

EC - TYPE EXAMINATION CERTIFICATE

- 1 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres**
Directive 94/9/EC
- 2 **EC - Type Examination Certificate Number:** Baseefa 03ATEX0504X
- 3 **Equipment or Protective System:** Series 800 SMARTSTAT
- 4 **Manufacturer:** H.N.L. Instruments & Controls Limited
- 5 **Address:** Dukesway, Teeside Industrial Estate, Thornaby, Cleveland, TS17 9LT
- 6 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- 7 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.
- 8 The examination and test results are recorded in confidential Report No. 03(C)0431
- 9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 50014: 1997 + Amendments 1 & 2 EN 50020: 2002 EN 50284: 1999
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 1 G EEx ia IIC T* (See section 15 of the Schedule for T Class details.)

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

Baseefa (2001) Ltd. Customer Reference No. 0487 Project File No. 03/0431



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

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.

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Schedule
Certificate Number Baseefa03ATEX0504X

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- 15 **Description of Equipment or Protective System**
The Series 800 SMARTSTAT is a microprocessor controlled switch and transmitter designed to monitor pressure or temperature. The apparatus comprises six printed circuit boards (PCB's) deemed PCB1 to PCB4 plus either, PCB6, PCB7 or PCB8. They are all housed within an enclosure along with a pressure transducer or temperature sensor. Terminals within the enclosure provide connection for the apparatus to external circuits. A liquid crystal display (LCD) fitted to PCB4 can be viewed through a window in the enclosure wall.

Power Supply Terminals	Relay Contact Terminals
U _i = 28V	U _j = 28V
I _i = 93mA	I _j = 3.33A
P _i = 0.67W	

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

- Ⓢ II 1 G EEx ia IIC T4 (-20°C ≤ Ta ≤ +80°C)
- Ⓢ II 1 G EEx ia IIC T5 (-20°C ≤ Ta ≤ +55°C)
- Ⓢ II 1 G EEx ia IIC T6 (-20°C ≤ Ta ≤ +40°C)

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03(C)0431

17 Special Conditions for Safe Use

1. The enclosure may contain light metals and the apparatus must be installed in such a manner as to eliminate the risk of sparks caused by friction or impact from iron/steel.

18 Essential Health and Safety Requirements

All relevant Essential Health and Safety Requirements are covered by the standards listed at item 9.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
M800-004	1 of 1	F	09-03	Series 800 EEx ia SMARTSTAT General Arrangement
800-100	1 of 1	E	8-03	Series 800 EEx ia Labels
800-101	1 of 1	G	07-03	SMARTSTAT I.S. Circuit - PCB1
800-102	1 of 1	D	15-12-94	SMARTSTAT I.S. Circuit - PCB2
800-103	1 of 1	F	07-03	SMARTSTAT I.S. Circuit - PCB3
800-104	1 of 1	B	31-05-94	SMARTSTAT I.S. Circuit - PCB4
800-106	1 of 1	D	25-01-95	SMARTSTAT I.S. Circuit - PCB6



Number	Sheet	Issue	Date	Description
800-107	1 of 1	C	31-05-94	SMARTSTAT I.S. Circuit – PCB7
800-108	1 of 1	E	07-03	SMARTSTAT PCB1 Artwork
800-109	1 of 1	C	07-03	SMARTSTAT PCB2 Artwork
800-110	1 of 1	E	07-03	SMARTSTAT PCB3 Artwork
800-111	1 of 1	C	07-03	SMARTSTAT PCB4 Artwork
800-113	1 of 1	D	07-03	SMARTSTAT PCB6 Artwork
800-114	1 of 1	C	07-03	SMARTSTAT PCB7 Artwork
800-115	1 of 1	F	07-03	SMARTSTAT PCB1 Component Layout
800-116	1 of 1	D	05-03	SMARTSTAT PCB2 Component Layout
800-117	1 of 1	E	07-03	SMARTSTAT PCB3 Component Layout
800-118	1 of 1	C	05-03	SMARTSTAT PCB4 Component Layout
800-120	1 of 1	D	05-03	SMARTSTAT PCB6 Component Layout
800-121	1 of 1	C	05-03	SMARTSTAT PCB7 Component Layout
800-122	1 of 1	B	15-12-94	SMARTSTAT I.S. Circuit – PCB8
800-123	1 of 1	C	07-03	SMARTSTAT PCB8 Artwork
800-124	1 of 1	C	05-03	SMARTSTAT PCB8 Component Layout
800-125	1 of 1	B	06-01	SMARTSTAT Certified Sensors

SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE

- Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 94/9/EC
- Supplementary EC - Type Examination Certificate Number: Baseefa03ATEX0504X/1
- Equipment or Protective System: Series 800 Smartstat
- Manufacturer: HNL Engineering Limited (formerly H.N.L. Instruments & Controls Limited)
- Address: Dukeway, Teeside Industrial Estate, Thornaby, Cleveland, TS17 9LT
- This supplementary certificate extends EC - Type Examination Certificate No. Baseefa03ATEX0504X to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.

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

Baseefa Customer Reference No. 0487 Project File No. 09/0825

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

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Baseefa is a trading name of Baseefa Ltd
Registered in England No. 4305578. Registered address as above.

R S SINCLAIR
DIRECTOR
On behalf of
Baseefa



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Schedule

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Certificate Number Baseefa03ATEX0504X/I

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Description of the variation to the Equipment or Protective System

Variation 1.1

To confirm that the Series 800 Smartstat meets the requirements of EN60079-0:2006 and EN60079-11:2007 for Group IIC without any modifications or changes to the parameters. Marking has been revised in accordance with requirements introduced by IEC60079-0:2007 and the equipment may be marked with the codes:-

- Ⓜ II IG Ex ia IIC T4 Ga (-20°C ≤ Ta ≤ +80°C)
- Ⓜ II IG Ex ia IIC T5 Ga (-20°C ≤ Ta ≤ +55°C)
- Ⓜ II IG Ex ia IIC T6 Ga (-20°C ≤ Ta ≤ +40°C)

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Report Number

09(C)0825

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Special Conditions for Safe Use

None additional to those listed previously

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Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

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Drawings and Documents

Number	Sheet	Issue	Date	Description
M800-004	1 of 1	G	11-09	Series 800 Ex ia SMARTSTAT General Arrangement
800-100	1 of 1	F	12-09	Series 800 Ex ia Labels
800-101	1 of 1	H	11-09	Series 800 Ex ia SMARTSTAT PCB1 Circuit
800-102	1 of 1	E	12-09	Series 800 Ex ia SMARTSTAT PCB2 Circuit
800-106	1 of 1	E	12-09	Series 800 Ex ia SMARTSTAT PCB6 Circuit
800-107	1 of 1	D	11-09	Series 800 Ex ia SMARTSTAT PCB7 Circuit
800-115	1 of 1	G	12-09	Series 800 Ex ia SMARTSTAT PCB1 Layout
800-116	1 of 1	E	12-09	Series 800 Ex ia SMARTSTAT PCB2 Layout
800-117	1 of 1	F	12-09	Series 800 Ex ia SMARTSTAT PCB3 Layout
800-120	1 of 1	E	12-09	Series 800 Ex ia SMARTSTAT PCB6 Layout
800-121	1 of 1	D	12-09	Series 800 Ex ia SMARTSTAT PCB7 Layout
800-122	1 of 1	C	11-09	Series 800 Ex ia SMARTSTAT PCB8 Circuit
800-124	1 of 1	D	12-09	Series 800 Ex ia SMARTSTAT PCB8 Layout