product specification rated-value-distributor: SV03



Outputs are seperated from the rated-value-input
5 independently switchable outputs
precision potentiometer for reference adjustment
self-extinguishing polycarbon housing acc. to UL94V1
suitable for the tropics - epoxy resin casted
safety according to VDE, EN, UL, CSA

Application

The rated-value distributor of the SV03 series is to be used for transmitting and distributing a nominal voltage between 0 volts and 10 volts to five outputs which can be switched independently from each other.

Functional principle

An analog-digital converter tranforms the rated value at the input into an 8-bit-word. As it is a serial analog-digital converter the 8-bit-word can be directed through an optocoupler. Herewith the separation of the potentials between input and output signals is achieved.

The 8-bit-word is shifted into the input of a 8-bit-shift-register with a serial input, parallel outputs and integrated buffer memory. This happens simultaneously to the readout af the 8-bit-word at the analog-digital converter.

During this, the buffer memory of the shift register is blocked. The word of the last read-in is at the outputs. During the conversion of the next word in the ADC, the shift register, controlled by a chipselect-impulse, transmits the just read-in word to the output. Thereby, the old word is overwritten.

An R2R separation chain converts the digital word in to an analog voltage. For this the reference is the operating voltage of the shift register. The reference can be adjusted with a precision potentiometer, so that the input and output voltage are the same.

The conversion from analog to digital and backwards is processed linear. Because of this, only the intensitiv has to be adjusted with a potentiometer.

As the zero point of the characteristic curves is always the same the intensity is adjusted most accurately at the other "end" of the curve, at 10V.

Through analog switches the output voltage is distributed to 5 outputs. These analog switches are controlled by a 24V switching voltage.

Design

Completly embedded with resin in a plastics housing for mounting on a rail.

5 x control input 23.5 - 30.0V / max. 100Hz rated-value input 0 - 10.0V + max. 15Hz 000000000 E2 E3 E4 E5 Ue Ue Sollwertverteiler 0000 MAS supply voltage 23,5 - 30,0VDC 5 x rated value output 0 - 10,0V

Please read the data sheets

and the user manual for further information.

connection example



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