

RE 20 070-U/10.96

<p>MANNESMANN REXROTH</p>	<p>Declaration on environmental compatibility in the field of EMC (as defined by EMC law dated 30th August, 1995 and directive 89/336/EWG), climate and mechanical stress</p>		<p>RE 29 070-U/10.96</p>
<p>Product family</p> <p>High-response control valve with integral electronics and spool position feedback</p>	<p>Product type</p> <p>4WRGE...-1X/...</p>	<p>Type code variants with regard to electronics</p>	<p>Data sheet</p> <p>RE 29 070</p>
<p>Description of the product family:</p>			
<p>2-stage high-response control valve with jet/flapper plate pilot control and integral electronics (type VT 13037) in nominal sizes 10, 16 and 25. The spool position is sensed by an inductive position transducer and closed-loop controlled. The V-spools have a spring-centred preferred position with opening P – B; A – T, E- and W-spools have a spring-centred zero position which becomes effective at the pilot control in the case of a pressure failure.</p>			
<p>The above products comply with the following basic standards:</p>			
<p>1. EMC (electromagnetic compatibility)</p>			
<p>prEN 50082-2:1994</p>	<p>(VDE 0839 part 82-2)</p>	<p>Interference immunity</p>	
<p>prEN 61000-4-2:1994 IEC 1000-4-2</p>	<p>VDE 0847-4-2</p>	<p>ESD (electrostatic discharge)</p>	<p>Air discharge: Severity 4 / assessment criterion 1 Contact discharge: Severity 4 / assessment criterion 1</p>
<p>prEN 61000-4-4:1994 IEC 1000-4-4</p>	<p>VDE 0847-4-4</p>	<p>BURST (transient discharge)</p>	<p>Supply voltage: Severity 1 / assessment criterion 1 Severity 4 / assessment criterion 2 Data lines up to: Severity 2 / assessment criterion 1 Severity 4 / assessment criterion 2</p>
<p>Test set-up according to prEN 61000-4-2 and prEN 61000-4-4</p>			

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2. Climate

EN 60068-2

EN 60068-2-1:1994

Cold test

Environmental test

2 cycles – 20 °C
Dwell time 2 hours

EN 60068-2-2:1993

Dry heat test

2 cycles + 60 °C
Dwell time 2 hours

EN 60068-2-1:1994
EN 60068-2-2:1993

Storage temperature

– 20 °C, dwell time 16 hours
+ 80 °C dwell time 16 hours

IEC 68-2-14:1986

Temperature cycles

2 cycles
– 20 °C to + 60 °C,
Dwell time 3 hours at
min / max temperature

IEC 68-2-30:1985

Damp heat,
cyclical

Variant 2
+ 25 °C to + 55 °C,
93 % to 97 % relative humidity
2 cycles, 24 hours each

3. Mechanical stress

IEC 68-2-6:1990

Sine test

Vibration test in three perpendicular axes

10 cycles,
5 – 2000 – 5 Hz at a logarithmic
frequency change rate of 1 Oct./min
5 to 57 Hz, amplitude 1.5 mm (p-p)
57 to 2000 Hz, amplitude 10 g
Dwell time 30 min at resonance
frequency

IEC 68-2-36:1973

Random test

20 to 2000 Hz,
amplitude 0.05 g² / Hz (10 g RMS)
Testing time 30 min per axis

EN 60068-2-27:1989

Shock test

Half sine 15 g / 11 ms in positive /
negative direction per axis,
in total 18 individual shocks