Reliability characteristic data for:

Solenoid valve

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Model number: VQC series

B10 data

Based on the following endurance test results of the Solenoid valve VQC series, and assuming a failure mode following the Weibull distribution the following B10 data has been estimated. (90% confidence level)

	B10
VQC1000/2000 series (Rubber seal type)	42.7 million cycles
VQC1000/2000 series (Metal seal type)	171 million cycles

NOTE:

The estimated reliability data provided is only applicable to the component in the stated operating conditions.

Use of this data for any assessment under standards or otherwise, is at the sole risk of the user.

This product is not a safety component and is not supplied to provide a safety function.

Endurance test results

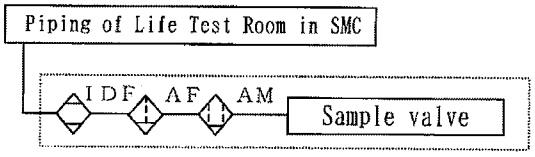
For reference

VQC 1000/2000 series

- 10 rubber seal type were tested up to 50 million cycles, and found to have zero failure.
- 10 metal seal type were tested up to 200 million cycles, and found to have zero failure.

Endurance test conditions

1) Test circuit



2) Pressure: 0.7MPa
3) Lubrication: None
4) Air supply: Dry air
5) Operating freq.: 5 times / sec.
6) Laboratory: Life test room
7) Ambient temp.: Normal temp. (13 to 33°C)
8) Load: None

Result of design assessment and validation to EN ISO 13849-1:2008 & EN ISO 13849-2:2008

This component conforms to the basic safety principles ☐ yes

This component conforms to the basic safety principles and well tried safety principles ☑ yes

IMM No. (Refer to the following for applicable products)

The component is not a safety component as defined by Article2(c) of the Machinery Directive 2006/42/EC

IMM No. VQC2000(V100)-TFP35
VQC2101NY-5-X10
VVQC2000-1A-#-C0-X10 (#=S, D)

IMM No. VQC2000(V100)-TFP36
VQC2101NR-5-X27
VQC2301NR-5-X27
VQC2401NR-5-X27
VQC2501NR-5-X27
VQC2A01NR-51-X27
VQC2B01NR-51-X27
VQC2C01NR-51-X27

IMM No. VQC2000(V100)-TFP37
VQC2401NR-5-X74

IMM No. VQC2000(V100)-TFP38
VQC2701NR-51-X508