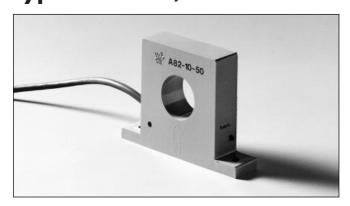
Current and Voltage Controls AC Current Transformer Types A 82-10, A 82-20





• 5 types of input: 0 - 25 AAC 0 - 50 AAC

0 - 100 AAC

0 - 250 AAC 0 - 500 AAC

• Output: A 82-10: 0 - 20 mADC (source)

A 82-20: 4 - 20 mADC (sink)

• Easy interface to PLC or setpoint relays

Product Description

AC current metering transformer for 25, 50, 100, 250 or 500 AAC. Output current from the transformer is 0-20 mADC or 4-20 mADC in accordance with IEC 381. Can

be used with relay EID, EII or S183 or directly connected to a PLC. Power supply ON is indicated by a green LED on the side of the housing.

Ordering	Key	A 82-10 50
	,,	A 02 10 30

Type	
туре —	
Output —	
Output ———	
Input current ——	

Type Selection

Input current	Output current	Type no.
25 AAC	0 - 20 mA	A 82-10 25
50 AAC	0 - 20 mA	A 82-10 50
100 AAC	0 - 20 mA	A 82-10 100
250 AAC	0 - 20 mA	A 82-10 250
500 AAC	0 - 20 mA	A 82-10 500
25 AAC	4 - 20 mA	A 82-20 25
50 AAC	4 - 20 mA	A 82-20 50
100 AAC	4 - 20 mA	A 82-20 100
250 AAC	4 - 20 mA	A 82-20 250
500 AAC	4 - 20 mA	A 82-20 500

Input Specifications

	A 82-10/20 25	A 82-10/20 50	A 82-10/20 100	A 82-10/20 250	A 82-10/20 500
Current range	0 - 25 AAC	0 - 50 AAC	0 - 100 AAC	0 - 250 AAC	0 - 500 AAC
Max. current (continuously)	30 AAC	60 AAC	120 AAC	300 AAC	600 AAC
Max. overload current (t = 30 s)	250 AAC	300 AAC	700 AAC	1500 AAC	3000 AAC
Rated insulation voltage Input - output	1000 VAC _{rms}				
Overvoltage category (IEC 60664)	IV	IV	IV	IV	IV
Pollution degree (IEC 60664)	3	3	3	3	3
Dielectric strength Dielectric voltage Rated impulse withstand volt.	6 kVAC _{rms} 12 kV (1.2/50 µs)	6 kVAC _{rms} 12 kV (1.2/50 µs)	6 kVAC _{rms} 12 kV (1.2/50 μs)	6 kVAC _{rms} 12 kV (1.2/50 μs)	6 kVAC _{rms} 12 kV (1.2/50 μs)



Output Specifications

		A 82-10/20 25	
Output current		10: 0 - 20 mADC 20: 4 - 20 mADC	
Power supply (loop voltage)		10 - 40 VDC	
Tolerance of ou	tput current		
@ 50 Hz	A 82-10	±2% ±0.08 mA	
	A 82-20	± 2%	
Temperature variation		±400 ppm/°C	
Frequency range		40 Hz -1 kHz	
Frequency variation		10 ppm/Hz	
Maximum output current		35 mADC	

General Specifications

EMC Immunity	Electromagnetic Compatibility Acc. to EN50082-1 (tolerance of output current: ± 2%) Acc. to EN50082-2 (tolerance of output current: ± 5%)
Emission	Acc. to EN50081-1
Environment	
Degree of protection	IP 20
Pollution degree	3
Operating temperature	-20° to 50°C (-4° to +122 °F)
Reaction time	τ < 100 ms
	worst case reaction time may be up to 5 x τ
Power ON delay	<1s
Connection cable	A 82-10 2 m, 3 x 0.25 mm ²
	A 82-20 2 m, 2 x 0.25 mm ²
Rated insulation voltage (cable)	250 VAC _{rms}
Indication for	
Power supply ON	LED, green
Weight	A 82-10 300 g
•	A 82-20 270 g
Material/colour	ABS, light grey

Mode of Operation

A 82-10, A 82-20 are current metering transformers with standard source/sink output 0 - 20 mA/4 - 20 mA. This makes it very useful as an AC current interface to a PLC with mADC input.

Used with relay EID, EIL or S 183 one or more setpoints can monitor the current and signal alarm. S 183 also provides the DC voltage supply for the A 82-10, A 82-20.

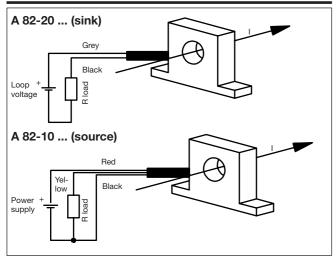
The metered conductor is drawn through the central hole of the current metering transformer. It is possible to meter currents below the nominal range by drawing the conductor through the hole several times. If the conductor is drawn through the central hole

e.g. 5 times, the transformer will register 50 A when the current in the conductor is 10 A.

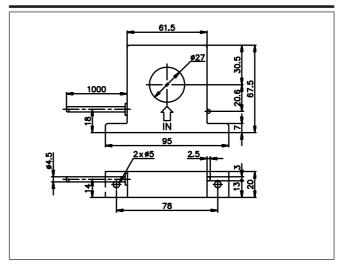
A 82-10 has factory-set gain (span) adjustment, whereas A 82-20 has zero as well as gain (span) adjustment, both factory-set.

Note: Do not change the set values.

Wiring Diagrams



Dimensions

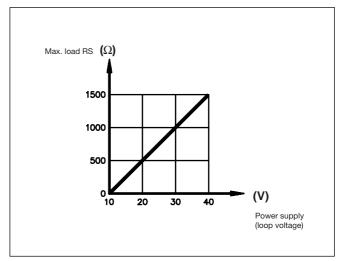




Input/Output Curve

Output (mADC) 20 16 12 8 4 100 Input (% of range)

Resistance/Voltage Curve



Max. load resistance versus loop voltage Max. load RS. Power supply (loop voltage)