DREHMO GmbH
Zum Eichstruck 10
57482 Wenden

MANUFACTURER´S DECLARATION

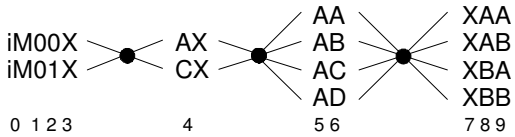
SIL 1 and SIL 2 according to IEC 61508-2:2000
Functional safety of safety-related electrical / programmable electronic systems

We hereby verify the accuracy of the following information

1. General

Regarding electromechanical DREHMO® actuators of the i-matic series:
D*iM**[1)]-*-* *
[1)] not include: 75, 150, 299, 300, 450, 600, 900, 1200, 1800, 2000

Relay board (DiM 03)
Electrical specifications (see homepage for the type code):



Safety function: ESD (Emergency shutdown): Procedure of the actuator with ESD-command in parameterised end position ("OPEN" or "CLOSE"). The ESD-command must be "low-active".

Device type according to IEC 61508-2:	B (complex component)
Operating mode:	Low Demand Mode
Valid hardware version:	DiM01.3 or DiM01.4 and DiM03.3
Valid software version:	V01.06.0076 and V01.06.0078
Type of evaluation (report no):	Evaluation by FMEDA according to IEC 61508-2 (DREHMO 09/02-04 R001D V2R1)

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

	Contactor		Solid state relay	
Diagnostics	Fault relay	PVST [2)]	Fault relay	PVST [2)]
λ_S	712 FIT	712 FIT	751 FIT	751 FIT
λ_{DD}	957 FIT	1447 FIT	957 FIT	1562 FIT
λ_{DU}	672 FIT	182 FIT	788 FIT	183 FIT
SFF [3)]	71 %	92 %	68 %	92 %
MTTR [4)]	24h	24h	24h	24h
SIL AC [5)]	SIL 1	SIL 2	SIL 1	SIL 2

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

PTC (Proof Test Coverage): 92 % (see DREHMO 09/02-04 R001D V2R1)

Wenden, 2016-08-30

Management