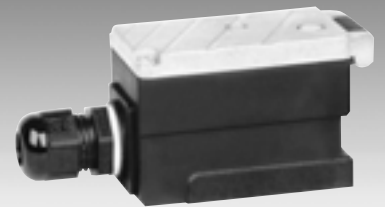


Plug amplifier module for proportional valves

RE 30264/01.09
Replaces: 09.07

Type VT-SSPA1-5...

Unit series 2X



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Features

- Analog amplifier for actuating proportional valves (pressure and directional control valves) without position control
- Differential input
- Adjustable ramp time (60 ms...5 s)
- Adjustable sensitivity, valve zero and dither frequency
- Operating voltage 24 V

Testing and service equipment

- Current measuring adapter VT-PA-5, see RE 30073

Function

The plug amplifier is employed for **actuating** proportional valves without position control.

It is plugged directly into the valve's solenoid plug.

The **connecting cable** (U_B , setpoint) on the control side is routed through a compression gland and connected.

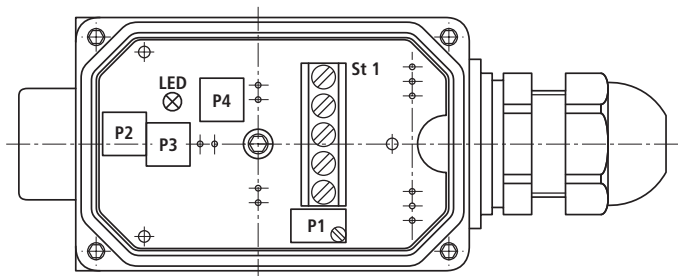
A **LED** lights up when the power supply is switched on. The **setpoint input** takes the form of either voltage 0...10 V or current 4...20 mA, depending on the type of plug amplifier.

The setpoint can be adjusted in terms of **zero** and **sensitivity**. In the case of voltage input, a **differential input** is available.

In addition, the setpoint can be run using a **ramp**.

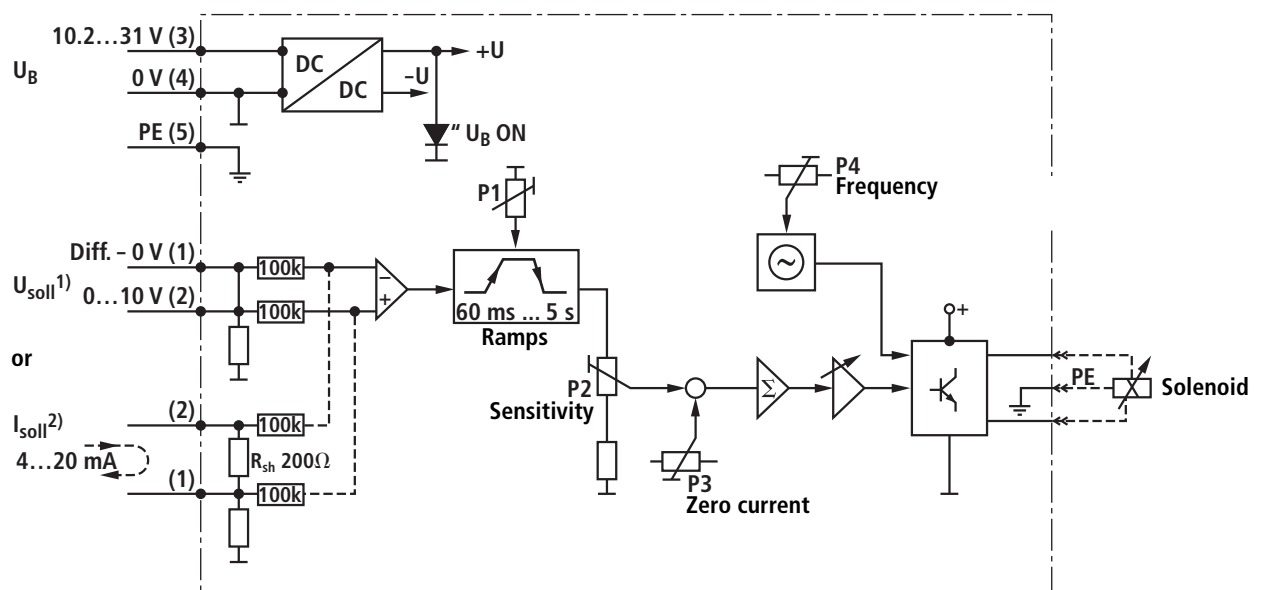
The **dither amplitude** is variable, allowing the system to be adapted to suit special-purpose applications. On delivery, the dither amplitude is already set to an optimum value, so that further adjustment is only necessary in special cases, as mentioned above.

Connections/calibration



- P1 – Ramp time
- P2 – Sensitivity
- P3 – Zero
- P4 – Dither frequency
- St 1 – Terminal
- LED – U_B display

Circuit diagram/pin assignment

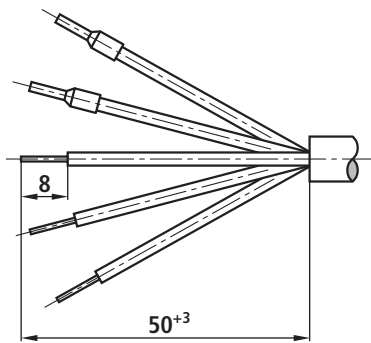


¹⁾ 0811405143; 0811405144

²⁾ 0811405145; 0811405162

Commissioning/adjustment

1. Prepare the connecting cable.



Wire end ferrules with short crimp (5x)

2. Route cable through the compression gland and connect to terminal St 1.

Important

Do not switch on the power supply or input the setpoint for the cable yet!

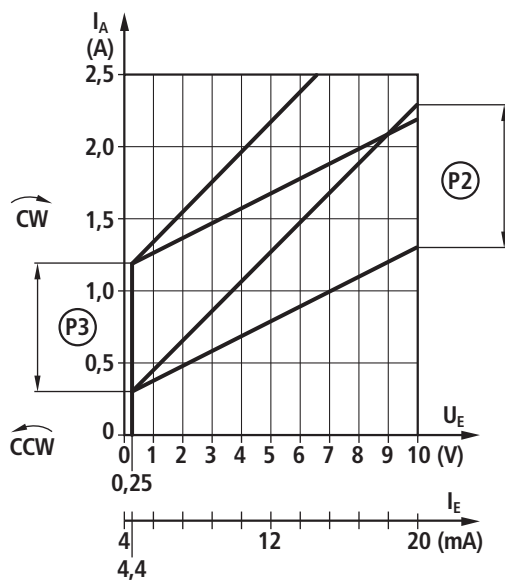
3. Switch on the power supply



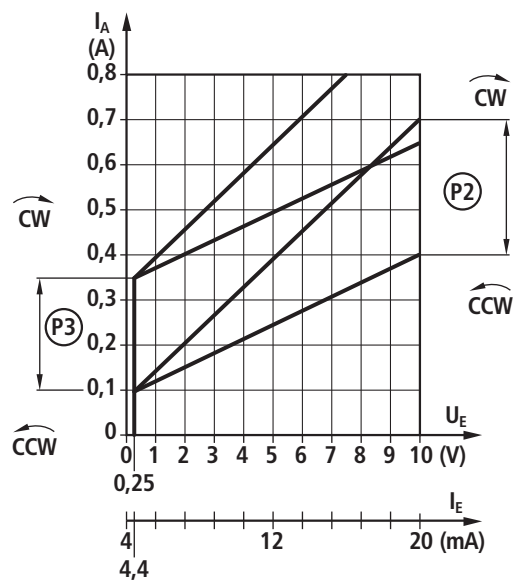
LED lights up (green).

4. Zero adjustment → pot. P3 , with minimum setpoint input.
5. Sensitivity adjustment → pot. P2 , with maximum setpoint input.

0811 405 143
0811 405 145



0811 405 144
0811 405 162



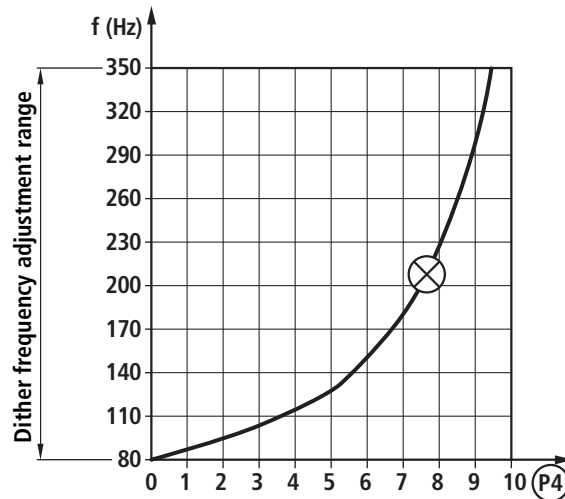
- P2 Sensitivity range
 P3 Zero current range

Commissioning/adjustment

6. Dither frequency adjustment

→ pot. P4 .

The dither frequency is already correctly set on delivery, but correction may be required for special applications. If so, please consult BRH-CO/SPI.



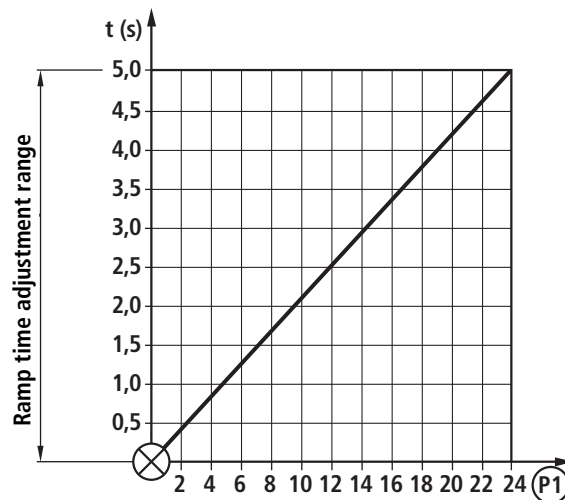
\otimes Factory setting

P4 Pot. setting

7. Ramp time adjustment

(acceleration and deceleration)

→ pot. P1 .



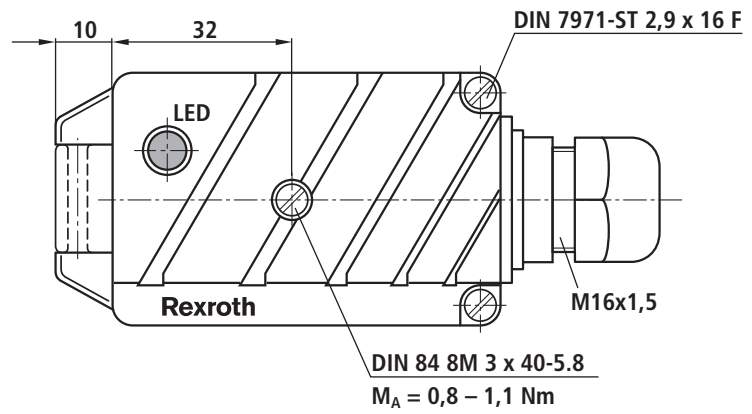
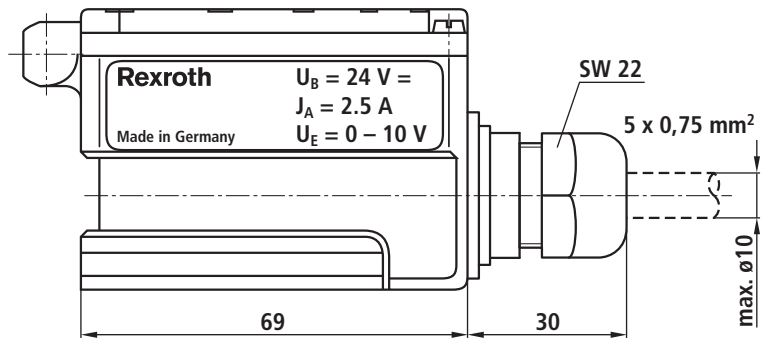
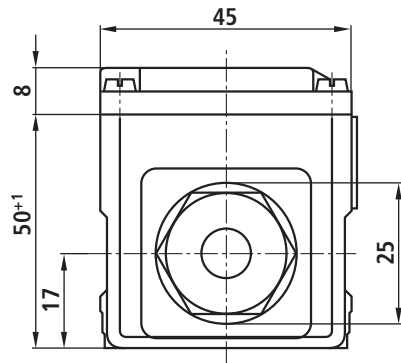
\otimes Factory setting

CW P1 Pot. rotation

Technical data

Construction		Plug housing
Connections	– Solenoid – U_B , setpoint	DIN 43650 Cable 5x0.75 mm ² , shielded (incl. PE)
Ambient temperature	°C	–20...+70
Storage temperature	°C	–20...+85
Degree of protection		IP 65, plugged in
Power supply nom. 24 V DC		
	Solenoid 2.5 A	Battery voltage 10.2...31 V Rectified AC voltage 10.2...27 V
	Solenoid 0.8 A	Battery voltage 21...31 V Rectified voltage 21...27 V
	Residual ripple	< 2 V _{SS}
Power consumption		55 VA max, see valve data
Setpoint	0811 405 143 0811 405 144	0...10 V DC
	0811 405 145 0811 405 162	4...20 mA
Output	0811 405 145 0811 405 143	$I_{max} = 2.5$ A (square-wave voltage, pulse-modulated)
	0811 405 144 0811 405 162	$I_{max} = 0.8$ A (square-wave voltage, pulse-modulated)
Ramp time		60 ms...5 s
Dither frequency range		95...340 Hz
Zero adjustment range		See characteristic curves on page 4
Sensitivity adjustment range		
Special features		LED (green): power supply on Short-circuit-proof inputs and outputs Clocked output stage Rapid energizing for fast response times Adjustment via trimming potentiometer
Electromagnetic compatibility		EN 61000-6-2: 2002-08 EN 61000-6-3: 2002-08

Unit dimensions (nominal dimensions in mm)



Notes
