Certificate / Certificat
Zertifikat / 合格証

BIF 1607114 C001

exida hereby confirms that the:

EHPC210 Valve Controller

Bifold Fluidpower Ltd.
Chadderton, Manchester - UK

Has been assessed per the relevant requirements of:

IEC 61508 : 2010 Parts 1-2

and meets requirements providing a level of integrity to:

Systematic Integrity: SIL 3 Capable

Random Integrity: Type A Non-interfering

PFH/PFD$_{avg}$ and Architecture Constraints must be verified for each application

Safety Function:
When used in series with a logic solver output the EHPC210 Valve Controller can perform partial valve stroke testing and will not interfere with the associated valve moving to the safe (de-energized) state.

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

Evaluating Assessor

Certifying Assessor

The manufacturer may use the mark:

Revision 2.2 February 9th, 2024
Surveillance Audit Due
December 1st , 2024

ANSI National Accreditation Board
ACCREDITED
ISO/IEC 17065
PRODUCT CERTIFICATION BODY
#1004

Certificate / Certificat / Zertifikat / 合格証

BIF 1607114 C001

Systematic Capability: SC 3 (SIL 3 Capable)

Random Capability: Type A Device

PFH/PFD$_{avg}$ and Architecture Constraints must be verified for each application

EHPC210 Valve Controller

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 design of the EHPC210 Valve Controller is such that it will not interfere with the deenergize to trip safety function of the associated final element.

IEC 61508 Failure Rates in FIT*

ESD Application	λ_{SD}	λ_{SU}	λ_{DD}	λ_{DU}	#
Deenergize to Trip	0	60	0	1	59

* FIT = 1 failure / 10^9 hours

SIL Verification:

The Safety Integrity Level (SIL) of an entire Safety Instrumented Function (SIF) must be verified via a calculation of PFH/PFD$_{avg}$ 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: BIF 16/07-114 R001 V2 R2 or later.

Safety Manual: SM.014 Rev 0 or later

80 N Main St
Sellersville, PA 18960