

UNIT ASSESSMENT CERTIFICATE

Issued by a competent body in explosion safety

ARTIDOR 20ATEX9999 X

3. We, ARTIDOR Explosion Safety B.V., Emopad 38, 5663 PB Geldrop, The Netherlands, herewith declare that:

4. **Apparatus:** Explosion-safe Motion Sensor
Type: AR-021/xxx
Supply: 230 VAC 50 Hz
Quantity: 1 piece
Lot No.: AS209999

5. 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 directive 2014/34/EU.

6. Compliance with the Essential Health and Safety Requirements for group II, category 3GD equipment has been assured by compliance with the following harmonized standards:

- EN 60079-0:2018
- EN 60079-15:2010
- EN 60079-31:2014

7. The design and the results of the examination and tests carried out are documented in confidential technical construction file No. AS209999, held at the offices of Artidor Explosion Safety B.V.

8. If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to the special conditions for safe use as described in this declaration.

9. The marking of the equipment includes the following:



II 3 G Ex nR IIC T6 Gc
II 3 D Ex tc IIIC T80°C Dc

10. This certificate only relates to the examination and tests according to directive 2014/34/EU and to the equipment of the above mentioned type, lot number and Ex code.

11. Production is controlled by the ARTIDOR Quality Assurance system in accordance with ISO 9001:2015 and annex VIII of directive 2014/34/EU.

12. This certificate does not imply that the apparatus meets all statutory requirements in any particular industry or circumstance.

13. The ambient temperature allowed is -20 °C to +50 °C.

14. **Description**

The AR-021 Motion Sensor consists of a metal "nR" housing containing the sensor electronics and a printed circuit board with connection terminal and relay. The housing is provided with an Ex e window and Ex e IP67 cable glands.

After assessment and testing we have found that the housing meets the requirements of restricted breathing "nR". The housing amongst others meets the requirement of a 3 minutes minimum time interval for the internal pressure of 3 kPa below atmospheric to increase to 1,5 kPa below atmospheric. Consequently, the apparatus is not equipped with a provision for routine checking of the restricted breathing properties.

Throughout the prescribed tests, which were carried out under the requisite conditions, the housing surface temperature at no time exceeded the maximum temperature related to the T6 temperature class, corrected for the maximum ambient temperature specified in the rating and the 5 °C margin for type testing as mentioned in the standard.

15. **Special conditions for safe use**

1. Apply a protective fuse of a suitable rating in the power circuit.
2. The protection degree against ignition Restricted Breathing has been applied to the apparatus. The enclosure may not be opened if the AR-021 Motion Sensor is energized.
3. Installation of cables may not invalidate the protection degree Restricted Breathing, therefore only IP67 cable glands with the a clamping size meeting the cable diameter should be used.
4. All unused openings should be plugged off in a properly closed and tight way.

Geldrop, 1 January 2020

M. Moolenaar
Managing Director and EX Authorized Person