

INSTRUCTIONS MANUAL

Valid for F2.00 version or higher.

DESCRIPTION

48x24mm frontal panel instrument fully programmable by keyboard for measuring **lineal** or in **r.p.m speed** and **signal frequency**.



Display range from 0 up to 9999 with programmable decimal point. Controlled by three keys situated on the bottom of the frontal display.

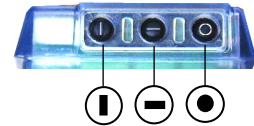
Accepts most standard sensors connection: Magnetic sensor, Namur, PNP, NPN and also contact switch.

Measuring frequency range from 0.01Hz to 9999Hz (for 10-600V AC input, as well).

Tachometer mode (tAC) entering the number of pulses per revolution or Rate mode (rAtE) defining 'input frequency/display' ratio (in desired engineering units).

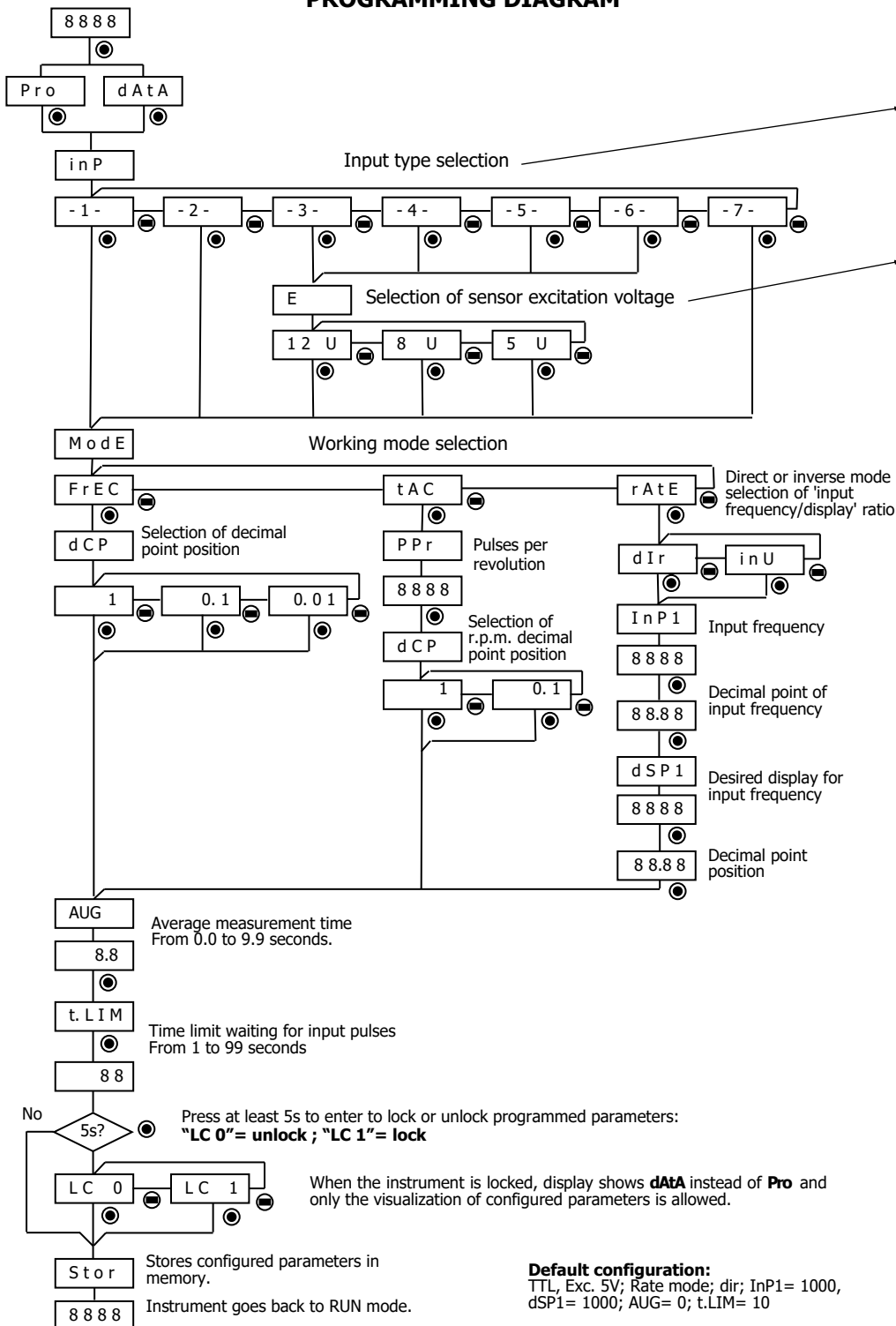
KEYBOARD

(Bottom view)



- ENTER:** Enters configuration and validates data and parameters.
- SHIFT:** Selects mode or shifts blinking digit in configuration.
- UP:** Increases value of blinking digit in configuration mode.

PROGRAMMING DIAGRAM



INPUT TYPE

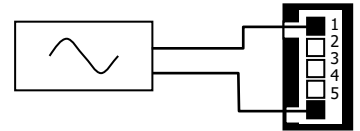
1	10-600 V
2	Magnetic sensor
3	NAMUR
4	PNP
5	NPN
6	TTL / 24V DC / Encoder
7	Contact switch

EXCITATIONS

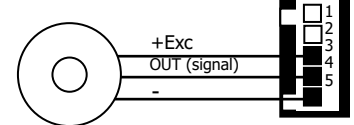
5V	TTL
8V	Namur
12V	Sensor or Encoders

INPUT WIRING DIAGRAMS

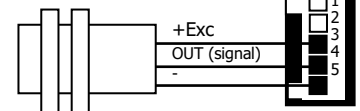
10-600 V AC input



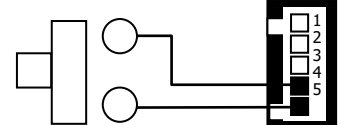
TTL/24V/Encoder input



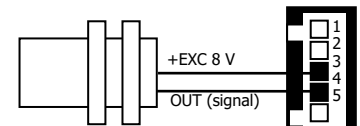
NPN or PNP sensor



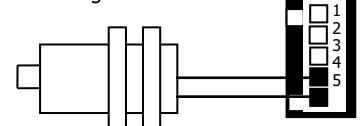
Contact switch



Namur sensor



Magnetic sensor



TECHNICAL SPECIFICATIONS

SIGNAL INPUT:

Maximum frequency (tachometer rpm or rate modes) 7kHz
 Maximum frequency (frequency meter mode) 9999Hz
 Minimum frequency 0.01Hz

High input AC voltage

Range 10V AC to 600V AC

Magnetic sensor

Sensitivity $V_{in \text{ min.}} \geq 30\text{mV}$ for $f \leq 120\text{Hz}$
 $V_{in \text{ min.}} \geq 100\text{mV}$ for $f \geq 1\text{kHz}$

Namur sensor

R_C 1.5k Ω
 I_{ON} < 1mA DC
 I_{OFF} > 3mA DC

NPN/PNP sensors

R_C 3.9k Ω (NPN) ; 1.5k Ω (PNP)
 Logic level "0" < 2.4V DC
 Logic level "1" > 2.6V DC

TTL/24V encoder

Logic level "0" < 2.4V DC
 Logic level "1" > 2.6V DC

Contact switch

V_C 5V (internal)
 R_C 3.9k Ω

ACCURACY at 23°C ±5°C

Maximum error $\pm(0.01\%L+1\text{digit})$
 Temperature coefficient 50 ppm/°C
 Warm-up time 5 minutes

POWER SUPPLY and FUSES (DIN 41661, not included)

PICA-F: . 85-265V AC 50/60 Hz and 100-300V DC F 0.1A/ 250V

PICA-F6: .. 21-53V AC 50/60Hz and 10.5-70V DC F 0.5A/ 250V

Consumption (both models) 2.2W

Stabilized excitations (both models): By keyboard

5V@60mA ; 8V@60mA and 12V@60mA

DISPLAY

Range 0 to 9999
 Type 4 red digits, 10mm
 Display refresh rate 10/s
 Display / input overrange indication "OUE"

FILTER (contact switch)

Cutoff frequency (Fc) 20Hz

ENVIRONMENTAL CONDITIONS

Working temperature -10°C ÷ +60°C
 Storage temperature -25°C ÷ +85°C
 Relative humidity (non-condensing) <95% @ 40°C
 Maximum altitude 2000m
 Frontal protection degree IP65

INSTALLATION AND CONNECTIONS

DIMENSIONS

Dimensions 48x24x70mm
 Panel cutout 45x22mm
 Weight 60g
 Case material Polycarbonate s/ UL 94 V-0

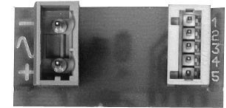


Keyboard location

Phase (AC) / Negative (DC) -
 Neutral (AC) / Positive (DC) +

Power supply

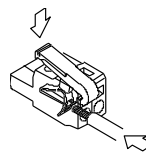
Input



Rear view

1: + IN (10-600V) AC
 2: N.C.
 3: + Excitation
 4: + IN (pulses)
 5: - IN (common)

KEY TOOLS FOR CABLE INSERTION



To perform wiring connections, strip de cable leaving from 7 to 10mm exposed to air, insert it in the terminal while pushing the key insertion tool.



WARNING

To guarantee electromagnetic compatibility, the following guidelines should be kept in mind:

Power supply wires should be separatedly routed from signal wires and **never runned** in the same conduit.

Use shielded cable for signal wiring.

Cables section should be $\geq 0.25\text{mm}^2$

INSTALLATION

To meet the requirements of EN 61010-1 standard, where the unit is permanently connected to main supply, its is obligatory to install a circuit breaking device easy reachable to the operator and clearly marked as the disconnecting device.

In the same way, a protective external fuse against overcurrents must be installed.



CE Conformity.

To obtain the declaration of conformity corresponding to this model enter our website www.ditel.es, where this document and other information of interest can be downloaded freely.



According to 2012/19/EU Directive, You cannot dispose of it at the end of its lifetime as unsorted municipal waste. You can give it back, without any cost, to the place where it was acquired to proceed to its controlled treatment and recycling.



MAINTENANCE

Instrument repairs should only be carried out by the manufacturer or by its authorized partners. For frontal device cleaning, just wipe it with a damp cloth and neutral soap product. **DO NOT USE SOLVENTS!**

WARRANTY

All products are warranted against defective material and workmanship for a period of 3 years from acquisition date. If a product appears to have a defect or fails during the normal use within warranty period, please contact the distributor from whom you purchased the product to be given proper instructions.

This warranty does not apply to defects resulting from action of the customer 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.