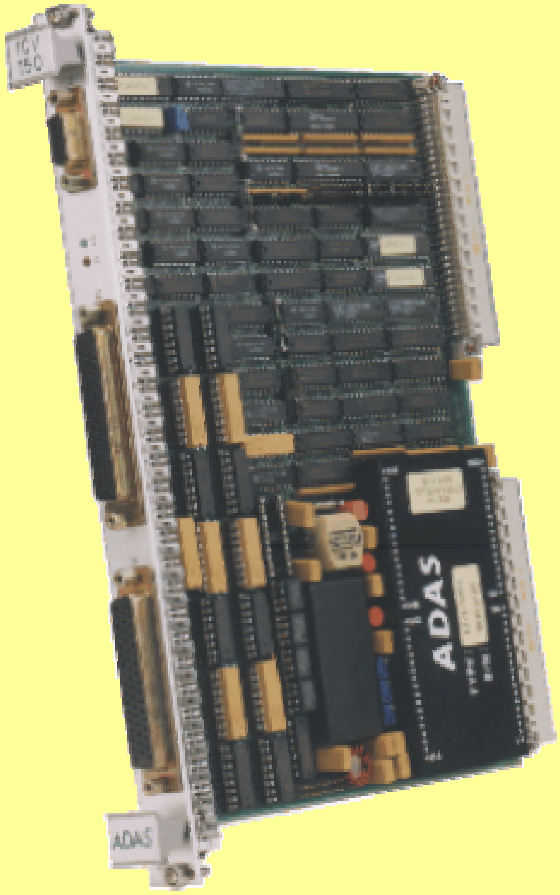
# 12/14/16-BIT ANALOG ACQ. BOARD

# ICV 150

## Features

- ☑ New acquisition design
  *Nouvelle conception de l'acquisition*
- ☑ 32 diff. resident inputs
  *32 entrées diff. résidentes*
- ☑ Ext. to 128 inputs by coupler boards
  *Extension à 128 entrées par cartes coupleurs*
- ☑ Dual access RAM with auto. refresh
  *RAM double accès à rafraîchissement auto.*
- ☑ Choice of 12/14/16-bit converters
  *Choix possible de convertisseurs 12, 14 et 16 bits*
- ☑ Software progr. gains in 2n, 1 to 8
  *Gains progr. par logiciel en 2n, 1 à 8*
- ☑ High acq. rate up to 200,000 acq./s
  *Vitesse d'acq. élevée ---> 200.000 mesures/s*
- ☑ Possible galvanic isolat. from the system
  *Isol. galvanique possible vis-à-vis du système*
- ☑ Analog power supply on board
  *Alimentations analogiques sur la carte*
- ☑ External triggers possible
  *Déclenchements externes possibles*
- ☑ Gains in NOVRAMS with readback
  *Gains en NOVRAMS avec relecture*
- ☑ VME-ANSI/IEEE 1014 standard




## Description

Developed for ease of analog acquisition, the **ICV 150** is fully automatic, and is seen from the system as a simple RAM board.

In automatic scanning mode, the measurements are available to the user at any time.

In "trigger" mode, the measurements can be triggered at a specific time by software or by an external signal.

**ICV 150** can be used to advantage in:
- Industrial process control ;
- Acquisition of all analog parameters ;
- Automatic test equipment ;
- Real time systems.

Addition of coupler boards enables a chain of up to 128 measuring channels to be obtained of which the **ICV 150** is the volt metering part.

*Développée pour faciliter l'acquisition analogique, l'**ICV 150** est entièrement automatique, elle est vue du système comme une simple carte RAM.*

*Dans le mode "scanning" automatique, les mesures sont disponibles à tout moment pour l'utilisateur.*

*Dans le mode "trigger", les mesures peuvent être déclenchées à un instant précis par logiciel ou par un signal externe.*
***L'ICV 150** trouve son intérêt dans :*
*- Le contrôle de process industriels ;*
*- L'acquisition de tous paramètres analogiques ;*
*- Les bancs de tests automatiques ;*
*- Les systèmes temps réel.*

*L'adjonction de cartes coupleurs permet d'obtenir une chaîne jusqu'à 128 voies dont **l'ICV 150** est la partie voltmétrique.*

9, rue Georges Besse - 78330 FONTENAY LE FLEURY - FRANCE -
tél:(33) 1 30 58 90 09 fax:(33) 1 30 58 21 33 http://www.adas.fr

# ICV 150

## SPECIFICATIONS (t = 25°C)

| | |
|---|---|
| **TYPE** | ANALOG INPUTS |
| **INPUTS** | |
| - Number of channels | 32 differential<br>Extension up to 128 differential by "coupler" cards **ICV 110 and ICV 117** |
| - Input level | ± 10V FS G = 1 ZIN ≥ 2MΩ / 10pF |
| - Protection | ± 35V powered-on / ± 15V powered-off |
| - Current loop | Closing by 250Ω resistance (optional) |
| **ACQUISITION PRINCIPLE** | Automatic scanning of the number of channels chosen from channel 0 up to 128 channels<br>Double access RAM<br>Gain codes in NOVRAMS with readback |
| **OPERATING MODES** | |
| - Automatic | Automatic refresh at maximum rate of the module OR |
| - Trigger | "SOFT" trigger or "external TRIGGER" for single scan. |
| **GAIN CODES** | Gains programmable in $2^n$ from 1 to 8 according to model |
| **RATE / ACCURACY / RESOLUTION** | See converter module table |
| **GALVANIC ISOLATION (isolated option)** | Channels and analog part isolated from the computer by photocouplers |
| **VME INTERFACE** | VME-ANSI/IEEE 1014 standard - A24 / D16 ; AM 39H, 3DH<br>Vectored interrupt at end of array in "single scan" mode |
| - Transfers | 16 bits only |
| **POWER SUPPLY** | |
| - Voltage | 5V / 2A |
| **PRESENTATION** | |
| - Format | VME double EUROPE / 4 Te |
| - Dimensions in mm | 233.35 x 160 |
| - Front panel connectors | 2 plugs "D" type 50-pins + 1 plug "D" type 9-pins |
| **ENVIRONMENT** | |
| - Operating temperature | 0°C to + 60°C |
| - Storage temperature | - 10°C to + 70°C |
| - Relative humidity | 90 % (without condensation) |

## HOW TO ORDER?

Refer to the next page
**ICV 150/***-++/+/+++-x**

**OTHER PRODUCTS**

Coupler boards *(cartes coupleurs)* **ICV 110, ICV 117**

| **ACCESSORIES** | |
|---|---|
| - Terminal blocks | STB554, STB558, STB582, BCI 148, BCI184. |
| - Cables | WR205, WR228 |

## HOW TO ORDER?

**ICV 150 / *** - ++ / + / +++ - x**

| VERSIONS |
|---|
| **D** = Differential |
| **DU** = Differential Unipolar |
| 12 BITS only : |
| **BC** = Current loop |
| **BCU** = Current loop Unipolar |

| DATA ACQUISITION SYSTEMS | | | | | |
|---|---|---|---|---|---|
| **MODULE** | **RESOLUTION** | **SPGA (1)** | **RATE Acq./s** | **ACCURACY (2) ± % FS** | **Number of channels max.** |
| DAS 12/1/056 | 12 bits | G = 1 | 200,000 | 0.05 | 128 |
| DAS 12/4/106-I | 12 bits | G = 1 to 8 in 2n | 100,000 | 0.05 | 128 |
| DAS 12/4/206-I | 12 bits | G = 1 to 8 in 2n | 50,000 | 0.03 | 128 |
| DAS 14/4/256-I | 14 bits | G = 1 to 8 in 2n | 40,000 | 0.016 | 128 |
| DAS 16/4/336-I | 16 bits | G = 1 to 8 in 2n | 30,000 | 0.008 | 128 |

| OPTION |
|---|
| I = Galvanic isolation |
| (Versions below) |

**(1)** SPGA: Software programmable gain amplifier
**(2)** Σ GAIN + OFFSET

E.g.: **ICV 150/DU-12/4/206-I For other versions of this board, please consult us.**

Note: ± 10.24V input available on request