

TYPE EXAMINATION CERTIFICATE



[1]

[2]

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

[3]

Type Examination Certificate Number: **DEMKO 13 ATEX 7917321X Rev. 2**

[4]

Equipment: **Stratix 2000 Ethernet Unmanaged Switches, Catalog Number 1783-US8T, 1783-US5T, 1783-US16T, 1783-US4T1F, 1783-US4T1H, 1783-US7T1F, 1783-US7T1H, 1783-US6T2F, 1783-US6T2H, 1783-US14T2S, 1783-US5TG, 1783-US6TG2CG**

[5]

Manufacturer: **Rockwell Automation**

[6]

Address: **1201 South Second Street, Milwaukee, WI 53204-2496, USA**

[7]

This equipment 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 certifies that this equipment has been found to comply with the Essential Health and Safety Requirements that relate to the design of **Category 3** equipment, which is intended for use in potentially explosive atmospheres. These Essential Health and Safety Requirements are given in Annex II to the European Union Directive 94/9/EC of 23 March 1994.

The examination and test results are recorded in confidential report no. **4786399807**

[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 Standards:

EN 60079-0:2012+A11:2013

EN 60079-15:2010

[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 Type examination certificate relates only to the design of the specified equipment, and not to specific items of equipment subsequently manufactured.

[12]

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

II 3 G **Ex nA IIC T5 Gc**
 II 3 G **Ex nA IIC T4 Gc**

Certification Manager
Jan-Erik Storgaard

Certification 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: 2013-06-25

Re-issued: 2014-05-15



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[14]

Schedule
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Report: 4786399807

[15]

Description of Equipment:

The Ethernet Unmanaged Switches, Models 1783-US8T, 1783-US5T, 1783-US16T, 1783-US4T1F, 1783-US4T1H, 1783-US7T1F, 1783-US7T1H, 1783-US6T2F, 1783-US6T2H, 1783-US14T2S, 1783-US5TG, 1783-US6TG2CG are networking devices.

The models 1783-US8T, 1783-US5T, 1783-US16T, 1783-US4T1F, 1783-US4T1H, 1783-US7T1F, 1783-US7T1H, 1783-US6T2F, 1783-US6T2H, 1783-US14T2S offer between 4 and 16 10/100 Base-T(X) ports and between 0 and 2 SFP optical module ports.

The models 1783-US5TG, 1783-US6TG2CG series offer between 5 and 8 10/100/1000 Base-T(X) ports and between 0 and 2 SFP gigabit combo ports (10/100/1000Base-T(X) or Gigabit SFP optical module ports).

The subject models consist of one or two circuit boards that utilize the non-sparking "nA" protection method.

The optical radiation output of the apparatus with respect to explosion protection, according to Annex II clause 1.3.1 of the directive 94/9/EC is covered in this certificate.

The relation between ambient temperature and the assigned temperature class is as follows:

Model	Ambient temperature range	Temperature class
1783-US5T	0 C to +60 C	T5
1783-US8T	0 C to +60 C	T5
1783-US4T1 (F and H)	-40 C to +70 C	T4
1783-US6T2 (F and H)	-40 C to +70 C	T4
1783-US7T1 (F and H)	-40 C to +70 C	T4
1783-US14T2S	-40 C to +70 C	T4
1783-US16T	-40 C to +70 C	T4
1783-US5TG	-40 C to +70 C	T4
1783-US6TG2CG	-40 C to +70 C	T4

Electrical data

1783-US5T - 18-60Vdc, or 18-30 Vac, 50/60 Hz, Class 2 Power source, 250mA, 2 Watts Max.

1783-US8T - 18-60 VDC, or 18-30 VAC, 50/60 Hz, Class 2 Power source, 361mA, 4.04 Watts Max.

1783-US4T1 (F and H) - 18-60 Vdc or 18-30 Vac, 50/60 Hz, 230.5 mA, 2.841 watts max.

1783-US6T2 (F and H) - 18-60 Vdc or 18-30 Vac, 50/60 Hz, 442.3 mA, 5.927 watts max.

1783-US7T1 (F and H) - 18-60 Vdc or 18-30 Vac, 50/60 Hz, 442.3 mA, 5.927 watts max.

1783-US14T2S - 18-60 Vdc or 18-30 Vac, 50/60 Hz, 663.2 mA, 7.991 watts max.

1783-US16T - 18-60 Vdc or 18-30 Vac, 50/60 Hz, 555.5 mA, 6.72 watts max.

1783-US5TG - 18-60 Vdc or 18-30 Vac, 50/60 Hz, 432.1mA, 5.491 watts max.

1783-US6TG2CG - 18-60 Vdc or 18-30 Vac, 50/60 Hz, 1242.7 mA, 13.643 watts max.

Nominal Voltage: 24 VDC/AC

Installation instructions

All field wiring intended for connection to the power terminal shall consist of copper conductors with the insulation locally removed. Additional intermediate connecting parts, other than ferrules, shall not be used.

Routine tests

No Routine Tests are necessary.



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[14]

Schedule
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[16] Descriptive Documents
 Project Report No.: 4786399807 (Hazardous Location Testing)

Drawings:

Description:	Drawing No.:	Rev. Level:	Date:
1783-US8T Label Drawing (5 pages)	10000326813	00	2013-06-10
1783-US8T Product Information (2 pages)	1783-PC002A-EN-P	-	2013-05
1783-US8T Installation Instructions (16 pages)	1783-IN010A-EN-P	-	2012-12
Installation Instruction for Model 1783-US5T (4 pages)	1783-PC002B-EN-P	-	2013-08
1783-US5T Label	10000480144	00	-
1783-US4T1F Label Drawing	10000480145	00	2014-02-06
1783-US4T1H Label Drawing	10000480150	00	2014-02-06
1783-US6T2F Label Drawing	10000480152	00	2014-01-24
1783-US6T2H Label Drawing	10000480153	00	2014-02-06
1783-US7T1F Label Drawing	10000480146	00	2014-02-06
1783-US7T1H Label Drawing	10000480151	00	2014-02-06
1783-US14T2S Label Drawing	10000524164	00	2014-02-06
1783-US16T Label Drawing	10000480147	00	2014-02-06
1783-US5TG Label Drawing	10000480148	00	2014-02-06
1783-US6TG2CG Label Drawing	10000480149	00	2014-02-06
1783-US8T Installation Instructions (16 pages)	1783-PC002C-EN-P	-	2014-05

[17] Special conditions for safe use:

- Device is to be installed in an ATEX certified IP54 enclosure.
- Subject devices are for use in an area of not more than pollution degree 2 in accordance with EN/IEC 60664-1.
- Provision shall be made to prevent the rated voltage from being exceeded by transient disturbances of more than 140% of the rated voltage. Optical SFP communications modules provided by the end customer are limited to Laser Class I only and shall be IECCE or UL Certified.
- The following minimum wire temperatures are to be observed for the relevant models:-
 - o 1783-US5TG – 97°C
 - o 1783-US16T – 84°C
 - o 1783-US4T1 (F and H) – 82°C
 - o 1783-US6T2 (F and H) and 1783-US7T1 (F and H) – 87°C
 - o 1783-US14T2S – 84°C
 - o 1783-US6TG2CG – 78°C

[18] Essential Health and Safety Requirements
 Met by compliance with the standards EN 60079-0:2012+A11:2013 and EN 60079-15:2010.

