1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 06ATEX3285X** Issue: **5**

4 Equipment: **TEX & TES****** Range of Junction Boxes**

5 Applicant: **Tempa Pano**

6 Address: Makine İhtisas Organize Sanayi Bölgesi,
2.Cad.,No:1 Demirciler Köyü
Dilovası KOCAELİ 41455
Turkey

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 60079-0:2012 IEC 60079-7:2015 EN 60079-11:2012 EN 60079-31:2014

The above list of documents may detail standards that do not appear on the UKAS Scope of Accreditation, but have been added through Sira's flexible scope of accreditation, which is available on request.

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EC type-examination certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:

II 2 G D
Ex eb IIC T6 Gb (Tamb –40°C to +40°C)
Ex tb IIIC T57°C Db (Tamb= –40°C to +40°C)
or
Ex eb IIC T5 Gb (Tamb –40°C to +55°C)
Ex tb T72°C Db (Tamb= –40°C to +55°C)

II 1 G
Ex ia IIC T6 Ga (Tamb –40°C to +40°C)
or
Ex ia IIC T5 Ga (Tamb –40°C to +55°C)

Note: -20°C to be marked when fitted with terminals with a -20°C limiting temperature.

Project Number 70027382

C Ellaby
Deputy Certification Manager

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13 **DESCRIPTION OF EQUIPMENT**

The TES****** range of enclosure boxes are manufactured in mild or stainless steel and comprise of an enclosure with a separate lipped lid. The lid has a closed cell, flat EPDM gasket seal that presses on to a lipped edge on the base of the enclosure, with access points for fixing lugs to secure the enclosure to the mounting surface.

The TEX****** range of enclosure boxes are manufactured in mild or stainless steel and comprise of an enclosure with a hinged lid. The lid has a closed cell poured polyurethane gasket seal that presses on to a raised edge on the base of the enclosure to aid sealing. Four fixing lugs are provided to secure the enclosure to the mounting surface.

Enclosure sizes

Type	Width (mm)	Height (mm)	Depth (mm)
TES121208	120	120	80
TES151509	150	150	90
TES191910	190	190	100
TEX152213	150	220	130
TEX262616	260	260	160
TEX262620	260	260	200
TEX303016	300	300	160
TEX303020	300	300	200
TEX263816	260	380	160
TEX263820	260	380	200
TEX384516	380	450	160
TEX384520	380	450	200
TEX484816	480	480	160
TEX484820	480	480	200
TEX355016	350	500	160
TEX355020	350	500	200
TEX456216	450	620	160
TEX456220	450	620	200
TEX745520	740	550	200
TEX507620	500	760	200
TEX648620	640	860	200
TEX619120	610	910	200
TEX749820	740	980	200

The enclosures are fitted with combinations of suitably certified terminals to mounting rails fixed to the rear panel. If Weidmüller WDU 1.5, WDU 2.5 or SAK 2.5 type of terminals are fitted, they are limited to a maximum current of 15 A. The maximum power that may be dissipated inside the enclosures is calculated according to the maximum dissipated power method described in IEC 60079-7:2015 Annex E, E.2. The junction boxes are fitted with a gland plate on the enclosure base.

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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE **Sira 06ATEX3285X**
Issue 5

Maximum power dissipation (W) The following power ratings apply:

Type	T6, maximum Ta = 40°C	T5, maximum Ta = 55°C
TES121208	3.0	3.0
TES151509	6.0	6.0
TES191910	8.0	8.0
TEX152213	11.0	11.0
TEX262616	30.0	30.0
TEX262620	33.0	33.0
TEX303016	39.0	39.0
TEX303020	39.1	39.1
TEX263816	39.2	39.2
TEX263820	39.3	39.3
TEX384516	40.0	40.0
TEX384520	40.1	40.1
TEX484816	40.7	40.7
TEX484820	40.8	40.8
TEX355016	40.2	40.2
TEX355020	40.3	40.3
TEX456216	41.6	41.6
TEX456220	42.1	42.1
TEX745520	65.0	65.0
TEX507620	64.2	64.2
TEX648620	72.0	72.0
TEX619120	73.0	73.0
TEX749820	89.0	89.0

Variation 1 - This variation introduced the following change:

i. The recognition that the TEX & TES****** Range of junction boxes may be manufactured with up to 4 gland plates.

Variation 2 - This variation introduced the following change:

i. The company address was changed:

From:
Baris Mah.1802 Sk.No:7 Gebze
KOCAELİ
41400
Turkey

To:
Makine İhtisas Organize Sanayi Bölgesi,
2.Cad.,No:1 Demirciler Köyü
Dilovası KOCAELİ 41455
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Variation 3 - This variation introduced the following change:

i. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-0:2006, EN 60079-7:2003, EN 60079-11:2007 (used for reference), EN 61241-0:2006 and EN 61241-1:2004 were replaced by EN 60079-0:2012, IEC 60079-7:2015, EN 60079-11:2012 and EN 60079-31:2014, as a result:
- The markings were updated.
- The Conditions of Manufacture were reviewed/revised (this involved changing the way that terminals are selected).
- A Special Condition for Safe was introduced consequently an 'X' suffix was added to the certificate number.
- The new, increased safety standard was recognised in the description.

ii. The tables in the description were changed to recognise new references, as detailed below:

Original	New
TEX221513	TEX152213
TEX382616	TEX263816
TEX382620	TEX263820
TEX453816	TEX384516
TEX453820	TEX384520
TEX503516	TEX355016
TEX503520	TEX355020
TEX624516	TEX456216
TEX624520	TEX456220
TEX765020	TEX507620
TEX866420	TEX648620
TEX916120	TEX619120
TEX987420	TEX749820

iii. The product description was amended to include mild or stainless steel for the material of the TES****** range of enclosure boxes. The enclosure dimension 'length' was changed to 'height' in the Enclosure sizes table.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report no.	Comment
0	14 February 2008	R51A15478A	The release of the prime certificate.
1	21 April 2008	N/A	A typographical error was corrected and the use of standards was clarified.
2	22 May 2008	R51A15478B	The description was corrected to include stainless steel.
3	09 November 2010	R22059A/00	The introduction of Variation 1.
4	24 July 2013	R31511A/00	The introduction of Variation 2.
5	30 November 2015	R70027382A	The introduction of Variation 3.

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15 **SPECIAL CONDITIONS FOR SAFE USE** (denoted by X after the certificate number)

15.1 Special Conditions for Safe Use may apply to the terminals fitted in these junction boxes, the user/installer shall therefore comply with any conditions that have been identified by Tempa Pano.

16 **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II** (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 **CONDITIONS OF CERTIFICATION**

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.

17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.

17.3 The enclosures may also be manufactured to sizes not specified in the documentation provided that any given dimension is not larger than the respective dimension of the largest enclosure or smaller than the respective dimension of the smallest enclosure. The marked power rating shall be the power rating of the next smallest size of enclosure.

17.4 The manufacturer shall only fit the suitably certified screw type terminals listed in drawing number TESTEXTERMINALS_001 SHT 1 of 1. The terminals fitted shall additionally conform with the following requirements:

- When terminals are installed within a T6 enclosure they shall be rated for a minimum of +77ºC and when terminals are installed within a T5 enclosure they shall be rated for minimum of +92ºC.
- Weidmuller WDU 1.5, WDU 2.5 or SAK 2.5 terminals must be limited to a maximum current of 15 A.
- Tempa Pano shall review the Special Conditions for Safe Use/Schedule of Limitations that apply to the terminals fitted in their products, if anything needs to be considered during the installation of the junction boxes, then they shall provide their user/installer with a copy of the certificate that applies to the terminals and specifically identify those condition(s) that need to be addressed.

17.5 Terminals shall be installed in accordance with the conditions specified on their certificate and the manufacturer's instructions.

17.6 An electric strength test shall be carried out on each unit manufactured only if the terminals are fitted with wiring. The test shall be carried out in accordance with IEC 60079-7 clause 7.2.

17.7 The maximum number of terminals permitted shall be calculated in accordance with IEC 60079-7 Annex E, E.2.

17.8 The marking shall be updated to limit the minimum ambient temperature to -20°C when the internally fitted suitably certified terminal is limited to -20°C operating temperature.

17.9 The Junction Box is equipped with terminals for circuits in the type of protection Increased Safety 'e' or Intrinsic Safety i or a combination of both. The intrinsically safe terminals shall be marked for Ex ia IIC e.g in light blue.

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Certificate Annexe

Certificate Number: **Sira 06ATEX3285X**

Equipment: **TEX & TES****** Range of Junction Boxes**

Applicant: **Tempa Pano**

Issues 0 to 2

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Description
PNTES121208-001	1 of 1	00	01 Nov 07	General arrangement – TES121208-S
PNTES151509-001	1 of 1	00	01 Nov 07	General arrangement – TES151509-S
PNTES191910-001	1 of 1	00	01 Nov 07	General arrangement – TES121208-S
PNTEX303016-001	1 of 1	00	01 Nov 07	General arrangement – TEX303016-M1
PNTEX303016-002	1 of 1	00	01 Nov 07	General arrangement – TEX303016-S1
LBL TEX 002	1 of 1	02	01 Nov 07	Label - Terminal box enclosure

Issue 3

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Description
PNTEX456220-003	1 of 1	00	15 Oct 10	TEX456220-S2 Ex-Proof Enclosure
PNTEX456220-004	1 of 1	00	15 Oct 10	TEX456220-S3 Ex-Proof Enclosure
PNTEX456220-005	1 of 1	00	15 Oct 10	TEX456220-S4 Ex-Proof Enclosure

Issue 4

Drawing	Sheets	Rev.	Date(Sira stamp)	Title
LBL TEX 002	1 of 1	03	24 Jul 13	TEX/TES Enclosure Label

Issue 5

Drawing	Sheets	Rev.	Date (Sira Stamp)	Title
PNTES121208-001	1 of 1	01	06 Nov 15	General arrangement-TES121208-S
TESTEXTERMINALS_001	1 of 1	01	06 Nov 15	List of approved Ex e Terminals
LBL ATEX/IECEx 002	1 of 1	00	18 Oct 15	Label drawing

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1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Component intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 06ATEX3286U** Issue: **5**

4 Component: **TEX & TES****** Range of Enclosures**

5 Applicant: **Tempa Pano**

6 Address: Makine İhtisas Organize Sanayi Bölgesi,
2.Cad.,No:1 Demirciler Köyü
Dilovası KOCAELİ 41455
Turkey

7 This component and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, certifies that this component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of a component intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 60079-0:2012 IEC 60079-7:2015 EN 60079-31:2014

The above list of documents may detail standards that do not appear on the UKAS Scope of Accreditation, but have been added through Sira's flexible scope of accreditation, which is available on request.

10 The sign 'U' is placed after the certificate number to indicate that the product assessed is a component and may be subject to further assessment when incorporated into equipment. Any special conditions for safe use are listed in the schedule to this certificate.

11 This EC type-examination certificate relates only to the design and construction of the specified component. If applicable, further requirements of this Directive apply to the manufacture and supply of this component.

12 The marking of the component shall include the following:

II 2 G D
Ex eb IIC Gb
Ex tb IIIC Db

Project Number 70027382

C Ellaby
Deputy Certification Manager

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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE **Sira 06ATEX3286U**
Issue 5

13 **DESCRIPTION OF COMPONENT**

The TES****** range of enclosure boxes are manufactured in mild or stainless steel and comprise of an enclosure with a separate lipped lid. The lid has a closed cell, flat EPDM gasket seal that presses on to a lipped edge on the base of the enclosure, with access points for fixing lugs to secure the enclosure to the mounting surface.

The TEX****** range of enclosure boxes are manufactured in mild or stainless steel and comprise of an enclosure with a hinged lid. The lid has a closed cell poured polyurethane gasket seal that presses on to a raised edge on the base of the enclosure to aid sealing. Four fixing lugs are provided to secure the enclosure to the mounting surface.

Enclosure sizes

Type	Width (mm)	Height (mm)	Depth (mm)
TES121208	120	120	80
TES151509	150	150	90
TES191910	190	190	100
TEX152213	150	220	130
TEX262616	260	260	160
TEX262620	260	260	200
TEX303016	300	300	160
TEX303020	300	300	200
TEX263816	260	380	160
TEX263820	260	380	200
TEX384516	380	450	160
TEX384520	380	450	200
TEX484816	480	480	160
TEX484820	480	480	200
TEX355016	350	500	160
TEX355020	350	500	200
TEX456216	450	620	160
TEX456220	450	620	200
TEX745520	740	550	200
TEX507620	500	760	200
TEX648620	640	860	200
TEX619120	610	910	200
TEX749820	740	980	200

Variation 1 - This variation introduced the following change:

i. The recognition that the TEX & TES****** Range of enclosures may be manufactured with up to 4 gland plates.

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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE **Sira 06ATEX3286U**
Issue 5

Variation 2 - This variation introduced the following change:

i. The company address was changed:

From:	To:
Baris Mah.1802 Sk.No:7 Gebze KOCAELİ 41400 Turkey	Makine İhtisas Organize Sanayi Bölgesi, 2.Cad.,No:1 Demirciler Köyü Dilovası KOCAELİ 41455 Turkey

Variation 3 - This variation introduced the following changes:

i. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-0:2006, EN 60079-7:2003, EN 61241-0:2006 and EN 61241-1:2004 were replaced by EN 60079-0:2012, IEC 60079-7:2015 and EN 60079-31:2014, as a result, the markings were updated accordingly.
ii. A Condition of Certification was introduced to permit the manufacturer to manufacture enclosures to sizes not specified in the documentation.
iii. The existing Special Condition for Safe Use was clarified.
iv. The table in the description was changed to recognise new references, as detailed below:

Original	New
TEX221513	TEX152213
TEX382616	TEX263816
TEX382620	TEX263820
TEX453816	TEX384516
TEX453820	TEX384520
TEX503516	TEX355016
TEX503520	TEX355020
TEX624516	TEX456216
TEX624520	TEX456220
TEX765020	TEX507620
TEX866420	TEX648620
TEX916120	TEX619120
TEX987420	TEX749820

v. The product description was amended to include mild or stainless steel for the material of the TES****** range of enclosure boxes. The enclosure dimension 'length' was changed to 'height' in the Enclosure sizes table.

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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE **Sira 06ATEX3286U**
Issue 5

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report no.	Comment
0	14 February 2008	R51A15478A	The release of the prime certificate.
1	21 April 2008	N/A	A typographical error was corrected.
2	22 May 2008	R51A15478B	The description was corrected to include stainless steel
3	09 November 2010	R22059A/00	The introduction of Variation 1.
4	23 July 2013	R31511A/00	The introduction of Variation 2.
5	30 November 2015	R70027382A	The introduction of Variation 3.

15 SPECIAL CONDITIONS FOR SAFE USE

15.1 The enclosure gasket is suitable for a service temperature range of -40ºC to +100ºC.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 CONDITIONS OF CERTIFICATION

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.

17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.

17.3 The enclosures may also be manufactured to sizes not specified in the documentation provided that any given dimension is not larger than the respective dimension of the largest enclosure or smaller than the respective dimension of the smallest enclosure.

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Certificate Annexe

Certificate Number: **Sira 06ATEX3286U**

Component: **TEX/TES ****** Enclosures**

Applicant: **Tempa Pano**

Issues 0 to 2

Drawing	Sheet	Rev.	Date (Sira stamp)	Description
PNTES121208-001	1 of 1	00	01 Nov 07	General arrangement – TES121208-S
PNTES151509-001	1 of 1	00	01 Nov 07	General arrangement – TES151509-S
PNTES191910-001	1 of 1	00	01 Nov 07	General arrangement – TES121208-S
PNTEX303016-001	1 of 1	00	01 Nov 07	General arrangement – TEX303016-M1
PNTEX303016-002	1 of 1	00	01 Nov 07	General arrangement – TEX303016-S1
LBL TEX 001	1 of 1	02	01 Nov 07	Label - Empty enclosure

Issue 3

Drawing	Sheets	Rev.	Date (Sira stamp)	Description
PNTEX456220-003	1 of 1	00	15 Oct 2010	TEX456220-S2 Ex-Proof Enclosure
PNTEX456220-004	1 of 1	00	15 Oct 2010	TEX456220-S3 Ex-Proof Enclosure
PNTEX456220-005	1 of 1	00	15 Oct 2010	TEX456220-S4 Ex-Proof Enclosure

Issue 4

Drawing	Sheets	Rev.	Date(Sira stamp)	Title
LBL TEX 001	1 of 1	03	23 Jul 13	TEX/TES Enclosure Label

Issue 5

Drawing	Sheets	Rev.	Date (Sira Stamp)	Title
PNTEX303016-002	1 of 1	01	06 Nov 15	General arrangement-TEX303016-S1
LBL ATEX/IECEx 001	1 of 1	00	10 Nov 15	Label drawing

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