

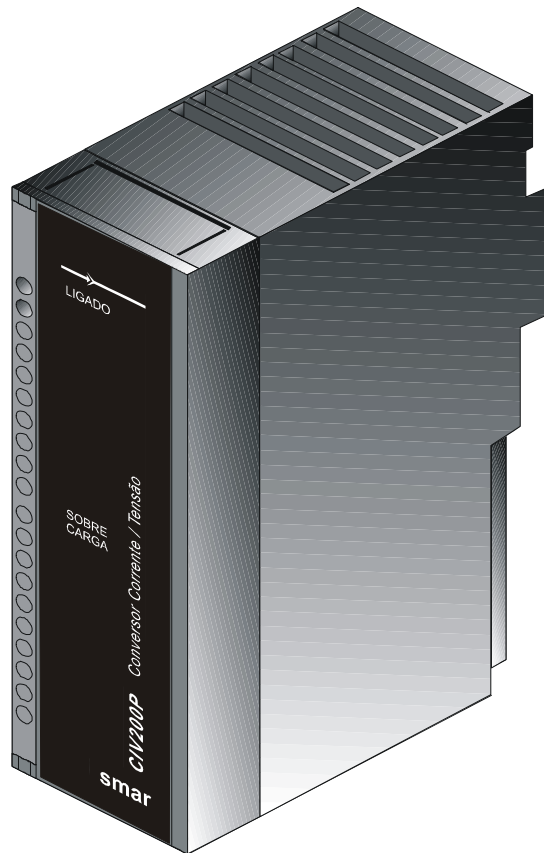
smar  
FIRST IN FIELD BUS

CIV200P

DEC / 03  
CIV200P

INSTALLATION MANUAL

## CURRENT / VOLTAGE CONVERTER



CIV200PME

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# Chapter 1

## Functional Description

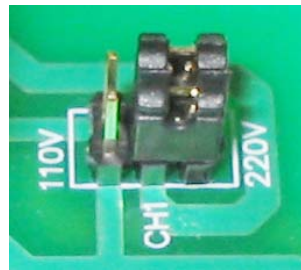
The **CIV200P** is a current/voltage converter, non-insulated. It converts a 4-20 mA current into a voltage output, which range is determined by an internal jumper selection. An adjustable resistor can be used as input, in manual mode, to generate the voltage output.

### Technical Characteristics

#### Electrical Characteristics

##### Power Supply

The **CIV200P** Power supply is configurable. Can be 110 / 220 Vac selectable by an internal board jumper. (See Figure 1.1).



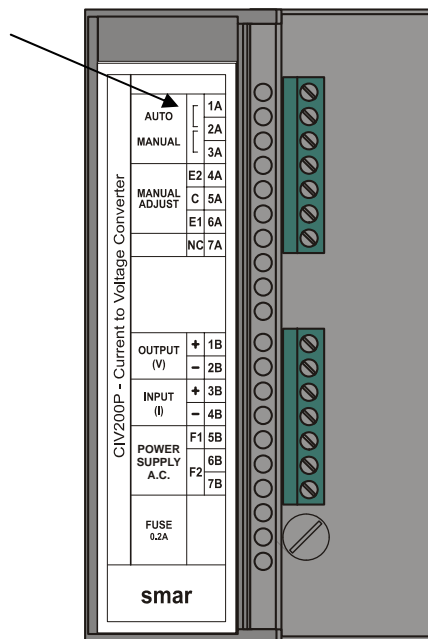
**Figure 1.1 – Power Supply Configuration Jumper**

The maximum power consumption (maximum current) is 150 mA.

##### Input

The input can be selected by AUTO / MANUAL mode.

The AUTO / MANUAL mode selection is done by an external jumper. (See Figure 1.2).

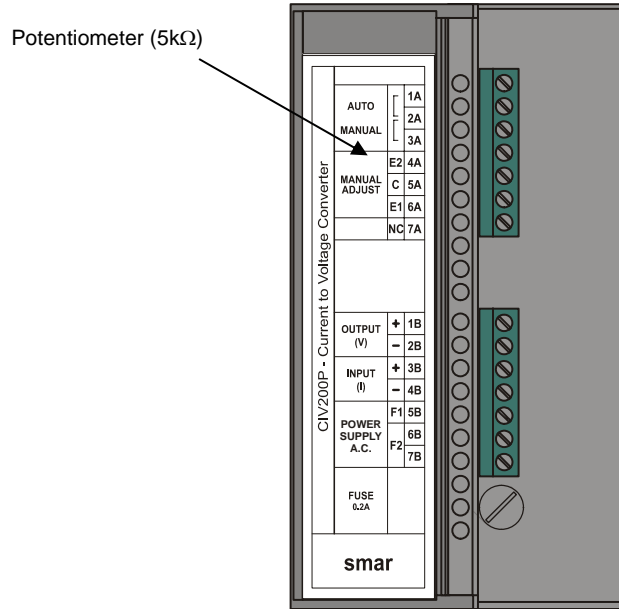


**Figure 1.2 - AUTO / MANUAL Mode Selection**

If the **CIV200P** is used in Automatic mode, it can generate an output ranging from 4 to 20 mA.

Operating in Manual mode, the input value is configurable by a **5 kΩ** adjustable resistor (potentiometer), connected to the terminals.

The potentiometer has to be connected as showed below. (See Figure 1.3).

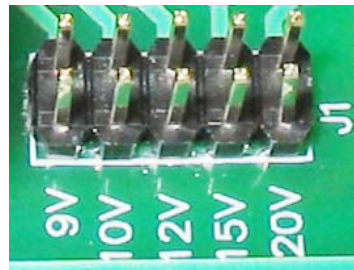


**Figure 1.3 – MANUAL Adjustment**

**Output**

The **CIV200P** output can be selected via “jump”. (See Figure 1.4). The following output configurations are possible:

- 0-9 Vcc
- 0-10 Vcc
- 0-12 Vcc
- 0-15 Vcc
- 0-20 Vcc



**Figure 1.4 – Output Selection Jumpers**

In special case, **CIV200P** can work without voltage output option. This case is valid when the converter is used as an Automatic / Manual station. Specifically, in this case, the configuration jumpers inside the module have no functionality and the converter must be configured in factory according to the client specification.

The precision offered by **CIV200P** is 0.25% of span.

**Environmental conditions**

Operation environmental conditions: 0 °C to 50 °C

**Security characteristics**

**CIV200P** presents some security mechanisms. **CIV200P** has a 0.2A protection fuse at power supply input.

There are two indicative leds. The first led (green light) is indicator of module activation (power-on). The second one (red light), overload indicator. (See Figure 1.5).

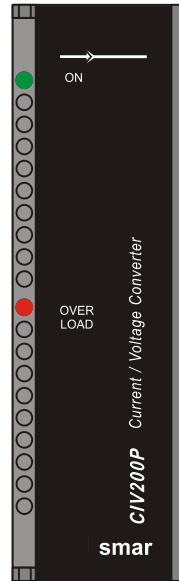


Figure 1.5 – Indicative Leds

**Dimensional Drawing**

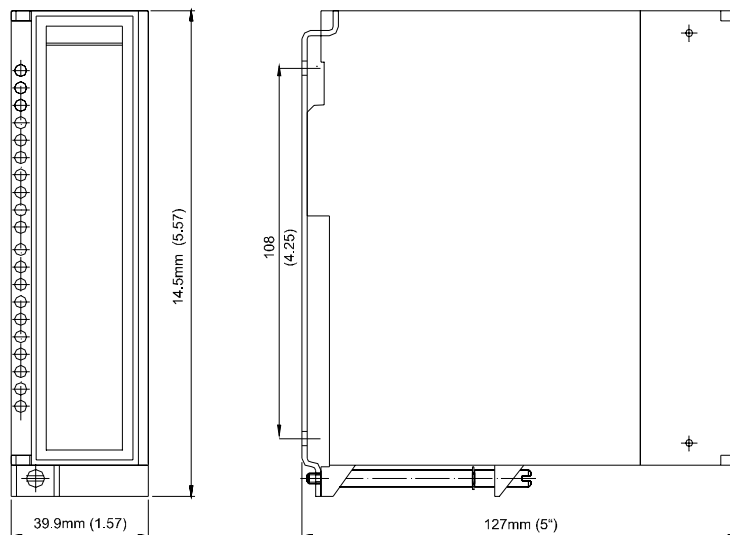



Figure 1.6 – Dimensional Drawing

Dimensions are in mm (in).



# Appendix A

	SRF – Service Request Form	
	CIV200P	Proposal N°:
<b>COMPANY INFORMATION</b>		
Company: _____		
Unit/Department: _____		
Invoice: _____		
<b>COMMERCIAL CONTACT</b>		
Full Name: _____		
Phone: _____		Fax: _____
Email: _____		
<b>TECHNICAL CONTACT</b>		
Full Name: _____		
Phone: _____		Extension: _____
Email: _____		
<b>EQUIPMENT DATA</b>		
Model: _____		
Serial Number: _____		
<b>PROCESS DATA</b>		
Process Type: _____		
Operation Time: _____		
Failure Date: _____		
<b>FAILURE DESCRIPTION</b>		
(Please, describe the observed behavior, if it is repetitive, how it reproduces, etc.)		
_____		
_____		
_____		
_____		
<b>OBSERVATIONS</b>		
_____		
_____		
_____		
<b>USER INFORMATION</b>		
Company: _____		
Contact: _____		
Title: _____		
Section: _____		
Phone: _____		Extension: _____
E-mail: _____	Date: ____/____/____	
For warranty or non-warranty repair, please contact your representative. Further information about address and contacts can be found on <a href="http://www.smar.com/contactus.asp">www.smar.com/contactus.asp</a> .		





# SMAR WARRANTY CERTIFICATE

1. SMAR guarantees its products for a period of 24 (twenty four) months, starting on the day of issuance of the invoice. The guarantee is valid regardless of the day that the product was installed.
2. SMAR products are guaranteed against any defect originating from manufacturing, mounting, whether of a material or manpower nature, provided that the technical analysis reveals the existence of a quality failure liable to be classified under the meaning of the word, duly verified by the technical team within the warranty terms.
3. Exceptions are proven cases of inappropriate use, wrong handling or lack of basic maintenance compliant to the equipment manual provisions. SMAR does not guarantee any defect or damage caused by an uncontrolled situation, including but not limited to negligence, user imprudence or negligence, natural forces, wars or civil unrest, accidents, inadequate transportation or packaging due to the user's responsibility, defects caused by fire, theft or stray shipment, improper electric voltage or power source connection, electric surges, violations, modifications not described on the instructions manual, and/or if the serial number was altered or removed, substitution of parts, adjustments or repairs carried out by non-authorized personnel; inappropriate product use and/or application that cause corrosion, risks or deformation on the product, damages on parts or components, inadequate cleaning with incompatible chemical products, solvent and abrasive products incompatible with construction materials, chemical or electrolytic influences, parts and components susceptible to decay from regular use, use of equipment beyond operational limits (temperature, humidity, etc.) according to the instructions manual. In addition, this Warranty Certificate excludes expenses with transportation, freight, insurance, all of which are the customer's responsibility.
4. For warranty or non-warranty repair, please contact your representative.

Further information about address and contacts can be found on [www.smar.com/contactus.asp](http://www.smar.com/contactus.asp)

5. In cases needing technical assistance at the customer's facilities during the warranty period, the hours effectively worked will not be billed, although SMAR shall be reimbursed from the service technician's transportation, meals and lodging expenses, as well dismounting/mounting costs, if any.
6. The repair and/or substitution of defective parts do not extend, under any circumstance, the original warranty term, unless this extension is granted and communicated in writing by SMAR.
7. No Collaborator, Representative or any third party has the right, on SMAR's behalf, to grant warranty or assume some responsibility for SMAR products. If any warranty would be granted or assumed without SMAR's written consent, it will be declared void beforehand.
8. Cases of Extended Warranty acquisition must be negotiated with and documented by SMAR.
9. If necessary to return the equipment or product for repair or analysis, contact us.  
See item 4.
10. In cases of repair or analysis, the customer must fill out the Revision Requisition Form (FSR) included in the instructions manual, which contains details on the failure observed on the field, the circumstances it occurred, in addition to information on the installation site and process conditions. Equipments and products excluded from the warranty clauses must be approved by the client prior to the service execution.
11. In cases of repairs, the client shall be responsible for the proper product packaging and SMAR will not cover any damage occurred in shipment.

12. Responsibility: Except for the above-mentioned general warranty conditions for SMAR products, SMAR will not assume any responsibility before the customer, without limitation, for damages, consequences, indemnity claims, loss of earnings, service expenses and other costs caused by the non-observation of the installation, operation and maintenance instructions included in SMAR manuals. Furthermore, the buyer also agrees to exempt the supplier for indemnity of damages (with exception to costs for repairs or the reposition of defective products above described) directly or indirectly caused by inadequate tests, application, operation or repair of SMAR products.
13. It is the customer’s responsibility to clean and decontaminate products and accessories prior to shipping them for repair, and SMAR and its dealer reserve themselves the right to refuse the service in cases not compliant to those conditions. It is the customer’s responsibility to tell SMAR and its dealer when the product was utilized in applications that contaminate the equipment with harmful products during its handling and repair. Any other damages, consequences, indemnity claims, expenses and other costs caused by the lack of decontamination will be attributed to the client. Kindly, fill out the Declaration of Decontamination prior to shipping products to SMAR or its dealers, which can be accessed at [www.smar.com/doc/declarationofcontamination.pdf](http://www.smar.com/doc/declarationofcontamination.pdf) and include in the packaging.
14. This warranty certificate is valid only when accompanying the purchase invoice.