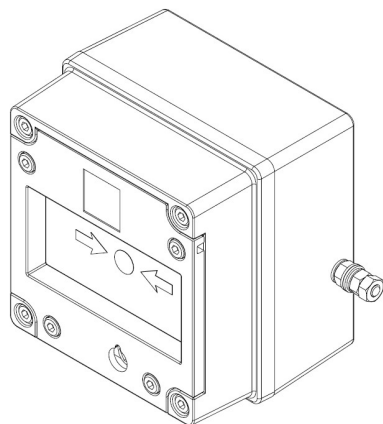


INSTRUCTION MANUAL

IS-CP4B-BG Break Glass Manual Call Point

For use in Flammable Gas Atmospheres

IS-CP4B-BG Manual Call Point – Break Glass With Resistor Modules For use in Flammable Gas and Combustible Dust Atmospheres.



1) Introduction

The IS-CP4B-BG is a breakglass manual call point which is certified intrinsically safe to the European and International Gas standards. The unit meets the requirements of the ATEX directive 2014/34/EU and IECEx scheme.

The call point can be used in hazardous areas where potentially flammable gas atmospheres may be present.

The IS-CP4B-BG has up to two monitoring resistors. The units are Group II, EPL (equipment protection level) Ga. The equipment is certified 'Ex ia IIC T4 Ga' and as such may be used in Zones 0, 1 and 2 with flammable gases and vapours with gas groups IIA, IIB & IIC and temperature classes T1, T2, T3 and T4.

The equipment needs to be installed with ATEX and/or IECEx certified Zener Barriers or Galvanic Isolators.

2) Marking

All units have a rating label, which carries the following important information:-


Unit Type No.:
IS-CP4B-BG Manual Call Point

Code:
Ex ia IIC T4 Ga
IP66


Ui=30V li=500mA Pi=1.1W Ci=0 Li=0

-40°C ≤ Ta ≤ +50°C

Certificate No.:
SIRA 09ATEX2287X
IECEX SIR 09.0122X
CSAE 21UKEX2555X

Epsilon x:  II 1G2D

CE Marking
Notified
Body No.  2813

UKCA Marking
Notified Body No.  0518

Year/Serial No. i.e. 10/1CP4BBG000001

**WARNING - DO NOT OPEN WHEN AN
EXPLOSIVE ATMOSPHERE MAY BE PRESENT**

3) Type Approval Standards

The beacon has an EC Type examination certificate issued by SIRA and have been approved to the following standards:-

EN IEC 60079-0:2018 / IEC 60079-0:2017
EN 60079-11:2012 / IEC 60079-11:2011
IEC 60079-26:2014

The equipment is certified for use in ambient temperatures in the range -40°C to +50°C and shall not be used outside this range.

4) Installation Requirements

Installation of this equipment shall only be carried out by suitably trained personnel in accordance with the applicable code of practice e.g. IEC 60079-14/EN 60079-14.

Repair of this equipment shall only be carried out by the manufacturer or in accordance with the applicable code of practice e.g. IEC 60079-19/EN 60079-19.

The certification of this equipment relies on the following materials used in its construction:

Enclosure: Aluminium Pressure Die Cast Body LM6

Through enclosure mechanism: Plastic Nylon Zytel Injection Moulded

Sealing of enclosure and mechanism: O-ring Acrylonitrile-Butadiene Rubber

If the equipment is likely to come into contact with aggressive substances, then it is the responsibility of the user to take suitable precautions that prevent it from being adversely affected, thus ensuring that the type of protection is not compromised.

"Aggressive substances" - e.g. acidic liquids or gases that may attack metals, or solvents that may affect polymeric materials.

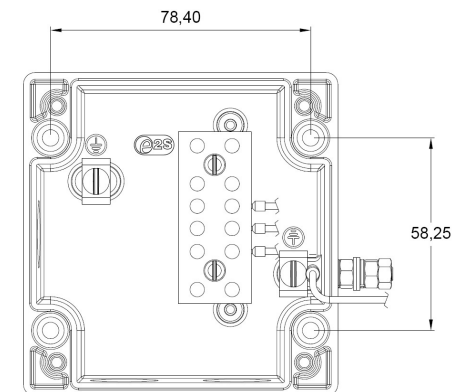
"Suitable precautions" - e.g. regular checks as part of routine inspections or establishing from the material's data sheet that it is resistant to specific chemicals.

Refer to certificates SIRA 09ATEX2287X and IECEx SIR 09.0122X for special conditions of safe use.

5) Call Point Location and Mounting

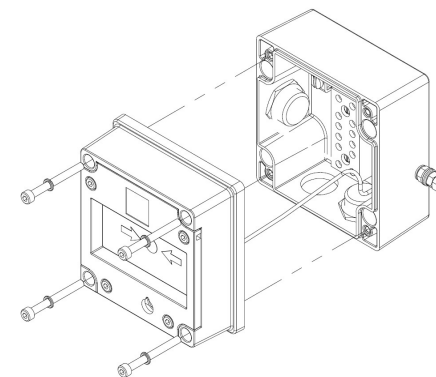
The location of the call point should enable ease of access for operation and testing. The unit should be mounted using the 4 off fixing holes which will accept up to M4 sized fixings.

When installing in Zone 0 applications, ensure that the equipment enclosure is protected from impact.



View of base unit showing fixing centres.

To gain access to the mounting holes in the base the front cover must be removed. This is achieved by removing the 4 off M4 cap head bolts holding on the cover.



Once the screws are removed the cover will hang down out of the way to gain access to the Ex e terminal block, the internal earth terminal and mounting hole recesses.

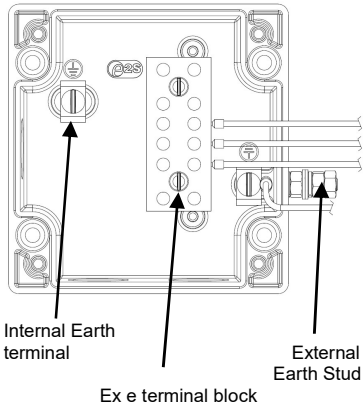
6) Earthing

The unit has both internal and external earth terminals.

It is recommended that a cable crimp lug is used on the earth wires.

The internal earth wire is placed under a earth clamp which will stop the cable twisting. This is secured by an M4 screw and spring washer.

The external earth lug should be located between the two M5 washers provided and securely locked down with the M5 spring washer and two locknuts.



7) Cable connections

There are 3 off cable entries for M20x1.5 cable glands or stopping plugs.

Cable glands or stopping plugs must be rated IP66.

The unit can be wired in a number of different ways depending on the resistor combination selected.

Option 1 – EOL (End of line) Resistor

Option 2 – Series (In line) resistor

Option 3 – Series and EOL resistors

The equipment needs to be installed with ATEX and/or IECEx certified Zener Barriers or Galvanic Isolators.

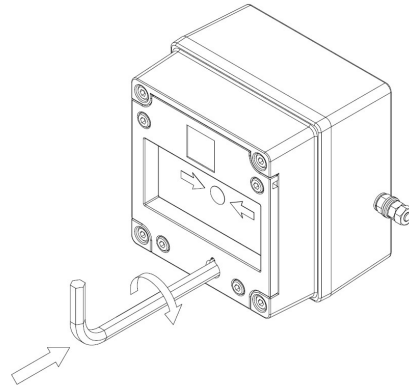
For wiring schematic refer to drawing D150-06-051

8) Testing unit operation

The breakglass unit can be tested without the need to break/replace the frangible glass element.

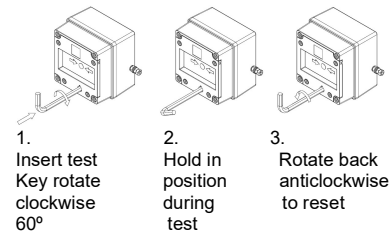
A test key (7mm Allen key) is used to mechanically drop the glass down activating the switch.

The test key is inserted in the test cam and rotated clockwise by an angle of 60° the glass element will visibly drop down in the viewable window.



The call point switch will now changeover it's contacts to operate the alarm.

Once testing is complete the unit needs to be reset, the test key is rotated back anticlockwise by an angle of 60° back to its original position. The glass element should now raise up so it is level again in the viewable window.

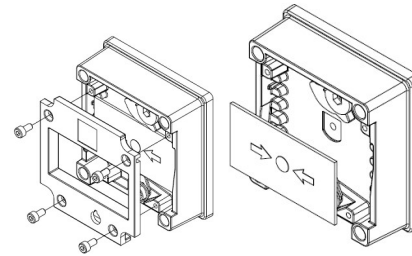


9) Replacement of glass element

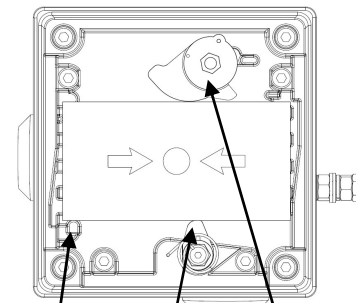
If the breakglass unit has been operated the broken glass element can be quickly replaced.

The breakglass cover plate is removed by unscrewing the 4 off M4 cap head screws attaching it.

Once cover is removed the broken glass will be free to be removed, clean out any other fragments of glass carefully.



To fit the new glass element rotate the top cam clockwise by an angle of 50° (use a 6mm Allen key) this will then allow the glass to fit back into the pocket it sits in, resting on the pivot point and test cam, release the top cam to rest on the top of the glass element.



Pivot point Test Cam Top Cam (rotate)

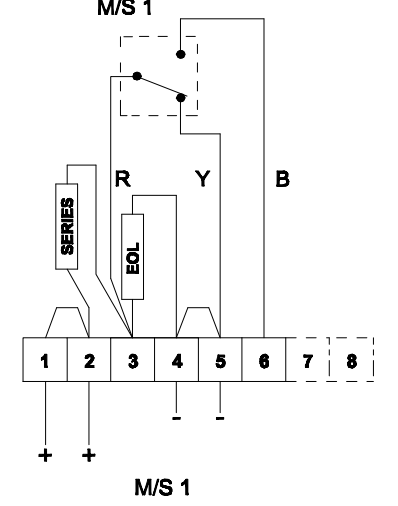
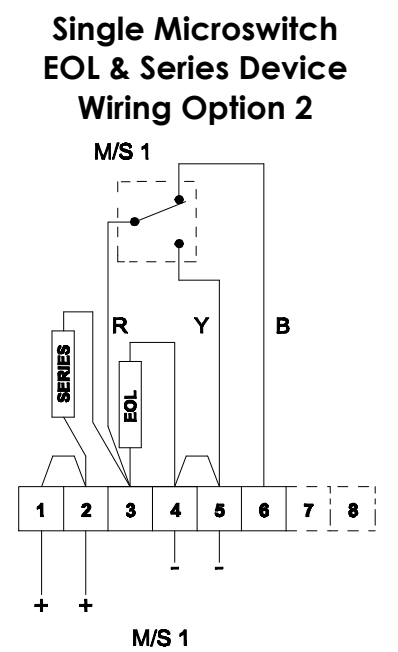
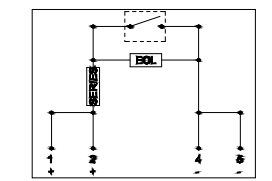
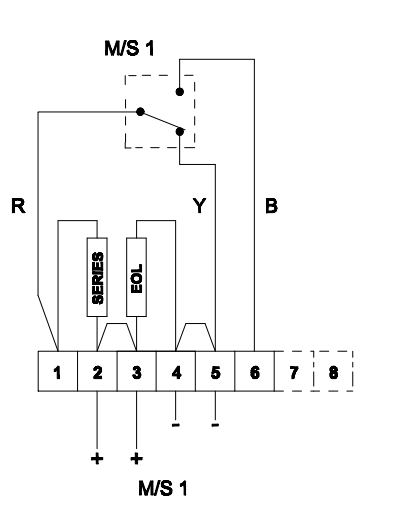
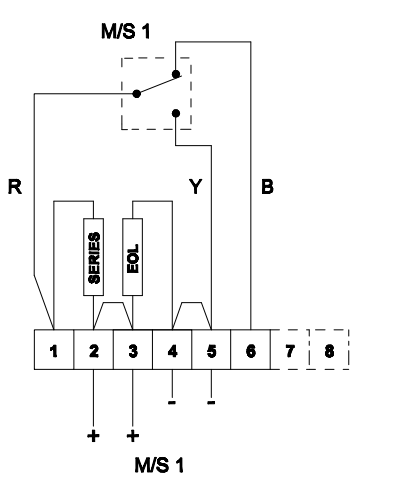
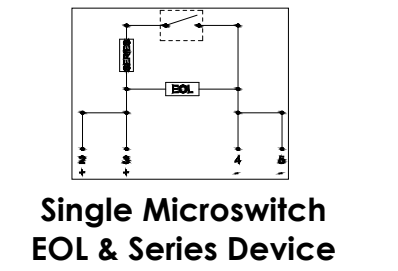
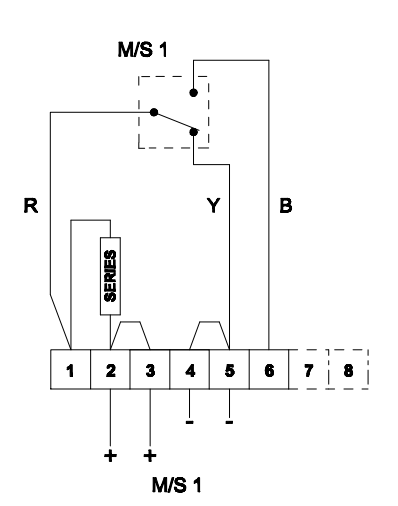
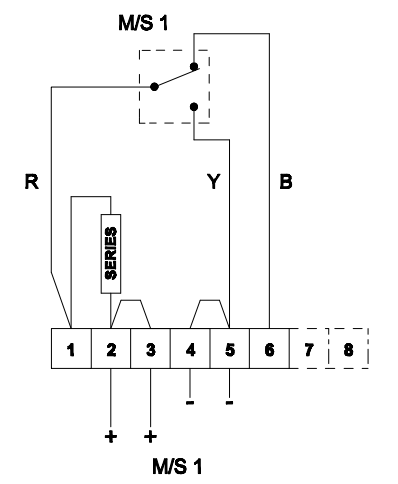
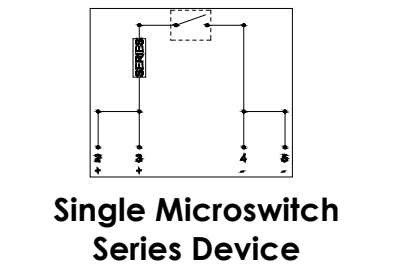
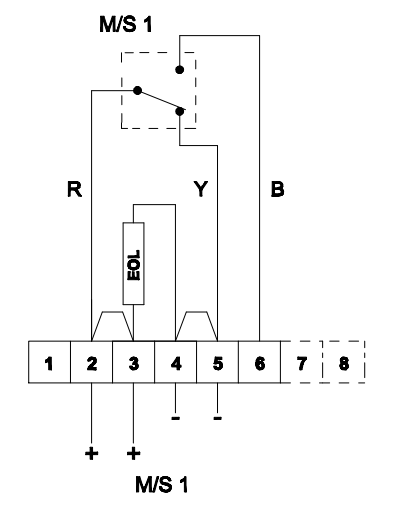
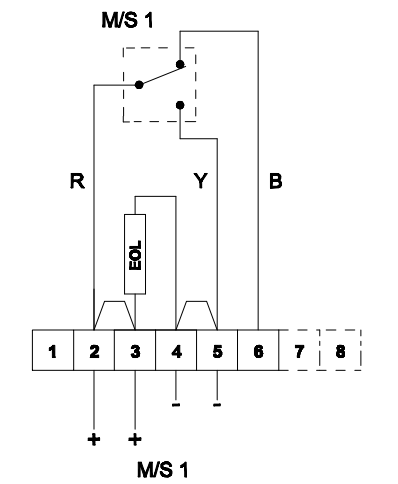
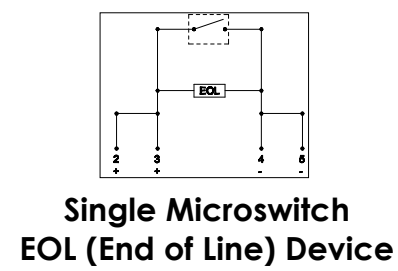
Replace the cover plate and tighten the 4 off M4 cap head screws.

Ensure the glass element is free to move under the cover plate. This can be done by running through the units test operation. See section 8 of this instruction manual.

E2S PART NO.	DESCRIPTION	DATA REFERENCE
BExCP3B/C/D/E-BG	BExCP3B/C/D-BG BREAK GLASS MANUAL CALL POINT	1.24.070
BExCP3B/C/D/E-PB	BExCP3B/C/D-PB PUSH BUTTON MANUAL CALL POINT	1.24.080
BExCP3B/C/D/E-PT	BExCP3B/C/D-PT TOOL RESET MANUAL CALL POINT	1.24.090
IS-CP4B-BG	IS-CP4B-BG BREAK GLASS MANUAL CALL POINT	1.14.010
IS-CP4B-PB	IS-CP4B-PB PUSH BUTTON MANUAL CALL POINT	1.14.020
IS-CP4B-PT	IS-CP4B-PT TOOL RESET MANUAL CALL POINT	1.14.030

Module Device Codes		
	EOL	Series
Resistor	ExxxR	SxxxR
Diode	ED1	SD1
Zener Diode	ExxxZ	SxxxZ

ISSUE	MOD No.	REASON - INITIAL - DATE
1		INTRODUCTION D.A.H - 07-02-2020
2	ACN0077	TYPE E ADDED ; SIMPLIFIED DIAGRAMS ADDED. D.A.H - 26-08-2020



DRAWING TO BS8888:2000
GEOMETRIC TOLERANCES TO ISO1101:1983
LINEAR DIMENSIONAL TOLS
ANGULAR DIMENSIONAL TOLS

STANDARDS
BExCP3B/C/D/E CALL POINTS

DRAWN	DATE
D.HOWGILL	07-02-20
CHECKED	DATE
R.N.POTTS	07-02-20
APPROVED	DATE
R.N.POTTS	07-02-20

SURFACE FINISH	WEIGHT (Kg)
MATERIAL	
ALTERNATIVE MATERIAL	

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AS PER LATEST DATE OF ISSUE SHOWN ABOVE

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warning signals

EUROPEAN SAFETY SYSTEMS LTD
IMPRESS HOUSE
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ACTON
LONDON W3 7QH
WWW.E2S.COM

ALL DIMENSIONS IN MM IF IN DOUBT, ASK - DO NOT SCALE			A3
TITLE BExCP3B/C/D/E-BG/PB/PT MANUAL CALL POINT WIRING SCHEMATIC			
SCALE NTS	SHEET 1 OF 1	DRAWING NUMBER D150-06-051	

EU Declaration of Conformity



Manufacturer: European Safety Systems Ltd.
Impress House, Mansell Road, Acton
London, W3 7QH
United Kingdom

Authorised Representative: E2S Warnsignaltechnik UG
Charlottenstrasse 45-51
72764 Reutlingen
Germany

Equipment Type: IS-CP4A, IS-CP4B, BExCP5B

Directive 2014/34/EU: Equipment and Protective Systems for use in Potentially Explosive Atmospheres (ATEX)

Notified Body for EU type Examination (Module B):	Sira Certification Service Notified Body No.: 2813 CSA Group Netherlands B.V, Utrechtseweg 310, 6812 AR, Arnhem, Netherlands
EU-type Examination Certificate (Module B):	SIRA 09ATEX2287X
Notified Body for Quality Assurance Notification / Conformity to EU-type based on quality assurance of the production process (Module D):	Sira Certification Service Notified Body No.: 2813 CSA Group Netherlands B.V, Utrechtseweg 310, 6812 AR, Arnhem, Netherlands
Quality Assurance Notification (Module D):	SIRA 05 ATEX M342
Provisions fulfilled by the equipment:	IS-CP4A: II 1G Ex ia IIC T6 Ga (-40°C ≤ Ta ≤ +55°C) II 2D Ex tb IIIC T60°C Db (-40°C ≤ Ta ≤ +55°C) IP6X Dust Protection to EN60079-0 / EN60079-31 IS-CP4B: II 1G Ex ia IIC T4 Ga (-40°C ≤ Ta ≤ +55°C) BEx-CP5B: II 2D Ex tb IIIC T70°C Db (-40°C ≤ Ta ≤ +50°C) IP6X Dust Protection to EN60079-0 / EN60079-31
Standards applied:	EN IEC 60079-0:2018 EN 60079-11:2012 IEC 60079-26:2014 EN 60079-31:2014

Directive 2014/30/EU: Electromagnetic Compatibility Directive (EMC)

Standards applied:	EN 61000-6-1:2007 EN 61000-6-2:2005 EN 61000-6-3:2007 / A1:2011 / AC: 2012 EN 61000-6-4:2007 / A1: 2011
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Directive 2011/65/EU: Restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

The product and all the components contained within it are in accordance with the restriction of the use of hazardous substances in electrical and electronic equipment, including amendment by Directive 2015/863/EU.

Regulation (EC) 1907/2006: Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

The product and all the components contained within it are free from substances of very high concern.

Other Standards and Regulations

EN 60529:1992+A2:2013 - Degrees of protection provided by enclosures (IP code) – enclosure rated IP66
Construction and design requirements according to EN54-11:2001 clause 4.7 – IS-CP4A-BG / B-BG only (fitted with burning house symbol shown in figure 3a and no lift flap)

EU Declaration of Conformity



On behalf of European Safety Systems Ltd., I declare that, on the date the equipment accompanied by this declaration is placed on the market, the equipment conforms with all technical and regulatory requirements of the above listed directives, regulations and standards.
This Declaration is issued under the sole responsibility of the manufacturer.

A handwritten signature in black ink, appearing to read 'Martin Streetz'.

Martin Streetz
Quality Assurance Manager

Document No.: DC-008_Issue_J
Date and Place of Issue: London, 23/12/2020



UKCA Declaration of Conformity



Manufacturer: European Safety Systems Ltd.
Impress House, Mansell Road, Acton
London, W3 7QH
United Kingdom

Equipment Type: IS-CP4A, IS-CP4B, BExCP5B

Directive UKSI 2016:1107 (as amended by UKSI 2019:696) – Schedule 3A, Part 1 : Product or Protective System Intended for use in Potentially Explosive Atmospheres (UKCA)

Notified Body for UK type Examination (Module B):	Sira Certification Service Notified Body No.: 0518 Rake Lane, Eccleston, Chester CH4 9JN, UK
UK-type Examination Certificate (Module B):	CSAE 21UKEX2555X
Notified Body for Quality Assurance Notification / Conformity to EU-type based on quality assurance of the production process (Module D):	Sira Certification Service Notified Body No.: 0518 Rake Lane, Eccleston, Chester CH4 9JN, UK
Quality Assurance Notification (Module D):	CSAE 22UKQAN0046
Provisions fulfilled by the equipment:	IS-CP4A: II 1G Ex ia IIC T6 Ga (-40°C ≤ Ta ≤ +55°C) II 2D Ex tb IIIC T60°C Db (-40°C ≤ Ta ≤ +55°C) IP6X Dust Protection to EN60079-0 / EN60079-31 IS-CP4B: II 1G Ex ia IIC T4 Ga (-40°C ≤ Ta ≤ +55°C) BEx-CP5B: II 2D Ex tb IIIC T70°C Db (-40°C ≤ Ta ≤ +50°C) IP6X Dust Protection to EN60079-0 / EN60079-31
Standards applied:	EN IEC 60079-0:2018 EN 60079-11:2012 IEC 60079-26:2014 EN 60079-31:2014

Directive 2014/30/EU: Electromagnetic Compatibility Directive (EMC)

Standards applied:	EN 61000-6-1:2007 EN 61000-6-2:2005 EN 61000-6-3:2007 / A1:2011 / AC: 2012 EN 61000-6-4:2007 / A1: 2011
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Directive 2011/65/EU: Restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

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This Declaration is issued under the sole responsibility of the manufacturer.

Martin Streetz
Quality Assurance Manager

Document No.: DC-091_Issue_A
Date and Place of Issue: London, 04/02/2022