DREHMO GmbH
Zum Eichstruck 10
57482 Wenden

MANUFACTURER´S DECLARATION

SIL 1 and SIL 2 according to IEC 61508-2:2010
Functional safety of electrical / electronic /
programmable electronic safety-related systems

We hereby verify the accuracy of the following information.

1. General

Regarding electromechanical DREHMO® actuators of the Standard series:

D***[1]-*-* ***

[1] not include: 75, 150, 299, 300, 450, 600, 900, 1200, 1800, 2000

Safety function:
The drive into an end position is defined as safety function („Open“ or „CLOSE“, torque or position). While executing the safety function it is assured, that no inadvertent end position is reported during the drive. On the other hand the end position is reported accordingly when reaching an end position.

Device type according to IEC 61508-2:2010: A (basic component)

Operating mode: Low Demand Mode

Type of evaluation (report no.): Evaluation by FMEDA according to IEC 61508-2 (DREHMO 10/08-017 R003 V1R0)

Service life: The failure rates apply to the specified endurance according to EN 15714-2 and for a service life of typically up to 10 years (the first attained criterion counts).

2. FMEDA (Failure Modes, Effects, and Diagnostic Analysis)

Safety function	Safe drive into an end position	
Diagnostics	-	PVST [1]
Safe failures λ_S [FIT]	0	0
Dangerous detectable failures λ_{DD} [FIT]	0	266
Dangerous non detectable failures λ_{DU} [FIT]	359	93
No effect failures [FIT]	102	102
Failures outside the safety function [FIT]	0	0
SFF [1]	0%	74%
MTTR [1]	24h	24h
PTC [1]	94%	75%
SIL AC [1]	SIL 1	SIL 2

[2] PVST: Partial valve stroke test
[3] SFF: Safe failure fraction
[4] MTTR: Mean time to restoration
[5] PTC: Proof Test Coverage
[6] SIL AC: Safety integrity level (architectural constraints)

Wenden, 2016-08-30

Management