



# Certificate / Certificat Zertifikat / 合格証

DLY 1205025 C001

*exida* hereby confirms that the:

## CatTracker® Temperature Tracking System

Daily Thermetrics Corporation  
Houston, TX - USA

Has been assessed per the relevant requirements of:

**IEC 61508 : 2010 Parts 1-2**

and meets requirements providing a level of integrity to:

**Systematic Capability: SC 3 (SIL 3 Capable)**

**Random Capability: Type A, Route 1<sub>H</sub> Device**

**PFH/PFD<sub>avg</sub> and Architecture Constraints  
must be verified for each application**

### Safety Function:

Each CatTracker probe thermocouple will transmit a measured temperature value within the specified safety accuracy.

### Application Restrictions:

The unit must be properly designed into a Safety Instrumented Function per the Safety Manual requirements.

The manufacturer may use the mark:



Revision 4.2 October 30, 2024  
Surveillance Audit Due  
September 1, 2027



Evaluating Assessor

Certifying Assessor

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**Systematic Capability: SC 3 (SIL 3 Capable)****Random Capability: Type A, Route 1<sub>H</sub> Device****PFH/PFD<sub>avg</sub> and Architecture Constraints  
must be verified for each application****Systematic Capability :**

The product has met manufacturer design process requirements of Safety Integrity Level (SIL) 3. These are intended to achieve sufficient integrity against systematic errors of design by the manufacturer.

A Safety Instrumented Function (SIF) designed with this product must not be used at a SIL level higher than stated.

**Random Capability:**

The SIL limit imposed by the Architectural Constraints must be met for each element.

**IEC 61508 Failure Rates in FIT<sup>1</sup>**

Device	$\lambda_{SD}$	$\lambda_{SU}$	$\lambda_{DD}$	$\lambda_{DU}$
High Trip with no diagnostics	0	0	0	1040
High Trip with out of range diagnostics	0	0	987	53

<sup>1</sup> FIT = 1 failure / 10<sup>9</sup> hours

**SIL Verification:**

The Safety Integrity Level (SIL) of an entire Safety Instrumented Function (SIF) must be verified via a calculation of PFH/PFD<sub>avg</sub> considering redundant architectures, proof test interval, proof test effectiveness, any automatic diagnostics, average repair time and the specific failure rates of all products included in the SIF. Each element must be checked to assure compliance with minimum hardware fault tolerance (HFT) requirements.

The following documents are a mandatory part of certification:

**Assessment Report:** DLY 12/05-025 R002 V4 R2 (or later)

**Safety Manual:** SM-1.0 CatTracker Safety Manual Rev C(or later)



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