



Project name: 100611

File date: 19.08.2026 07:33:36 Report date: 19.08.2026 Checksum: 542369ce6ca21a46ceb67fb92a11f190

PR Project name: 100611**Project file name:** C:\Users\jkh\Documents\Projects\20260112-001 P54E - SC Cat1 PLc\100611 Sistema Project - V3.0.4 - EN.ssm**Creation date:** 19.08.2026 07:29:06**Project status:****Project number:****Project version:****Authors:****Project managers:****Inspectors:****Dangerous point/machine:****Documentation:****Document:****Version of software:** 3.0.4 build 3**Version of standard:** ISO 13849-1:2023, ISO 13849-2:2012**Checksum:** 542369ce6ca21a46ceb67fb92a11f190**Options:** ☒ Use DC intermediate levels for calculation of PFH (more precise)
☐ MTTFD capping for category 4 lower from 2500 to 100 years.**Status:** ☒ green**Note:** There are no warnings listed for this project (or it's subordinate basic elements).**Print options**

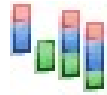
- | | |
|--|---|
| ☒ Show device details | ☒ Show requirements on PL and Category |
| ☒ Show documentations on SF, SB, BL and EL | ☒ Show parameter documentations on PLr, PL, Category, CCF, MTTFD and DC |
| ☐ Show CCF and DC measures in detail | ☒ Show messages |

Contained safety functions**SF** Name: SC**Required:** PLr c**Reached:** PL c**PFH [1/h]:** 1,15E-6**Status:** green**List of documented messages:**

- No messages known -

List of devices with a permissible operation time (T10D) of less than 20 years:

- No devices known -



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SF Safety function: SC

Identifier of the Safety function:

Safety function type:

Triggering event:

Reaction and
Behaviour on power failure:

Safe state:

Operation mode:

Interfaces:

Demand rate:

Running-on time:

Priority:

Documentation:

Document:

Required Performance Level Safety function

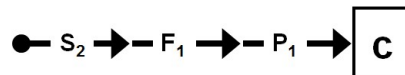
PLr (by risk graph): c

Severity of injury (S): Serious (normally irreversible) injury or death

Frequency / exposure times to hazard
(F): Seldom to less often / exposure time is short

Possibility of avoiding (P): Possible under specific conditions

Risk graph:



Documentation:

Document:

Performance Level Safety function

Reached PL: c

PFH [1/h]: 1,15E-6

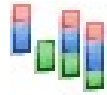
*Electromagnetic immunity, EMI (Annex L) Safety function*Route for fulfilment
of EMI measures: n/a

Documentation:

Document:

List of devices with a permissible operation time (T10D) of less than 20 years:

Device list:



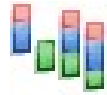
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SF Safety function: SC*Status / Messages Safety function***Status:** green**Subsystems (1 / 1)****SB Name:** Output**Reference designator:****Inventory number:***Device details Subsystem***Device Manufacturer:****Device Identifier:****Device group:****Part number:****Revision:****Function:**
☐ Input
☒ Output

☐ Logic
☐ unknown
Use case:**Description of the use case:***Documentation Subsystem***Documentation:****Document:***Performance Level Subsystem***PL determination:** Determine PL/PFH from Category, MTTFD and DCavg*Qualitative aspects (e.g. software, see sections 7, 10.3) Subsystem***Qualitative aspects suitable up to PL:** n/a**Documentation:****Document:***Electromagnetic immunity, EMI (Annex L) Subsystem*
Route for fulfilment of EMI measures: The fulfilment of the measures for electromagnetic immunity (EMI) was documented in the associated safety function.
PL requirements: fulfilled**The PL shall be determined by the estimation of the following aspects (section 6.1.1):**

- Behaviour of the safety function under fault conditions [fulfilled]
- Safety-related software according to clause 7 and Annex J or no software included [fulfilled]
- Systematic failure (see clause 6.1.7 and Annex G) [fulfilled]
- Ability to perform a safety function under expected environmental conditions [fulfilled]



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SF Safety function: SC

Reached PL:	c	PFH [1/h]:	1,15E-6
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Documentation:*Category Subsystem*

Cat.:	1
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Category requirements:	fulfilled
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Requirements for the category:

- Accordance with relevant standards to withstand the expected influences. [fulfilled]
- Basic safety principles are being used. [fulfilled]
- Well-tries components (clause 6.1.11) are being used. [fulfilled]
- Well-tries safety principles are being used. [fulfilled]
- MTTFD is at least High. [fulfilled]

Documentation:**Source (e.g. standard) Category:****File:***MTTFD and Mission time Subsystem*

MTTFD [a]:	100 (High)
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Mission time [a]:	20	Shortest mission time [a]:	20
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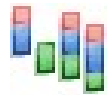
Status / Messages Subsystem

Status:	green
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Channels / Test channels (1 / 1)**CH** Name: Channel 1

MTTFD [a]: 100

Blocks (1 / 1)**BL** Name: 5/4-way valve**Reference designator:****Inventory number:***Device details Block***Device Manufacturer:****Device Identifier:****Device group:****Part number:****Revision:****Function:**☐ Input
☒ Output☐ Logic
☐ unknown



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Safety function: SC

Technology: unknown

Category: -

Use case:

Description of the use case:

Documentation Block

Documentation:

Document:

MTTFD and Mission time Block

MTTFD [a]: 380,5 (High)

Mission time [a]: 20

Shortest mission time [a]: 20

B10 [cycles]: 10000000

RDF [%]: 50

B10D [cycles]: 20000000

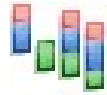
nop [cycles/a]: 525600

Documentation:

Document:

Status / Messages Block

Status: green



EXCLUSION OF LIABILITY

Care has been taken in production of the software SISTEMA, which corresponds to the state of the art. It is made available to users free of charge.

Die Haftung des Institut für Arbeitsschutz der DGUV (IFA) ist damit auf Vorsatz und grobe Fahrlässigkeit (§ 521 BGB) bzw. bei Sach- und Rechtsmängel auf arglistig verschwiegene Fehler beschränkt (523, 524 BGB).

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Internet: www.dguv.de

NOTE

This document is not a complete technical documentation according to EN ISO 13849-1:2023, clause 12.

CONTACT

Company contact details unknown

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Date, signature

Authors

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Inspectors

Inspectors