ВИПРОБУВАЛЬНА ЛАБОРАТОРІЯ
ТзОВ ВКФ «ЛІЗО»

TESTING LABORATORY
of the "LIZO Ltd."

201383
ДСТУ ISO/IEC 17025

Атестат акредитації
№ 201383
Дійсний до
16 червня 2021 року

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Accreditation certificate
№ 201383
Expiry date:
16 June, 2021

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ТОВАРИСТВО З ОБМЕЖЕНОЮ ВІДПОВІДАЛЬНІСТЮ ВИРОБНИЧО-КОМЕРЦІЙНА ФІРМА ВИПРОБУВАЛЬНА ЛАБОРАТОРІЯ "ЛІЗО" 31892295 УКРАЇНА м. ЛЬВІВ

APPROVED BY
Head of the laboratory
of the «LIZO Ltd.»

_____ D. R. Dovhun
«15» 06 2021.

Protocol № 15/21

Static mechanical tests of the wire connector.

Requirements and test methods: clause 6.4 of IEC 62561-1:2019

Product name:	**Universal wire connector**
Model and type:	**C-011 ST**
Producer:	**LLC "FS Lightning Protection" 80383, Lviv region, Zhovkivsky r-n, Malekhiv 9/37, Vokzalna str.**
Ordering company:	**LLC "FS Lightning Protection" 80383, Lviv region, Zhovkivsky r-n, Malekhiv 9/37, Vokzalna str.**
Reason:	**Agreement № 14-04-21 of 20.04.21.**
Test result:	**Universal wire connector *C-011 ST withstood mechanical tests and meets the requirements of clause 6.4 of IEC 62561-1:2019***

the test results apply to the tested samples.

Lviv - 2021

Date of samples receipt: 03.05.2021
Number of samples: 3.
ID numbers of the samples: №1 … №3.
Period of testing: 05-06.05.2021.
Environmental conditions:
temperature: 21,8 °C;
Atmospheric pressure: 97,9 kPa;
Relative humidity: 69 %.

1. Tested samples:

Universal wire connectors:

Model and type: C-011 ST

2. Testing methods:

The tests are performed on the collection of the samples, placed under normal operating conditions in accordance with the manufacturer's installation instructions, with the recommended conductive materials, sizes and tightening torques. Tests are performed on new samples.

Layout of samples.

Conductors and samples are cleaned with a degreasing agent followed by purification with non-mineralized (distilled) water and drying. Then they are assembled in accordance with the manufacturer's instructions with the recommended conductors and tightening torques.

The presented samples of the connector with wires were prepared in accordance with the customer's instructions. Tightening torque of the nut 18 Nm.

The connecting element is tested in the connection configurations stated by the manufacturer in accordance with Annex B of IEC 62561-1: 2019. Static mechanical tests were performed according to configuration B2, as shown in Annex B.

The tests were performed on three samples of a connector with a conductor with a diameter of 8 mm. Each conductor of the assembled samples was individually subjected to mechanical tension force of 900 N ± 20 N for 1 min. on the bursting machine (Pic.1)

3. Requirement:

A connection element is considered to have passed the test if less than 1 mm of conductor movement is observed during the test and there is no damage to the connector or conductor

4. Testing results:

Table 1 – Testing results

Registration № of connector	Mechanical tension force, N	Exposure time, min.	Conductor movement, in mm	Connector/conductor damage	Accordance with clause 6.4 of IEC 62561-1
1	900	1	No movement	No damage	Corresponds
2			No movement	No damage	Corresponds
3			No movement	No damage	Corresponds

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5.Conclusion:

Presented for testing samples of universal wire connectors C-011ST withstood test and meet the requirements of clause 6.4 of IEC 62561-1: 2019 on the tested parameters

6.Picture:

Pic.1 – Connector during testing

6. Means of measurement and tests:

№	Name	Model	Calibration date
1	Torque wrench	DT-030S2 №17000067	07.04.2021.
2	Test bursting machine	LIZO №001	No calibration
3	Dynamometer	FB 50K №0032	07.04.2021.
4	Stopwatch	SOP pr-2a-3-000 №5353	08.04.2021.
5	Ruler 1m	VaGo-Tools №003	08.04.2021

The tests were performed by:

Deputy Head of the laboratory : _____ S. S. Lakhovskyi

engineer: _____ D. S. Denys

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