



# EC Type Examination Certificate

## Notified Body 2843

This is to certify that ABS ITALY S.R.L. did undertake the relevant type approval procedures for the type of equipment identified below which was found to be in compliance with the requirements of Marine Equipment Directive (MED) 2014/90/EU, subject to any conditions in the schedule attached hereto.

ITEM NUMBER: MED/1.2c

IMPLEMENTING REGULATIONS 2022/1157

CERTIFICATE NUMBER: 15-1376231-3-EC

MANUFACTURER: ACR Electronics Inc.

MANUFACTURER'S LOCATION: Fort Lauderdale, Florida, USA

AUTHORIZED REPRESENTATIVE: Ocean Signal Ltd.

PRODUCT DESIGNATION: Position-indicating lights for life-saving appliances – for lifejackets  
Model: Firefly Pro and Firefly Pro Waterbug (MS-2000 Series) - manually or water activated

STANDARDS AND REGULATIONS: European Union Marine Equipment Directive 2014/90/EU referencing testing requirement of implementing regulation 2022/1157.  
SOLAS 1974 as amended. Regulations X/3, III/4, 7, 22, 26, 32 & 34;  
IMO Resolution MSC.36(63)-(1994 HSC Code) Section 8;  
IMO Resolution MSC.48(66)- (LSA Code) Section I & II;  
IMO Resolution MSC.97(73)-(2000 HSC Code) Section 8;  
EN 60945:2002 incl. IEC 60945 Corr. 1:2008;  
ISO 24408: 2005

THIS CERTIFICATE IS ISSUED IN COMPLIANCE WITH CONFORMITY ASSESSMENT **MODULE B** OF THE REGULATIONS AND DIRECTIVES LISTED

ISSUE DATE: 25-jul-2023

EXPIRATION DATE: 24-jul-2028

ELECTRONICALLY  
SIGNED BY: L. Trevisan

This certificate will not be valid if the manufacturer makes any changes or modifications to the approved type of equipment, which have not been notified to, and agreed with the notified body named on this certificate.

Should the specified regulations or standards be amended during the period of validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on the market and on board vessels to which the amended regulations or standards apply.

The "Mark of Conformity" may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-control phase module (D, E, or F) of ANNEX B of the Directive is fully complied with and controlled by a written inspection agreement with a notified body.

The attached document schedule forms part of this Certificate.

This certificate remains valid unless suspended, expired or withdrawn, provided the conditions in the attached schedule are complied with.

**Entry Date:** 25-jul-2023

**Name of Equipment  
Manufacturer:**

ACR Electronics, Inc.  
5757 Ravenswood Road  
Fort Lauderdale  
Florida 33312  
United States of America  
Tel: +1 954 981 3333  
Fax: +1 954 983 5087

Email: Dan.Stankovic@acrartex.com  
Website: www.acrartex.com

**Manufacturer site:**

N/A

**Authorized representative:**

Ocean Signal Ltd.  
Melkbon 39  
1602 JD Enkhuizen  
The Netherlands  
Tel: +31(0)6-12595598

**Equipment/Component:**

Position-indicating lights for life-saving appliances:  
for lifejackets

**Model:**

FireFly Pro lifejacket light – Manually activated;  
FireFly Pro Waterbug lifejacket light – Water activated

**Description:**

High intensity LED strobe light for use with life vests, safety harnesses, float coats, work suits, immersion suits, backpacks and flying suits etc.

**Intended Service:**

For use with SOLAS approved marine lifejackets

**Ratings:**

High intensity LED strobe light for use with marine lifejackets  
Visibility: 1 mile (1.6 km) to 2 miles (3.2 km)  
Flash rate: 60 + 10 per minute  
Luminous intensity: not less than 0.75 cd  
Continuous operation: 8 hours minimum

**Standards:**

European Union Marine Equipment Directive 2014/90/EU referencing testing requirement of implementing regulation 2022/1157.  
SOLAS 1974 as amended. Regulations X/3, III/4, 7, 22, 26, 32 & 34;  
IMO Resolution MSC.36(63)-(1994 HSC Code) Section 8;  
IMO Resolution MSC.48(66)- (LSA Code) Section I & II;  
IMO Resolution MSC.97(73)-(2000 HSC Code) Section 8;  
EN 60945:2002 incl. IEC 60945 Corr. 1:2008;  
ISO 24408: 2005

**Service Restrictions/Limitations:**

The light has not been drop-tested with an immersion suit. As such, the light is approved for use with lifejackets only.

**Comments:**

If there are any changes to the basic product or treatment procedure, final product needs to be re-tested and re-certified.

Should the specified regulations or standards be amended during the validity of this certificate, the products are to be re-approved prior to being placed on board vessels to which the amended regulations or standards apply.

This certificate will not be valid if the manufacturer makes any changes or modifications to the approved equipment, which have not been notified to, and agreed with the Notified Body named on this certificate.

A Manufacturer's Declaration of Conformity shall be compiled and distributed in line with the requirements of Directive 2014/90/EU Article 16.

The Mark of Conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-control phase module (D, E, or F) of ANNEX II of the Directive is fully complied with and controlled by a written inspection agreement with a notified body.

**Revisions:**

**Certificate N°.** 15-1376231-3-EC, **replaces Certificate N°.** 15-1376231-2-EC **Dated:** 28-sep-2020

**Drawing Schedule:**

| Drawing No     | Description               |
|----------------|---------------------------|
| 23-2408179-PDA | PRODUCT DESIGN ASSESSMENT |