

POWER SUPPLY DISTRIBUTOR LZ-8/POL

The LZ-8/POL is a simple passive power supply distributor that provides power from one higher power unit to several devices. The distributor splits the input into 8 outputs; each of them is protected by polymer fuse and has indication of output voltage (the corresponding LED glows when the voltage is present at the output). If one of the outputs is overloaded, the resistance and the temperature of the polymer fuse will increase ($>100^{\circ}\text{C}$), and the corresponding LED indicator will not glow. Through the heat fuse flows very small current. After the end of overloading an output, the fuse itself returns to the previous state.

The device has jumpers, which allow to easy turn off a corresponding output. The LZ-8/POL has been equipped with two inputs for connecting the main power supplier. The inputs work in parallel, so there is no difference which of them is used, the DC 5.5/2.1 socket, or connecting block. This solution allows for linking the LZ-8/POL distributors in series - e.g. the main supplying to DC IN socket of the first item, and its input connecting block - via a two-core cable, e.g. WT-2.1 - to corresponding input of the second LZ-8/POL device.

Depending on current consumption there is a voltage drop on polymer fuses: 160mV dla $I=0,5\text{A}$; 300mV dla $I=0,7\text{A}$. During overloading the polymer fuse is heating up to the temperature $>100^{\circ}\text{C}$, so the device shouldn't be used at temperature conditions over 40°C .

It is ideal for connection with 5.5/2.1mm plugs and YAP75 cables, which are used in installations of cameras. A standard CCTV YAP75-0.59/3.7+2x0.5 cable has two wires 0.5mm² each. Theoretical resistance is $3.4\Omega/100\text{m}$. Manufacturer data is $5.5\Omega/100\text{m}$. In powering cameras with 12V DC over CCTV YAP75 cable and on the assumption that the voltage will fall to 11V, the power may be delivered over the distances showed in the table. These are the max. distances over which powering of 12V cameras over YAP-75-0,59/3,7+2x0,5 cable is possible.

Max. current	Max. distance at $R=3,4\Omega/100\text{m}$	Max. distance at $R=5,5\Omega/100\text{m}$
150mA camera	98 meters	
650mA camera + thermostat	22 meters	14 meters

SPECIFICATIONS:

Number of power outputs	8
Number of power inputs	2
Max. voltage	0-24V (usually 12V) DC
Max. total current	5,6A
Max. single output current	0,7A
Power inputs socket type	2.1/5.5mm socket / terminals
Power outputs socket type	terminals
Working temp. / relative humidity	from -40°C to $+40^{\circ}\text{C}$ / $<95\%$
Dimensions (WxHxD) / weight	120x91x37mm / 97g