

Declaration on environmental compatibility for EMC ¹⁾, climate and mechanical load

RE 29061-U/07.03 1/2
Replaces: 02.97

¹⁾ (In the sense of the EMVG dated August 30, 1995 and the directive 89/336/EEC)

Product family	Product type
Proportional directional valve with integrated electronics and position control	4WREE 6-2X/...
	4WREE10-2X/...
Type key variants regarding electronics	Data sheet
4WREE 6...-2X/G24K31/A1V	RE 29 061
4WREE 6...-2X/G24K31/F1V	
4WREE10...-2X/G24K31/A1V	
4WREE10...-2X/G24K31/F1V	

Description of the product family:

Direct operated proportional directional valve of size 6 and 10 with integrated valve electronics and position controlled spool position. The control electronics (type VT 13080 and VT 13081) is integrated at the valve.

The products specified above comply with the following basic standards:

1. EMC (electromagnetic compatibility)

prEN 50082-2:1994 (VDE 0839 part 82-2) **Generic standard**
 prEN 61000-4-2:1994 VDE 0847-4-2 ESD (electrostatic discharge)
 IEC 1000-4-2

prEN 61000-4-4:1994 VDE 0847-4-4 BURST (transient interference)
 IEC 1000-4-4

Interference resistance

Air discharge:
 Severity level 2 / evaluation criterion 1
 Severity level 4 / evaluation criterion 2
 Contact discharge:
 Severity level 2 / evaluation criterion 1
 Severity level 4 / evaluation criterion 2
 Supply voltage:
 Severity level 4 / evaluation criterion 2
 Data lines until:
 Severity level 2 / evaluation criterion 1
 Severity level 4 / evaluation criterion 2

Measurement set-up according to prEN 61000-4-2 and prEN 61000-4-4

EN 50081-1:1992 (VDE 0839 part 81-1)
 EN 55022:1994 VDE 0878 part 22

Interference emissions

Radio interfering radiation depends on set-up and wiring

If the valve is connected properly and the wiring corresponds to the data sheet (see listing above), the set-up corresponds to the prerequisites for compliance with the requirements of the EMC standards EN 50081-1 and prEN 50082-2.

2. Climate

EN 60068-2

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

Environmental audit

Cold test 2 cycles -20 °C, duration 2 hours
 Dry heating test 2 cycles +60 °C, duration 2 hours
 Storage temperature -20 °C, duration 16 hours
 +80 °C, duration 16 hours

IEC 68-2-14:1986

Temperature change 2 cycles
 -20 °C to +60 °C, duration
 3 hours at min/max temperature

IEC 68-2-30:1986

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

3. Mechanical load ¹⁾

Vibration test in three axes that are positioned vertically to each other

prEN 60068-2-6:1995

Sine test

10 cycles,
 5 to 2000 to 5 Hz with logarithmic frequency changing speed of 1 octave/min,
 5 to 57 Hz, amplitude 1.5 mm (p-p),
 57 to 2000 Hz, amplitude 10 g, duration 30 min with a resonance frequency

IEC 68-2-36:1973

Random test

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

EN 60068-2-27:1993

Shock test

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

¹⁾ Only tested for size 6