## Monitoring Relays AC Current Transformer Type E 83-20-50





• 7 input ranges in one unit: 0 - 5 AAC

0 - 10 AAC

0 - 10 AAC 0 - 15 AAC

0 - 20 AAC

0 - 25 AAC

0 - 30 AAC

0 - 50 AAC

• Output 4-20 mADC

Easy interface to PLC or setpoint relays

 For mounting on DIN-rail in accordance with DIN/EN 50 022

• 22.5 mm small Euronorm housing

#### **Product Description**

Small AC current metering transformer with 7 knob selectable ranges. Output from the transformer is 4-20 mADC in accordance with IEC 60381-1. Can be used with relays DIB01, PIB01, DIC01 or PIC01 or directly connected to a PLC.

Power supply ON is indicated by a green LED.

12 mm hole for isolated current carrying wire makes it suitable for most applications. For mounting on DINrail or directly on surface by screws.

#### **Ordering Key**

E 83-20 50

**Type Selection** 

Input current	Output current	Switch position	Type no.
0- 5 AAC	4 - 20 mA		E83-20 50
0-10 AAC	4 - 20 mA	10	E83-20 50
0-15 AAC	4 - 20 mA	15	E83-20 50
0-20 AAC	4 - 20 mA	20	E83-20 50
0-25 AAC	4 - 20 mA	25	E83-20 50
0-30 AAC	4 - 20 mA	30	E83-20 50
0-50 AAC	4 - 20 mA	50	E83-20 50

### **Input Specifications**

Current range	0 - 5 AAC	0 - 10 AAC	0 - 15 AAC	0 - 20 AAC
Max. current (continuously)	100 AAC	100 AAC	100 AAC	100 AAC
Max. overload current (t = 30 s)	300 AAC	300 AAC	300 AAC	300 AAC
Overvoltage category	III (IEC 60664)	III (IEC 60664)	III (IEC 60664)	III (IEC 60664)
Frequency range	40 Hz - 1 kHz			
Current range	0 25 440	0 30 440	0 50 000	

Current range	0 - 25 AAC	0 - 30 AAC	0 - 50 AAC
Max. current (continuously)	100 AAC	100 AAC	100 AAC
Max. overload current (t = 30 s)	300 AAC	300 AAC	300 AAC
Overvoltage category	III (IEC 60664)	III (IEC 60664)	III (IEC 60664)
Frequency range	40 Hz - 1 kHz	40 Hz - 1 kHz	40 Hz - 1 kHz



#### **Output Specifications**

Output current (sink)	4-20 mADC	
Maximum output current	30 mADC	
Tolerance of output current @ 50 Hz	± 2%	
Temperature variation	± 400 ppm/°C	
Frequency variation	10 ppm/Hz	
Power supply (loop voltage)	10-40 VDC	

#### **General Specifications**

Power ON delay	<2s			
Reaction time	T < 200 ms			
Indication for				
Power supply ON	LED, green			
Environment				
Degree of protection	IP 20			
Pollution degree	3			
Operating temperature	-20° to +50°C (-4° to +122°F)			
Housing				
Dimensions	22.5 x 56 x 49 mm			
Material	ABS			
Weight	70 g			
Approval	UL			
CE Marking	Yes			
EMC	Electromagnetic Compatibility			
Immunity	According to EN 61000-6-1			
-	(tolerance of output current:			
	± 2%)			
	According to EN 61000-6-2			
	(tolerance of output current:			
	± 5%)			
Emission	According to EN 61000-6-3			

#### **Mode of Operation**

The E 83-20 is a small AC current metering transformer with standardized 4-20 mADC output. This makes it very useful as an AC current interface to a PLC with 4-20 mADC input.

Used with relays DIB01, PIB01, DIC01 or PIC01, one

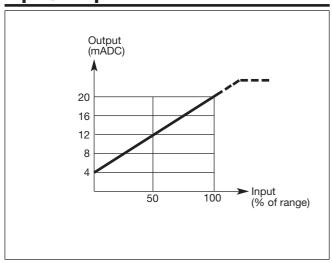
or more setpoints can monitor the current and signal alarm.

In the 5 A range the E 83-20 is often used as a 4-20 mADC signal converter for larger standard AC current transformers with 5 AAC secondary output.

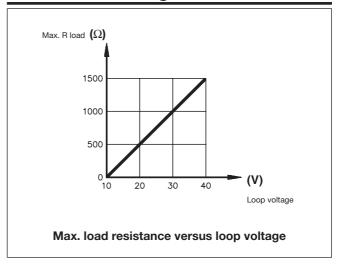
The metered conductor is drawn through the central hole of the current metering transformer. It is possible to measure currents below the nominal range by drawing the conductor through the hole several times. If the conductor is drawn through

the central hole e.g. 5 times, the transformer will register 5 AAC when the current in the conductor is 1 AAC.

#### **Input/Output Curve**

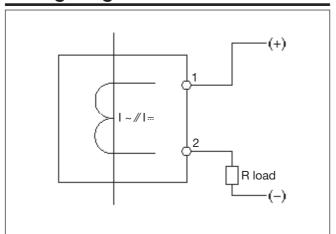


#### **Resistance/Voltage Curve**





# **Wiring Diagram**



# **Dimensions**

