

Electric Drives
and Controls

Hydraulics

Linear Motion and
Assembly Technologies

Pneumatics

Service

Rexroth
Bosch Group

Declaration on environmental compatibility in the fields of EMC¹⁾, climate and mechanical stress

RE 30028-U/09.07 1/4
Replaces: 12.04

Type VT-VPCD

Digital control electronics for
A4VS axial piston units with HS4 control and
A2V with EO4 control

Product types

– VT-VPCD-1-1X/V.../1-...-1 according to data sheet RE 30028

Description of the product family

The Digital control electronics is designed in analog and digital circuitry. It includes the electronics to drive continuously adjustable hydraulic valves either in open or closed loop. According to its usage, the component is programmed by Bosch Rexroth. The application dependant configuration and parameterisation is to be done by the end user with the software BODAC.

¹⁾ in the sense of the EMC law dated 30th August 1995 and Directive 89/336/EEC)

The above products comply with the following standards:

1. EMC (electromagnetic compatibility)

Testing according to specialized basic standard EN 61000-6-2:2005, VDE 0839 part 6-2

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

2. Climate

Testing according to EN 60068-2 / IEC 68-2 (Environmental test)

EN 60068-2-1:1994		Cold test	2 cycles -5 °C Dwell time 2 hours
EN 60068-2-2:1993		Dry heat test	2 cycles +55 °C Dwell time 2 hours
EN 60068-2-1:1994 EN 60068-2-2:1993		Storage temperature	-25 °C, dwell time 16 hours +85 °C, dwell time 16 hours
	IEC 68-2-14:1986	Temperature cycle	2 cycles -5 °C to +55 °C Dwell time 3 hours each at min. / max. temperature
EN 60068-2-30:1999		Damp heat, cyclical	Variant 2 +25°C to + 40°C 93 % to 97 % relative humidity 2 cycles, 24 hours each

The above products comply with the following standards (continued):

3. Mechanical stress

Vibration and shock test according to EN 60068-2 / IEC 68-2 / DIN 40046 (Environmental test)
Tests were carried out in three axes (X/Y/Z)

EN 60068-2-6:1996			Sine test	10 cycles, 5 to 500 Hz to 5 Hz at a logarithmic frequency change rate of 1 oct./min. 5 to 57 Hz, amplitude 0.3 mm (p-p) 57 to 500 Hz, amplitude 2 g
	IEC 68-2-36:1973	DIN 40046-24:1977	Random test Broadband-noise	20 to 500 Hz, amplitude 0.01 g ² / Hz (2.2 g RMS), testing time 30 min
EN 60068-2-27:1993			Shock test	Half sine 15 g / 11 ms, 3 x in positive / 3 x in negative direction per axis; in total, 6 individual shocks

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