



- (1) **EU-Type Examination Certificate**
- (2) Equipment or protective system intended for use in potentially explosive atmospheres - **Directive 2014/34/EU**
- (3) Certificate number: **SEV 18 ATEX 0217**
- (4) Product: **Inclinometer
Type H6EX-A1 & H6EX-A2**
- (5) Manufacturer: **Rieker, Inc**
- (6) Address: **34 Mt Pleasant Rd, PA 19014 Aston, United States of America**
- (7) The equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- (8) Eurofins, notified body No. 1258, 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 report no 19CH-00202.X03
- (9) Compliance with the essential health and safety requirements has been assured by compliance with:
**EN 60079-0:2012+A11:2013
EN 60079-11:2012**
- 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 product is subjected to special conditions for safe use specified in the schedule to this certificate. The sign “U” is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.
- (11) This EU type examination certificate relates only to design and construction of the specified product. Further requirements of this 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 1 G Ex ia IIC T4 Ga**

**Eurofins Electric & Electronic Product Testing AG
Notified Body ATEX**

Martin Plüss
Product Certification



(13)

Appendix

(14)

EU-Type Examination Certificate no. SEV 18 ATEX 0217

(15) **Description of product**

The H6EX is an inclinometer which incorporates a MEMS accelerometer referenced to gravity with integrated temperature compensation over the full industrial operating range of -40 °C to +85 °C for absolute accuracy. It has dual analog outputs (for both current and voltage options), as well as a digital RS485 output for calibration and configuration.

The digital RS485 output uses two-wire, half duplex communication to calibrate the device and configure the sensor parameters, as well as output angles in the hazardous location.

The analog current output option can output from 0 mA to 24 mA for each axis and the analog voltage output option can output from 0 V to 10 V for each axis. Both are user or factory configurable via the RS485 to match any angle range and current values required by the customer.

Specifications

The configuration considered is called H6EX-A

- IIC, 12Vnom input
- 8 pin connector only

The H6EX-A1 model has an ambient temperature range of -40 °C to 65 °C. This model allows the use of the RS485 in the hazardous location.

The H6EX-A2 model has an ambient temperature range of -40 °C to 85 °C. This model disallows the use of the RS485 in the hazardous location.

The equipment contains a single port for use with an 8 pin male M12 connector. The pins are used as follows:

- Vin 12Vnom
- GndIn
- 2 transmit/receive
- 2 sensor outputs
- 2 unused

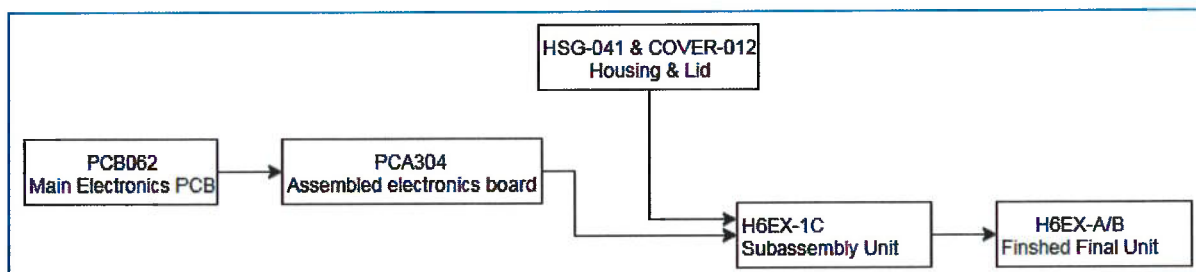
A certified barrier is to be used externally prior to the 8 pin connector. No current/power/voltage limiting taking place within the unit.

No designed voltage or current boosting within the Equipment.

There is a single printed circuit assembly (PCA) in the device, the main electronics board (PCA304).

Though the interior of the product is fully potted, this is not done for hazardous location compliance.

Manufacturing documentation naming diagram



Rating:

Intrinsic safe circuit:	Maximum input voltage	$U_i = 13 \text{ V}$
	Maximum input current	$I_i = 270 \text{ mA}$
	Maximum input power	$P_i = 3.348 \text{ W}$
	Inductance	$L_i = 0 \text{ mH}$
	Capacitance	$C_i = 0.977 \text{ }\mu\text{F}$

Classification of installation and use:	Stationary
Ingress protection:	N / A
Rated ambient temperature range (°C):	Operating temp:
	H6EX-A1 (-40 °C to +65 °C)
	H6EX-A2 (-40 °C to +85 °C)
	Storage temp: (-45 °C to +90 °C)
Rated ambient temperature range (°C) for Ex Components:	N / A

(16) **Report number** 19CH-00202.X03

(17) **Specific conditions of use**
None

(18) **Essential health and safety requirements**

In addition to the essential health and safety requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	Subject
None	

(19) **Drawings and Documents**

See test report "Manufacturer's Documents"