

ACM-U, ACM-I, ACM-U/B, ACM-I/B

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Voltage and current transducers

- true RMS current or voltage measurement
- universal power supply 19 – 300V DC a 90 – 250V AC
- variant B loop powered
- frequency range 40 ... 1000Hz
- isolation input-output-power supply: 4000Vef
- measuring range 0-120% of rated input
- conversion accuracy 0,2%
- compact design
- designed for DIN 35 rail mounting



Transducers ACM-U, ACM-I converts true RMS value of AC voltage or current to the unipolar voltage or current output signal. The input of the transducer is a current transformer or voltage divider. The input signals are digitized and from them is calculated the true RMS value of the input signal. Information is transferred through the isolation optocoupler to the output circuit. The output signal is proportional to the input true RMS value. The current signal can be lead to a greater distance even with higher levels of interference. Input and output circuit is protected against overload.

The converter is suitable for processing heavily distorted waveform input signal. It can be used even if they are in control systems frequency converters or other non-linear elements. Standard processes signals with a crest factor of less than 4.5. When measuring signals with a crest factor greater than 4.5 should be proportionally the nominal input range reduced. When measuring line voltage, we recommend ordering the converter with increased nominal input range a little bit above the value of the network tolerance (approximately 10%).

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: | 1A, 2,5A, 5A AC |
| | 50 ... 500V AC |
| - standard measuring range: | 0 ... 100% of rated input |
| - maximum measuring range: | 0 ... 120% of rated input |
| - nominal frequency: | 50Hz (60Hz) |
| - impedance voltage input: | 1,5MΩ |
| - consumption current input: | 0,015VA |
| - input overload capacity | 2 U _{jm} – 1s |
| voltage | 2 I _{jm} – 1min., 20 I _{jm} – 1s |
| current | 4-20mA, 0-20mA, 0-10V, other after agreement |
| - output: | about 125% of rated output |
| - output limit: | 15V / I _{out} (ohm) |
| - maximum burden of current loop: | max. 10mA |
| - maximum current of voltage output: | linear |
| - transmission: | <0,2% with crest factor < 4,5 |
| - maximum transmission error: | <0,01%/°C |
| - temperature induced error: | 4000Vrms |
| - test voltage: | 300ms |
| - response time: | 100g |
| - weight: | IP40 |
| - protection housing: | IP10 |
| - protection terminal board: | 2 |
| - pollution degree: | III |
| - installation category: | |

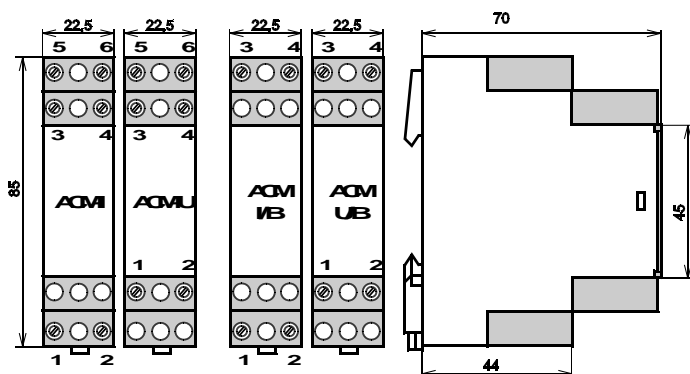
Type test:

- | | |
|------------------|-----------------------------------|
| 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.

Dimensional drawing:



Terminals:

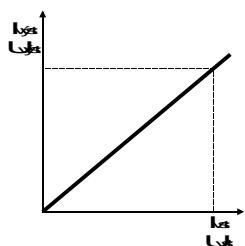
ACM-I:
 1,2 ... input current
 3,4 ... output signal (4 is +)
 5,6 ... auxiliary power supply without polarity

ACM-U:
 1,2 ... input voltage
 3,4 ... output signal (4 is +)
 5,6 ... auxiliary power supply without polarity

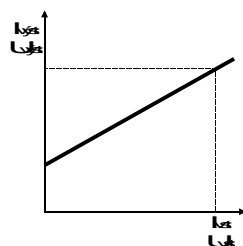
ACM-I/B:
 1,2 ... input current je + napájení)
 3,4 ... output loop powered 4-20mA (4 is +)

ACM-U/B:
 1,2 ... input voltage
 3,4 ... output loop powered 4-20mA (4 is +)

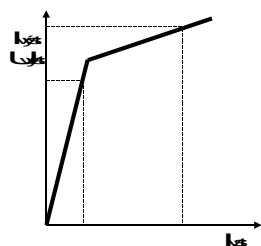
Conversion characteristics and examples of the range of input and output:



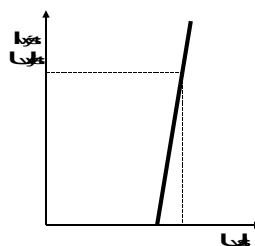
Input: 0..5A
 0..250V
 Output: 0..20mA
 0..10V



Input: 0..5A
 0..250V
 Output: 4..20mA
 2..10V



Input: 0..1..5A
 Output: 0..16..20mA
 4..16,8..20mA
 0..8..10V
 2..8,4..10V



Input: 180..280V
 Output: 0..20mA
 4..20mA
 0..10V
 2..10V

Ordering instructions:

Your order should include:

- transducer type
- rated input voltage or current
- output range
- other requirements (other power supply, refracted characteristics, other nominal frequency...)
- quantity (No. of pieces)



Likvidaci po ukončení životnosti provést odděleným sběrem.
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