(1) # EU-Type-Examination Certificate

(2) Equipment and protective systems intended for use in potentially explosive atmospheres, **Directive 2014/34/EU**

(3) **Certificate Number** **TÜV CY 18 ATEX 0206158 X**

(4) for the equipment: Antenna Couplers RX and SX Series

(5) of the manufacturer: **Solexy Srl**

(6) Address: Via Enrico Fermi, 2 I-25015 Desenzano del Garda (BS) - Italy

Order number: 0206158

Date of issue: 2019-02-08

(7) The design of this equipment or protective system and any acceptable variation thereto are specified in the schedule to this EU-Type-Examination Certificate and the documents therein referred to.

(8) TÜV CYPRUS Ltd, notified body No. 2261 in accordance with Article 17 of the Council Directive of 2014/34/EU of February 26, 2014, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive. The examination and test results are recorded in the confidential report No. 18 0206141.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2012 /A11:2013 **EN 60079-11:2012** **EN 60079-31:2014**
EN 60079-1:2014 **EN 60079-18:2015 /A1:2017**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EU-Type-Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment which are not covered by this certificate.

(12) The marking of the equipment or protective system must include the following:

I M2 (M1) Ex db mb [ia Ma] I Mb
II 2 (1) G Ex db mb [ia Ga] IIA/IIB/IIC T5…T6 Gb
II 2 (1) D Ex mb tb [ia Da] IIIC T80°C…T100°C Db

TÜV CYPRUS Ltd (TUV NORD Group),

The head of the notified body,

D. Demosthenous

TÜV CYPRUS (TÜV NORD) Ltd,
2 Papaflessa Str., 2235 Latsia, Nicosia - P.O.Box: 20732, 1663 Nicosia, Cyprus
Tel:+357 22 44 28 40 Fax:+35722 44 28 50 email: info@tuvcyprus.com.cy
www.tuv-nord.com/cy

(13) SCHEDULE

(14) EU-Type-Examination Certificate No. TÜV CY 18 ATEX 0206158 X

(15) Description of equipment

The Antenna Couplers are designed to be installed and threaded onto a flameproof enclosure and acts a capacitive coupling between an RF transmitter/receiver that is installed in an approved enclosure and a passive antenna installed in a hazardous location outside the enclosure. The antenna can be directly connected to the antenna coupler or through cable.
The antenna coupler function is to block DC signals and provide very high impedance to low frequency AC signals.
The Antenna coupler output provides an intrinsically safe output for the connected passive antenna and blocks any unsafe energy from reaching the antenna under fault conditions.
The circuitry that provides the intrinsically safe output is encapsulated and provides "Ex m" type of protection and all of that is enclosed in an 'Ex db'/'Ex tb' stainless steel body enclosure.
The antenna coupler is available with as a surge protector option, model SX series, and the standard RX antenna coupler series is also available with an isolated ground configuration.
The standard RX series antenna coupler and the SX series antenna coupler are available in different RF options of connection, refer to product nomenclature.

Type Key

RX Series product nomenclature:

RX	X	X	X	XX	XX	X	XX	-	XXXXX
	1	2	3	4	5	6	7		8

1	Series (RF Connection)	F	RP-SMA Female
		S	SMA Female
		N	N Female
		B	BNC Female
		T	TNC Female
		1	N Female Isolate Ground
		2	TNC Female Isolate Ground
		3	BNC Female Isolate Ground
2	Thread	M	M25x1.5
		3	¾" npt-m
3	Material	S	AISI 303
		C	AISI 316
		L	AISI 316L
4	Coaxial cable type / Radio connector	xx	2 digit for coax connector and cable type
5	Cable length	xx	2 digits for coax cable length (inches) 00 for double connector execution (no cable)
6	Version	x	1 digit for version

7	Standard reference	xx	2 digits for certification marking
		X0	European - IECEx
		N0	North America (USA & CANADA)
		XN	European IECEx - North America (double marking)
8	Special execution	xxxxx	Up to 5 digits for special execution in terms of marking, labelling,instruction, packaging, etc...

SX Series (surge protection version) product nomenclature:

SX	X	X	X	XX	XX	X	XX	-	XXXXX
	1	2	3	4	5	6	7		8

1	Series (RF Connection)	F	RP-SMA Female
		S	SMA Female
		N	N Female
		B	BNC Female
		T	TNC Female
2	Thread	M	M25x1.5
		3	¾" npt-m
3	Material	S	AISI 303
		C	AISI 316
		L	AISI 316L
4	Coaxial cable type / Radio connector	xx	2 digit for coax connector and cable type
5	Cable length	xx	2 digits for coax cable length (inches) 00 for double connector execution (no cable)
6	Version	x	1 digit for version
7	Standard reference	xx	2 digits for certification marking
		X0	European - IECEx
		N0	North America (USA & CANADA)
		XN	European - IECEx - North America (double marking)
8	Special execution	xxxxx	Up to 5 digits for special execution in terms of marking, labelling, instruction, packaging, etc...

Technical data:

Rated Voltage	Um 250 Vdc / 250 Vac 50-60Hz
Maximum input frequency	6 Ghz
Minimum Internal Impedance of RF transmitter	50 Ω

Equipment Group	Threshold Power Pth	Threshold Power Pth
Group I / IIA / III	6 W	37.7 dbm
Group IIB	3.5 W	35.4 dbm
Group IIC	2 W	33.0 dbm

Permissible range of ambient temperature:

Gas	Dust	Tamb
T5	100°C	-40°C to +80°C (When max RF input = 6W) -40°C to +85°C (When max RF input = 2W)
T6	80°C	-40°C to +65°C(When max RF input = 6W) -40°C to +70°C(When max RF input = 2W)

Warning:
See Installation Instruction Document

(16) Test documents are listed in the test report No. 18 0206158

(17) Special conditions for safe use

1. Solexy RX and SX series antenna couplers must be connected to an RF source with a minimum internal impedance of 50 Ω

2. It is considered inappropriate to provide conventional IS parameters for this equipment. For connection to external antenna, refer to the Instruction and Operating Manual for clarification of antenna requirements and calculation of the RF power

3. Solexy RX and SX series antenna coupler does not provide any RF power limitation. The threshold power must be limited by the user in order to achieve the levels defined in IEC/EN 60079-0 Table 5

4. Equipment marked with an ambient temperature range, a temperature class or maximum surface temperature and gas/dust group is limited to a maximum RF input according to the table stated in this certificate and in the manufacturer Instruction and Operating Manual.

(18) Essential Health and Safety Requirements

This certificate covers only the Essential Health and Safety Requirements related to the Directive 2014/34/EU