



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX OBAC 21.0003X** Page 1 of 4 [Certificate history:](#)
Issue 0 (2021-12-16)

Status: **Current** Issue No: 1

Date of Issue: 2023-12-13

Applicant: **ZALUX S.A**
Avenida Manuel Rodriguez Ayuso, 114
Centro Empresarial Miralbueno
Planta 1a, Local P-2
ZARAGOZA 50012
Spain

Equipment: **Explosion-proof LED luminaire OREx1 G2 and OREx2 G2 /original type designation: OREX 1 IECEx and OREX 2 IECEx/**

Optional accessory:

Type of Protection: **flameproof enclosures "d"; increased safety "e"; intrinsic safety "i"; encapsulation "m"; inherently safe optical radiation "op is"; protection by enclosure "t"**

Marking: OREx1 G2 – standard version:
Ex eb ib mb op is IIC T5 Gb; Ex tb op is IIIC T95°C Db
OREx1 G2 – SPD version:
Ex db eb ib mb op is IIC T5 Gb; Ex tb op is IIIC T95°C Db
OREx1 G2 – HT version:
Ex eb ib mb op is IIC T4 Gb; Ex tb op is IIIC T121°C Db
OREx2 G2 – all versions:
Ex ec op is IIC T5...T4 Gc; Ex tc op is IIIC T80°C...T115°C Dc

Approved for issue on behalf of the IECEx
Certification Body:

Piotr Tarnawski

Position:

Head of Certification Body ExCB

Signature:
(for printed version)

Date:
(for printed version)

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Certificate issued by:

Osrodek Badan, Atestacji i Certyfikacji OBAC Sp. z o.o.
Labeledzka 21
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Poland





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Manufacturer: **ZALUX S.A**
Avenida Manuel Rodriguez Ayuso, 114
Centro Empresarial Miralbueno
Planta 1a, Local P-2
ZARAGOZA 50012
Spain

Manufacturing
locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-1:2014](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

[IEC 60079-18:2017](#) Explosive atmospheres - Part 18: Protection by encapsulation "m"
Edition:4.1

[IEC 60079-28:2015](#) Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
Edition:2

[IEC 60079-31:2013](#) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

[IEC 60079-7:2015](#) Explosive atmospheres – Part 7: Equipment protection by increased safety "e"
Edition:5.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

[PL/OBAC/ExTR21.0003/00](#)

[PL/OBAC/ExTR21.0003/01](#)

Quality Assessment Report:

[FR/INE/QAR20.0006/03](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The housing of the luminaire consists of a round ribbed body made of aluminium alloy and toughened protective glass. Under the protective glass there is a lighting unit consisting of an electronic board with LED diodes.

OREx1 G2 luminaire has encapsulated power supply integrated with the electronic current barrier, mounted in connection box of the luminaire.

In OREx2 G2 luminaire, depending on the version, the power supply has permanently connected cables and is mounted outside the luminaire or is fitted with terminals and is mounted inside the connection box

SPECIFIC CONDITIONS OF USE: YES as shown below:

- WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS

- OREx1 G2 and OREx2 G2 with connection box: prior to installation the luminaire must be equipped with properly selected cable glands. Unused openings must be closed with blanking elements. Entry devices marking: Ex eb IIC Gb (Ex ec IIC Gc); Ex tb IIIC Db (Ex tc IIIC Dc); service temperature: -30°C to +95°C; IP66/67. In case of use cable glands with minimum service temperature higher than -32°C and IP lower than IP66/67 but not worse than IP54, these parameters became valid for whole luminaire – see instructions

- OREx1 G2 and OREx2 G2 with connection box: cable service temperature in cable gland may achieve 95°C. It must be considered during cable selection.

- The ambient temperature range depends on the temperature class / max. surface temperature and the power of the luminaire



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

New versions of the OREX luminaires, marked as OREx1 G2 and OREx2 G2, using following components:

- new enclosure's body
- alternative LEDs
- separately certified light module UNivEx
- separately certified overvoltage module UNivExd SPD
- new types of power supplies (for OREx2 G2)

Annex:

[IECEX_OBAC_21.0003_001 Annex.pdf](#)



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 Attachment to IECEx OBAC 21.0003X Issue 1

Technical data

Nominal voltage	<p>OREx1 G2: 198-277 VAC, 198-250 VDC, 50-60/0Hz standard version 90-250 VAC, 140-250 VDC, 50-60/0Hz NV version 90-277 VAC, 140-250 VDC, 50-60/0Hz WV version</p> <p>OREx2 G2: 90-305 VAC, 140-250 VDC, 50-60/0Hz</p>
Nominal power	<p>OREx1 G2: 40-160 W OREx2 G2: 40-270 W</p>
Degree of protection	IP66/67

OREx1 G2 - standard version

Power [W]	Ambient temperature range [°C]		
	-32°C ≤ Ta ≤ +50°C	-32°C ≤ Ta ≤ +55°C	-32°C ≤ Ta ≤ +60°C
	Class temp. / max. surface temp.		
40 - 80	-	-	T5 / T95°C
81 - 120	-	T5 / T95°C	-
121 - 160	T5 / T95°C	-	-

OREx1 G2 – HT version

Power [W]	Ambient temperature range [°C]		
	-32°C ≤ Ta ≤ +65°C	-32°C ≤ Ta ≤ +70°C	-32°C ≤ Ta ≤ +75°C
	Class temp. / max. surface temp.		
40 - 50	-	-	T4 / T121°C
51 - 60	-	T4 / T121°C	-
61 - 80	T4 / T121°C	-	-

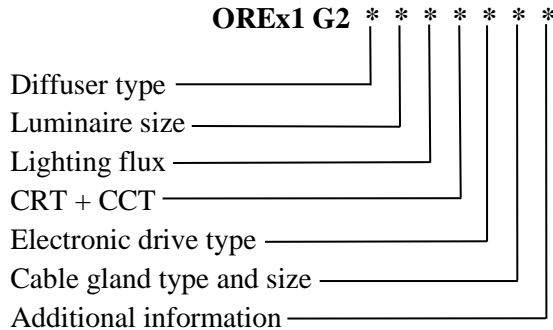
OREx2 G2 – standard, ICB, SD and IPS versions

Power [W]	Ambient temperature range [°C]				
	-32°C≤Ta≤+40°C	-32°C≤Ta≤+45°C	-32°C≤Ta≤+50°C	-32°C≤Ta≤+55°C	-32°C≤Ta≤+60°C
	Class temp. / max. surface temp.				
40 – 80	T5 / T80°C	T5 / T85°C	T5 / T90°C	T5 / T95°C	T4 / T100°C
81 – 120	T5 / T80°C	T5 / T85°C	T5 / T90°C	T5 / T95°C	T4 / T100°C
121 – 160	T5 / T85°C	T5 / T90°C	T5 / T95°C	T4 / T100°C	–
161 – 200	T5 / T85°C	T5 / T90°C	T5 / T95°C	T4 / T100°C	–
201 – 240	T5 / T85°C	T5 / T90°C	T5 / T95°C	T4 / T100°C	–
241 – 270	T5 / T90°C	T4 / T95°C	T4 / T100°C	–	–

OREx2 G2 – HT version

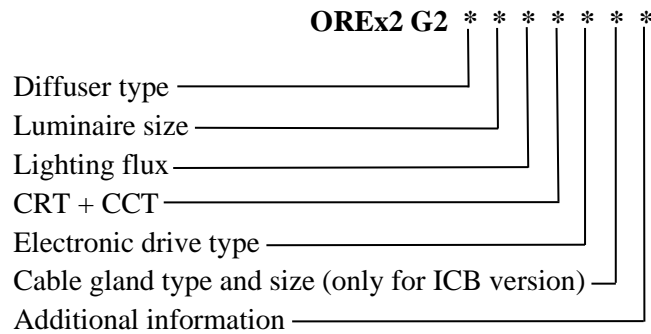
Power [W]	Ambient temperature range [°C]				
	-32°C≤Ta≤+55°C	-32°C≤Ta≤+60°C	-32°C≤Ta≤+65°C	-32°C≤Ta≤+70°C	-32°C≤Ta≤+75°C
	Class temp. / max. surface temp.				
40 - 80	T5 / T95°C	T4 / T100°C	T4 / T105°C	T4 / T110°C	T4 / T115°C

Type designation:



OREx1 G2 - standard and HT version

Diffuser type	Luminaire size	Lighting flux Tolerance ± 10%	CRT + CCT	Electronic driver type	Cable gland type and size	Additional information
None: standard glass GL1: milky glass GL...: other glass on request	38: Ø380 mm	64: 6400 for 40W 96: 9600 for 60W 128: 12800 for 80W 160: 16000 for 100W 192: 19200 for 120W 224: 22400 for 140W 240: 24000 for 150W 256: 25600 for 160W ... other on request	840: CRI 80 and 4000K 850: CRI 80 and 5000K Other on request	None: standard version P: service connector ETDD: Digital diming DALI PDA: service connector and digital dimming DALI 10V: analog diming 1-10V P10V: service connector and analog dimming 1-10V ET: power cord NV: narrow voltage range WV: wide volt-age range SPD: overvoltage module	CG: plastic cable gland NiCG: nickel-plated brass cable BCG: brass cable gland ACG: cable gland for armored cable H: housing with a hole for cable gland Standard size cable/hole M20 and one cable gland. Other size and quantity of cable gland on request.	Painting: RAL.. type HT: high ambient temperature ... other on request



OREx2 G2 – standard, ICB, SD and IPS versions

Diffuser type	Luminaire size	Lighting flux Tolerance ± 10%	CRT + CCT	Electronic driver type	Cable gland type and size (only for ICB version)	Additional information
None: standard glass GL1: milky glass GL...: other glass on request	38: Ø380 mm	62: 6200 for 40W	840: CRI 80 and 4000K 850: CRI 80 and 5000K other on request	P: service connector ETDD: Digital diming DALI PDA: service connector and digital dimming DALI 10V: analog dim-ing 1-10V P10V: service connector and analog dimming 1-10V ET: power cord	CG: plastic cable gland NiCG: nickel-plated brass cable BCG: brass cable gland ACG: cable gland for armored cable H: housing with a hole for cable gland Standard size cable/hole M20 and one cable gland. Other size and quantity of cable gland on request.	Painting: RAL.. type IPS: external industrial power supply equipped with integrated connected cable (increased ser-vice live) SD: power supply assembly and lighting assembly separated, connected with cable ICB: version with industrial power supply and connection box ... other on request
		93: 9300 for 60W				
		124: 12400 for 80W				
		155: 15500 for 100W				
		186: 18600 for 120W				
		217: 21700 for 140W				
		232: 23250 for 150W				
		248: 24800 for 160W				
		279: 27900 for 180W				
		310: 31000 for 200W				
		341: 34100 for 220W				
		372: 37200 for 240W				
		403: 40300 for 260W				
418: 41850 for 270W						
... other on request						

OREx2 G2 – HT versions

Diffuser type	Luminaire size	Lighting flux Tolerance ± 10%	CRT + CCT	Electronic driver type	Cable gland type and size (only for ICBHT version)	Additional information
None: standard glass GL1: milky glass GL...: other glass on request	38: Ø380 mm	62: 6200 for 40W 93: 9300 for 60W 124: 12400 for 80W	840: CRI 80 and 4000K 850: CRI 80 and 5000K Other on request	P: service connector ETDD: Digital dimming DALI PDA: service connector and digital dimming DALI 10V: analog dimming 1-10V P10V: service connector and analog dimming 1-10V ET: power cord	CG: plastic cable gland NiCG: nickel-plated brass cable BCG: brass cable gland ACG: cable gland for armored cable H: housing with a hole for cable gland Standard size cable/hole M20 and one cable gland. Other size and quantity of cable gland on request.	Painting: RAL.. type HT: industrial power supply with an additional heat sink SDHT: power supply assembly and lighting assembly separated, connected with cable ICBHT: version with industrial power supply and connection box ... other on request

OREx1 G2 and OREx2 G2 - Accessories

Lighting system	Mounting accessories	Others
None – no reflector R – symmetrical reflector AR – asymmetrical reflector WG - steel mesh ... – other on request	None – single eyebolt WM – wall mount ST – pipe mount WU – universal mounting bracket NA – no accessories ... – other on request	JB.. – junction box CR – power cords with an Ex connector ... – other on request

Examples of type designations:

OREx1 G2 38 240 840 CG
 OREx1 G2 38 150 930 2HM25 R WU JB
 OREx2 G2 38 62-840 P
 OREx2 G2 GL1 38 155-930 P10V 2NiCG20 ICB AR WM

Routine examinations and tests

- Every luminaire shall be subjected to dielectric strength tests, according to 7.1 of EN 60079-7.
- OREx1 G2: encapsulated part of the luminaire (connection box) shall be subjected to a visual inspection in accordance with 9.1 of the IEC 60079-18 and to dielectric strength test in accordance with 9.2 of the IEC 60079-18.
- Information on potentially explosive atmospheres where OREx1 G2 and OREx2 G2 luminaires can be operated is provided in the operating manuals