

EC-TYPE EXAMINATION CERTIFICATE

[1]
[2]

Equipment or Protective System intended for use
in Potentially explosive atmospheres
Directive 94/9/EC



- [3] EC-Type Examination Certificate Number: **DEMKO 04 ATEX 0307914X**
[4] Equipment or Protective System: **RDC-CAT, -COT, & RDC4-COT Data Collectors**
[5] Manufacturer: **Rohrback Cosasco Systems Inc**
[6] Address: **11841 E Smith Ave, Santa Fe Springs CA 90670 USA**

[7] This equipment or protective system and any acceptable variation there to is specified in the schedule to this certificate and the documents therein referred to.

[8] UL International Demko A/S, notified body number 0539 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report no: **03NK07914**

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014:1997 E incl. A1 and A2, EN 50020:2002 E

[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.

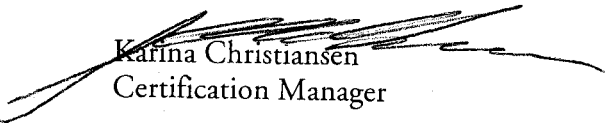
[11] This EC-Type examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of this Directive apply to the manufacturing process and supply of this equipment or protective system.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

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

⊕ II 2G EEx ib IIB T3 -20°C ≤ Tamb ≤ 70°C

On behalf of UL International Demko A/S

Herlev, 2004-06-09


Karina Christiansen
Certification Manager

Certificate 04 ATEX 0307914X

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UL International Demko A/S

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Schedule

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EC-TYPE EXAMINATION CERTIFICATE No.

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Description of Equipment or protective system:

Remote Data Collectors RDC-COT, RDC-CAT and RDC4-COT are field mounted units designed to store data from electrical resistance probes and linear polarization resistance probes. The data can be downloaded with a suitable device with appropriate entity parameters..

Intrinsic safety is assured by limitation of voltage, current and power, limitation of capacitance and inductance, infallible resistors and infallible segregation.

Electrical data

Entity parameters

RDC-0 with external power supply: U_i : 18V, I_i : 0.22A P_i : 0.97W, C_i : 0.517 μ F L_i : negligible

Power Supply: U_i : 18V, I_i : 0.22A P_i : 0.97W, C_i : 2.05 μ F L_i : 1.67 mH

or

RDC-3 with internal battery pack: The battery pack P/N 748270 consists of three Tadiran lithium D batteries (each 3.6V) in series, protected by a fuse and resistors and has a rating of 11.1V, 0.34A, 0.92W.

Output

Data Socket

U_o : 11.1V dc	U_i : 18.1V dc
I_o : 44.9 mA dc	I_i : 73.5 mA dc
P_o : 124.7 mW	C_i and L_i negligible
C_o : 1.9 μ F	
L_o : 70.2 mH	

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Nomenclature

RDC-CAT, connected to a linear polarization probe
RDC-COT, connected to an electrical resistance probe
RDC4-COT, four channel unit

When provided with:

Internal battery pack	External power supply
RDC-CAT-X-3-3-(-L)	RDC-CAT-X-0-3-(-L)
RDC-COT-X-3-3-(-L)	RDC-COT-X-0-3-(-L)
RDC4-COT-X-3-3-(-L)	RDC4-COT-X-0-3-(-L)

X = A,B or S which define the type of connector

3 = battery connected

0 = Barrier connected

3 - UL/ULc/ATEX certified

L = length of cable supplied. - 100 ft maximum

Temperature range

$-20^{\circ}\text{C} \leq T_{\text{amb}} \leq 70^{\circ}\text{C}$

RDC - 3 with battery pack EEx ib IIC T4 ($T_{\text{amb}} = 50^{\circ}\text{C}$)

RDC - 0 with remote power supply EEx ib IIB T4 ($T_{\text{amb}} = 50^{\circ}\text{C}$)

RDC - 3 with battery pack EEx ib IIC T3 ($T_{\text{amb}} = 70^{\circ}\text{C}$)

RDC - 0 with remote power supply EEx ib IIB T3 ($T_{\text{amb}} = 70^{\circ}\text{C}$)

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Report No.: 03NK07914 Report
(Hazardous Location Testing)

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Drawings

item	Drawing number	Rev	Pages	Date	Subject
Common					
1	748270	A	1	29-Apr-04	Battery Pack, RDC
2	006429	A	1	02-Jun-04	Label, Battery Pack
3	094244	B	1	9-Feb-04	Transformer
4	006256	A	1	21-Aug-92	Conformal Coating, PCB
5	702044	A	1	22 Mar 04	Test Probe, RDC-COT
6	044058	A	1	9-Feb-04	Test Probe Sub-Assy, RDC-COT
7	710381	A	1	22 Mar-04	Test Probe, RDC-CAT
8	702031	E	1	9-Feb-04	Wiring Harness, RDC-COT, RDC-CAT
9	702032	D	1	9-Feb-04	Wiring Harness, RDC4-COT
10	702019	D	1	9-Feb-04	Cable Assy, RDC-COT to Probe
11	710815	D	1	9-Feb-04	Cable Assy, RDC-CAT to Probe
12	006431	A	1	22 Mar 04	Label, Test Probe, RDC-CAT
13	006432	A	1	22 Mar 04	Label, Test Probe, RDC-COT
14	006434	A	1	24-May-04	Label, Internal, RDC-COT, RDC-CAT, RDC4-COT
15	006433	(-)	1	24-May-04	Label, External, RDC-COT, RDC-CAT, RDC4-COT
Processor Board Assy					
16	702039	(-)	1	9-Feb-04	Processor Board PCB Assy, RDC-COT
17	710831	(-)	1	9-Feb-04	Processor Board PCB Assy, RDC-CAT
18	702040	(-)	1	9-Feb-04	Processor Board PCB Assy, RDC4-COT
19	702041	(-)	1	9-Feb-04	Processor Board PCB Sub-Assy
20	702043	(-)	1	9-Feb-04	Processor Board Schematic
21	702042	(-)	7	9-Feb-04	Processor Board PCB
22	094098	A	1	3-Jul-98	Battery, Lithium, 3.0V
RDC-COT Assy					
23	702006	(-)	1	9-Feb-04	Top Assy, RDC-COT
24	702035	(-)	1	9-Feb-04	Sub-Assy, RDC-COT Electronics
25	702036	A	1	22 Mar 04	Signal Board PCB Assy, RDC-COT
26	702038	(-)	1	9-Feb-04	Signal Board Schematic, RDC-COT
27	702037	(-)	7	9-Feb-04	Signal Board PCB, RDC-COT

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RDC-CAT Assy					
28	710804	(-)	1	9-Feb-04	Top Assy, RDC-CAT
29	710812	(-)	1	9-Feb-04	Sub-Assy, RDC-CAT Electronics
30	710835	A	1	22 Mar 04	Signal Board PCB Assy, RDC-CAT
31	710837	(-)	1	9-Feb-04	Signal Board Schematic, RDC-CAT
32	710836	(-)	7	9-Feb-04	Signal Board PCB, RDC-CAT

RDC4-COT Assy					
33	702207	(-)	1	9-Feb-04	Top Assy, RDC4-COT
34	702050	(-)	1	9-Feb-04	Sub-Assy, RDC4-COT Electronics
35	702051	A	1	22 Mar 04	Signal Board PCB Assy, RDC4-COT
36	702053	(-)	2	9-Feb-04	Signal Board Schematic, RDC4-COT
37	702052	(-)	7	9-Feb-04	Signal Board PCB, RDC4-COT

Remote Power, all RDCs					
38	748085	F	1	9-Feb-04	Terminal Block Assy, Remote Power

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in ANNEX III to Directive 94/9/EC of the European Parliament and the Council of 23 March 1994.

[17] Special conditions for safe use:

The RDC datalogger is marked with an X indicating it is to be wiped clean with a dampened cloth to avoid electrostatic charges.

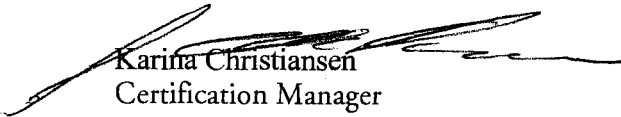
The RDC datalogger may be powered from a certified galvanically isolated supply having the output parameters less than or equal $U_i = 18V$, $I_i = 0.22A$ and $P_i = 0.97W$; e.g. P&F Transformer Isolated Solenoid Driver Type KFD2-SD-Ex1.17 certified on BASEEFA Certificate No. BAS00ATEX7216.

[18] Essential Health and Safety Requirements

Concerning ESR this Schedule verifies compliance with the Ex standards only. The manufacturer's Declaration of Conformity declares compliance with other relevant Directives.

On behalf of UL International Demko A/S

Herlev, 2004-06-08


 Karina Christiansen
 Certification Manager

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