(1) # EC-TYPE-EXAMINATION CERTIFICATE

(2) Equipment and Protective Systems intended for use in Potentially Explosive Atmosphere - **Directive 94/9/EC**

(3) EC-Type-Examination Certificate Number

TÜV 11 ATEX 7155 X

(4) Equipment: Mark I, II, III, IV, V & VI Junction Boxes
(5) Manufacturer: Shomal Engineering & Manufacturing Co. (Pirooz)
(6) Address: Salmanshahr Industrial Park, Salmanshahr, Mazandaran, Iran

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

(8) The TÜV Rheinland Notified Body for ex-protected products of TÜV Rheinland Industrie Service GmbH, Notified Body No. 0035 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies this equipment 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 atmosphere, given in Annex II to the Directive.

The examination and test results are recorded in the confidential report 557/Ex155.00/11

(9) Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule of this certificate, has been assessed by reference to:

EN 60079-0: 2009 **EN 60079-7: 2007** **EN 60079-11: 2007** **EN 60079-31: 2009**

(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 specification for construction of the equipment or protective system. It does not cover the process for actual manufacture or supply of the equipment or protective system, for which further requirements of the directive are applicable.

(12) The marking of the equipment shall include the following:

II 2 G D	Ex e II T5 Gb	or	Ex e II T6 Gb
	Ex ia IIC T5 Gb	or	Ex ia IIC T6 Gb
	Ex t IIIC T95 °C Db	or	Ex t IIIC T80 °C Db

TÜV Rheinland ExNB

Cologne, 30th October 2012

Dipl.-Ing. Heinz Farke

0035

(Translation)
This EC-Type-Examination Certificate without signature and stamp shall not be valid.
It may be circulated only without alteration.
Extracts or alterations are subject to approval by the:
TÜV Rheinland Industrie Service GmbH,
Am Grauen Stein, 51105 Köln
Tel. +49 (0) 221 806-0
Fax. + 49 (0) 221 806 114

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(13) Annex

(14) # EC - Type Examination Certificate
TÜV 11 ATEX 7155 X

(15) Description of equipment:

15.1 Equipment and type:

Mark I, II, III, IV, V & VI Junction Boxes

15.2 Description:

The Mark I, II, III, IV, V & VI junction boxes are manufactured from mild steel or stainless steel with a minimum thickness of 2 mm for Mark I & II and 1,5mm for Mark III, IV, V & VI (for the IP 68 versions, the minimum thickness is 2mm for the whole range). Mounting lugs are provided on the external rear face of the enclosure and cable entries may be made through the sides of the enclosure, suitably certified stopping plugs or breather drains may be fitted. An internal and external M6, M8, M10 or M12 brass or stainless steel earth stud is provided with nuts and lock washers. The enclosure may be coated or painted.
The junction box lid is secured by screws and is sealed by a suitable gasket. The lid (For mark I, II and III) may be hinged except for Mark III with flat lid. The lid (For Mark IV, V and VI) is fixed by four hinge pins to allow it to be hinged to either side.

15.3 Technical Data:

Ambient temperature T_a= -20°C to +40°C or
-40°C to +55°C or
-40°C to +65°C

This certificate relies on the following previously certified products. When used as part of any of the range of Junctions Boxes, their original certificate shall still maintain the key attributes listed in the table below.

Manufacturer	Type	Certificate number	Code
Weidmuller	WDU	KEMA 98 ATEX 1683 U	Ex e II
Weidmuller	WDU	KEMA 98 ATEX 1685 U	Ex e II
Weidmuller	WDU	KEMA 98 ATEX 1686 U	Ex e II
Weidmuller	WDK	KEMA 98 ATEX 1687 U	Ex e II
Weidmuller	WFF	KEMA 98 ATEX 1684 U	Ex e II

Weidmuller	SAK	KEMA 97 ATEX 1798 U	Ex e II
Weidmuller	ZDU	KEMA 97 ATEX 2521 U	Ex e II
Weidmuller	ZDU	KEMA 97 ATEX 4677 U	Ex e II
Weidmuller	ZDK	KEMA 97 ATEX 4677 U	Ex e II
Phoenix	UK	KEMA 98 ATEX 1651 U	Ex e II
Phoenix	UK	KEMA 98 ATEX 1786 U	Ex e II
Phoenix	UKH	KEMA 99 ATEX 8332 U	Ex e II
RAAD	RTP	KEMA 04 ATEX 2265 U	Ex e II

Spreadsheet 1: Terminal Types

Mark	Conductor Length (mm)	T_a= -20°C to +40°C		T_a= -40°C to +55°C		T_a= -40°C to +65°C	
		T5. T95°C (55 K rise)	T6, T80°C (40 K rise)	T5. T95°C (40 K rise)	T6, T80°C (25 K rise)	T5. T95°C (30 K rise)	T6, T80°C (15 K rise)
I	660	41,68 W	18,09 W	18,09 W	1,75 W	1,75 W	-
II	550	46,89 W	23,52 W	23,52 W	8,16 W	8,16 W	-
III	165	8,48 W	4,87 W	4,87 W	3,00 W	3,00 W	1,06 W
IV	350	19,70 W	9,36 W	9,36 W	2,23 W	2,23 W	-
V	425	25,57 W	13,82 W	13,82 W	4,46 W	4,46 W	-
VI	226	12,17 W	7,48 W	7,48 W	4,00 W	4,00 W	1,51 W

Spreadsheet 2: Maximum power dissipation given for temperature class definition and temperature limitations for Dust applications, Increased Safety as well as Intrinsically Safe Enclosures.

(16) Test Report No. 557/Ex 155.00/11

(17) Special Conditions for safe use

The cable entry holes shall be fitted with suitably certified cable glands or suitably certified stopping plugs, which are capable of maintaining the IP6X rating of the equipment.

The junction boxes have to be marked Ex ia when equipped with appropriate Ex ia terminals.

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(18) Basic Safety and Health Requirements

The relevant Essential Health and Safety Requirements, which are not covered by the listed standards, were identified in the test report mentioned in clause 8 of this certificate and were assessed individually considering annex II of directive with IEC 31/814/CD.

TÜV Rheinland ExNB

Cologne, 30th October 2012

Dipl.-Ing. Heinz Farke

ATEX Notified body • TÜV Rheinland Industrie Service • 0035

This Type-Examination Certificate without signature and official stamp shall not be valid.
This certificate may be circulated only without alteration. Extracts or alterations are subject to approval by.
TÜV Zertifizierungsstelle of TÜV Rheinland Industrie Service GmbH,

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