

Declaration on environmental compatibility in the field of EMC, climate and mechanical stress

RE 29162-U/11.04

1/4

Type DBET and DBETE

Proportional pressure relief valve

Product type	Type code variations with regard to the electronics
DBETE-6X	DBETE...-6X/...A1 DBETE...-6X/...F1
DBET-6X	

Description of the product family

Direct operated proportional pressure relief valves, nominal size 6 without closed loop position control of the spool. The electronics for pulse width modulated control of the solenoid is built into a housing on the valve.

¹⁾ as defined by EMC dated 30th August 1995 and Directive 89/336/EEC

The above products comply with the following basic standards:

1. EMC (electromagnetic compatibility) only valve with OBE

EN 61000-6-2:2001	VDE 0839 part 6-2		Interference immunity
EN61000-4-2:1995 +A1:1998 +A2:2000 IEC1000-4-2	VDE 0847-4-2	ESD (electrostatic discharge)	Air discharge: Severity 4 / assessment criterion A Contact discharge Severity 4 / assessment criterion A
EN61000-4-3:1996 +A1:1998 +A2:2000	VDE 0847-4-3	RF fields	Severity 3 / assessment criterion A
EN61000-4-4:1995 +A1:2001 IEC1000-4-4	VDE 0847-4-4	BURST (transient discharge)	Supply voltages up to: Severity 3 / assessment criterion A Data lines: Severity 4 / assessment criterion A
EN61000-4-5:1995 +A1:2001 IEC 1000-4-5	VDE 0847-4-5	SURGE (surge voltages)	Supply voltage: Severity 1 / assessment criterion A
EN61000-4-6:1996 A1:2001 IEC 1000-4-6	VDE 0847-4-6	RF fields (conducted interference)	Severity 3 / assessment criterion A

EN 50081-1:1993	VDE 0839 part 81-1		Emitted interference
EN 55022:1998	VDE 0878 part 22	Noise voltage	0,15... 30 MHz Class B
EN 55022:1998	VDE 0878 part 22	Noise voltage	30... 1000 MHz Class B

Test set-up to according EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5 and EN 61000-4-6

If the valve is correctly connected and is wired in accordance with the RE sheet (see list above) the build-up complies with the requirements of the EMC standards EN 50081-1 and EN 61000-6-2.

2. Climate, only valve with OBE

EN60068-2	IEC 68-2		Environmental test
EN60068-2-1:1994		Cold test	2 cycles -25 °C dwell time 2 hours
EN60068-2-2:1993		Dry heat test	2 cycles +55 °C dwell time 2 hours
EN60068-2-1:1994 EN60068-2-2:1993		Storage temperature	-25 °C dwell time 16 hours +85 °C dwell time 16 hours
	IEC 68-2-14:1986	Temperature cycle	2 cycles -25 °C to +55 °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

EN 60068-2	IEC 68-2 DIN 40046		Vibration test in three perpendicular axes
EN 60068-2-6:1996		Sine test	10 cycles , 5 to 2000 Hz to 5 Hz at a logarithmic frequency change rate of 1Oct./Min 5 to 57 Hz, amplitude 0,3 mm (p-p) 57 to 500 Hz, amplitude 10 g
	IEC 68-2-36:1973 DIN 40046-24:1977	Random test	20 to 2000 Hz, amplitude 0.05 g ² / Hz (10 g RMS), testing time 30 min per axis
EN 60068-2-27:1993		Shock test	Half sine 15g / 11 ms in positive 3x negative direction per axis; in total, 6 individual shocks

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