

# PI CA40-ADC

## INSTRUCTIONS MANUAL



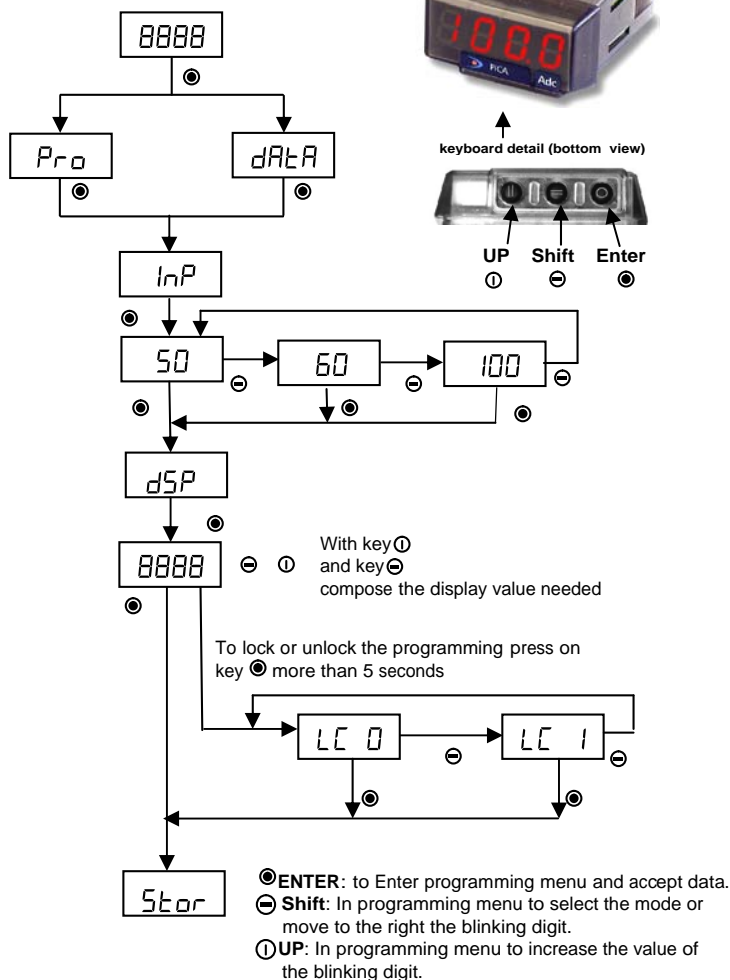
### DESCRIPTION

Indicator for dc measurements using external shunt

**48 x 24 mm front panel**  
**Length 40 mm**

- designed for a **specific** nautical field application: measurement of batteries charge-discharge current
- Current measurement using a shunt **connected to the battery negative terminal**.
- Type of SHUNT selected is programmable (50/ 60/ 100 mV)
- Programmable scale in the range  $\pm 199.9$  or  $\pm 1999$  A
- Display starts to blink when exceeding the 25 % of the scale in the case of discharge indication.
- 3 keys Keyboard located below the display.

### PROGRAMMING



**InP:** Programming of shunt type used. 50 mV, 60 mV or 100 mV  
**dSP:** Programming of shunt nominal value. Example: with a 100 A / 60 mV shunt display is programmed to display 100 and automatically when the value is accepted the displayed value will turn to be 100.0. When a display value < 200 is programmed the value will be with a decimal and when a display value > 200 is programmed the value will be without.  
**LC 0:** indicates that Programming is unlocked, you can enter programming menu with **Pro**  
**LC 1:** Programming is locked (Starts with **Data**, programmed values can be seen but not be changed)

### WARRANTY

All products are warranted against defective material and workmanship for a period of three years from date of delivery.

If a product appears to have a defect or fails during the normal use within the warranty period, please contact the distributor from whom you purchased the product.

This warranty does not apply to defects resulting from action of the buyer such as mishandling or improper interfacing.

The liability under this warranty shall extend only to the repair of the instrument; no responsibility is assumed by the manufacturer for any damage which may result from its use.

### TECHNICAL CHARACTERISTICS

#### VOLTAGE INPUT

Range .....  $\pm 100$  mV  
Internal resolution ..... 10  $\mu$ V

#### INPUT IMPEDANCE

mV ..... 100 k  $\Omega$

#### ACCURACY at 23°C $\pm 5^\circ$ C

Max error .....  $\pm (0.2\% \text{ of reading} + 3 \text{ digits})$   
Temperature coefficient ..... 100 ppm/  $^\circ$ C  
Warm up ..... 5 minutes

#### POWER SUPPLY

Range ..... 8 to 32 V dc  
Fuse recommended (not supplied) ..... F 0.5 A

#### CONSUMPTION

8 to 30 V dc .....  $\leq 25$  mA

#### CONVERSION

Technical ..... Single Slope  
Resolution ..... 14 bits  
Reading rate ..... 166/ s

#### DISPLAY

Range .....  $\pm 199.9 / \pm 1999$   
Resolution scale  $\pm 199.9$  A ..... 0.1 A  
Resolution scale  $\pm 1999$  A ..... 1 A  
Type ..... 4 red digits 10 mm  
Decimal point for scale values .....  $< \pm 200$  A  
Reading rate presentation ..... 2/s  
Blinking display for current discharge .....  $> 25\%$  Scale  
Blinking rate display ON/ OFF ..... 800 ms/ 200 ms  
Overflow indication .....  $\pm \text{OUE}$

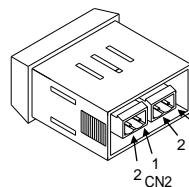
#### ENVIRONMENTAL

Operating temperature .....  $-10^\circ\text{C} \div +60^\circ\text{C}$   
Storage temperature .....  $-25^\circ\text{C} \div +85^\circ\text{C}$   
Relative humidity (non condensed) .....  $< 95\% \div 40^\circ\text{C}$   
Maximum altitude ..... 2000 m.  
Panel sealing ..... IP65

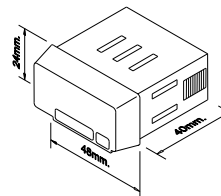
### INSTALLATION AND CONNECTION

#### DIMENSIONS

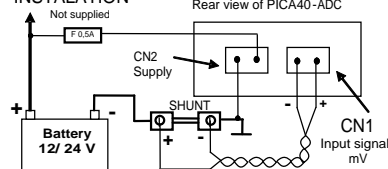
Dimensions ..... 1/32 DIN 48 x 24 x 40 mm.  
Panel Cutout ..... 45 x 22 mm.  
Weight ..... 50 g.  
Case material ..... Polycarbonate s/ UL 94 V-0



CN1	INPUT SIGNAL
PIN 1	+ mV (Shunt)
PIN 2	- mV (Shunt)
CN2	POWER SUPPLY
PIN 1	+ Battery (8 to 32 V dc)
PIN 2	- Battery



#### INSTALLATION



#### WARNING

In order to guarantee electromagnetic compatibility, the following guidelines for cable wiring must be followed:

Use shielded cable for signal wiring and connect the shield to ground.  
The cable section must be  $\geq 0.25$  mm<sup>2</sup>

**CLEANING:** The frontal cover should be cleaned only with a soft cloth soaked in neutral soap product.

#### DO NOT USE SOLVENTS

Manufacturer: DITEL - Diseños y Tecnología S.A.  
Address: P.I. Les Guixeres C/ Xarol, 8C 08915 BADALONA SPAIN  
Declares, that the product:  
Description: Digital panel meter  
Model: **PICA40-ADC**

Conforms with the directives:

EMC 89/336/CEE  
LVD 73/23/CEE

**EN 61000-6-2**  
EN 61000-4-2

Generic immunity  
Electrostatic discharge  
Air discharge 8kV  
Contact discharge 4kV

EN 61000-4-3

Electromagnetic fields RF  
10V/m

EN 61000-4-4

Fast transients  
Power supply Lines 2 kV  
Signal Lines 1 kV

EN 61000-4-5

Surge  
Power supply Lines  $\pm 0.5$  kV  
Signal lines  $\pm 1$  kV

EN 61000-4-6

RF conducted interferences  
10 V rms

**EN 61000-6-3**

Generic emission  
EN 55022/ CISPR22

**EN 61010-1**

General safety  
Installation category II  
Enclosure: Double

Date: 10-07-2006

Signed: José M. Edo

Function: Technical Manager



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