



Intertek



1. **EC-TYPE EXAMINATION CERTIFICATE**

2. **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3. EC-Type Examination Certificate Number: **ITS10ATEX27051X**

4. Equipment or Protective System: **RFM Series Termination Unit**

5. Manufacturer: **PSM INSTRUMENTATION LTD.**

6. Address: **Unit 3, Burrell Road
Haywards Heath
West Sussex
RH16 1TW**

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. Intertek Testing and Certification Limited, notified body number 0359 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 the 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 Intertek Report Ref 08035266 Issue 1 dated September 2010.

9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0:2009, EN 60079-11:2007 and EN 60079-26:2007 except in respect of those requirements referred to at item 18 of the Schedule.

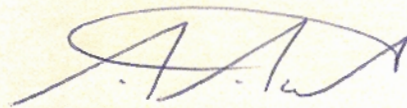
10. If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

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 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 1 G Ex ia IIB or IIC T4
Tamb = -20°C to +50°C



A T Austin
Certification Officer
8 September 2010

Intertek Testing & Certification Limited
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13. SCHEDULE

14. EC-TYPE EXAMINATION CERTIFICATE NUMBER ITS10ATEX27051X

15. DESCRIPTION OF EQUIPMENT OR PROTECTIVE SYSTEM

The PSM Instrumentation Ltd RFM Termination Unit is an apparatus, mounted in the hazardous area, supplying power and data to a PSM Instrumentation Ltd iCT 1000 Series dual mode pressure and temperature transmitter.

Power and data communication is provided to the termination unit by a PSM Instrumentation Ltd RFM-ISR Interface Unit, mounted in the non-hazardous area.

The RFM Termination Unit is housed within a metallic enclosure and is comprised of one printed circuit board which provides infallible current limitation and termination facilities, by means of screw terminal blocks.

The RFM Termination unit may be supplied from RFM-ISR unit with either IIB or IIC gas group output parameters. The output from the termination unit is intrinsically safe for the corresponding gas group output parameters as listed below.

Up to a maximum of 127 RFM Termination units may be connected to a RFM-ISR interface, subject to satisfactory aggregation of the IS parameters with the cable parameters.

The Intrinsic Safety Output Parameters are as follows:

IIB Gas Group				IIC Gas Group			
Power		Data		Power		Data	
Ui	14.8V	Ui	5.9 V	Ui	14.8V	Ui	5.9 V
li	1.33 A	li	84 mA	li	0.92 A	li	84 mA
Uo	14.8 V	Uo	5.9 V	Uo	14.8 V	Uo	5.9 V
lo	109 mA	lo	26 mA	lo	109 mA	lo	26 mA
Co	1.88 μ F	Co	500 μ F	Co	0.305 μ F	Co	21.5 μ F
Lo	4.0 mH			Lo	1.0 mH		
Po	0.344 W			Po	0.344 W		
Lo/Ro	158 μ H / Ω			Lo/Ro	39.7 μ H / Ω		

Note: Lo and Po are calculated based on the combination of the Power and Data outputs.

16. REPORT NUMBER

Intertek Report Ref 08035266 Issue 1 dated September 2010.

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17. SPECIAL CONDITIONS FOR SAFE USE

The cable connecting the RMS-ISR supply to the RFM Termination units shall be Type A or Type B in accordance with EN 60079-14 and have a minimum radial insulation thickness on each core of 0.5mm or greater.

Wire links LK6, LK7 and LK8 must be removed from the baseboard PCB.

The RFM Termination Unit is housed within an Aluminium Alloy enclosure. When mounted in Zone 0 Hazardous Areas, precautions must be taken to ensure the risk of ignition from impact sparks is excluded. Alternatively, the RFM Termination unit housed within a stainless steel enclosure must be used.

18. ESSENTIAL HEALTH AND SAFETY REQUIREMENTS (EHSR'S)

The relevant EHSR's have been identified and assessed in Intertek Report Ref 08035266 Issue 1 dated September 2010.

19. DRAWINGS

Number	Issue	Date	Description
P96000-RFM-GA	A	01-04-08	RFM Parts List Exploded View
P96012-RFM-GA	A	01-04-08	RFM Deck Mount Parts List Exploded View
P96013-RFM-DT	A	02-11-06	RFM Standard Enclosure
P96014-RFM-DT	A	02-09-08	RFM Deck Mount Enclosure
P96015-RFM-GA	A	01-04-08	Barrier Module Outline
P96016-RFM-GA	A	01-04-08	Termination Module Outline
P96018-RFM-DT	C	30-03-09	RFM Mounting Bracket
P96001-RFMISR-BOM	B	25-02-2010	ISR Barrier Module
P96019-RFM-BOM	A	06-03-2008	Termination Module
P96010-RFM-CD	A	28-09-2007	RFM Barrier Module (2 Sheets)
P96011-RFM-CD	A	28-09-2007	RFM BaseBoard
P96017-RFM-DT	A	20-05-08	RFM Information Label
P96020-RFM-DT	D	09-06-10	ATEX Marking Labels
P96021-RFM-AW	A	20-05-08	RFM Information Label
P96022-RFM-AW	C	07-06-10	ATEX Marking Labels
I6293	-	01-06-2010	PSM Sensors Barrier Module (5 sheets)
I6267	-	08-06-2010	PSM Sensors RFM Baseboard (3 Sheets)

Note: These drawings are common to certificate number ITS09ATEX26414X

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