

MANNESMANN REXROTH	Declaration on environmental compatibility in the field of EMC (as defined by EMC law dated 30th August, 1995 and directive 89/336/EEG), climate and mechanical stress		RE 29 070-U/10.96
Product family High-response control valve with integral electronics and spool position feedback	Product type 4WRGE...-1X/...	Type code variants with regard to electronics 	Data sheet RE 29 070
Description of the product family:			
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.			
The above products comply with the following basic standards:			
1. EMC (electromagnetic compatibility)			
prEN 50082-2:1994	(VDE 0839 part 82-2)		Interference immunity
prEN 61000-4-2:1994 IEC 1000-4-2	VDE 0847-4-2	ESD (electrostatic discharge)	Air discharge: Severity 4 / assessment criterion 1 Contact discharge: Severity 4 / assessment criterion 1
prEN 61000-4-4:1994 IEC 1000-4-4	VDE 0847-4-4	BURST (transient discharge)	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
Test set-up according to prEN 61000-4-2 and prEN 61000-4-4			

2. Climate

EN 60068-2

Environmental test

EN 60068-2-1:1994	Cold 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

Vibration test in three perpendicular axes

IEC 68-2-6:1990	Sine test	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 g ² / 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



Mannesmann Rexroth GmbH
D-97813 Lohr am Main
Jahnstraße 3-5 • D-97816 Lohr am Main
Telefon 0 93 52 / 18-0 • Telefax 0 93 52 / 18-10 40
Telex 6 89 418-0

Mannesmann Rexroth Limited

Cromwell Road, St. Neots
Huntingdon, Cambs. PE19 2ES
Telephone (01480) 476041 • Telefax (01480) 219052