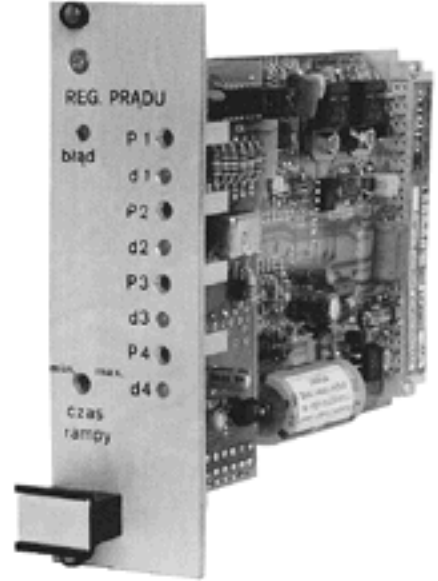


Controllable current amplifier type 30RE21 serves to control 3-position proportional hydraulic directional valves type USEB 6 with position sensor. Amplifier type 32RE21 serves to control 3-position proportional directional valves type USEB10 with position sensor.

Main characteristics:

- output current control
- high stability of output current due to feedback loop at end stapes
- adjustment of pulse rise and decay time
- system for quick transition through zero
- generator 2,5 kHz and demodulator at supply of offset sensor
- board construction to Eurocard
- joint type 864011 at output
- optimal control in the whole range of operation
- from internal programmer
- by external voltage +/- 9V towards mass
- by external voltage +/- 10 V non-potential



**DESCRIPTION OF OPERATION**

d1-d4 - signaling of set value feeding

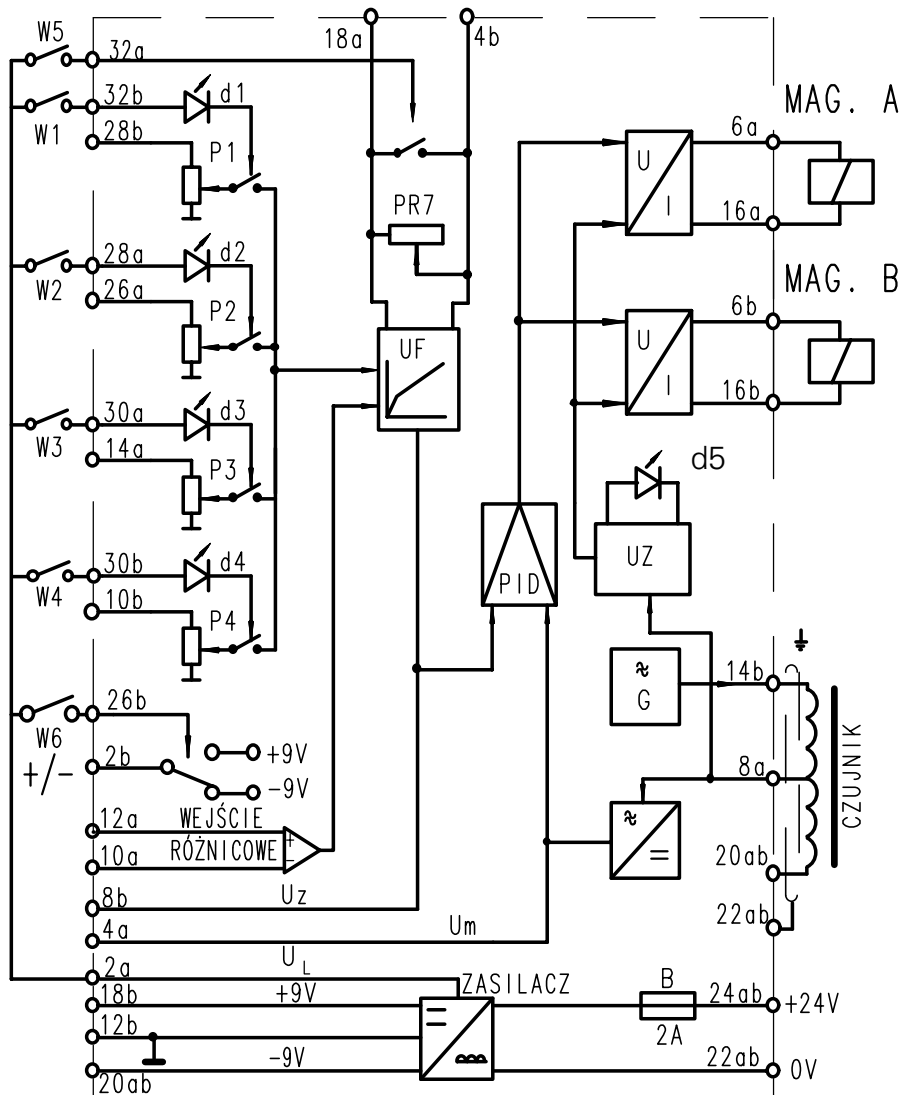
d5 - signaling of break in supply of offset detector

P1 - P4 - adjustment of programmable set values

PR7 - adjustment of pulse rise out decay time 0,05-5s

W1-W4 - unstable switches of set value

W5 - stable switch of pulse rise and decay time



Controllable current amplifier 30RE20 (32RE20) should be supplied with 24V current to terminals: positive end to contact 24ab, "0" to contact 22ab. From supply voltage via constant-voltage regulator stabilized voltage +/- 9V/ 18b- +9V; 12b - 0V; 20ab- - 9V.

Please, take care that measurement "0" (contact 12b) is higher by 9V than supply voltage "0" (contact 22ab).

Electronic keys switched on by the unstable switches W1÷W4 are used to program set value.

One of keys is switched on, a corresponding diode d1÷d4 lights and other keys are out of operation. Set values are adjusted by means of the potentiometers P1÷P4.

The set value can also be sent by matching amplifier from non-potential inputs 10a and 12a with voltage 0+ +/- 10V.

In order to program the rise and decay time of the set value at step control. The potentiometer PR7 is applied.

It is possible to break this adjustment by means of the switch W3.

An additional change - over switch can be connected to terminals 18a and 4b, or the contacts of a transmitter permitting a ramp shorting independently of the switch W3.

In case of need to set times of the ramp beyond the plate, an additional potentiometer can be connected to terminals 18a and 4b (PR7 set at maximum).

The switch W6 changes the polarization of voltage 9V at the terminal 2b.

As required, after connecting, voltage with changing polarization from the terminal 2b or voltage with constant polarization from the terminals 18b (+9V) or 20ab (-9V) can be used to supply potentiometers P1÷P4.

When connecting care should be taken, that current-carrying capacity of terminals 2b; 18b; 20ab can not exceed 10mA. Controllable current amplifier type 30RE20 (32RE20) should be connected to directional valves and control switches in accordance with block diagram.

Lines to directional valves should not be connected together with lines of control signals. The amplifier can be connected only dead.

To measure the set and real values a meter can be connected to contacts 12b - measurement "0": 8b - set value and 4a - real value correspondingly.

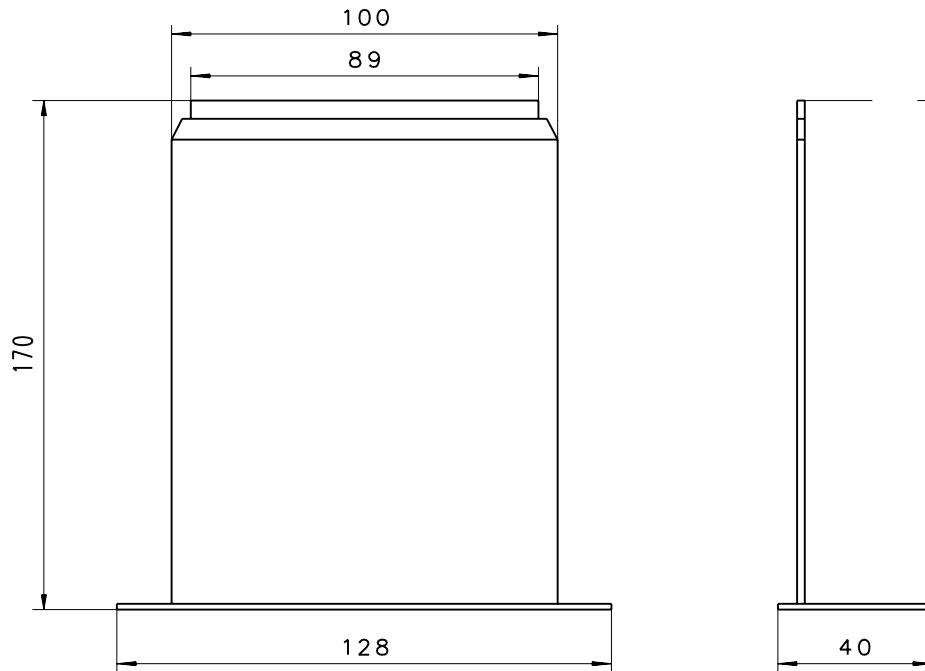
Hydraulic directional valve USAB 6 (USAB 10) has one or two proportional solenoids which should be connected as follows:

- solenoid A to terminals 6a; 16a
- solenoid B to terminals 6b; 16b

## TECHNICAL DATA

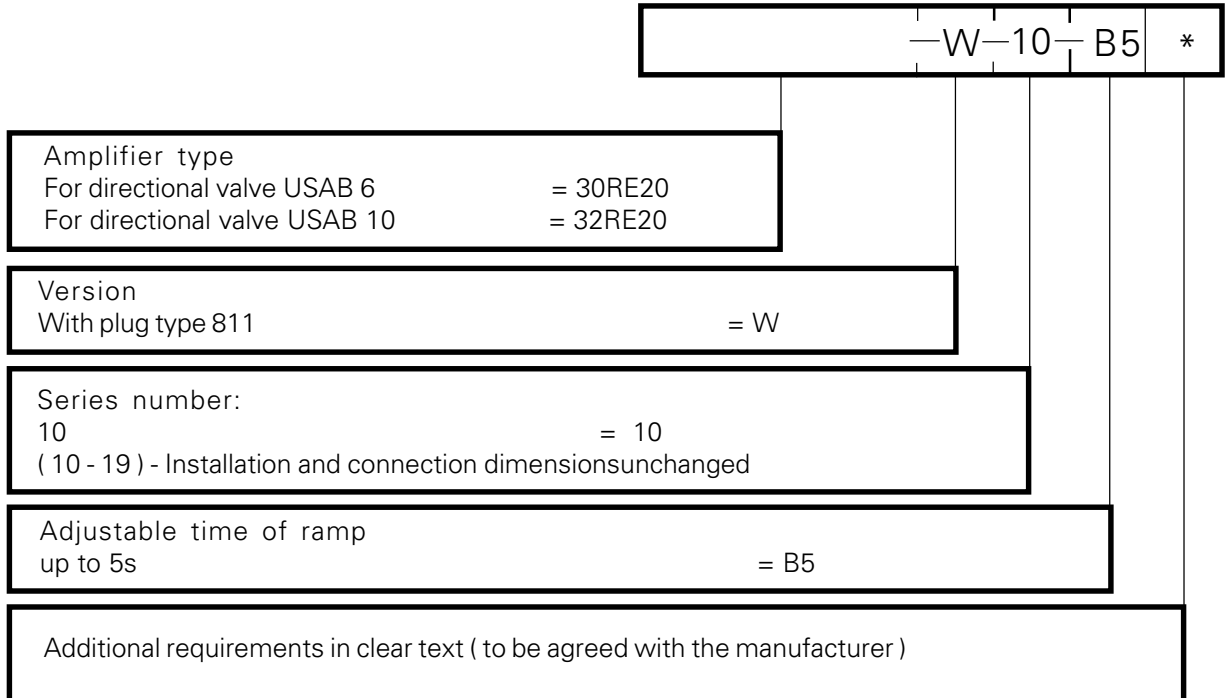
Supply	= 24V +/-10%	
Power	35VA	30RE20
	45VA	32RE20
Max output current	1,6A	30RE20
	2,2VA	32RE20
Control voltage	0 ÷ +/-10V	
Solenoid connecting (cable length)	1,5mm <sup>2</sup> up to 40m	
	2,5mm <sup>2</sup> up to 60m	
Operating temperature	273 - 318K	
Temperature error	0,05%/ °C	
Hysteresis	1,5%	
Weight	0,3kg	

## OVERALL DIMENSIONS



## HOW TO ORDER

Orders coded in the way showed below should be forwarded to the manufacturer.



Coding example : 30RE20-W-10-B5

NOTES:

PONAR WADOWICE S.A.  
ul. Wojska Polskiego 29  
34-100 Wadowice  
tel. 033/ 823 39 43, 823 30 41  
fax 033/ 873 48 80  
e-mail: ponar@ponar-wadowice.pl

