



Australian Government
**Department of Industry, Science,
Energy and Resources**

National Measurement Institute

36 Bradfield Road, West Lindfield NSW 2070

Certificate of Approval No 16/1/3

Issued by the Chief Metrologist under Regulation 60
of the
National Measurement Regulations 1999

This is to certify that an approval for use as legal measuring instruments has been granted in respect of the instruments herein described.

Dräger Model Alcotest 9510 AUS Portable Evidential Breath Analyser

submitted by Draeger Australia Pty Ltd
 (formerly Draeger Safety Pacific Pty Ltd)
 8 Acacia Place
 Notting Hill VIC 3168.

This Certificate does NOT grant approval for use for trade.

NOTE: This Certificate relates to the suitability of the pattern of the instrument for use as a legal measuring instrument only in respect of its metrological characteristics. This Certificate does not constitute or imply any guarantee of compliance by the manufacturer or any other person with any requirements regarding safety.

Pattern approval testing was carried out in accordance with NMI R126, *Pattern approval specifications for evidential breath analysers*, dated July 2013.

This approval is subject to review at the decision of the Chief Metrologist in accordance with the conditions specified in the document NMI P 106.

DOCUMENT HISTORY

| Rev | Reason/Details | Date |
|------------|---|-------------|
| 0 | Pattern approved – interim certificate issued | 12/12/08 |
| 1 | Pattern approved – certificate issued | 9/03/10 |
| 2 | Pattern amended (Table 1) & updated – certificate issued | 13/09/12 |
| 3 | Pattern reviewed & amended (Table 1) & updated – certificate issued | 25/06/15 |
| 4 | Pattern amended (submitter address & Table 1) – certificate issued | 28/06/16 |
| 5 | Pattern amended (Table 1 corrected) – certificate issued | 4/08/16 |
| 6 | Pattern amended (Table 1 corrected) – certificate issued | 17/11/16 |

Document History (cont...)

| Rev | Reason/Details | Date |
|-----|--|----------|
| 7 | Pattern amended (Table 1 corrected) – certificate issued | 15/05/17 |
| 8 | Variant 1 approved – certificate issued | 20/07/17 |
| 9 | Pattern amended (Table 1 corrected) & variant 2 approved & submittor legal entity changed – certificate issued | 29/08/19 |
| 10 | Variant 3 approved – certificate issued | 23/06/21 |

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 16/1/3' and only by persons authorised by the submittor.

It is the submittor's responsibility to ensure that all instruments marked with this approval number are constructed as described in the documentation lodged with the National Measurement Institute (NMI) and with the relevant Certificate of Approval and Technical Schedule. Failure to comply with this Condition may attract penalties under Section 19B of the National Measurement Act and may result in cancellation or withdrawal of the approval, in accordance with document NMI P 106.

Auxiliary devices used with this instrument shall comply with the requirements of General Supplementary Certificates No S1/0/A or No S1/0B.

Special

Instruments shall be calibrated at intervals not exceeding twelve (12) months.

Signed by a person authorised by the Chief Metrologist to exercise their powers under Regulation 60 of the *National Measurement Regulations 1999*.

Darryl Hines
Manager
Policy and Regulatory Services

TECHNICAL SCHEDULE No 16/1/3

1. Description of Pattern

**approved on 12/12/08
amended on 29/08/19**

A Dräger model Alcotest 9510 AUS portable evidential breath analyser (Figure 1) used to automatically determine the mass concentration of alcohol (#) in exhaled breath for evidential purposes. The instrument is portable and may be used in any location. It is approved for the measurement of the grams of alcohol in 210 litres of exhaled breath, g/210L.

The model Alcotest 9510 AUS is fitted with a colour LCD touchscreen display/keyboard and an integral printer.

(#) For the purposes of this approval, all references to alcohol are taken to mean ethanol.

1.1 Field of Operation

The field of operation of the instrument is determined by the following characteristics:

- Measurement range 0 – 0.500 g/210 L
- Unit of measurement 0.001 g/210 L
- Ambient temperature range 0 – 40°C
- Power supply AC 110 – 240 V, 50 Hz
DC 12 V
- Storage temperature -10 – +70°C

1.2 Power Supply

Power supply may be either:

- Mains AC power (110 – 240 V AC, 50 Hz nominal); or.
- A stable DC supply (12 V nominal) or remote 12 V battery, e.g. car battery.

1.3 Display Check

A display check is initiated whenever the device is powered-up.

1.4 Interfaces

Instruments may be fitted with interfaces as follows:

- (a) Serial interfaces, e.g. two RS232 and three USB, for the connection of peripheral devices.
- (b) An Ethernet interface for data communication.
- (c) A modem interface for data communication.
- (d) A video port for an external monitor, screen or projector.
- (e) An IrDA port for an infrared wireless keyboard.
- (f) Any of the following keyboards may be connected to the pattern for convenient data entry:
 - a standard desktop keyboard;
 - a keyboard with magnetic strip reading equipment; or
 - an infrared wireless keyboard.

1.5 Software Versions and Configurations

(i) Instrument versions

Instruments for each region are identified by an instrument part number as listed in Table 1 below.

(ii) Software versions

For each region, instruments are fitted with Windows CE software and Dräger M16 measurement software as listed in Table 1 below.

(iii) Configuration

In addition to the above, for each region, instruments are fitted with configuration files as listed in Table 1 below, to meet the approval and local requirements.

The software and configuration versions are displayed by selecting 'Menu' and then 'About' on the touchscreen.

TABLE 1 – approved software versions, etc.

| Region | Instrument Part Number | Software | | | |
|-------------------|------------------------|-------------|---------|---------------|---------------|
| | | WinCE | M16 | Configuration | |
| VIC Police (2010) | 8320869 | Part Number | 8320012 | 8320011 | 8320013 |
| | | Version | 4.8.8 | 0.1 | 1.4 |
| | | Checksum | 0xCBEF | 0x767B | 0x7CF6 |
| VIC Police | 8320869 | Part Number | 8320012 | 8320011 | 8320013 |
| | | Version | 4.9.23 | 1.3 | 1.11 |
| | | Checksum | 0x2421 | 0x2AB4 | 0x66D0 |
| VIC Police | 8320869 | Part Number | 8320012 | 8320011 | 8320013 |
| | | Version | 4.9.24 | 1.3 | 1.11 |
| | | Checksum | 0x88AA | 0x2AB4 | 0x66D0 |
| TASPOL (2016) | 8320859 | Part Number | 8326076 | 8326077 | 8326075 |
| | | Version | 1.1 | 1.0 | 1.1 |
| | | Checksum | 0xDA86 | 0xCAF9 | 0x21C9/0x9D9D |
| TASPOL (2019) | 8320859 | Part Number | 8326076 | 8326077 | 8326075 |
| | | Version | 1.3 | 1.1 | 1.2 |
| | | Checksum | 0xB141 | 0xF72C | 0xCB8E/0x59BF |
| ACT Police (2015) | 8320857 | Part Number | 8324790 | 8324797 | 8320014 |
| | | Version | 1.0 | 1.1 | 1.3 |
| | | Checksum | 0xE8DB | 0x581B | 0x2B2F/0xC824 |
| ACTPOL (2019) | 8320857 | Part Number | 8324790 | 8324797 | 8320014 |
| | | Version | 1.2 | 1.2 | 1.4 |
| | | Checksum | 0x1754 | 0xF350 | 0x350E/0x9AE9 |
| NT Police (2016) | 8320868 | Part Number | 8326097 | 8326096 | 8320019 |
| | | Version | 1.0 | 1.0 | 1.1 |
| | | Checksum | 0x17F5 | 0xF81E | 0x51C1/0xFEA6 |

| | | | | | |
|-------------------------|----------------|-------------|---------|---------|---------------|
| WApol (2017) | 8325636 | Part Number | 8327197 | 8327196 | 8327195 |
| | | Version | 1.2 | 1.2 | 1.3 |
| | | Checksum | 0x7658 | 0x8971 | 0xD89A/0x916D |
| Industrial | 8320877 | Part Number | 8320012 | 8320011 | 8320021 |
| | | Version | 4.9.23 | 1.3 | 1.8 |
| | | Checksum | 0x2421 | 0x2AB4 | 0xF2 |

1.6 Sealing Provision

Provision is made for sealing the calibration adjustment after each calibration, as follows:

- Set the Verification ('Certification') Dates function to be not more than 12 months from the date of calibration.
- Remove the 'Service Plug'.
- A destructible adhesive label is then placed over the sealing plate to seal the calibration access port (Figure 2).

1.7 Certification Provision

Provision is made for the application of a certification mark.

1.8 Descriptive Markings

Instruments carry the following markings, on one or more nameplates:

| | |
|--|----------------------------------|
| Manufacturer's mark, or name written in full | Dräger Safety AG & Co. KGaA |
| Pattern approval mark for the indicator | NMI 16/1/3 |
| Serial number of the instrument | |
| Measurement range | 0 – 0.500 g/210 L |
| Unit of measurement | 0.001 g/210 L |
| Ambient temperature range | 0 – 40°C |
| Power supply: | 110 – 240 V AC, 50 Hz 12 V DC |
| Calibration interval | 1 year |

2. Description of Variant 1 **approved on 20/07/17**

The Dräger model Alcotest 9510 AUS portable evidential breath analyser which is similar to the pattern but fitted with an additional inactive flow sensor and alternative colour LCD touchscreen display/keyboard using LED-backlighting.

3. Description of Variant 2 **approved on 29/08/19**

The Dräger model Alcotest 9510 AUS portable evidential breath analyser which is similar to the pattern but fitted with an alternative absolute pressure sensor.

4. Description of Variant 3 **approved on 23/06/21**

The Dräger model Alcotest 9510 AUS portable evidential breath analyser which is similar to the pattern but fitted with alternative flash memory and without an IrDA port.

4.1 Software Versions and Configurations

Instruments for each region are identified by an instrument part number as listed in Table 2.

Instruments for each region are fitted with Windows CE 5.0 software, Dräger M16 measurement software and configuration files as listed in Table 2, to meet the approval and local requirements.

TABLE 2 – approved software versions, etc.

| Region | Instrument Part Number | Software | | | |
|------------------|------------------------|-------------|---------|---------------|--------------|
| | | WinCE | M16 | Configuration | |
| NT Police (2020) | 8320868 | Part Number | 8320120 | 8326096 | 8320019 |
| | | Version | 1.0 | 1.0 | 1.1 |
| | | Checksum | 0xD51F | 0xF81E | 0x51C1/0xFE6 |

TEST PROCEDURE No 16/1/3

Instruments shall comply with the requirements of, and should be tested in accordance with any relevant tests specified in, document NMI R126, *Pattern approval specifications for evidential breath analysers*, dated July 2004.

In addition, check the software version numbers. The version numbers are displayed by selecting 'Menu' and then 'About' on the touchscreen.

Maximum Permissible Errors at Certification

The maximum permissible errors for evidential breath analysers are:

(i) **at initial certification:**

±0.004 g/210 L for all mass concentrations of alcohol < 0.080 g/210 L;

±5% of the measured concentration of alcohol for all mass concentrations of alcohol ≥ 0.080 and ≤ 0.400 g/210 L; and

±20% of the measured concentration of alcohol for all mass concentrations of alcohol > 0.400 g/210 L.

(ii) **in service:**

±0.006 g/210 L for all mass concentrations of alcohol < 0.080 g/210 L;

±8% of the measured concentration of alcohol for all mass concentrations of alcohol ≥ 0.080 and ≤ 0.400 g/210 L; and

±30% of the measured concentration of alcohol for all mass concentrations of alcohol > 0.400 g/210 L.

FIGURE 16/1/3 – 1



Dräger Model Alcotest 9510 AUS Portable Evidential Breath Analyser

FIGURE 16/1/3 – 2



Dräger Model Alcotest 9510 AUS – Typical Sealing of Sealing Plate

~ End of Document ~