

**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: **ITS14ATEX18072X**

4. Equipment or Protective System: **SMARTLOAD BATCH CONTROLLER**

5. Applicant : **Advanced Sys-tek Pvt. Ltd. (GE Oil & Gas)**  
Address : **299-300, GIDC Makarpura Vadodara - 390010 Gujarat, India**

6. This equipment or protective system and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

7. 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. CE-JOB-DEL-13-000058-002 to 005 and Intertek Certification report G101148201 A dated 25<sup>th</sup> July 2014.

8. Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0:2012, EN 60079-1:2007 and EN 60079-31:2009 except in respect of those requirements referred to at item 18 of the Schedule.

9. 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.

10. This EC-Type examination certificate relates only to the design of the specified equipment or protective system. Further requirements of this Directive apply to the manufacture and supply of this equipment or protection system.

11. For marking Information see schedule:



II 2 GD

Ex d IIB T6 Gb

Ex tb IIIB T85°C Db IP65

-20°C ≤ Ta ≤ +60°C

**Intertek Testing & Certification Limited**  
Intertek House, Cleeve Road, Leatherhead, Surrey, KT22 7SB  
Tel: + 44 (0)1372 370900 Fax: +44 (0)1372 370977  
<http://www.intertek.com> Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ

**A Dickinson**  
Certification Officer  
7<sup>th</sup> August 2014

This certificate may only be reproduced in its entirety and without any change, schedule included and is subject to Intertek Testing and Certification Conditions for Granting Certification.



### 13. Schedule

14. EC-TYPE EXAMINATION CERTIFICATE NUMBER ITS14ATEX18072X

## Model # SmartLoad

	Ordering Code:	X	X	X	X	X	X	X	X	X	X
Type	S Single Arm										
	D Dual Arm										
Power Supply Options	0 None										
	1 115 V AC										
	2 230 V AC										
Meter Pulse Board Options	0 None										
	1 One 4 CH Meter Board										
	2 Two 4 CH Meter Boards										
AC I/O Board Options	0 None										
	6 One Enhanced Board 3 Lo-, 3 Hi-Speed inputs										
	7 One Enhanced Board 6 Hi-Speed inputs										
	8 Two Enhanced Boards, 6 Lo-Speed inputs, and 6 Hi-Speed inputs										
	9 Two Enhanced Boards, 6 Hi-Speed inputs ea.										
	A Two Enhanced Boards (I) 6 Lo-Speed (II) 3ea. Hi-Lo Speed										
	B Two Enhanced Boards (I) 6 Hi-Speed (II) 3ea. Hi-Lo Speed										
	E One Enhanced Board 6 Lo-Speed inputs										
	G Two Enhanced Boards, 6 Lo-Speed inputs ea.										
	I User defined Boards specific to the Project (Specify if not listed above)										
DC I/O Board Options	0 None										
	1 6 inputs & 4 outputs										
RTD/ Analog Board Options	0 None										
	1 2-CH A/D (-40 to +110 deg C)										
	2 8-CH A/D (-40 to +110 deg C)										
	3 8-CH Analog (4-20 mA)										
Duart Board Options	0 None										
	1 Duart Board (I) RS-232, (II) RS-485										
	2 Duart Board (2) RS-485										
MPMC	0 None										
User Identity	0 None										
	1 Touchkey										
	2 Proximity										
Interface Options	0 None										
	2 Interface card for 2nd Display and External Start/Stop Assembly										
Agency Approvals/ Enclosure Options	0 None										
	1 PESO (CCOE) Approved Standard Enclosure										
	2 ATEX/IECEX/CE Approved										

**Intertek Testing & Certification Limited**  
 Intertek House, Cleeve Road, Leatherhead, Surrey, KT22 7SB  
 Tel: + 44 (0)1372 370900 Fax: +44 (0)1372 370977

<http://www.intertek.com>

Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ

This certificate may only be reproduced in its entirety and without any change, schedule included and is subject to Intertek Testing and Certification Conditions for Granting Certification.



**Intertek**



13. **Schedule**

14. **EC-TYPE EXAMINATION CERTIFICATE NUMBER ITS14ATEX18072X**  
15. **DESCRIPTION OF EQUIPMENT OR PROTECTIVE SYSTEM**

The Batch Controller Model: SmartLoad is an electronic batching, blending, additive injection and flow measurement device designed to deliver precise quantities of petroleum, chemical and liquid products in a variety of applications like truck, rail, marine, aviation and pipeline loading and unloading facility (used for the liquid products gasolines, antifreeze, fuel oils, fertilizers, solvents, paints, LPG, LNG, lube oils, chemicals, and dyes).

The SmartLoad is manufactured from LM6 Aluminium Alloy or alternatively can be manufactured from SS316 or SS316L and has the approximate dimensions 325mm x 350mm x 350 mm. A key pad is mounted on the cover of FLP enclosure. The keys are magnetically coupled with internal circuit thus no flamepath is formed by the keys. The key pad is user-friendly and cellular phone like alpha-numeric keypad for easy operation on the enclosure cover. The enclosure has two viewing windows which are form from a singular piece of toughened glass creating a cemented joint with the enclosure. The enclosure main body is formed by two sections which are hinged and form a flanged joint when mated. Six threaded entries are provided for connection to external circuits via certified cable glands (Three 1¼" NPT, Two 1" NPT and One ½" NPT).

Large graphic LCD display for easy to read text with automatic backlight and contrast adjustment. Selectable I/O boards are provided in card rack for future expansion purpose.

SmartLoad directly interfaces with flow meters, digital control valves, additive injector panels, safety interlocks, Remote Interaction Terminal (RIT) and proximity card readers.

The SmartLoad can operate in Manual or auto mode.

In Manual mode, it operates as standalone unit perform local authorization based on safety circuit inputs & other deliverable parameters.

In auto mode, it operates as slave to the host system (through Terminal Automation Software or LRC). Important parameter can be locked to prevent any change by unauthorized access by sealable / lockable keys.

Power requirements 115 V AC / 230 V ± 10% AC, 28 VA

**Intertek Testing & Certification Limited**  
**Intertek House, Cleeve Road, Leatherhead, Surrey, KT22 7SB**  
**Tel: + 44 (0)1372 370900 Fax: +44 (0)1372 370977**

<http://www.intertek.com>

**Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ**

This certificate may only be reproduced in its entirety and without any change, schedule included and is subject to Intertek Testing and Certification Conditions for Granting Certification.



## 13. Schedule

14. **EC-TYPE EXAMINATION CERTIFICATE NUMBER ITS14ATEX18072X**  
16. **REPORT NUMBER**

Intertek Certification Report No. G101148201 A.

Intertek India Report reference No CE-JOB-DEL-13-000058-002 to 005 dated 25<sup>th</sup> July 2014.

## 17. SPECIAL CONDITIONS FOR SAFE USE

### (a) Special conditions for safe use

1. "No modifications must be made to the flamepaths without consultation of the drawings listed on the ExTR."
2. "Only suitably certified Ex d IIB Gb/Ex tb IIIB Db cable glands to be used".
3. "Only suitably certified Ex d IIB Gb/Ex tb IIIB Db blanking elements to be used".
4. "Only suitably certified Ex d IIB Gb/Ex tb IIIB Db thread adaptors to be used".
5. Battery only to be replaced by manufacturer

### (b) Conditions for Use (Routine Tests)

In accordance with Clause 15.1.3 of IEC 60079-1 detail of the Over Pressure Routine test at 10.0 bar / 145 PSI for at least 10 sec must be recorded.

## 18. ESSENTIAL HEALTH AND SAFETY REQUIREMENTS (ESHR'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 Ref. CE-JOB-DEL-13-000058-002 to 005 and Intertek Certification report No. G101148201 A dated 25<sup>th</sup> July 2014.

**Intertek Testing & Certification Limited**  
Intertek House, Cleeve Road, Leatherhead, Surrey, KT22 7SB  
Tel: + 44 (0)1372 370900 Fax: +44 (0)1372 370977

<http://www.intertek.com>

Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ

This certificate may only be reproduced in its entirety and without any change, schedule included and is subject to Intertek Testing and Certification Conditions for Granting Certification.



13. **Schedule**

14. **EC-TYPE EXAMINATION CERTIFICATE NUMBER ITS14ATEX18072X**  
19. **DRAWINGS**

Drawing Number	Sheet	Revision	Date of Issue	Drawing Description
MFG EX/1410801	1	0	14/05/14	INTERNAL ASSEMBLY OF SMARTLOAD BATCH CONTROLLER
MFG EX/1410802	1	0	15/05/14	KEYCAP & SPRING
MFG EX/1410803	1	0	15/05/14	DETAIL ANALYSIS OF LITHIUM BATTERY USED IN CPU BOARD OF SMARTLOAD BATCH CONTROLLER
MFG EX/1410804	1	0	15/05/14	UNIT ASSEMBLY SMARTLOAD BATCH CONTROLLER
MFG EX/1410809	1	0	21/05/14	WARNING LABEL OF BATTERY
MFG EX/1410810	1	0	21/05/14	MATERIAL COMPOSITION
MFG EX/1410811	1	0	12/06/14	ENCAPSULATION OF LITHIUM BATTERY
MFG EX/1410812	1	0	12/06/14	GASKET AND GROOVE DIMENSIONS OF SMART LOAD
MFG EX/1410814	4	0	17/07/13	SMARTLOAD BATCH CONTROLLER
MFG EX/1410901	1	0	12/06/14	SERIAL NUMBER PLATE OF ATEX SMARTLOAD

*This Certificate is for the exclusive use of Intertek's client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Certificate. Only the Client is authorized to permit copying or distribution of this Certificate and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.*

**Intertek Testing & Certification Limited**  
**Intertek House, Cleeve Road, Leatherhead, Surrey, KT22 7SB**  
**Tel: + 44 (0)1372 370900 Fax: +44 (0)1372 370977**

<http://www.intertek.com>

**Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ**

This certificate may only be reproduced in its entirety and without any change, schedule included and is subject to Intertek Testing and Certification Conditions for Granting Certification.