



## VIBROCONTROL 6000

### Safety and reliability related values according to DIN EN ISO 13849-1

Safety and reliability related values MTTF, PL and Category according to DIN EN ISO 13849-1 have been evaluated for VC-6000 with the following results:

The safety values are valid for an operating temperature of 40°C.

SM-610-xxx								
Modulno.	102	107	108	109	110	112	113	114
MTTF	1.558 E+05 h ~ 18 years	1.722 E+05 h ~ 20 years	1.920 E+05 h ~ 22 years	1.874 E+05 h ~ 21 years	1.758 E+05 h ~ 20 years	2.440 E+05 h ~ 28 years	1.496 E+05 h ~ 17 years	2.346 E+05 h ~ 27 years
PL	C	C	C	C	C	C	C	C
Category	1	1	1	1	1	1	1	1

SM-610-xxx								
Modulno.	115	116	117	118	119	121	123	125
MTTF	1.827 E+05 h ~ 21 years	2.506 E+05 h ~ 29 years	2.978 E+05 h ~ 40 years	3.916 E+05 h ~ 45 years	4.077 E+05 h ~ 47 years	1.664 E+05 h ~ 19 years	1.684 E+05 h ~ 19 years	1.869 E+05 h ~ 21 years
PL	C	C	C	C	C	C	C	C
Category	1	1	1	1	1	1	1	1

SM-610-xxx								
Modulno.	129	134	137	138	139	140	141	145
MTTF	2.149 E+05 h ~ 25 years	2.213 E+05 h ~ 25 years	2.110 E+05 h ~ 24 years	2.114 E+05 h ~ 24 years	1.920 E+05 h ~ 22 years	1.583 E+05 h ~ 18 years	1.583 E+05 h ~ 18 years	1.684 E+05 h ~ 19 years
PL	C	C	C	C	C	C	C	C
Category	1	1	1	1	1	1	1	1

SM-610-xxx							
Modulno.	153	158	159	160	167	168	170
MTTF	1.920 E+05 h ~ 22 years	1.967 E+05 h ~ 23 years	2.238 E+05 h ~ 26 years	2.581 E+05 h ~ 30 years	1.528 E+05 h ~ 17 years	1.920 E+05 h ~ 22 years	2.834 E+05 h ~ 32 years
PL	C	C	C	C	C	C	C
Category	1	1	1	1	1	1	1

SM-610-xxx [Flexible Modules]				
Modulno.	A01	A02	A03	A04
MTTF	1.790 E+05 h ~ 20 years	1.790 E+05 h ~ 20 years	1.669 E+05 h ~ 19 years	2.176 E+05 h ~ 25 years
PL	C	C	C	C
Category	1	1	1	1

Modulno.	PS-610 (Power supply)
MTTF	7.664 E+05 h ~ 88 years
PL	C
Category	1



Test conditions:

- Operating temperatures: 40 °C.
- Environmental conditions: Ground Benign, Controlled

Abbreviations:

MTTF	Mean Time To Failure
PL	Performance Level From PL "a" (highest failure probability) to PL "e" (lowest failure probability)
Category	Category (CAT) Classification of the safety related parts of a control system in respect of their resistance to faults and their subsequent behaviour in the fault condition, and which is achieved by the structural arrangement of the parts, fault detection and/or by their reliability
Ground Benign, Controlled	Nearly zero environmental stress with optimum engineering operation and maintenance.

Note:

More detailed information about safety and reliability values can be obtained on request from Brüel & Kjær Vibro ([info@bkvibro.com](mailto:info@bkvibro.com)).