

### Line frequency transducers

- measurement frequency of AC grid
- universal power supply 19 – 300V DC a 90 – 250V AC
- variant B loop powered
- 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.

In the absence of 20-120% of rated input signal, the output signal is about 3.6 mA, respectively. 1.8 V (in the case of non-zero output range). If the output range starts from zero, the output signal is zero.

The transducer can be also used for distorted input signals.

#### Electrical specifications:

- |                                      |   |
|--------------------------------------|---|
| - 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 |
| variant B                            | 12..30V DC loop powered                                       |
| - consumption:                       | max. 1,2VA  |
| - protection:                        | resettable thermal cut-out in primary circuit                 |
| - rated input:                       | between 50 ... 500V AC  |
| - measuring range of input signal:   | 0 ... 120% of rated input                                     |
| - standard measuring range:          | 45..55Hz, 48..52Hz, 55..65Hz, 58..62Hz                        |
| - impedance voltage input:           | 1,5MΩ   |
| - input overload capacity voltage    | 2 Un – 1s   |
| - 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:                      | 4000Vrms  |
| - response time:                     | 300ms   |
| - weight:                            | 100g  |
| - protection housing:                | IP40  |
| - protection terminal board          | IP20  |
| - pollution degree:                  | 2   |
| - installation category:             | III   |

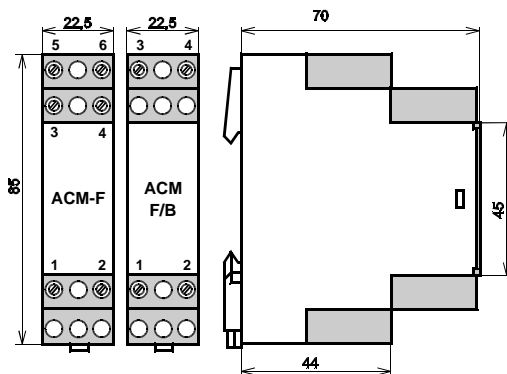
#### Type test:

- |                  |                                   |
|------------------|-----------------------------------|
| 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 mm<sup>2</sup>. We recommend using a cable with a core cross section of 0.5 mm<sup>2</sup>. In noisy environments, use shielded cable.

#### Dimensional drawing:



#### Terminals:

##### ACM-F:

- 1,2 ... input of the line voltage
- 3,4 ... output signal (4 is +)
- 5,6 ... auxiliary power supply without polarity

##### ACM-F/B:

- 1,2 ... input of the line voltage
- 3,4 ... output signal power loop 4-20mA (4 is +)

#### Ordering instructions:

Your order should include:

- transducer type
- rated input voltage
- measuring range of frequency
- output range
- other requirements ( other power supply...)
- quantity ( No. of pieces )



Likvidaci po ukončení životnosti provést odděleným sběrem.  
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