



DATA SHEET — QUICK INSTALLATION GUIDE

UNIVERSAL ISOLATOR 4-20mA (Source/Sink)
of THERMOCOUPLE (J, K, S, R, T, E, N, B),
RTD (Pt100, Ni100) and mV



- ◆ WIRELESS PROGRAMMING (RFID)
- ◆ CONFIGURATION APP FROM MOBILE
- ◆ LED STATUS INDICATOR
- ◆ MULTI-INPUT
- ◆ HIGH ACCURACY (16 BIT A/D CONVERTER)
- ◆ DATA LOGGER
- ◆ ACTIVE / PASSIVE OUTPUT
- ◆ INPUT / OUTPUT ISOLATION
- ◆ SENSOR OFFSET



(NFC) PROGRAMMER-NFC-PLUS

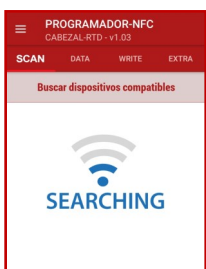


DESCRIPTION

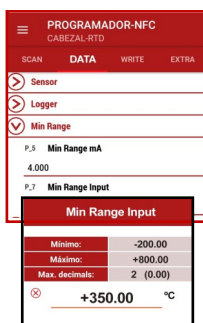
Isolator for DIN rail with 4-20mA output for Thermocouple sensors, RTD (Pt100, Ni100) with 2-3-4 wires for temperature measurement in industrial environments with excellent EMC characteristics. It allows remote transmission of temperature, safely and immunity to interference. The output is isolated and linearized with temperature, with high load capacity in the loop that allows a wide supply range from 6V to 32V DC (protected against polarity reversal). The output connection can be made with 2 wires (Sink) or 3 wires (Source). It has an intelligent adaptive filter to stabilize the signal. It allows a very fast and simple configuration through mobile APP, through wireless communication of the module with a smartphone. Configuration via PC software is also possible. It has an internal data-logger that continuously records the temperature for later transfer to the computer or smartphone, and the data and configuration can be sent by email.

CONFIGURATION AND REGISTRATION APP (NFC)

- 1.- Connect the mobile NFC
- 2.- Locate the NFC emission point of the mobile (normally in the center of the back)
- 3.- The APP will automatically detect the model, without the need to power the equipment.
- 4.- The initial screen of the application presents a bar with 4 tabs. (SCAN, DATA, WRITE and EXTRA)



The SCAN tab allows you to read data already recorded in the equipment. By placing the device in contact with the mobile, the latter will automatically recognize the model. The APP emits a notification sound as soon as it detects the equipment and its parameters.



It automatically goes to the DATA tab, where we will see the parameters and we can modify them, accessing the drop-down menus (no longer having the mobile near the equipment).



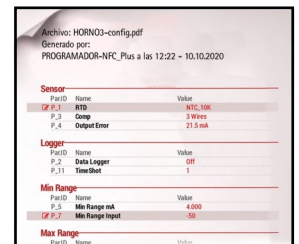
To load the new configuration into the device, we must access the WRITE tab where we will see the parameters that we have modified. This is where we will again place the mobile in contact with the device until we hear the notification that the operation has been completed.



In the EXTRA tab we can access additional features such as saving or loading a configuration on the mobile, sending it by email or sharing it by whatsapp. We also have the possibility to restore the factory settings of the equipment.



In the upper left part we find 3 small lines where we can access the configuration of the APP, see the equipment compatible with it, access help, exit and something very interesting: generate a PDF file with the configuration values of the equipment.



TECHNICAL SPECIFICATIONS

INPUT

(Thermocouple)

Input impedance >10MΩ
 Cold Junction Compensation 0-50°C
 Linearisation according to standard EN60584-1

(RTD)

Maximum cable resistance 20Ω for each wire
 Type of connection 2-3-4 wires
 Linearisation EN60751

(mV)

Input impedance >10MΩ
 Maximum range -10 to +70 mV

ACCURACY

Maximum transmission error 0.1% F.S.
 EMI <0.5%
 Temperature coefficient <100ppm
 Overall maximum error 0.1%

OUTPUT

(Linear 4-20mA or Reverse 20-4mA)

Output resolution 1 uA
 Rated load 900Ω @ 24VDC / 1200Ω @ 30VDC
 Sensor breakage detection +over 21.5mA / -over 3.80mA
 Sampling time 300 ms
 Response time from 10% to 90% 600 ms
 Sensor offset digital (resolution 0.1°)
 Reject frequency 50/60Hz
 Smart filter adaptive

POWER SUPPLY

Self-powered (2-wire Sink) loop
 Supply voltage (3 wires Source) 6V to 32VDC
 OK Indication fixed led

ISOLATION

Isolation voltage input / output 1000VAC

ENVIRONMENTAL CONDITIONS

Operating temperature -40°C to 85°C
 Relative Humidity (non-condensing) <90% @ 40°C
 Storage temperature -50°C to +105°C

FORMAT

Protection IP20
 Material Polyamide PA6.6
 Weight 50g
 UL Combustibility V0
 Mounting rail EN50022

WIRING

Screw terminals M3 torque 0.5Nm
 Connection cable ≤2.5mm² (12AWG)

DATA LOGGER

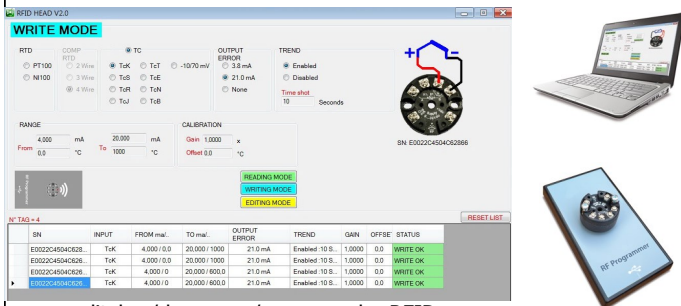
Programmable sampling rate 1 to 3600s
 Storage capacity 3kbytes (2624 values)
 Circular buffer old values are overwritten
 Wireless log download on PC or mobile
 Temperature / time graph display with zoom and guide lines

PROGRAMMING VIA PC



RFID WIRELESS PROGRAMMER

- Valid for 32/64 bit systems Windows XP or higher
- Install the RFID_PROGRAMMER software on the PC.
- Connect the Programmer base to the USB port of the PC, the drivers will be installed automatically.
- Place the module on the base and the software will automatically detect which model it is.
- Run RFID program
- If everything is correct, the screen will appear in READ MODE
- If there was a connection problem, it would appear: WARNING: PROGRAMMER NOT CONNECTED

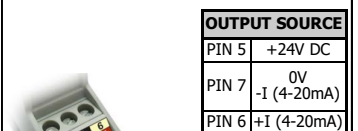
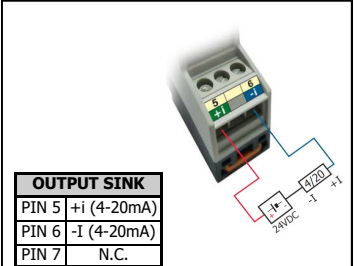


www.ditel.es/descargas/programador RFID

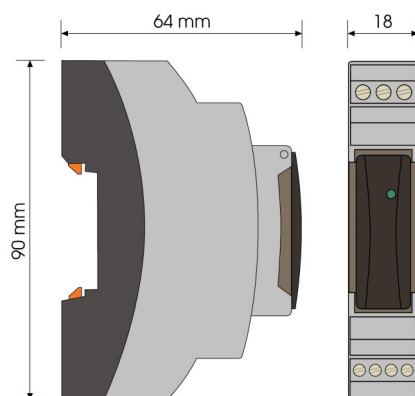
WIRING

THERMOCOUPLES		RTD (3 WIRES)	
PIN 1	N.C.	PIN 1	PT/Ni (A)
PIN 2	- mV	PIN 2	PT/Ni (B)
PIN 3	+ mV	PIN 3	PT/Ni (B)
PIN 4	N.C.	PIN 4	N.C.

RTD (2 WIRES)		RTD (4 WIRES)	
PIN 1	PT/Ni (A)	PIN 1	PT/Ni (A)
PIN 2	PT/Ni (B)	PIN 2	PT/Ni (B)
PIN 3	N.C.	PIN 3	PT/Ni (B)
PIN 4	N.C.	PIN 4	PT/Ni (A)



DIMENSIONS



CE Conformity.

Directives	EMC 2014/30/EU	LVD 2014/35/EU
Standards	EN 61000-6-2 EN 61000-6-3	EN 61010-1



ATTENTION: If this instrument is not installed and used in accordance with these instructions, the protection it provides against hazards may be impaired.

To meet the requirements of EN 61010-1, where the unit is permanently connected to the main power supply, it is mandatory to install a circuit-breaking device easily accessible to the operator and clearly marked as a disconnect device.



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.