

Reliability Prediction

Typ designation:	LFFS Level Switch
Material number:	5550-533
Status:	Serie
Operating temperature [°C]	40
Operating voltage range [VDC]	12,5 - 36
Calculation base:	EN ISO 13849-1:2007
Calculation method	Part Count
MTTF(d)-Components (Worst Case)	Factor 10
50% hazardous failures	Factor 0.5
Environment temperature [°C]	40
Operating conditions	Nominal load
MTTF-base values (remaining parts)	MIL-HDBK 217F, Notice 2 / RDF 2000
Environmental conditions	Ground fixed, 40°C (Industry standard)
Conditions	constant failure rate

Total:	Worst Case
Mean time to dangerous failure MTTF(d) [year]	> 100
Mean time to dangerous failure MTTF(d) [hours, h]	> 876'000
Probability of a dangerous failure per hours [1/h]	< 1.14E-06

Remarks:

- The values of applicable EN-ISO calculation methode refers to worst case conditions, which are improved by factor 2 compared to calculation according to MIL-HDBK-217.
- Typical values by considering of effectiv applications can be improved up to factor 5.
- The resulting MTTF(d) values judges not the safety of the product. It is a calculation or estimation of the random failures, which causing based on random hardware failures as a result of limited reliability of components.