

# PICA-F INSTRUCTIONS MANUAL



Size 48 x 24 mm frontal

Panel instrument for measuring frequencies, velocities in r.p.m. or lineal, totally programmable by keyboard.

Display range from 0 ÷ 9999, decimal point position programmable.

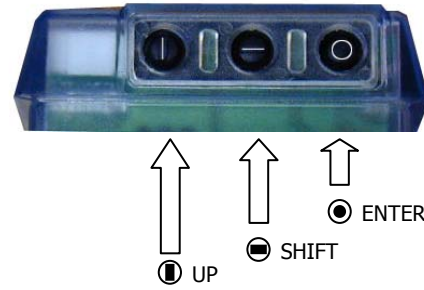
Keyboard composed of three keys located on the bottom of display.

Accepts the connection of most Standard sensor: Pick-up Magnetic, Namur, PNP, NPN, switch, as well as the possibility of measuring frequencies from signals in the range of 10 to 600 V ac. E.g. the frequency of main voltage supply.

Frequency ranges: 99,99 Hz, 999,9 Hz and 9999 Hz

Tachometer in mode TAC programming only the pulses per revolution or in mode Rate programming the relationship between Frequency / display (in desired engineering units)

## KEYBOARD BOTTOM VIEW



## TECHNICAL CHARACTERISTICS

### INPUT

Max. Frequency.....7 kHz  
 Min. Frequency .....0.01 Hz  
 Excitation..... 5, 8, 12 V dc @ 60 mA (keyboard programmable)  
**High Voltage Input** .....10 to 600 V ac  
**Pick-up magnetic** ..... Vin > 30 mV eff. (60 Hz)  
 ..... Vin > 300 mV eff. (6kHz)

### NAMUR Sensor

• Rc..... 1.5 kΩ  
 • I on ..... < 1 mA  
 • I off..... > 3 mA

### NPN y PNP Sensors

• Rc..... (NPN) 3k9 Ω, (PNP) 1k5 Ω  
 • Logical levels..... "0" < 2.4 V, "1" > 2.6 V dc  
**TTL/24 V dc (encoder)**

• Logical Levels..... "0" < 2.4 V, "1" > 2.6 V dc  
**Switch**

• Vc..... 5 V (internal)  
 • Rc..... 3,9 kΩ (included)  
 • Fc..... 20 Hz (automatically connected when selected switch input)

### ACCURACY

Max. Error .....±(0.01 % of reading + 1 digit)  
 Temperature coefficient..... 50 ppm/ °C  
 Warm up .....5 minutes

### SUPPLY and FUSES (DIN 41661) (not included)

**PICA-F** 85 – 265 V ac 50/60 Hz y 100-300 Vdc.... F 0.1A/ 250V  
**PICA-F6** 21-53 VAC 50/60Hz y 10,5-70VDC..... F 0.5A/ 250V  
 Consumption .....2,2W

### DISPLAY

Range ..... 0 to 9999  
 Type ..... 4 red digits, 10 mm  
 Rate ..... 10/s  
 Overflow indication ..... **Over**

### ENVIRONMENTAL

Operating temperature..... -10°C ÷ +60°C  
 Storage temperature ..... -25°C ÷ +85°C  
 Relative humidity (non condensed) ..... <95% ÷ 40°C  
 Maximum altitude ..... 2000 m.  
 Panel sealing ..... IP65

### DIMENSIONS

Dimensions..... 48 x 24 x 70 mm.  
 Panel cutout ..... 45 x 22 mm.  
 Weight ..... 50 g.  
 Case material..... Poly carbonate s/ UL 94 V-0



### WARNING

In order to guarantee electromagnetic compatibility, the following guidelines for cable wiring must be followed:  
 Power supply wires must be routed separated from signal wires. Never run power and signal wires in the same conduit.  
 Use shielded cable for signal wiring and connect the shield to ground.  
 The cable section must be ≥0.25 mm<sup>2</sup>

### INSTALLATION

To meet the requirements of the directive EN61010-1, where the unit is permanently connected to the mains supply it is obligatory to install a circuit breaking device easy reachable to the operator and clearly marked as the disconnect device.

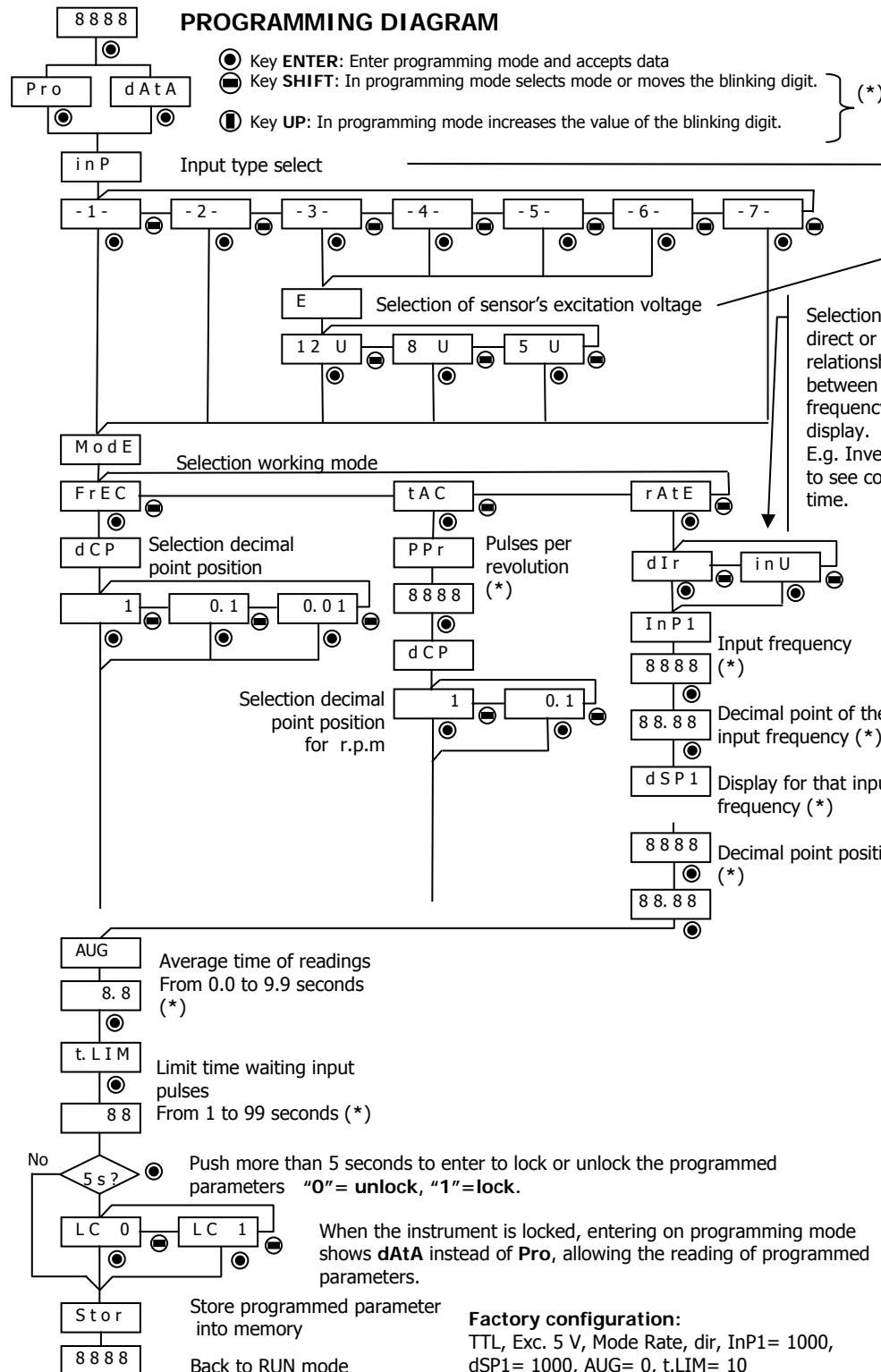
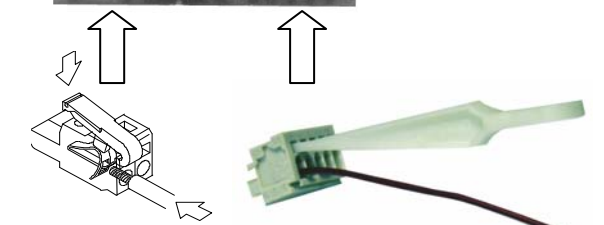
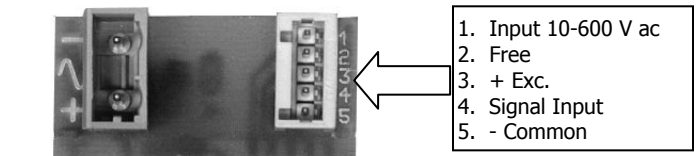
**CLEANING:** The frontal cover should be cleaned only with a soft cloth soaked in neutral soap product.

**DO NOT USE SOLVENTS**

## INSTALLATION AND CONNECTIONS



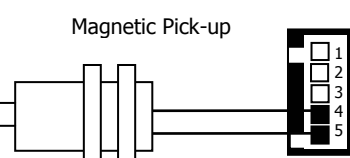
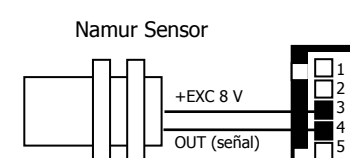
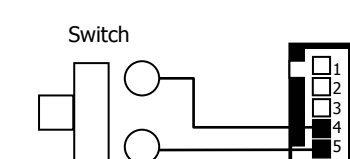
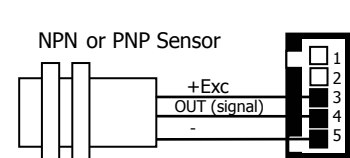
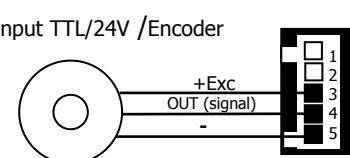
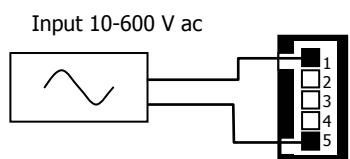
Keyboard detail (bottom view)



INPUT TYPE	
1	10-600 V
2	Magnetic Pick-up
3	NAMUR
4	PNP
5	NPN
6	TTL/24 V dc / Encoder
7	Switch

5 V	TTL
8 V	Namur
12 V	Sensor or encoders

### INPUT CONNECTIONS



Manufacturer : DITEL - Diseños y Tecnología S.A.  
 Address : Travessera de les Corts, 180  
 08028 Barcelona  
 ESPAÑA

Declares, that the product :  
 Description : Digital panel meter  
 Model : PICA-F

Conforms with the directives: EMC 89/336/CEE  
 LVD 73/23/CEE

Aplicable Standars: EN50081-2 Generic emission.  
 Aplicable Standars: EN50082-2 Generic immunity.  
 Aplicable Standars: EN61010-1 Generic safety.

Date: March 1, 2004  
 Signed: José M.Edo  
 Charge: Technical Manager

### 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.

Manual valid for instruments from S/N:221459



05/05/2004

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