

Wideband frequency and pulse transducer

- measurement frequency of input voltage
- universal power supply 19 – 300V DC a 90 – 250V AC
- isolation input-output-power supply: 4000Vef
- input signal in the range 20-120% of rated input
- conversion accuracy 0,2%
- compact design
- designed for DIN 35 rail mounting



The transmitter converts the frequency of the measured voltage input signal to a unipolar voltage or current signal. The input signal is regulated by voltage divider and digitized. Measured is the length of the period between zero-crossing signal. The input signals are digitized and from them is calculated frequency of the input voltage. Information is transferred through the isolation optocoupler to the output circuit. The output signal is proportional to the measured frequency. The current signal can be lead to a greater distance even with higher levels of interference. Input and output circuit is protected against overload.

If the lower limit of the specified frequency range is not zero, in the absence of sufficient input signal or when the input frequencies below the specified frequency range, the output signal will be at 3,6mA for output range 4-20 mA eventually zero for ranges started from zero. ACM-F transducer processes signal in two modes. In the lower frequency range measured by the length of the period, the higher frequency counts in the time period 164ms.

Electrical specifications:

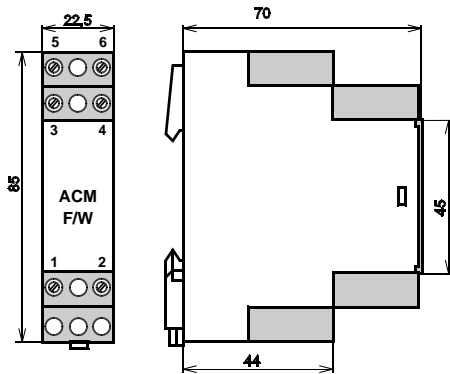
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|--------------------------------------|--|
| - operating temperature range: | -25 ... +70°C |
| - storage temperature range: | -40 ... +80°C |
| - supply voltage: | universal 19 – 300V DC and 90 – 250V AC, to order 20 – 60V AC |
| - consumption: | max. 1,2VA |
| - protection: | resettable thermal cut-out in primary circuit |
| - rated input: | between 4 ... 500V AC |
| - measuring range of input signal: | 20 ... 120% of rated input, min. 5Vpp or 2,5V impuls |
| - input current | 0,5mA |
| - input overload capacity voltage | 2 Un – 1s |
| - measuring range: | 0 – 10kHz (min. frequency 0,01Hz)
0 – 120kHz (min. frequency 6Hz) |
| - standard measuring range: | 45..55Hz, 48..52Hz, 55..65Hz, 58..62Hz, 0,1..10kHz, 0..5kHz, other on request |
| - output: | 4-20mA, 0-20mA, 0-10V, other after agreement |
| - output limit: | about 125% of rated output |
| - maximum burden of current loop: | 15V / Iout (ohm) |
| - maximum current of voltage output: | max. 10mA |
| - transmission: | linear |
| - maximum transmission error: | <0,2% |
| - temperature induced error: | <0,01%/°C |
| - test voltage: | 400Vrms |
| - response time | range 0..10kHz: 200ms after 1 period of input signal
range 0..120kHz: < 300ms |
| - weight: | 100g |
| - protection housing: | IP40 |
| - protection terminal board | IP10 |
| - pollution degree: | 2 |
| - installation category: | III |

Type test:

- | | |
|------------------|-----------------------------------|
| Basic type test: | in compliance with ČSN EN 60688 |
| EMC: | in compliance with ČSN EN 61326-1 |
| Safety: | in compliance with ČSN EN 61010-1 |

Connection terminals:

The terminals accept conductors up to 4 mm². We recommend using a cable with a core cross section of 0.5 mm². In noisy environments, use shielded cable.



Terminals:

ACM-F/W:

- 1,2 ... input signal (when input is unipolar impuls, 2 is +)
- 3,4 ... output signal (4 is +)
- 5,6 ... auxiliary power supply without polarity

Ordering instructions:

Your order should include:

- transducer type
- rated input voltage
- measuring range of frequency
- input signal characteristic (one polarity, TTL, bipolar)
- output range
- other requirements (other power supply...)
- quantity (No. of pieces)



Likvidaci po ukončení životnosti provést odděleným sběrem.
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