

## Description

The frequency converter AD-FM 210 GS is adapted ex works for user-side sensors and delivered exactly calibrated for the application. He can supply an initiator or a contact. Default switching thresholds are set for active signals. The required data must be given when ordering the device. The input pulse train is converted into a proportional impressed analog signal. The output signal is independent of the connected load up to a maximum value.

## Application

The main area of application is flow measurement in water meters, other applications are energy consumption measurements, wind and speed measurements, etc. All common encoder types can be used: initiator according to NAMUR (DIN-EN 60947-5-6), 3-wire optical encoder, reed contacts, transistor outputs and other initiators .



## Specific characteristics

- Wide range power supply
- Factory signal adjustment
- Adjustment trimmer optional
- analog signal processing
- no software
- Status LEDs

## Business data

Catalog number AD-FM 210 GS

### Order details:

Signaling device	Type & Connection technology
Frequency	Range
Analog output signal	mA / V
Output signal	Range
Response time	Seconds

## Technical specifications

### Digital input

Input	NAMUR (EN 60947-5-6), reed contact, open-collector, 3-lead opto-transmitter or 24V active <sup>1)</sup>
Input frequency	min. 0 ... 500 Hz; max. 0 ... 20 kHz <sup>1)</sup>
Frequency generator supply	active: 8V / 8mA <sup>1)</sup>

### Output current

Output range	0 ... 20 mA <sup>1)</sup>
Max. burden	500 Ohm
Residual ripple	< 50 µAss

### Output voltage

Output range	0 ... 10 V <sup>1)</sup>
Min. burden	500 Ohm
Residual ripple	< 20 µVss

<sup>1)</sup>Specify in plain text when ordering.

### Accuracy

Unit	< 0,3%
Temperature influence	< 100 ppm / K
Response time	~ 200 ms

### Supply

Voltage range AC	50 ... 253 V AC, 50/60 Hz
Nominal voltage AC	230 V AC
Voltage range DC	20 ... 253 V DC
Nominal voltage DC	24 V DC
Power consumption AC / DC	2,5 VA / 1,2 W

### Housing

Dimensions (WxHxD)	23 x 78 x 103 mm <sup>3</sup>
Type of protection	IP 20
Connection method	screw clamp
Terminals, wire cross section	2,5 mm <sup>2</sup> flex wire / 4 mm <sup>2</sup> one wire
Bolting torque terminals	0,5 Nm
Weight	~ 200 g
Manner of fastening	35 mm DIN rail 35mm

### Environmental conditions

Ambient temperature	-10 ... 50 °C
Storage and transport	-10 ... 70 °C (no condensation)

### EMC

Product family standard <sup>2)</sup>	EN 61326
Emitted interference	EN 55011, CISPR11 Cl. B
	In a critical EMC environment, shielded encoder cables are recommended.

<sup>2)</sup> During electromagnetic disturbance minor changes in output signal are possible.

### Electrical safety requirements

Product family standard	EN 61010-1
Overvoltage category	II
Pollution degree	2

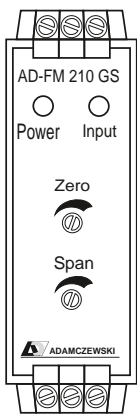
### Galvanic isolation, test voltages

Input/output	2 kV RMS (1 min.)
Signal/auxiliary voltage	3 kV RMS (1 min.)

# Frequency Converter

AD-FM 210 GS

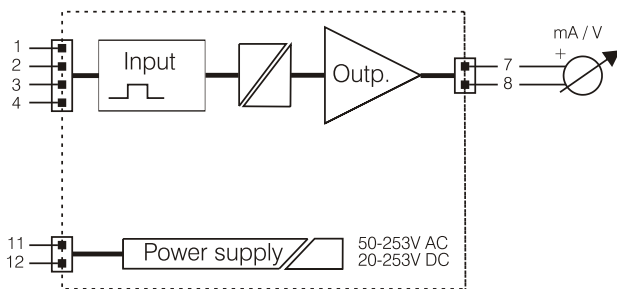
## Display and operating elements



Front

Designation	Meaning
Power	LED green, Power supply
Input	LED red, Input signal
Zero	Trimmer 0 %-Value
Span	Trimmer 100 %-Value

## Block and wiring diagram



## Dimensions

