

Electric amplifier modules

RE 30222/07.12

1/6

Replaces: 01.09

Type VT-MSPA1-5...

Component series 1X

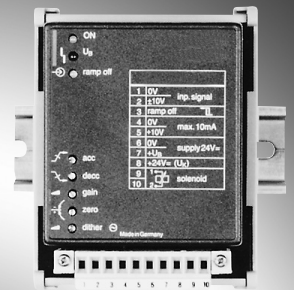


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Features

- Suitable for controlling direct operated proportional valves without electrical feedback
- Design: Module for snapping onto carrier rails
- Differential input for command value voltage 0...+10 V
- Ramp generator up and down can be set separately
- Zero point potentiometer
- Clocked output stage
- LED display:
 - Supply voltage
 - Ready for operation
 - Ramp "Off"
- Removable connector strip

Notice:

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

Ordering code

VT-M S P A 1 - -1X/V0									
Hydraulic component For valves without electrical feedback = S						V0 =			Customer version Catalog version
Valve type Proportional valve = P						1X =			Component series 10 to 19 (10 to 19: Unchanged technical data and pin assignment)
Control Analog = A									Serial number for types 0.8 A solenoid 2.5 A solenoid
Output stages 1 output stage = 1						508 = 525 =			

Preferred types

Amplifier type	Material number	For proportional valves, direct operated, without electrical feedback
VT-MSPA1-525-10/V0	0811405127	DBETX-1X...-25...
		DBE6X-1X...-25...
		(3)2FREX...-1X...-25...
VT-MSPA1-508-10/V0	0811405126	DBETX-1X...-8...
		DRE10Z-1X...-8...
		DRE6X-1X...-8...
		DBE6X-1X...-8...
		DBE10Z-1X...-8...

Front plate

LED

LED

LED

U_B 24 V=

$U_B \leq U_B$ min.

Ramp "OFF"

0 V

+

ΔT 0,05...5 sec.

+

0 V

Dither
amplitude

ON

U_B

ramp off

acc

decc

gain

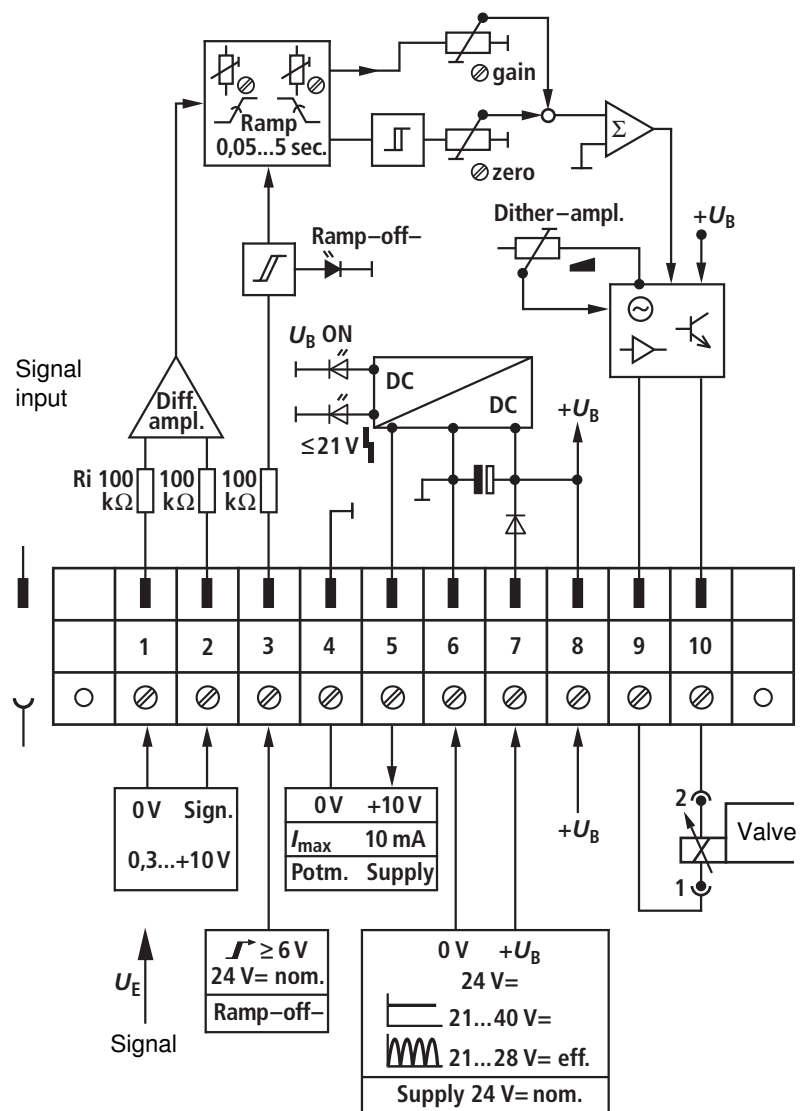
zero

dither

MSPA1 ...

1	0 V	inp. signal
2	+10 V	
3	ramp off	
4	0 V	
5	+10 V	max. 10 mA
6	0 V	
7	+ U_B	supply 24 V=
8	+24 V= (U_B)	
9	1	
10	2	

Block diagram with pin assignment



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

		VT-MSPA1-508-10/V0	VT-MSPA1-525-10/V0
Supply voltage U_B at (7) – (6)		Nominal 24 V = Battery voltage 21...40 V, Rectified alternating voltage $U_{eff} = 21...28$ V (one-phase, full-wave rectifier)	
Valve solenoid	A/VA	0.8/25	2.5/55
Current consumption max.	A	1.25	2.5
		The current consumption may increase with min. U_B and an extreme cable length to the control solenoid	
Max. power consumption	VA	30	60
Command value		(2): 0...+10 V } Differential input (1): 0 V } ($R_i = 100$ k Ω)	
Command value source		Potentiometer 10 k Ω Supply +10 V from (5) (10 mA) or external signal source	
Solenoid output (9) – (10)	A	Clocked current controller $I_{max} = 0.8$ $I_{max} = 2.5$	
Cable lengths between amplifier and valve		Solenoid cable: up to 20 m 1.5 mm ² 20 to 50 m 2.5 mm ²	
LED displays		green: Enable yellow: Ramp off red: Undervoltage (U_B too low)	
External ramp switch-off		(3): 6...40 V = (24 V _{nom})	
Ramp times	s	0.05...5	
Adjustment possibilities		Zero point valve, Ramp times, Sensitivity, Dither amplitude	
Special features		Inputs and outputs short-circuit-proof, Clocked output stage, Fast energization for short actuating time	
Format (W x L x H)	mm	(86 x 110 x 70.5)	
Design		Module	
Mounting		Top hat rail TH35-7,5 or G rail G32 according to EN 60715	
Plug-in connection		Connector, 10-pole (screw terminal)	
Ambient temperature	°C	0...+70	
Storage temperature range	°C	-20...+70	
Weight	m	0.31 kg	

Information for the use of ramps

Setting of ramp UP (acceleration) and ramp DOWN (braking)
via 1 trimming potentiometer each.

Ramp ON, if (3) = 0 V (open). **Ramp OFF**, if (3) = 24 V_{nom} (min.: ≥ 6 V high).

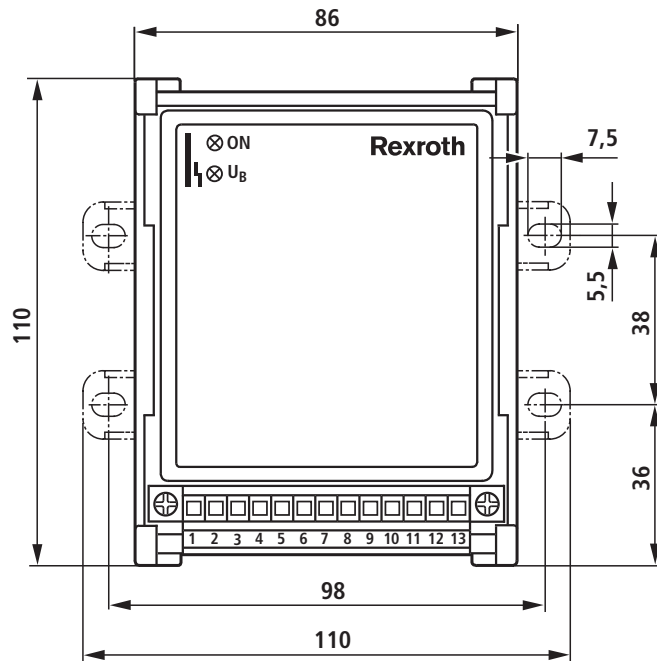
With **ramp OFF**, a previously started ramp is canceled.

Transition to the signal end value is effected as step.

Setting zero: With 0.5 V signal (min. 0.3 V).

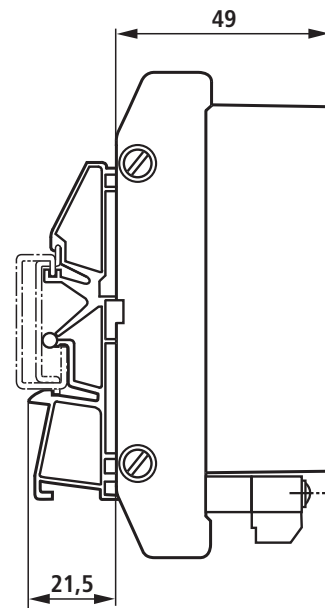
Max. setting: With +10 V signal.

Device dimensions (dimensions in mm)



Wall mounting

(86x110x70.5) mm

Carrier rail assembly
(snap-in)

Project planning / maintenance instructions / additional information

- 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 cable lengths and cross-sections specified on page 4 must be complied with.

Notes

Notes

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Notes
