IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres
for rules and details of the IECEx Scheme visit www.iecex.com
Ex COMPONENT CERTIFICATE

Certificate No.:	**IECEx CSAE 25.0004U**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 0	
Date of Issue:	2025-06-16		
Applicant:	**Brodersen** Byageren 7 2850 Nærum **Denmark**		
Ex Component:	RTU32M System		

This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).

Type of Protection:	**Increased Safety 'e', Protected Sparking 'nC'**
Marking:	Ex ec nC IIC Gc

Approved for issue on behalf of the IECEx Certification Body:	**Michelle Halliwell**
Position:	**Senior Director of Operations**
Signature: (for printed version)	
Date: (for printed version)	

Certificate issued by:

CSA Group Testing UK Ltd
Unit 6, Hawarden Industrial Park
Hawarden, Deeside CH5 3US
United Kingdom

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Manufacturer: **Brodersen**
Byageren 7
2850 Nærum
Denmark

Manufacturing locations: **Brodersen**
Byageren 7
2850 Nærum
Denmark

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The component and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-15:2017 Edition:5.0	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
IEC 60079-7:2017 Edition:5.1	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the component listed has successfully met the examination and test requirements as recorded in:

Test Report:

GB/CSAE/ExTR25.0044/00

Quality Assessment Report:

GB/CSAE/QAR25.0013/00

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Ex Component(s) covered by this certificate is described below:

The RTU32M system provides RTU functionality for a range of remote monitoring and control applications in the utility and infrastructure markets. Rated to 24Vdc, the system consists of a CPU module, power supply module, various I/O modules, and system modules. Each module is divided into two parts: the bottom part containing the backplane bus and a top part containing the main board that performs the function. The backplane bus and the top part are enclosed in a plastic cover that fits together to form a complete module unit. The 24V input supply is connected to the power supply module, which provides a 12V supply line to the other modules via the backplane bus. The modules are mounted on a DIN rail, and the RTU32M system must be installed in a suitable enclosure certified to EN/IEC 60079-7. The following are the various modules ratings and short description:

Reference Code	Description / Function	Consumption and Rating	Interface
MP32A Rev B	CPU Module	12V, 200mA,2.4W from backplane	Two LAN ports and USB port with M8 connector
MP32A Rev D	CPU Module	12V, 200mA,2.4W from backplane	LAN ports and USB port with M8 connector
CM02A	Network / LAN Module	12Vdc, 100 mA, 1.2 W from backplane	LAN port and COM1 Isolated RS232/ RS485 with RJ12 connector
FP02A	Fiber Optic module	12 Vdc, 100 mA, 1.2 W from backplane & external optical input.	F1 LINK and F2 LINK fiber optic interfaces
PS24A	Power Supply module	24Vdc, 900mA (steady state current), output (Backplane) 12 Vdc+-10%, 1.2 A or 1.6 A. Another 12Vdc, 60mA, 700mW from backplane.	6-way spring clamp connector
RL02A	Redundancy Link module	12 Vdc, 75mA, 0.9W from the CPU (via the M8 connector)	2 Ethernet M8 4 pins connector
AI08A	Analog Input module	12Vdc, 80 mA, 1W from backplane, & external 0-10V,0-5V, ±5V, ±10V(Voltage mode)0-20mA,±20mA 4-20mA(current mode)	8 different channels voltage or current mode via 2 x 12way spring clamp connector
AI08T	Analog Input module	12Vdc, 80 mA, 1W from backplane, & 8 channels PT100/ PT1000	2 x 12way spring clamp connector for connecting PT100/PT1000 RTD sensors
AO02B	Analog output module	12 Vdc, 120 mA, 1.4 W from backplane, & external 12 Vdc, 50 mA	2 channels Analog Output 0-20mA,4-20mA via 6-way spring clamp connector
DI20A	Digital Input module	12 Vdc, 25 mA, 300 mW from backplane, & Digital input10-30Vdc	Digital Inputs via 2 x 12-way spring clamp/ screw connector
DO20A	Digital Output module	12 Vdc, 25 mA, 300 mW from backplane, Digital Output 10-30VDC max 2A per section (10 Output)	Digital Outputs via 2 x 12-way spring clamp/screw connector
SP04B	Serial Module	12Vdc, 110 mA, 1.32 W from backplane	Ports 1-4 RS232/RS485 comms ports
DM20A	Digital I/O module	12 Vdc, 25 mA, 300mW from backplane.	Digital Input and output via 2 x 12-way spring clamp connectors
BB21ABC	Backplane bus modules	Not applicable	Not applicable
BB41ABE	Backplane bus modules	Not applicable	Not applicable
BB61BR	Backplane bus modules	Not applicable	Not applicable

BB81AB	Backplane bus modules	Not applicable	Not applicable

SCHEDULE OF LIMITATIONS:

1. The RTU32M module shall be installed in a suitable enclosure which is certified to EN/IEC 60079-7.
2. The service temperature of the RTU32M system is -20℃ to +65℃. This shall be maintained when installed in an enclosure.
3. The maximum temperature of the modules at 65℃ ambient are as below:

Module name	Maximum temperature at 65C ambient
PS24A Power Supply module	99.4℃
MP32A Rev B – CPU Module	105.1℃
MP32A Rev D CPU module	105.1℃
CM02A LAN module	92℃
FP02A Fiber Optic module	94.3℃
RL02A Redundancy Link module	85℃
AI08A Analog Input module	82.9℃
AI08T Analog Input module	75.7℃
AO02B Analog output module	80.7℃
DI20A Digital Input module	104.5℃
DO20A Digital Output module	82.2℃
SP04B Serial Module	89.7℃
DM20A Digital I/O module	86.1℃
BB21ABC BB41ABE BB61BR BB81AB Backplane bus modules	77.1℃