



1. **TYPE EXAMINATION CERTIFICATE**

2. **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres**

3. Type Examination Certificate Number: **ITS10ATEX26946X**

4. Equipment or Protective System: **IPAQ R520 and R520S**

5. Manufacturer: **INOR Process AB**

6. Address: **PO Box 9125, SE-200 39 Malmö, Sweden**

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 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 94/9/EC of 23 March 1994


The examination and test results are recorded in confidential Report: INT-DK 10 045684, ETS3877, dated 30th July 2010.

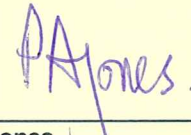
9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with standards EN 60079-0: 2006 and EN 60079-15: 2005 except in respect of those requirements referred to at item 16 of the Schedule.

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 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 3G Ex nL IIC T4-T6*
* see schedule for details


P Jones
Certification Officer
7th October 2010

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- 13. SCHEDULE
- 14. TYPE EXAMINATION CERTIFICATE NUMBER: ITS10ATEX26946X
- 15. Description of Equipment or Protective System

IPAQ R520 and R520S is a programmable transmitter designed mainly for temperature measurements in the process industry. It is a two-wire, 4-20mA current-loop transmitter (see figure 1) with HART digital communication and power supply on the 4-20mA wires. Zero, span, and linearization in the input processing are calibrated through a PC's USB port to the transmitter via a USB interface, eliminating manual trimming. The USB interface is only used when the transmitter is in safe, non-hazardous area. A non-volatile EEPROM stores calibration and configuration settings.

The transmitter IPAQ R520 and R520S is made for mounting on a DIN standard rail in an suitably approved ATEX enclosure with an IP rating of minimum IP54 for non-incendive use (Category 3G, Zone 2) and it is powered from a standard power supply, which is mounted outside the hazardous area.

The transmitters PCBs and components are moulded in casting compound reducing high temperature of small components and internal sparks on the PCB.

R520S is a SIL-version. It differs from the non-SIL-version in the naming and the safety functions in the software. Nothing conflicts with the Ex-requirements.

Ui Vmax: 36VDC
Ci : 12.1 nF
Li : 10 μ H

Ambient temperature:

T6: $-20^{\circ}\text{C} < T_a < +60^{\circ}\text{C}$
T5: $-20^{\circ}\text{C} < T_a < +70^{\circ}\text{C}$
T1-T4: $-20^{\circ}\text{C} < T_a < +70^{\circ}\text{C}$

- 16. REPORT NUMBER

Intertek Report INT-DK 10 045684, ETS3877, dated 30th July 2010.

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13. SCHEDULE

14. TYPE EXAMINATION CERTIFICATE NUMBER: ITS10ATEX26946X

17. CONDITIONS OF CERTIFICATION:

a. Special Conditions for safe use

- The Communication port used for configuration and calibration is not to be used in hazardous area
- The transmitter IPAQ R520 and R520S are to be mounted on a standard DIN rail within a suitably approved ATEX enclosure that has a minimum IP rating of IP54. They are to be powered by a standard Class 2 power supply, which is installed outside the hazardous area.
- For ambient temperatures below -10°C and above +70°C special wiring precautions must be considered and suitable field wiring must be used.

b. Conditions For Use (Routine Tests)

Electric strength test according to EN60079-15: 2005 § 34.2.1 shall be carried out

18. Essential Health and Safety Requirements (EHSR's)

The relevant EHSR's that have not been addressed by the standards listed in this certificate have been identified and assessed in Intertek Report INT-DK 10 045684, ETS3877, dated March 4th, 2010.

19. DRAWINGS

Scheduled and related drawings are listed in 88DRW00043-1 dated 2010-06-21

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