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AKS-08

Network signals
separator



Do not dispose of this device in the trash along with other waste!

According to the Law on Waste, electro coming from households free of charge and can give any amount to up to that end point of collection, as well as to store the occasion of the purchase of new equipment (in accordance with the principle of old-for-new, regardless of brand). Electro thrown in the trash or abandoned in nature, pose a threat to the environment and human health.



Purpose

The AKS-08 analog separator is a device designed for conversion of analog control signal from one form to another with additional galvanic separation between the input and output signals and the power supply.

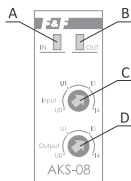
Features

- » Conversion of input analog signal to output analog signal ($\text{mA} \rightarrow \text{V}$, $\text{V} \rightarrow \text{mA}$, $\text{mA} \rightarrow \text{mA}$, $\text{V} \rightarrow \text{V}$);
- » High processing speed - ability of carrying signals up to 100 Hz;
- » Galvanic separation (min. 1 kV) between the input, output and power supply;
- » Visual validation of input and output signals.

Application

- » Protection of expensive automation elements (PLCs, inverters, regulators, etc.) from over-voltages that may appear on the signal wires.
- » Adjustment of analog signal levels to the capabilities of controllers or regulators, for example it is possible to connect a sensor with current output to a PLC equipped with voltage analog inputs only.
- » Increasing the range of analog transmission, for example the analogue voltage signal, which is very sensitive to interference, can be converted into a resistant current signal of 4÷20 mA. In such form it can be send for example, through the factory floor, and then returned to the form of a voltage signal with a second converter.

Description of the device



- A – input signal LED
- B – output signal LED
- C – input signal type selection
 - U0 – voltage 0÷10 V
 - U1 – voltage 1÷10 V
 - I0 – current 0÷20 mA
 - I4 – current 4÷20 mA
- D – output signal type selection
 - U0 – voltage 0÷10 V
 - U1 – voltage 1÷10 V
 - I0 – current 0÷20 mA
 - I4 – current 4÷20 mA

Description of terminals

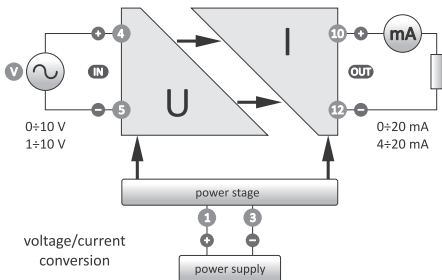
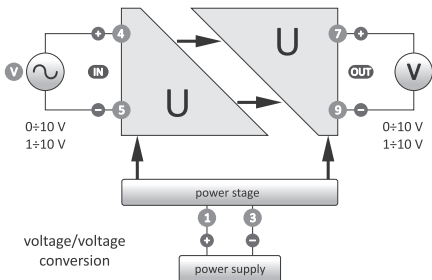


- 1, 3 – 24 V AC/DC power supply
- 4 – voltage signal input
- 5 – input signals ground
- 6 – current signal input
- 7 – voltage signal output (V+)
- 9 – voltage signal output (GND)
- 10 – current signal input (I+)
- 12 – current signal output (I-)

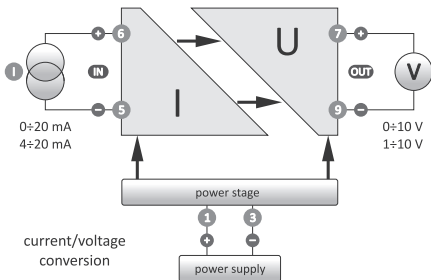
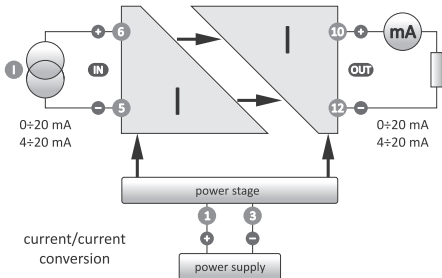
Mounting

1. Turn off the power supply.
2. Mount the device on a rail in the distribution box.
3. Connect the power wires according to the diagram.
4. Turn on the power supply.

Layouts of operation



Layouts of operation cont.



LED signalling

LEDs A and B indicate the status of the input and output signals.

Input LED A

on	correct input signal
flashes 0,8 s/0,2 s	input signal out of range
flashes 0,5 s/05 s	internal error (such as a loss of calibration parameters)

Output LED B

on	correct input signal
flashes 0,8 s/0,2 s	input signal out of range
flashes 0,5 s/05 s	internal error (such as a loss of calibration parameters)

Technical data

power supply	9÷24 V AC/DC
current consumption	max 200 mA @9 V DC (outputs closed)
power consumption	<2 W
voltage input	
voltage	0÷10 V
resistance	690 kΩ
maximum input voltage	40 V
current input	
current	0÷20 mA
resistance	150 Ω
maximum input current	40 mA
voltage output	
voltage	0÷10 V
output current	10 mA
current output	
current	0÷20 mA
voltage	21 V
load resistance	1 kΩ
separation between input and output	1 kV DC
separation between input and and power supply block	1 kV DC
separation between output and and power supply block	1 kV DC
working temperature	-25÷50°C
terminal	zaciski śrubowe 2,5 mm ²
tightening torque	0,4 Nm
dimensions	1 module (18 mm)
mounting	on TH-35 rail
ingress protection	IP20

Warranty

The F&F products are covered by a warranty of the 24 months from the date of purchase. Effective only with proof of purchase. Contact your dealer or directly with us.

CE declaration

F&F Filipowski sp. j. declares that the device is in conformity with the essential requirements of The Low Voltage Directive (LVD) 2014/35/EU and the Electromagnetic Compatibility (EMC) Directive 2014/30/UE. The CE Declaration of Conformity, along with the references to the standards in relation to which conformity is declared, can be found at www.fif.com.pl on the product page.