CERTIFICATE

1 EU – Type Examination Certificate

2 Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 2014/34/EU

3 EU – Type Examination Certificate Number: **KIWA 18ATEX0039 X** **Issue: 1**

4 Product: **Level Switch, type HLS-HaD**

5 Manufacturer: **Hadro Techniek B.V.**

6 Address: **Westbaan 270, 2841 MC Moordrecht**
The Netherlands

7 This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Kiwa Nederland B.V., Notified Body number 0620 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in confidential ATEX Assessment Report No. 181101280.

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 60079-0 : 2012 + A11 : 2013 **EN 60079-1 : 2014** **EN 60079-31 : 2014**

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

11 This EU – Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following:

II 2 G Ex db IIC T5...T1 Gb
II 2 D Ex tb IIIC T100 °C...T350 °C Db

Kiwa Nederland B.V.
Unit Kiwa ExVision
Wilmersdorf 50
P.O. Box 137
7300 AC Apeldoorn
The Netherlands

Tel. +31 88 998 34 93
Fax +31 88 998 36 85
ExVision@kiwa.nl
www.kiwaexvision.com

Kiwa Nederland B.V.

Pieter van Breugel
Certification Officer

Issue date: 19 December 2018

First issue: ---

This certificate shall, as far as applicable, be revised before the date of cessation of presumption of conformity of (one of) the included standards above as communicated in the Official Journal of the European Union.

© Integral publication of this certificate in its entirety and without any change is allowed.

13 **SCHEDULE**

14 **EU – Type Examination Certificate KIWA 18ATEX0039 X Issue No. 1**

15.1 **Description of Product**

Level Switch, type HLS-HaD is intended to be used with a magnetic level gauge. The level switch consists of an aluminium or stainless steel enclosure with one or two micro switches and a thermal insulating mounting plate. The built-in switch is activated by the magnetic float of the level gauge.

Ambient temperature range -40 °C to +60 °C.

The relation between process temperature and temperature class / surface temperature is shown in the following table:

Process temperature	Temperature class (EPL Gb)	Maximum surface temperature (EPL Db)
-50 °C to -24 °C [1)]	T5	T100 °C
-25 °C +160 °C	T3	T160 °C
+161 °C to +300 °C [2)]	T2	T300 °C
+301 °C to +350 °C [3)]	T1	T350 °C

Notes:
1) protection between process pipe and enclosure: 1 layer Armaflex
2) protection between process pipe and enclosure: 1 layer of Insulair (5 mm)
3) protection between process pipe and enclosure: 2 layers of Insulair (2x5 mm)

Product model code

HLS-HaD-a-b-c (example: HLS-HaD-A-N1-1)

a: Enclosure
- A: aluminium
- B: stainless steel

b: Entry
- N1: 1 x 3/4" NPT
- N2: 1 x 1/2" NPT
- M1: 1 x M20x1,5
- N12: 2 x 3/4" NPT
- N22: 2 x 1/2" NPT
- M12: 2 x M20x1,5

c: Number of switches
- 1: 1 x SPDT
- 2: 2 x SPDT

13 **SCHEDULE**

14 **EU – Type Examination Certificate KIWA 18ATEX0039 X Issue No. 1**

15.2 **Electrical Data**

Voltage: 10 - 230 V
Load: max. 5 A, 100 VA

15.3 **Instructions**

The instructions provided with the product shall be followed in detail to assure safe operation.

16 **ATEX Assessment Report Number**

No. 181101280.

17 **Specific Conditions of Use**

- For the relation between process temperature and temperature class / surface temperature see Section 15.1 above;
- Build-up of electrostatic charge shall be prevented by suitable measures;
- The flameproof joints are not intended to be repaired.

18 **Essential Health and Safety Requirements**

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

19 **Drawings and Documents**

As listed in ATEX Assessment Report No. 181101280.