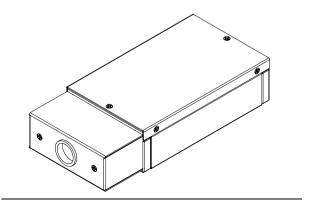


Current Sensor IT-E190 Series User's Manual



Model: IT-E190-6A/IT-E190-15A/ IT-E190-25A/IT-E190-40A/ IT-E190-60A

Version: V1.0



Notices

© Itech Electronics, Co., Ltd. 2016
No part of this manual may be
reproduced in any form or by any means
(including electronic storage and
retrieval or translation into a foreign
language) without prior permission and
written consent from Itech Electronics,
Co., Ltd. as governed by international
copyright laws.

Manual Part Number

IT-E190-402230

Revision

1st Edition: June 22, 2015

Itech Electronics, Co., Ltd.

Trademarks

Pentium is U.S. registered trademarks of Intel Corporation.

Microsoft, Visual Studio, Windows and MS Windows are registered trademarks of Microsoft Corporation in the United States and/or other countries and regions.

Warranty

The materials contained in this document are provided "as is", and is subject to change, without prior notice, in future editions. Further, to the maximum extent permitted by applicable laws. ITECH disclaims all warrants, either express or implied, with regard to this manual and any information contained herein, including but not limited to the implied warranties of merchantability and fitness for a particular purpose. ITECH shall not be held liable for errors or for incidental or indirect damages in connection with the furnishing, use or application of this document or of any information contained herein. Should ITECH and the user enter into a separate written agreement with warranty terms covering the materials in this document that conflict with these terms, the warranty terms in the separate agreement shall prevail.

Technology Licenses

The hardware and/or software described herein are furnished under a license and may be used or copied only in accordance with the terms of such license.

Restricted Rights Legend

U.S. Government Restricted Rights. Software and technical data rights granted to the federal government include only those rights customarily provided to end user customers. ITECH provides this customary commercial license in software and technical data pursuant to FAR 12.211 (Technical Data) and 12.212 (Computer Software) and, for the Department of Defense, DFARS 252.227-7015 (Technical Data -Commercial Items) and DFARS 227.7202-3 (Rights in Commercial Computer Software or Computer Software Documentation).

Safety Notices

CAUTION

A CAUTION sign denotes a hazard. It calls attention to an operating procedure or practice that, if not correctly performed or adhered to, could result in damage to the product or loss of important data. Do not proceed beyond a CAUTION sign until the indicated conditions are fully understood and met.

WARNING

A WARNING sign denotes a hazard. It calls attention to an operating procedure or practice that, if not correctly performed or adhered to, could result in personal injury or death. Do not proceed beyond a WARNING sign until the indicated conditions are fully understood and met.



NOTE

A NOTE sign denotes important hint. It calls attention to tips or supplementary information that is essential for users to refer to.



Content

I	About IT-E190	4
II	Dimension	4
\coprod	IT-E190 Appearance Introduction	5
	(1). Introduction of front panel	5
	(2). Introduction of rear panel	5
IV	IT-E190 Function Introduction	6
	(1). Introduction of Front Panel Terminals	6
	(2). Connecting Current Sensor	7



I About IT-E190

IT-E190 Series current sensor is an optional accessory provided by ITECH, which is mainly used for expanding the current measurement scope of ITS9500 power supply test system and IT9121 power meter. Features:

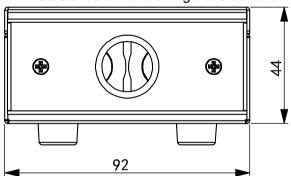
- small size, large measurement scope
- non-contact measurement

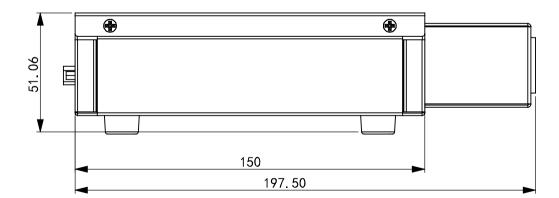
IT-E190 Series Model Selection Table:

Model	Conversion ratio (Current)	Conversion ratio (Voltage)
IT-E190-6A	1.0419mA/A	104.2mV/A
IT-E190-15A	0.416mA/A	41.67mV/A
IT-E190-25A	0.25mA/A	25mV/A
IT-E190-40A	0.125mA/A	12.5mV/A
IT-E190-60A	0.13333mA/A	13.333mV/A

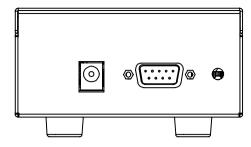
II Dimension

IT-E190 Series dimension figure is as follows:





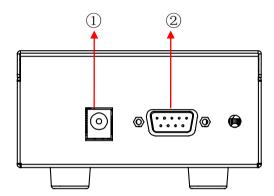




Unit: mm

Ⅲ IT-E190 Appearance Introduction

(1). Introduction of front panel



- 1. Input interface of power supply
- 2. DB9 terminal

(2). Introduction of rear panel

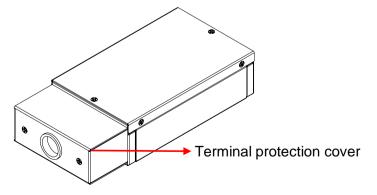
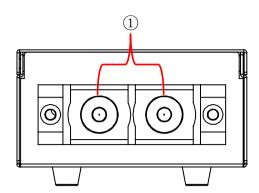


Diagram of rear panel (when terminal protection cover is removed) is shown below:

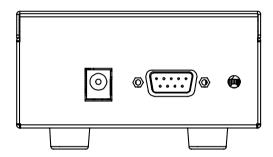




Input terminal, for inputting current.
 Pay attention to polarity during test. Reverse connection may cause negative value.

IV IT-E190 Function Introduction

(1). Introduction of Front Panel Terminals



Input Interface of Power Supply

External power supply may be available if power meter is provided. Power supply is individually supplied in package. Power supply specification is as follows:

Input voltage: 220VAC;

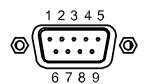
Output voltage range: DC5V-DC9V;

Output current: 1.2A (MAX);

Output polarity: Internal + (Positive) External - (Negative).

DB9 Terminal

DB9 terminal is defined as follows:



Base pin number	Description
1	+12V
2	GND, grounding
3	-12V



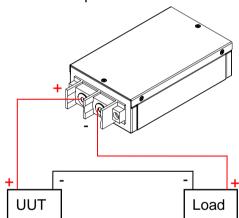
4	Signal ground
5	Voltage signal output
6	No conjunction
7	Current signal output
8	No conjunction
9	No conjunction

If ITS9500 test system is used, terminals 1, 2 and 3 are power supply terminals, which are used in system power supply; when a power meter is used, the above terminals are not required for power supply.

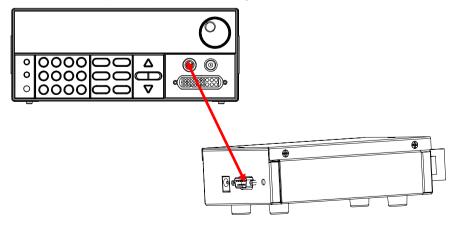
(2). Connecting Current Sensor

Connecting ITS9500 Test System

1. When terminal protection cover at the IT-E190 rear panel is removed, connect the input terminal to the test circuit in series.



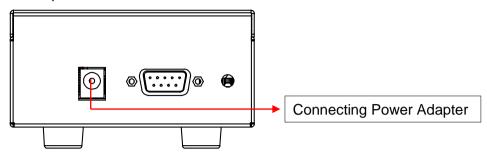
2. Connect the IT-E190 DB9 terminals to the current measurement terminal at the IT9501 front panel (I-Sense) through standard test lines.



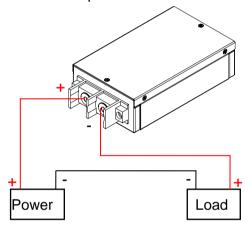


Connecting IT9121 Power Meter

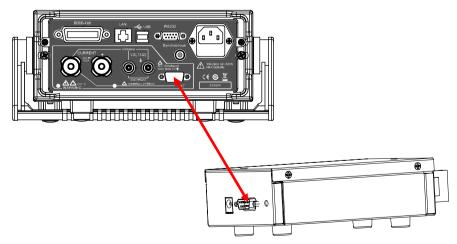
1. To connect working power supply, insert the standard power line to the power input terminal. Connection method as follows:



2. When terminal protection cover at the IT-E190 rear panel is removed, connect the input terminal to the test circuit in series.



3. Connect the IT-E190 DB9 terminal to the external sensor input interface of the power meter through DB9 extension.





For interface instructions of the current sensor of power meter, refer to IT9121 Installation Instructions.





Contact US

Thank you for purchasing ITECH products. If you have any doubt about this product, please contact us as follow.

- 1. Please refer to the CD-ROM of related user's manual in package.
- 2. Click <u>www.itechate.com</u> or scan the right two-dimension code to visit the ITECH website.
- 3. Send E-mail to fae@itech.sh or dial the service hot-line in China: 4006025000.
- 4. Select the most convenient contact method for further consultancy.