

EC-TYPE EXAMINATION CERTIFICATE



[1]

[2]

**Equipment or Protective System intended for use
in Potentially Explosive Atmospheres
Directive 94/9/EC**

[3]

EC-Type Examination Certificate Number: **DEMKO 09 ATEX 143402 Rev. 0**

[4]

Equipment or Protective System: **Pressure Transmitter, Model 445**

[5]

Manufacturer: **Barksdale**

[6]

Address: **3211 Fruitland Avenue, Los Angeles, CA 90058, USA**

[7]

This equipment or protective system and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

[8]

UL International Demko A/S, notified body number 0539 in accordance with Article 9 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 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 no. **13NK08105**

[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 60079-26:2007

[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 tests 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 the certificate.

[12]

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

 **II 1 G Ex ia IIC T4 Ga**

 **II 1 D Ex ia IIIC T135°C Da**

Certification Manager

Jan-Erik Storgaard

Notified Body

This is to certify that the sample(s) of the Equipment described herein ("Certified Equipment") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Equipment Certification Program Requirements. This certificate and test results obtained apply only to the equipment sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured equipment. UL has not established Follow-Up Service or other surveillance of the equipment. The Manufacturer is solely and fully responsible for conformity of all equipment to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2009-07-03

Re-issued: 2014-04-07

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Tel. +45 44 85 65 65, info.dk@ul.com, www.ul.com



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Schedule

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EC-TYPE EXAMINATION CERTIFICATE No.

DEMKO 09 ATEX 143402 Rev. 0

Report: 13NK08105

[15]

Description of Equipment or protective system

Pressure Transmitter, Model 445. These transmitters provide two wire 4-20 mA current output signals in response to changes in system pressure.

Nomenclature for type:

Model 445 Type

- H3: Cable connected
- H3-E: Cable connected with field zero/span adjustments
- T4: 12 mm DIN connector
- T4-E: 12 mm DIN connector with field zero/span adjustments
- H5: Threaded conduit electrical connection
- H5-E: Threaded conduit electrical connection with zero/span adjustments

Temperature range:

The ambient temperature range is -40 °C to +70 °C.

Electrical data

Intrinsically safe specifications:

U_i : 28 V
 I_i : 80 mA
 P_i : 0,50 W
 L_i : 88 uH
 C_i : 73 nF

Installation instructions

Installation instruction provided with apparatus.

Routine tests

None required.

[16]

Report No.

Project Report No.: 13NK08105 (Hazardous Location Testing)

Documents:

Description:

Nameplate, I.S., 4-20mA, ATEX Models
 Nameplate, ADJ, I.S., 4-20mA, ATEX Models
 Intrinsically Safe Installation Control Drawing
 Pressure Transmitter
 Installation Instructions
 Assembly Drawing
 Schematic, 4-20mA Amplifier
 Circuit Board Assembly
 Circuit Wiring Board
 Housing
 Sensor Assembly, Absolute
 Sensor Assembly, Low
 Sensor Assembly, Medium
 Sensor Assembly, High
 Sensor, Vc, Low, 100mV Gage, NOVA
 Sensor, Vc, Absolute, 100mV Gage, NOVA
 Sensor Vc, Medium, 100mV Gage, NOVA
 Sensor Vc, High, 100mV Gage, NOVA

Drawing No.:

B250918
 B250919
 TD-B77
 445
 272139
 C981360
 C445-CE-DE
 C371PC110
 C271PC109
 B227316
 C371M315
 C371M316
 C371M317
 C371M318
 C371MT37
 C371MT45
 C371MT46
 C371MT48

Rev. Level:

C
 C
 J
 H
 H
 B
 E
 E
 B
 C
 T
 J
 D
 V
 E
 B
 C
 B

Date:

2013-12-13
 2013-12-13
 2000-04-05
 2014-03-21
 2014-03-25
 2014-03-27
 2014-02-27
 2013-12-13
 2013-08-20
 2007-02-16
 2004-09-07
 2013-08-27
 2009-09-03
 2007-07-26
 2011-03-02
 2000-06-09
 2008-06-04
 2004-08-24

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Special conditions for safe use:

None.



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Schedule

[14]

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Essential Health and Safety Requirements

Concerning ESR this Schedule verifies compliance with the ATEX directive only. The manufacturer's Declaration of Conformity declares compliance with other relevant Directives.

Additional information

The Model 445 Pressure Transmitter has in addition passed the tests for Ingress Protection to IP65 in accordance with EN 60529:1991/A1 2001.

This certificate was issued as "Accredited by DANAK under registration number 7011 to certification of products".

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in ANNEX III to Directive 94/9/EC of the European Parliament and the Council of 23 March 1994.

