TM200

Timer

Programma®

A Megger Group Company

TM200

Timer

A timer is often needed for use with the CSU600A current supply unit or ODEN A primary current injection test system. Testing relays with SVERKER 650 also requires an extra timer if more than one timing cycle is to be measured.

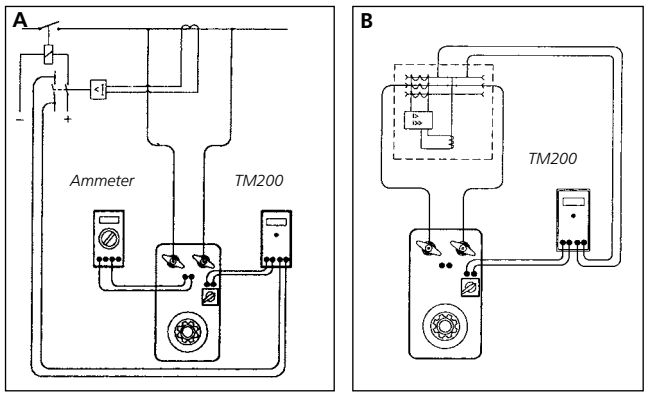
Timer TM200 is ideal for these tasks thanks to its precise accuracy, its broad application range and its compact dimensions. Timer TM200 is the obvious choice for maintenance work in substations.

Application example

IMPORTANT
Read the User's manual before using the instrument.

Primary test of protective relay equipment and low-voltage circuit breaker

1. Connect the CSU600A's current outputs across the current transformer (diagram a) or to the breaker terminals (diagram b).
2. Connect Timer TM200's start input to output T and the stop input to the protective relay equipment's auxiliary contact.
3. Set the current.
4. Execute the test.
5. Read the time from Timer TM200.



Specifications TM200

Specifications are valid at nominal input voltage and an ambient temperature of +25°C, (77°F). Specifications are subject to change without notice.

Environment	
Application field	The instrument is intended for use in medium-voltage substations and industrial environments. Altitude <2000 m (6500 ft) above sea level.
Temperature	
Operating	0°C to +50°C (32°F to +122°F)
Storage & transport	-20°C to +70°C (-4°F to +158°F)
Humidity	5% – 95% RH, non-condensing
CE-marking	
LVD	Low Voltage Directive 73/23/ EEC am. by 93/68/EEC
EMC	EMC Directive 89/336/EEC am. by 91/263/EEC, 92/31/EEC and 93/68/EEC
General	
Mains voltage	115/230 V AC (switchable), 50/60 Hz
Power consumption (max)	20 VA
Dimensions	
Instrument, excl. handle	194 x 115 x 49 mm (7.7" x 4.5" x 1.9")
Instrument, incl. handle	252 x 132 x 49 mm (9.9" x 5.2" x 1.9")
Weight	1.0 kg (2.2 lbs) 2.7 kg (6 lbs) with accessories and carrying case
Test lead set, with touch-proof contacts	4 x 2 m (6.6 ft), 2.5 mm²

Measurement section	
Range	0-999.999 s
Resolution	1 ms
Inaccuracy	±0.02% + 1 digit of displayed value
Timer inputs	
Max input voltage	250 V AC/DC

Voltage mode

Parameter	*Min*	*Max*	*Unit*
Threshold level, Positive at red terminal	8	20	V DC
Threshold level, Negative at red terminal	-20	-8	V DC
Input current at threshold level Positive at red terminal	0.7	2.0	mA DC
Input current at threshold level Positive at black terminal	4	12	mA DC
Threshold level, low to high, 50 Hz	5	15	V AC_{RMS}
Threshold level, high to low, 50 Hz	15	45	V AC_{RMS}

Contact mode

Parameter	*Min*	*Max*	*Unit*
Closed contact detection	0	1	kΩ
Open contact detection	4	-	kΩ
Open circuit voltage	17	20	V DC
Short circuit current	8	13	mA DC

Input current at maximum input voltage, inrush

Parameter	*Max*	*Unit*
At 250 V DC, Positive at red terminal	8	mA DC
At 250 V DC, Positive at black terminal	150	mA DC
At 250 V AC	80	mA DC

Input current at maximum input voltage, continuous

Parameter	*Max*	*Unit*
At 250 V DC, Positive at red terminal	8	mA DC
At 250 V DC, Positive at black terminal	12	mA DC
At 250 V AC	15	mA DC

Ordering information

	Art.No.
TM200	
Complete with: Test lead set GA-00082 Carrying case GD-00230	**BE-29090**

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Subject to change without notice. Art. No. ZI-BE04E Doc. BE0061CE

2008