

Certificate of Conformity

Ex EQUIPMENT

Certificate No.: **ANZEx 17.3007**

Current Issue: 1

Date of Issue: 2023-04-27

Applicant: **Casella Holdings Limited**
Regent House
Wolseley Road
Kempston, Bedford MK42 7JY
United Kingdom

Equipment: APEX2 Personal Air Sampling Pump

Type of Explosion Protection: Intrinsic Safety "ia"

Explosion Protection Marking: Ex ia I Ma
Ex ia IIC T4 Ga
Ex ia IIIC T135°C Da
Ta = -20°C to +45°C

*This certificate is granted subject to the requirements as set out in
Joint Accreditation System of Australia and New Zealand Publications
ANZEx System Rules 2020 & ANZEx Certified Equipment Scheme Rules 2021*

Signed for and on behalf of issuing body



Name & Position

Ujen Singh - Manager, Quality & Certification

This certificate is not transferable and remains the property of the issuing body.

The status of this certificate can be confirmed through the database located at www.anzex.com.au

Certificate issued by:

TestSafe Australia
919 Londonderry Road, Londonderry NSW 2753 Australia

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Manufacturer: **Casella Holdings Limited**
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Kempston, Bedford MK42 7JY
United Kingdom

**Additional
Manufacturing
Location(s):** None

STANDARDS:

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0: 2017 Explosive atmospheres - Part 0: Equipment – General requirements

IEC 60079-11: 2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

This Certificate does not indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

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Schedule

Equipment Description:

The APEX2 Personal Air Sampling Pump is used to take samples of airborne materials or toxic contaminants. It is a portable device usually carried on a human body (attached to clothes). It is a battery operated self-contained device housed within an anti-static enclosure. The pump is designed to provide a stable controlled flow rate of approximately 0.5 to 5 litre/min such that a known volume of air is passed through a passive sampling head and filter medium.

Airborne materials are collected onto a filter substrate and are subjected to mass or chemical analysis in a laboratory in order to establish a worker's exposure to potentially hazardous materials. Sampling pumps are typically worn on the user's belt and are connected to the sampling head via a short length of tube.

The equipment may only be charged in the safe area with either:

1. APEX2/IS 5L Pump Five way Charger
2. APEX2/IS 5L Pump Single Way Charger

Electrical Ratings/Parameters

The charger must be supplied from a SELV source with $U_m = 63 \text{ V}$

These chargers have an output of:

$U_m = 14.5 \text{ V}$

$I_{max} = 850 \text{ mA}$

When connected to a USB in the safe area:

$U_m = 5.9 \text{ V}$

$I_{max} = 85 \text{ mA}$

Specific Conditions of Use:

None.

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Register of Issues and Variations

includes the current issue

Issue 0 dated 2017-10-11

Test & Assessment Reports relevant for this issue:

TR No. & Issuing CBs: GB/CML/ExTR 16.0085/00, GB/CML/ExTR 17.0158/00, CML
 QAR No. & Issuing CB: GB/SIR/QAR 10.0002/06, Sira.
 File Reference: 2017/005784

Standards relevant for this issue:

IEC 60079-0: 2011 Explosive atmospheres - Part 0: Equipment – General requirements

IEC 60079-11: 2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety “i”

Manufacturer's Documents/Drawings associated with this issue:

| Document/Drawing Number | Pages / Sheets | Document/Drawing Title | Revision | Date |
|-------------------------|----------------|---|----------|------------|
| 04-209140D/IS | 1 | APEX2/IS Case Body G/A | 02 | 2017-04-04 |
| 03-209147C/IS | 1 | APEX2/IS - Battery Pack S/A | 02 | 2017-04-03 |
| 93-209148C/IS | 1 | APEX2/IS 5L Pump Battery Pack PCB CCT Diagram | 06 | 2017-05-23 |
| 05-209150B/IS | 1 | APEX2/IS 5L Pump Battery Pack PCB S/A Parts List | 06 | 2017-05-23 |
| 02-209149B/IS | 1 | APEX2/IS 5L Pump Battery Pack PCB Profile & Drilled | 03 | 2017-05-23 |
| 05-209150B/IS | 1 | APEX2/IS 5L Pump Battery Pack PCB S/A (Layout) | 06 | 2017-05-23 |
| 93-209141D/IS | 2 | APEX2/IS 5L Pump Circuit Diagram (Main PCB Schematic) | 05 | 2017-05-22 |
| 05-209143C/IS | 2 | APEX2/IS 5L Pump Main PCB S/A (Main PCB Parts List) | 07 | 2017-04-03 |
| 02-209142C/IS | 1 | APEX2/IS 5L Pump Main PCB Profile & Drilled | 06 | 2016-11-04 |
| 05-209143C/IS | 1 | APEX2/IS 5L Pump Main PCB S/A (Layout) | 07 | 2017-05-22 |
| 93-209144C/IS | 1 | APEX2/IS 5L Pump Display PCB CCT Diagram | 03 | 2017-04-03 |
| 05-209146B/IS | 1 | APEX2/IS 5L Pump Display PCB S/A (Parts List) | 05 | 2017-04-03 |
| 02-209145B/IS | 1 | APEX2/IS 5L Pump Display PCB Profile & Drilled | 02 | 2016-05-18 |
| 05-209146B/IS | 1 | APEX2/IS 5L Pump Display PCB S/A (Layout) | 05 | 2017-04-03 |
| 04-209152B/IS | 1 | APEX2/IS – 1- Way Charging Unit G/A | 02 | 2017-08-17 |
| 93-209153B/IS | 1 | APEX2/IS 5L Pump Single Charging Unit Circuit Diagram | 03 | 2017-08-16 |
| 05-209155B/IS | 1 | APEX2/IS 5L Pump Single Charging Unit PCB S/A (Parts List) | 02 | 2017-08-15 |

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|--------------------------|----------------|--|----------|------------|
| 02-209154B/IS | 1 | APEX2/IS 5L Pump Single Charging Unit PCB Prof & Drill | 01 | 2016-05-25 |
| 05-209155B/IS | 1 | APEX2/IS 5L Pump Single Charging Unit PCB S/A (Layout) | 02 | 2017-08-16 |
| 04-209156C/IS | 1 | APEX2/IS – 5-Way Charging Unit G/A | 02 | 2017-08-17 |
| 93-209157B/IS | 1 | APEX2/IS 5L Pump Five Way Charging Unit Circuit Diagram | 03 | 2017-08-16 |
| 05-209159C/IS | 1 | APEX2/IS 5L Pump Five Way Charging Unit PCB S/A (Parts List) | 02 | 2017-08-16 |
| 02-209158C/IS | 1 | APEX2/IS 5L Pump Five Way Charging Unit PCB Prof & Drill | 01 | 2016-05-27 |
| 05-209159C/IS | 1 | APEX2/IS 5L Pump Five Way Charging Unit PCB S/A (Layout) | 02 | 2017-08-16 |
| 09-209065B/IS | 1 | APEX2/IS - Main PCB Potting Frame | 01 | 2016-09-05 |
| 09-209151B/IS | 1 | APEX2/IS - Display PCB Potting Box | 01 | 2016-09-05 |
| 13-209161A/IS (ANZEx) | 1 | APEX2/IS – Information/SN Label (ANZEx) | 01 | 2017-09-07 |
| PS16/IS | 1 | Apex2 Pump Intrinsically Safe Versions (IS Information Sheet) | 02 | - |

Issue 1 (Current Issue, 2023-04-27)

Variations Permitted by this Issue

- Changed company name from Casella (Ideal Industries Ltd) to Casella Holdings Limited.
- Updated the standard.
- Change to connector type
- Alternative CTI for all PCB's
- Change to ICs to incorporate alternatives
- Change to transistors to allow for alternatives
- Changes to component references in the BoM
- Introduction of Barometric pressure sensor
- Changes to battery pack PCB
- Introduction of Prismatic cell.
- Additional safety components added.
- Change to the component marking of non-safety-related components

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TR No. & Issuing CBs: GB/CML/ExTR21.0247/00, GB/CML/ExTR22.0058/00, GB/CML/ExTR22.0135/00

QAR No. & Issuing CB: GB/SIR/QAR 10.0002/12, Sira.

File Reference: 2022/017687

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| Document/Drawing Number | Pages / Sheets | Document/Drawing Title | Revision | Date |
|-------------------------|----------------|---|----------|------------|
| 04-209140D/IS | 1 | *APEX2/I.S – Case Body G/A | 04 | 2022-05-12 |
| 03-209147C/IS | 1 | APEX2/IS - Battery Pack S/A | 02 | 2017-04-03 |
| 93-209148C/IS | 1 | APEX2/IS 5L Pump Battery Pack PCB CCT Diagram | 06 | 2017-05-23 |
| 05-209150B/IS | 1 | APEX2/IS 5L Pump Battery Pack PCB S/A Parts List | 06 | 2017-05-23 |
| 02-209149B/IS | 1 | APEX2/IS 5L Pump Battery Pack PCB Profile & Drilled | 03 | 2017-05-23 |
| 05-209150B/IS | 1 | APEX2/IS 5L Pump Battery Pack PCB S/A (Layout) | 06 | 2017-05-23 |
| 93-209141D/IS | 2 | *APEX2/IS 5L Pump Circuit Diagram (Main PCB Schematic) | 07 | 2022-05-27 |
| 05-209143C/IS | 2 | *APEX2/IS 5L Pump Main PCB S/A (Main PCB Parts List) | 09 | 2022-05-25 |
| 02-209142C/IS | 1 | *APEX2/IS 5L Pump Main PCB Profile & Drilled | 08 | 2022-05-25 |
| 05-209143C/IS | 1 | *APEX2/IS 5L Pump Main PCB S/A (Layout) | 09 | 2022-05-25 |
| 93-209144C/IS | 1 | *APEX2/IS 5L Pump Display PCB CCT Diagram | 05 | 2022-05-24 |
| 05-209146B/IS | 1 | *APEX2/IS 5L Pump Display PCB S/A (Parts List) | 07 | 2022-05-24 |
| 02-209145B/IS | 1 | *APEX2/IS 5L Pump Display PCB Profile & Drilled | 04 | 2022-05-24 |
| 05-209146B/IS | 1 | *APEX2/IS 5L Pump Display PCB S/A (Layout) | 07 | 2022-05-24 |
| 04-209152B/IS | 1 | APEX2/IS – 1- Way Charging Unit G/A | 02 | 2017-08-17 |
| 93-209153B/IS | 1 | APEX2/IS 5L Pump Single Charging Unit Circuit Diagram | 03 | 2017-08-16 |
| 05-209155B/IS | 1 | APEX2/IS 5L Pump Single Charging Unit PCB S/A (Parts List) | 02 | 2017-08-15 |
| 02-209154B/IS | 1 | APEX2/IS 5L Pump Single Charging Unit PCB Prof & Drill | 01 | 2016-05-25 |
| 05-209155B/IS | 1 | APEX2/IS 5L Pump Single Charging Unit PCB S/A (Layout) | 02 | 2017-08-16 |

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| 04-209156C/IS | 1 | APEX2/IS – 5-Way Charging Unit G/A | 02 | 2017-08-17 |
| 93-209157B/IS | 1 | APEX2/IS 5L Pump Five Way Charging Unit Circuit Diagram | 03 | 2017-08-16 |
| 05-209159C/IS | 1 | APEX2/IS 5L Pump Five Way Charging Unit PCB S/A (Parts List) | 02 | 2017-08-16 |
| 02-209158C/IS | 1 | APEX2/IS 5L Pump Five Way Charging Unit PCB Prof & Drill | 01 | 2016-05-27 |
| 05-209159C/IS | 1 | APEX2/IS 5L Pump Five Way Charging Unit PCB S/A (Layout) | 02 | 2017-08-16 |
| 09-209065B/IS | 1 | APEX2/IS - Main PCB Potting Frame | 01 | 2016-09-05 |
| 09-209151B/IS | 1 | APEX2/IS - Display PCB Potting Box | 01 | 2016-09-05 |
| 13-209161A/IS (ANZEx) | 1 | APEX2/IS – Information/SN Label (ANZEx) | 01 | 2017-09-07 |
| PS16/IS | 1 | Apex2 Pump Intrinsically Safe Versions (IS Information Sheet) | 03 | - |
| 02-209192B/IS | 1 | *APEX2/IS 5L Pump Battery Pack PCB Profile & Drilled (Prismatic Cells) | 01 | 2022-05-12 |
| 03-209182C/IS | 1 | *APEX2/IS - Battery Pack S/A (Prismatic Cells) | 01 | 2021-12-07 |
| 05-209193B/IS | 1 | *APEX2/IS 5L Pump battery pack PCB S/A (Prismatic cells) | 01 | 2022-05-12 |
| 05-209193B/IS | 1 | *APEX2/IS 5L Pump Battery Pack PCB S/A (Prismatic cells) (Parts List) | 01 | 2022-05-12 |
| 09-209180B/IS | 1 | *APEX2/IS – Main PCB Potting Frame | 01 | 2022-06-28 |
| 93-209191C/IS | 1 | *APEX2/IS 5L Pump Battery pack PCB CCT Diagram (Prismatic cells) | 01 | 2022-05-12 |

*Note: An * is included before the title of documents that are new or revised.*