

**USER INSTRUCTIONS**

**Intelligent, Economy  
2-wire Transmitter**



**MINIPAQ<sup>®</sup>-L**



The user instruction must be read prior to adjustment and/or installation.  
All information subject to change without notice.

**MEASURE OF SUCCESS**



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This product should not be mixed with other kind of scrap, after usage.  
It should be handled as an electronic/electric device.

**MEASURE OF SUCCESS**

**GENERAL INFORMATION**

MinIPAQ-L is a basic, programmable, non-isolated, easy-to-use 2-wire temperature transmitter intended to be used in industrial environment.

The transmitter is configured from a PC via a USB port, connected via the INOR USB Interface, by using the ConSoft program together with the MinIPAQ Soft program.

When the transmitter is set from a PC no calibration is needed. ConSoft is compatible with Windows 2000 (SP3), Windows XP and Windows Vista (32-bit).

All necessary hardware and software for configuration are included in the ICON Configuration Kit, 70CFGUS001.

**DATA (shortform)**

<b>Input</b>	See "Input Connections"
<b>Sensor failure</b>	Upscale, downscale or off
<b>Adjustments - Zero</b>	Any value within range limits
<b>Adjustments - Minimum spans</b>	
Pt100, Pt1000, Ni100, Ni120, Ni1000	10°C / 18°F
Cu10	100°C / 180°F
T/C	2 mV
<b>Output</b>	4-20 mA, temperature linear
<b>Operating temperature</b>	-20 to +70°C / -4 to +158°F
<b>Galvanic isolation</b>	No
<b>Power supply</b>	8 to 32 VDC
<b>Typical accuracy</b>	±0.15 % of temperature span
<b>Mounting</b>	Rail acc. to DIN EN 50022, 35 mm

**CONFIGURATION**

*Guidelines for ConSoft version 1.1.0.2 or higher.*

**Before making a configuration of MinIPAQ-L you need to do following:**

1. Install the drivers for the INOR USB Interface.
2. Install the PC configuration software ConSoft in your PC.
3. Install the PC configuration software MinIPAQ Soft, version 1.24.00 or higher, in your PC.

Please refer to "Installation Guide for ICON", 86BCONF004, for detailed installation instructions. All software and guides are included in the ICON Configuration Kit, 70CFGUS001, and can also be downloaded from the web site [www.inor.com](http://www.inor.com).

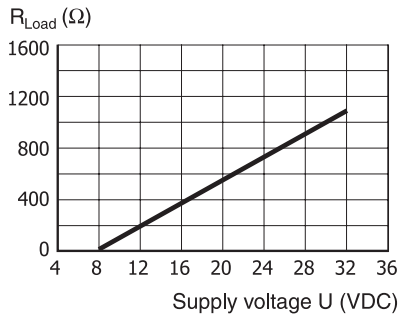
**Configuration procedure:**

The help files in ConSoft and MinIPAQ Soft contains complete information about the configuration procedure. Here is a short-form guide:

1. Connect the MinIPAQ-L to the PC via the USB Interface. Configuration can be performed with or without connected power supply.
2. In ConSoft, click on the upper left "Read from transmitter" button. The software will automatically recognize the connected transmitter and open the MinIPAQ Soft program. The MinIPAQ Soft program will automatically find the correct communication port (first time MinIPAQ Soft is used it will open the Com port selection window).
3. In the configuration window you can set the following parameters:
  - a. Input (RTD or Thermocouple type)
  - b. 3- or 4-wire connection (for RTD input)
  - c. Activation of Cold Junction Compensation (for T/C input)
  - d. Measuring range in three different engineering units
  - e. Upscale or downscale action at sensor break or short-circuit
  - f. Compensation for known sensor errors
  - g. Activation of a Low pass filter
4. The selected configuration is downloaded to the transmitter by clicking the button "Transfer to transmitter". If the transmitter is in operation during transmission from the PC, the transmitter output is frozen. When the transfer is complete, the transmitter begins using the new parameters directly.

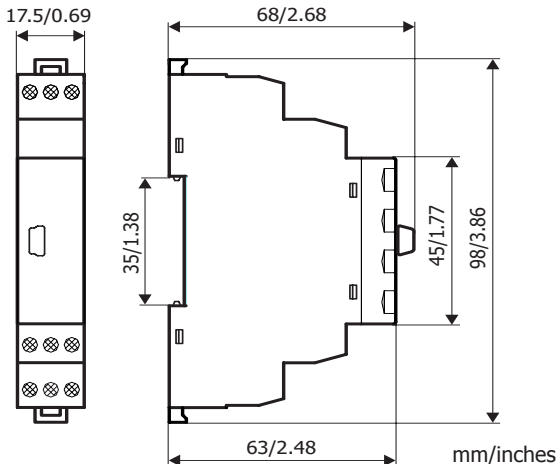
## OUTPUT LOAD DIAGRAM

Permissible  $R_{Load}$  at 22 mA output



$$R_{Load} = (U-8)/0.022$$

## DIMENSIONS



## LIMITED WARRANTY

INOR Process AB, or any other affiliated company within the Inor Group (hereinafter jointly referred to as "Inor"), hereby warrants that the Product will be free from defects in materials or workmanship for a period of five (5) years from the date of delivery ("Limited Warranty"). This Limited Warranty is limited to repair or replacement at Inor's option and is effective only for the first end-user of the Product. Upon receipt of a warranty claim, Inor shall respond within a reasonable time period as to its decision concerning:

- 1 Whether Inor acknowledges its responsibility for any asserted defect in materials or workmanship; and, if so,
- 2 the appropriate cause of action to be taken (i.e. whether a defective product should be replaced or repaired by Inor).

This Limited Warranty applies only if the Product:

- 1 is installed according to the instructions furnished by Inor;
- 2 is connected to a proper power supply;
- 3 is not misused or abused; and
- 4 there is no evidence of tampering, mishandling, neglect, accidental damage, modification or repair without the approval of Inor or damage done to the Product by anyone other than Inor.

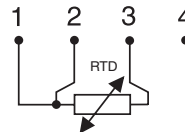
This Limited Warranty is provided by Inor and contains the only express warranty provided.

**INOR SPECIFICALLY DISCLAIMS ANY EXPRESS WARRANTY NOT PROVIDED HEREIN AND ANY IMPLIED WARRANTY, GUARANTEE OR REPRESENTATION AS TO SUITABILITY FOR ANY PARTICULAR PURPOSE, PERFORMANCE, QUALITY AND ABSENCE OF ANY HIDDEN DEFECTS, AND ANY REMEDY FOR BREACH OF CONTRACT, WHICH BUT FOR THIS PROVISION, MIGHT ARISE BY IMPLICATION, OPERATION OF LAW, CUSTOM OF TRADE OR COURSE OF DEALING, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. EXCEPT AS PROVIDED HEREIN, INOR FURTHER DISCLAIMS ANY RESPONSIBILITY FOR LOSSES, EXPENSES, INCONVENIENCES, SPECIAL, DIRECT, SECONDARY OR CONSEQUENTIAL DAMAGES ARISING FROM OWNERSHIP OR USE OF THE PRODUCT.**

Products that are covered by the Limited Warranty will either be repaired or replaced at the option of Inor. Customer pays freight to Inor, and Inor will pay the return freight by post or other "normal" way of transport. If any other type of return freight is requested, customer pays the whole return cost.

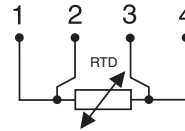
## CONNECTIONS

### Input connections



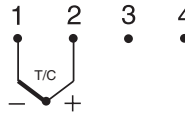
**RTD, 3-wire connection**

Pt100,  $\alpha = 0.00385$ , Pt1000,  $\alpha = 0.00385$   
Pt100,  $\alpha = 0.003902$ , Pt100,  $\alpha = 0.003916$   
Ni100, Ni120, Cu10, Ni1000,  
Pt(Spec),  $\alpha = 0.00385$



**RTD, 4-wire connection**

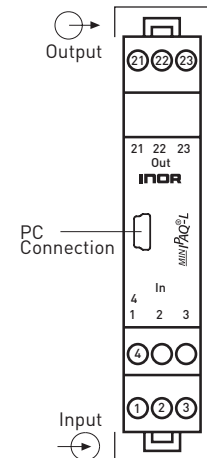
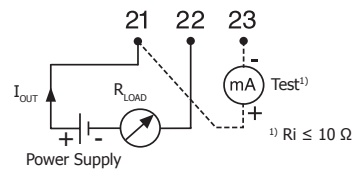
Pt100,  $\alpha = 0.00385$ , Pt1000,  $\alpha = 0.00385$   
Pt100,  $\alpha = 0.003902$ , Pt100,  $\alpha = 0.003916$   
Ni100, Ni120, Cu10, Ni1000  
Pt(Spec),  $\alpha = 0.00385$



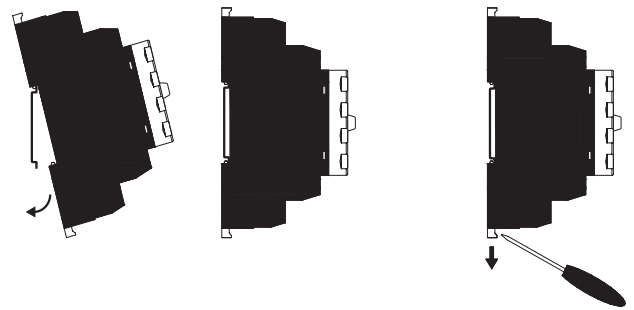
**Thermocouple**

B, C, E, J, K, L, N, R, S, T, U

### Output connections



## MOUNTING



Mounting of MinIPAQ-L on rail DIN EN 50022, 35 mm.

1. Fix the upper part of the transmitter onto the rail.
2. Press the lower part of the transmitter against the rail.
3. To remove the transmitter, use a screwdriver and bend the locking under the transmitter downwards.

## CALIBRATION

It is recommended to check the calibration once a year. Use equipment with an inaccuracy of at least 5 times better than the checked transmitter, e.g. if you are checking a transmitter with an inaccuracy of maximum 0.1% use instrument with an inaccuracy of maximum 0.02%. Use the MinIPAQ Soft Basic Calibration function in the Options menu, and follow the instructions on the screen.

## ORDERING INFORMATION

MinIPAQ-L	70MQL00003
Configuration	70CAL00001
ICON Configuration Kit (non-Ex)	70CFGUS001