



[1]

EC-Type Examination Certificate

[2] **Equipment or Protective Systems Intended for use in Potentially Explosive Atmospheres**

Directive 94/9/EC

[3] EC – Type Examination Certificate Number : **IEP 14 ATEX 0212 x**

[4] Equipment : **TBx/EX and TGx/EX Model Temperature Gauges**

[5] Manufacturer : **PAKKENS Yedek Parça Makina Sanayi ve Ticaret A.Ş.**

[6] Address : **Organize Sanayi Bölgesi Sarı Cadde No:20 Bursa -TURKEY**

[7] This equipment or protective system and any of acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] The IEP Uluslararası Enerji Petrol Gözetim , Sertifikasyon ve Teknik Hizmetler Organizasyonu Tic. Ltd. Sti. , notified body number 2284 in accordance with of the Council Directive 94/9/EC of 23 March 1994 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 confidential Report N : IEP - RP.Ex - 10. 586.1 date 13.05.2015.


[9] Compliance with Essential Health and safety requirements has been assured by compliance with ;

EN 13463-1/2009 ; EN 13463-5/2011

[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 EC-Type Examination Certificate relates only to the design examination and testing of the specified equipment or protective system in accordance to the directive 94/9/EC. Further requirements of the directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

[12] The marking of the equipment or protective system shall include the following :

 II ½ G c
II ½ D c

Responsible person :

Date of issue : 30.04.2014

Nurettin Terzioglu
Head of certification body

Date of issue : 14.05.2015 (Rev.1)





[13] Schedule

[14] Certificate Nr : IEP 14 ATEX 0212 x

[15] Description of Equipment Protective System

The temperature gauges consist of the mechanical basic instruments of TBx/EX and TGx/EX Model temperature gauges. Nominal size 100 and 160 mm of the temperature gauges. Body, cover and connection elements are made of stainless steel . All types temperature gauges degree of protection is IP 65.

The TBx/EX and TGx/EX model temperature gauges are use gas and dust area.

The parts and materials that are used in TBx/EX and TGx/EX model temperature gauges has been determined in the list of mechanical parts dated 07.12.2013

Technical sheets TBx/EX

Model No	TBx/EX
Diameter	Ø100, Ø160 mm
Temperature Element	Bimetal
Type	Filled, Unfilled
Ambient Temperature	Filled / -30 ...+60 °C , Unfilled -30 ...+60 °C
Operating Temperature	Filled / -30 ...+300 °C , Unfilled -30 ...+500 °C
IP XY Degree of Protection	IP 65
Accuracy Class	CI 1.0, CI 2.0
Connection	BSPP, BSPT, NPT, M
TBx/EX	x: Pakkens Code

Technical sheets TGx/EX

Model No	TGx/EX
Diameter	Ø100, Ø160 mm
Temperature Element	Gas
Type	Filled, Unfilled
Ambient Temperature	Filled / -40 ...+60 °C , Unfilled -40 ...+60 °C
Operating Temperature	Filled / -40 ...+300 °C , Unfilled / -40 ...+500 °C
IP XY Degree of Protection	IP 65
Accuracy Class	CI 1.0, CI 2.0
Connection	BSPP, BSPT, NPT, M
TGx/EX	x: Pakkens Code

Responsible person :

Nurettin Terzioglu
Head of certification body





[16] Report Nr : IEP - RP.Ex - 10.586.1

Report Date : 13.05.2015

[17] Special conditions for safe use : Assembly and working of TBx/EX and TGx/EX model temperature gauges with other related equipments must be adapted to national regulations.

[18] Essential Health and Safety Requirements :

18.1 This certificate is in the contents of standards that mentioned in item [9] It has been accepted that of TBx/EX and TGx/EX model temperature gauges are manufactured according to the producer instructions and the standards mentioned above.

18.2 Informations of assembled working of TBx/EX and TGx/EX model temperature gauges with other related equipments exist in instruction manual with 4 pages approved and date 12.2013 , Essential safety requirements report 4 pages and 02.01.2014 dated.

[19] List of documentation :

Hazard analysis report : Total 2 page and date 02.01.2014. (EN 13190)

Declaration of conformity : 1 page and date 12.13 (EN 13463-1)

Test reports for 2 types : Total page 4 and date 17-18 .03.2014

Safety labels explanation Nr : 132-133-134

Technical Drawings (TBx/EX)

TBx/EX / Ø100-Ø160 Bi-Metal Thermometer/General View/Liquid or without liquid Filling		
Drawing Nr	Drawing Name	Date
0804900000	Ø100 Bi-Metal Thermometer/Back Connection/Liquid Filling	05.02.2015
0804910000	Ø100 Bi-Metal Thermometer/Back Connection/Without Liquid Filling	05.02.2015
0809700000	Ø100 Bi-Metal Thermometer/Adjustable Connection/Without Liquid Filling	05.02.2015
0809710000	Ø100 Bi-Metal Thermometer/Adjustable Connection/Liquid Filling	05.02.2015
0810900000	Ø100 Bi-Metal Thermometer/Bottom Connection/Liquid Filling	05.02.2015
0810910000	Ø100 Bi-Metal Thermometer/Bottom Connection/Without Liquid Filling	05.02.2015
0817900000	Ø160 Bi-Metal Thermometer/Back Connection/Liquid Filling	05.02.2015
0817910000	Ø160 Bi-Metal Thermometer/Back Connection/Without Liquid Filling	05.02.2015
0824700000	Ø160 Bi-Metal Thermometer/Adjustable Connection/Without Liquid Filling	05.02.2015
0824710000	Ø160 Bi-Metal Thermometer/Adjustable Connection/Liquid Filling	05.02.2015
0819900000	Ø160 Bi-Metal Thermometer/Bottom Connection/Liquid Filling	05.02.2015
0819910000	Ø160 Bi-Metal Thermometer/Bottom Connection/Without Liquid Filling	05.02.2015

Responsible person :

Nurettin Terzioglu
Head of certification body



IEP Uluslararası Enerji Petrol Gözetim , Sertifikasyon ve Teknik Hizmetler Organizasyonu Tic. Ltd. Sti.
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Number of Pages : 3 / 4

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Technical Drawings (TGx/EX)

TGx/EX / Ø100-Ø160 Gas Actuated Thermometer/General View/Liquid or without liquid Filling		
Drawing Nr	Drawing Name	Date
0825700000	Ø100 Gas Actuated /C11/Bottom Connection/Helezon/Liquid Filling / -40-60C..0-200C	05.02.2015
0825710000	Ø100 Gas Actuated /C11/Bottom Connection/Helezon/Without Liquid Filling / -40-60C..0-200C	05.02.2015
0827700000	Ø100 Gas Actuated /C11/Bottom Connection/Helezon/Liquid Filling/ 0-250C..0-500C	05.02.2015
0827710000	Ø100 Gas Actuated /C11/Bottom Connection/Helezon/Without Liquid Filling/ 0-250C..0-500C	05.02.2015
0830700000	Ø100 Gas Actuated /C11/Bottom Connection/Liquid Filling /-40-60C..0-200C	05.02.2015
0830710000	Ø100 Gas Actuated /C11/Bottom Connection/Without Liquid Filling /-40-60C..0-200C	05.02.2015
0832700000	Ø100 Gas Actuated /C11/Bottom Connection/Liquid Filling/ 0-250C..0-500C	05.02.2015
0832710000	Ø100 Gas Actuated /C11/Bottom Connection/Without Liquid Filling/ 0-250C..0-500C	05.02.2015
0826700000	Ø100 Gas Actuated /C11/Back Connection/Helezon/Liquid Filling / -40-60C..0-200C	05.02.2015
0826710000	Ø100 Gas Actuated /C11/Back Connection/Helezon/Without Liquid Filling / -40-60C..0-200C	05.02.2015
0828700000	Ø100 Gas Actuated /C11/Back Connection/Helezon/Liquid Filling / 0-250C..0-500C	05.02.2015
0828710000	Ø100 Gas Actuated /C11/Back Connection/Helezon/Without Liquid Filling / 0-250C..0-500C	05.02.2015
0831700000	Ø100 Gas Actuated /C11/Back Connection/Liquid Filling / -40-60C..0-200C	05.02.2015
0831710000	Ø100 Gas Actuated /C11/Back Connection/Without Liquid Filling / -40-60C..0-200C	05.02.2015
0833700000	Ø100 Gas Actuated /C11/Back Connection/Liquid Filling / 0-250C..0-500C	05.02.2015
0833710000	Ø100 Gas Actuated /C11/Back Connection/Without Liquid Filling / 0-250C..0-500C	05.02.2015
0860700000	Ø160 Gas Actuated /C11/Bottom Connection/Helezon/Liquid Filling / -40-60C..0-200C	05.02.2015
0860710000	Ø160 Gas Actuated /C11/Bottom Connection/Helezon/Without Liquid Filling / -40-60C..0-200C	05.02.2015
0864700000	Ø160 Gas Actuated /C11/Bottom Connection/Helezon/Liquid Filling/ 0-250C..0-500C	05.02.2015
0864710000	Ø160 Gas Actuated /C11/Bottom Connection/Helezon/Without Liquid Filling/ 0-250C..0-500C	05.02.2015
0862700000	Ø160 Gas Actuated /C11/Bottom Connection/Liquid Filling / -40-60C..0-200C	05.02.2015
0862710000	Ø160 Gas Actuated /C11/Bottom Connection/Without Liquid Filling / -40-60C..0-200C	05.02.2015
0866700000	Ø160 Gas Actuated /C11/Bottom Connection/Liquid Filling/ 0-250C..0-500C	05.02.2015
0866710000	Ø160 Gas Actuated /C11/Bottom Connection/Without Liquid Filling/ 0-250C..0-500C	05.02.2015
0861700000	Ø160 Gas Actuated /C11/Back Connection/Helezon/Liquid Filling / -40-60C..0-200C	05.02.2015
0861710000	Ø160 Gas Actuated /C11/Back Connection/Helezon/Without Liquid Filling / -40-60C..0-200C	05.02.2015
0865700000	Ø160 Gas Actuated /C11/Back Connection/Helezon/Liquid Filling / 0-250C..0-500C	05.02.2015
0865710000	Ø160 Gas Actuated /C11/Back Connection/Helezon/Without Liquid Filling / 0-250C..0-500C	05.02.2015
0863700000	Ø160 Gas Actuated /C11/Back Connection/Helezon/Liquid Filling / -40-60C..0-200C	05.02.2015
0863710000	Ø160 Gas Actuated /C11/Back Connection/Helezon/Without Liquid Filling / -40-60C..0-200C	05.02.2015
0867700000	Ø160 Gas Actuated /C11/Back Connection/Helezon/Liquid Filling / 0-250C..0-500C	05.02.2015
0867710000	Ø160 Gas Actuated /C11/Back Connection/Helezon/Without Liquid Filling / 0-250C..0-500C	05.02.2015

For the validity of analysis type certificate , the parts that are used in TBx/EX and TGx/EX model temperature gauges are determined in confirmed list of mechanical part and 12.2013 dated

Revision 1 description : It is related to the revision of the product code. TBx/EX and TGx/EX model is written instead of XXX 4 and XXX 5 model.

Responsible person :

Nurettin Terzioglu
Head of certification body



Date of issue : 30.04.2014

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