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 PRE 20.0102X**

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Certificate history:
Issue 1 (2021-10-14)
Issue 0 (2020-12-04)

Status: **Current**

Issue No: 2

Date of Issue: 2023-12-01

Applicant: **BARTEC AS**
Vestre Svanholmen 24
Sandnes 4313
Norway

Equipment: **EXgate™ Communication Enclosure**

Optional accessory:

Type of Protection: **Ex d, e, t**

Marking: Ex db IIA/IIB/IIC T6/T5/T4 Gb or
Ex db eb IIA/IIB/IIC T6/T5/T4 Gb
Ex tb IIIC T 70°C / 80°C / 95°C / 100°C Db,

Details for T class, surface temperature and T_{amb} see in the attachment

Approved for issue on behalf of the IECEx Certification Body: **Bjørn Spongsveen**

Position: **Certification Manager**

Signature:
(for printed version)

Date:
(for printed version)

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

DNV Product Assurance AS
Veritasveien 1
1363 Høvik
Norway

IECEx Certificate of Conformity

Certificate No.: **IECEx PRE 20.0102X**

Date of issue: 2023-12-01 Issue No: 2

Manufacturer: **BARTEC AS**
Vestre Svanholmen 24
Sandnes 4313
Norway

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 60079-31:2022 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
Edition:3.0

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

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:

NO/PRE/ExTR20.0109/01 NO/PRE/ExTR20.0109/02

Quality Assessment Report:

NO/DNV/QAR23.0002/00

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

EXgate™ Communication enclosure consists of communication devices such as Radios, GPS, Wi-Fi Access Points, antennas, repeaters and gateways built into a flameproof enclosure and protected with type of protection “flameproof enclosure” and “dust protection by enclosure”, which can include externally assembled Ex certified socket (receptacle) or “increased safety” enclosure as junction box.
It is intended for fixed installation. “Dust protection” (w/o dust layers) is assured with appropriate O-ring between the enclosure body and top and with a gasket between enclosure body and junction box. Enclosure is made of stainless steel. Enclosure’s body and top are fixed together by flameproof threaded joint. Enclosure top includes non-metallic dome or flat glass window cemented on the metallic top of the enclosure or just flat metallic cover.
Electronic components are located inside the flameproof enclosure including connection terminals for field wiring. Flameproof enclosure is provided with three threaded holes (direct entries) intended for Ex certified receptacle, line bushing and cable glands.
Version with external enclosure is intended for indirect entry (via line bushing) and includes connection terminals for field connection located inside the junction box made of thin stainless steel sheet with a thickness of 1,5 mm. The junction box is provided with up to three entries (plane holes) intended for cable glands.
All free entries are supplied with the appropriate Ex certified blanking elements.

Type design: EXgate™ 215_*_*_*_*_*, EXgate™ 360_*_*_(P/T/W)_*_*

Applicable models: See attachment for description of product designation code and details about T-class and T_{amb}

Electrical data and principal characteristics:
EXgate™ 215
Rated voltage: 3 to 24 VDC, POE (37 – 57 V DC) / 230 VAC
Rated current: ≤ 1,5A (DC), ≤ 0,2A (AC)

EXgate™ 360
Rated voltage: 3 to 24 VDC, POE (37 – 57 V DC) / 230 VAC
Rated current: ≤ 3A (DC), ≤ 0,5A (AC)

Max input power / transmitted power from antennas:
Gas group: IIA = 6W, IIB = 3.5W, IIC = 2W.

Ingress protection IP: IP66

Routine tests:
- Routine overpressure test at 39.6 bar for duration of at least 10 seconds acc. Cl. 16 of IEC 60079-1:2014 for for EXgate™ 215 flameproof enclosures which include radio “Dot 2271”. (If A-missing) 215_*_*_*_*_A, Is not possible
- Routine overpressure test at 20.4 bar for duration of at least 10 seconds acc. Cl. 16 of IEC 60079-1:2014 for EXgate™ 215 flameproof enclosures w/o radio “Dot 2271” included.
- Routine overpressure test at 13.8 bar for duration of at least 10 seconds acc. Cl. 16 of IEC 60079-1:2014 for EXgate™ 360 flameproof enclosures.
- Dielectric strength test according to Clause 7.1 of IEC 60079-7:2017 (500V/1500V R.M.S. for Un 24V/230V) (0-5%) at 48-62 Hz maintained 60s or 1.2 x test voltage maintained at least 100 ms for increased safety enclosure.
- Dielectric strength test according to Clause 7.1 of IEC 60079-7:2017 (500V/1500V R.M.S. for Un 24V/230V) (0-5%) at 48-62 Hz maintained 60s or 1.2 x test voltage maintained at least 100 ms for increased safety enclosure.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The Instructions provide guidance for the user to minimize the risk from electrostatic discharge
2. Flameproof threaded joint at EXgate™ 215 - M208x2 6g/6H minimum 9.5 (nine and half) threads must be engaged.
3. Flameproof threaded joints at EXgate™ 215 - M20/25x1.5 6g/6H minimum 7 (seven) threads must be engaged
4. Flameproof threaded joints at EXgate™ 360 - M352x3 6g/6H minimum 6 (six) threads must beengaged.
5. When a Connector half fitted with contact pins is not connected to an associated Plug or Receptacle, it shall not be energized as per EN IEC 60079-0:2018, clause 20.2
6. Plugs and receptacles shall only be used with blanking caps or mating Connector halves certified under certificate number Sira 07ATEX1229X.
7. Pilot light type EFL*PC* underwent only a shock corresponding to an energy of a low risk at 2J
8. The flameproof joints (inside pilot light type EFL *PC*) have a different value from those specified in the tables of the IEC 60079-1 standard, for any repair to contact the manufacturer.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
-new size EXgate™ 360 with polycarbonate dome
-new polycarbonate dome for EXgate™ 215
-signal light for EXgate™ 215 included
-manufacturer's name change

Annex:

Annex to IECEx Certificate.pdf

DNV Product Assurance AS
Veritasveien 1
1363 Høvik
Norway

Annex to certificate: IECEx PRE 20.0102X Issue 2
EXgate™ Communication Enclosure

Type designation: EXgate™ 215_*_*_*_*_*, EXgate™ 360_*_*_(P/T/W)_*_*

Typekey explanation:

EXgate™215 1 R D 1 Z

Z	A letter code that pin points the internal configuration
1-XX	Means variant of threaded entries
S	The letter 'S' may also be used, specifying "Special"
D	Means a Composite Dome Ex d top
P	Means a Polycarbonate Dome Ex d top
T	Means a Tight Ex d top
W	Means a flat Glas Ex d top
0	Means without an Amphenol Receptacle is mounted
R	Means an Amphenol Receptacle is mounted
1	Means an Ex d solution
4	Means an Ex de solution with external Ex e enclosure
155-360	Means the outer diameter of the enclosure in mm
EXgate™	Means the product type

Letter	Description	Value / info
A*	Size - Diameter	215 or 360mm
B*	Ex excecution	1= Means an Ex d solution **4= Means an Ex de solution with external Ex e enclosure**
C*	**Receptacle**	R= Amphenol Receptacle is mounted O= Without Amphenol Receptacle
D*	Top section	**D= Means a Composite Dome Ex d top** **P= Means a Polycarbonate Dome Ex d top** **T= Means a Tight Ex d top** **W= Means a flat Glas Ex d top**
E*	Cable entries	**1-XX Variant of threaded entries** **S May also be used, specifying "Special"**
F*	Installed component	A= Means DOT 2217 is installed **B= Means GPS OEM-GNSS-503 is installed** C= Means Bullet Antenna is installed **D= Means Sentrius IG60 Gateway is installed** E= Means RCS-100 Repeater is installed
G*	Environment	II 2G or II 2D or II 2 GD
H*	Ex code	db or eb db or tb
I*	Gas group	IIA, IIB or IIC
J*	Temp Class	T6, T5 or T4
K*	EPL	Gb or Db
L*	Dust Group	IIIC
M*	Temperature	T70 or T80°C or T95°C
N*	Certification Scheme	Presafe 20 ATEX 74578 X and/or IECEx PRE 20.0102X
O*	Lower Tamb	-20°C
P*	Higher Tamb	EXgate™ 215: +36° to +72°C EXgate™ 360: +30° to +60°C
Q*	IP rating	IP66
R*	U_N	**3 to 24 VDC / POE (37-57 VDC) / 230 VAC**
S*	I_N	≤1,5 A @ DC / 0,2 A @ AC
T*	Serial number	5-digit serial number
U*	Production year	**Last two digits of the year, like 21 for year 2021**
V*	Maximum dissipated power	EXgate™ 215 ≤ 30 W EXgate™ 360 ≤ 60 W
W*	WARNING	THREADED HOLES - SEE INSTALLATION INSTRUCTIONS
X*	WARNING	Do not open when an explosive atmposphere may be present
Y*	WARNING	Potential electrostatic charging hazard - See instructions

CE 2460 Type: EXgate® A*B*C*D*E*F*
G* Ex H* I* J* K*
G* Ex H* L* M* K*
N*
N*
U_N = R* V I_N = S* A Q* W* X*
BARTEC
BARTEC AS
Vestre Svanholmen 24
NO-4313 SANDNES, NORWAY
T.amb. O* ≤ Ta ≤ P*
S.No./Year T*/U*

Ambient temperature, T class and max. surface temperature (determined w/o dust layers):

Model	Maximum power (dissipation)	Ambient temperature	T Class / surface temp.
EXgate™ 215 * 0 D * *	3.5W	-20ºC ≤ T_{amb} ≤ +62°C	T6 / 70°C
	9W	-20ºC ≤ T_{amb} ≤ +58°C	T6 / 70°C
	15W	-20ºC ≤ T_{amb} ≤ +50°C	T6 / 70°C
	20W	-20ºC ≤ T_{amb} ≤ +46°C	T6 / 70°C
	26W	-20ºC ≤ T_{amb} ≤ +41°C	T6 / 70°C
	30W	-20ºC ≤ T_{amb} ≤ +36°C	T6 / 70°C
EXgate™ 215 * R * * *	20W	-20ºC ≤ T_{amb} ≤ +55°C	T5 / 95°C
	26W	-20ºC ≤ T_{amb} ≤ +40°C	T6 / 70°C
	30W	-20ºC ≤ T_{amb} ≤ +36°C	T6 / 70°C
EXgate™ 215 * 0 D * *	15W	-20ºC ≤ T_{amb} ≤ +50°C	T6 / 70°C
	20W	-20ºC ≤ T_{amb} ≤ +46°C	T6 / 70°C
	26W	-20ºC ≤ T_{amb} ≤ +41°C	T6 / 70°C
	30W	-20ºC ≤ T_{amb} ≤ +36°C	T6 / 70°C
EXgate™ 215 * 0 P * * EXgate™ 215 * 0 W * *	3.5W	-20ºC ≤ T_{amb} ≤ +72°C	T6 / 80°C
	9W	-20ºC ≤ T_{amb} ≤ +68°C	T6 / 80°C
	15W	-20ºC ≤ T_{amb} ≤ +60°C	T6 / 80°C
	20W	-20ºC ≤ T_{amb} ≤ +56°C	T6 / 80°C
	26W	-20ºC ≤ T_{amb} ≤ +51°C	T6 / 80°C
	30W	-20ºC ≤ T_{amb} ≤ +46°C	T6 / 80°C
EXgate™ 215 * 0 T * *	3.5W	-20ºC ≤ T_{amb} ≤ +72°C	T6 / 80°C
	9W	-20ºC ≤ T_{amb} ≤ +68°C	T6 / 80°C
	15W	-20ºC ≤ T_{amb} ≤ +60°C	T6 / 80°C
	20W	-20ºC ≤ T_{amb} ≤ +56°C	T6 / 80°C
	26W	-20ºC ≤ T_{amb} ≤ +51°C	T6 / 80°C
	30W	-20ºC ≤ T_{amb} ≤ +46°C	T6 / 80°C
	20W	-20ºC ≤ T_{amb} ≤ +71°C	T5 / 95°C
	26W	-20ºC ≤ T_{amb} ≤ +66°C	T5 / 95°C
	30W	-20ºC ≤ T_{amb} ≤ +61°C	T5 / 95°C
	26W	-20ºC ≤ T_{amb} ≤ +71°C	T4 / 100°C
	30W	-20ºC ≤ T_{amb} ≤ +66°C	T4 / 100°C

Model	Maximum power (dissipation)	Max Ambient temperature	T Class / surface temp.
EXgate™ 360 * 0 T * *	35W	-20ºC ≤ T_{amb} ≤ +60°C	T6 / 80°C
	40W	-20ºC ≤ T_{amb} ≤ +60°C	T5 / 90°C
	45W	-20ºC ≤ T_{amb} ≤ +60°C	T5 / 90°C
	50W	-20ºC ≤ T_{amb} ≤ +60°C	T5 / 90°C
	55W	-20ºC ≤ T_{amb} ≤ +60°C	T5 / 90°C
	60W	-20ºC ≤ T_{amb} ≤ +60°C	T5 / 90°C
EXgate™ 360 * R T * *	60W	-20ºC ≤ T_{amb} ≤ +55°C	T5 / 95°C
	60W	-20ºC ≤ T_{amb} ≤ +40°C	T6 / 80°C
EXgate™ 360 * R W * *	35W	-20ºC ≤ T_{amb} ≤ +55°C	T5 / 95°C
	40W	-20ºC ≤ T_{amb} ≤ +54°C	T5 / 95°C

	45W	-20ºC ≤ T_{amb} ≤ +52°C	T5 / 95°C
	50W	-20ºC ≤ T_{amb} ≤ +49°C	T5 / 95°C
	55W	-20ºC ≤ T_{amb} ≤ +42°C	T5 / 95°C
	60W	-20ºC ≤ T_{amb} ≤ +40°C	T6 / 80°C
EXgate™ 360 * 0 W * *	30W	-20ºC ≤ T_{amb} ≤ +60°C	T6 / 80°C
	35W	-20ºC ≤ T_{amb} ≤ +58°C	T6 / 80°C
	40W	-20ºC ≤ T_{amb} ≤ +54°C	T6 / 80°C
	45W	-20ºC ≤ T_{amb} ≤ +52°C	T6 / 80°C
	50W	-20ºC ≤ T_{amb} ≤ +49°C	T6 / 80°C
	55W	-20ºC ≤ T_{amb} ≤ +42°C	T6 / 80°C
	60W	-20ºC ≤ T_{amb} ≤ +40°C	T6 / 80°C
EXgate™ 360 * R P * *	20W	-20ºC ≤ T_{amb} ≤ +55°C	T5 / 95°C
	30W	-20ºC ≤ T_{amb} ≤ +53°C	T5 / 95°C
	35W	-20ºC ≤ T_{amb} ≤ +48°C	T5 / 95°C
	40W	-20ºC ≤ T_{amb} ≤ +44°C	T5 / 95°C
	45W	-20ºC ≤ T_{amb} ≤ +42°C	T5 / 95°C
	50W	-20ºC ≤ T_{amb} ≤ +39°C	T6 / 80°C
	55W	-20ºC ≤ T_{amb} ≤ +32°C	T6 / 80°C
	60W	-20ºC ≤ T_{amb} ≤ +30°C	T6 / 80°C
EXgate™ 360 * 0 P * *	10W	-20ºC ≤ T_{amb} ≤ +60°C	T6 / 80°C
	20W	-20ºC ≤ T_{amb} ≤ +58°C	T6 / 80°C
	30W	-20ºC ≤ T_{amb} ≤ +53°C	T6 / 80°C
	35W	-20ºC ≤ T_{amb} ≤ +48°C	T6 / 80°C
	40W	-20ºC ≤ T_{amb} ≤ +44°C	T6 / 80°C
	45W	-20ºC ≤ T_{amb} ≤ +42°C	T6 / 80°C
	50W	-20ºC ≤ T_{amb} ≤ +39°C	T6 / 80°C
	55W	-20ºC ≤ T_{amb} ≤ +32°C	T6 / 80°C
	60W	-20ºC ≤ T_{amb} ≤ +30°C	T6 / 80°C