



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: **Baseefa05ATEX0120X**

4 Equipment or Protective System: **ATSR1 REMOTE LEVEL CONTROL SYSTEM**

5 This certificate is held by: **BRAIME ELEVATOR COMPONENTS LTD**

6 Address: **Hunslet Road, Leeds, LS10 1JZ**

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 Baseefa (2001) Ltd. Notified body number 1180, 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 Report No. **05(C)0232**

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

prEN 61241-0: 2005 EN 61241-1: 2004

except in respect of those requirements listed 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 and construction of the specified equipment or protective system. 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 1D Ex tD A20 (Ex iaD) 20 T see schedule **T_{amb}** see schedule **IP** see schedule

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa (2001) Ltd. Customer Reference No. **4341**

Project File No. **05/0232**

This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

Baseefa

Rockhead Business Park, Staden Lane,
Buxton, Derbyshire SK17 9RZ
Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601
e-mail info@baseefa.com web site www.baseefa.com
Baseefa is a trading name of Baseefa (2001) Ltd
Registered in England No. 4305578 at the above address

R S SINCLAIR
DIRECTOR
On behalf of
Baseefa (2001) Ltd.



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Schedule

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Certificate Number Baseefa05ATEX0120X

15 Description of Equipment or Protective System

The ATSR1 Remote Level Control System Capacitance Level Probe System consists of a control module that is located in the safe area and a sensor enclosure complete with an integral or remote capacitance probe that are located in the hazardous area.

There are 3 assembly options for the ATSR1 Remote Level Control System Capacitance Level Probe System:

Option 1: ATSR1VOA + ATSRH**

Option 2: ATSR1VOA + ATSRNODE1 (+ Remote Probe)

Option 3: ATSR1VOA + ILJBNODE1* (+ Remote Probe)

Safe Area (ATSR1VOA):

The ATSR1VOA is the control module that is located in the safe area and contains a combination of zener diodes and thermal fuses that limit the power to the sensor circuits within the enclosure and capacitance probe that are located in the hazardous area.

Hazardous Area (ATSRH**, ATSRNODE1 + Remote Probe, ILJBNODE1* + Remote Probe):

The ATSRH** Series sensor enclosure is located in the hazardous area and consists of a black plastic enclosure that has an integral capacitance probe. The enclosure is 132mm x 157mm x 100mm deep and consists of a clear or opaque lid and an opaque body with two rubber or sponge gaskets fitted in the lid. The lid is secured to the body by 4 x M5 steel screws. The lid and body components are coated with a metallic paint with various over colour options to protect them from UV exposure and static charging. The clear lid is only partially coated to leave a window facility. The body incorporates an integral capacitance probe that may vary in length and shape to suit the customer application, the probe variants are determined by the *** in the type code. The enclosure contains sensor circuits that are connected to the integral probe. The sensor circuits are located a minimum of 5mm from the inside edge of the enclosure wall. The enclosure has an ingress protection rating of IP65.

The ATSRNODE1 sensor enclosure is located in the hazardous area and consists of a black plastic enclosure that has connection facilities to a remote capacitance probe. The enclosure is 212mm x 60mm x 124mm. The enclosure consists of a body and lid complete with poly-chloroprene sponge cord gasket that is fitted in a rectangular groove within the lid. The lid is secured to the body by 4 x M5 stainless steel screws. The sensor circuits are located a minimum of 5mm from the inside edge of the enclosure wall. Connection to a remote capacitance probe is via a 2 core cable that passes through a suitably certified ATEX cable gland fitted in the wall of the enclosure. The enclosure also has an external earth wire that passes through a suitably certified ATEX cable gland fitted in the wall of the enclosure, for connection by the end user. The enclosure has an ingress protection rating of IP66.

The ILJBNODE1* sensor enclosure is located in the hazardous area and consists of a plastic tube that is natural in colour (white/cream) and can be moulded or machined in several material types:-

Moulded types: 'DCT2AM' - 29 Across Flats x 66mm long (M25x1.5 female threads)

Machined types: 'DCT2AP', 'DCT2AA', 'DCT2AN' & 'DCT2AT'

M40 male thread x 66 or 100mm long (M25x1.5 female threads)

The ILJBNODE1* sensor tube has a female threaded hole at each end for fitting a suitably certified ATEX plastic cable gland and / or plastic stopping plug. The sensor circuits are located directly against the enclosure wall. The enclosure has a connection to a remote capacitance probe via a 2 core cable that passes through a suitably certified ATEX cable gland fitted in the female threaded hole of the enclosure. The enclosure also has an external earth wire that passes through a suitably certified ATEX cable gland fitted in the female threaded hole in the enclosure, for connection by the end user. The enclosure has an ingress protection rating of IP66.

The following EEx e II plastic cable glands have been assessed by Baseefa as being suitable for 1D use with this ILJBNODE1* tubular enclosure:

- ~ Pflitsch GmbH & Co. KG, II 2G EExe II IP66 type U59, M25 plastic cable glands to PTB02ATEX1115X
- ~ CEAG Sicherheitstechnik GmbH, II 2G/D EExe II IP66 type GHG 960 92.. P.... M25 plastic cable glands and M25male/M20female plastic reducers to PTB99ATEX3128X.

The Maximum Power Dissipation for the circuits in the hazardous area enclosures is as follows:

ATSRH** = 4.95 Watts, ATSRNODE1 = 6 Watts, ILJBNODE1* = 2.9 Watts

The zener diode in the ATSR1VOA module has a voltage rating which is selected to be as close as possible to the supply voltage.

Schedule of Marking:

When ATSRH** enclosure is used:-

⊕ II 1D Ex tD A20 (Ex iaD) 20 T100°C T_{amb}-20°C to 50°C IP65

When ATSRNODE1 enclosure is used:-

⊕ II 1D Ex tD A20 (Ex iaD) 20 T125°C T_{amb}-20°C to 50°C IP66

When ILJBNODE1* enclosure is used:-

⊕ II 1D Ex tD A20 (Ex iaD) 20 T125°C T_{amb}-15°C to 50°C IP66

16 Report Number

05(C)0232

17 Special Conditions for Safe Use

1. The ATSR1VOA control module shall be mounted in a safe area only.
2. When the ATSRH** enclosure is fitted with a clear lid it shall be protected from UV exposure.
3. The ATSRNODE1 enclosure shall be protected from UV exposure.
4. The ILJBNODE1A tubular enclosure is suitable for use only where there is a low impact risk, unless fitted into a stainless steel or plated steel 'L' shaped bracket that is a max of 1mm thick and approximately 50mm wide.
5. The ILJBNODE1M tubular enclosure is suitable for use only where there is a low impact risk.
6. The ILJBNODE1M, ILJBNODE1A and ILJBNODE1T tubular enclosures shall be protected from UV exposure.
7. The ILJBNODE1M tubular enclosure shall only be fitted with appropriately certified ATEX plastic cable glands and/or stopping plugs that have a maximum entry thread length of 11mm.



8. For ILJBNODE1* tubular enclosures - For the Pflitsch and CEAG cable glands, only permanently wired cables may be entered. The user shall guarantee suitable clamping.
9. The enclosures shall be fitted with suitable ATEX apparatus certified cable glands and/or stopping plugs. Component stopping plugs shall be Hawke type 375 or 378.
10. The ATSRH**, ATSRNODE1 and ILJBNODE1* enclosures shall not be used under dust layers exceeding 50mm.
11. The cable length from the DRC205A to the RNY**/DCT2AE/DCT2A* enclosures shall not exceed 100m. The cable may be any suitable 2 core screened cable. No special installation conditions apply.
12. The cable length from the DCT2AE/DCT2A* enclosures to the remote probe shall not exceed 0.5m. The cables may be any suitable single core cable for earthing and any single core screened cable for probe connection. No special installation conditions apply.

18 Essential Health and Safety Requirements

All As follows, in addition to those covered by the standards at item 9.

Clause	Subject	Compliance
Annex II clause 1.1.3	Temperature index	4.1
Annex II clause 1.1.3	Endurance to heat and cold and light	4.1
Annex II clause 1.1.3	Resistance to light	4.1

19 Drawings and Documents

Number	Issue	Date	Description
A4-15316A	0	15/03/06	Label ATSR1VOA
A4-15317A	0	15/03/06	Label ATSRH**
A4-15311A	0	15/03/06	Label ATSRNODE1
A4-15313A	0	15/03/06	Label ILJBNODE1*
Baseefa045TEX0119X	-	07/04/06	DMR2AE Capacitance level probe system certificate