IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: IECEx INE 17.0039X

Issue No: 1

Certificate history:
Issue No. 1 (2019-04-10)
Issue No. 0 (2018-01-25)

Status: **Current**

Date of Issue: **2019-04-10**

Applicant: **SPINA GROUP S.r.l.**
Via Del Tecchione 36/B
I - 20098 San Giuliano Milanese (MI)
Italy

Equipment: **Control Units series CCF**

Optional accessory:

Type of Protection: **db, db[ia], tb, tb[ia]**

Marking:

Ex db IIB or IIB+H2 T6...T3 Gb
Ex tb IIIC T85°C...T200°C Db IP65 or IP66

or

Ex db [ia IIA or IIB or IIC Ga] IIB or IIB+H2 T6...T3 Gb
Ex tb [ia Da] IIIC T85°C...T200°C Db IP65 or IP66

Approved for issue on behalf of the IECEx Certification Body:

Thierry HOUEIX

Position:

Ex Certification Officer

Signature:
(for printed version)

Digitally signed by Thierry HOUEIX

Date:

2019-04-10

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 the Official IECEx Website.

Certificate issued by:

INERIS
Institut National de l'Environnement Industriel
et des Risques, BP n2
Parc Technologique ALATA
France

IECEx Certificate of Conformity

Certificate No:	IECEx INE 17.0039X	Issue No: 1
Date of Issue:	**2019-04-10**	Page 2 of 4
Manufacturer:	**SPINA GROUP SRL** Via Del Tecchione 36/B I - 20098 San Giuliano Milanese (MI) **Italy**	

Additional Manufacturing location(s):

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 apparatus 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 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

*This Certificate **does not** indicate compliance with electrical 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 Report:

FR/INE/ExTR17.0048/00 FR/INE/ExTR17.0048/01

Quality Assessment Report:

NO/PRE/QAR17.0006/01

IECEx Certificate of Conformity

Certificate No:	IECEx INE 17.0039X	Issue No: 1
Date of Issue:	**2019-04-10**	Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The control unit type CCF... use the flameproof enclsoure certified as Ex Component covered by IECEx INE 14.0056U.

They can be fitted with accessories covered by IECEx component certificates. The list of the components is defined in Annex.

These enclosures are inted to contain mainly electrical and/or electronical "NIS" components , they can also contain "IS" elements covered by a separated IECEx certificate.

The versions containing intrinsic safety elements have to respect power limits reported in table 2, otherwise the enclosure shall be equipped with an internal thermal probe.

These enclosures get the degree of protection IP66 or IP65 in accordance with IEC 60529.

SPECIFIC CONDITIONS OF USE: YES as shown below:

-The width of the flameproof joints is greater than the values specified in the IEC 60079-1 standard, contact the manufacturer for any repair.
-The cover and the body shall be fixed by stainless steel screws quality A2-70 or better.
-During the installation, the user will take into consideration that pilot light type EFL*PC* underwent only a shock corresponding to an energy of low risk at 2J.

The other conditions are stipulated in the instructions guide.

IECEx Certificate of Conformity

Certificate No: IECEx INE 17.0039X Issue No: 1

Date of Issue: **2019-04-10**

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Purpose of the issue 01 of the IECEx INE 17.0039X certificate:

Modification A: Modification of the list of terminal - see annexe.
Modification B: Clarification of the marking with intrinsic safety elements without thermal probe.

Annex:

IECEx INE 17.0039X-01_Annex.pdf

IECEx Certificate of Conformity

Certificate No.: IECEx INE 17.0039X

Issue No.: 1

Annex: IECEx INE 17.0039X-01_Annex.pdf

PARAMETERS RELATING TO THE SAFETY

For enclosure without intrinsic safety element:

Maximum supply voltage : 1000 Vac or Vdc
Rated frequency : 50 / 60 Hz
Maximum LED lamp power : 5 W
Maximum dissipated powers are defined in the Table 1.
Ambient temperature:

Enclosure CCF or CCV	Minimum Temperature	Maximum Temperature	Gas Group
All except 16, 16A and 16B	-20°C or -30°C or -40°C or -50°C	+40°C or +50°C or +60°C	IIB or IIB+H_2
Only 16, 16A, 16B	-20°C or -30°C or -40°C	+40°C or +50°C or +60°C	IIB or IIB+H_2

For enclosure with intrinsic safety element:

Maximum supply voltage for Non 'IS' elements : 1000 Vac or Vdc

Maximum supply voltage for "IS" elements : 250 V

Maximum dissipated powers are defined in the Table 1, for enclosures with thermal probes.

Maximum dissipated powers are defined in the Table 2, for enclosures without thermal probes.

The maximum threshold of thermal probe shall be: (maximum barrier's temperature -5°C) ± 5°C

This version is intended to use in range of ambient temperatures from: -20°C, -30°C, -40°C or -50°C (*) to +40°C, +50°C or +60°C.

(* except enclosure CCF 116, 116A, 116B with a minimal ambient temperature of -40°C).

When the minimum ambient temperature of the enclosure is greater or equal to the minimum ambient temperature specified in the certificate of the intrinsic safety elements, it is not necessary to add an internal thermostat.

When the minimum ambient temperature of the enclosure is lower than the minimal ambient temperature specified in the certificate of the intrinsic safety elements, the enclosure shall be provided with a calibrated thermostat near the intrinsic safety elements in order to switch off the power supply of these elements.

The threshold of thermal probe shall be:

Ambient Temperature of "IS" element	Threshold of release of the thermal probe
≥ - 30°C	- 25°C ± 5°C
≥ - 40°C	- 35°C ± 5°C
≥ - 50°C	- 45°C ± 5°C

MARKING

Marking has to be readable and indelible; it has to include the following indications:

A. Enclosures without intrinsic safety element:

- SPINA GROUP S.r.l.
- I-20098 san Giuliano Milanese (MI)
- CCF... (*)
- IECEx INE 17.0039X
- (Serial number)
- Ex db IIB or IIB+H2 T6 ... T3 Gb (**)
- Ex tb IIIC T85°C ... T200°C Db IP65 or IP66 (**)
- ...°C < Tamb < ...°C (***)
- T.Cable: (****)
- Cable gland: See instructions
- **WARNINGS:**
  - DO NOT OPEN WHEN ENERGIZED
  - DO NOT OPEN IF AN EXPLOSIVE ATMOSPHERE IS PRESENT

(*) Type is completed by numbers and/or letters corresponding to different versions of the enclosure.
(**) T6...T3 or T85°C...T200°C in accordance with the maximum dissipated power and ambient temperature stipulated in the tables below.
(***) See parameters relating to the safety.
(****) Depending on ambient temperature and dissipated power - See Table 1.

B. Enclosures with intrinsic safety element with thermal probe:

- SPINA GROUP S.r.l.
- I-20098 san Giuliano Milanese (MI)
- CCF... (*)
- IECEx INE 17.0039X
- (Serial number)
- Ex db[ia IIA or IIB or IIC Ga] IIB or IIB+H2 T6 ... T3 Gb (**)
- Ex tb[ia Da] IIIC T85°C ... T200°C Db IP65 or IP66 (**)
- ...°C < Tamb < ...°C (***)
- T.Cable: (****)
- Cable gland: See instructions
- WARNINGS:
  - DO NOT OPEN WHEN ENERGIZED
  - DO NOT OPEN IF AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT

(*) Type is completed by numbers and/or letters corresponding to different versions of the enclosure.
(**) T6...T3 or T85°C...T200°C in accordance with the maximum dissipated power and ambient temperature stipulated in the tables below.
(***) See parameters relating to the safety.
(****) Depending on ambient temperature and dissipated power - See Table 1

C. Enclosures with intrinsic safety element without thermal probe:

- SPINA GROUP S.r.l.
- I-20098 san Giuliano Milanese (MI)
- CCF... (*)
- IECEx INE 17.0039X
- (Serial number)
- Ex db[ia IIA or IIB or IIC Ga] IIB or IIB+H2 T6...T3 Gb (**)
- Ex tb[ia Da] IIIC T85°C...T200°C Db IP65 or IP66 (**)
- -25 °C < Tamb < ...°C (***)
- Cable gland: See instructions
- WARNINGS:
  - DO NOT OPEN WHEN ENERGIZED
  - DO NOT OPEN IF AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT

(*) Type is completed by numbers and/or letters corresponding to different versions of the enclosure.
(**) T6...T3 or T85°C...T200°C : Depending on accessories installed - see table 2.
(***) See parameters relating to the safety.

TABLE 1 (with marking of the cable temperature)

Enclosure without intrinsic safety element or with intrinsic safety elements when the enclosure is fitted with an internal probe.

Type of enclosure	T6 / T85°C for max ambient:			T5 / T100°C for max ambient:			T4 / T135°C for max ambient:			T3 / T200°C for max ambient:		
	40°C	50°C	60°C	40°C	50°C	60°C	40°C	50°C	60°C	40°C	50°C	60°C
	P[W]	P[W]	P[W]	P[W]	P[W]	P[W]	P[W]	P[W]	P[W]	P[W]	P[W]	P[W]
CCF10	23	17	10	33	27	20	57	50	43	90	83	77
CCF11	31	22	13	44	35	26	75	66	57	119	110	101
CCF11A	35	25	15	50	40	30	86	76	66	136	126	116
CCF12	57	41	24	82	65	49	139	122	106	220	204	188
CCF13	70	50	30	100	80	60	170	150	130	270	250	230
CCF13A	91	65	39	130	104	78	221	195	169	351	325	299
CCF14	51	37	18	74	55	42	125	111	92	199	139	129
CCF14A	66	48	24	96	72	54	161	143	120	257	179	167
CCF15	81	59	30	118	89	66	199	177	148	318	222	207
CCF15A	99	72	36	144	108	81	243	216	180	387	270	252
CCF16	90	66	33	131	99	74	222	197	164	353	246	230
CCF16A	110	80	40	160	120	90	269	239	199	429	299	279
CCF17	112	82	41	164	123	92	276	245	205	440	307	286
CCF17A	136	99	49	198	148	111	334	297	247	532	371	346
CCF18	110	80	40	160	120	90	270	240	200	430	300	280
CCF18A	146	105	64	210	169	129	351	310	269	555	514	473
CCF19	139	100	61	201	162	123	335	296	257	530	491	452
CCF19A	169	121	74	243	196	148	405	358	310	641	594	547
CCF110	167	120	73	240	194	147	401	354	307	634	588	541
CCF110A	200	144	88	288	232	176	480	424	368	760	704	648
CCF110B	233	168	103	335	270	205	559	494	429	885	820	755
CCF111	220	159	97	317	256	194	529	467	405	837	775	714
CCF111A	256	184	113	368	297	225	614	542	471	972	900	829
CCF111B	291	210	128	419	338	256	699	618	536	1107	1025	944
CCF112	250	180	110	360	290	220	600	530	460	950	880	810
CCF112A	289	208	127	416	335	254	694	613	532	1099	1018	937
CCF112B	328	236	144	473	381	289	788	696	604	1247	1156	1064
CCF113	72	52	32	103	83	63	172	152	132	273	253	233
CCF114	111	80	49	160	129	98	267	236	205	422	391	360
CCF116	402	290	177	579	467	354	965	853	740	1528	1416	1303
CCF116A	461	332	203	664	535	406	1107	978	849	1753	1624	1495
CCF116B	521	375	229	750	604	458	1249	1103	958	1978	1832	1686
CCF120	142	103	63	205	165	125	342	302	262	541	501	462
CCF120A	194	140	86	280	226	171	467	412	358	739	685	630
CCF120B	257	185	113	370	298	226	616	545	473	976	904	832
T.CABLE	80°C			95°C			130°C			175°C		

TABLE 2:

Enclosure with intrinsic safety elements when the enclosure is fitted without an internal probe for classes T6/T85°C, T5/T100°C, T4/T135°C or T3/T200°C depending on the accessories installed.

Max ambient temperature of the enclosure:									
Type of Enclosure	40°C			50°C			60°C		
	Maximum ambient temperature of IS barriers:			Maximum ambient temperature of IS barriers:			Maximum ambient temperature of IS barriers:		
	60°C	70°C	80°C	60°C	70°C	80°C	60°C	70°C	80°C
	P[W]	P[W]	P[W]	P[W]	P[W]	P[W]	P[W]	P[W]	P[W]
CCF10	7	10	17	(*)	7	10	(*)	(*)	7
CCF11	9	13	22	(*)	9	13	(*)	(*)	9
CCF11A	10	15	25	(*)	10	15	(*)	(*)	10
CCF12	16	24	41	(*)	16	24	(*)	(*)	16
CCF13	20	30	50	(*)	20	30	(*)	(*)	20
CCF13A	26	39	65	(*)	26	39	(*)	(*)	26
CCF14	14	28	42	(*)	14	28	(*)	(*)	14
CCF14A	18	36	54	(*)	18	36	(*)	(*)	18
CCF15	22	44	66	(*)	22	44	(*)	(*)	22
CCF15A	27	54	81	(*)	27	54	(*)	(*)	27
CCF16	25	49	74	(*)	25	49	(*)	(*)	25
CCF16A	30	60	90	(*)	30	60	(*)	(*)	30
CCF17	31	61	92	(*)	31	61	(*)	(*)	31
CCF17A	37	74	111	(*)	37	74	(*)	(*)	37
CCF18	30	60	90	(*)	30	60	(*)	(*)	30
CCF18A	47	82	111	(*)	47	82	(*)	(*)	47
CCF19	45	78	106	(*)	45	78	(*)	(*)	45
CCF19A	54	94	128	(*)	54	94	(*)	(*)	54
CCF110	53	93	127	(*)	53	93	(*)	(*)	53
CCF110A	64	112	152	(*)	64	112	(*)	(*)	64
CCF110B	75	130	177	(*)	75	130	(*)	(*)	75
CCF111	70	123	167	(*)	70	123	(*)	(*)	70
CCF111A	82	143	194	(*)	82	143	(*)	(*)	82
CCF111B	93	163	221	(*)	93	163	(*)	(*)	93
CCF112	80	140	190	(*)	80	140	(*)	(*)	80
CCF112A	93	162	220	(*)	93	162	(*)	(*)	93
CCF112B	105	184	249	(*)	105	184	(*)	(*)	105
CCF113	23	40	55	(*)	23	40	(*)	(*)	23
CCF114	36	62	84	(*)	36	62	(*)	(*)	36
CCF116	129	225	306	(*)	129	225	(*)	(*)	129
CCF116A	148	258	351	(*)	148	258	(*)	(*)	148
CCF116B	167	291	396	(*)	167	291	(*)	(*)	167
CCF120	46	80	108	(*)	46	80	(*)	(*)	46
CCF120A	62	109	148	(*)	62	109	(*)	(*)	62
CCF120B	82	144	195	(*)	82	144	(*)	(*)	82

(*) Not allowed

TABLE 3:

Characteristic of the thermal probes installed in the enclosure with intrinsic safety elements for classes T6/T85°C, T5/T100°C, T4/T135°C or T3/T200°C

Threshold of release	Ambient temperature for the enclosure	Ambient temperature of the intrinsic safety element
55°C ± 5°C	40°C or 50°C	≥ 60 °C
65°C ± 5°C	40°C, 50°C or 60°C	≥ 70 °C
75°C ± 5°C	40°C, 50°C or 60°C	≥ 80 °C

TABLE 4: List of the components intended to be installed on or inside the enclosure:

Type of component	Certificate number	Edition of the standards
Enclosure	IECEx INE 14.0056U (Issue 00)	IEC 60079-0: 2011 IEC 60079-1: 2007-04 **(*)** IEC 60079-31: 2008-01 **(*)**
Operators	IECEx INE 14.0023U (Issue 00)	IEC 60079-0: 2011 IEC 60079-1: 2007-04 **(*)** IEC 60079-31: 2008-01 **(*)**
	IECEx INE 13.0073U (issue 02)	IEC 60079-0:2011 IEC 60079-1:2014 IEC 60079-31:2013-02
Breathing and draining devices	IECEx EXA 14.0004U (issue 01)	IEC 60079-0: 2011 IEC 60079-1: 2007-04 **(*)** IEC 60079-31: 2013-02
	IECEx EXA 14.0006U (issue 01)	IEC 60079-0: 2011 IEC 60079-1: 2007-04 **(*)** IEC 60079-31: 2013-02
	IECEx INE14.0045U (issue 01)	IEC 60079-0:2011 IEC 60079-1:2007-04 (*) IEC 60079-31:2008-01 (*)
Terminal blocks	IECEx CES09.0002U (issue 01)	IEC 60079-0: 2004 (*) IEC 60079-0: 2007-10 (*) IEC 60079-7: 2006-07 (*)
	IECEx CES09.0009U (issue 00)	IEC 60079-0: 2004 IEC 60079-7: 2006-07 (*)
	IECEx CES11.0020U (issue 00)	IEC 60079-0: 2007-10 (*) IEC 60079-7: 2006-07 (*)
	IECEx KEM07.0016U (issue 01)	IEC 60079-0: 2004 (*) IEC 60079-7: 2006-07 (*)
	IECEx KEM07.0015U (issue 03)	IEC 60079-0: 2011 IEC 60079-7: 2006-07 (*)
	IECEx KEM07.0010U (issue 04)	IEC 60079-0: 2011 IEC 60079-7: 2006-07 (*)
	IECEx KEM06.0043U (issue 05)	IEC 60079-0: 2011 IEC 60079-7: 2006-07 (*)
	IECEx KEM06.0051U (issue 05)	IEC 60079-0: 2011 IEC 60079-7: 2006-07 (*)
	IECEx KEM06.0050U (issue 04)	IEC 60079-0: 2011 IEC 60079-7: 2006-07 (*)

IECEx Certificate of Conformity

Certificate No.: IECEx INE 17.0039X

Annex: IECEx INE 17.0039X-01_Annex.pdf

Type of component	Certificate number	Edition of the standards
Terminal blocks	IECEx KEM06.0033U (issue 04)	IEC 60079-0: 2011 IEC 60079-7: 2006-07 (*)
	IECEx KEM06.0034U (issue 06)	IEC 60079-0: 2017 IEC 60079-7: 2017
	IECEx KEM06.0029U (issue 04)	IEC 60079-0: 2011 IEC 60079-7: 2006-07 (*)
	IECEx KEM06.0027U (issue 06)	IEC 60079-0: 2011 IEC 60079-7: 2017
	IECEx KEM06.0045U (issue 02)	IEC 60079-0: 2004 (*) IEC 60079-7: 2001 (*)
	IECEx ULD05.0008U (issue 00)	IEC 60079-0: 2004 (*) IEC 60079-7: 2001 (*)
	IECEx ULD05.0009U (issue 01)	IEC 60079-0: 2004 (*) IEC 60079-7: 2001 (*)
	IECEx KEM06.0048U (issue 00)	IEC 60079-0: 2004 (*) IEC 60079-7: 2001 (*)
	IECEx SIR05.0039U (issue 01)	IEC 60079-0: 2004 (*) IEC 60079-7: 2001 (*)
	IECEx SIR05.0038U (issue 00)	IEC 60079-0: 2004 (*) IEC 60079-7: 2001 (*)
	IECEx SIR05.0035U (issue 01)	IEC 60079-0: 2004 (*) IEC 60079-7: 2001 (*)
	IECEx KEM06.0014U (issue 00)	IEC 60079-0: 2004 (*) IEC 60079-7: 2001 (*)
	IECEx SIR05.0032U (issue 00)	IEC 60079-0: 2004 (*) IEC 60079-7: 2001 (*)
	IECEx LCI08.0031U (issue 07)	IEC 60079-0: 2011 IEC 60079-7: 2006-07 (*)

(*) *Not concerned by the major technical changes of the last edition of the harmonized standard.*

ROUTINE EXAMINATIONS AND TESTS

- Covered by the Ex component certificate IECEx INE 14.0056U/00.