■ FREQUENCY MULTIPLYING UNIT FM 9000

Highlights

- **Adjustable Factor 0 ... 0.999 / 9.99 / 99.9 / 999**
- **Start-Up inhibit - Alarm Output**
- **Selectable Input Voltages**
- **Selectable High or Lowside Output Switches**
- **Measuring Time --> One Or Ten Periods**
- **Different Suppy Voltages**
- **Low Power Consumption (Green Design!)**
- **High Reliability - Small Dimensions**

General

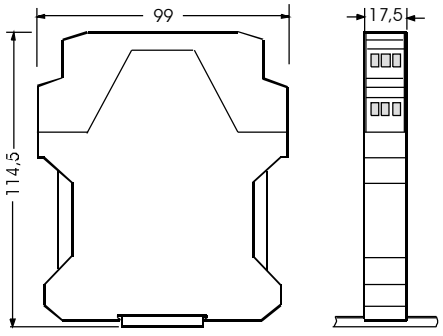
The model type **FM 9000** is used for converting an input frequency to a especially needed output frequency. The unit **FM 9000** is able to generate output frequencies higher than the applied input frequency. The conversion factor is adjustable by the user. The conversion time is selectable between one or ten periods. When used the conversion time needs only one period of the input frequency. The accuracy achieved depends on the product of the adjusted factor and input frequency applied. Accuracy is better than 0.1%, if the product of both is lower than 1000.
There are three input channels and two output channels. All channels are optically isolated from the internal cuircuitry. By this way disturbances by a noisy environment are avoided.

Input Channels

One channel serves as input for the applied input frequency. A second input channel is able to switch off the two output channels. This channel can be used as start-up inhibit. The third input channel has a hold function. If used, the output frequency will be constant, independently of the input frequency.
For correct technical applications voltage levels of the input channels are adjustable by the user.

Output Channels

There are two output channels. One output channel serves as frequency output. The second output channel is used to indicate, if the input frequency is to low.



The output channels are open-collector outputs and can be configurated by the user for high- or lowside configurations.

Power Supply

The standard unit will be delivered for a power supply voltage of 24V DC (18...36 V). The power supply input is isolated from all input and output channels.

Construction

The unit **FM 9000** is provided for DIN-rail mounting according to EN 50022.

Specifications

Isolated input channels	
Input voltage level	: 5V, 12V, 24V (opt. 48 VDC)
Tolerances of input level	: +/-20% of the nominal input
Input current per channel	: > 5 mA source current
Max.Input Frequency	: 500 Hz wo SL1 /5 kHz w SL1
Adjustable Factor	: by internal 16 DIP-Switches
Ranges	: 0...0.999,9.99/99.9/999
Output channels (opto-coupler)	:
Voltage/Current	: max. 30 V / 25 mA
Frequency	: max. 10 kHz
Output channels (solid-state-relay)	:
Voltage/Current	: max. 30 V / 0.5 A
Frequency	: max. 5 kHz
Adjustable TIME-OUT	
Ranges	: 100 / 10 / 1 / 0.1 seconds
Power supply voltage	: see ordering information
Current	: max. 50 mA (24 VDC)
Construction	
EMV	: According ENV 50121-3-2
Protection	: IP40
Mounting	: EN 50022
Operating temperature	: -5 to +55 °C
Dimensions	: 99 x 114,5 x 17,5

Ordering Information

FM 9000-			
			Special models
			0 opto-coupler
			1 solid-state-relay
		Input voltage levels	
		0 Standard	
		1 48 V	
	Power Supply avalilable		
	0 18 ... 36V DC, (Standard)		
	1 4,5 ... 9 V DC, (Option)		
	2 9 ... 18 V DC, (Option)		
	3 36 ... 48 V DC, (Option)		

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