



## SAFETY DEVICES

# Certificate of compliance In accordance with IEC 61508

**SIL-INERIS 163856 D / 2017**

The National Institute for Industrial Environment & Risks (INERIS - Institut National de l'Environnement Industriel et des Risques), a public organization, established by decree No.90-1089 of 7 December 1990, and accredited by COFRAC under number 5-0045 for certification of products and services (scope of accreditation available on the website [www.cofrac.fr](http://www.cofrac.fr))

issues the present certificate for the following model:

Trade Mark : **KROHNE**

Denomination: **OPTIFLEX 2200**

Manufacturer: **KROHNE SAS**  
2, allée des Ors  
BP 98  
26103 Romans sur Isère cedex  
France

Type: **VF 2041x1... or VF 2042x1... or VF 2041x5... or VF 2042x5... or SF 2091x1... or SF 2092x1... or SF 2091x5... or SF 2092x5...**

Applicant  
of the certificate : **KROHNE SAS**

Description : **Guided radar TDR level meter**

The rules of certification are available on the website [www.ineris.fr](http://www.ineris.fr)

### 1. Functional safety

The safety function « level meter » has obtained the following classification  
Safety Integrity Level : SIL 2

SFF (safe failure fraction)	94%
$\lambda_{SD}$	35
$\lambda_{SU}$	471 FIT
$\lambda_{DD}$	571 FIT
$\lambda_{DU}$	65 FIT
DC <sub>D</sub>	87%
Common cause failures for present PFH Calculation	0%
PFH (Probability of failure per hour)	65 FIT
Architecture	1oo1D

### 2. Configuration version

	Converter Board	Sensor Board	Exd Barrier (for ATEX application)
Hardware reference	4000342401 R	4000357001 AA	4000512701 K
Software reference	V 1.08.04	V 1.22.03	/

### 3. Assessment

The assessment of the safety functions OPTIFLEX 2200 in accordance with IEC 61508 standard is consigned in the report INERIS / DSC-17-163856-01985A.

#### 4. Safety for use

Safety for use are described in the user guides references :

- Manual : MA\_OPTIFLEX2200\_en\_161219\_4000668004\_R04
- Safety Manual : AD\_OPTIFLEX2200C\_SIL\_en\_150129\_4000738604\_R04

Verneuil-en-Halatte, 2017.05.18



The Chief Executive Officer of INERIS,  
By delegation  
Dominique CHARPENTIER  
Certification Division Manager

