



Certificate

(1) EC Type Examination Certificate

(2) Equipment or protective system intended for use in
potentially explosive atmospheres – Directive 94/9/EC

(3) TÜV-A 08ATEX0001 X

(4) Equipment: Data - Logger Field Device MyDatenet

(5) Applicant: Microtronics Engineering GmbH

(6) Address: 3244 Ruprechthofen; Hauptstrasse 7



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

(8) TÜV AUSTRIA SERVICES GMBH, notified body number 0408 in accordance with article 9 of
Directive 94/9/EC of the European Parliament and Council of 23 March 1994, certifies that this
equipment or protective system has been found to comply with the design and construction of
equipment and protective system intended for use in potentially explosive atmospheres, given in
Annex II of the Directive.

The examination and test results are recorded in confidential report 2007-ET/PZW-EX-0-001094

(9) Compliance with the Essential Health and Safety Requirements been assured by compliance with:

EN 60079-0:2006	EN 60079-11:2007	EN 60079-18:2004
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(10) If the sign X is placed after the certificate number, it indicates that the equipment or protective
system is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC Type examination certificate relates only to the design, examination and tests of the
specified equipment or protective system in accordance with the Directive 94/9/EC. Further
requirements of the Directive apply to the manufacturing process and supply of this equipment or
protective system. These are not covered by this certificate.

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

II 2 G Ex ib mb IIB T4

April 28th, 2008
Date of issue

Dipl.-Ing. Kurt Mayerhofer
Certification representative

End of validity

The duplication of this document in parts is subject to the approval by TÜV AUSTRIA SERVICES GMBH



SCHEDULE

(13)

(14)

EC Type Examination Certificate TÜV-A 08ATEX0001X

(15) **Description of Equipment**

The system is based on the Microtronics data transmission and processing standard myDatanet. The system consists of: server software, database and myDatanet data - logger field device. The data - logger consists of main unit with sensor, data evaluation circuits with GPRS modem, and a snap - on, detachable battery pack for power supply. The data - logger may be operated in zone 1 and zone 2 hazardous areas. The measured data are transmitted via GPRS, stored in a central server database and exposed on the Internet through myDataweb. In addition, settings and configurations can also be changed through myDataweb.

Type code:

Product group	Version	Type code
myDatalog (external sensor)	2 x analog/digital input and internal power supply	myDatalog2Ex
	Switchable RS232/485 interface and internal power supply	myDatalog232

Product group	Media	Measure range	Sensor type	Type code	
myDatasens (internal sensor)	NH ₃	0-200ppm	-10 bis 30°C	7AM	myDatasens NH ₃
		0-500ppm	-10 bis 40°C	7NH	
	CO	0-2000ppm	-10 bis 40°C	7E	myDatasens CO
		0-2000ppm	-10 bis 40°C	7E/F	
	CL ₂	0-250ppm	-10 bis 40°C	7CLH	myDatasens CL ₂
	C ₂ H ₄ O	0-100ppm	-10 bis 40°C	7ETO	myDatasens C ₂ H ₄ O
	H ₂	0-20000ppm	-10 bis 40°C	7HYE	myDatasens H ₂
		0-2000ppm	-10 bis 40°C	7HYT	
	HCL	0-100ppm	-10 bis 40°C	7HL	myDatasens HCL
	HCN	0-200ppm	-10 bis 40°C	7HCN	myDatasens HCN
	H ₂ S	0-1000ppm	-10 bis 40°C	7H	myDatasens H ₂ S
			-10 bis 40°C	7H/LM	
		0-500ppm	-10 bis 40°C	7HH	
			-10 bis 40°C	7HH/LM	
	NO	0-1500ppm	-10 bis 40°C	7NT	myDatasens NO
	NO ₂	0-200ppm	-10 bis 40°C	7NDH	myDatasens NO ₂
O ₃	0-5ppm	-10 bis 40°C	7OZ	myDatasens O ₃	
SO ₂	0-100ppm	-10 bis 40°C	7SH	myDatasens SO ₂	
	0-500ppm	-10 bis 40°C	7ST/F		

Power supply	Version	Type code
Battery pack	4.1V, 19.2Ah	AP424DA



Technical data:

Electrical data:		
Nominal voltage	U_n	4,1 VDC
Nominal current	I_n	1,7 A
Nominal power	P_n	6,97 W

Explosion protection:

Apparatus group:	II	
Apparatus Category:	2 G	
Type(s) of protection:	Ex ib mb („mb“ type for battery pack only)	
Temperature class:	T 4	
Protection group:	IIB	
Ambient Temperature	T_{amb} :	-10°C bis +40°C (tested for: -20°C to +40°C)
Humidity:	15 - 90 %	
Protection by enclosure:	IP 64 (tested) IP 67 (Manufacturer's data)	

Electrical parameters of intrinsic safe circuits:

Description:

Values:

Antenna socket - FME type (CON 1)

$R_{IN} = 50\Omega$ (antenna - input resistance)
 $P_{MAX} = 2 W$ (HF - emitted power)

Battery charging socket (CON 2)

intrinsic safety Ex ib
(not to be used in hazardous areas)

Battery pack plug (CON 3)

Pin 1: power supply
Pin 3: +4,1V power supply
Pin 4-6: GND power supply

$U_o = 4,1 V$
 $I_o = 1,7 A$
 $P_o = 6,97 W$
 $L_o = 5 \mu H$
 $C_o = 1000 \mu F$

External connection - USB (CON 4)

(not to be used in hazardous areas)

Evaluation circuit power supply (CON 5)
- connected to CON 3

Pin 1: power supply
Pin 3: +4,1V power supply
Pin 4-6: GND power supply

$U_i = 6 V$
 $I_i = 1,7 A$
 $P_i = 6,97 W$
 $L_i = 0$ (negligible)
 $C_i = 780 \mu F$ (all pins)

External connection - SIM - Card Slot (CON 6)

SIM - card (not to be plugged-in, un-plugged or replaced in hazardous areas)



External sensors (for types myDatalog2Ex; myDatalog 232
and myDatalog 485 only - connector CON 7)

$U_o = 17,1 \text{ V}$
 $I_o = 0,2 \text{ A}$
 $P_o = 3,762 \text{ W}$
 $L_o = 50 \text{ } \mu\text{H}$
 $C_o = 2,1 \text{ } \mu\text{F}$

(16) **Test report**

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(17) **Special conditions**

- (17.1) The battery pack and main unit may be detached only using the snap - on connection No further disassembling in hazardous area is allowed. The further disassembling must be performed by the manufacturer for maintenance, outside the hazardous area.
- (17.2) The battery pack may only be replaced but not charged in hazardous area. Outside hazardous areas the battery pack may be charged only by using the original battery charger.
- (17.3) The main unit with data evaluation circuits may be connected only to the original battery pack and no other power supplies.
- (17.4) The CON 4 socket (USB-connection) is not to be used in hazardous areas.
- (17.5) The SIM-card on the CON 6 (SIM-card slot) may not be replaced in hazardous areas.
- (17.6) On the CON 1 socket may be connected only the original antenna with or without a 5m original extension cable.
- (17.7) The immersion of the apparatus may cause the dropouts of the GPRS communication.
- (17.8) To protect the enclosure against dirt keep a minimal distance of 50mm from the walls in all directions.
- (17.9) The apparatus must be marked with the warnings:

„WARNING - DO NOT OPEN IN A HAZARDOUS AREA“

„WARNING - HAZARD OF ELECTROSTATIC CHARGE - DO NOT RUB IN A HAZARDOUS AREA“

(18) **Basic safety and health requirements:**

Covered by application of above mentioned standards.