

Electric Drives
and Controls

Hydraulics

Linear Motion and
Assembly Technologies

Pneumatics

Service

Rexroth
Bosch Group

Command value signal card

RE 30282/10.12
Replaces: 07.12

1/6

Type VT-SWKA1-5-...

Component series 1X

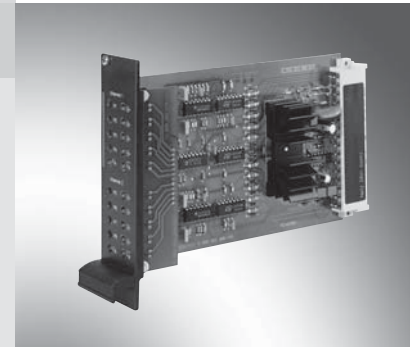


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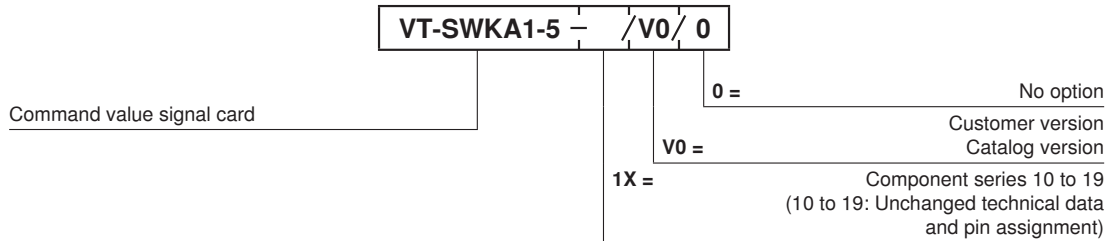
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Features

Features	
1	– Suitable for controlling valves with integrated or external electronics
2	– Analog amplifiers in Europe format for installation in 19" racks
3	– Used for the command value preparation
4	· 4 internal, variable command values
4	· Command value call-ups using digital signals
4	· 2 signal inputs for inversion
5	Notice:

The photo is an example configuration.
The delivered product differs from the figure.

Ordering code, accessories



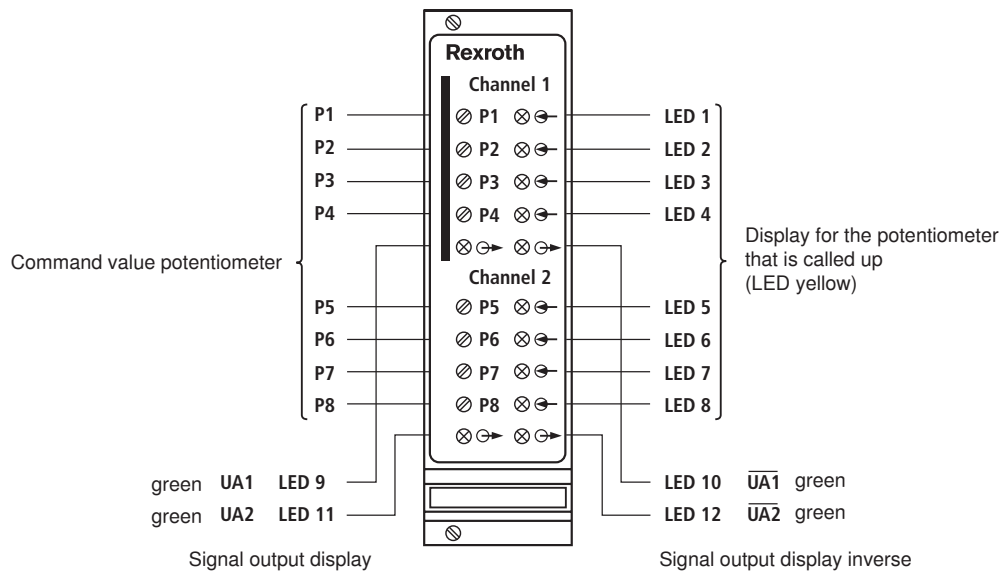
Preferred types

Amplifier type	Material number
VT-SWKA1-5-1X/V0/0	0811405093

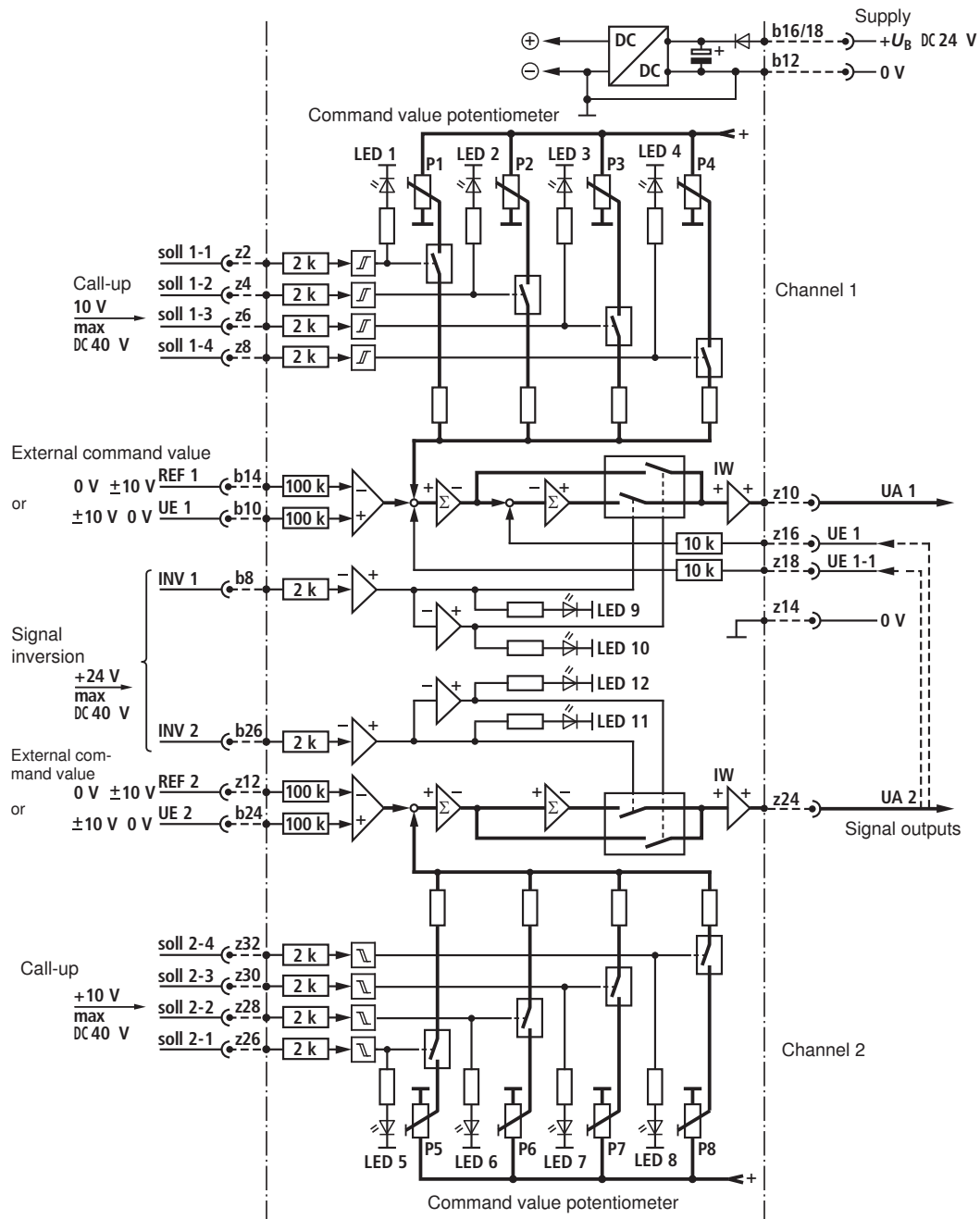
Suitable card holder:

- Open card holder VT 3002-1-2X/32F (see data sheet 29928).
Only for control cabinet installation.

Front plate



Block diagram with pin assignment



Addition channel 1 and channel 2 z24 → z18; Σ P1...P8 = + U_{A1}

Technical data (For applications outside these parameters, please consult us!)

Supply voltage U_B at z2 – b2		Nominal 24 V = Battery voltage 21...40 V, Rectified alternating voltage $U_{\text{eff}} = 21...28$ V (one-phase, full-wave rectifier)
Current consumption	mA	Max. 150
Signal preparation		8 trimming potentiometers for 0...10 V Negative output signals by means of the external command IN_{V1} (b8) or IN_{V2} (b 26)
Signal call-up z2...z8/z26...z32		8 signal inputs +24 V (max. 40 V =) $R_i = 2$ k Ω P1...P4 and/or P5...P8 individually or summing
Display		Yellow LED for the potentiometer that is called up Green LED for true output signal and for inverted output signal
Summary P1...P8 via channel 1		Bridge z24–z18: P1...P4 +P5...P8 z24–z16: P1...P4 –P5...P8
Format of the printed circuit board	mm	(100 x 160 x approx. 35) / (W x L x H) Europe format with front plate 7 TE
Plug-in connection		Connector DIN 41612 – F32
Ambient temperature	°C	0...+70
Storage temperature range	°C	–20...+70
Weight	m	0.33 kg

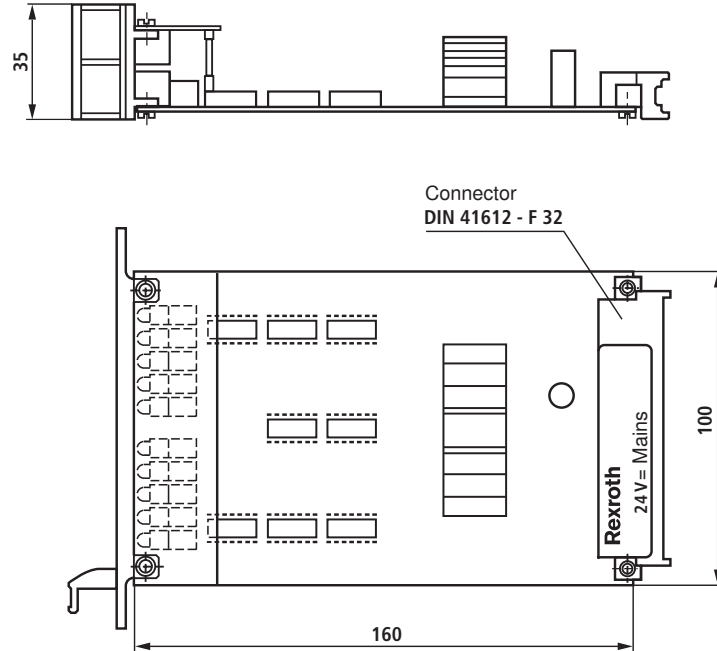
Application

Two-channel command value card for the preparation and call-up of four internal signal voltages ($U_{\text{command}} = 0...±10$ V) per channel.

- By means of its output signals U_{A1} (channel 1) and/or U_{A2} (channel 2), the command value signal card usually controls a proportional amplifier.
- In two separate channels, you can set eight command values from 0 to +10 V, using in each case four internal potentiometers: P1 to P4 (channel 1) P5 to P8 (channel 2).
- The individual command values are called up via the external enable signals (switching signals +24 V) that are allocated to the potentiometers:
Command 1–1 to command 1–4 (channel 1)
Command 2–1 to command 2–4 (channel 2).
- The selected call-up is signaled by means of yellow LED displays: LED 1 to LED 8.

- Two differential inputs U_{E1} (channel 1) and U_{E2} (channel 2) allow for the feed-in of additional external command values 0 to $±10$ V.
- The output signal U_{A1} (channel 1) or U_{A2} (channel 2) can be inverted by means of an external input signal IN_{V1} or IN_{V2} ; i.e. positive command values U_{E1} , U_{E2} and/or the internal command values P1 to P8 result in a negative output U_{A1} or U_{A2} .
Green LED displays at the front plate signalize that there is an inverse output signal.
- Command value signal linking. If more than four internal command values are necessary, up to eight command values can be processed by feeding in the output U_{A2} (channel 2) into channel 1.

Device dimensions (dimensions in mm)



Project planning / maintenance instructions / additional information

- The amplifier card may only be unplugged and plugged when de-energized.
- The distance to aerial lines, radios and radar systems must be sufficient (> 1 m).
- Do not lay solenoid and signal lines near power cables.
- For signal lines and solenoid conductors, we recommend using shielded cables.
The cable shield must be connected to the control cabinet extensively and as short as possible.
- The valve solenoid must not be connected to free-wheeling diodes or other protection circuits.