

EU RO MUTUAL RECOGNITION TYPE APPROVAL CERTIFICATE

Certificate No:
MRE0000002
File No:
MR-E011
Job Id:
262.4-000021-2

This Certificate is issued to
SOLCO PYROELEC CO., LTD.
Anseong-si Gyeonggi-do, Republic of Korea

for
Electric Cables - Heating Cables

with type designation(s)
FBX type self-regulating heating cable.

The product is found to comply with
EU RO Mutual Recognition Technical Requirements for Electric Cables – Heating Cables

Intended service
IECEx type self-regulating heating cable system. Anti-icing system and De-icing system onboard ships and offshore vessels.

Voltage (V)	200-277 VAC
Temp. class	T2 (300°C) and T3 (200°C)
Power [W/m] @ref. temp.	15, 30, 45, 60 @10°C
Ex area	Yes

This Certificate is valid until **2020-02-05**.

Issued at **Høvik** on **2015-02-14**

DNV GL local station: **Seoul**

for **DNV GL**

Approval Engineer: **Ivar Bull**

Marit Laumann
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

FBX IECEx type self-regulating heating cable

- Conductor:	1.1mm ² stranded nickel plated copper
- Heating element	Self-regulating conductive core
- Inner jacket	Fluoropolymer
- Metal covering	Tinned or nickel plated copper
- Outer jacket *)	Fluoropolymer

*) Mandatory in gas dangerous areas.

Type designation	Temperature class	P Nominal (W/m)	Un (V)
FBX152	T3 (200°C)	15 W/m@10°C	200-277
FBX302	T3 (200°C)	30 W/m@10°C	200-277
FBX452	T3 (200°C)	45 W/m@10°C	200-277
FBX602	T2 (300°C)	60 W/m@10°C	200-277

Connection kit : PYEX-AE-P
PYEX-AE-E
PYEX-AE-TC

Manufactured by

SOLCO PYROELEC CO., LTD.
Gyeonggi-do, Republic of Korea

Application/Limitation

1. The T-code rating for the cables is as follows: T2 or T3 for the FBX Series.
2. The cables have a minimum installation temperature of -55°C.
3. The FBX Series cables have a maximum maintain temperature (power on) of 150°C and a maximum exposure temperature (power off) of 190°C.
4. The FBX Series cables are designed for use with the PYEX Series Connection kits (PYEX-AE-P power connection kit, PYEX-AE-TC RTD Temperature sensor connection kit, PYEX-AE-E end termination kit).
5. Follow the manufacturer's instructions to reduce the potential of an electrostatic charging hazard.

Type Approval documentation

Marking of product

SOLCO PYROELEC CO. - Parallel Self-Regulating Heating Cable FBX xxx - CT xx W/m@10°C
277V T2 150°C Ex e IIC Gb - serial number

Other Conditions

IECEx test reports are taken for information only.

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 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 design and materials used comply with type approved documents
 - Ensuring traceability between manufacturer's product type marking and the type approval certificate
- Periodical assessment is to be performed annually and at renewal of this certificate.



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END OF CERTIFICATE