 % 2,0 % 1,0 % 2,0 % | Calibration by the application of Class I or II calibration gas mixtures through the measurement range of the |
| | 4 4.4 1.1 1.2 1.3 1.4 | OR TYPE OF GAUGE OR INSTRUMENT GASES Calibration of Gas Analys Oxygen (O ₂ in N ₂) Carbon Monoxide (CO in N ₂) Nitrogen Monoxide (NO in N ₂) Nitrogen Dioxide (NO ₂ in N ₂) Sulphur Dioxide | QU/ ers 0 to 3 3 to 18 0 to 10 100 to 1 0 to 10 100 to 1 0 to 10 10 to 10 10 to 10 10 to 10 | % mol/mol 3 % mol/mol 3 % mol/mol 00 µmol/mol 000 µmol/mol 000 µmol/mol 000 µmol/mol 00 µmol/mol | MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±) 0,03 % mol/mol 0,10 % mol/mol 2,0 % 1,0 % 2,0 % 1,0 % 2,0 % 1,0 % | Calibration by the application of Class I or II calibration gas mixtures through the measurement range of the |
| | 4 4.4 1.1 1.2 1.3 1.4 1.5 | OR TYPE OF GAUGE OR INSTRUMENT GASES Calibration of Gas Analyse Oxygen Oxygen (O2 in N2) Carbon Monoxide CCO in N2) Nitrogen Monoxide (NO in N2) Nitrogen Dioxide Nitrogen Dioxide (NO2 in N2) Sulphur Dioxide (SO2 in N2) | QU/ ers 0 to 3 3 to 18 0 to 10 100 to 1 0 to 10 100 to 1 10 to 1 0 to 10 100 to 1 0 to 10 100 to 1 0 to 10 100 to 1 0 to 5 | % mol/mol 3 % mol/mol 00 μmol/mol 000 μmol/mol 000 μmol/mol 00 μmol/mol | MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±) 0,03 % mol/mol 0,10 % mol/mol 2,0 % 1,0 % 2,0 % 1,0 % 2,0 % 1,0 % 2,0 % 1,0 % 0,1 % mol/mol | Calibration by the application of Class I or II calibration gas mixtures through the measurement range of the |

Original Date of Accreditation: 21 February 2019

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The CMC, expressed as an expanded uncertainty of measurement, is stated as the standard uncertainty of measurement multiplied by a coverage factor k = 2, corresponding to a confidence level of approximately 95%

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