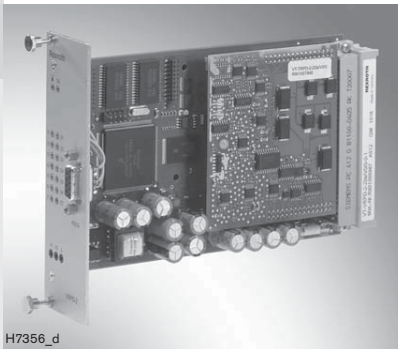
Digital valve amplifier VT-VSPD-1-2X/V0/0-0-1 (series 2X)

RE 30523-Z/05.06 1/4

Supplementary information

Notes on the change-over of
digital valve amplifier VT-VSPD-1-**1X**/V0/0,
material number R900929710
to VT-VSPD-1-**2X**/V0/0-0-1,
material number R901077297


H7356_d

The digital amplifier type VT-VSPD-1-**2X**/V0/0-0-1 can be used as substitute for amplifier type VT-VSPD-1-**1X**/V0/0, if the preconditions mentioned in the supplementary information are fulfilled.

Further information with block circuit diagrams and technical data:

Data sheet for digital valve amplifier type VT-VSPD-1-**2X**/V0/0-0-1, data sheet no. RE 30523

WARNING!

Improper use of the substitute amplifier can result in unintended machine movements
Injuries and damage to property are possible

⇒ Several electrical connections are not compatible.
Before commisioning, adjust the wiring according to the tables on page 3.
If necessary, you also have to change the program of a higher-level control.

Advantages of the new series 2X

- Convenient and clearly structured operating and configuration software BODAC
- Diagnosis options (oscilloscope function)
- Configurable test output
- Ramp time via analogue input
- Versatile command value adjustment options
- Configuration of the current/voltage inputs by means of the software; no jumpers need to be plugged.
- No converter required due to standard RS232 interface
- Use of a standard 1:1 connecting cable

Overview of differences

VT-VSPD-1-1X/V0/0 (series 1X)	**VT-VSPD-1-2X/V0/0-0-1 (series 2X)**
Software BODIV	Operating and configuration software BODAC [1] **Note:** Any existing BODIV parameter files must be converted manually. **BODIV parameter files cannot be uploaded.**
Communication with PC via RS485 interface; converter required for connection to a PC	Communication with PC via RS232 interface, merely an interface cable is required [2]
Operation and configuration alternatively with BB3 or BF1 control devices	Operation and configuration exclusively with a PC
Command value can be fed forward by means of signal form ±20mA	No external command value feedforward by means of signal form ±20mA
Ramp time, up to 1000 s	Ramp time, up to 300 s
Potential-free relay output for fault signal	Non-isolated “OK output“
48-pin multi-point male connector, form F	64-pin multi-point male connector, form G (row f not used), can be plugged into 48-pin multi-point female connector (previously used card holder can still be used)
The differences in the electrical pin assignment are detailed in the tables on page 3.	

[1] Free download: www.boschrexroth.com/HACD

[2] e.g. KABELSATZ VT-HACD-1X/03,0/HACD-PC, material number **R900776897** or commercial 1:1 connecting cable

Differences in the electrical pin assignment

Explanations:

→ Arrows indicate a relocation of an input or output to another pin, e.g. signal **solenoid "b" active** was re-assigned from 32b to 26d.

The shaded areas indicate, where special attention has to be paid to re-wiring or signal application in order to avoid malfunction.

	Row z	
Pin	**VT-VSPD-1-1X/V0/0**	**VT-VSPD-1-2X/V0/0-0-1**
2	Solenoid "a" +	Solenoid A+
4	Solenoid "a" –	Solenoid A–
6	Solenoid "b" +	Solenoid B+
8	Solenoid "b" –	Solenoid B–
10	Shield	Shield
12	n.c.	n.c.
14	n.c.	n.c.
16	n.c.	n.c.
18	n.c.	n.c.
20	System ground	System ground
22	n.c.	DO3, freely configurable
24	n.c.	DO4, freely configurable
26	n.c.	DO5, freely configurable
28	n.c.	DO6, freely configurable
30	UO +24V	UO +24V
32	L0 0V	L0 0V

	Row b	
Pin	**VT-VSPD-1-1X/V0/0**	**VT-VSPD-1-2X/V0/0-0-1**
2	n.c.	n.c.
4	n.c.	n.c.
6	n.c.	E3, Ramp+ (U) +
8	n.c.	E3, Ramp+ (U) –
10	n.c.	n.c.
12	n.c.	n.c.
14	**E1, comm. value (U or I) +**	**E1, command value (U) +**
16	**E1, comm. value (U or I) –**	**E1, command value (U) –**
18	n.c.	E4, Ramp– (U) +
20	n.c.	E4, Ramp– (U) –
22	E6, comm. value, 4-20mA +	E2, comm. value, 4-20 mA +
24	E6, comm. value, 4-20mA –	E2, comm. value 4-20 mA –
26	n.c.	A03, valve current ±10V
28	n.c.	Analogue GND
30	n.c.	**Ref –10V**
32	**Solenoid "b" active**	**Ref +10V**

	Row d	
Pin	**VT-VSPD-1-1X/V0/0**	**VT-VSPD-1-2X/V0/0-0-1**
2	Command call-up 1	DI1, binary 1 (= comm. call-up 1)
4	Command call-up 2	DI2, binary 2 (= comm. call-up 2)
6	Command call-up 4	DI3, binary 4 (= comm. call-up 4)
8	Command call-up 8	DI4, binary 8 (= comm. call-up 8)
10	**Command valid**	Do not assign!
12	**Ramp**	**DI6, binary valid** (= comm. valid)
14	n.c.	n.c.
16	n.c.	n.c.
18	Enable	DI9, enable
20	Solenoid "a" active	DO1, solenoid A active
22	**Fault signal contact 1**	**OK output**
24	RS 485 +	n.c.
26	**Fault signal contact 2**	**DO2, solenoid B active**
28	RS485 -	n.c.
30	n.c.	n.c.
32	Output, internal comm. value ±10V	n.c.