DNV·GL

Certificate No:
TAA00002K6

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Fire Alarm Central Unit

with type designation(s)
8681-0108M - FireFinder Marine 1 LOOP Analogue Addressable CIE,
8681-0208M - FireFinder Marine 2 LOOP Analogue Addressable CIE,
8681-0308M - FireFinder Marine 3 LOOP Analogue Addressable CIE,
8681-0408M - FireFinder Marine 4 LOOP Analogue Addressable CIE

Issued to
Ampac Pty Limited
Balcatta, WA, Australia

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Location classes:

Temperature	**B**
Humidity	**B**
Vibration	**A**
EMC	**B**
Enclosure	**A / IP30**

Issued at **Høvik** on **2020-02-04**
This Certificate is valid until **2025-02-03**.
DNV GL local station: **Australia FIS/CMC**

for **DNV GL**

Approval Engineer: **Ståle Sneen**

Marta Alonso Pontes
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

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Product description

Analogue addressable fire alarm control panels:

Item number	Description
8681-0108M	FireFinder Marine 1 LOOP Analogue Addressable CIE
8681-0208M	FireFinder Marine 2 LOOP Analogue Addressable CIE
8681-0308M	FireFinder Marine 3 LOOP Analogue Addressable CIE
8681-0408M	FireFinder Marine 4 LOOP Analogue Addressable CIE

Features include:
- Expandable 1 – 4 Loops
- Large Graphic Display
- 500 mA Loop Current, 126 devices per Loop
- 4 Programmable Monitored Inputs
- 4 Programmable Monitored Outputs
- 5 Programmable Relays
- RS485 external interface

Software version: V2.04.01.01
Nominal voltage: 240 Vac – 50 Hz

Place of manufacture

Ampac Pty Limited
7 Ledgar Road,
Balcatta,
Western Australia 6021

Approval conditions

The following documentation of the actual application is to be submitted for approval in each case:

- Reference to this Type Approval Certificate
- System block diagram
- Power supply arrangement (may be part of the System block diagram)

The Type Approval covers hardware and software listed under Product description.

When the type approved software is revised (affecting all future deliveries) DNV GL is to be informed by forwarding updated software version documentation. If the changes are judged to affect functionality for which rule requirements apply a new functional type test may be required and the certificate may have to be renewed to identify the new software version.

Application software control
All changes in software are to be recorded as long as the system is in use on board. Documentation of major changes is to be forwarded to DNV GL for evaluation and approval before implemented on board.

Type Approval documentation

Tests carried out

Applicable tests according to:
- Class guideline DNVGL-CG-0339, December 2019
- EN 54-2:1997 incl. AC:1999 + A1:2006
- EN 54-4:1997 incl. AC:1999 + A1:2002 + A2:2006

Marking of product

The products to be marked with:
- manufacturer name
- item number
- serial number
- power supply ratings

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE