



# 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](http://www.iecex.com)

Certificate No.: IECEx BVS 09.0012 issue No.:1

Certificate history:  
Issue No. 1 (2009-6-4)  
Issue No. 0 (2009-3-5)

Status: Current

Date of Issue: 2009-06-04 Page 1 of 5

Applicant: **Emerson Process Management Distribution Ltd.**  
Meridian East, Meridian Business Park  
Leicester, LE19UX  
United Kingdom

Electrical Apparatus: 475 Field Communicator  
*Optional accessory:*

Type of Protection: Intrinsic Safety 'i'

Marking: Ex ia IIC T4

*Approved for issue on behalf of the IECEx  
Certification Body:*

H.-Ch. Simanski

*Position:*

Head of Certification Body

*Signature:  
(for printed version)*

*Date:*

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](http://www.iecex.com).

Certificate issued by:

DEKRA EXAM GmbH  
Dinnendahlstrasse 9  
44809 Bochum  
Germany





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Manufacturer: **R. STAHL HMI Systems GmbH**  
Im Gewerbegebiet Pesch 14  
50767 Cologne  
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:

<b>IEC 60079-0 : 2004</b> Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
<b>IEC 60079-11 : 2006</b> Edition: 5	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
<b>IEC 60079-27 : 2008</b> Edition: 2.0	Explosive atmospheres - Part 27: Fieldbus intrinsically safe concept (FISCO)

*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/BVS/ExTR09.0013/00  
DE/BVS/ExTR09.0013/01

Quality Assessment Report:  
DE/BVS/QAR06.0007/02  
GB/BAS/QAR08.0010/00



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The 475 Field Communicator is a hand held, battery powered, portable intrinsically safe apparatus and is used to interact with microprocessor-based measurement and actuation field devices in a process environment.

The electrical components are fixed in a plastic enclosure (surface resistance  $\leq 10^9 \Omega$ ). The unit supports the HART® and Foundation Fieldbus™ communication protocols. It can be connected to field devices in hazardous locations to check and configure them by using connectors at the top of the enclosure (F for Fieldbus applications and H for HART applications). The interfaced fieldbus loop can be installed in zones 0, 1, 2, 20, 21 and 22. The apparatus is powered by a completely encapsulated battery. For charging of the battery (outside the hazardous area) with a specially designed charger (not part of this examination) there is also a connector at the side of the enclosure.

CONDITIONS OF CERTIFICATION: NO



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## EQUIPMENT(continued):

### Parameters:

1	Battery pack				
	Nominal voltage		DC	7.2	V
	Capacity			1950	mAh
2	Batterie charger connection (only for use outside the hazardous area)				
	Voltage	Um	DC	9.8	V
3	Connection F				
	Voltage	Uo	DC	1.9	V
	Current	Io		32	µA
3.1	For the connection of an intrinsically safe Fieldbus circuit				
	Voltage	Ui	DC	30	V
	Current	Ii		380	mA
	Power	Pi		1.3	W
	Effective internal capacitance	Ci		negligible	
	Effective internal inductance	Li		negligible	
3.2	For the connection of an intrinsically safe circuit in accordance FISCO model				
	Effective internal capacitance	Ci		negligible	
	Effective internal inductance	Li		negligible	
	For circuits type of protection Ex ia IIC				
	Voltage	Ui	DC	17.5	V
	Current	Ii		215	mA
	Power	Pi		1.9	W
	For circuits type of protection Ex ia IIB				
	Voltage	Ui	DC	17.5	V
	Current	Ii		380	mA
	Power	Pi		5.3	W
4	Connection H				
	Voltage	Uo	DC	1.9	V
	Current	Io		32	µA
	For the connection of an intrinsically safe circuit				
	Voltage	Ui	DC	30	V
	Current	Ii		200	mA
	Power	Pi		1	W
	Effective internal capacitance	Ci		negligible	
	Effective internal inductance	Li		negligible	
5	Ambient temperature range	Ta		-10 °C up to +50 °C	



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## DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

The circuitry of the communicator has been modified slightly and on the label "FISCO Hand Held Terminal" was added.