

Certificates

ET-xx6-A

**Series 400 Panel PC
Series 500 Thin Clients**

(valid for HW Rev. 3)



HW-Rev. ET-xx6-A-Fx:	03.00.11
HW-Rev. ET-xx6-A-Tx:	03.00.21

Certificates version:	03.00.00
Issue:	12.02.2013

Table of contents

	Description	Page
	Table of contents	2
1	Preface	3
2	ATEX EC type examination certificate	4
2.1	1 st supplement	13
3	IECEX certificate	17
3.1	Issue No1	20
4	DNV certificate	25
5	LR certificate	28
6	GOST-R certificate	30
6.1	GOST-R operating licence	33
7	CSA certificate	35
8	UL-BR certificate	54
9	Release Notes	59

1 Preface



This document contains all valid certificates for the ET-xx6-A Panel PC Ex and Thin Client Ex product line.

All technical details contained in the EC type examination certificate are also part of the associated operating instructions.

All certificates are also available on R. STAHL HMI Systems GmbH's website and on the CDs/DVDs included in the delivery and a copy can also be ordered from R. STAHL HMI Systems GmbH.

2 ATEX EC type examination certificate

(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 7041 X

- (4) Equipment: **Operator Interface** Type: **ET-**6-A-*.*****
- (5) Manufacturer: **R. Stahl HMI Systems GmbH**
- (6) Address: **Im Gewerbegebiet Pesch 14 D – 50767 Köln**

- (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 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 / Ex 041.00 / 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 60079-1: 2007	EN 60079-7: 2007	EN 60079-11: 2007
EN 60079-18: 2009	EN 60079-28: 2007	EN 60079-31: 2009	EN 61241-11: 2006

- (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 (alternative marking see manual):

	II 2 (2) G	Ex d e ia ib mb [ia ib] IIC T4 Gb	for type code TX
	II 2 (2) D	Ex ia tb [ia ib] IIIC T80°C Db IP66	for type code TX
	II 2 (2) G	Ex d e ia ib mb [ia ib op is] IIC T4 Gb	for type code FX
	II 2 (2) D	Ex ia tb [ia ib op is] IIIC T80°C Db IP66	for type code FX

TÜV Rheinland Ex Notified Body

Cologne, 25th May 2011

Dipl.-Ing. Heinz Farke



Translation
This EC-Type Examination Certificate shall not be valid without signature and stamp.
This EC-Type Examination Certificate may be circulated without alteration only.
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 to

(14) **EC - Type Examination Certificate**
TÜV 11 ATEX 7041 X

(15) **Description of Equipment**15.1 Article / Type Code

ET - * * 6 - A - * - ***

HDn = equipped with hard disk drive
 (memory size n)
 and/or
 SR = Sunlight Readable display
 and/or
 additional information
 (not relevant for ex-approval)

FX = Fiber optic LAN
 TX = Copper wire LAN

Revision 3

Family code fixed to 6

Size Code: 0 = 10" VGA Display
 1 = 10" SVGA Display
 3 = 15" Display

Type Code: 3 = EAGLE (STAHL Operating System)
 4 = OPEN HMI (Windows, Linux OS)
 5 = REMOTE HMI (Windows remote operating System)

Device for zones 1 and 21

The Exicom ET-**6-A-*-* devices are operator interfaces or panel PCs for installation in hazardous locations classified for zones 1, 2, 21 and 22. The entire devices are built in housings that are protected against liquids and dust without need to be installed in hazardous locations certified cabinets. The different models vary in display size (10" to 15") and overall size, front panel with or without keyboard and overall functionality. Three main functionalities are (characterized by the first type code number, not ex-relevant):

- ET-3*6-A-*-*: STAHL operating system for user application;
- ET-4*6-A-*-*: Standard operation system (e.g. Windows Embedded, Linux etc.) for standard applications;
- ET-5*6-A-*-*: Windows Embedded Standard operating system for remote applications.

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Page 1 / 8



Internal construction of all devices is equal for most parts for all models.
 All models have several interfaces to connect external devices as keyboards, joysticks, trackballs, RFID- or barcode-scanner etc.
 Communication with PLC networks and automation systems is achieved by different interfaces (RS-232, RS-485, Ethernet fiber optic or copper wire Ethernet links) connected in the "Ex-e"-area at the back of the devices.

Assembling of accessory as USB memory sticks and hard disk drives is previewed.

15.2 Technical data / parameters

Operating temperature range: -20°C (Front -30°C) $\leq T_a \leq +55^{\circ}\text{C}$
 IP Code of enclosure: IP 66

External, non-intrinsically safe circuits

Input voltage (X1)

Rated Voltage	24 VDC (+20% /-15%)
max. Voltage Um	30 VAC
Rated current	1.5 A

RS-422/-232 COM 1 (X2)

Rated voltage	
RS232:	± 12 VDC
RS422:	5 VDC
max. Voltage Um	253 VAC

Audio out (X3)

Rated Voltage	5 VDC
max. Voltage Um	253 VAC

USB-1 (X5)

Rated Voltage	5 VDC
max. Voltage Um	253 VAC

USB-3 (X7)

Rated voltage	5 VDC
max. voltage Um	253 VAC

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**LAN (X11)**

Rated voltage 5 VDC
 max. voltage U_m 30 VAC

External intrinsically safe circuits

Co and Lo pairs directly above/underneath each other may be used.

If the operator interfaces are installed in Zone 21 the maximum values for L and C of Group IIB apply to the intrinsically safe circuits.

USB-0 (X4) and USB-2 (X6)

U_o = 5.9 V

I_o = 2.18 A

P_o = 1.24 W

Maximum values, rectangular source for Zone 1 Group IIC:

L_i = 0 mH	L_o = 0.01	0.005	0.002	0.001	mH
C_i = 0 μ F	C_o = 5.1	11	28	43	μ F

Maximum values, rectangular source for Zone 1 Group IIB:

L_i = 0 mH	L_o = 0.05	0.02	0.01	0.005	mH
C_i = 0 μ F	C_o = 14	40	79	200	μ F

ET-Reader-2-RSi1 and RSi2 (X8)

Reader-2-RSi1 module supply (internal UB_RDR output),
 terminal X8.0 (bridged to X8.2)

U_o = 10.4 V

I_o = 220 mA

P_o = 2.29 W

This Certificate may be circulated without alterations only.
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**Maximum values, rectangular source for Zone 1 Group IIC:**

$$\begin{array}{ll} L_i = 0 \text{ mH} & L_o = 0.01 \text{ mH} \\ C_i = 1.72 \text{ }\mu\text{F} & C_o = 0.8 \text{ }\mu\text{F} \end{array}$$

Remark:

No values for IIB available for connection to X8.2.
The level IIC provides sufficient parameters.

Reader-2-RSi1 module supply input, terminal X8.2 (bridged to X8.0)

$$\begin{array}{ll} U_i = 12.4 \text{ V} \\ I_i = 220 \text{ mA} \\ P_i = 2.29 \text{ W} \\ L_i = 0 \text{ mH} \\ C_i = 25 \text{ nF} \end{array}$$

Reader-2-RSi1 power supply for reader, terminals X8.3 – 4

$$\begin{array}{ll} U_o = 5.36 \text{ V} \\ I_o = 220 \text{ mA} \\ P_o = 1.18 \text{ W} \end{array}$$

Maximum values, rectangular source for Zone 1 Group IIC:

$$\begin{array}{ll} L_i = 0 \text{ mH} & L_o = 0.002 \text{ } | \text{ } 0.001 \text{ mH} \\ C_i = 5.3 \text{ }\mu\text{F} & C_o = 40.7 \text{ } | \text{ } 59.7 \text{ }\mu\text{F} \end{array}$$

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Page 4 / 8


Maximum values, rectangular source for Zone 1 Group IIB:

Li	=	0	mH	Lo	=	0.02	0.01	mH
Ci	=	5.3	μF	Co	=	70.7	124.7	μF

Reader-2-Rsi1 and -Rsi2 signal input/output, terminals X8.5 – 8

Ui	=	15	V	Uo	=	5.36	V
Ii	=	500	mA	Io	=	46	mA
Pi	=	2.5	W	Po	=	62	mW

Maximum values, linear source for Zone 1 Group IIC:

Li	=	0	mH	Lo	=	0.002	mH
Ci	=	0	μF	Co	=	46	μF

Maximum values, linear source for Zone 1 Group IIB:

Li	=	0	mH	Lo	=	0.02	mH
Ci	=	0	μF	Co	=	79	μF

ET-Reader-2-WCR1 and WCR2 (X8)
**Reader-2-WCR1 module supply (from external is-power supply)
terminal X8.1 - 2**

Ui	=	11.4	V
Ii	=	200	mA
Pi	=	2.28	W

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Li = 0 mH

Cl = 25 nF

Reader-2-WCR1 power supply for reader, terminals X8.3 – 4

Uo = 5.88 V

Io = 200 mA

Po = 1.18 W

Maximum values, rectangular source for Zone 1 Group IIC

Li = 0 mH	Lo = 0.002	0.001 mH
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Cl = 5.3 μF	Co = 27.7	37.7 μF
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Maximum values, rectangular source for Zone 1 Group IIB:

Li = 0 mH	Lo = 0.02	0.01 mH
-----------	-----------	---------

Cl = 5.3 μF	Co = 55.7	94.7 μF
-------------	-----------	---------

Reader-2-WCR1 and -WCR2 signal input/output, X8.5 – 8

Ui = 15 V	Uo = 5.88 V
-----------	-------------

Ii = 500 mA	Io = 51 mA
-------------	------------

Pi = 2.5 W	Po = 75 mW
------------	------------

Maximum values, linear source for Zone 1 Group IIC

Li = 0 mH	Lo = 0.002 mH
-----------	---------------

Cl = 0 μF	Co = 34 μF
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Page 6 / 8

**Maximum values, linear source for Zone 1 Group IIB:**

Li	=	0	mH	Lo	=	0.02	mH
Cl	=	0	μF	Co	=	63	μF

Keyboard & Pointing device protection level "ib" (X9)

Uo	=	5.88	V
Io	=	200	mA
Po	=	1.18	W

Maximum values, rectangular source for Zone 1 Group IIC

Li	=	0	mH	Lo	=	2	1	μH
Cl	=	17.6	μF	Co	=	15.4	25.4	μF

Maximum values, rectangular source for Zone 1 Group IIB:

Li	=	0	mH	Lo	=	100	50	20	10	μH
Cl	=	17.6	μF	Co	=	10.4	20.4	43.4	82.4	μF

Keyboard & Pointing device protection level "ia" (X9)

Uo	=	5.88	V
Io	=	4.36	A
Po	=	1.18	W

Maximum values, linear source for Zone 1 Group IIC

Li	=	0	mH	Lo	=	2	1	μH
Cl	=	17.6	μF	Co	=	13.4	25.4	μF

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Maximum values, linear source for Zone 1 Group IIB:

Li	=	0	mH	Lo	=	20	10	5	1	μH
Cl	=	17.6	μF	Co	=	32.4	74.4	202.4	982	μF

External inherently safe optical interface X10

Wavelength = 1350 nm

radiant power ≤ 35 mW

(16) **Test Report No.** 557 / Ex 041.00 / 11

(17) **Special Conditions for safe use**

For ET - **6 - A - * - *SR*:

The front of the operator interface equipped with a sunlight readable display (type code includes "SR") may be cleaned with a damp cloth only.

(18) **Basic Safety and Health Requirements**

Fulfilled

TÜV Rheinland Ex Notified Body

Cologne, 25th May 2011


Dipl.- Ing. Heinz Farke



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Page 8 / 8

2.1 1st supplement

1st Supplement
 acc. to directive 94/9/EC, Appendix III, No 6
 to the EC-Type Examination Certificate
TÜV 11 ATEX 7041 X



Device: Operator Interface Type: ET-**6-A-*-***

Manufacturer: R. Stahl HMI Systems GmbH

Address: Im Gewerbegebiet Pesch 14 D – 50767 Köln, Germany

Description of supplements and modifications:

(15) The following modifications are valid for this 1st supplement

Verwendete Normen IEC 60079-0: 2011 ; IEC 60079-1: 2007;
 IEC 60079-7: 2006; IEC 60079-11: 2011
Standard basis IEC 60079-18: 2009; IEC 60079-28: 2006
 IEC 60079-31: 2008

Schutzartkennzeichnung

Code for type of protection

Type code -TX-		Ⓔ II 2 (2) G Ex d e ia ib mb [ia ib] IIC T4 Gb
	alternative	Ⓔ II 2 (2) G Ex db eb ia ib mb [ia ib] IIC T4
		Ⓔ II 2 (2) D Ex ia tb [ia ib] IIIC T80°C Db IP66
	alternative	Ⓔ II 2 (2) D Ex ia tb [ia ib] IIIC T80°C IP66
Type code -FX-		Ⓔ II 2 (2) G Ex d e ia ib mb [ia ib op is] IIC T4 Gb
	alternative	Ⓔ II 2 (2) G Ex db eb ia ib mb [ia ib op is] IIC T4
		Ⓔ II 2 (2) D Ex ia tb [ia ib op is] IIIC T80°C Db IP66
	alternative	Ⓔ II 2 (2) D Ex ia tb [ia ib op is] IIIC T80°C IP66

This 1st supplement to the EC-Type-Examination Certificate without signature and official stamp shall not be valid. The certificate may be circulated only without alteration. Extracts or alterations are subject to approval by TÜV Zertifizierungsgesellschaft of TÜV Rheinland Industrie Service GmbH. In case of dispute, the German text shall prevail.
 page 1 / 4

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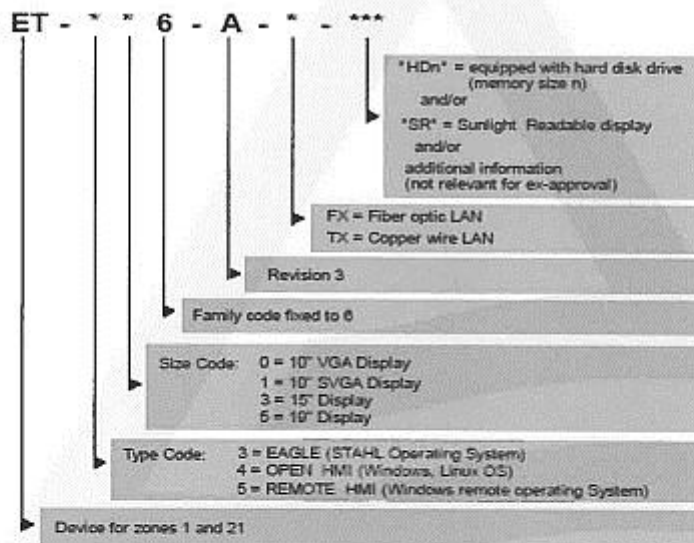
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Relevant for user:

The system is supplemented by devices with 19inch displays, characterized by the second type code number "5": ET-356-A., ET-456-A. and ET-556-A..

Internal changes not relevant for user:

- Standard editions have been adapted to current issues.
- Front panel and housing have been enlarged to fit the larger display.
- Power supply has been modified. Display supply voltage has been increased from 3.3 V to 5 V and USB shutdown function has been implemented.
- FX-Version of Base Board has been modified. A not ex-relevant resistor was eliminated.
- At Interface Board the audio output has been modified. Not ex-relevant resistors may be changed to adjust volume.
- Power into 19 inch display front has been assessed.
- Assignment of thermo cut-offs at CONV31 device have been clarified.

Type code:

The Exicom ET-**-6-A-*** devices are operator interfaces or panel PCs for installation in hazardous locations classified for zones 1, 2, 21 and 22.

The entire devices are built in housings that are protected against liquids and dust without need to be installed in hazardous locations certified cabinets.

This 1st supplement to the EC-Type-Examination Certificate without signature and official stamp shall not be valid. The certificate may be circulated only without alteration. Extracts or alterations are subject to approval by TÜV Zertifizierungsstelle of TÜV Rheinland Industrie Service GmbH. In case of dispute, the German text shall prevail.

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The different models vary in display size (10" ; 15" and in 1st Supplement now 19") and overall size, front panel with or without keyboard and overall functionality.

Three main functionalities are (characterized by the first type code number, not ex-relevant):

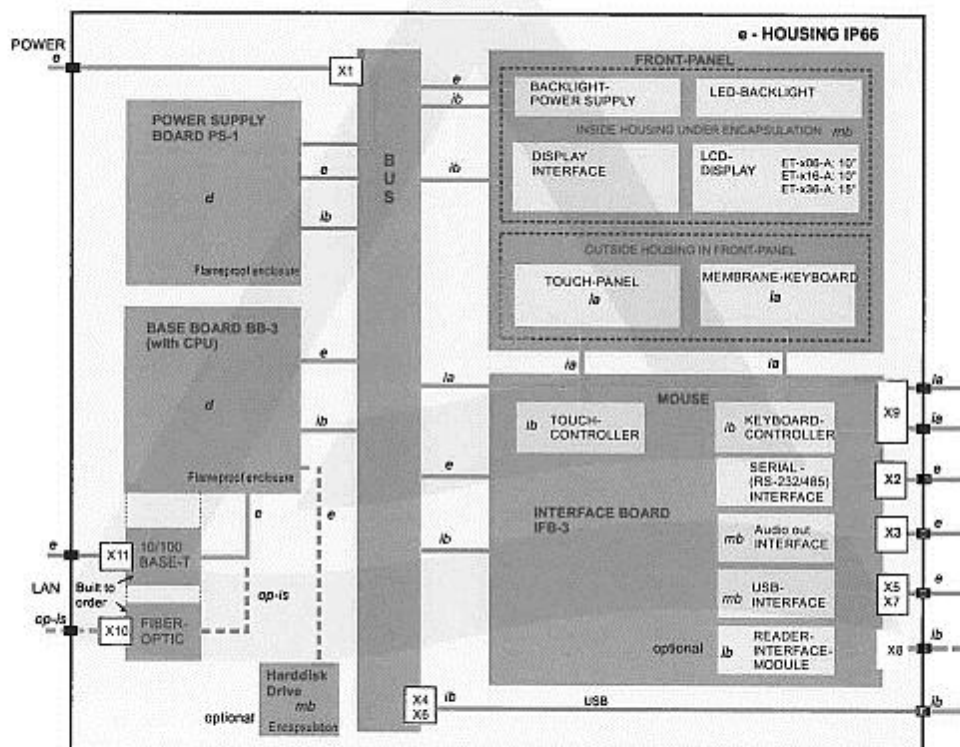
- ET-3*6-A-*.***: STAHL operating system for user application;
- ET-4*6-A-*.***: Standard operation system (e.g. Windows Embedded, Linux etc.) for standard applications;
- ET-5*6-A-*.***: Windows Embedded Standard operating system for remote applications.

Internal construction of all devices is equal for most parts for all models.

All models have several interfaces to connect external devices as keyboards, joysticks, trackballs, RFID- or barcode-scanner etc.

Communication with PLC networks and automation systems is achieved by different interfaces (RS-232, RS-485, Ethernet fiber optic or copper wire Ethernet links) connected in the "Ex-e"-area at the back of the devices.

Assembling of accessory as USB memory sticks and hard disk drives is previewed.



Picture 1: Block structure of ET - * * 6 - A - * - ***

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Technical data

All data unchanged.

(16) Test Report No. 557 / Ex 041.01 / 11

(17) Special conditions for safe use

For ET-**6-A-*-*SR*:

The fronts of the operator interfaces with a sunlight readable display (type code includes "SR") may be cleaned with a damp cloth only.

(18) Basic Safety and Health Requirements
Covered by mentioned standards in the original certificate.

TÜV Rheinland - Zertifizierungsstelle

Cologne, 2011-12-16



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In case of dispute, the German text shall prevail
page 4 / 4

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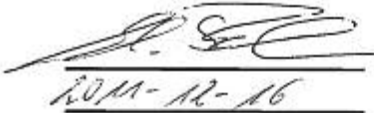
3 IECEx certificate

 IECEx Certificate of Conformity	
INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres for rules and details of the IECEx Scheme visit www.iecex.com	
Certificate No.:	IECEx TUR 11.0006X
Issue No.:	0
Certificate history:	
Status:	Current
Date of Issue:	2011-05-25
Page 1 of 3	
Applicant:	R. Stahl HMI Systems GmbH Im Gewerbegebiet Pesch 14 D- 50 767 Köln Germany
Electrical Apparatus:	Operator Interface ET-**6-A-**-**
Optional accessory:	
Type of Protection:	d, e, i, iD, m, op is, t
Marking:	Ex d e ia ib mb [ia ib] IIC T4 Gb and Ex ia tb [ia lb] IIC T80°C Db IP66 for type code TX Ex d e ia ib mb [ia ib op is] IIC T4 Gb and Ex ia tb [ia lb op is] IIC T80°C Db IP66 for type code FX see attachment and manual for alternative marking
Approved for issue on behalf of the IECEx Certification Body:	Dipl.-Ing. Heinz Farke
Position:	Deputy of ExCB
Signature: (for printed version)	
Date:	2011-05-25
1. This certificate and schedule may only be reproduced in full. 2. This certificate is not transferable and remains the property of the issuing body. 3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.	
Certificate issued by: TÜV Rheinland Industrie Service GmbH Am Grauen Stein 51105 Cologne Germany 	

		IECEx Certificate of Conformity	
Certificate No.:	IECEx TUR 11.0006X		
Date of Issue:	2011-05-25	Issue No.:	0
		Page 2 of 3	
Manufacturer:	R. Stahl HMI Systems GmbH Im Gewerbegebiet Pesch 14 D- 50 767 Köln Germany		
Manufacturing location(s):			
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 electrical apparatus 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 : 2007-10 Edition: 5	Explosive atmospheres - Part 0: Equipment - General requirements		
IEC 60079-1 : 2007-04 Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"		
IEC 60079-11 : 2006 Edition: 5	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"		
IEC 60079-18 : 2009 Edition: 3	Explosive atmospheres Part 18: Equipment protection by encapsulation "m"		
IEC 60079-28 : 2006-08 Edition: 1	Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation		
IEC 60079-31 : 2008 Edition: 1	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"		
IEC 60079-7 : 2006-07 Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"		
IEC 61241-11 : 2005 Edition: 1	Electrical apparatus for use in the presence of combustible dusts - Part 11: Protection by intrinsic safety "iD"		
<i>This Certificate does not indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.</i>			
TEST & ASSESSMENT REPORTS: A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in			
<u>Test Report:</u> DE/TUR/ExTR11.0006/00			
<u>Quality Assessment Report:</u> DE/BVS/QAR10.0002/01			

 IECEx Certificate of Conformity			
Certificate No.:	IECEx TUR 11.0006X		
Date of Issue:	2011-05-25	Issue No.: 0	Page 3 of 3
Schedule			
EQUIPMENT: <i>Equipment and systems covered by this certificate are as follows:</i>			
The Exicom ET-xx6-A-xxx devices are operator interfaces or panel PCs for installation in hazardous locations classified for zones 1, 2, 21 and 22. The entire devices are built in housings that are protected against liquids and dust without need to be installed in hazardous locations certified cabinets. The different models vary in display size (10" to 15") and overall size, front panel with or without keyboard and overall functionality. Three main functionalities are (characterized by the first type code number): ET-3*6-A-xxx: STAHL operating system for user application; ET-4*6-A-xxx: Standard operation system (e.g. Windows Embedded, Linux etc.) ET-5*6-A-xxx: Windows Embedded Standard operating system for remote applications. Internal construction of all devices is equal for most parts for all models. All models have several interfaces to connect external devices as keyboards, joysticks, trackballs, RFID- or barcode-scanner etc. Communication with PLC networks and automation systems is achieved by different interfaces (RS-232, RS-485, Ethernet fiber optic or copper wire Ethernet links) connected in the "Ex-e"-area at the back of the devices. Assembling of accessory as USB memory sticks and hard disk drives is previewed			
CONDITIONS OF CERTIFICATION: YES as shown below:			
For ET-xx6-A-xxx*SR*: The front of the operator interface equipped with a sunlight readable display (type code includes "SR") may be cleaned with a damp cloth only.			

3.1 Issue No1

 IECEx Certificate of Conformity	
INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres for rules and details of the IECEx Scheme visit www.iecex.com	
Certificate No.:	IECEx TUR 11.0006X
Status:	Current
Date of Issue:	2011-12-16
Applicant:	R. Stahl HMI Systems GmbH Im Gewerbegebiet Pesch 14 D- 50 767 Köln Germany
Electrical Apparatus:	Operator Interface ET-xx6-A-*.***
Optional accessory:	
Type of Protection:	d, e, i, ID, m, op Is, t
Marking:	Ex d e ia ib mb [ia ib] IIC T4 Gb and Ex ia tb [ia ib] IIC T80°C Db IP66 for type code TX Ex d e ia ib mb [ia ib op Is] IIC T4 Gb and Ex ia tb [ia ib op Is] IIC T80°C Db IP66 for type code FX see attachment and manual for alternative marking
Approved for issue on behalf of the IECEx Certification Body:	Dipl.-Ing. Heinz Farke
Position:	Deputy of ExCB
Signature: (for printed version)	
Date:	2011-12-16
1. This certificate and schedule may only be reproduced in full. 2. This certificate is not transferable and remains the property of the issuing body. 3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.	
Certificate issued by: TUV Rheinland Industrie Service GmbH Am Grauen Stein 51105 Cologne Germany 	



IECEx Certificate of Conformity

Certificate No.: IECEx TUR 11.0006X

Date of Issue: 2011-12-16

Issue No.: 1

Page 2 of 5

Manufacturer: **R. Stahl HMI Systems GmbH**
Im Gewerbegebiet Pesch 14
D- 50 767 Köln
Germany

Manufacturing location(s):

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 electrical apparatus 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 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-11 : 2011-06 Edition: 6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-18 : 2009 Edition: 3	Explosive atmospheres Part 18: Equipment protection by encapsulation "m"
IEC 60079-28 : 2006-08 Edition: 1	Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
IEC 60079-31 : 2008 Edition: 1	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2006-07 Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

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

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:
DE/TUR/ExTR11.0006/01

Quality Assessment Report:
DE/BVS/QAR10.0002/01



IECEX Certificate of Conformity

Certificate No.: IECEx TUR 11.0006X

Date of Issue: 2011-12-16

Issue No.: 1

Page 3 of 5

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

--

CONDITIONS OF CERTIFICATION: YES as shown below:

For **ET-xx6-A-SR**: The front of the operator interface equipped with a sunlight readable display (type code includes "SR") may be cleaned with a damp cloth only.

--



IECEx Certificate of Conformity

Certificate No.: IECEx TUR 11.0006X

Date of Issue: 2011-12-16

Issue No.: 1

Page 4 of 5

DETAILS OF CERTIFICATE CHANGES (for Issues 1 and above):

The Exicom ET-**6-A-*.*** devices are operator interfaces or panel PCs for installation in hazardous locations classified for zones 1, 2, 21 and 22. The entire devices are built in housings that are protected against liquids and dust without need to be installed in hazardous locations certified cabinets. The different models vary in display size (10" ; 15" and in 1st Supplement now 19") and overall size, front panel with or without keyboard and overall functionality. Three main functionalities are (characterized by the first type code number, not ex-relevant): ET-3*6-A-*.***: STAHL operating system for user application; ET-4*6-A-*.***: Standard operation system (e.g. Windows Embedded, Linux etc.) for standard applications;

ET-5*6-A-*.***: Windows Embedded Standard operating system for remote applications.

The Exicom ET-**6-A-*.*** devices are operator interfaces or panel PCs for installation in hazardous locations classified for zones 1, 2, 21 and 22. The entire devices are built in housings that are protected against liquids and dust without need to be installed in hazardous locations certified cabinets. The different models vary in display size (10" ; 15" and in 1st Supplement now 19") and overall size, front panel with or without keyboard and overall functionality. Three main functionalities are (characterized by the first type code number, not ex-relevant): ET-3*6-A-*.***: STAHL operating system for user application; ET-4*6-A-*.***: Standard operation system (e.g. Windows Embedded, Linux etc.) for standard applications; ET-5*6-A-*.***: Windows Embedded Standard operating system for remote applications.

Details see attachment.



IECEx Certificate of Conformity

Certificate No.: IECEx TUR 11.0006X

Date of Issue: 2011-12-16

Issue No.: 1

Page 5 of 5

Additional information:

Annexe: 557-Ex-041-01-11-ExTR_Attachment_101214.pdf

4 DNV certificate



DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. **A-12989**

This is to certify that the
Peripheral Equipment

with type designation(s)
Exicom Terminals ET-306(-A), 316(-A), 336(-A), 406(-A), 416(-A), 436(-A), 456(-A), 506, 516, 536, 556(-A)
Provicom Terminals MT-306(-A), 316(-A), 336(-A), 406(-A), 416(-A), 436(-A), 456(-A), 506, 516, 536, 556(-A)

Manufactured by
R. Stahl HMI Systems GmbH
KÖLN, Germany

is found to comply with
 Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards

Application
 Location classes:

Temperature	A
Humidity	B
Vibration	A
EMC	B
Enclosure	B

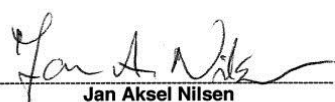
Høvik, 2012-11-19
for **Det Norske Veritas AS**


Odd Magne Nesvåg
 Head of Section



DNV local office:
Essen CMC Southern Germany

This Certificate is valid until
2016-12-31


Jan Aksel Nielsen
 Surveyor *ATHUD*

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
 The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.
 If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.

DET NORSKE VERITAS AS, Veritasveien 1, NO-1322 Høvik, Norway, Tel.: +47 67 57 99 00, Fax: +47 67 57 99 11, Org.No. NO 945 748 931 MVA www.dnv.com
 Form No.: TA 1411a Issue: October 2009 Page 1 of 3



Certificate No.: A-12989
 File No.: 899.60
 Job Id.: 262.1-001689-6

Product description

Operating terminal units covering:

Exicom Terminal Types:

ET-306/306-A, ET-316/316-A, ET-336/336-A, ET-406/406-A, ET-416/416-A, ET-436/436-A, ET-456/456-A,
 ET-506, ET-516, ET-536 and ET-556/556-A

Provicom Terminal Types:

MT-306/306-A, MT-316/316-A, MT-336/336-A, MT-406/406-A, MT-416/416-A, MT-436/436-A, MT-456/456-A,
 MT-506, MT-516, MT-536 and MT-556/556-A

Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

Ex-certification is not covered by this certificate. Application in hazardous area to be approved in each case according to the Rules and Ex-Certification/ Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

Product certificate

Each delivery of the application system is to be certified according to Pt.4 Ch.9 Sec.1. The certification test is to be performed at the manufacturer of the application system according to an approved test program before the system is shipped to the yard. After the certification the clause for application software control will be put into force.

Clause for application software control

All changes in software are to be recorded as long as the system is in use on board. The records of all changes are to be forwarded to DNV for evaluation and approval. Major changes in the software are to be approved before being installed in the computer.

Type Approval documentation

Test Report No.: E61616 by Phoenix Testlab GmbH, Blomberg, issued 13.09.2006

Test Report No.: U61616 by Phoenix Testlab GmbH, Blomberg, issued 14.09.2006

Test Report No.: 194/Ex176.02/06 and 21126723_002 by TÜV Rheinland Industrieservice GmbH, Köln, issued 2006-09-06.

Booklet "Type Approval –ET-4XX, -MT-4XX, by R. Stahl HMI Systems GmbH, Köln, dated 09.06.2006 including:

Notes, Drawings and Schematics,

Ex Certificate TÜV 05 ATEX 7176 X dated 25.10.2005 and 2nd Supplement to Ex Certificate TÜV 05 ATEX 7176 X dated 16 Oct. 2006.

Operating instructions "Exicom Open HMI ET-406, ET-416, ET-436" version 1.5 issued 30.03.2006,

Operating instructions "Provicom Open HMI MT-406, MT-416, MT-436" version 1.1 issued 15.05.2006,

Hardware Manual "Exicom Open HMI ET-406/ ET-416/ ET-436" version 1.1 by R. Stahl HMI Systems GmbH, Köln, issued 23.02.2006.

At certificate update in 2008:

Test Report No.: E71865 by Phoenix Testlab GmbH, Blomberg, issued 30.10.2007

Test Report No.: U71865 by Phoenix Testlab GmbH, Blomberg, issued 14.11.2007

At certificate update in 2010:

For ET-5x6, MT-5-6 products:

ATEX Report No. 194/Ex 176.05/09 from TÜV Industrie Service

Certificate No. TÜV 05 ATEX 7176X TÜV Rheinland Group, Germany

Test Report U71865 and E71865, Phoenix TestLAB

Test Report U61616 and E61616 Phoenix TestLAB

DS_Ex_Prov_Remote_HMI, STAHL-HMI



Certificate No.: A-12989
File No.: 899.60
Job Id.: 262.1-001689-6

At certificate update in 2011:

Test Report No.: U110562E1 by Phoenix Testlab GmbH, Blomberg, issued 11.05.2011
Test Report No.: E110562E1 by Phoenix Testlab GmbH, Blomberg, issued 31.03.2011
Ex Certificate TUV 11 ATEX 7041 X, dated 25.05.2011
IECEX Certificate of Conformity, dated 25.05.2011
Mechanical drwg ET-/MT-xx6-A: 2005 41 531 +41, STAHL HMI rev.1 dated 28.01.2011
Mechanical drwg ET-/MT-3x6 & -4x6: 2005 41 530 + 40, STAHL HMI rev.1 dated 10.10.2005
Operating Instructions ET-/MT-xx6-A, STAHL HMI, rev.3 dated 11.01.2011

At certificate update in 2012:

Test Report No.: U120850E1 by Phoenix Testlab GmbH, Blomberg, issued 01.06.2012
Test Report No.: E120850E1 by Phoenix Testlab GmbH, Blomberg, issued 08.05.2012
Operating Instructions MT-xx6-A (HW rev.3), version 03.00.06, dated 19.09.2012
Operating Instructions ET-xx6-A (HW rev.3), version 03.00.10, dated 19.11.2012
Retention survey report, A-12243, dated 2012-08-17

Tests carried out

Applicable tests according to Standard for Certification 2.4.

Certificate Retention Survey

The scope of the retention/renewal survey is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the survey are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Retention survey is to be performed at least every second year and at renewal of this certificate.

END OF CERTIFICATE

5 LR certificate



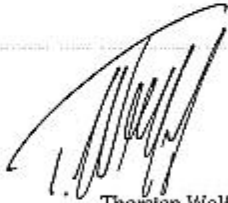
Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the LR Type Approval System.

This certificate is issued to:

PRODUCER	R. STAHL HMI Systems GmbH
PLACE OF PRODUCTION	Im Gewerbegebiet Pesch 14 50767 Cologne Germany
DESCRIPTION	Panel PC
TYPE	Ex-devices: ET-306-A, ET-316-A, ET-336-A, ET-406-A, ET-416-A, ET-436-A, ET-536-A Non Ex-devices: MT-306-A, MT-316-A, MT-336-A, MT-406-A, MT-416-A, MT-436-A, MT-536-A
APPLICATION	Marine and offshore applications for use in environmental categories ENV1 and ENV2 as defined in Lloyd's Register's Type Approval System Test Specification No. 1 - 2002.
DESIGN CODE	Manufacturer's Specification
OTHER CONDITIONS	Ratings of Panel PC type ET-xx6-A for application in hazardous areas are to be obtained from the applicable Ex Certificates.

Certificate No.	11/20035
Issue Date	29 September 2011
Expiry Date	28 September 2016
Sheet	1 of 2


Thorsten Wolff
Hamburg Design Support Centre
Lloyd's Register EMEA

Lloyd's Register EMEA
71 Fenchurch Street, London EC3M 4BS

*Lloyd's Register, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register Group'. The Lloyd's Register Group assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register Group entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

LLOYD'S REGISTER GROUP MARK 01/2003



"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid certificate."

The Design Appraisal Document No. ETS 25533-11 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

Certificate No. 11/20035
Issue Date 29 September 2011
Expiry Date 28 September 2016
Sheet 2 of 2

Thorsten Wolff
Hamburg Design Support Centre
Lloyd's Register EMEA

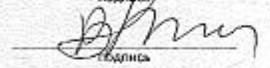
Lloyd's Register EMEA
71 Fenchurch Street, London EC3M 4BS

"Lloyd's Register, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register Group'. The Lloyd's Register Group assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register Group entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract."

11/20035 ETS 25533-11 ETSR 20160911

6 GOST-R certificate

СИСТЕМА СЕРТИФИКАЦИИ ГОСТ Р ФЕДЕРАЛЬНОЕ АГЕНТСТВО ПО ТЕХНИЧЕСКОМУ РЕГУЛИРОВАНИЮ И МЕТРОЛОГИИ									
 СЕРТИФИКАТ СООТВЕТСТВИЯ									
№ РОСС DE.ГБ04.В01741									
Срок действия с 26.10.2011г.	по 25.10.2014г.								
№ 0611378									
ОРГАН ПО СЕРТИФИКАЦИИ Рег. № РОСС RU.0001.11ГБ04 ЦЕНТР СЕРТИФИКАЦИИ «СТВ» 607190, г. Саров Нижегородской обл., пр. Мира, 37 телефон: (83130) 454-78, факс: (83130) 455-30									
ПРОДУКЦИЯ Пульты оператора во взрывозащищенном исполнении в комплектации в соответствии с приложением к сертификату серийный выпуск	КОД ОК 005 (ОКП): 40 2490								
СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ НОРМАТИВНЫХ ДОКУМЕНТОВ <table border="0"> <tr> <td>ГОСТ Р 52350.0-2005</td> <td>ГОСТ Р 52350.18-2006</td> </tr> <tr> <td>ГОСТ Р 52350.1-2005</td> <td>ГОСТ Р 52350.25-2006</td> </tr> <tr> <td>ГОСТ Р 52350.7-2005</td> <td>ГОСТ Р 52350.28-2007</td> </tr> <tr> <td>ГОСТ Р 52350.11-2005</td> <td>ГОСТ Р МЭК 61241-1-1-99</td> </tr> </table>		ГОСТ Р 52350.0-2005	ГОСТ Р 52350.18-2006	ГОСТ Р 52350.1-2005	ГОСТ Р 52350.25-2006	ГОСТ Р 52350.7-2005	ГОСТ Р 52350.28-2007	ГОСТ Р 52350.11-2005	ГОСТ Р МЭК 61241-1-1-99
ГОСТ Р 52350.0-2005	ГОСТ Р 52350.18-2006								
ГОСТ Р 52350.1-2005	ГОСТ Р 52350.25-2006								
ГОСТ Р 52350.7-2005	ГОСТ Р 52350.28-2007								
ГОСТ Р 52350.11-2005	ГОСТ Р МЭК 61241-1-1-99								
КОД ТН ВЭД России: 8471 90 000 0									
ИЗГОТОВИТЕЛЬ R.Stahl HMI Systems GmbH Im Gewerbegebiet Pesch 14, D-50 767, Cologne, Germany									
СЕРТИФИКАТ ВЫДАН R.Stahl HMI Systems GmbH Im Gewerbegebiet Pesch 14, D-50 767, Cologne, Germany Тел.: +49 (0) 221 59808-200; Факс: +49 (0) 221 59808-260									
НА ОСНОВАНИИ - протокола оценки и испытаний № СЗ-916/11 от 18.10.2011 г. Центра сертификации «СТВ» (Рег. № РОСС RU.0001.11ГБ04) - акта о результатах анализа состояния производства от 14.10.2011 г. Центра сертификации «СТВ» (Рег. № РОСС RU.0001.11ГБ04)									
ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ Специальные условия безопасного применения - в соответствии с Дополнением к сертификату. Схема сертификации За.									
 Руководитель органа Эксперт	В.В. Байрак инициалы, фамилия В.Н. Липавский инициалы, фамилия								
Сертификат имеет юридическую силу на всей территории Российской Федерации									

СИСТЕМА СЕРТИФИКАЦИИ ГОСТ Р ФЕДЕРАЛЬНОЕ АГЕНТСТВО ПО ТЕХНИЧЕСКОМУ РЕГУЛИРОВАНИЮ И МЕТРОЛОГИИ		
№ 0489631		
ПРИЛОЖЕНИЕ К сертификату соответствия № РОСС DE.ГБ04.В01741 Лист 1 из 2		
Перечень конкретной продукции, на которую распространяется действие сертификата соответствия		
код ОК 005 (ОКП) код ТН ВЭД России	Наименование и обозначение продукции, ее изготовитель	Обозначение документации, по которой выпускается продукция
40 2490 8471 90 000 0	Терминалы управления типа ET-**6-A-TX-*** с маркировкой взрывозащиты 2Exdeiaibmb[iaib]IICT4 и защиты от воспламенения горючей пыли DIP A21 T _A 80°C, IP66 (R.Stahl HMI Systems GmbH, Германия)	Документация изготовителя
40 2490 8471 90 000 0	Терминалы управления типа ET-**6-A-FX-*** с маркировкой взрывозащиты 2Exdeiaibmb[iaibopis]IICT4 и защиты от воспламенения горючей пыли DIP A21 T _A 80°C, IP66 (R.Stahl HMI Systems GmbH, Германия)	то же
40 2490 8471 90 000 0	Терминалы управления типа MT-**6-A-TX-*** с маркировкой взрывозащиты 2ExdeiaibmbnA[ib][ic]IICT4 и защиты от воспламенения горючей пыли DIP A21 T _A 80°C, IP66 (R.Stahl HMI Systems GmbH, Германия)	—"
40 2490 8471 90 000 0	Терминалы управления типа MT-**6-A-FX-*** с маркировкой взрывозащиты 2ExdeiaibmbnA[ibopis][ic]IICT4 и защиты от воспламенения горючей пыли DIP A21 T _A 80°C, IP66 (R.Stahl HMI Systems GmbH, Германия)	—"
40 2490 8471 90 000 0	Клавиатура типа KBD(i)-***-PS2-*** с маркировкой взрывозащиты 1ExibIICT4 (R.Stahl HMI Systems GmbH, Германия)	—"
Дополнительные позиции в обозначении всех типов, выделенные символами (*), (x), (y) сертификатом не регламентируются Изготовитель: R.Stahl HMI Systems GmbH Im Gewerbegebiet Peßch 14, D-50 767, Cologne, Germany		
		Руководитель органа  Эксперт 
		В.В. Байрак инициалы, фамилия В.Н. Липавский инициалы, фамилия

Бланк сертификата ЗАО "ОГРСИ" от 15-05-2003 № 148/172-4742, г. Москва, 2011 г.

СИСТЕМА СЕРТИФИКАЦИИ ГОСТ Р
ФЕДЕРАЛЬНОЕ АГЕНТСТВО ПО ТЕХНИЧЕСКОМУ РЕГУЛИРОВАНИЮ И МЕТРОЛОГИИ

№ 0489632

ПРИЛОЖЕНИЕ

К сертификату соответствия № РОСС DE.ГБ04.В01741 Лист 2 из 2

**Перечень конкретной продукции, на которую распространяется
 действие сертификата соответствия**

код ОК 005 (ОКП) код ТН ВЭД России	Наименование и обозначение продукции, ее изготовитель	Обозначение документации, по которой выпускается продукция
40 2490 8471 90 000 0	Считыватель типа EXICOM WiegandMCR с маркировкой взрывозащиты 1ExibIICT4/T3 (R.Stahl HMI Systems GmbH, Германия)	Документация изготовителя
40 2490 8471 90 000 0	Блок типа KJ1710 для подключения оптоволоконного кабеля с маркировкой взрывозащиты 2ExnA[opis]IICT4 (Emerson Process management Ltd, Великобритания)	то же
40 2490 8471 90 000 0	Накопитель типа USBi-Drive-xxx-Rev.D с маркировкой взрывозащиты 1ExibIICT4 (R.Stahl HMI Systems GmbH, Германия)	—"
40 2490 8471 90 000 0	Считыватель карт типа RFIDi-RDR-1-xxx с маркировкой взрывозащиты 1ExibIICT4 (R.Stahl HMI Systems GmbH, Германия)	—"

Дополнительные позиции в обозначении всех типов, выделенные символами (*), (x), (y) сертификатом не регламентируются.
 Блок подключения оптоволоконного кабеля типа KJ1710 с маркировкой взрывозащиты 2ExnA[opis]IICT4 (Изготовитель: Emerson Process Management Ltd, Великобритания) разрешается применять только в комплекте пультов оператора.

Изготовитель: R.Stahl HMI Systems GmbH
 Im Gewerbegebiet Pesch 14, D-50 767, Cologne, Germany



Руководитель органа
 Эксперт

В.В. Байрак
 ПОДПИСЬ
В.Н. Липавский
 ПОДПИСЬ

В.В. Байрак

инициалы, фамилия

В.Н. Липавский

инициалы, фамилия

6.1 GOST-R operating licence


**ФЕДЕРАЛЬНАЯ СЛУЖБА
ПО ЭКОЛОГИЧЕСКОМУ, ТЕХНОЛОГИЧЕСКОМУ И АТОМНОМУ НАДЗОРУ**

РАЗРЕШЕНИЕ № PPC 00-37808

На применение

Оборудование (техническое устройство, материал):
Электротехнические устройства во взрывозащищенном исполнении
согласно перечню в приложении к настоящему разрешению.

Код ОКП (ТН ВЭД): 34 0000, 34 2490, 40 0000, 42 0000, 34 6000
(8536 90 850 0, 8537 10 990 0, 8536 69 900 9, 8471 90 000 0,
8531 80 800 0, 9405 40 910 9)

Изготовитель (поставщик): Фирма "R. STAHL Schaltgeräte GmbH"
(Германия).

Основание выдачи разрешения: Сертификаты соответствия ЦС "СТВ"
согласно приложению.

Условия применения:

1. Применять на поднадзорных производствах и объектах
согласно маркировке взрывозащиты в соответствии с Руководством
по эксплуатации, а также требованиями главы 7.3 ПУЭ.
2. Внесение изменений в техническую документацию и конструкцию
технических устройств возможно только по согласованию с аккредитованной
испытательной организацией и Федеральной службой
по экологическому, технологическому и атомному надзору.

Срок действия разрешения до 04.03.2015

Дата выдачи 04.03.2010

Заместитель руководителя
А.В. Ферапонтов



А В 021802

ПРИЛОЖЕНИЕ

к разрешению № PPC 00-37808 от 04.03.2010
(без разрешения недействительно)

ПЕРЕЧЕНЬ

оборудования фирмы "R.STANL Schaltgeräte GmbH" (Германия),
разрешенного к применению на территории Российской Федерации.

№ п/п	Наименование оборудования	Сертификат соответствия
1.	Коробки клеммные и управления типа ССА****	№ РОСС DE.ГБ04.В01253 от 02.07.2009 г.
2.	Штепсельные соединители типа 8575/1.-...-	№ РОСС DE.ГБ04.В01264 от 23.07.2009 г.
3.	Пульты оператора на основе терминалов управления EXICOM ET-.... и PROVICOM MT-....	№ РОСС DE.ГБ04.В01280 от 12.08.2009 г.
4.	Ремонтные разделительные штепсельные розетки типа 857*/5.-...-	№ РОСС DE.ГБ04.В01290 от 28.08.2009 г.
5.	Приборы контроля заземления типа UZCL 3.d	№ РОСС CZ.ГБ04.В01308 от 23.09.2009 г.
6.	Световые устройства типов 6470, 6050, 6400, 6161	№ РОСС DE.ГБ04.В01344 от 02.12.2009 г.



Заместитель руководителя
А.В. Ферапонтов

АВ 029054

7 CSA certificate



Certificate of Compliance

Certificate: 2512677

Master Contract: 213004

Project: 2512677

Date Issued: July 25, 2012

Issued to: R. STAHL HMI Systems GmbH

Im Gewerbegebiet Pesch 14

Koeln, 50767

Germany

Attention: Werner Bertges

The products listed below are eligible to bear the CSA Mark shown



Andrew Sargent

Issued by: Andrew Sargent

PRODUCTS

CLASS 2258 04 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For Hazardous Locations

Ex d e ia ib mb [ia ib] IIC T4 Gb, Type 4X, IP66.

Class II, Division 1, Groups E, F, G, T80°C; Ex ia tb [ia ib] IIIC T80°C Db, IP66.

Exicom Operator Interface – Models ET-ab6-A-cc-ddd. Rated 24V dc, 1.5A.

Ambient temperature rated -30°C to 55°C at front of unit, and -20°C to 55°C at rear of unit.

Where:

a = Operating System

3 Stahl Eagle operating system

4 Standard operating system – Open HMI (Windows embedded, Linux, etc.)

5 Standard operating system – Remote HMI (Windows embedded)

b = Display type

0 10 inch VGA display



Certificate: 2512677

Master Contract: 213004

Project: 2512677

Date Issued: July 25, 2012

1 10 inch SVGA display

3 15 inch display

5 19 inch display

cc = Ethernet Communications

FX Fiber-optic Ethernet

TX Copper Ethernet

ddd = Options

HDn Hard disk of size "n"

SR Sunlight readable display

May be followed by additional alphanumeric characters, not relevant to certification.

Intrinsically Safe Entity Parameters:

NOTES:

- 1) Co/Lo pairs shown directly above/underneath each other in the following specifications may be used.
- 2) When used in Class II areas, maximum values for L and C are as specified for Group IIB applications.

USB-0 (X4) and USB2 (X6)

$U_o = 5.9V$

$I_o = 2.18A$

$P_o = 1.24W$

Maximum values, rectangular source for Zone 1 Group IIC:



Certificate: 2512677

Master Contract: 213004

Project: 2512677

Date Issued: July 25, 2012

Li = 0 mH Lo = 0.01, 0.005, 0.002, 0.001 mH

Ci = 0 uF Co = 5.1, 11, 28, 43 uF

Maximum values, rectangular source for Zone 1 Group IIB:

Li = 0 mH Lo = 0.05, 0.02, 0.01, 0.005 mH

Ci = 0 uF Co = 14, 40, 79, 200 uF

ET-Reader-2-RS11, and -RS12 (X8)

Reader-2-RS11 module supply (internal UB_RDR output), terminal X8.0 (bridged to X8.2)

Uo = 10.4V

Io = 220 mA

Po = 2.29W

Maximum values, rectangular source for Zone 1 Group IIC and Group IIB:

Li = 0 mH Lo = 0.01 mH

Ci = 1.72 uF Co = 0.8 uF

Reader-2-RS11 module supply input, terminal X8.2 (bridged to X8.0)

Ui = 12.4 V

Ii = 220 mA

Pi = 2.29 W

Li = 0 mH

Ci = 25 nF

Reader-2-RS11 power supply for reader, terminals X8.3 and X8.4

**Certificate:** 2512677**Master Contract:** 213004**Project:** 2512677**Date Issued:** July 25, 2012 $U_o = 5.36 \text{ V}$ $I_o = 220 \text{ mA}$ $P_o = 1.18 \text{ W}$

Maximum values, rectangular source for Zone 1 Group IIC:

 $L_i = 0 \text{ mH}$ $L_o = 0.002, 0.001 \text{ mH}$ $C_i = 5.3 \text{ uF}$ $C_o = 40.7, 59.7 \text{ uF}$

Maximum values, rectangular source for Zone 1 Group IIB:

 $L_i = 0 \text{ mH}$ $L_o = 0.02, 0.01 \text{ mH}$ $C_i = 5.3 \text{ uF}$ $C_o = 70.7, 124.7 \text{ uF}$

Reader-2-RSi1 and -RSi2 signal input/output, terminals X8.5 through X8.8

 $U_i = 15 \text{ V}$ $U_o = 5.36 \text{ V}$ $I_i = 500 \text{ mA}$ $I_o = 46 \text{ mA}$ $P_i = 2.5 \text{ W}$ $P_o = 62 \text{ mW}$

Maximum values, linear source for Zone 1 Group IIC:

 $L_i = 0 \text{ mH}$ $L_o = 0.002 \text{ mH}$ $C_i = 0 \text{ uF}$ $C_o = 46 \text{ uF}$

Maximum values, linear source for Zone 1 Group IIB:

 $L_i = 0 \text{ mH}$ $L_o = 0.02 \text{ mH}$ $C_i = 0 \text{ uF}$ $C_o = 79 \text{ uF}$



Certificate: 2512677

Master Contract: 213004

Project: 2512677

Date Issued: July 25, 2012

ET-Reader-2-WCR1 and WCR2 (X8)

Reader-2-WCR1 module supply (from external I.S. power supply), terminals X8.1 and X8.2

 $U_i = 11.4 \text{ V}$ $I_i = 200 \text{ mA}$ $P_i = 2.28 \text{ W}$ $L_i = 0 \text{ mH}$ $C_i = 25 \text{ nF}$

Reader-2-WCR1 power supply for reader, terminals X8.3 and X8.4

 $U_o = 5.88 \text{ V}$ $I_o = 200 \text{ mA}$ $P_o = 1.18 \text{ W}$

Maximum values, rectangular source for Zone 1 Group IIC:

 $L_i = 0 \text{ mH}$ $L_o = 0.002, 0.001 \text{ mH}$ $C_i = 5.3 \text{ uF}$ $C_o = 27.7, 37.7 \text{ uF}$

Maximum values, rectangular source for Zone 1 Group IIB:

 $L_i = 0 \text{ mH}$ $L_o = 0.02, 0.01 \text{ mH}$ $C_i = 5.3 \text{ uF}$ $C_o = 55.7, 94.7 \text{ uF}$

Reader-2-WCR1 and -WCR2 signal input/output, terminals X8.5 through X8.8

 $U_i = 15 \text{ V}$ $U_o = 5.88 \text{ V}$ $I_i = 500 \text{ mA}$ $I_o = 51 \text{ mA}$ $P_i = 2.5 \text{ W}$ $P_o = 75 \text{ mW}$



Certificate: 2512677

Master Contract: 213004

Project: 2512677

Date Issued: July 25, 2012

Maximum values, linear source for Zone 1 Group IIC:

Li = 0 mH Lo = 0.002 mH

Ci = 0 uF Co = 34 uF

Maximum values, linear source for Zone 1 Group IIB:

Li = 0 mH Lo = 0.02 mH

Ci = 0 uF Co = 63 uF

Keyboard and pointing device, protection level "ib" (X9)

Uo = 5.88 V

Io = 200 mA

Po = 1.18 W

Maximum values, rectangular source for Zone 1 Group IIC:

Li = 0 mH Lo = 2, 1 uH

Ci = 17.6 uF Co = 15.4, 25.4 uF

Maximum values, rectangular source for Zone 1 Group IIB:

Li = 0 mH Lo = 100, 50, 20, 10 uH

Ci = 17.6 uF Co = 10.4, 20.4, 43.4, 82.4 uF

Keyboard and pointing device, protection level "ia" (X9)

Uo = 5.88 V



Certificate: 2512677

Master Contract: 213004

Project: 2512677

Date Issued: July 25, 2012

 $I_o = 4.36 \text{ A}$ $P_o = 1.18 \text{ W}$

Maximum values, linear source for Zone 1 Group IIC:

 $L_i = 0 \text{ mH}$ $L_o = 2, 1 \text{ uH}$ $C_i = 17.6 \text{ uF}$ $C_o = 13.4, 25.4 \text{ uF}$

Maximum values, linear source for Zone 1 Group IIB:

 $L_i = 0 \text{ mH}$ $L_o = 20, 10, 5, 1 \text{ uH}$ $C_i = 17.6 \text{ uF}$ $C_o = 32.4, 74.4, 202.4, 982 \text{ uF}$ **External non-intrinsically safe circuits:****Input power (X1)**

Rated voltage = 24 Vdc (+20% / -15%)

Maximum Voltage, $U_m = 30 \text{ Vac}$

Rated current = 1.5 A

RS-422/-232 COM 1 (X2)Rated voltage = RS232: $\pm 12 \text{ Vdc}$, RS422: 5 VdcMaximum Voltage, $U_m = 253 \text{ Vac}$ **Audio out (X3)**

Rated voltage = 5 Vdc

Maximum Voltage, $U_m = 253 \text{ Vac}$



Certificate: 2512677

Master Contract: 213004

Project: 2512677

Date Issued: July 25, 2012

USB-1 (X5)

Rated voltage = 5 V dc

Maximum Voltage, U_m = 253 Vac

USB-3 (X7)

Rated voltage = 5 V dc

Maximum Voltage, U_m = 253 Vac

LAN (X11)

Rated voltage = 5 V dc

Maximum Voltage, U_m = 30 Vac

NOTES (Special Conditions of Safe Use):

- 1) Models with Sunlight Readable display option (SR option code) must be cleaned only with a damp cloth.

Ex d e ia ib mb nA [ib Gb] [ic] IIC T4 Gc, Type 4X, IP66.

Class II, Division 2, Groups E, F, G, T80°C; Ex ia tc [ib ic] IIIC T80°C Dc, IP66.

Exicom Operator Interface – Models MT-ab6-A-cc-ddd. Rated 24V dc, 1.5A.

Ambient temperature rated -30°C to 55°C at front of unit, and -20°C to 55°C at rear of unit.

Where:

a = Operating System

3 Stahl Eagle operating system

4 Standard operating system – Open HMI (Windows embedded, Linux, etc.)



Certificate: 2512677

Master Contract: 213004

Project: 2512677

Date Issued: July 25, 2012

5 Standard operating system – Remote HMI (Windows embedded)

b = Display type

- 0 10 inch VGA display
- 1 10 inch SVGA display
- 3 15 inch display
- 5 19 inch display

cc = Ethernet Communications

- FX Fiber-optic Ethernet
- TX Copper Ethernet

ddd = Options

- HDn Hard disk of size “n”
- SR Sunlight readable display

May be followed by additional alphanumeric characters, not relevant to certification.

Intrinsically Safe Entity Parameters:

NOTES:

- 1) Co/Lo pairs shown directly above/underneath each other in the following specifications may be used.
- 2) When used in Class II areas, maximum values for L and C are as specified for Group IIB applications.

USB-0 (X4) and USB2 (X6)

U_o = 5.9V

**Certificate:** 2512677**Master Contract:** 213004**Project:** 2512677**Date Issued:** July 25, 2012 $I_o = 2.18A$ $P_o = 1.24W$

Maximum values, rectangular source for Zone 1 Group IIC:

 $L_i = 0 \text{ mH}$ $L_o = 0.01, 0.005, 0.002, 0.001 \text{ mH}$ $C_i = 0 \text{ uF}$ $C_o = 5.1, 11, 28, 43 \text{ uF}$

Maximum values, rectangular source for Zone 1 Group IIB:

 $L_i = 0 \text{ mH}$ $L_o = 0.05, 0.02, 0.01, 0.005 \text{ mH}$ $C_i = 0 \text{ uF}$ $C_o = 14, 40, 79, 200 \text{ uF}$

Maximum values, rectangular source for Zone 2 Group IIC:

 $L_i = 0 \text{ mH}$ $L_o = 0.01, 0.005, 0.002, 0.001 \text{ mH}$ $C_i = 0 \text{ uF}$ $C_o = 12, 24, 74, 670 \text{ uF}$

Maximum values, rectangular source for Zone 2 Group IIB:

 $L_i = 0 \text{ mH}$ $L_o = 0.05, 0.02, 0.01, 0.005 \text{ mH}$ $C_i = 0 \text{ uF}$ $C_o = 37, 92, 200, 790 \text{ uF}$ **ET-Reader-2-RSi1, and -RSi2 (X8)**

Reader-2-RSi1 module supply (internal UB_RDR output), terminal X8.0 (bridged to X8.2)

 $U_o = 10.4V$ $I_o = 220 \text{ mA}$ $P_o = 2.29W$

**Certificate:** 2512677**Master Contract:** 213004**Project:** 2512677**Date Issued:** July 25, 2012

Maximum values, rectangular source for Zone 1 Group IIC and Group IIB:

 $L_i = 0 \text{ mH}$ $L_o = 0.01 \text{ mH}$ $C_i = 1.72 \text{ uF}$ $C_o = 0.8 \text{ uF}$

Maximum values, rectangular source, for Zone 2, Group IIC and Group IIB:

 $L_i = 0 \text{ mH}$ $L_o = 0.01 \text{ mH}$ $C_i = 1.72 \text{ uF}$ $C_o = 4.68 \text{ uF}$

Reader-2-RS11 module supply input, terminal X8.2 (bridged to X8.0)

 $U_i = 12.4 \text{ V}$ $I_i = 220 \text{ mA}$ $P_i = 2.29 \text{ W}$ $L_i = 0 \text{ mH}$ $C_i = 25 \text{ nF}$

Reader-2-RS11 power supply for reader, terminals X8.3 and X8.4

 $U_o = 5.36 \text{ V}$ $I_o = 220 \text{ mA}$ $P_o = 1.18 \text{ W}$

Maximum values, rectangular source for Zone 1 Group IIC:

 $L_i = 0 \text{ mH}$ $L_o = 0.002, 0.001 \text{ mH}$ $C_i = 5.3 \text{ uF}$ $C_o = 40.7, 59.7 \text{ uF}$

Maximum values, rectangular source for Zone 1 Group IIB:



Certificate: 2512677

Master Contract: 213004

Project: 2512677

Date Issued: July 25, 2012

 $L_i = 0 \text{ mH}$ $L_o = 0.02, 0.01 \text{ mH}$ $C_i = 5.3 \text{ uF}$ $C_o = 70.7, 124.7 \text{ uF}$

Maximum values, rectangular source for Zone 2 Group IIC:

 $L_i = 0 \text{ mH}$ $L_o = 0.002, 0.001 \text{ mH}$ $C_i = 5.3 \text{ uF}$ $C_o = 124.7, 994.7 \text{ uF}$

Maximum values, rectangular source for Zone 2 Group IIB:

 $L_i = 0 \text{ mH}$ $L_o = 0.02, 0.01 \text{ mH}$ $C_i = 5.3 \text{ uF}$ $C_o = 154.7, 324.7 \text{ uF}$

Reader-2-RSi1 and -RSi2 signal input/output, terminals X8.5 through X8.8

 $U_i = 15 \text{ V}$ $U_o = 5.36 \text{ V}$ $I_i = 500 \text{ mA}$ $I_o = 46 \text{ mA}$ $P_i = 2.5 \text{ W}$ $P_o = 62 \text{ mW}$

Maximum values, linear source for Zone 1 Group IIC:

 $L_i = 0 \text{ mH}$ $L_o = 0.002 \text{ mH}$ $C_i = 0 \text{ uF}$ $C_o = 46 \text{ uF}$

Maximum values, linear source for Zone 1 Group IIB:

 $L_i = 0 \text{ mH}$ $L_o = 0.02 \text{ mH}$ $C_i = 0 \text{ uF}$ $C_o = 79 \text{ uF}$

Maximum values, linear source for Zone 2 Group IIC:



Certificate: 2512677

Master Contract: 213004

Project: 2512677

Date Issued: July 25, 2012

Li = 0 mH Lo = 0.002 mH

Ci = 0 uF Co = 130 uF

Maximum values, linear source for Zone 2 Group IIB:

Li = 0 mH Lo = 0.02 mH

Ci = 0 uF Co = 160 uF

ET-Reader-2-WCR1 and WCR2 (X8)

Reader-2-WCR1 module supply (from external I.S. power supply), terminals X8.1 and X8.2

Ui = 11.4 V

Ii = 200 mA

Pi = 2.28 W

Li = 0 mH

Ci = 25 nF

Reader-2-WCR1 power supply for reader, terminals X8.3 and X8.4

Uo = 5.88 V

Io = 200 mA

Po = 1.18 W

Maximum values, rectangular source for Zone 1 Group IIC:

Li = 0 mH Lo = 0.002, 0.001 mH

Ci = 5.3 uF Co = 27.7, 37.7 uF

Maximum values, rectangular source for Zone 1 Group IIB:



Certificate: 2512677

Master Contract: 213004

Project: 2512677

Date Issued: July 25, 2012

Li = 0 mH Lo = 0.02, 0.01 mH

Ci = 5.3 uF Co = 55.7, 94.7 uF

Maximum values, rectangular source for Zone 2 Group IIC:

Li = 0 mH Lo = 0.002, 0.001 mH

Ci = 5.3 uF Co = 80.7, 664.7 uF

Maximum values, rectangular source for Zone 2 Group IIB:

Li = 0 mH Lo = 0.02, 0.01 mH

Ci = 5.3 uF Co = 114.7, 234.7 uF

Reader-2-WCR1 and -WCR2 signal input/output, terminals X8.5 through X8.8

Ui = 15 V Uo = 5.88 V

Ii = 500 mA Io = 51 mA

Pi = 2.5 W Po = 75 mW

Maximum values, linear source for Zone 1 Group IIC:

Li = 0 mH Lo = 0.002 mH

Ci = 0 uF Co = 34 uF

Maximum values, linear source for Zone 1 Group IIB:

Li = 0 mH Lo = 0.02 mH

Ci = 0 uF Co = 63 uF

Maximum values, linear source for Zone 2 Group IIC:



Certificate: 2512677

Master Contract: 213004

Project: 2512677

Date Issued: July 25, 2012

Li = 0 mH Lo = 0.002 mH

Ci = 0 uF Co = 87 uF

Maximum values, linear source for Zone 2 Group IIB:

Li = 0 mH Lo = 0.02 mH

Ci = 0 uF Co = 130 uF

Keyboard and pointing device, protection level "ib" (X9)

Uo = 5.88 V

Io = 200 mA

Po = 1.18 W

Maximum values, rectangular source for Zone 1 Group IIC:

Li = 0 mH Lo = 2, 1 uH

Ci = 17.6 uF Co = 15.4, 25.4 uF

Maximum values, rectangular source for Zone 1 Group IIB:

Li = 0 mH Lo = 100, 50, 20, 10 uH

Ci = 17.6 uF Co = 10.4, 20.4, 43.4, 82.4 uF

Keyboard and pointing device, protection level "ia" (X9)

Uo = 5.88 V

Io = 4.36 A

Po = 1.18 W



Certificate: 2512677

Master Contract: 213004

Project: 2512677

Date Issued: July 25, 2012

Maximum values, linear source for Zone 1 Group IIC:

Li = 0 mH Lo = 2, 1 uH

Ci = 17.6 uF Co = 13.4, 25.4 uF

Maximum values, linear source for Zone 1 Group IIB:

Li = 0 mH Lo = 20, 10, 5, 1 uH

Ci = 17.6 uF Co = 32.4, 74.4, 202.4, 982 uF

Maximum values, linear source for Zone 2 Group IIC:

Li = 0 mH Lo = 0.002, 0.001 mH

Ci = 17.6 uF Co = 68.4, 652.4 uF

Maximum values, linear source for Zone 2 Group IIB:

Li = 0 mH Lo = 0.1, 0.05, 0.02, 0.01 mH

Ci = 17.6 uF Co = 33.4, 53.4, 102.4, 222.4 uF

External non-intrinsically safe circuits:**Input power (X1)**

Rated voltage = 24 Vdc (+20% / -15%)

Maximum Voltage, Um = 30 Vac

Rated current = 1.5 A

RS-422/-232 COM 1 (X2)Rated voltage = RS232: ± 12 Vdc, RS422: 5 Vdc

Maximum Voltage, Um = 253 Vac



Certificate: 2512677

Master Contract: 213004

Project: 2512677

Date Issued: July 25, 2012

Audio out (X3)

Rated voltage = 5 V dc

Maximum Voltage, U_m = 253 Vac**USB-1 (X5)**

Rated voltage = 5 V dc

Maximum Voltage, U_m = 253 Vac**USB-3 (X7)**

Rated voltage = 5 V dc

Maximum Voltage, U_m = 253 Vac**LAN (X11)**

Rated voltage = 5 V dc

Maximum Voltage, U_m = 30 Vac**NOTES (Special Conditions of Safe Use):**

- 1) Models with Sunlight Readable display option (SR option code) must be cleaned only with a damp cloth.

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 0-10 <i>August 2011</i>	General requirements — Canadian Electrical Code, Part III
CAN/CSA-C22.2 No. 94.1-07 <i>First Edition</i>	Enclosures for Electrical Equipment, Non-Environmental Considerations
CSA C22.2 No. 94.2-07 <i>First Edition</i>	Enclosures for Electrical Equipment, Environmental Considerations



Certificate: 2512677

Master Contract: 213004

Project: 2512677

Date Issued: July 25, 2012

CAN/CSA-C22.2 No. 60529-05 (July 2005)	Degrees of protection provided by enclosures (IP Code)
CAN/CSA-C22.2 No. 61010-1-04 (Reaffirmed 2009)	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use — Part 1: General Requirements
CAN/CSA-C22.2 No. 60079-0-11 (December 2011)	Explosive atmospheres — Part 0: Equipment – General requirements
CAN/CSA-C22.2 No. 60079-1-11 (December 2011)	Explosive atmospheres — Part 1: Equipment protection by flameproof enclosures “d”
CAN/CSA-C22.2 No. 60079-7-12 (February 2012)	Explosive atmospheres — Part 7: Equipment protection by increased safety “e”
CAN/CSA-C22.2 No. 60079-11-11 (December 2011)	Explosive atmospheres — Part 11: Equipment protection by intrinsic safety “i”
CAN/CSA-C22.2 No. 60079-15-12 (January 2012)	Electrical apparatus for explosive gas atmospheres — Part 15: Construction, test and marking of type of protection “n” electrical apparatus
CAN/CSA-C22.2 No. 60079-18-12 (February 2012)	Explosive atmospheres — Part 18: Equipment protection by encapsulation “m”
CAN/CSA-C22.2 No. 60079-31-12 (January 2012)	Explosive atmospheres — Part 31: Equipment dust ignition protection by enclosure “t”

MARKINGS

The following markings are provided on a CSA Accepted (Class 7923.01) or UL Recognized to Canadian requirements (PGJI8) adhesive nameplate, used with the printer and ribbon specified in the Listing, and is suitable for indoor and outdoor use on stainless steel, at a maximum service temperature of 70°C or higher. Nameplate is affixed to the rear surface of the enclosure.



Certificate: 2512677

Master Contract: 213004

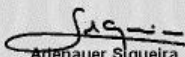
Project: 2512677

Date Issued: July 25, 2012

-
- Manufacturer's name: "R. Stahl HMI Systems GmbH", or CSA Master Contract Number "213004", adjacent to the CSA Mark in lieu of manufacturer's name.
 - Model number: As specified in the PRODUCTS section, above.
 - The words: "See operating instructions", or equivalent, in lieu of marked electrical ratings.
 - Ambient temperature rating: As specified in the PRODUCTS section, above.
 - Manufacturing date in MMY format, or serial number, traceable to year and month of manufacture.
 - Enclosure rating: As specified in the PRODUCTS section, above.
 - Enclosure IP rating: As specified in the PRODUCTS section, above.
 - The CSA Mark, as shown on the Certificate of Conformity.
 - The Year and CSA Certificate Number "12.2512677" adjacent to the CSA Mark.
 - The designation "Exia" adjacent to the CSA mark.
 - Method of Protection markings (Ex nomenclature): As specified in the PRODUCTS section, above.
 - Temperature code: As specified in the PRODUCTS section, above.
 - ISO 60417, Symbol 5019, or the word "Ground" or "GND" adjacent to the equipment ground (protective conductor) terminal.
 - The words: "WARNING: Substitution of components may impair intrinsic safety."
 - On models ET-xx6-A-xx-xxx: The words "Install per drawing 2012 09 52 0", or equivalent.
 - On models MT-xx6-A-xx-xxx: The words "Install per drawing 2012 09 53 0", or equivalent.

Note - Jurisdictions in Canada may require these markings to also be provided in French language. It is the responsibility of the manufacturer to provide bilingual marking, where applicable, in accordance with the requirements of the Provincial Regulatory Authorities. It is the responsibility of the manufacturer to determine this requirement and have bilingual wording added to the "Markings".

8 UL-BR certificate

CERTIFICADO DE CONFORMIDADE CERTIFICATE OF CONFORMITY	
Certificado No. / Certificate No.	UL-BR 12.0265X
Página / Page	1/5
Solicitante / Applicant 100550-597	R. STAHL DO BRASIL COM. E IMP. DE EQUIP. ELET. ELETRONICOS LTD A Rua Barros Barreto, 40/42 21032-140, Bonsucesso, RJ, Brasil CNPJ: 10.510.369/0001-06
Fabricante / Manufacturer 100041-435	R. STAHL HMI SYSTEMS GMBH Im Gewerbegebiet Pech 14 D-50767, Colônia, Alemanha CNPJ: NA
Local de Montagem / Assembly Location	O mesmo que o fabricante / Same as manufacturer
Importador / Importer	O mesmo que o solicitante / Same as applicant
Marca Comercial / Trademark	NA
Produto Certificado / Certified Product	INTERFACE COM O OEPRADOR Operator Interface
Modelo / Model	ET-**6-A-*.***
Lote ou Número de Série / Lot or Serial Number	NA
Marcação / Marking	Ex d e ia ib mb [ia ib] IIC T4 Gb e/and Ex ia tb [ia ib] IIIC T80 °C Db IP66 para o código TX/for type code TX Ex d e ia ib mb [ia ib op is] IIC T4 Gb e/and Ex ia tb [ia ib op is] IIIC T80 °C Db IP66 para o código FX/for type code FX Ver abaixo e manual para marcas alternativas/See attachment and manual for alternative marking
Normas Aplicáveis / Applicable Standards	ABNT NBR IEC 60079-0:2008, ABNT NBR IEC 60079-1:2009, ABNT NBR IEC 60079-7:2008, ABNT NBR IEC 60079-11:2009, ABNT NBR IEC 60079-18:2007, IEC 60079-28:2006, IEC 60079-31:2008
Programa de certificação ou Portaria / Certification Program or Decree	Portaria 179 de 18 de maio de 2010 do INMETRO
Concessão Para / Concession for	Ostentar o Selo de Identificação da Conformidade do Sistema Brasileiro de Avaliação da Conformidade (SBAC) sobre o(s) produto(s) relacionado(s) neste certificado Bearing the Conformity Identification Seal of the Brazilian System of Conformity (SBAC) on the product covered by this certificate.
Emissão / Date of issue	05 de junho de 2012 / June 05, 2012
Revisão / Revision date	-
Validade / Expire date	04 de junho de 2015 / June 04, 2015
 Aderauer Siqueira Gerente de Certificações / Certification Manager	UL do Brasil Certificações , organismo acreditado pela Coordenação Geral de Acreditação do INMETRO – CGCRE, segundo o registro No.: OCP-0029 confirma que o produto está em conformidade com a(s) Norma(s) e programas ou Portarias acima descritas. UL do Brasil Certificações, Certification Body accredited by Coordenação Geral de Acreditação do INMETRO - CGCRE according to the register No.: OCP-0029 confirms that the product is in compliance with the standards and certification Program or Decree above mentioned.
	
	
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	41-IC-F0400 rev 7.0

CERTIFICADO DE CONFORMIDADE CERTIFICATE OF CONFORMITY

Certificado No. / Certificate No. **UL-BR 12.0265X**

Página / Page **2/5**

MODELO DE CERTIFICAÇÃO / CERTIFICATION MODEL:

- ☒ Modelo com Avaliação do Sistema de Gestão da Qualidade do Processo de Produção do Produto e Ensaio no Produto
Quality Management System Evaluation of the Product Production Process and Product Test Model
- ☐ Modelo Ensaio de Lote
Lot Test Model
- ☐ Modelo Situações Especiais para Produtos Importados
Special Situations for Imported Products Model

CERTIFICADO DE ORIGEM EMITIDO NO EXTERIOR / ORIGINAL CERTIFICATE ISSUED ABROAD:

IECEX TUR 11.0006X, issue No. 1, 2011-12-16

LABORATÓRIO DE ENSAIOS / TESTING LABORATORY:

TUV Rheinland Industrie Service GmbH
Am Grauen Stein
51105 Cologne, Germany

RELATÓRIO DE ENSAIO NO. / TEST REPORT NO.:

BR/UL 12CA25158-1, emitido em 01 de junho de 2012 / issued in June 01, 2012

DE/TUR/ExTR11.0006/01

CARACTERÍSTICAS ELÉTRICAS / ELECTRICAL DATA:

Fonte de alimentação 24 Vdc / 1,5 A
Power Supply 24 Vdc / 1,5 A

DESCRIÇÃO DO PRODUTO / PRODUCT DESCRIPTION:

O Exicom ET-**6-A-*.*** são dispositivos de interface com o operador ou painel em áreas classificadas para zonas 1, 2, 21 e 22.
*The Exicom ET-**6-A-*.*** devices are operator interface or panel PCs for installation in hazardous locations classified for zones 1, 2, 21 and 22.*

O produto como um todo é construído em um invólucro protegido contra entrada de líquidos e poeira sem a necessidade de ser instalado em gabinetes certificados para atmosferas explosivas.
The entire devices are built in housings that are protected against liquids and dust without need to be installed in hazardous locations certified cabinets.

Os diferentes modelos variam no tamanho da tela (10" a 19") e tamanho total, o painel frontal com ou sem teclado e todas as facilidades de funcionamento.
The different models vary in display size (10" a 19") and overall size, front panel with or without keyboard and overall functionality.

As três principais facilidades de funcionamento são (caracterizadas pelo primeiro código numérico):
Three main functionalities are (characterized by the first type code number):

Organismo de Certificação /
Certification Body

UL do Brasil Certificações

Rua Fidêncio Ramos, 195, 5º andar.
04551-010 – Vila Olímpia – São Paulo – SP – Brasil

41-IC-F0400 rev 7.0

CERTIFICADO DE CONFORMIDADE

CERTIFICATE OF CONFORMITY

Certificado No. / Certificate No. UL-BR 12.0265X

Página / Page 3/5

ET-3*6-A-*.*** Sistema operacional Stahl para aplicações do usuário./*Stahl operating system for user application;*
 ET-4*6-A-*.*** Sistema operacional padrão (por exemplo, Windows Incorporado, Linux etc.)/*Standard operation system (e.g Windows Embedded, Linux etc.)*
 ET-5*6-A-*.*** Sistema operacional padrão Windows incorporado para aplicações remotas/*Windows Embedded Standard operating system for remote applications*

Construção interna para todos os equipamentos é igual para a maior parte dos modelos.
Internal construction of all devices is equal for most parts for all models.

Todos os modelos possuem varias interfaces para conectar com dispositivos externos como teclado, controles, localizadores, RFID ou scanner para código de barras etc.
 Comunicação com redes PLC e sistemas de automação é alcançado por interfaces diferentes (RS-232, RS-485, Ethernet por fibra ótica ou por fio de cobre) conectadas na parte trazeira do equipamento em área "Ex e".
 Montagem de acessórios como memória USB e disco rígido estão previstos.
All models have several interfaces to connect external devices as keyboards, joysticks, trackballs, RFID- or barcode-scanner etc. Communication with PLC networks and automation systems is achieved by different interfaces (RS-232, RS-485, Ethernet fiber optic or copper wire Ethernet links) connected in the "Ex e" -area at the back of the devices. Assembling of accessory as USB memory sticks and hard disk drives is previewed.

Para detalhes ver modelo abaixo/*For details see type below.* Com as variações -TX- and -FX-/*With variant -TX- and -FX-*
 Modelo/Type

TX	Ex d e ia ib mb [ia ib] IIC T4 Gb
Alternativo Alternative	Ex db eb ia ib mb [ia ib] IIC T4
	Ex ia tb [ia ib] IIIC T80 °C Db IP66
Alternativo Alternative	Ex ia tb [ia ib] IIIC T80 °C IP66
FX	Ex d e ia ib mb [ia ib op is] IIC T4 Gb
Alternativo Alternative	Ex db eb ia ib mb [ia ib op is] IIC T4
	Ex ia tb [ia ib op is] IIIC T80 °C Db IP66
Alternativo Alternative	Ex ia tb [ia ib op is] IIIC T80 °C IP66

Faixa de temperature ambiente/*Ambient temperature range:* -20 °C (Frontal/*Front* -30 °C) ≤ Ta ≤ +55 °C

Organismo de Certificação / **UL do Brasil Certificações**
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 04551-010 – Vila Olímpia – São Paulo – SP – Brasil

41-IC-F0400 rev 7.0

CERTIFICADO DE CONFORMIDADE

CERTIFICATE OF CONFORMITY

Certificado No. / Certificate No. **UL-BR 12.0265X**

Página / Page **4/5**

CONDIÇÕES ESPECIAIS DE UTILIZAÇÃO SEGURA / SPECIAL CONDITIONS FOR SAFE USE:

Para ET-xx6-A-*.SR* (Tela legível em exposição a luz solar)/(Sunlight readable display)

As partes frontais das interfaces com o operador com tela legível em exposição a luz solar (o código do modelo inclui "SR") pode ser limpa apenas com pano úmido.

The fronts of the operator interfaces with a sunlight readable display (type code includes "SR") may be cleaned with a damp cloth only.

ENSAIOS DE ROTINA / ROUTINE TESTS:

Ensaio de rotina devem ser conduzidos pelo fabricante:

Routine tests shall be conducted by the manufacturer:

Ensaio de dielétrico de acordo com a ABNT NBR IEC 60079-7/Dielectric test according to ABNT NBR IEC 60079-7

Inspeção Visual e Rigidez Dielétrica de acordo com a ABNT NBR IEC 60079-18/Visual inspections and Dielectric strength test according to ABNT NBR IEC 60079-18

OBSERVAÇÕES / OBSERVATIONS:

1. A validade deste Certificado está condicionada à realização das avaliações de manutenção e tratamento de possíveis não conformidades de acordo com as orientações da UL do Brasil Certificações e previstas nos procedimentos específicos.

The validation of this certificate depends on the surveillance inspections performing and Non conformity treatments, according to UL do Brasil Certificações procedures.

2. Este certificado aplica-se aos equipamentos (produtos) idênticos ao protótipo avaliado e certificado, manufaturados na(s) unidade (s) fabril (is) mencionada (S) acima.

This certificate applies to the products that are identical to the prototype investigated, certified and manufactured at the production site mentioned in this certificate.

3. Qualquer alteração no produto, incluindo a marcação, invalidará o presente certificado, salvo se o solicitante informar por escrito à UL do Brasil Certificações sobre esta modificação, a qual procederá à avaliação e decidirá quanto à continuidade da validade do certificado.

Any non-authorized changes performed in the product, including marking, will invalidate this certificate. UL do Brasil Certificações must be notified about any desired change. This notification will be analyzed by UL do Brasil Certificações that will decide about certificate force.

4. Os equipamentos devem ser instalados em atendimento às Normas pertinentes em Instalações Elétricas em Atmosferas Explosivas, ABNT NBR IEC 60079-14.

The equipment shall be installed according to the relevant Standards in Electrical Installation for Explosive Atmospheres, ABNT NBR IEC 60079-14.

5. As atividades de instalação, inspeção, manutenção, reparo, revisão e recuperação dos equipamentos são de responsabilidade dos usuários e devem ser executadas de acordo com os requisitos das normas técnicas vigentes e com as recomendações do fabricante.

The installation, inspection, maintenance, repair, review and rebuild equipment activities are responsibility of the end user and must be performed in accordance with the requirements of the standards and manufacturers recommendation.

Organismo de Certificação /
Certification Body

UL do Brasil Certificações

Rua Fidêncio Ramos, 195, 5º andar.

04551-010 – Vila Olímpia – São Paulo – SP – Brasil

41-IC-F0400 rev 7.0

CERTIFICADO DE CONFORMIDADE

CERTIFICATE OF CONFORMITY

Certificado No. / Certificate No. **UL-BR 12.0265X**

Página / Page **5/5**

6. Este certificado cancela e substitui o certificado número 06/UL-BRCR-0001X.
This certificate cancels and substitutes the certificate number 06/UL-BRCR-0001X.

Histórico de Revisões / Revision History:

-	-
A última revisão substitui e cancela as anteriores <i>The last review cancel and substitutes the previous ones</i>	

Organismo de Certificação /
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UL do Brasil Certificações
Rua Fidêncio Ramos, 195, 5º andar.
04551-010 – Vila Olímpia – São Paulo – SP – Brasil

41-IC-F0400 rev 7.0

9 Release Notes

The chapter entitled "Release Notes" contains all the changes made in every version of the certificates.

Version 03.00.00

- First edition for devices HW-Rev. 3

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