Reliability characteristic data for:

Shuttle valve

Prepared	2011-11-11
Checked	
Approved	Nov.11.2011

Model number: VR12*0F series

B10 data

Based on the following endurance test results of the Shuttle valve VR12*0F series, and assuming a failure mode following the Weibull distribution the following B10 data has been estimated. (90% confidence level)

	B10
VR12*0F series	7.4 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.

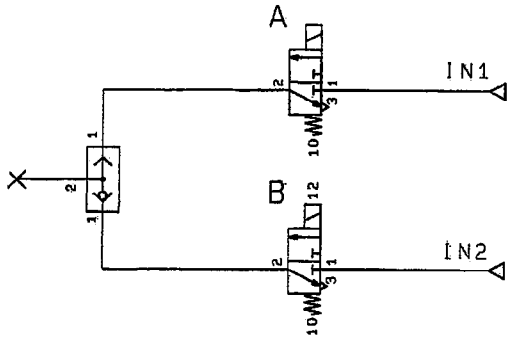
Endurance test results

For reference

- 5 pieces were tested up to 10 million cycles, and found to have zero failure.

Endurance test conditions

1) Test circuit



2) Pressure: 0.4MPa[IN1]
0.6MPa[IN2]
3) Lubrication: None
4) Air supply: Dry air
5) Operating freq.: 2 times / sec.
6) Laboratory: Life test room
7) Ambient temp.: State temperature
8) Out port:Plug

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.VR12F-TFP21 (Refer to the table below for applicable products)

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

Validated products to EN ISO 13849-1:2008 & EN ISO 13849-2:2008

How to order

VR 12 [1] 0 F – [06]

Body size

1	1/8 standard
2	1/4 standard

Shuttle valve

With One-touch fittings

Applicable tubing O.D.

Metric size		Inch size	
23	ø3.2*	01	ø1/8"
04	ø4	03	ø5/32"
06	ø6	07	ø1/4"
08	ø8	09	ø5/16"
10	ø10	11	ø3/8"

* For ø3.2, use ø1/8" tubing.

Model	Applicable tubing O.D.									
	Metric size					Inch size				
	3.2	4	6	8	10	1/8"	5/32"	1/4"	5/16"	3/8"
VR1210F	●	●	●	●		●	●	●	●	
VR1220F			●	●	●			●	●	●