



Systematic Capability Assessment Certificate

Functional Safety of Safety-Related Programmable Electronic Systems

The **Apollo Fire Detectors Ltd, XP95 and Discovery Protocol Ranges** have been assessed and are considered capable for use in a low demand Safety Function up to (and including) SIL 2, in terms of systematic capability.

The assessment was based on the assumptions, data provided, and recommendations given in:

- **Engineering Safety Consultants Ltd Report: G020_PU001 rev. 5;**
- **Legacy Protocol Letter from Apollo Fire Detectors Ltd, signed by Mark Schofield, Systems Engineer, dated 18th February 2019;**
- **Manual Call Points 55100-940 & 55100-940APO Letter from Apollo Fire Detectors Ltd, signed by Mark Schofield, Systems Engineer, dated 20th February 2019;**
- **Manual Call Points 58100-908SIL Letter from Apollo Fire Detectors Ltd, signed by Mark Schofield, Systems Engineer, dated 20th March 2019;**
- **Renewal Letter from Apollo Fire Detection Ltd for products with no changes, signed by Billy Blakeman, Head of Conformance, Dated 23rd August 2022;**
- **Discovery TC Parameter Update Letter from Apollo Fire Detectors Ltd, signed by Mark Schofield, Systems Engineer, Dated 12th March 2021.**

The scope was limited to the protocol software used in the following products:

Device	Description	Protocol software and version
55000-775MAR	Marine Mini Switch Monitor	34100-003SW, rev 2
58100-971MAR	Discovery Manual Call point with Isolator	Integrated as part of 34000-036SW, rev 4
55100-940APO	XP95 Intrinsically Safe Manual Call Point	ASIC
58100-951APO	Weatherproof Manual Call Point with Isolator - Red	Integrated as part of 34000-036SW, rev 4
45681-394MAR	Discovery Marine Sounder Beacon Base	Integrated as part of 34000-095SW, rev 1
58000-400MAR	Discovery Marine Heat Detector	34100-002SW, rev 3
58000-600MAR	Discovery Marine Optical Smoke Detector	34100-002SW, rev 3
58000-700MAR	Discovery Marine Multisensor Detector	34100-002SW, rev 3
58000-700SIL	SIL Discovery Multisensor Detector	34100-002SW, rev 3
55000-440SIL	XP95 I.S. Heat Detector	ASIC
55000-640SIL	XP95 I.S. Optical Smoke Detector	ASIC
55000-773MAR	Marine DIN Rail Zone Monitor	ASIC



ENGINEERING SAFETY CONSULTANTS

The Global Provider of Functional Safety Expertise and Technical Consultancy

Device	Description	Protocol software and version
55000-847SIL	SIL Input / Output Unit with Isolator	ASIC
58100-976MAR	Discovery Waterproof Manual Call Point with Isolator	Integrated as part of 34000-036SW, rev 4
58000-400SIL	Discovery Heat Detector	34100-002SW, rev 3
58000-600SIL	Discovery Optical Detector	34100-002SW, rev 3
58100-908SIL	Discovery Manual Call Point with Isolator	Integrated as part of 34000-036SW, rev 4

Note 1: Devices that do not contain protocol software are excluded from this assessment.

The assessment was carried out to determine compliance with IEC 61508 Part 3 with regards to:

- Systematic Capability;
- Residual soft error probability in accordance with IEC 61784 Part 3.

Managing Director: Simon Burwood

Assessment Date: February 2019

Renewal Date: September 2022, valid to September 2024

Certificate: G020_CT001 rev. 6

ENGINEERING SAFETY CONSULTANTS LTD

2nd Floor, Exchequer Court, 33 St. Mary Axe,
London, EC3A 8AA UK

Telephone/Fax: +44 (0)20 8542 2807

E-Mail: info@esc.uk.net Web: www.esc.uk.net

Registered in England and Wales: 7006868

Registered Office: 33 St. Mary Axe, London, EC3A 8AA