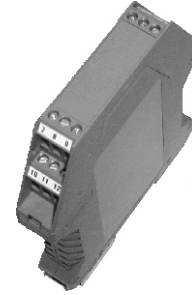


## ■ Frequency To Analog Converter Typ FA 9002

### Highlights

- Frequency to Current Conversion (0/4...20 mA)
- Selectable Input Voltage Levels
- Adjustable Frequency Divider
- Suitable for incremental encoders
- Low Power consumption
- High Reliability
- Compact housing



### General

The unit **FA 9002** is a frequency to analog converter for converting a frequency into a proportional output current of either 0 to 20 mA or 4 to 20 mA.

### Function

The input frequency is processed by a frequency divider, a microprocessor and a digital to analog converter. The value of frequency dividing (1-256) can be set by a 8-pin DIP switch. The output current is proportional to the input frequency.

### Isolated Digital Input Channel

There are 2 input channels available for the A and B channel of a incremental encoder.

- With the aid of jumpers the input threshold level can be chosen by the user. Input levels of 5, 12, or 24V are selectable.
- The max. input frequency is 50 kHz when using only one input channel otherwise 25 kHz.
- The source current for each input must be > 5mA.

### Isolated Output

The analog output channel is opto-isolated and the range of the output current can be selected by a jumper (0-20 mA or 4-20 mA) . The maximum output current is 21 mA and the maximum burden is 1 k .

### Microprocessor controlled

Because of the microprocessor-based signal processing it is relatively easy to build customized solutions; even signals with very slow frequencies (below 1 Hz) can be processed.

### Construction

The unit **FA 9002** is provided for DIN-rail mounting according to EN 50022.

### Power Supply

The unit is provided with an isolated power supply and deliverable for voltages of 5, 12, 24V or 48 VDC.

### Specifications

Input voltage level	: 5 V, 12 V, 24 V selectable
Input current per channel	: 5 mA source current
max. input frequency	: 50 kHz (single channel mode)
max. input frequency	: 25 kHz (two channel mode)
Analog output	: 0/4...20 mA, isolated
External impedance	: max. 1 k
Response time	: 200ms + period time
Ripple	: max. 20 A
Power supply	: isolated (500V)
Supply voltage	: see ordering information
Current consumption	: max. 40 mA (24 VDC)
CE	: 2014/30/EU, 2014/35/EU, 2011/65/EU+2015/863
Protection	: IP40
Mounting	: EN 50022
Operating temperature	: -5 to +55 °C
Dimensions	: 99 x 114,5 x 17,5

### Ordering Information

FA 9002-		
		<b>Analog Output (divider = 1)</b>
		0 500 Hz = 20 mA
		1 50 Hz = 20 mA
		2 5 Hz = 20 mA
		<b>Max. Input Frequency</b>
		0 50 kHz (A oder B), 25 kHz (A + B)
		1 Reserve
		2 Reserve
		<b>Power Supply</b>
		0 18...36V DC, (Standard)
		1 4,5...9V DC, (Option)
		2 9...18V DC, (Option)
		3 36...48V DC, (Option)

